TECHNICAL REPORT



Pennsylvania
Department of Education

2025 PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT TECHNICAL REPORT

MATHEMATICS, ENGLISH LANGUAGE ARTS, AND SCIENCE

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GLOSSARY OF COMMON TERMS

The following table contains some terms used in this technical report and their meanings. Some of these terms are used universally in the assessment community, and some of these terms are used commonly by psychometric professionals. A glossary of accommodation terms as applied to the PSSA is provided in Chapter Ten.

Table G–1. Glossary of Terms

Term	Common Definition
Ability	In Rasch scaling, ability is a generic term indicating the level of an individual on the construct measured by an exam. As an example for the PSSA, a student's reading ability is measured by how the student performed on the PSSA Reading test. A student who answered more items correctly has a higher ability than a student who answered fewer items correctly.
Adjacent Agreement	A score/rating difference of one (1) point in value usually assigned by two different raters under the same conditions (e.g., two independent raters give the same scores that differ by one point).
Alternate Forms	Two or more versions of a test that are considered exchangeable, i.e., they are developed using the same test specifications, they measure the same constructs in the same ways, are intended for the same purposes, and they are administered using the same directions. More specific terminology may apply depending on the degree of statistical similarity between the test forms (e.g., parallel forms, equivalent forms, and comparable forms) where parallel forms refers to the situation in which the test forms have the highest degree of similarity to each other.
Average	A measure of central tendency in a score distribution that usually refers to the arithmetic mean of a set of scores. In this case, it is determined by adding all the scores in a distribution and then dividing the obtained value by the total number of scores. Sometimes people use the word average to refer to other measures of central tendency such as the median (the score in the middle of a distribution) or mode (the score value with the greatest frequency).
Bias	In a statistical context, bias refers to any source of systematic error in the measurement of a test score. In discussing test fairness, bias may refer to construct-irrelevant components of test scores that differentially affect the performance of different groups of test takers (e.g., gender, ethnicity, etc.). Attempts are made to reduce bias by conducting item fairness reviews and various differential item functioning (DIF) analyses, detecting potential areas of concern, and either removing or revising the flagged test items prior to the development of the final operational form of the test (see also Differential Item Functioning).
Constructed-Response Item	A constructed-response (CR) item is an item that requires examinees to create their own responses, which can be expressed in various forms (e.g., written essay, created table/graph, formulated calculation, etc.). Such items are frequently scored using more than two score categories, that is, items are polytomously scored (e.g., 0, 1, 2, and 3). This item format is in contrast to when students make a choice from a supplied set of answer options (e.g., multiple-choice (MC) items which are typically dichotomously scored as right = 1 or wrong = 0). It is important to consider whether an item is scored polytomously or dichotomously when interpreting item difficulty and discrimination indices.
Content Validity Evidence	Evidence regarding the extent to which a test provides an appropriate sampling of a content domain of interest (e.g., assessable portions of a state's Grade 6 mathematics curriculum in terms of the knowledge, skills, objectives, and processes sampled).
Core-Linking Item	Items that are utilized during the linking and equating process (see also Linking and Equating). They are a subset of the PSSA operational items and so they 1) are the same on all test forms for any grade/subject-area test and 2) contribute to students' total raw scores and scaled scores.
Criterion- Referenced Interpretation	When a score is interpreted as a measure of a student's performance with respect to an expected level of mastery, educational objective, or standard. The types of resulting score interpretations provide information about what a student knows or can do with respect to a given content area.
Cut Score	A specified point on a score scale such that scores at or above that point are interpreted or acted upon differently from scores below that point (e.g., a score designated as the minimum level of performance needed to pass a competency test). One or more cut scores can be set for a test, which results in differentiating among various proficiency levels. Methods for establishing cut scores vary. For the PSSA, three cut scores are used to place students into one of four performance levels (see also Performance Level Setting).

Term	Common Definition
Decision Consistency	The extent to which classifications based on test scores would match the decisions based on scores from a second, parallel form of the same test. It is often expressed as the proportion of examinees who are classified consistently across the two test administrations.
Differential Item Functioning (DIF)	A statistical property of a test item in which different groups of test takers (who have the same total test score) have different average item scores. In other words, students with the same ability level but different group memberships do not have the same probability of answering the item correctly (see also Bias).
Distractor	An incorrect option in a multiple-choice item.
Equating	The process that results in scores that can be used interchangeably across different test forms and/or test administrations. Equated test scores are considered exchangeable. Consequently, the requirements for equating are strong and somewhat complex (equal construct and precision, equity, and invariance). In practical terms, it is often stated that students should perceive no differences regardless of the test form administered (see also Scale Linking, Pre-equating, and Post-equating).
Equating Block (EB) Items	The PSSA uses multiple test forms for each grade/subject-area test. Each form is composed of operational (OP) items, equating block (EB) items, and field-test (FT) items. EB items are utilized during the linking process (see also Linking). Each test form includes a set of EB items. EB items are not part of any student scores.
Error of Measurement	The amount by which the score actually received (an observed score) differs from a hypothetical true score (see also Standard Error of Measurement).
Evidence-Based Selected-Response (EBSR) Item	A type of item that has two parts and requires the test taker to select a response from a group of possible answer choices in Part One, one of which is the correct answer (or key) to the question posed, and to then select one or two responses from a group of possible answer choices in Part Two, which provide evidence to support the correct answer in Part One.
Exact Agreement	When identical scores/ratings are assigned by two different raters under the same conditions (e.g., two independent raters give a paper the same score).
Field-Test (FT) Items	The PSSA uses multiple test forms for each grade/subject-area test. Each form is comprised of operational (OP) items, equating block (EB) items, and field-test (FT) items. An FT item is a newly developed item that is ready to be tried out to determine its statistical properties (see also *P*-value and Point-Biserial Correlation). Each test form includes a set of FT items. FT items are not part of any student scores.
Frequency	The number of times that a certain value or range of values (score interval) occurs in a distribution of scores.
Frequency Distribution	A tabulation of scores from low to high or high to low showing the number and/or percent of individuals who obtain each score or who fall within each score interval or category.
Infit/Outfit	Statistical indicators of the agreement of the data and the measurement model (see also Outfit/Infit).
Item Difficulty	For the Rasch model, the dichotomous item difficulty represents the point along the latent trait continuum where an examinee has a 0.50 probability of correctly responding. For a polytomous item, the difficulty is the average of the item's step difficulties (see also Step Difficulty).
Key	The correct response option or answer to a test item.
Linking	A generic term referring to a number of processes by which scores from one or more tests are made comparable to some degree. Linking includes several classes of transformations (equating, scale alignment, prediction, etc.). Equating is associated with the strongest degree of comparability (exchangeable scores). Other linkages may be very strong but fail to meet one or more of the strict criteria required of equating (see also Equating). PSSA scores are equated.
Logit	In Rasch scaling, logits are units used to express both examinee ability and item difficulty. When expressing examinee ability, a student who answers more items correctly has a higher logit than a student who answers fewer items correctly. Logits are transformed into Scaled Scores through a linear transformation. When expressing item difficulty, logits are transformed *p*-value (see also *P*-value). The logit difficulty scale is inversely related to *p*-values. A higher logit value would represent a relatively harder item, while a lower logit value would represent a relatively easier item.
Mean	Also referred to as the arithmetic mean of a set of scores, is found by adding all the score values in a distribution and dividing by the total number of scores. For example, the mean of the set {66, 76, 85, 97} is 81. The value of a mean can be influenced by extreme values in a score distribution.

Term	Common Definition
Measure	In Rasch scaling, measure generally refers to a specific estimate of an examinee's ability (often expressed as logits) or an item's difficulty (again, often expressed as logits). As an example for the PSSA, a student's reading measure might be equal to 0.525 logits. Or, a PSSA Reading test item might have logit equal to -0.905.
Median	The middle point or score in a set of rank-ordered observations that divides the distribution into two equal parts such that each part contains 50 percent of the total data set. More simply put, half of the scores are below the median value and half of the scores are above the median value. As an example, the median for the following ranked set of scores {2, 3, 6, 8, 9} is 6.
Multiple-Choice Item	A type of item that requires the test taker to select a response from a group of possible choices, one of which is the correct answer (or key) to the question posed (see also Constructed-Response Item).
N-count	Sometimes designated as *N* or *n*, it is the number of observations (usually individuals or students) in a particular group. Some examples include the number of students tested, the number of students tested from a specific subpopulation (e.g., females), the number of students who attained a specific score, etc. In the follow set {23, 32, 56, 65, 78, 87}, $n = 6$.
Open-Ended Item	A type of constructed-response item found in the mathematics and science assessments that requires examinees to create their own responses, which can be expressed in various forms (e.g., written description, created table/graph, formulated calculation, etc.). Such items are frequently scored using more than two score categories, that is, polytomously (e.g., 0, 1, 2, 3, and 4). This format is in contrast to when students make a choice from a supplied set of answer options (e.g., multiple-choice (MC) items which are typically dichotomously scored as right = 1 or wrong = 0.) When interpreting item difficulty and discrimination indices it is important to consider whether an item is polytomously or dichotomously scored.
Operational Item	The PSSA uses multiple test forms for each grade/subject-area test. Each form is composed of operational (OP) items, equating block (EB) items, and field-test (FT) items. OP items are the same on all forms for any grade/subject-area test. Student total raw scores and scaled scores are based exclusively on the OP items.
Outfit/Infit	Statistical indicators of the agreement of the data and the measurement model. Infit and Outfit are highly correlated, and both are highly correlated with the point-biserial correlation. Underfit can be caused when low-ability students correctly answer difficult items (perhaps by guessing or atypical experience) or high-ability students incorrectly answer easy items (perhaps because of carelessness or gaps in instruction). Any model expects some level of variability, so overfit can occur when nearly all low-ability students miss an item while nearly all high-ability students get the item correct.
Percent Correct	When referring to an individual item, the percent correct is the item's *p*-value expressed as a percent (instead of a proportion). When referring to a total test score, it is the percentage of the total number of points that a student earned. The percent correct score is obtained by dividing the student's raw score by the total number of possible points and multiplying the result by 100. Percent Correct scores are often used in criterion-referenced interpretations and are generally more helpful if the overall difficulty of a test is known. Sometimes Percent Correct scores are incorrectly interpreted as Percentile Ranks.
Percentile	The score or point in a score distribution at or below which a given percentage of scores fall. It should be emphasized that it is a value on the score scale, not the associated percentage (although sometimes in casual usage this misinterpretation is made). For example, if 72 percent of the students score at or below a Scaled Score of 1500 on a given test, then the Scaled Score of 1500 would be considered the 72nd percentile. As another example, the median is the 50th percentile.
Percentile Rank	The percentage of scores in a specified distribution falling at/below a certain point on a score distribution. Percentile Ranks range in value from 1 to 99, and indicate the status or relative standing of an individual within a specified group by indicating the percent of individuals in that group who obtained equal or lower scores. An individual's percentile rank can vary depending on which group is used to determine the ranking. As suggested above, Percentiles and Percentile Rank are sometimes used interchangeably; however, strictly speaking, a percentile is a value on the score scale.
Performance Level Descriptors	Descriptions of an individual's competency in a particular content area, usually defined as ordered categories on a continuum, often labeled from Below Basic to Advanced, that constitute broad ranges for classifying performance. The exact labeling of these categories, and narrative descriptions, may vary from one assessment or testing program to another.

Term	Common Definition
Performance Level Setting	Also referred to as standard setting, a procedure used in the determination of the cut scores for a given assessment that is used to measure students' progress towards certain performance standards. Standard setting methods vary (e.g., modified Angoff, Bookmark Method, etc.), but most use a panel of educators and expert judgments to operationalize the level of achievement students must demonstrate in order to be categorized within each performance level.
Point-Biserial Correlation	In classical test theory this is an item discrimination index. It is the correlation between a dichotomously scored item and a continuous criterion, usually represented by the total test score (or the corrected total test score with the reference item removed). It reflects the extent to which an item differentiates between high-scoring and low-scoring examinees. This discrimination index ranges from –1.00 to +1.00. The higher the discrimination index (the closer to +1.00), the better the item is considered to be performing. For multiple-choice items scored as 0 or 1, it is rare for the value of this index to exceed 0.5.
Post-Equating	Post-equating refers to the method of utilizing data from the current administration for scale linking and equating. Post-equating relies heavily on collecting data from a representative sample, estimating new item parameters, linking the item parameters to the base scale, and estimating student ability based on the linked item parameters. PSSA utilized a post-equated test design prior to 2019, but now employs pre-equating (see also Pre-Equating).
Pre-Equating	Pre-equating refers to the method of utilizing previously estimated and linked item parameters for equating. Because item parameters have already been linked to the base scale, pre-equated solutions are generated prior to the testing window and validated with current data during pre-equating verification. The main purpose of pre-equating verification is to ensure that the data fits the model within expectation (see Chapter Fifteen). PSSA employed pre-equating beginning in 2019 in order to reduce the reporting window (see also Post-Equating).
P-value	An index indicating an item's difficulty for some specified group (perhaps grade). It is calculated as the proportion (sometimes percent) of students in the group who answer an item correctly. *P*-values range from 0.0 to 1.0 on the proportion scale. Lower values correspond to more difficult items and higher values correspond to easier items. *P*-values are usually provided for multiple-choice items or other items worth one point. For open-ended items or items worth more than one point, difficulty on a *p*-value-like scale can be estimated by dividing the item mean score by the maximum number of points possible for the item (see also Logit).
Raw Score (RS)	An unadjusted score usually determined by tallying the number of questions answered correctly, or by the sum of item scores (i.e., points). (Some rarer situations might include formula-scoring, the amount of time required to perform a task, the number of errors, application of basal/ceiling rules, etc.). Raw scores typically have little or no meaning by themselves and require additional information—like the number of items on the test, the difficulty of the test items, norm-referenced information, or criterion-referenced information.
Reliability	The expected degree to which test scores for a group of examinees are consistent over exchangeable replications of an assessment procedure, and therefore, are considered dependable and repeatable for an individual examinee. A test that produces highly consistent, stable results (i.e., relatively free from random error) is said to be highly reliable. The reliability of a test is typically expressed as a reliability coefficient or by the standard error of measurement derived by that coefficient.
Reliability Coefficient	A statistical index that reflects the degree to which scores are free from random measurement error. Theoretically, it expresses the consistency of test scores as the ratio of true score variance to total score variance (true score variance plus error variance). This statistic is often expressed as correlation coefficient (e.g., correlation between two forms of a test) or with an index that resembles a correlation coefficient (e.g., calculation of a test's internal consistency using Coefficient Alpha). Expressed this way, the reliability coefficient is a unitless index. The higher the value of the index (closer to 1.0), the greater the reliability of the test (see also Standard Error of Measurement).
Scale Linking	The first step in any equating process in which independent item estimates are placed on the same scale of measurement (the logit scale). Scale linking results in item parameters that are on the same scale of measurement. Equating procedures can only be implemented once scale linking is achieved (see also Equating). The data used for scale linking can either be from the current administration (see Post-Equating) or from previous administrations (Pre-Equating).

Term	Common Definition
Scaled Score	A mathematical transformation of a logit score developed through a process called scaling. Scaled scores are most useful when comparing test results over time. Several different methods of scaling exist, but each is intended to provide a continuous and meaningful scaled score across different test forms and test administrations.
Selected-Response Item	See Multiple-Choice Item.
Short-Answer Item	A type of constructed-response item found in the grade 3 ELA assessment that requires the test taker to compose an answer based on a passage or passage set the student has read. Each short-answer (SA) item is scored using an item-specific scoring guideline based on a 0–3 point general scoring guideline. Also referred to as Constructed-Response (CR) or Open-ended (OE) Response items.
Spiraling	A packaging process used when multiple forms of a test exist and it is desired that each form be tested in all classrooms (or other grouping unit (e.g., schools)) participating in the testing process. This process allows for the random distribution of test booklets to students. For example, if a package has four test forms labeled A, B, C, and D, the order of the test booklets in the package would be A, B, C, D, A, B, C, D, A, B, C, D, etc.
Standard Deviation (SD)	A statistic that measures the degree of spread or dispersion of a variable (e.g., set of scores). The standard deviation is a commonly used method of examining a distribution's variability since the standard deviation is expressed in the same units as the data. The value of this statistic is always greater than or equal to zero. If all of the scores in a distribution are identical, the standard deviation is equal to zero. The further the scores are away from each other in value, the greater the standard deviation. This statistic is calculated using the information about the deviations (distances) between each score and the distribution's mean. It is equivalent to the square root of the variance statistic.
Standard Error of Measurement (SEM)	The amount an observed score is expected to fluctuate around the true score. As an example, across replications of a measurement procedure, the true score will not differ by more than plus or minus one standard error from the observed score about 68 percent of the time (assuming normally distributed errors). The SEM is frequently used to obtain an idea of the consistency of a person's score in actual score units or to set a confidence band around a score in terms of the error of measurement. Often a single SEM value is calculated for all test scores. On other occasions, however, the value of the SEM can vary along a score scale. Conditional standard errors of measurement (CSEMs) provide an SEM for each possible scaled score.
Step Difficulty	Step difficulty is a parameter estimate in Master's Partial Credit Model (PCM) that represents the relative difficulty of each score step (e.g., going from a score of 1 to a score of 2). The higher the value of a particular step difficulty, the more difficult a particular step is relative to other score steps (e.g., is it harder to go from a 1 to a 2, or to go from a 2 to a 3).
Strand	On score reports, a strand often refers to a set of items on a test measuring the same contextual area (e.g., Number Sense in Mathematics). Items developed to measure the same reporting category would be used to determine the strand score (sometimes called "subscale" score).
Technical Advisory Committee (TAC)	A group of individuals, most often professionals in the field of testing, who are either appointed or selected to make recommendations for and to guide the technical development of a given testing program.
Text-Dependent Analysis Item	A type of constructed-response item found in the ELA assessment in Grades 4–8 that requires the test-taker to compose an essay based on a passage or passage set that the student has read during the test event. Test-takers must draw on basic writing skills while inferring and synthesizing information from the passage in order to develop the response. The text-dependent analysis (TDA) item is scored on a holistic scoring guideline on a 4-point scale and is weighted for scoring purposes.
Validity	The degree to which accumulated evidence and theory support specific interpretations of test scores entailed by the purposed uses of a test. There are various ways of gathering validity evidence.

PREFACE: AN OVERVIEW OF ASSESSMENTS FROM 2003 TO THE PRESENT

The period from 2003 through 2006 brought significant structural changes to the test blueprint for the Pennsylvania System of School Assessment (PSSA). These changes necessitated extensive test development and field testing activity along with phased-in implementation of the operational assessment. Included in this process was the development and implementation of assessments at additional grade levels.

For mathematics and reading, content changes for Grades 5, 8, and 11 were developed in 2003, field tested in spring 2004, and implemented in spring 2005. The *2005 PSSA Technical Report for Reading and Mathematics* provides a description of test development activities including a review of open-ended tasks and multiple-choice items, field testing, selection of items, statistical analysis of assessment data, reliability, validity, standard setting, and other technical characteristics of the operational 2005 PSSA. Test development for the new grade levels of 4, 6, and 7 began in 2004, with field testing in 2005, and full implementation in 2006. Similarly, the *2006 PSSA Technical Report for Reading and Mathematics: Grades 4, 6, and 7* provides a complete description of test development activities, item review, field testing, statistical analysis, item selection, and technical characteristics of the operational 2006 PSSA for these grade levels. In 2007, the Grade 3 reading and mathematics assessment became DRC's responsibility and is covered in the *2007 PSSA Technical Report for Reading and Mathematics*, along with the remaining grades.

Changes implemented in the writing assessment of spring 2006 were designed to sharpen the focus on what is assessed with respect to Academic Standards 1.4 and 1.5. To support this effort, a shift in grade levels assessed was made, moving from Grades 6 and 9 to Grades 5 and 8, thereby aligning assessment to the end of elementary and middle school years. The writing testing window was changed from fall to February 2006 for Grades 5 and 8, making it consistent with Grade 11. Mode-specific scoring guidelines replaced domain scoring, and the introduction of stimulus-based passages and associated multiple-choice items measuring revising and editing expanded the basis of the conventions score. An account of the development of writing prompts and stimulus-based, multiple-choice items, review processes, field testing and item analysis, standard setting, and other technical characteristics of the operational 2006 PSSA may be found in the *2006 PSSA Technical Report for Writing*.

The introduction of an operational science assessment in 2008 moved closer to reality with a major standalone field test at Grades 4, 8, and 11 in April–May of 2007. A description of the development of science scenarios and related multiple-choice, short-answer open-ended, and extended open-ended questions, item review processes, statistical analysis of field test data, and selection of items for the 2008 operational science test may be found in the *2008 PSSA Preliminary Technical Report for Science*. Subsequently, the first operational science assessment took place in the spring of 2008, along with standard setting and reporting of results.

With the exception of some shifting of test windows, the spring assessments of 2009, 2010, 2011, and 2012 were conducted without change in content structure of the PSSA test instruments.

A transition to begin measuring the Pennsylvania Core Standards (PCS) in Mathematics and English Language Arts was initiated with standalone and embedded field test events in 2013 for Grades 3, 4, and 5. The transition continued in 2014 with standalone field tests in Grades 6, 7, and 8 and embedded field tests in Grades 3 through 8. As a part of this transition, starting in spring 2013, the Grade 11 PSSA and the Grade 12 PSSA Retest were dropped in favor of the Keystone Exams in Algebra I, Biology, and Literature. The 2015 administration of the PSSA marked the completion of the transition to the PCS in Mathematics and English Language Arts. Mathematics and ELA were administered in separate testing windows as separate test and answer booklets (in contrast to the combined Mathematics and Reading test and answer booklets used previously) and students in all grades participated in both the Writing and Reading portions of the ELA assessment.

In 2017 and 2018 the PSSA test designs underwent a reevaluation. In an effort to reduce testing time in the classroom the Mathematics, English Language Arts, and Science tests were reduced in overall length. For mathematics and science, the test length was shortened by reducing the number of test questions by reporting category proportionally. For ELA, in contrast, reducing the length of the test meant removing the writing prompt and a group of approximately nine multiple-choice items.

In 2022 Pennsylvania published the Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability, and Pennsylvania Technology and Engineering Standards (STEELS). To support the standards, item development and field testing of the standards began in 2023 and 2024 to prepare for the operational transition to the STEELS standards. In the spring of 2025, a stand-alone field test took place in preparation for the first operational science forms fully aligned to STEELS standards scheduled to take place in 2026.

The following pages provide an overview of the year-to-year changes to the PSSA. Tables and descriptions show the subject areas assessed, time of year the testing activity took place, and the type of testing that occurred (e.g., operational, field testing, Grade 12 retest) for each year.

To access any of the PSSA technical reports referenced in the Preface, please go to the Pennsylvania Department of Education website, www.education.pa.gov.

ASSESSMENT ACTIVITIES OCCURRING IN THE 2003–04 SCHOOL YEAR

Table P–1 outlines the operational assessments and field tests administered during the 2003–04 school year. (A spring operational assessment in mathematics and reading took place at Grades 3, 5, 8, and 11.)

As a result of new Assessment Anchor Content Standards (Assessment Anchors) developed by the Pennsylvania Department of Education (PDE) during 2003, new test items were developed (see Chapter Two of the *2005 PSSA Technical Report for Reading and Mathematics*). Following the spring operational assessment, a separate, standalone field test of new items for Grades 5, 8, and 11 was conducted. Note that Grade 11 students also took an operational writing assessment in February, and Grades 6 and 9 students participated in a fall writing assessment. Lastly, Grade 12 students who as 11th graders in the preceding spring failed to attain at least the Proficient level in any subject area were offered an opportunity to retest.

Table P–1. Operational Assessment and Field Testing During the 2003–04 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (conducted by CTB/ McGraw-Hill)	April 2004
5	Operational mathematics and reading	April 2004
5	Standalone field test in mathematics and reading	April/May 2004
6	Operational writing	October 2004
8	Operational mathematics and reading	April 2004
8	Standalone field test in mathematics and reading	April/May 2004
9	Operational writing	October 2004
11	Operational mathematics and reading	April 2004
11	Standalone field test in mathematics and reading	April/May 2004
11	Operational writing	February 2004
12	Retest opportunity for students who as Grade 11 students in the spring of 2003 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2004

ASSESSMENT ACTIVITIES OCCURRING IN THE 2004–05 SCHOOL YEAR

Table P–2 displays the operational assessments and field tests that took place during the 2004–05 school year. The operational assessment at Grades 5, 8, and 11 used items chosen from the spring 2004 field test. This was the first operational assessment that reflected the Pennsylvania Assessment Anchors and Eligible Content. Fulfilling the No Child Left Behind Act of 2001 (NCLB) requirement that states must implement a test at Grades 3–8, a major field test in mathematics and reading was administered at Grades 4, 6, and 7. Item development for these new grade levels took place during 2004.

The Grades 6 and 9 writing assessment was reevaluated in favor of moving the writing assessment to Grades 5 and 8. This accounts for the separate (standalone) field test at these grade levels. There was also a test administration change from October to February. In addition, the writing assessment underwent changes to align the test to the Academic Standards for writing. New writing prompts and stimulus-based multiple-choice items were also field tested at Grade 11 as part of the operational assessment, hence the reference to an embedded field test. No assessment activity of any kind occurred at Grade 9. As in fall 2003, the retest opportunity at Grade 12 continued.

Table P–2. Operational Assessment and Field Testing During the 2004–05 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (conducted by CTB/ McGraw-Hill)	April 2005
4	Standalone field test for mathematics and reading	April 2005
5	Operational mathematics and reading with embedded field test	April 2005
5	Standalone field test in writing	February 2005
6	Standalone field test for mathematics and reading	April 2005
7	Standalone field test for mathematics and reading	April 2005
8	Operational mathematics and reading with embedded field test	April 2005
8	Standalone field test in writing	February 2005
11	Operational mathematics and reading with embedded field test	April 2005
11	Operational writing with embedded field test	February 2005
12	Retest opportunity for students who as Grade 11 students in the spring of 2004 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2004

ASSESSMENT ACTIVITIES OCCURRING IN THE 2005–06 SCHOOL YEAR

Table P–3 shows the assessment activities that occurred during the 2005–06 school year. Note that the reading and mathematics operational assessments ran consecutively in Grades 3–8 and Grade 11. For Grades 4, 6, and 7, it was the first year for operational assessments. Field testing for mathematics and reading was embedded as part of the operational assessment at each grade level. At Grade 3, the reference to field testing with items developed by DRC reflects the transition of shifting the assessment from CTB/McGraw-Hill to DRC in 2007. As in previous years, the retest opportunity at Grade 12 continued.

The first operational assessments for writing at Grades 5 and 8 took place in the 2005–06 school year, while the Grade 11 writing assessment continued in the same February testing window. For all three grade levels, the operational writing assessments featured mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis shift in writing modes assessed. See the *2006 PSSA Technical Report for Writing: Grades 5, 8, and 11* for further information about the new writing assessments. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts were field tested in 2006. However, new multiple-choice items were field tested in the 2006 writing assessment.

Table P–3. Operational Assessment and Field Testing During the 2005–06 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test of DRC-written items (conducted by CTB/McGraw-Hill)	April 2006
4	Operational mathematics and reading with embedded field test	March 2006
5	Operational mathematics and reading with embedded field test	March 2006
5	Operational writing with embedded field test	February 2006
6	Operational mathematics and reading with embedded field test	March 2006
7	Operational mathematics and reading with embedded field test	March 2006
8	Operational mathematics and reading with embedded field test	March 2006
8	Operational writing with embedded field test	February 2006
11	Operational mathematics and reading with embedded field test	March 2006
11	Operational writing with embedded field test	February 2006
12	Retest opportunity for students who as Grade 11 students in the spring of 2005 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2005

ASSESSMENT ACTIVITIES OCCURRING IN THE 2006–07 SCHOOL YEAR

Table P–4 shows the assessment plan for the 2006–07 school year. Note that the mathematics and reading assessments ran consecutively in Grades 3–8 and Grade 11. For Grades 4, 6, and 7, it was the second year for operational assessments and the first year in which these grade levels were included in the adequate yearly progress (AYP) calculations. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. This was the first year in which DRC was responsible for the Grade 3 assessment, as the transition from CTB/McGraw-Hill was complete. As in previous years, the retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued in the same February testing window featuring the mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed, which were introduced in 2006. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts needed to be field tested in 2007. However, new multiple-choice items were field tested in the 2007 writing assessment.

Following the spring operational assessments in writing, reading, and mathematics, a separate, standalone field test in science was administered for Grades 4, 8, and 11 with full implementation scheduled for 2008.

Table P–4. Operational Assessment and Field Testing During the 2006–07 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2007
4	Operational mathematics and reading with embedded field test	March 2007
4	Standalone field test in science	April/May 2007
5	Operational mathematics and reading with embedded field test	March 2007
5	Operational writing with embedded field test	February 2007
6	Operational mathematics and reading with embedded field test	March 2007
7	Operational mathematics and reading with embedded field test	March 2007
8	Operational mathematics and reading with embedded field test	March 2007
8	Operational writing with embedded field test	February 2007
8	Standalone field test in science	April/May 2007
11	Operational mathematics and reading with embedded field test	March 2007
11	Operational writing with embedded field test	February 2007
11	Standalone field test in science	April/May 2007
12	Retest opportunity for students who as Grade 11 students in the spring of 2006 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2006

ASSESSMENT ACTIVITIES OCCURRING IN THE 2007–08 SCHOOL YEAR

Table P–5 shows the assessment plan for the 2007–08 school year. Note that the mathematics and reading assessments ran consecutively in Grades 3–8 and Grade 11. For Grades 4, 6, and 7, it was the third year for operational assessments and the second year in which these grade levels were included in the AYP calculations. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. This was the second year in which DRC was responsible for the Grade 3 assessment. As in previous years, the retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued in the same February testing window featuring the mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed, which was introduced in 2006. Since extensive field testing in February 2005 produced a pool of prompts for use over several years, no additional writing prompts needed to be field tested in 2007. However, new multiple-choice items were field tested in the 2008 writing assessment.

Joining the spring operational assessments in writing, reading, and mathematics was science at Grades 4, 8, and 11. See the *2008 PSSA Technical Report for Science: Grades 4, 8, and 11* for further information about the new science assessments.

Table P–5. Operational Assessment and Field Testing During the 2007–08 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March/April 2008
4	Operational mathematics and reading with embedded field test	March/April 2008
4	Operational science with embedded field test	April/May 2008
5	Operational mathematics and reading with embedded field test	March/April 2008
5	Operational writing with embedded field test	February 2008
6	Operational mathematics and reading with embedded field test	March/April 2008
7	Operational mathematics and reading with embedded field test	March/April 2008
8	Operational mathematics and reading with embedded field test	March/April 2008
8	Operational writing with embedded field test	February 2008
8	Operational science with embedded field test	April/May 2008
11	Operational mathematics and reading with embedded field test	March/April 2008
11	Operational writing with embedded field test	February 2008
11	Operational science with embedded field test	April/May 2008
12	Retest opportunity for students who as Grade 11 students in the spring of 2007 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2007

ASSESSMENT ACTIVITIES OCCURRING IN THE 2008–09 SCHOOL YEAR

Table P–6 shows the assessment plan for the 2008–09 school year. The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued with a February testing window featuring mode-specific scoring guidelines; stimulus-based, multiple-choice items; and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts was incorporated in the 2009 assessment along with a set of embedded field test multiple-choice items.

The second operational assessment in science took place in April/May. Similar to the other operational assessments, field testing for science was embedded as part of the operational assessments at each grade level.

Table P–6. Operational Assessment and Field Testing During the 2008–09 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2009
4	Operational mathematics and reading with embedded field test	March 2009
4	Operational science with embedded field test	April/May 2009
5	Operational mathematics and reading with embedded field test	March 2009
5	Operational writing with embedded field test	February 2009
6	Operational mathematics and reading with embedded field test	March 2009
7	Operational mathematics and reading with embedded field test	March 2009
8	Operational mathematics and reading with embedded field test	March 2009
8	Operational writing with embedded field test	February 2009
8	Operational science with embedded field test	April/May 2009
11	Operational mathematics and reading with embedded field test	March 2009
11	Operational writing with embedded field test	February 2009
11	Operational science with embedded field test	April/May 2009
12	Retest opportunity for students who as Grade 11 students in the spring of 2008 failed to reach at least the Proficient level in mathematics, reading, or writing	October/ November 2008

ASSESSMENT ACTIVITIES OCCURRING IN THE 2009–10 SCHOOL YEAR

Table P–7 shows the assessment plan for the 2009–10 school year. A notable change from previous years was that all assessments and make-ups were completed during the testing window from April through the first week of May.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts was included in the 2010 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–7. Operational Assessment and Field Testing During the 2009–10 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	April/May 2010
4	Operational mathematics and reading with embedded field test	April/May 2010
4	Operational science with embedded field test	April/May 2010
5	Operational mathematics and reading with embedded field test	April/May 2010
5	Operational writing with embedded field test	April/May 2010
6	Operational mathematics and reading with embedded field test	April/May 2010
7	Operational mathematics and reading with embedded field test	April/May 2010
8	Operational mathematics and reading with embedded field test	April/May 2010
8	Operational writing with embedded field test	April/May 2010
8	Operational science with embedded field test	April/May 2010
11	Operational mathematics and reading with embedded field test	April/May 2010
11	Operational writing with embedded field test	April/May 2010
11	Operational science with embedded field test	April/May 2010
12	Retest opportunity for students who as Grade 11 students in the spring of 2009 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2009

ASSESSMENT ACTIVITIES OCCURRING IN THE 2010–11 SCHOOL YEAR

Table P–8 shows the assessment plan for the 2010–11 school year. A change from the previous year is an earlier testing window, beginning in mid-March for mathematics and reading, late-March to April for writing, and early April for science. A make-up period extended into mid-April for all assessments.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts was included in the 2011 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–8. Operational Assessment and Field Testing During the 2010–11 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March/April 2011
4	Operational mathematics and reading with embedded field test	March/April 2011
4	Operational science with embedded field test	March/April 2011
5	Operational mathematics and reading with embedded field test	March/April 2011
5	Operational writing with embedded field test	March/April 2011
6	Operational mathematics and reading with embedded field test	March/April 2011
7	Operational mathematics and reading with embedded field test	March/April 2011
8	Operational mathematics and reading with embedded field test	March/April 2011
8	Operational writing with embedded field test	March/April 2011
8	Operational science with embedded field test	March/April 2011
11	Operational mathematics and reading with embedded field test	March/April 2011
11	Operational writing with embedded field test	March/April 2011
11	Operational science with embedded field test	March/April 2011
12	Retest opportunity for students who as Grade 11 students in the spring of 2010 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2010

ASSESSMENT ACTIVITIES OCCURRING IN THE 2011–12 SCHOOL YEAR

Table P–9 shows the assessment plan for the 2011–12 school year. The testing window for mathematics and reading began in mid-March, while writing and science began in mid to late April. The make-up period for mathematics and reading extended into late March, while writing and science extended into early May.

The mathematics and reading assessments continued to be operational for Grades 3–8 and Grade 11. Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. As in previous years, the fall retest opportunity at Grade 12 continued.

The operational assessment for writing at Grades 5, 8, and 11 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts was included in the 2012 assessment along with a set of embedded field test multiple-choice items.

The operational assessment for science at Grades 4, 8, and 11 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice (Grades 8 and 11) and open-ended (Grade 11 only) questions. Field testing was embedded as part of the operational assessments at each grade level.

Table P–9. Operational Assessment and Field Testing During the 2011–12 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2012
4	Operational mathematics and reading with embedded field test	March 2012
4	Operational science with embedded field test	April 2012
5	Operational mathematics and reading with embedded field test	March 2012
5	Operational writing with embedded field test	April 2012
6	Operational mathematics and reading with embedded field test	March 2012
7	Operational mathematics and reading with embedded field test	March 2012
8	Operational mathematics and reading with embedded field test	March 2012
8	Operational writing with embedded field test	April 2012
8	Operational science with embedded field test	April 2012
11	Operational mathematics and reading with embedded field test	March 2012
11	Operational writing with embedded field test	April 2012
11	Operational science with embedded field test	April 2012
12	Retest opportunity for students who as Grade 11 students in the spring of 2011 failed to reach at least the Proficient level in mathematics, reading, science, or writing	October/ November 2011

TRANSITION TO THE PENNSYLVANIA CORE STANDARDS

The 2012–13 school year began the initial transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS). The two-stage transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA tests was proposed to occur during the operational 2013–14 and 2014–15 administrations, with Grades 3, 4, and 5 part of the first phase, and Grades 6, 7, and 8 part of the second phase. (The final decision was made for a single operational transition, to occur during the operational 2014–15 administration.)

As a part of the PCS transition, the Legacy PSSA Reading test and the Legacy PSSA Writing test were phased out and were replaced with an English Language Arts test aligned to the PCS. As part of this transition, there was a standalone field test for the Writing component of the English Language Arts test. This standalone field test included standalone multiple-choice items (as opposed to stimulus-based multiple-choice items on the Legacy Writing test) and writing prompts at each grade. In addition, at Grade 3 there were open-ended items on the standalone ELA Writing test. For Grades 3, 4, and 5, this standalone field test took place during a two-week testing window in early to mid-February 2013. A similar standalone field test took place in February 2014 for Grades 6, 7, and 8. The Reading component of the new PCS ELA test was embedded in the 2013 Reading field test in Grades 3 through 5; additional items for the Reading component of the new PCS ELA test were embedded in the 2014 Reading field test in Grades 3 through 5. The Reading component of the new PCS ELA test in Grades 6 through 8 was embedded in the 2014 Reading field test.

ASSESSMENT ACTIVITIES OCCURRING IN THE 2012–13 SCHOOL YEAR

Table P–10 shows the assessment plan for the 2012–13 school year. PDE modified the order of the testing windows for writing, reading and mathematics, and science. Writing took place earlier than reading and mathematics instead of at the same time as science. The testing window for writing began mid-March; mathematics and reading began early to mid-April, while science began mid to late April. The make-up period for writing extended into mid to late March, while mathematics, reading, and science extended into early May. These operational assessments were all offered in an online format in addition to the paper/pencil format used in previous assessments.

An additional change from previous years was the removal of Grade 11 from the Mathematics, Reading, Science, and Writing. As Grade 11 was no longer a part of the assessments, the fall retest opportunity at Grade 12 was no longer available. Operational tests continued to be available for Mathematics and Reading at Grades 3–8, Science at grades 4 and 8, and Writing at grades 5 and 8.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items for Grades 3, 4, and 5 were aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards, while the embedded field test items for Grades 6, 7, and 8 continued to be aligned to the previous Assessment Anchor Content Standards.

The operational assessment for Science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

The operational assessment for Writing at Grades 5 and 8 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. An embedded field test of writing prompts along with a set of embedded field test multiple-choice items was included in the 2013 assessment at Grade 8. The operational assessment at Grade 5 included placeholder multiple-choice items for consistency in the length of the multiple-choice section of the assessment; however, students responded to only two writing prompts at Grade 5, as a field-test writing prompt was not needed due to the standalone field test at that grade.

Table P–10. Operational Assessment and Field Testing During the 2012–13 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
3	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
4	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
4	Operational science with embedded field test	April 2013
4	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
5	Operational mathematics and reading with embedded field test (field test aligned to the PCS)	April 2013
5	Operational writing	March 2013
5	Standalone field test in ELA: writing (aligned to the PCS)	February 2013
6	Operational mathematics and reading with embedded field test	April 2013
7	Operational mathematics and reading with embedded field test	April 2013
8	Operational mathematics and reading with embedded field test	April 2013
8	Operational writing with embedded field test	March 2013
8	Operational science with embedded field test	April 2013

ASSESSMENT ACTIVITIES OCCURRING IN THE 2013–14 SCHOOL YEAR

Table P–11 shows the assessment plan for the 2013–14 school year. The 2013–14 school year continued the transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS), as field-test items were aligned to the PCS-aligned Assessment Anchors and Eligible Content. The operational assessments in Mathematics, Reading, and Writing were comprised of items that align to both the PCS and the existing Assessment Anchors and Eligible Content. Reporting in 2013–14 continued to use the previous content structure. The transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA tests was planned to occur during the operational 2014–15 administration.

As a part of the PCS transition, the Legacy PSSA Reading test and the Legacy PSSA Writing test were phased out and were replaced with an English Language Arts test aligned to the PCS. As part of this transition, there was a standalone field test at Grades 6, 7, and 8 for the Writing component of the English Language Arts test. This standalone field test included standalone multiple-choice items (as opposed to stimulus-based multiple-choice items on the Legacy Writing test) and writing prompts at Grades 6, 7, and 8. This standalone field test took place during a two-week testing window in early to mid-February. The Reading component of the new PCS ELA test was embedded in the 2014 Reading field test for Grades 6, 7, and 8 and in the 2013 and 2014 Reading field test for Grades 3, 4, and 5.

Writing took place after reading and mathematics but before science. The testing window for mathematics and reading began mid-March; writing began late March to early April; and science began late April. The make-up period for mathematics and reading extended into early April, while the make-up period for writing extended into early to mid-April and science extended into early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items were aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (all grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

The operational assessment for writing at Grades 5 and 8 continued to feature mode-specific scoring guidelines, stimulus-based multiple-choice items, and a grade-specific emphasis in writing modes assessed. Students responded to only two writing prompts, as a field-test writing prompt was not needed due to the upcoming transition to the ELA assessments.

Table P–11. Operational Assessment and Field Testing During the 2013–14 School Year

Grade	Assessment Activity	Date
3	Operational mathematics and reading with embedded field test	March 2014
4	Operational mathematics and reading with embedded field test	March 2014
4	Operational science with embedded field test	April-May 2014
5	Operational mathematics and reading with embedded field test	March 2014
5	Operational writing	March-April 2014
6	Operational mathematics and reading with embedded field test	March 2014
6	Standalone field test in ELA: writing	February 2014
7	Operational mathematics and reading with embedded field test	March 2014
7	Standalone field test in ELA: writing	February 2014
8	Operational mathematics and reading with embedded field test	March 2014
8	Operational writing with embedded field test	March-April 2014
8	Operational science with embedded field test	April-May 2014
8	Standalone field test in ELA: writing	February 2014

ASSESSMENT ACTIVITIES OCCURRING IN THE 2014–15 SCHOOL YEAR

Table P–12 shows the assessment plan for the 2014–15 school year. The 2014–15 school year completes the transition for the PSSA Mathematics, Reading, and Writing tests to align to the newly-developed Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards (PCS), as both operational and field-test items were aligned only to the PCS-aligned Assessment Anchors and Eligible Content. Reporting in 2014–15 also transitioned to the new content structure. The transition from the Legacy PSSA Mathematics, Reading, and Writing tests to the new PCS-based PSSA Mathematics and ELA tests occurred during the operational 2014–15 administration.

The testing window for English Language Arts began in mid-April followed by the testing windows for Mathematics in mid to late April and then Science in late April to early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments. The online assessment became available for students to take on iPads and Chromebooks beginning with the 2015 administration.

Field testing for mathematics and reading continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–12. Operational Assessment and Field Testing During the 2014–15 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2015
3	Operational ELA with embedded field test	April 2015
4	Operational mathematics with embedded field test	April 2015
4	Operational ELA with embedded field test	April 2015
4	Operational science with embedded field test	April-May 2015
5	Operational mathematics embedded field test	April 2015
5	Operational ELA with embedded field test	April 2015
6	Operational mathematics with embedded field test	April 2015
6	Operational ELA with embedded field test	April 2015
7	Operational mathematics with embedded field test	April 2015
7	Operational ELA with embedded field test	April 2015
8	Operational mathematics with embedded field test	April 2015
8	Operational ELA with embedded field test	April 2015
8	Operational science with embedded field test	April-May 2015

ASSESSMENT ACTIVITIES OCCURRING IN THE 2015–16 SCHOOL YEAR

Table P–13 shows the assessment plan for the 2015–16 school year. The PSSA tests administered in the 2015–16 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts began early to mid-April followed by the testing windows for Mathematics in mid-April and then Science in late April. Makeup assessments were available through early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil

format used in previous assessments. The online assessments were available for students to take on iPads and Chromebooks.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–13. Operational Assessment and Field Testing During the 2015–16 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2016
3	Operational ELA with embedded field test	April 2016
4	Operational mathematics with embedded field test	April 2016
4	Operational ELA with embedded field test	April 2016
4	Operational science with embedded field test	April 2016
5	Operational mathematics embedded field test	April 2016
5	Operational ELA with embedded field test	April 2016
6	Operational mathematics with embedded field test	April 2016
6	Operational ELA with embedded field test	April 2016
7	Operational mathematics with embedded field test	April 2016
7	Operational ELA with embedded field test	April 2016
8	Operational mathematics with embedded field test	April 2016
8	Operational ELA with embedded field test	April 2016
8	Operational science with embedded field test	April 2016

ASSESSMENT ACTIVITIES OCCURRING IN THE 2016–17 SCHOOL YEAR

Table P–14 shows the assessment plan for the 2016–17 school year. The PSSA tests administered in the 2016–17 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts began early April followed by the testing windows for Mathematics in mid-April and then Science in early May. Makeup assessments were available through early to mid-May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format used in previous assessments. The online assessments were available for students to take on PCs, iPads, and Chromebooks.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 included multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–14. Operational Assessment and Field Testing During the 2016–17 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2017
3	Operational ELA with embedded field test	April 2017
4	Operational mathematics with embedded field test	April 2017
4	Operational ELA with embedded field test	April 2017
4	Operational science with embedded field test	May 2017
5	Operational mathematics embedded field test	April 2017
5	Operational ELA with embedded field test	April 2017
6	Operational mathematics with embedded field test	April 2017
6	Operational ELA with embedded field test	April 2017
7	Operational mathematics with embedded field test	April 2017
7	Operational ELA with embedded field test	April 2017
8	Operational mathematics with embedded field test	April 2017
8	Operational ELA with embedded field test	April 2017
8	Operational science with embedded field test	May 2017

ASSESSMENT ACTIVITIES OCCURRING IN THE 2017–18 SCHOOL YEAR

Table P–15 shows the assessment plan for the 2017–18 school year. The PSSA tests administered in the 2017–18 school year continued to aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in early to mid-April followed by the testing windows for Mathematics in mid-April and then Science in late-April into early May. The makeup assessments were available through early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts will continue to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–15. Operational Assessment and Field Testing During the 2017–18 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2018
3	Operational ELA with embedded field test	April 2018
4	Operational mathematics with embedded field test	April 2018
4	Operational ELA with embedded field test	April 2018
4	Operational science with embedded field test	April 2018
5	Operational mathematics embedded field test	April 2018
5	Operational ELA with embedded field test	April 2018
6	Operational mathematics with embedded field test	April 2018
6	Operational ELA with embedded field test	April 2018
7	Operational mathematics with embedded field test	April 2018
7	Operational ELA with embedded field test	April 2018
8	Operational mathematics with embedded field test	April 2018
8	Operational ELA with embedded field test	April 2018
8	Operational science with embedded field test	April 2018

ASSESSMENT ACTIVITIES OCCURRING IN THE 2018–19 SCHOOL YEAR

Table P–16 shows the assessment plan for the 2018–19 school year. The PSSA tests administered in the 2018–19 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in mid-April followed by the testing windows for Mathematics and science in late-April into early May. The makeup assessments were available through late-April into early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–16. Operational Assessment and Field Testing During the 2018–19 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April 2019
3	Operational ELA with embedded field test	April 2019
4	Operational mathematics with embedded field test	April 2019
4	Operational ELA with embedded field test	April 2019
4	Operational science with embedded field test	April 2019
5	Operational mathematics embedded field test	April 2019
5	Operational ELA with embedded field test	April 2019
6	Operational mathematics with embedded field test	April 2019
6	Operational ELA with embedded field test	April 2019
7	Operational mathematics with embedded field test	April 2019
7	Operational ELA with embedded field test	April 2019
8	Operational mathematics with embedded field test	April 2019
8	Operational ELA with embedded field test	April 2019
8	Operational science with embedded field test	April 2019

ASSESSMENT ACTIVITIES OCCURRING IN THE 2019–20 SCHOOL YEAR

The spring 2020 PSSA was cancelled in March 2020 due to the Covid-19 pandemic. No test materials were delivered to the Local Education Agencies (LEAs) for test administration; therefore, no tests were administered and there are no results to analyze for the 2020 PSSA. Additional analyses were conducted following the spring 2021 PSSA administration to evaluate the impact of school closures and absence of a test administration in 2020. The results from these analyses are included in Appendix V of the 2021 PSSA Technical Report.

Because the PSSA test materials were not delivered to the LEAs nor administered to students, the Pennsylvania Department of Education decided to not release form-level or item-level information in order to save items and/or forms for future use. Consequently, the sections of the technical report that identify specific information related to test construction were delayed until the completion of the 2021 PSSA.

Table P–17. Operational Assessment and Field Testing During the 2019–20 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	Cancelled
3	Operational ELA with embedded field test	Cancelled
4	Operational mathematics with embedded field test	Cancelled
4	Operational ELA with embedded field test	Cancelled
4	Operational science with embedded field test	Cancelled
5	Operational mathematics embedded field test	Cancelled
5	Operational ELA with embedded field test	Cancelled
6	Operational mathematics with embedded field test	Cancelled
6	Operational ELA with embedded field test	Cancelled
7	Operational mathematics with embedded field test	Cancelled
7	Operational ELA with embedded field test	Cancelled
8	Operational mathematics with embedded field test	Cancelled
8	Operational ELA with embedded field test	Cancelled
8	Operational science with embedded field test	Cancelled

ASSESSMENT ACTIVITIES OCCURRING IN THE 2020–2021 SCHOOL YEAR

Table P–18 shows the assessment plan for the 2020–021 school year. The PSSA tests administered in the 2020–21 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in mid-April followed by the testing windows for Mathematics and science in late-April into late September. The makeup assessments were available through late-April into late September. These operational assessments continued to be offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–18. Operational Assessment and Field Testing During the 2020–21 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	April–September 2021
3	Operational ELA with embedded field test	April–September 2021
4	Operational mathematics with embedded field test	April–September 2021
4	Operational ELA with embedded field test	April–September 2021
4	Operational science with embedded field test	April–September 2021
5	Operational mathematics embedded field test	April–September 2021
5	Operational ELA with embedded field test	April–September 2021
6	Operational mathematics with embedded field test	April–September 2021
6	Operational ELA with embedded field test	April–September 2021
7	Operational mathematics with embedded field test	April–September 2021
7	Operational ELA with embedded field test	April–September 2021
8	Operational mathematics with embedded field test	April–September 2021
8	Operational ELA with embedded field test	April–September 2021
8	Operational science with embedded field test	April–September 2021

ASSESSMENT ACTIVITIES OCCURRING IN THE 2021–22 SCHOOL YEAR

Table P–19 shows the assessment plan for the 2021–22 school year. The PSSA tests administered in the 2021–22 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in mid-April followed by the testing windows for Mathematics and science in late-April into early May. The makeup assessments was available through early late-April into early May. These operational assessments were offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–19. Operational Assessment and Field Testing During the 2021–22 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	May 2022
3	Operational ELA with embedded field test	April 2022
4	Operational mathematics with embedded field test	May 2022
4	Operational ELA with embedded field test	April 2022
4	Operational science with embedded field test	May 2022
5	Operational mathematics embedded field test	May 2022
5	Operational ELA with embedded field test	April 2022
6	Operational mathematics with embedded field test	May 2022
6	Operational ELA with embedded field test	April 2022
7	Operational mathematics with embedded field test	May 2022
7	Operational ELA with embedded field test	April 2022
8	Operational mathematics with embedded field test	May 2022
8	Operational ELA with embedded field test	April 2022
8	Operational science with embedded field test	May 2022

ASSESSMENT ACTIVITIES OCCURRING IN THE 2022–23 SCHOOL YEAR

Table P–20 shows the assessment plan for the 2022–23 school year. The PSSA tests administered in the 2022–23 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in mid-April followed by the testing windows for Mathematics and science in late-April into early May. The makeup assessments were available through early late-April into early May. These operational assessments were offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grades 8 only). Field testing was embedded as part of the operational assessments at each grade level.

Table P–20. Operational Assessment and Field Testing During the 2022–23 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	May 2023
3	Operational ELA with embedded field test	April 2023
4	Operational mathematics with embedded field test	May 2023
4	Operational ELA with embedded field test	April 2023
4	Operational science with embedded field test	May 2023
5	Operational mathematics embedded field test	May 2023
5	Operational ELA with embedded field test	April 2023
6	Operational mathematics with embedded field test	May 2023
6	Operational ELA with embedded field test	April 2023
7	Operational mathematics with embedded field test	May 2023
7	Operational ELA with embedded field test	April 2023
8	Operational mathematics with embedded field test	May 2023
8	Operational ELA with embedded field test	April 2023
8	Operational science with embedded field test	May 2023

ASSESSMENT ACTIVITIES OCCURRING IN THE 2023–24 SCHOOL YEAR

Table P–21 shows the assessment plan for the 2023–24 school year. The PSSA tests administered in the 2023–24 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English Language Arts was in mid-April followed by the testing windows for Mathematics and science in late-April into early May. The makeup assessments was available through early late-April into early May. These operational assessments continued to be offered in an online format in addition to the paper/pencil format.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The operational assessment for science at Grades 4 and 8 continued to include multiple-choice and open-ended questions. The operational test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content. Students responded to standalone multiple-choice and open-ended questions (both grades) as well as scenario-based multiple-choice questions (Grade 8 only). Field testing was embedded as part of the operational assessments at each grade level. The field-test items on the 2023–24 science assessments were aligned to the recently adopted Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability (STEELS) Standards.

Table P–21. Operational Assessment and Field Testing During the 2023–24 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	May 2024
3	Operational ELA with embedded field test	April 2024
4	Operational mathematics with embedded field test	May 2024
4	Operational ELA with embedded field test	April 2024
4	Operational science with embedded field test	May 2024
5	Operational mathematics embedded field test	May 2024
5	Operational ELA with embedded field test	April 2024
6	Operational mathematics with embedded field test	May 2024
6	Operational ELA with embedded field test	April 2024
7	Operational mathematics with embedded field test	May 2024
7	Operational ELA with embedded field test	April 2024
8	Operational mathematics with embedded field test	May 2024
8	Operational ELA with embedded field test	April 2024
8	Operational science with embedded field test	May 2024

ASSESSMENT ACTIVITIES OCCURRING IN THE 2024–25 SCHOOL YEAR

Table P–22 shows the assessment plan for the 2024–25 school year. The PSSA ELA and math tests administered in the 2024–25 school year continued to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

Significant changes took place in the 2024–25 science assessment. The 2024–25 science forms were a field-test only assessment. The 4th grade assessment was replaced by a 5th grade assessment. Students responded to standalone multiple-choice, technology-enhanced, and open-ended questions (both grades) as well as scenario-based questions. The field-test items on the 2024–25 science assessments were aligned to the Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability (STEELS) Standards.

Field testing for mathematics and English language arts continued to be embedded as part of the operational assessments at each grade level. The embedded mathematics and English language arts field test items continued to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards.

The testing window for English language arts was in mid-April followed by the testing windows for mathematics and science in late-April into early May. The makeup assessments were available through late-April into early May. The operational assessments continued to be offered in an online format in addition to the paper/pencil format.

Table P–22. Operational Assessment and Field Testing During the 2024–25 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	May 2025
3	Operational ELA with embedded field test	April 2025
4	Operational mathematics with embedded field test	May 2025
4	Operational ELA with embedded field test	April 2025
5	Field Test science	May 2025
5	Operational mathematics embedded field test	May 2025
5	Operational ELA with embedded field test	April 2025
6	Operational mathematics with embedded field test	May 2025
6	Operational ELA with embedded field test	April 2025
7	Operational mathematics with embedded field test	May 2025
7	Operational ELA with embedded field test	April 2025
8	Operational mathematics with embedded field test	May 2025
8	Operational ELA with embedded field test	April 2025
8	Field Test science	May 2025

ASSESSMENT ACTIVITIES PLANNED FOR THE 2025–26 SCHOOL YEAR

Table P–23 shows the assessment plan for the 2025–26 school year. The PSSA ELA and mathematics tests administered in the 2025–26 school year will continue to be aligned to the Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards. The PSSA science tests administered in the 2025–26 school year will continue to be aligned to the adopted Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability (STEELS) Standards.

The testing window for English Language Arts will be in mid-April followed by the testing windows for Mathematics and science in late-April into early May. The makeup assessments will be available through late-April into early May. These operational assessments will continue to be offered in an online format with a variety of accommodations.

Field testing for mathematics, English language arts and science will be embedded as part of the operational assessments at each grade level. The embedded ELA and mathematics field test items will continue to be aligned to the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Core Standards. The embedded science field test items will be aligned to the Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability (STEELS) Standards.

Table P–23. Operational Assessment and Field Testing During the 2025–26 School Year

Grade	Assessment Activity	Date
3	Operational mathematics with embedded field test	May 2026
3	Operational ELA with embedded field test	April 2026
4	Operational mathematics with embedded field test	May 2026
4	Operational ELA with embedded field test	April 2026
5	Operational science with embedded field test	May 2026
5	Operational mathematics embedded field test	May 2026
5	Operational ELA with embedded field test	April 2026
6	Operational mathematics with embedded field test	May 2026
6	Operational ELA with embedded field test	April 2026
7	Operational mathematics with embedded field test	May 2026
7	Operational ELA with embedded field test	April 2026
8	Operational mathematics with embedded field test	May 2026
8	Operational ELA with embedded field test	April 2026
8	Operational science with embedded field test	May 2026

CHAPTER ONE: BACKGROUND, PURPOSE, AND INTENDED USES OF THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA)

This brief overview of the Pennsylvania System of School Assessment (PSSA) summarizes the history of the current program's development process, the program's intent and purpose, recent changes to the program, and the student population that participates in the assessments. Pennsylvania's involvement in state-wide assessment actually began in the 1969–70 school year with a purely school-based assessment known as *Educational Quality Assessment* (EQA), which continued through the 1987–88 school year. A state mandated student competency testing program called *Testing for Essential Learning and Literacy Skills* (TELLS) also operated from the school years of 1984–85 through 1990–91.

THE PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT

The Pennsylvania System of School Assessment program was instituted in 1992 as a school evaluation model with reporting at the school level only. Test administration took place in February/March, and school district participation was every third year based on the strategic planning cycle. Mathematics and reading were assessed at Grades 5, 8, and 11; districts could choose to participate in the writing assessment at Grades 6 and 9. The State Board of Education's revisions to Chapter 5 in November 1994 brought major changes to the PSSA, beginning with the spring 1995 assessment. These changes included the following:

- All districts were required to participate in the mathematics and reading assessment each year.
- Student-level reports were generated in addition to school reports.
- The Grades 6 and 9 writing assessments became mandatory on a three-year cycle corresponding with the district's strategic planning cycle.

Yearly administration of the PSSA in 1996, 1997, and 1998 continued at the assessed grades for mathematics and reading, utilizing essentially the same test structure, reporting practices, and testing window. Writing assessment continued on the established mandatory cycle; however, an increasing number of districts chose to participate every year on a voluntary basis.

PENNSYLVANIA ACADEMIC STANDARDS AND THE PSSA

A major structural change took place in test content with the State Board of Education's adoption of the Pennsylvania Academic Standards for Reading, Writing, Speaking and Listening, and Mathematics in January 1999 (Pennsylvania State Board of Education, 1999). These new, more rigorous standards aimed to better prepare students for the 21st century work force. The Academic Standards, which are part of *Chapter 4 Regulations on Academic Standards and Assessment*, detailed what students should know (knowledge) and be able to do (skills) at various grade levels. Subsequently, the State Board approved a set of criteria defining Advanced, Proficient, Basic, and Below Basic levels of performance. Mathematics and reading performance level results were reported at both the student and school levels for the 2000 PSSA. At that point, the PSSA became a standards-based, criterion-referenced assessment measuring student attainment of the Academic Standards while simultaneously determining the extent to which school programs enabled students to achieve proficiency of the Academic Standards. The regulations also stipulated that appropriate results be broadly disseminated to an array of audiences including students, parents, educators, citizens, and state policymakers, including the State Senate, the General Assembly, and the State Board. School reporting was to include the aggregate performance of all students and for relevant subgroups, such as those students with an Individualized Education Plan (IEP). Finally, the data was intended to inform educators regarding school program strengths and weaknesses in order to guide the improvement of curricula and instructional strategies. The data was also intended to be used in the development of strategic plans.

The mathematics and reading assessments from 2001 through 2004 underwent various content enhancements to improve alignment to the Academic Standards. For example, the reading assessment transitioned to utilizing more passages of shorter length and fewer items to improve the range of topics to which students responded. Various reporting modifications were introduced to more effectively communicate results.

ASSESSMENT ANCHOR CONTENT STANDARDS, CONTENT STRUCTURE, AND NEW GRADE LEVELS FOR MATHEMATICS AND READING

Assessment in 2005 was marked by major structural changes to the PSSA. Assessment Anchor Content Standards (Assessment Anchors) developed during the previous school year to clarify content structure and improve articulation between assessment and instruction were implemented in terms of test design and reporting. At the same time, field testing of mathematics and reading occurred at Grades 4, 6, and 7. As specified by PL 107–110, the *No Child Left Behind Act of 2001* (NCLB), states, school districts, and schools must achieve a minimum level of improvement each year, known as adequate yearly progress, or AYP. Accordingly, the third year of calculations for AYP were conducted and reported for Grades 5, 8, and 11.

The 2006 operational mathematics and reading assessment incorporated Grades 4, 6, and 7 for the first time. The assessed grade levels for 2006 included Grades 3–8 and 11. The fourth year of calculations for AYP were conducted and reported for Grades 5, 8, and 11 and, for the first time, Grade 3.

In 2007 the operational mathematics and reading assessment continued in Grades 3–8 and 11. AYP calculations for Grades 4, 6, and 7 took place in 2007 when they were assessed for the second time.

The operational mathematics and reading assessments of 2008, 2009, 2010, 2011, and 2012 continued in Grades 3–8 and 11, utilizing the same content structure. AYP calculations continued for all grades. The operational mathematics and reading assessments continued for Grades 3–8 in 2013 utilizing the same content structure.

TRANSITION TO PENNSYLVANIA CORE STANDARDS-ALIGNED ASSESSMENTS IN ENGLISH LANGUAGE ARTS AND MATHEMATICS

As a part of the transition to align to the Pennsylvania Core Standards, the operational mathematics and reading assessments for Grades 3–8 in 2014 aligned to both the previous Assessment Anchors (those aligned to the Pennsylvania Academic Standards) and the newly developed Assessment Anchors aligned to the Pennsylvania Core Standards. The operational assessments of 2015 in Grades 3–8 marked the completion of the transition to alignment with the Pennsylvania Core Standards in mathematics and English language arts. The 2021 PSSA had nine field-test forms per grade in Grades 3–8, each with core items as well as placeholder items to ensure consistency in the length of the assessment in future years when equating block items are again included in the test design. More information about the operational layout for mathematics and English language arts can be found in Chapter Three.

Preliminary performance level descriptors were developed for mathematics and English language arts in the spring of 2012. These descriptions of the expectations of students at each performance level (Basic, Proficient, and Advanced) were used to guide development of items aligned to the PCS-aligned Assessment Anchors and Eligible Content that were field tested in 2013 (Grades 3, 4, and 5) and in 2014 (Grades 3–8). These performance level descriptors were validated by committees of Pennsylvania educators in February 2015 prior to standard setting in June 2015.

More information regarding the mathematics and reading tests may be found in Chapter Two and in the following Pennsylvania Department of Education publications available on the PDE website: *PSSA Assessment Handbook*, *PSSA English Language Arts Preliminary Item and Scoring Sampler* (one per assessed grade level), and *PSSA Mathematics Preliminary Item and Scoring Sampler* (one per assessed grade level). These handbooks can be accessed by going to www.education.pa.gov.

THE PENNSYLVANIA SCIENCE ASSESSMENT

In accordance with the NCLB requirement to implement an operational science assessment in 2008, a major test development effort in science took place during 2006, followed by a large-scale, standalone field test in April/May of 2007. A full implementation of an operational science assessment at Grades 4, 8, and 11 first occurred in April–May 2008. The 2009 PSSA operational science assessment continued with the same content structure and testing window as in 2008.

Several historical milestones were significant to the development of a science test in Pennsylvania. These include the following:

- The adoption of Act 16 or Pennsylvania Senate Bill 652 in 2000, which redefined the PSSA "as a test developed and implemented by the Department of Education to determine only academic achievement relating directly to objective Academic Standards in the areas of reading, mathematics, and science." (See the *Science Assessment Handbook*, PDE, November 2006).
- Pennsylvania State Board of Education adoption of the *Science and Technology Standards* on July 12, 2001, and the *Environment and Ecology Standards* on January 5, 2002.
- On July 16, 2022, Pennsylvania Bulletin published newly adopted Pennsylvania Integrated Standards for Science, Technology & Engineering, and Environmental Literacy and Sustainability, and Pennsylvania Technology and Engineering (STEELS) Standards.

The STEELS standards were developed jointly to ensure consistency, coherence and a cohesive K–12 integrated approach to science education in the Commonwealth. The STEELS standards guide the study of the natural and human-made world through inquiry, problem solving, critical thinking, and authentic exploration. The integration of these disciplines in the standards highlights the interconnectedness of scientific, technological, and engineering focused study; the integral relationship between humans and the environment; and the importance of integrating the teaching and learning of science, technology, and engineering.

Aligned to the *Pennsylvania STEELS Standards*, the science test is designed to measure and report results in four major categories:

- Biological Sciences and Environmental Literacy & Sustainability
- Physical Sciences
- Earth and Space Sciences
- Technology & Engineering

Students use their content knowledge and process skills to answer a set of multiple-choice, technology-enhanced and open-ended questions that are standalone or related to a scenario. A science scenario consists of a description of a class project, an experiment, or other research and typically contains text, graphs, charts, and/or tables. Starting with the 2025 test, PSSA science assessments occur at the end of grades 5 and 8. STEELS standards that may be assessed at grade 5 include all of the grades 3 through 5 STEELS standards. STEELS standards that may be assessed at grade 8 include all of the grades 6 through 8 STEELS standards. The establishment of performance levels for science, utilizing the Bookmark method, is scheduled to take place during the summer of 2026. For additional details about the previous sciences standard setting event, refer to the PSSA science performance level setting technical report in 2008.

PURPOSE AND INTENDED USES OF THE PSSA

The preceding discussion provides some important background and rationale for the development of the PSSA. Although the topic of test validity is covered in detail in Chapter Nineteen of this report, some introductory remarks to frame how a validity argument is linked to test purpose and use is appropriate here. Validity is often defined as, the degree to which theory and evidence support the intended purpose and use of test scores. As such, the beginning of any validation process is to clearly articulate test purpose and intended uses. The purpose of the PSSA is to measure how well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics and ELA, and the *Pennsylvania STEELS Standards* for Science. The intended uses of the PSSA are to:

1. Provide information for use in school and district accountability systems
2. Improve curricular and instructional practices in order to help students reach proficiency in the Pennsylvania Core Standards (ELA and Mathematics) or the Pennsylvania STEELS Standards (Science)

It follows, then, that a validity argument must be developed to support claims that PSSA test scores are appropriate for these uses. The *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014) links the concept of validity, test purpose, and test use to this need for evidence that test scores are appropriate for their intended purpose and uses. Briefly, a validity argument is characterized as an accumulation of five sources, or types, of evidence that test scores are appropriate for their intended use, including evidence related to test content, its internal structure and relation to other variables, examinee response processes, and testing consequences. Complete definitions of these sources, and corresponding evidence that PSSA scores may be interpreted as intended is provided in Chapter Nineteen.

CHAPTER TWO: OVERVIEW OF THE PSSA FRAMEWORK

PENNSYLVANIA CORE STANDARDS, ASSESSMENT ANCHOR CONTENT STANDARDS AND ELIGIBLE CONTENT, PENNSYLVANIA STEELS STANDARDS

PSSA ENGLISH LANGUAGE ARTS AND MATHEMATICS

The PSSA Assessment Anchor Content Standards and Eligible Content are based on the Pennsylvania Core Standards in English language arts and mathematics. Although the Academic Standards indicated what students should know and be able to do, educator concerns regarding the number and breadth of Academic Standards led to an initiative by the Pennsylvania Department of Education (PDE) to develop Assessment Anchor Content Standards (Assessment Anchors) to indicate which parts of the Academic Standards (Instructional Standards) would be assessed on the PSSA. Based on recommendations from Pennsylvania educators, the Assessment Anchors were designed as a tool to improve the articulation of curricular, instructional, and assessment practices. The PSSA science standards come directly from the Foundation Boxes Pennsylvania Academic Standards in science. Foundation Boxes provide detail for each standard: Clarifying Statements, Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts or Technology and Engineering Practices. Foundation boxes also include a PA context, linkage to PA Career Ready Skills, and connections to other PA standards.

With Pennsylvania's decision to adopt the Pennsylvania Core Standards based on the Common Core State Standards, committees of Pennsylvania educators met in October 2011 to write, review, and approve the Assessment Anchors and Eligible Content statements. To provide initial focus, each content and grade span committee was presented with materials specific to the content and grade span in question, including a basic blueprint structure, the Pennsylvania Academic Standards, the Pennsylvania Assessment Anchors and Eligible Content aligned to the Pennsylvania Academic Standards, the Common Core State Standards, and draft Eligible Content statements. Committees then completed an iterative process of reviewing and revising the draft Eligible Content statements followed by discussions across grade-span committees to ensure vertical articulation across the grades. The results from the committee work were evaluated by national, state, and local subject experts, and following revisions, they were ultimately validated by another committee of Pennsylvania educators. Following committee approval, the Pennsylvania Core Standards-aligned Assessment Anchors and Eligible Content for English Language Arts and Mathematics were approved by the State Board of Education in September 2013.

The mathematics and English language arts Assessment Anchors clarify what is expected across each grade span and focus the content of the standards into what is assessable on a large-scale test. The Assessment Anchor documents also serve to communicate Eligible Content, also called assessment limits, or the range of knowledge and skills from which the PSSA would be designed.

The Assessment Anchor's coding is read like an outline. The coding includes the content, grade level, Reporting Category, Assessment Anchor, descriptor (Sub-Assessment Anchor), and Eligible Content. Thus, S.4.A.1.3.1 would be Science, Grade 4, Reporting Category A, Assessment Anchor 1, descriptor (Sub-Assessment Anchor) 3, and Eligible Content 1.

Each of the Assessment Anchors has one or more descriptors (Sub-Assessment Anchors) and Eligible Content varying to reflect grade-level appropriateness. The Assessment Anchors form the basis of the test design. In turn, this hierarchy is the basis for organizing the total content scores (based on the core [common] sections).

Achieve, Inc., Washington, D.C., conducted a preliminary review of the science Assessment Anchors in 2003 to evaluate the alignment with the Academic Standards and produced a follow-up report on the anchors in 2005.

The complete set of Assessment Anchors and Eligible Content aligned to the Pennsylvania Academic Standards can be referenced at PDE's website: www.education.pa.gov.

PSSA SCIENCE

The PSSA science standards come directly from the Foundation Boxes Pennsylvania Academic Standards in science. Foundation Boxes provide detail for each standard: Clarifying Statements, Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts or Technology and Engineering Practices. Foundation boxes also include a PA context, linkage to PA Career Ready Skills, and connections to other PA standards.

Each standard has a four-digit code. The first digit (3) represents the content (Science, EE, T&E). All Science, Environment & Ecology, and Technology & Engineering standards are represented with a 3. The second digit is the discipline. 1 represents Life Science, 2 represents physical science, 3 represents Earth and Space Science, 4 represents Environmental Literacy and Sustainability, and 5 represents Technology and Engineering. The third digit represents the grade level. The fourth character represents the standard.

OVERVIEW OF THE 2025 PSSA

MATHEMATICS ASSESSMENT MEASURES

The Assessment Anchors are organized into four classifications, as listed below.

- A = Numbers and Operations
- B = Algebraic Concepts
- C = Geometry
- D = Data Analysis and Probability

These four classifications are used throughout the grade levels. In addition to these classifications, there are five Reporting Categories for each grade level. The first letter of each Reporting Category represents the classification, and the second letter represents the Domain as stated in the Pennsylvania Core Standards for Mathematics. These Reporting Categories are listed below.

- A = Numbers and Operations
    - A-T = Numbers and Operations in Base Ten (grades 3–5)
    - A-F = Numbers and Operations—Fractions (grades 3–5)
    - A-N = The Number System (grades 6–8)
    - A-R = Ratios and Proportional Relationships (grades 6, 7)
- B = Algebraic Concepts
    - B-O = Operations and Algebraic Thinking (grades 3–5)
    - B-E = Expressions and Equations (grades 6–8)
    - B-F = Functions (grade 8)
- C = Geometry
    - C-G = Geometry (grades 3–8)
- D = Data Analysis and Probability
    - D-M = Measurement and Data (grades 3–5)
    - D-S = Statistics and Probability (grades 6–8)

The PSSA mathematics assessment employs two types of test items: multiple-choice and open-ended. These item types assess different levels of knowledge and provide different kinds of information about mathematics achievement. Psychometrically, multiple-choice items are very useful and efficient tools for collecting information about a student's academic achievement. Open-ended performance tasks generally generate fewer scoreable points than multiple-choice items in the same amount of testing time; however, they provide tasks that are more realistic and are better at sampling higher-level thinking skills. Furthermore, well-constructed scoring guides have

made it possible to include open-ended tasks in large-scale assessments such as the PSSA. Trained scorers can apply the scoring guides to efficiently score large numbers of student papers in a highly reliable way. The design of the PSSA attempts to achieve a reasonable balance between the two item types.

Furthermore, the Standards for Mathematical Practice is included in the development and review process of each item. Some items may align to none of the practices while others may align to multiple practices. The Standards for Mathematical Practice originated in the Common Core State Standards for Mathematics and were adopted by Pennsylvania as part of the Academic Standards for Mathematics.

MATHEMATICS MULTIPLE-CHOICE ITEMS

The majority of the mathematics items included on the PSSA are multiple-choice (selected-response) items. This item type is especially efficient for measuring a broad range of content. In the PSSA mathematics assessment, each multiple-choice item has four response options, only one of which is correct. The student is awarded one point for choosing the correct response. Distractors typically represent incorrect concepts, incorrect logic, incorrect application of an algorithm, or computational errors.

Multiple-choice items are used to assess a variety of skill levels, from short-term recall of facts to problem solving. PSSA items involving application emphasize the requirement to carry out some mathematical process to find an answer, rather than simply recalling information from memory.

TECHNOLOGY-ENHANCED ITEMS

A small number of technology-enhanced items (TE) are included on the PSSA mathematics assessments. Each TE is designed to elicit evidence of a broad range of student understanding. A student interacts with the enhanced features of these computer-delivered, auto-scorable (machine scored) test items to show an understanding of standards, skills, and concepts taught. These item types use specific enhancements to augment the user interface, such as interactive tables and diagrams, on-screen manipulatives, and selective-response generators (such as drop-down lists, hot spot, number line and coordinate graphing, data displays, and matching matrices).

OPEN-ENDED TASKS FOR MATHEMATICS

Open-ended, or constructed-response, tasks require students to read a problem description and to develop an appropriate solution. The open-ended items are designed to take about ten minutes per item. Most of the open-ended items have several components to the overall task that may enable students to enter or begin the problem at different places. In some items, each successive component is designed to assess progressively more difficult skills or higher knowledge levels. Certain components ask students to explain their reasoning for engaging in particular mathematical operations or for arriving at certain conclusions. The types of tasks utilized do not necessarily require computations. Students may also be asked to perform such tasks as constructing a graph, shading some portion of a figure, or listing object combinations that meet specified criteria.

Open-ended tasks are especially useful for measuring students' problem-solving skills in mathematics. They offer the opportunity to present real-life situations that require students to solve problems using mathematics abilities learned in the classroom. Students must read the task carefully, identify the necessary information, devise a method of solution, perform the calculations, enter the solution directly in the response space, and, when required, offer an explanation. This provides insight into the students' mathematical knowledge, abilities, and reasoning processes.

The open-ended mathematics items are scored on a 0–4 point scale using an item-specific scoring guideline. The item-specific scoring guideline outlines the requirements for each score point. Item-specific scoring guidelines are based on the "General Description of Mathematics Scoring Guidelines for Open-Ended Items". The general guidelines describe a hierarchy of responses, which represent the five score levels. See Appendix A or the *Mathematics Item and Scoring Samplers* available on the PDE website.

ENGLISH LANGUAGE ARTS ASSESSMENT MEASURES

The content blueprints for the English language arts assessment are shown in the following tables. The blueprints are organized around three Reporting Clusters (Reading, Writing, and Text-Dependent Analysis) based on the expressed emphasis contained within the Pennsylvania Core Standards.

- Reading
  - A = Literature Text
  - B = Informational Text
  - A-K and B-K = Key Ideas and Details
  - A-C and B-C = Craft and Structure/Integration of Knowledge and Ideas
  - A-V and B-V = Vocabulary Acquisition and Use
- Writing
  - D = Conventions of Standard English
- Text-Dependent Analysis
  - E = Text-Dependent Analysis (Grades 4–8 only)

Within the Reading Reporting Cluster, each Eligible Content aligns to a Genre Reporting Category (Literature Text or Informational Text) as well as a Core Competency Reporting Category (Key Ideas and Details; Craft and Structure/ Integration of Knowledge and Ideas; or Vocabulary Acquisition and Use) as shown in the table below.

Table 2–1. English Language Arts Eligible Content Blueprint

Genre	Key Ideas and Details (Key Ideas)	Craft and Structure/Integration of Knowledge and Ideas (CSI)	Vocabulary Acquisition and Use (Vocabulary)
Literature Text	A-K.1.1.1	A-C.2.1.1	A-V.4.1.1
Literature Text	A-K.1.1.2	A-C.3.1.1	A-V.4.1.2
Literature Text	A-K.1.1.3	NA	NA
Informational Text	B-K.1.1.1	B-C.2.1.1	B-V.4.1.1
Informational Text	B-K.1.1.2	B-C.2.1.2	B-V.4.1.2
Informational Text	B-K.1.1.3	B-C.3.1.1	NA
Informational Text	NA	B-C.3.1.2	NA
Informational Text	NA	B-C.3.1.3	NA

The English language arts assessment employs several types of test questions, including standalone and passage-based Multiple-Choice questions (MC), Evidence-Based Selected-Response (EBSR) questions, Short-Answer (SA) questions (Grade 3 only) and Text-Dependent Analysis (TDA) questions (Grades 4–8).

PASSAGE-BASED MULTIPLE-CHOICE ITEMS

Passage-based multiple-choice items measure how well students comprehend the overall meaning of a passage or make basic inferences about it. At times, asking students to choose a preferred answer is the best way to determine whether they have gleaned certain information from a story. Such information may include setting, central idea, or main events and their sequence. These multiple-choice items are aligned to Reporting Categories within the Reading Reporting Cluster.

Each reading multiple-choice item has four response options, only one of which is correct. The student is awarded one point for choosing the correct response. Incorrect response choices, or distractors, typically represent some kind of misinterpretation, predisposition, unsound reasoning, or casual reading of the item and/or stimuli.

STANDALONE MULTIPLE-CHOICE ITEMS

Standalone multiple-choice items require that a student demonstrate both passive (recognizing and identifying grammatical and mechanical errors in text, such as misspellings, errors in word choice, errors in verb tense, or pronoun usage) and active (choosing the appropriate correction of an embedded error, such as deleting an irrelevant detail, changing the sequence of details, or placing correct marks of punctuation) language skills related to conventions of standard English and knowledge of language. These multiple-choice items are aligned to the Language Reporting Category within the Writing Reporting Cluster.

All language multiple-choice items have four response options that include only one correct answer. The student is awarded one raw score point for choosing the correct response. Incorrect response choices, or distractors, typically represent some kind of misinterpretation or predisposition, unsound reasoning, or casual reading of the item and/or stimuli.

TECHNOLOGY-ENHANCED ITEMS

A small number of technology-enhanced (TE) items are included on the PSSA ELAs assessments. Each TE is designed to elicit evidence of a broad range of student understanding. A student interacts with the enhanced features of these computer-delivered, auto-scorable (machine scored) test items to show an understanding of standards, skills, and concepts taught. These item types use specific enhancements to augment the user interface, such as interactive tables and diagrams, on-screen manipulatives, and selective-response generators (such as drop-down lists, hot spot, number line and coordinate graphing, data displays, and matching matrices).

EVIDENCE-BASED SELECTED-RESPONSE ITEMS

Each two-part evidence-based selected-response (EBSR) question is designed to elicit an evidence-based response from a student who has read either a Literature or Informational Text passage. In Part One, which is similar to a multiple-choice question, the student analyzes a passage and chooses the best answer from four answer choices. In Part Two, the student elicits evidence from the passage to select one or more answers based on his/her response to Part One. Part Two is different from a multiple-choice question in that there may be more than four answer options and more than one correct answer. Each EBSR test question is worth either two or three points, and students can receive partial credit for providing a correct response to Part One or for providing one or more correct responses in Part Two. The student is awarded one raw score point for choosing each correct response. Incorrect response choices, or distractors, in both Part One and Part Two typically represent some kind of misinterpretation, predisposition, unsound reasoning, or casual reading of the item and/or stimuli.

SHORT-ANSWER ITEMS (GRADE 3)

Constructed-response tasks such as the short-answer questions included on the assessment for Grade 3 require written responses. These items are designed to address comprehension of text in ways that multiple-choice items cannot. These short written responses require about five minutes per item and allow a student to prepare an answer using supporting details or examples derived from the text. Prior to 2013, these test questions were called “open-ended” items due to the many possible responses students could construct compared to the four static options available in a multiple-choice item. These items began to be labeled as short-answer items during the 2013 administration. The shift in labeling, from “open-ended” to “short-answer,” was implemented to draw a greater contrast to the new “Text-Dependent Analysis” questions which require substantial student writing. By comparison, responses to the short-answer items are simpler and require less explication and almost no analysis.

The reading short-answer items are scored on a 0–3-point scale using an item-specific scoring guideline. This scale is consistent with the scale used on the National Assessment of Educational Progress (NAEP). The change from the former 0–4-point scale improves the alignment with the types of tasks required. Each task is text-dependent and is carefully constructed with the scoring guideline reflecting the task requirements. All item-specific scoring guidelines are based on the “General Scoring Guidelines for Short-Answer Reading Items.” The general guidelines describe a hierarchy of responses, which represent the four score levels. See Appendix A or the *English Language Arts Item and Scoring Samplers* available on the PDE website.

TEXT-DEPENDENT ANALYSIS ITEMS (GRADES 4–8)

Text-dependent analysis questions require students to draw on basic writing skills while inferring and synthesizing information from a passage or passage set they have read during the test event, in order to develop a comprehensive, holistic essay response. Both Literature and Informational Texts are addressed through this item type. The demand required of a student's reading and writing skills in response to a TDA coincides with the similar demands required for a student to be college and career ready. The essay responses developed for this item type require approximately thirty minutes. These items are reported under the Text-Dependent Analysis Reporting Category, which is found in the Reporting Cluster of the same name.

The text-dependent analysis items are scored on a 1–4-point scale using the holistic "PSSA Text-Dependent Analysis Scoring Guidelines." The TDA scoring guidelines describe a hierarchy of responses, which represent the four score levels, and include comprehension, writing, and analysis skills. See Appendix A or the *English Language Arts Item and Scoring Samplers* available on the PDE website.

PASSAGE COMPLEXITY

The Pennsylvania Core Standards require students to read increasingly complex texts with greater independence and proficiency as they progress toward college- and career-readiness. DRC has worked with PDE to develop a process that measures (1) the quantitative evaluation of the text, and (2) the qualitative evaluation of the text that is reported out on a passage placemat. In addition, a third component, matching reader to text and task, is also taken into consideration during passage evaluation and teacher committee reviews.

QUANTITATIVE EVALUATION

Evaluating the complexity of a passage is essentially a judgmental process by individuals familiar with the classroom context and what is developmentally and linguistically appropriate for students at a given grade level. Although readability indices will be computed and made available on the passage placemat for each passage, we believe that these indices measure different aspects of readability and can result in various interpretations. Because no readability formula is perfect, qualitative measures have been implemented to help determine placement and appropriateness for passages used in the Pennsylvania assessments. These measures include: 1) rubric-based qualitative evaluations, and 2) teacher content review committees to provide expert opinions on grade-level appropriateness as part of matching the reader to text and task considerations.

QUALITATIVE EVALUATION

Rubrics provide the qualitative measures for literary and informational passages. As indicated on these placemats, the quantitative measures suggest the appropriate grade band of the text, while the qualitative rubrics pinpoint the specific grade level. These rubrics provide a powerful and comprehensive way of evaluating a range of stimulus materials that cover the literary and informational scope outlined in the Pennsylvania Core Standards. Passages selected for the Pennsylvania assessments should have evidence of their complexity determination and grade-level placement, based on both quantitative and qualitative measures as specified above.

SCIENCE ASSESSMENT MEASURES

The PSSA science assessment has four reporting categories: Life Sciences and Environmental Literacy & Sustainability, Physical Sciences, Earth & Space Sciences, and Technology and Engineering. These four reporting categories are used in both grades five and eight. In addition to these reporting categories, there are additional Strands for each grade level. These Strands are listed below.

- Life Sciences and Environmental Literacy & Sustainability
    - Grade 5
        - From Molecules to Organisms: Structures and Processes
        - Ecosystems: Interactions, Energy, and Dynamics
        - Heredity: Inheritance and Variation of Traits
        - Biological Evolution: Unity and Diversity
        - Agricultural and Environmental Systems and Resources
        - Environmental Literacy Skills
        - Sustainability and Stewardship
    - Grade 8
        - Structure, Function, and Information Processing
        - Growth, Development, and Reproduction of Organisms
        - Matter and Energy in Organisms and Ecosystems
        - Interdependent Relationships in Ecosystems
        - Natural Selection and Adaptations
        - Natural Selection and Evolution
        - Agricultural and Environmental Systems and Resources
        - Environmental Literacy Skills
        - Sustainability and Stewardship
- Physical Sciences
    - Grade 5
        - Motion and Stability: Forces and Interactions
        - Energy
        - Waves and Their Applications in Technologies for Information Transfer
        - Matter and Its Interactions
    - Grade 8
        - Structure and Properties of Matter
        - Chemical Reactions
        - Forces and Interactions
        - Energy
        - Waves and Electromagnetic Radiation

- Earth & Space Sciences
    - Grade 5
        - Earth and Human Activity
        - Earth's Place in the Universe
        - Earth's Systems
    - Grade 8
        - Space Systems
        - History of Earth
        - Earth's Systems
        - Weather and Climate
        - Human Impacts
- Technology and Engineering
    - Grade 5
        - Applying, Maintaining, and Assessing Technological Products and Systems
        - Impacts of Technology
        - Nature and Characteristics of Technology and Engineering
        - Influence of Society on Technological Development
        - Core Concepts of Technology and Engineering
        - Design in Technology and Engineering Education
        - Integration of Knowledge, Technologies, and Practices
        - History of Technology
    - Grade 8
        - Applying, Maintaining, Assessing, and Evaluating Technological Products and Systems
        - Design Thinking in Technology and Engineering Education
        - Integration of Knowledge, Technologies, and Practices
        - Nature and Characteristics of Technology and Engineering

The science assessment employs three types of test items: multiple-choice, technology-enhanced, and open-ended. These item types assess different levels of knowledge and provide different kinds of information about science achievement. The design of the PSSA for science achieves a reasonable balance between the two item types. Concepts include

SCIENCE MULTIPLE-CHOICE ITEMS

The majority of the science items included on the PSSA are multiple-choice (selected-response) items, either as standalone multiple-choice items or as scenario-based multiple-choice items. (Scenario-based multiple-choice items are found in Grade 8 only.) Multiple-choice items are especially efficient for measuring a broad range of content. In the PSSA science assessment, each multiple-choice item has four response options, only one of which is correct. The student is awarded one point for choosing the correct response. Distractors typically represent incorrect concepts, incorrect logic, or incorrect application of a scientific principle.

Multiple-choice items are used to assess a variety of skill levels, from short-term recall of facts to the application of science content. PSSA items involving application emphasize the requirement to utilize science content to find an answer rather than simply recalling information from memory.

TECHNOLOGY-ENHANCED ITEMS

A small number of technology-enhanced items are included on the PSSA science assessment. Each TE is designed to elicit evidence of a broad range of student understanding. A student interacts with the enhanced features of these computer-delivered, auto-scorable (machine scored) test items to show an understanding of standards, skills, and concepts taught. These item types use specific enhancements to augment the user interface, such as interactive tables and diagrams, on-screen manipulatives, and selective-response generators (such as drop-down lists, hot spot, number line and coordinate graphing, data displays, and matching matrices).

OPEN-ENDED ITEMS FOR SCIENCE

At all grades, standalone open-ended science items require students to read a description of a scientific problem and to develop an appropriate solution. Standalone open-ended items require about five minutes per task.

Open-ended tasks are especially useful for measuring students' skills in science. These tasks may present real-life situations that require students to solve problems using science abilities learned in the classroom. Students must read a task carefully, identify the necessary information, devise a method of solution, enter the solution directly into the answer document, and when required, offer an explanation. This provides insight into students' science knowledge, abilities, and reasoning processes.

The open-ended science items are scored on a 0–3-point scale with an item-specific scoring guideline, and each task is carefully constructed with a scoring guideline reflecting the task requirements. The general guidelines describe a hierarchy of responses, which represent the three score levels. Each item-specific scoring guideline outlines the requirements at each score point, and each item-specific scoring guideline is based on the "Science Scoring Guidelines for Open-Ended Items." See Appendix A or the *Science Item and Scoring Samplers* available on the PDE website.

SCIENCE SCENARIOS

In addition to standalone multiple-choice and open-ended items, the science assessment may include scenarios at both grades 5 and 8. In consideration of the multidisciplinary and interdisciplinary nature of the STEELS standards, science scenarios create stronger connections between the various reporting categories and the items associated with a scenario. As a result, science scenarios allow the assessment to efficiently address and utilize the connections among the science standards. A science scenario contains text, graphics, charts, and/or tables and uses these elements to describe the results of a class project, an experiment, or other similar research. Students use the information found in a science scenario as a platform from which to answer questions. Scenarios and questions reach beyond simple fact recollection; they are designed to challenge students to think and to apply the knowledge and skills learned in their classrooms. Scenarios are designed to reflect multi-dimensional classroom activities that incorporate higher cognitive levels of understanding. Science scenarios challenge students to interpret stimulus content and to apply existing knowledge to new data, while using science knowledge and process skills to arrive at their answers.

CHAPTER THREE: ITEM DEVELOPMENT PROCESS

The core portion of the 2025 PSSA operational administration is made up of items that were field-tested primarily in the 2024 PSSA administration. Therefore, the activities that led to the 2025 PSSA operational administration began with the development of the test items that appeared in the field-test portion of the 2024 operational administration. In turn, items that appeared on the field-test portion of the 2024 operational administration were developed during and prior to 2024. (See Table 3–1 for a graphic representation of the basic process flow and overlap of the development cycles.)

Table 3–1. General Development Timeline Pattern of the PSSA

Operational Admin Year	2018	2019	2021	2022	2023	2024	2025
2021	Initial Item Dev →	Field Test →	Operational Core Admin	Core Overlap	N/A	N/A	N/A
2022	N/A	Initial Item Dev →	Field Test →	Operational Core Admin	Core Overlap	N/A	N/A
2023	N/A	N/A	Initial Item Dev →	Field Test →	Operational Core Admin	Core Overlap	N/A
2024	N/A	N/A	N/A	Initial Item Dev →	Field Test →	Operational Core Admin	Core Overlap
2025	N/A	N/A	N/A	N/A	Initial Item Dev →	Field Test →	Operational Core Admin

Table 3–2. General Timeline Associated with 2013 and 2014 Field Test and 2015–2025 Operational Assessment of ELA and Mathematics at Grades 3, 4, 5, 6, 7, and 8

Time Frame	Assessment	Activity
January 2012–July 2012	’13 FT for ’15 OP	Item development for items to embed in 2013 operational test (Grades 3–5 only)
July 2012	’13 FT for ’15 OP	Item review for the embedded field test in 2013 operational assessment (Grades 3–5 only)
September 2012–January 2013	’13 OP & ’13 FT for ’15 OP	Forms construction for 2013 operational assessment with embedded field test (Grades 3–5 only)
January 2013–June 2013	’14 FT for ’15 OP	Item development for items to embed on 2014 operational assessment
February 2013	’13 FT for ’15 OP	2013 standalone field test for ELA: Writing Grades 3–5
March 2013–May 2013	’13 FT for ’15 OP	2013 embedded field test in 2013 operational test (Grades 3–5 only)
June 2013	’14 FT for ’15 OP	Item review for the embedded field test in 2014 operational assessment
July 2013	’13 FT for ’15 OP	Statistical review of 2013 field-tested items (Grades 3–5 only)
September 2013–January 2014	’14 OP & ’14 FT for ’15 OP	Forms construction for 2014 operational assessment
January 2014–July 2014	’15 FT for ’16 OP	Item development for items to embed in 2015 operational test
February 2014	’14 FT for ’15 OP	2014 standalone field test for ELA: Writing Grades 6–8
April 2014–May 2014	’14 OP & ’14 FT for ’15 OP	2014 embedded field test in 2014 operational assessment
June 2014	’15 FT for ’16 OP	Item review for the embedded field test in 2015 operational assessment
July 2014	’14 FT for ’15 OP	Statistical review of 2014 field-tested items
September 2014–January 2015	’15 OP & ’15 FT for ’16 OP	Forms construction for 2015 operational assessment
April 2015–May 2015	’15 OP & ’15 FT for ’16 OP	2015 operational assessment
January 2015–July 2015	’15 FT for ’16 OP	Item development for items to embed in 2016 operational test
April 2015–May 2015	’14 OP & ’14 FT for ’15 OP	2015 embedded field test in 2015 operational assessment
June 2015	’15 FT for ’16 OP	Item review for the embedded field test in 2016 operational assessment
July 2015	’14 FT for ’15 OP	Statistical review of 2015 field-tested items
September 2015–January 2016	’16 OP & ’16 FT for ’17 OP	Forms construction for 2016 operational assessment
April 2016–May 2016	’16 OP & ’16 FT for ’17 OP	2016 operational assessment
January 2016–July 2016	’17 FT for ’18 OP	Item development for items to embed in 2017 operational test
April 2016–May 2016	’15 OP & ’15 FT for ’16 OP	2016 embedded field test in 2016 operational assessment
June 2016	’16 FT for ’17 OP	Item review for the embedded field test in 2017 operational assessment
July 2016	’15 FT for ’16 OP	Statistical review of 2016 field-tested items
September 2016–January 2017	’17 OP & ’17 FT for ’18 OP	Forms construction for 2017 operational assessment
April 2017–May 2017	’17 OP & ’17 FT for ’18 OP	2017 operational assessment
January 2017–July 2017	’17 FT for ’18 OP	Item development for items to embed in 2018 operational test
April 2017–May 2017	’16 OP & ’16 FT for ’17 OP	2017 embedded field test in 2017 operational assessment
June 2017	’17 FT for ’18 OP	Item review for the embedded field test in 2018 operational assessment
July 2017	’16 FT for ’17 OP	Statistical review of 2017 field-tested items

Table 3–2 (continued). General Timeline Associated with 2013 and 2014 Field Test and 2015–2025 Operational Assessment of ELA and Mathematics at Grades 3, 4, 5, 6, 7, and 8

Time Frame	Assessment	Activity
September 2017–January 2018	’18 OP & ’18 FT for ’19 OP	Forms construction for 2018 operational assessment
April 2018–May 2018	’18 OP & ’18 FT for ’19 OP	2018 operational assessment
January 2018–July 2018	’18 FT for ’19 OP	Item development for items to embed in 2019 operational test
April 2018–May 2018	’18 OP & ’18 FT for ’19 OP	2018 embedded field test in 2018 operational assessment
June 2018	’18 FT for ’19 OP	Item review for the embedded field test in 2019 operational assessment
July 2018	’17 FT for ’18 OP	Statistical review of 2018 field-tested items
September 2018–January 2019	’18 OP & ’18 FT for ’19 OP	Forms construction for 2019 operational assessment
April 2019–May 2019	’18 OP & ’18 FT for ’19 OP	2019 operational assessment
January 2019–July 2019	’19 FT for ’21 OP	Item development for items to embed in 2021 operational test
April 2019–May 2019	’19 OP & ’19 FT for ’21 OP	2019 embedded field test in 2019 operational assessment
June 2019	’19 FT for ’21 OP	Item review for the embedded field test in 2021 operational assessment
July 2019	’19 FT for ’21 OP	Statistical review of 2019 field-tested items
September 2019–January 2021	’19 OP & ’19 FT for ’21 OP	Forms construction for 2021 operational assessment
April 2021–September 2021	’19 OP & ’19 FT for ’21 OP	2021 operational assessment
January 2021–July 2021	’21 FT for ’22 OP	Item development for items to embed in 2022 operational test
April 2021–May 2021	’21 OP & ’21 FT for ’22 OP	2021 embedded field test in 2021 operational assessment
June 2021	’21 FT for ’22 OP	Item review for the embedded field test in 2022 operational assessment
July 2021	’21 FT for ’22 OP	Statistical review of 2021 field-tested items
September 2021–January 2022	’22 OP & ’22 FT for ’23 OP	Forms construction for 2022 operational assessment
April 2022–September 2022	’22 OP & ’22 FT for ’23 OP	2022 operational assessment
January 2022–July 2022	’22 FT for ’23 OP	Item development for items to embed in 2023 operational test
April 2022–May 2022	’22 OP & ’22 FT for ’23 OP	2022 embedded field test in 2022 operational assessment
June 2022	’22 FT for ’23 OP	Item review for the embedded field test in 2023 operational assessment
July 2022	’22 FT for ’23 OP	Statistical review of 2022 field-tested items
September 2022–January 2023	’23 OP & ’23 FT for ’24 OP	Forms construction for 2023 operational assessment
April 2023–September 2023	’23 OP & ’23 FT for ’24 OP	2023 operational assessment
January 2023–July 2023	’23 FT for ’24 OP	Item development for items to embed in 2024 operational test
April 2023–May 2023	’23 OP & ’23 FT for ’24 OP	2023 embedded field test in 2023 operational assessment
June 2023	’23 FT for ’24 OP	Item review for the embedded field test in 2024 operational assessment
July 2023	’23 FT for ’24 OP	Statistical review of 2023 field-tested items
September 2023–January 2024	’24 OP & ’24 FT for ’25 OP	Forms construction for 2024 operational assessment
April 2024–September 2024	’24 OP & ’24 FT for ’25 OP	2024 operational assessment
January 2024–July 2024	’24 FT for ’25 OP	Item development for items to embed in 2025 operational ELA and math tests and for the science stand-alone field test

Table 3–2 (continued). General Timeline Associated with 2013 and 2014 Field Test and 2015–2025 Operational Assessment of ELA and Mathematics at Grades 3, 4, 5, 6, 7, and 8

Time Frame	Assessment	Activity
April 2024–May 2024	’24 OP & ’24 FT for ’25 OP	2024 embedded field test in 2025 operational ELA and math assessments
June 2024	’25 FT for ’26 OP	Item review for the embedded ELA and math field tests in 2025 operational assessment and for the science stand-alone field test
July 2024	’24 FT for ’25 OP	Statistical review of 2024 field-tested items
September 2024–January 2025	’25 OP & ’25 FT for ’26 OP	Forms construction for 2025 operational ELA and math assessments and for the science stand-alone field test
April 2025–September 2025	’25 OP & ’25 FT for ’26 OP	2025 operational and stand-alone field test assessments

Table 3–3. Participating Districts by Region

Region of Commonwealth	School District
Western	Athens Area, Grove City Area, Penn Hills, Pittsburgh Public Schools
Central	Manheim Township, Newport, State College Area, West Shore, Wilkes-Barre Area
Eastern	Haverford Township, Lower Merion, Mid-Valley, Philadelphia City SD, Upper Merion

PROCESS AND PROCEDURES FOR THE 2006 ITEM PILOT

Two parallel forms of the science assessment were designed for each grade level, with a designated administration time of thirty minutes. No attempt was made to replicate the design of a PSSA science operational test for the cognitive lab or pilot test because of testing-time limitations and the objectives of this study. The items were representative of items from each of the proposed PSSA’s four reporting categories (i.e., The Nature of Science, Biological Sciences, Physical Sciences, and Earth and Space Sciences). All test items were approved by PDE before inclusion in the PSSA Science Item Tryout Project.

In Grade 4, each form of the test consisted of ten multiple-choice items, 70 percent of which included graphs, graphics, charts, or tables with relevant information associated with the item. All four reporting strands were assessed in each Grade 4 test form. In Grades 8 and 11, age/grade-appropriate science scenarios were developed. The scenarios included graphics, charts, tables, graphs, and diagrams to support the scenario text. A set of test items associated with each science scenario was developed. In Grade 8, each test form included items from all four reporting strands. In Grade 11, scenarios in test Form A assessed the biological, earth and space, and nature of science reporting strands, while test Form B assessed the physical, earth and space, and nature of science reporting strands.

Scenarios and questions reached beyond simple fact recollection; they were designed to challenge students to think and to apply knowledge and skills learned in their classrooms. The science scenarios were based on Pennsylvania Assessment Anchors and Eligible Content. Scenarios were designed to reflect multi-dimensional classroom activities that incorporate higher cognitive levels of understanding. Each scenario was stimulus-based and included passages with graphics, charts, graphs, or a combination of all three media. Science scenarios challenged students to interpret passage content while using science knowledge and process skills to determine their answers.

IMPLEMENTATION AND TEST ADMINISTRATION FOR 2006 ITEM PILOT

Two classrooms within one geographic region participated in the project each day. At least two test development specialists were present at all but one school district during the pilot study project sessions; in addition, representatives from PDE attended most sessions. The PSSA Science Item Tryout Project field work occurred during a three-week window, beginning on February 27 and concluding on March 16.

TEST DEVELOPMENT CONSIDERATIONS: ALL ASSESSMENTS

The major considerations in the item development process were the alignment to the Pennsylvania Core Standards-aligned Assessment Anchors and Eligible Content (mathematics and ELA), alignment to the Pennsylvania STEELS standards (science only), grade-level appropriateness (reading/interest level, etc.), depth of knowledge, cognitive level, item/task level of complexity, estimated difficulty level, relevancy of context, rationale for distractors, style, accuracy, and correct terminology. The *Standards for Educational and Psychological Testing* (AERA, APA, NCME, 2014) and the *Principles of Universal Design* (Thompson, Johnstone, & Thurlow, 2002) guided the development process. In addition, DRC's manual, *Fairness in Testing: Guidelines for Training on Bias, Fairness, and Sensitivity Issues* was used for developing items. All items were reviewed for fairness by bias and sensitivity committees and for content by Pennsylvania educators and field-specialists. Items were also reviewed for adherence to the Principles of Universal Design by representatives from the National Center for Educational Outcomes (NCEO). In addition, the items were reviewed for adherence to the guidelines outlined in the Pennsylvania publication *Principles, Guidelines and Procedures for Developing Fair Assessment Systems: Pennsylvania Assessment Through Themes* (PATT).

BIAS, FAIRNESS, AND SENSITIVITY: ALL ASSESSMENTS

At every stage of the item and test development process, DRC employs procedures that are designed to ensure that items and tests met Standard 7.4 of the Standards for Educational and Psychological Testing (AERA, APA, NCME, 2014).

> *Standard 7.4: Test developers should strive to identify and eliminate language, symbols, words, phrases, and content that are generally regarded as offensive by members of racial, ethnic, gender, or other groups, except when judged to be necessary for adequate representation of the domain.*

To meet Standard 7.4, DRC employs a series of internal quality steps. DRC provides specific training for test developers, item writers, and reviewers on how to write, review, revise, and edit items for issues of bias, fairness, and sensitivity (as well as for technical quality). Training also includes an awareness of and sensitivity to issues of cultural diversity. In addition to providing *internal* training in reviewing items in order to eliminate potential bias, DRC also provides *external* training to the review panels of minority experts, teachers, and other stakeholders.

DRC's guidelines for bias, fairness, and sensitivity include instruction concerning how to eliminate language, symbols, words, phrases, and content that might be considered offensive by members of racial, ethnic, gender, or other groups. Areas of bias that are specifically targeted include, but are not limited to, stereotyping, gender, regional/geographic, ethnic/cultural, socioeconomic/class, religious, and biases against a particular age group (ageism) or persons with disabilities. DRC catalogues topics that should be avoided and maintains balance in gender and ethnic emphasis within the pool of available items and passages.

UNIVERSAL DESIGN: ALL ASSESSMENTS

As stated above, the Principles of Universal Design were incorporated throughout the item development process to allow participation of the widest possible range of students in the PSSA. The following checklist was used as a guideline:

- Items measure what they are intended to measure.
- Items respect the diversity of the assessment population.
- Items have a clear format for text.
- Stimuli and items have clear pictures and graphics.
- Items have concise and readable text.
- Items allow changes to other formats, such as Braille, without changing meaning or difficulty.
- The arrangement of the items on the test has an overall appearance that is clean and well organized.

A more extensive description of the application of the Principles of Universal Design is described in Chapter Four.

DEPTH OF KNOWLEDGE: ALL ASSESSMENTS

An important element in statewide assessment is the alignment between the overall assessment system and the state's standards. A methodology developed by Norman Webb (1999) offers a comprehensive model that can be applied to a wide variety of contexts. With regard to the alignment between standards statements and the assessment instruments, Webb's criteria include five categories, one of which deals with content. Within the content category is a useful set of levels for evaluating depth of knowledge (DOK). According to Webb (1999), "depth-of-knowledge consistency between standards and assessments indicates alignment if what is elicited from students on the assessment is as demanding cognitively as what students are expected to know and do as stated in the standards" (p. 7–8). The four levels of cognitive complexity (i.e., depths of knowledge) are as follows:

- Level 1: Recall
- Level 2: Application of Skill/Concept
- Level 3: Strategic Thinking
- Level 4: Extended Thinking

Depth-of-knowledge levels were incorporated in the item writing and review process, and items were coded with respect to the level they represented. Generally, multiple-choice items are written to DOK levels 1 and 2, evidence-based selected-response items are written to DOK levels 2 and 3, and constructed-response items are written to DOK level 3.

PASSAGE READABILITY

Evaluating the readability of a passage is essentially a judgmental process by individuals familiar with the classroom context and what is linguistically appropriate at a given grade level as described in the section on reading passage selection later in this chapter. Although various readability indices were computed and reviewed, it is recognized that such methods measure different aspects of readability and are often fraught with particular interpretive liabilities. Thus, the commonly available readability formulas were not used in a rigid way, but more informally to provide for several snapshots of a passage that senior test development staff considered along with experience-based judgments in guiding the passage selection process. In addition, passages were reviewed by committees of Pennsylvania educators who evaluated each passage for readability and grade-level appropriateness.

TEST ITEM READABILITY: ALL ASSESSMENTS

Careful attention was given to the readability of the items to make certain that the assessment focus of the item did not shift based on the difficulty of reading the item. Subject areas such as mathematics or science contain many content-specific vocabulary terms. As a result, readability formulas were not used. However, wherever it was practicable and reasonable, every effort was made to keep the vocabulary one grade level below the tested grade level for non-reading tests. There was a conscious consideration made to ensure that each test question was evaluating a student's ability to build toward mastery of the mathematics standards or the science standards versus the student's reading ability. Resources used to verify the vocabulary level were the *EDL Core Vocabularies* and the *Children's Writer's Word Book.*

In addition, every test question is brought before several different committees comprised of grade-level experts in the field of mathematics education and science education. They review each question from the perspective of the students they teach, and they determine the validity of the vocabulary used and work to minimize the level of reading required.

Vocabulary was also addressed at the Bias, Fairness, and Sensitivity Review, although the focus was on how certain words or phrases may represent a possible source of bias or issue of fairness or sensitivity.

TEST DEVELOPMENT PROCESS: ALL ASSESSMENTS

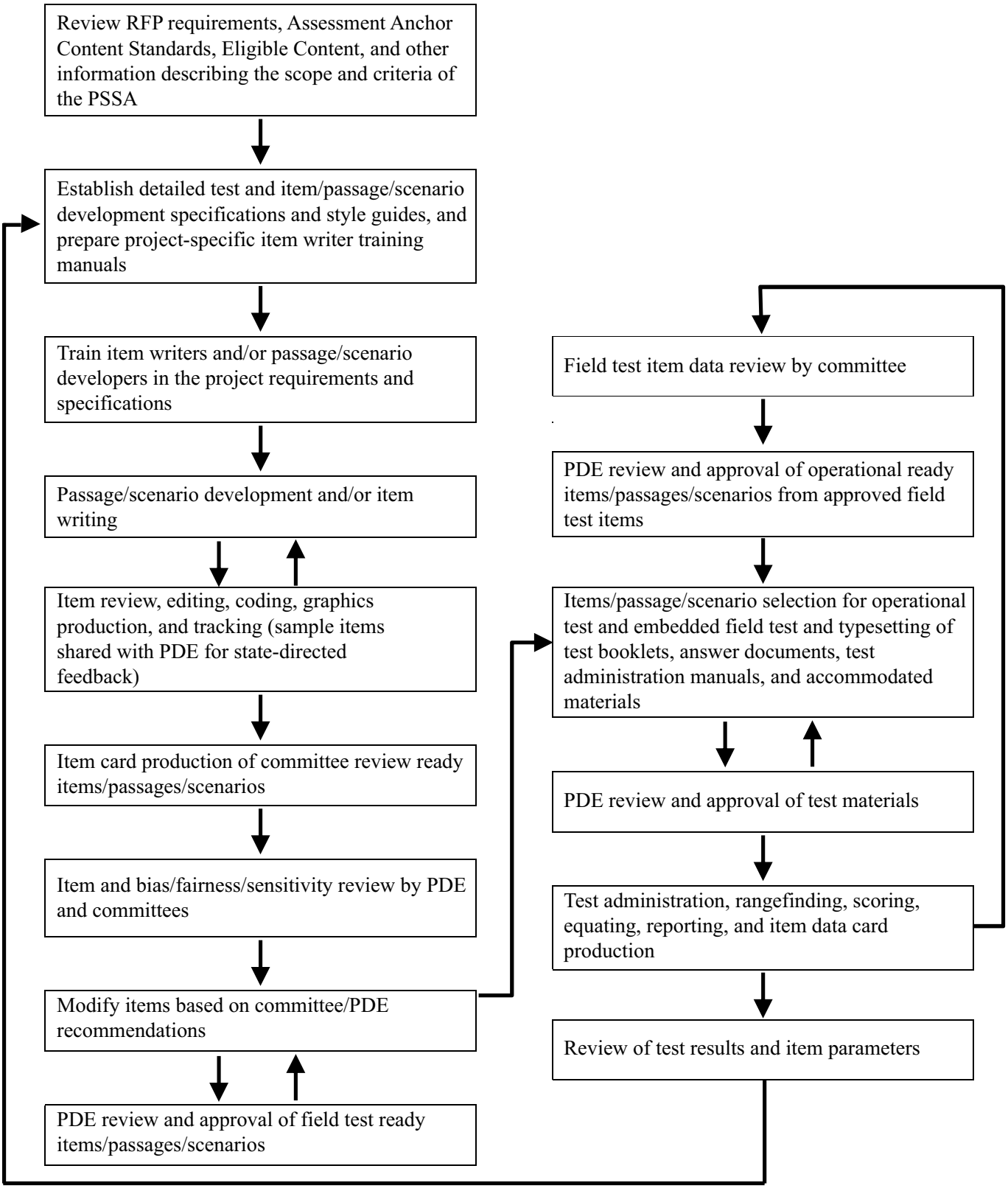
The test development process for passages, scenarios, and items followed a logical timeline, which is outlined below in Table 3–4. On the front end of the schedule, tasks were generally completed with the goal of presenting field-test candidate items to committees of Pennsylvania educators. On the back-end of the schedule, all tasks lead to the field-test data review.

Table 3–4. Item and Test Development Cycle and Timeline

Steps in Development Cycle	Timeline Before/After New Item Review		
Development planning	Fall	⇩	-12 to -9 months
Reading passage selection	Fall	⇩	-12 to -9 months
Item writer training	Fall/Winter	⇩	-9 months
Initial item authoring	Winter/Spring	⇩	-9 to -4 months
Internal reviews and PDE reviews	Spring/Summer	⇳	-8 to -1 month
Bias, Fairness, and Sensitivity Review	Summer/Fall	⇩	+/- 0 months
New Item Content Review	Summer/Fall	⇨	+/- 0 months
Post-review resolution and clean-up	Summer/Fall	⇩	+1 to +2 months
Build test forms	Fall	⇩	+2 to +4 months
Internal form reviews and PDE reviews	Fall/Winter	⇳	+3 to +4 months
Form printing, packaging, and shipping	Winter/Spring	⇩	+4 to +8 months
Test administration	Spring	⇩	+9 months
Material/data processing, rangefinding, and scoring	Spring/Summer	⇩	+10 to +12 months
Field-Test Item Data Review	Summer	⇨	+12 months
Select operational items	Summer/Fall	⇩	+13 to +15 months

The process flowchart in Figure 3–1 illustrates the interrelationship among the steps in the process that occur in a normal year of development (i.e., when the items for field testing are primarily from new development, as opposed to being selected from an existing item bank). In addition, a detailed process table describing the item and test development processes also appears in Appendix C.

Figure 3–1. DRC Item and Test Development Process



The following paragraphs describe the processes which lead up to the operational test in a normal round of development. These processes were used to develop field-test items used as operational items for all administrations.

ITEM DEVELOPMENT PLANNING MEETING: ALL ASSESSMENTS

Prior to the start of any item development work, DRC's test development staff meets with PDE's assessment office to discuss the test development plans for the next PSSA administration, including the test blueprint, the field-test plan (including development counts), procedures, timelines, etc. With a complete development cycle lasting several years (from item authoring through field test, data review, and operational usage), the initial planning begins well in advance of the anticipated administration. For the 2025 operational administration, the initial planning meeting for the item authoring process for the 2024 field test occurred in fall 2022. Item authoring began early in 2023, with the item review meetings occurring in June 2023. See Table 3–2.

ITEM WRITER TRAINING: ALL ASSESSMENTS

Item writers were selected and trained for the content areas of mathematics, English language arts, and science. Qualified writers were college graduates with teaching experience and a demonstrated base of knowledge in the content area. Many of these writers were content assessment specialists and curriculum specialists. The writers were trained individually and had previous experience in writing selected-response and constructed-response items. Prior to developing items for the PSSA, the cadre of item writers was trained with regard to the following:

- Pennsylvania Core Standards, Assessment Anchors, and Eligible Content (mathematics and ELA)
- Pennsylvania Academic Standards, Assessment Anchors, and Eligible Content (science)
- Webb's Four Levels of Cognitive Complexity: Recall, Basic Application of Skill/Concept, Strategic Thinking, and Extended Thinking
- General Scoring Guidelines for Each Content Area
- Specific and General Guidelines for Item Writing
- Bias, Fairness, and Sensitivity Guidelines
- Principles of Universal Design
- Item Quality Technical Style Guidelines
- Reference Information
- Sample Items

READING PASSAGE SELECTION

The task of searching for passages was conducted by DRC professionals with classroom experience in reading/language arts. These professionals also underwent specialized training (provided by DRC) in the characteristics of acceptable passages. Guidelines for passage selection included appropriate length, text structure, density, and vocabulary for the grade level. A judgment was also made about whether the reading level required by a particular passage was at the independent level, that is, where the average student should be able to read 90 percent of words in the text independently. Passage finders were given the charge to search for a specified number of passages for each genre. Generally, at least twice as many passages as needed were sought. Most passages acquired for the 2022 field test were authentic in that they were culled from published materials. Approval to reprint was secured from the publishers as necessary. Passages underwent an internal review by several test development content editors to judge their merit with regard to the following criteria:

- Passages have interest value for students.
- Passages are grade-appropriate in terms of text complexity, vocabulary, and language characteristics.
- Passages are free of bias, fairness, and sensitivity issues.
- Passages represent different cultures.
- Passages are from a variety of sources.
- Passages are able to stand the test of time.
- Passages are sufficiently rich to generate a variety of SR and CR items.
- Passages are complete with all necessary permissions documentation.
- Passages avoid dated subject matter unless a relevant historical context is provided.
- Passages should not require students to have extensive background knowledge in a certain discipline or area to understand a text.

Once through the internal review process, those passages deemed potentially acceptable were reviewed by the Reading Content Committee and Bias, Fairness, and Sensitivity Committee for final approval.

ITEM AUTHORING AND TRACKING: ALL ASSESSMENTS

Initially, items are generated with software-prepared PSSA Item Cards, which allows for preliminary sorting and reviewing. Although very similar, the PSSA Item Card for Multiple-Choice Items differs from the PSSA Item Card for Evidence-Based Selected-Response Items and the PSSA Item Card for Constructed-response Items in that the former has a location at the bottom of the card for comments regarding the distractors. Examples of these three cards are shown in Appendix D. In both instances a column against the right margin includes codes to identify the subject area, grade level, content categories, passage information (in the case of reading), item type, depth of knowledge (cognitive complexity), estimated difficulty, answer key (for MC items), and calculator use (for mathematics items).

All items undergoing field testing were entered into the DRC Item Development and Educational Assessment System (IDEAS), which is a comprehensive, secure, online item banking system. It accommodates item writing, item viewing and reviewing, and item tracking and versioning. IDEAS manages the transition of an item from its developmental stage to its approval for use within a test form. The system supports an extensive item history that includes item usage within a form, item-level notes, content categories and subcategories, item statistics from both classical and Rasch item analyses, and classifications derived from analyses of differential item functioning (DIF). A sample IDEAS Data Card is presented in Appendix D.

INTERNAL REVIEWS AND PDE REVIEWS: ALL ASSESSMENTS

To ensure that the items produced were sufficient in number and adequately distributed across subcategories and levels of difficulty, item writers were informed of the required quantities of items. As items were written, an item authoring card was completed. It contained information about the item, such as grade level, content category, and subcategories. Based on the item writer's classroom teaching experience, knowledge of the content area curriculum, and cognitive demands required by the item, estimates were recorded for level of cognitive complexity and difficulty level. Items were written to provide for a range of difficulty.

As part of the item construction process, each item was reviewed by content specialists and editors at DRC. Content specialists and editors evaluated each item to make sure that it measured the intended Eligible Content and/or Assessment Anchor Content Standard. They also assessed each item to make certain that it was appropriate for the intended grade and that it provided and cued only one correct answer (MC items only). In addition, the difficulty level, depth of knowledge, graphics, language demand, and distractors were also evaluated. Other elements considered in this process included, but were not limited to, Universal Design, bias, source of challenge, grammar/punctuation, and PSSA style.

Following this internal process, items were reviewed by content specialists at the Pennsylvania Department of Education. PDE staff then consulted with DRC about any general issues or concerns (e.g., style, format, interpretation of Assessment Anchors and Eligible Content) and about edits to specific items. Following PDE's review, the items were prepared for the content review meetings conducted with Pennsylvania educators.

ITEM CONTENT REVIEW IN SUMMER 2024: ALL ASSESSMENTS

Prior to field testing, all newly-developed test items were submitted to content committees for review. The content committees consisted of Pennsylvania educators from school districts throughout the Commonwealth of Pennsylvania, some with postsecondary university affiliations. The primary responsibility of the content committee was to evaluate items with regard to quality and content classification, including grade-level appropriateness, estimated difficulty, depth of knowledge, and source of challenge. With source of challenge, items are identified where the cognitive demand is focused on an unintended content, concept, or skill (Webb, 2002). In addition, source of challenge may be attributed if the reason that an answer could be given results from a cultural bias, an inappropriate reading level, or a flawed graphic in an item, or if an item requires specialized, non-content related knowledge to answer. Source of challenge could result in a student who has mastered the intended content or skill answering the item incorrectly or a student who has not mastered the intended content or skill answering the item correctly. Committee members were asked to note any items with a source of challenge and to suggest revisions to remove the source of challenge. They also suggested revisions and made recommendations for reclassification of items. In some cases when an item was deleted, the committee suggested a replacement item and/or reviewed a suggested replacement item provided by the facilitators. The committee also reviewed the items for adherence to the Principles of Universal Design, including language demand and issues of bias, fairness, and sensitivity.

The content review was held June 11-13, 2024, for science, June 11–13, 2024, for ELA, and June 25–28, 2024, for mathematics. Committee members were approved by PDE, and PDE-approved invitations were sent to them by DRC. PDE also selected internal staff members for attendance. The meeting commenced with a welcome by PDE and DRC. This was followed by an overview of the test development process by DRC. PDE, along with DRC, also provided training on the procedures and forms to be used for item content review.

DRC content assessment specialists facilitated the reviews and were assisted by representatives of PDE. Committee members, grouped by grade level and content area, worked through and reviewed the items for quality and content, as well as for the following categories:

- Assessment Anchor Alignment (classified as Full, Partial, or No)
- Content Limits (classified as Yes or No)
- Grade-Level Appropriateness (classified as At Grade Level, Below Grade Level, or Above Grade Level)
- Difficulty Level (classified as Easy, Medium, or Hard)
- Depth of Knowledge (classified as Recall, Application, Strategic Thinking)
- Appropriate Source of Challenge (classified as Yes or No)
- Correct Answer (classified as Yes or No)
- Quality of Distractors (classified as Yes or No)
- Graphics (classified as Yes or No) in regards to appropriateness
- Appropriate Language Demand (classified as Yes or No)
- Freedom from Bias (classified as Yes or No)

The members then came to a consensus and assigned a status to each item as a group: Approved, Accepted with Revision, or Rejected. All comments were recorded, and a master rating sheet was completed. Committee facilitators recorded the committee consensus on the Item Review Rating Sheet.

Security was addressed by adhering to a strict set of procedures. Items were displayed to committee members via online forms. Computers were assigned to each member on a daily basis. All attendees, with the exception of PDE staff, were required to sign a confidentiality agreement in advance of the committee.

BIAS, FAIRNESS, AND SENSITIVITY REVIEWS IN AUGUST 2024: ALL ASSESSMENTS

Prior to field testing, all newly-developed test items for English language arts, mathematics, and science were also submitted to a Bias, Fairness, and Sensitivity Committee for review. This took place from August 5-9, 2024. The committee's primary responsibility was to evaluate items with regard to bias, fairness, and sensitivity issues. They also made recommendations for changes to or deletion of items in order to remove the potential for issues of bias, fairness, and/or sensitivity. Included in the review were proposed reading passages. An expert, multi-ethnic committee composed of men and women was trained by a DRC test development lead to review items for bias, fairness, and sensitivity issues. Training materials included a manual developed by DRC (DRC, 2003–2016). Members of the committee also had expertise with students with special needs and English Learners. PDE staff members were also trained and participated in the review. All mathematics, English language arts, and science items were read by a cross-section of committee members. Each member noted bias, fairness, and/or sensitivity comments on tracking sheets and on the item, if needed for clarification. Committee members individually categorized any concerns as related to ageism, disability, ethnicity/culture, gender, region, religion, socioeconomic status, or stereotyping. These categories were then the framework through which recommendations for modification or rejection of items occurred during the subsequent committee consensus process. The committee then discussed each of the issues as a group and came to a consensus as to which issues should represent the view of the committee. All consensus comments were then compiled, and the suggested actions on these items were recorded and submitted to PDE. Table 3–5 shows the gender and race/ethnicity composition of the members of the bias committee who reviewed the PSSA items and passages.

Table 3–5. Demographic Composition of the 2024 Bias, Fairness, and Sensitivity Committee

Member #	Gender	Race/Ethnicity	Background
1.	Male	Caucasian American	Pennsylvania College Professor
2.	Female	Caucasian American	National Consultant
3.	Female	Caucasian American	National Consultant
4.	Male	Caucasian American	Pennsylvania Educator
5.	Female	Caucasian American	Pennsylvania Educator (SPED)
6.	Female	Hispanic American	Migrant Education Specialist
7.	Female	Hispanic American	National Consultant
8.	Female	African American	National Consultant (SPED)
9.	Male	African American	National Consultant
10.	Male	Asian American	National Consultant
11.	Female	Asian American	Pennsylvania Educator
12	Female	African American	Pennsylvania Educator
Totals	8 Females, 4 Males	2 Hispanic Americans, 5 Caucasian Americans, 3 African Americans, 2 Asian Americans	NA

The results from the Bias, Fairness, and Sensitivity Committee review of mathematics are summarized in Table 3–6.

Table 3–6. Number of Items—2024 Bias, Fairness, and Sensitivity Committee Review for Mathematics

Grade	Total items reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
3	72	68	4	0
4	72	58	14	0
5	72	62	9	0
6	72	61	10	0
7	72	59	13	0
8	72	66	6	0
Total	432	374	56	0

The results from the Bias, Fairness, and Sensitivity Committee review of ELA: Reading are summarized in Table 3–7.

Table 3–7. Number of Items—2024 Bias, Fairness, and Sensitivity Committee Review for ELA: Reading

Grade	Total passages reviewed per grade	Total items or prompts reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
3	11	188	187	1	0
4	12	179	163	0	16
5	12	185	168	3	15
6	12	188	187	1	0
7	11	85	68	2	15
8	12	196	180	0	16
Total	70	1,021	953	7	62

Table 3–8. Number of Items—2024 Bias, Fairness, and Sensitivity Committee Review for Science

Grade	Total items reviewed per grade	Accepted As Is	Accepted With Revision	Rejected
5	356	335	21	0
8	321	309	12	0
Total	677	644	33	0

CHAPTER FOUR: UNIVERSAL DESIGN PROCEDURES APPLIED IN THE PSSA TEST DEVELOPMENT PROCESS

Universally designed assessments allow participation of the widest possible range of students and contribute to valid inferences about participating students. Principles of Universal Design are based on the premise that each child in school is a part of the population to be tested and that testing results should not be affected by disability, gender, race, or English language ability (Thompson, Johnstone, & Thurlow, 2002). At every stage of the item and test development process, procedures were employed to ensure that items and subsequent tests were designed and developed using the elements of universally designed assessments developed by the National Center for Educational Outcomes (NCEO).

Federal legislation addresses the need for universally designed assessments. The No Child Left Behind Act (Elementary and Secondary Education Act) requires that each state must "provide for the participation in [statewide] assessments of all students" [Section 1111(b)(3)(C)(ix)(I)]. Both Title 1 and IDEA regulations call for universally designed assessments that are accessible and valid for all students, including students with disabilities and English Learners. The benefits of universally designed assessments not only apply to these groups of students, but to all individuals with wide-ranging characteristics.

DRC's test development team was trained in the elements of Universal Design as it relates to developing large-scale statewide assessments. Team leaders were trained directly by NCEO, and other team members were subsequently trained by team leaders. Committees involved in content review included some members who were familiar with the unique needs of students with disabilities and English Learners. Likewise, some members of the Bias, Fairness, and Sensitivity Committee were conversant with these issues. What follows are the Universal Design guidelines followed during all stages of the item development process for the PSSA.

ELEMENTS OF UNIVERSALLY DESIGNED ASSESSMENTS

After a review of research relevant to the assessment development process and the Principles of Universal Design (Center for Universal Design, 1997), NCEO has produced seven elements of Universal Design as they apply to assessments (Thompson, Johnstone, & Thurlow, 2002). These elements served to guide PSSA item development.

- **Inclusive Assessment Population**

  The PSSA target population includes all students at the assessed grades attending Commonwealth schools. For state, district, and school accountability purposes, the target population includes all students except those who will participate in accountability through an alternate assessment.

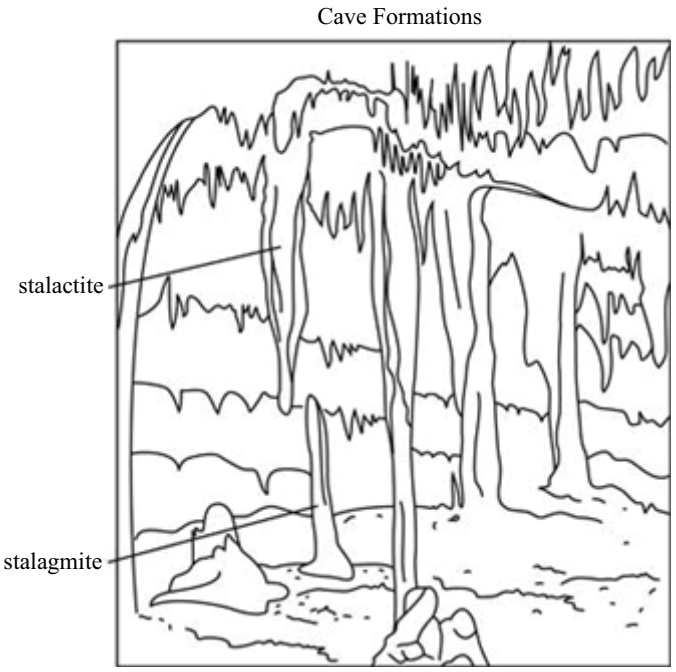
- **Precisely Defined Constructs**

  An important function of well-designed assessments is that they actually measure what they are intended to measure. The Pennsylvania Assessment Anchors and Eligible Content provided clear descriptions of the constructs to be measured by the PSSA at the assessed grade levels. Universally designed assessments must remove all non-construct-oriented cognitive, sensory, emotional, and physical barriers.

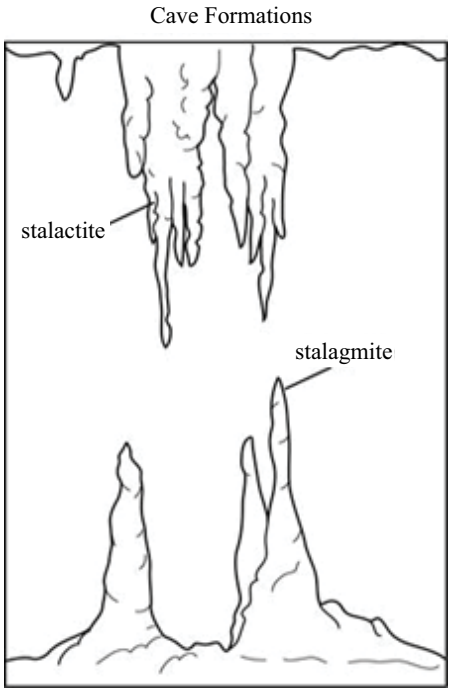
- **Accessible, Non-biased Items**

  DRC conducted both internal and external reviews of items and test specifications to ensure that they did not create barriers because of lack of sensitivity to disability, culture, or other subgroups. Items and test specifications were developed by a team of individuals who understand the varied characteristics of items that might create difficulties for any group of students. Accessibility is incorporated as a primary dimension of test specifications, so accessibility was woven into the fabric of the test rather than added after the fact. The following examples show two graphics with the same construct, example 1 being less accessible and example 2 being more accessible.

Example 1 – Less Accessible:



Example 2 – More Accessible:



- **Amenable to Accommodations**

  Even though items on universally designed assessments are accessible for most students, there are some students who continue to need accommodations. This essential element of a universally designed assessment requires that the test is compatible with accommodations and a variety of widely used adaptive equipment and assistive technology. (See the section on Assessment Accommodations later in Chapter Four.)

- **Simple, Clear, and Intuitive Instructions and Procedures**

  Assessment instructions should be easy to understand, regardless of a student's experience, knowledge, language skills, or current concentration level. Questions that are posed using complex language can invalidate the test if students cannot understand how they are expected to respond to a question. To meet this guideline, directions and questions were prepared in simple, clear, and understandable language that underwent multiple reviews.

- **Maximum Readability and Comprehensibility**

  A variety of guidelines exist to ensure the maximum readability and comprehensibility of a test. These features go beyond what is measured by readability formulas. Readability and comprehensibility are affected by many factors, including student background, sentence difficulty, text organization, and others. All of these features were considered as item text was developed.

  Plain language is a concept now being highlighted in research on assessments. Plain language has been defined as language that is straightforward and concise. The following strategies for editing text to produce plain language were used during the editing process of the new PSSA items:

  - Reduction of excessive length
  - Use of common words
  - Avoidance of ambiguous words
  - Avoidance of irregularly spelled words
  - Avoidance of proper names

- Avoidance of inconsistent naming and graphic conventions
- Avoidance of unclear signals about how to direct attention

- **Maximum Legibility**

  Legibility is the physical appearance of text, the way that the shapes of letters and numbers enable people to read text easily. Bias can result when tests contain physical features that interfere with a student's focus on or understanding of the constructs that test items are intended to assess. A style guide developed and updated annually (DRC, 2004–2013) was utilized, with PDE approval, which included dimensions of style consistent with universal design.

GUIDELINES FOR UNIVERSALLY DESIGNED ITEMS

All test items written and reviewed adhered closely to the following guidelines for Universal Design. Item writers and reviewers used a checklist during the item development process to ensure that each aspect was attended to. For more information on the checklist, see the Universal Design: All Assessments section in Chapter Three of this report.

1. **Items measure what they are intended to measure.** Item writing training included ensuring that writers and reviewers had a clear understanding of Pennsylvania's Core Standards (ELA and mathematics) or Academic Standards (science) and the Assessment Anchors. During all phases of test development, items were presented with content-standard information to ensure that each item reflected the intended Assessment Anchor. Careful consideration of the content standards was important in determining which skills involved in responding to an item were extraneous and which were relevant to what was being tested. In certain types of items an additional skill is necessary, such as the mathematics test, which requires the student to read.
2. **Items respect the diversity of the assessment population.** To develop items that avoid content that might unfairly advantage or disadvantage any student subgroup, item writers, test developers, and reviewers were trained to write and review items for issues of bias, fairness, and sensitivity. Training also included an awareness of, and sensitivity to, issues of cultural and regional diversity.
3. **Items have a clear format for text.** Decisions about how items are presented to students must allow for maximum readability for all students. Appropriate fonts and point sizes were employed with minimal use of italics, which is far less legible and is read considerably more slowly than standard typeface. Captions, footnotes, keys, and legends were at least a 12-point size.[1] Legibility was enhanced by sufficient spacing between letters, words, and lines. Blank space around paragraphs and between columns and staggered right margins were used.
4. **Stimuli and items have clear pictures and graphics.** When pictures and graphics were used, they were designed to provide essential information in a clear and uncluttered manner. Illustrations were placed directly next to the information to which they referred, and labels were used where possible. Sufficient contrast between background and text, with minimal use of shading, increased readability for students with visual impairments. Color was not used to convey important information.
5. **Items have concise and readable text.** Linguistic demands of stimuli and items can interfere with a student's ability to demonstrate knowledge of the construct being assessed. During item writing and review, the following guidelines were used.
   - Simple, clear, commonly-used words were used whenever possible.
   - Extraneous text was omitted.
   - Vocabulary and sentence complexity were appropriate for the grade level being assessed.
   - Technical terms and abbreviations were used only if they were related to the content being measured.
   - Definitions and examples were clear and understandable.
   - Idioms were avoided unless idiomatic speech was being assessed.
   - The questions to be answered were clearly identifiable.

[1] While font size follows specific requirements during online setup of an assessment, the screen resolution used at the local level can impact whether the effective font size is visible to the student.

6. **Items allow changes to format without changing meaning or difficulty.** A Braille version of the PSSA was available at each assessed grade. Attention was given to using items that allow for Braille. Specific accommodations were permitted, such as signing to a student, the use of oral presentation under specified conditions, and the use of various assistive technologies. Spanish versions of the PSSA mathematics and PSSA science tests were available for use by English Learners who would benefit from this accommodation. In the online format, permitted accommodations included text-to-speech audio, a color overlay, contrasting text options, and American Sign Language videos.
7. **The test has an overall appearance that is clean and organized.** Images, pictures, and text that may not be necessary (e.g., sidebars, overlays, callout boxes, visual crowding, shading) and that could be potentially distracting to students were avoided. Also avoided were purely decorative features that did not serve a purpose. Information was organized in a left-right, top-bottom format.

ITEM DEVELOPMENT

DRC worked closely with the Pennsylvania Department of Education to help ensure that PSSA tests complied with nationally recognized Principles of Universal Design. The implementation of accommodations on large-scale statewide assessments for students with disabilities was supported in the development of the PSSA. In addition to the Principles of Universal Design described in the Pennsylvania Technical Report, DRC applied to each content area assessment the standards for test accessibility described in *Tests Access: Making Tests Accessible for Students with Visual Impairments—A Guide for Test Publishers, Test Developers, and State Assessment Personnel* (Allman, 2004). To this end, DRC embraced the following precepts:

Test directions were carefully worded to allow for alternate responses to constructed-response (e.g., open-ended or short-answer) questions.

- During item and bias reviews, test committee members were made aware of the Principles of Universal Design and of issues that might adversely affect students with disabilities, with the goal of ensuring that PSSA tests were bias-free for all students.
- With the goal of ensuring that the PSSA tests are accessible to the widest range of diverse student populations, PDE instructed DRC to limit item types that were difficult to format in Braille and that might become distorted when published in large print. DRC was instructed to limit the following on the PSSA.
    - Mathematics: Complicated tessellations; charts or graphs that extended beyond one page
    - Reading: Graphics and illustrations that were not germane to the content presented
    - All content areas: Unnecessary boxes and framing of text, unless enclosing the text provided necessary context for the student; use of italics (limited to only when it was absolutely necessary, such as with variables)

ITEM FORMATTING

For all content areas, DRC formatted PSSA tests to maximize accessibility for all students by using text that was in a size and font style easily readable. DRC limited shading, graphics, charts, and the number of items per page so that there was sufficient white space on each page. Whenever possible, DRC ensured that graphics, pictures, diagrams, charts, and tables were positioned on the page with the associated test items. DRC used high contrast for text and background where possible to convey pertinent information. Tests were published on dull-finish paper to avoid the glare encountered on glossy paper. DRC paid close attention to the binding of the PSSA test booklets to ensure that they laid flat for two-page viewing and ease of reading and handling.

DRC ensured consistency across PSSA assessments by following these Principles of Universal Design:

- High contrast and clarity was used to convey detailed information.
- Typically, shading was avoided; when necessary for content purposes, 10 percent screens were used as the standard.
- Overlaid print on diagrams, charts, and graphs was avoided.
- Charts, graphs, diagrams, and tables were clearly labeled with titles and with short descriptions where applicable.
- Only relevant information was included in diagrams, pictures, and graphics.
- Symbols used in keys and legends were meaningful and provided reasonable representations of the topics they depicted.
- Pictures that required physical measurement were true to size.

ASSESSMENT ACCOMMODATIONS

While universally designed assessments provide for participation of the widest range of students, many students require accommodations in order to participate in the regular assessment. Clearly, the intent of providing accommodations for students is to ensure that students are not unfairly disadvantaged during testing and that the accommodations used during instruction, if appropriate, are made available as students take the test. The literature related to assessment accommodations is still evolving and often focuses on state policies regulating accommodations rather than on providing empirical data that supports the reliability and validity of the use of accommodations. On a yearly basis, the Pennsylvania Department of Education examines accommodations policies and current research to ensure that valid, acceptable accommodations are available for students. Accommodations manuals, *Accommodations Guidelines* and *Accommodations Guidelines for English Learners*, were developed for use with the PSSA. The PDE guideline manuals can be accessed by going to www.education.pa.gov.

In addition, Spanish-language versions, translated from the original English versions, were made available for both the mathematics and science PSSAs. The Spanish-translation versions are discussed in Chapter Six.

CHAPTER FIVE: EMBEDDED FIELD TEST

Every PSSA administration, field-test items are embedded in PSSA's operational forms. The main purposes of field-testing items prior to future operational use are (a) to calculate item statistics, (b) to determine whether items meet the criteria with respect to statistical properties for future operational use, and (c) to obtain item parameters for pre-equating purposes. In comparison to standalone field testing, embedded field testing allows for more accurate item statistics and item parameters by alleviating concerns of whether students may perceive differences between field-test and operational items. The embedded-field-test approach allows item parameters to be used for future pre-equating purposes and is based on the assumption that students should be equally motivated to take the operational and embedded field-test items, especially when they are not aware of which item is a field-test item. To minimize item context and item position effects (e.g., fatigue and lack of motivation), field-test items were interspersed within the operational sections. With this design, students have a lesser chance of knowing the field-test item positions.

The 2025 PSSA test forms contained common operational items that were identical on all forms along with embedded field-test items for mathematics and ELA. However for PSSA Science, 2025 was a stand-alone field test. As such results for PSSA Science are reported separately in Appendix U. In most instances, the field-test items were unique embedded items within a form; however, there were instances in which an embedded field-test item appeared on more than one form. More information on the field-test designs for all subjects can be found in the content-specific portions of Chapter Three. In general, the field test for each year represents approximately 50 to 70% of the following year's operational form. For example, items from the field test in 2018 represented about half of the operational form in 2019. This chapter presents information about the 2025 field test, including classical item analyses, differential item functioning (DIF) analyses, identification of items for data review, and outcomes from data review.

CLASSICAL ITEM ANALYSIS

Classical item analyses of field-test items are conducted in order to assess the quality of the field-test items and to identify items for data review. Specifically, item difficulty and item-total correlations (the relationship between answering an item correctly and total test score) are estimated for each item, for each option for selected-response (SR) items, and for each score point for multi-point items. SR items include multiple-choice (MC) items for ELA, mathematics, and science and evidence-based selected-response (EBSR) items and MC items for ELA. Technology enhanced (TE) items were first field tested in mathematics, science, and ELA. Mathematics, science and ELA conventions (writing) TE items are scored dichotomously (0/1), whereas ELA passage-based TE items are multi-point worth either 2 or 3 points, similar to EBSR items.

ITEM DIFFICULTY

At the most general level, an item's difficulty is indicated by its mean score in some specified group (e.g., grade level).

$$\bar{x} = \frac{1}{n} \cdot \sum_{i=1}^{n} x_i$$

In the mean score formula above, the individual item scores (x_i) are summed and then divided by the total number of students (n). For multiple-choice items, student scores are represented by 0s and 1s (0 = wrong, 1 = right). With 0–1 scoring, the equation above also represents the number of students correctly answering the item divided by the total number of students. Therefore, this is also the proportion correct for the item, or the p-value. In theory, p-values can range from 0.00[1] to 1.00 on the proportion-correct scale. For example, if an item has a p-value of 0.89, it means 89 percent of the students answered the item correctly. Additionally, this value might also suggest that the item was relatively easy and/or that the students who attempted the item were relatively high achievers. In other words, item difficulty and student ability are somewhat confounded.

[1] For MC items with four response options, pure random guessing would lead to an expected p-value of 0.25.

For open-ended (OE) items, mean scores can range from the minimum possible score (usually zero) to the maximum possible score (e.g., four points in the case of some mathematics, ELA, and science items). Sometimes a pseudo *p*-value is provided for an OE item. This is done by dividing the mean item score by the maximum possible item score.

The minimum and maximum extremes of the difficulty scale are typically not seen in applied practice. However, understanding the extremes helps illustrate that relatively lower values correspond to more difficult items and that relatively higher values correspond to easier items. (As a result, some assert that this index would be more accurately referred to as the item's easiness.)

Item difficulty is an important consideration for the PSSA tests because of the range of achievement levels of students in Pennsylvania (Below Basic, Basic, Proficient, and Advanced). Items that are either very hard or very easy provide little information about student differences in achievement. However, an item answered correctly by a high percentage of students would suggest that the knowledge or skill the item taps has been mastered by most students. Conversely, an item answered incorrectly by a high percentage of students would suggest few students have mastered the knowledge or skill the item taps. On a standards-referenced test like the PSSA, a test development goal is to include a wide range of item difficulties.

ITEM DISCRIMINATION

At the most general level, item discrimination[2] indicates an item's ability to differentiate between high and low achievers. It is expected that students with high ability (i.e., those who perform well on the PSSA overall) would be more likely to answer any given PSSA item correctly, while students with low ability (i.e., those who perform poorly on the PSSA overall) would be less likely to answer the same item correctly. For the PSSA tests, Pearson's product-moment correlation coefficient between item scores and test scores is used to indicate discrimination. (As commonly practiced, DRC removes the item score from the total score such that the resulting correlations will not be spuriously high.) The correlation coefficient can range from -1.0 to +1.0. If this expectation is met (i.e., high-ability students tend to answer the item correctly while low-ability students answer the item incorrectly), the correlation between the item score and the total test score will be both positive and noticeably large in its magnitude (i.e., well above zero), meaning the item is a good discriminator between high- and low-ability students. This should be the case for all PSSA operational test items.

In summary, the correlation will be positive in value when the mean test score of the students answering the item correctly is higher than the mean test score of the students answering the item incorrectly.[3] In other words, the relationship between student test performance and item performance is expected to be consistent. However, an interaction can exist between item discrimination and item difficulty. Items answered correctly (or incorrectly) by a large proportion of examinees (i.e., the items have extreme *p*-values) can have reduced power to discriminate, and thus, can have lower correlations.

CLASSICAL ITEM ANALYSIS RESULTS

Table 5–1 provides the summary statistics for the difficulty and discrimination for the 2025 field-test items with respect to subject, grade, and item type (see Chapter Eleven for summary statistics for operational items). There is a range of *p*-values across all subjects and grade levels, where mean *p*-values were between 0.46 and 0.59 for SR items, between 0.35 and 0.60 for OE items, and between 0.47 and 0.63 for TE items. The mean item-total correlations were between 0.34 and 0.44 for SR items, between 0.57 and 0.77 for OE items, and between 0.29 and 0.49 for TE items (see Table 5–1).

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[2] As noted earlier, the discrimination index for PSSA dichotomous MC items is typically referred to as the point-biserial correlation coefficient. For OE items, the term item-test correlation is sometimes used.

[3] It is legitimate to view the point-biserial correlation as a standardized mean difference. A positive value indicates that students who chose that response had a higher mean score than the average student; a negative value indicates that students who chose that response had a lower-than-average mean score.

Table 5–1. Summary Statistics of Difficulty and Discrimination by Subject, Grade and Item Type

Subject	Grade	Item Type	N	Mean *p*-val.	Min *p*-val.	Median *p*-val.	Max *p*-val.	Mean I-T Corr.	Min I-T Corr.	Median I-T Corr.	Max I-T Corr.
Mathematics	3	OE	9	0.43	0.30	0.45	0.56	0.72	0.64	0.74	0.76
Mathematics	3	SR	63	0.59	0.21	0.61	0.83	0.44	0.00	0.45	0.63
Mathematics	3	TE	9	0.59	0.33	0.62	0.88	0.48	0.33	0.50	0.64
Mathematics	4	OE	9	0.39	0.23	0.40	0.54	0.72	0.65	0.72	0.78
Mathematics	4	SR	63	0.59	0.29	0.58	0.94	0.44	0.13	0.46	0.60
Mathematics	4	TE	9	0.63	0.38	0.64	0.92	0.49	0.30	0.47	0.65
Mathematics	5	OE	9	0.38	0.24	0.36	0.51	0.68	0.57	0.70	0.76
Mathematics	5	SR	63	0.53	0.20	0.53	0.88	0.41	0.08	0.44	0.62
Mathematics	5	TE	9	0.52	0.29	0.51	0.86	0.46	0.33	0.45	0.63
Mathematics	6	OE	9	0.39	0.29	0.37	0.47	0.74	0.69	0.74	0.80
Mathematics	6	SR	63	0.49	0.22	0.46	0.88	0.37	0.00	0.37	0.59
Mathematics	6	TE	9	0.53	0.26	0.54	0.76	0.44	0.32	0.44	0.56
Mathematics	7	OE	9	0.35	0.20	0.36	0.51	0.77	0.69	0.77	0.82
Mathematics	7	SR	63	0.49	0.18	0.48	0.84	0.38	-0.12	0.41	0.59
Mathematics	7	TE	9	0.47	0.10	0.55	0.62	0.39	0.26	0.32	0.65
Mathematics	8	OE	9	0.37	0.24	0.36	0.53	0.75	0.69	0.75	0.83
Mathematics	8	SR	63	0.46	0.16	0.47	0.71	0.39	0.14	0.42	0.57
Mathematics	8	TE	9	0.47	0.16	0.44	0.77	0.48	0.25	0.51	0.63
ELA	3	OE	9	0.48	0.35	0.50	0.54	0.62	0.56	0.62	0.69
ELA	3	SR	102	0.54	0.21	0.55	0.87	0.39	-0.05	0.42	0.59
ELA	3	TE	13	0.50	0.09	0.53	0.80	0.34	0.20	0.34	0.51
ELA	4	OE	9	0.50	0.49	0.50	0.52	0.57	0.52	0.58	0.61
ELA	4	SR	104	0.54	0.11	0.57	0.89	0.36	-0.10	0.38	0.62
ELA	4	TE	12	0.55	0.21	0.55	0.95	0.29	0.19	0.26	0.54
ELA	5	OE	9	0.49	0.45	0.49	0.52	0.59	0.52	0.62	0.65
ELA	5	SR	107	0.55	0.11	0.54	0.90	0.36	-0.12	0.38	0.61
ELA	5	TE	11	0.58	0.25	0.62	0.82	0.38	0.21	0.41	0.48
ELA	6	OE	9	0.55	0.53	0.55	0.58	0.60	0.54	0.61	0.67
ELA	6	SR	102	0.55	0.23	0.55	0.91	0.36	0.01	0.39	0.62
ELA	6	TE	13	0.63	0.09	0.69	0.95	0.29	0.12	0.26	0.55
ELA	7	OE	9	0.53	0.51	0.53	0.55	0.65	0.60	0.65	0.68
ELA	7	SR	102	0.51	0.18	0.50	0.91	0.34	-0.16	0.36	0.61
ELA	7	TE	13	0.58	0.28	0.64	0.87	0.30	-0.06	0.33	0.52
ELA	8	OE	9	0.60	0.57	0.61	0.63	0.64	0.62	0.63	0.70
ELA	8	SR	102	0.59	0.21	0.58	0.91	0.39	0.05	0.41	0.68
ELA	8	TE	13	0.63	0.24	0.64	0.87	0.37	0.05	0.39	0.63

Notes. 1. I-T Corr. is the item-test score correlation.
2. Science FT results are presented in Appendix U.

DIFFERENTIAL ITEM FUNCTIONING

Differential item functioning (DIF) occurs when examinees with the same ability level but different group memberships do not have the same probability of answering an item correctly. When the probability differs, it is important for content experts to review the relevant items for any potential *item bias*. It is important to note that, as a statistical concept, DIF is different from item bias. DIF detects a difference in performance after controlling for student ability, whereas bias is a content issue that can arise in situations where something other than the intended construct of measurement affects the probability of a correct response for a particular group. For example, bias is likely present when an item presents negative group stereotypes that draw the attention of the examinee, uses non-construct-relevant language that is more familiar to one subpopulation than to another, or is presented in a non-construct-relevant format that disadvantages certain learning styles. While the source of item bias can be plain to trained judges, DIF may have no clear cause. In such cases, something other than bias, including construct-relevant content, may be explaining the differential performance on the item. Flagging items with DIF provides an opportunity for reviewers to assess and correct potential bias, but DIF does not necessarily mean that bias is present.

LIMITATIONS OF STATISTICAL DETECTION

No statistical procedure should be used as a substitute for rigorous, hands-on reviews by content and bias specialists. The statistical results can help organize the review so the effort is concentrated on the most problematic cases. Further, no items should be automatically rejected simply because a statistical method flagged them or accepted because they were not flagged.

Statistical detection of DIF is also not an exact science. There have been a variety of methods proposed for detecting DIF, but no single statistic can be considered either necessary or sufficient. Different methods are more or less successful but can also detect DIF at different rates. No analysis can guarantee that a test is free of bias, but thoughtful item development and field-test analysis can prevent potentially biased items from unfairly impacting student scores.

A fundamental shortcoming of all statistical methods used in DIF evaluation is that all are intrinsic to the test being evaluated. If a test is unbiased overall but contains one or two DIF items, any method can identify DIF. However, because all current methods use total test performance as the measure on which to control for group abilities, a test with all DIF items will not be able to separate DIF effects from differences in achievement on the test.

MANTEL-HAENSZEL PROCEDURE FOR DIFFERENTIAL ITEM FUNCTIONING

For dichotomously-scored MC and TE items, the Mantel-Haenszel procedure (Mantel & Haenszel, 1959) for detecting DIF is a commonly used technique in educational testing. It does not depend on the application or the fit of any specific measurement model. However, it does have significant philosophical overlap with the Rasch model since it uses a test's total score for the analysis.

The procedure as implemented by DRC contrasts a focal group with a reference group. While it makes no practical difference in the analysis which group is defined as the focal group, the group most apt to be disadvantaged by a biased measurement is typically defined as the focal group. In these analyses, the focal groups were female for gender-based DIF and Black for ethnicity-based DIF; reference groups were male and White, respectively. The Mantel-Haenszel (MH) statistic for each item is computed from a contingency table. It has two groups (focal and reference) and two outcomes (right and wrong). The ability groups are defined using the test score distribution for the total examinee population.

The basic MH statistic is a single degree of freedom chi-square that compares the observed number in each cell to the expected number. The expected counts are computed to ensure that the analysis is not confounded with differences in the achievement level of the two groups.

For polytomously-scored OE and TE items, a comparable statistic is computed based on the standardized mean difference (SMD) (Dorans, Schmitt, & Bleistein, 1992), which is computed as the differences in mean scores for the focal and reference groups if both groups had the same score distribution.

To assist the review committees in interpreting the analyses, the items are assigned a severity code (A, B, or C) based on the magnitude of the MH statistic, and a direction (minus or plus) based on the direction of the MH statistic. Items classified as A+ or A- have little or no statistical indication of DIF. Items classified as B+ or B- have some indication of DIF but may be judged to be acceptable for future use. Items classified as C+ or C- have strong evidence of DIF and should be reviewed and possibly rejected from the eligible item pool. The plus sign indicates that the item favors the focal group and a minus sign indicates that the item favors the reference group.

RESULTS AND OBSERVATIONS

DIF analyses were conducted on the 2025 field-test items. The number of items from each subject and grade that were assigned to each severity code is shown in Table 5–2 for SR items, Table 5–3 for OE/TDA items, and Table 5–4 for TE items. Results from DIF analyses are provided for gender (male/female), ethnicity (white/black) and mode of administration (paper/online). Few SR items were identified as having moderate (B) or severe (C) DIF for gender, ethnicity, or mode of administration. The SR results indicate that there is a balance in the number of items with moderate DIF favoring males and females; however, these results do not hold true for ethnicity.

Table 5–2A. DIF Summary for Male/Female—SR Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	22	41	0	0	0	0	63
Mathematics	4	35	25	2	0	0	1	63
Mathematics	5	24	36	0	3	0	0	63
Mathematics	6	29	30	0	3	0	1	63
Mathematics	7	29	32	1	1	0	0	63
Mathematics	8	29	33	0	1	0	0	63
ELA	3	60	42	0	0	0	0	102
ELA	4	52	51	0	0	0	1	104
ELA	5	57	45	2	3	0	0	107
ELA	6	55	40	2	3	0	2	102
ELA	7	43	55	0	4	0	0	102
ELA	8	54	45	2	1	0	0	102

Notes. 1. SR items include multiple-choice items for ELA, mathematics, and science and multiple-choice and evidence-based selected-response items for ELA.
2. Science FT results are presented in Appendix U.

Table 5–2B. DIF Summary for White/Black—SR Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	22	41	0	0	0	0	63
Mathematics	4	26	35	0	2	0	0	63
Mathematics	5	18	45	0	0	0	0	63
Mathematics	6	21	40	0	2	0	0	63
Mathematics	7	16	47	0	0	0	0	63
Mathematics	8	15	48	0	0	0	0	63
ELA	3	24	77	1	0	0	0	102
ELA	4	32	72	0	0	0	0	104
ELA	5	29	70	0	8	0	0	107
ELA	6	21	73	0	7	0	1	102
ELA	7	39	62	0	0	0	1	102
ELA	8	36	64	0	1	0	1	102

Notes. 1. SR items include multiple-choice items for ELA, mathematics, and science and multiple-choice and evidence-based selected-response items for ELA.
2. Science FT results are presented in Appendix U.

Table 5–2C. DIF Summary for Paper/Online—SR Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	36	19	1	0	0	0	56
Mathematics	4	34	21	1	0	0	0	56
Mathematics	5	43	13	0	0	0	0	56
Mathematics	6	41	15	0	0	0	0	56
Mathematics	7	32	24	0	0	0	0	56
Mathematics	8	34	22	0	0	0	0	56
ELA	3	65	32	2	0	0	0	99
ELA	4	58	41	2	0	0	0	101
ELA	5	58	36	2	1	2	0	99
ELA	6	65	32	1	0	1	0	99
ELA	7	55	43	1	0	0	0	99
ELA	8	65	32	2	0	0	0	99

Notes. 1. SR items include multiple-choice items for ELA, mathematics, and science and multiple-choice and evidence-based selected-response items for ELA.
2. Science FT results are presented in Appendix U.

Table 5–3A. DIF Summary Male/Female—OE Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	6	3	0	0	0	0	9
Mathematics	4	6	2	0	0	1	0	9
Mathematics	5	7	2	0	0	0	0	9
Mathematics	6	6	3	0	0	0	0	9
Mathematics	7	7	2	0	0	0	0	9
Mathematics	8	9	0	0	0	0	0	9
ELA	3	4	0	5	0	0	0	9
ELA	4	5	0	4	0	0	0	9
ELA	5	7	0	2	0	0	0	9
ELA	6	8	0	1	0	0	0	9
ELA	7	9	0	0	0	0	0	9
ELA	8	3	0	6	0	0	0	9

Notes. 1. OE items include open-ended items for mathematics, science, and ELA grade 3 and text-dependent analysis items for ELA grades 4–8.
2. Science FT results are presented in Appendix U.

Table 5–3B. DIF Summary White/Black—OE Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	2	3	0	0	0	0	5
Mathematics	4	1	2	0	0	0	0	3
Mathematics	5	0	6	0	0	0	0	6
Mathematics	6	1	5	0	0	0	0	6
Mathematics	7	0	8	0	0	0	0	8
Mathematics	8	1	8	0	0	0	0	9
ELA	3	1	4	0	0	0	0	5
ELA	4	1	5	0	2	0	1	9
ELA	5	0	3	0	3	0	3	9
ELA	6	0	1	0	3	0	5	9
ELA	7	0	5	0	3	0	1	9
ELA	8	0	5	0	4	0	0	9

Notes. 1. OE items include open-ended items for mathematics, science, and ELA grade 3 and text-dependent analysis items for ELA grades 4–8.
2. Science FT results are presented in Appendix U.

Table 5–3C. DIF Summary Paper/Online—OE Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	3	6	0	0	0	0	9
Mathematics	4	5	4	0	0	0	0	9
Mathematics	5	3	6	0	0	0	0	9
Mathematics	6	6	3	0	0	0	0	9
Mathematics	7	5	4	0	0	0	0	9
Mathematics	8	2	7	0	0	0	0	9
ELA	3	1	7	0	0	0	1	9
ELA	4	8	1	0	0	0	0	9
ELA	5	6	1	2	0	0	0	9
ELA	6	7	2	0	0	0	0	9
ELA	7	7	2	0	0	0	0	9
ELA	8	3	5	0	1	0	0	9

Notes. 1. OE items include open-ended items for mathematics, science, and ELA grade 3 and text-dependent analysis items for ELA grades 4–8.
2. Science FT results are presented in Appendix U.

Table 5–4A. DIF Summary Male/Female—TE Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	4	5	0	0	0	0	9
Mathematics	4	4	5	0	0	0	0	9
Mathematics	5	5	4	0	0	0	0	9
Mathematics	6	4	5	0	0	0	0	9
Mathematics	7	4	5	0	0	0	0	9
Mathematics	8	3	6	0	0	0	0	9
ELA	3	8	5	0	0	0	0	13
ELA	4	5	6	1	0	0	0	12
ELA	5	3	7	1	0	0	0	11
ELA	6	10	3	0	0	0	0	13
ELA	7	8	5	0	0	0	0	13
ELA	8	9	3	1	0	0	0	13

Note. Science FT results are presented in Appendix U.

Table 5–4B. DIF Summary White/Black—TE Items

Subject	Grade	A+	A-	B+	B-	C+	C-	Total
Mathematics	3	1	7	0	1	0	0	9
Mathematics	4	2	5	0	1	0	1	9
Mathematics	5	4	4	0	0	0	1	9
Mathematics	6	1	7	0	0	0	1	9
Mathematics	7	1	8	0	0	0	0	9
Mathematics	8	0	7	0	2	0	0	9
ELA	3	3	6	0	3	0	1	13
ELA	4	3	7	0	2	0	0	12
ELA	5	0	8	0	1	0	2	11
ELA	6	4	7	0	0	0	2	13
ELA	7	3	10	0	0	0	0	13
ELA	8	3	7	0	3	0	0	13

Note. Science FT results are presented in Appendix U.

CRITERIA FOR IDENTIFYING ITEMS

As previously discussed, all field-test items were analyzed statistically using conventional item-analysis methods. For SR items, classical item statistics included the corrected point-biserial correlation (Pt. Bis.) for the correct and incorrect responses (distractors), percent correct (*p*-value), and the percent responding to incorrect responses. For constructed-response (CR) items (including open-ended questions, short-answer questions, and text-dependent analysis questions) and technology-enhanced (TE), the statistical indices included the item-test correlation, the point-biserial correlation for each score point, the percent of responses at each score point, and the percent of non-scoreable responses.

In general, more capable students are expected to respond correctly to easy items and less capable students are expected to respond incorrectly to difficult items. If either of these situations does not occur, the item will be reviewed by DRC test development staff and committees of Pennsylvania educators to determine the nature of the problem and the characteristics of the students affected. The primary way of detecting such conditions is through the point-biserial correlation coefficient for dichotomously scored items (MC) and the item-total correlation for polytomously scored items (EBSR and CR). In each case the statistic will be positive if the total test mean score is higher for the students who respond correctly to MC items (or attain a higher CR item score) and negative when the reverse is true.

The following set of criteria was used to identify items for additional review.

For an MC item to be flagged, the criteria included any of the following:

- Percent correct (*p*-value) less than 0.3 or greater than 0.9
- Point-biserial correlation for the correct response less than 0.25
- Point-biserial correlation for any incorrect response greater than 0.0
- Percent responding to any incorrect responses greater than the *p*-value
- Gender, ethnic, or mode DIF code of either C- or C+

For an EBSR item to be flagged, the criteria included any of the following:

- *p*-value less than 0.3 or greater than 0.9
- Part One point-biserial correlation for the correct response less than 0.25
- Part One point-biserial correlation for any incorrect response greater than 0.0
- Part One percent responding to any incorrect responses greater than Part One *p*-value
- Gender, ethnic, or mode DIF code of either C- or C+
- Score proportion less than 0.05

For a TE or CR item to be flagged, the criteria included any of the following:

- *p*-value less than 0.3 or greater than 0.9
- Point-biserial correlation less than 0.25
- Score proportion less than 0.05
- Gender, ethnic, or mode DIF code of either C- or C+

REVIEW OF ITEMS WITH DATA

In the preceding section, it was stated that test development content-area specialists used certain statistics from classical item analyses and DIF analyses of the 2025 field test to identify items for review by Pennsylvania educators. Items not identified for this review had good statistical characteristics and, consequently, were entered into the eligible pool for future item selection. Likewise, some items of extremely poor statistical quality were regarded as unacceptable and needed no additional review. DRC content-area test development specialists and DRC psychometric specialists identified the remaining items for further review by a committee of Pennsylvania educators. The intent was to capture all items that needed a closer review; thus, the criteria employed tended to over-identify rather than under-identify items.

The review of the items with associated data was conducted by over 50 Pennsylvania educators (teachers and PDE staff) broken out into subject-area and/or grade-level or grade-span committees. The review for mathematics and ELA grades 3–8 and science grades 5 and 8 took place in August 2025. In these sessions, committee members were first trained by a representative from DRC's psychometrics staff with regard to the statistical indices used in item evaluation. This was followed by a discussion with examples concerning reasons that an item might be retained regardless of the statistics. The committee review process involved a brief exploration of possible reasons for the statistical profile of an item (e.g., possible bias, grade appropriateness, instructional issues) and a decision regarding acceptance. DRC content-area test development specialists facilitated the review of the items. Each committee reviewed the pool of field-tested items and made recommendations on each item and/or scenario/passage. Further discussion on how this information was used is covered in Chapter Six. Data review details and results are shown in Table 5–5. Note that the results of the 2025 science data review can be found in Appendix U.

Table 5–5. 2025 Data Review Committee Results – ELA and Mathematics

Subject	Grade	Total No. of Items	Reviewed MC, TE, EBSR	Reviewed OE*	Reviewed DIF only	Reviewed Total	Reviewed % of Total	No. of Items Rejected by Committee	% of Items Rejected by Committee	No. of Items Classified as Rejected *	% of Items Classified as Rejected *
Mathematics	3	81	8	5	0	13	16.05%	3	3.70%	6	7.41%
Mathematics	4	81	12	4	2	16	19.75%	0	0.00%	5	6.17%
Mathematics	5	81	11	3	1	14	17.28%	4	4.94%	8	9.88%
Mathematics	6	81	16	3	2	19	23.46%	8	9.88%	12	14.81%
Mathematics	7	81	15	3	0	18	22.22%	10	12.35%	15	18.52%
Mathematics	8	81	13	4	0	17	20.99%	5	6.17%	10	12.35%
ELA	3	124	28	2	3	30	24.79%	10	8.26%	10	8.26%
ELA	4	125	31	9	2	40	33.06%	6	4.96%	6	4.96%
ELA	5	127	37	9	8	46	38.02%	9	7.44%	9	7.44%
ELA	6	124	37	9	10	46	38.02%	13	10.74%	13	10.74%
ELA	7	124	36	2	2	38	31.40%	17	14.05%	17	14.05%
ELA	8	124	22	0	1	22	18.18%	3	2.48%	3	2.48%

*Items classified as “Rejected” from 2025 field test (all sources: data review committee, PDE, and DRC)

CHAPTER SIX: OPERATIONAL FORMS CONSTRUCTION FOR 2025

FINAL SELECTION OF ITEMS AND 2025 PSSA FORMS CONSTRUCTION

As noted in Chapter Five, PSSA Science, 2025 was a stand-alone field test. Analogous processes for item selection, item distribution, and forms reviews occurred, but without the selection of operational items.

When the final selection of items for the operational 2025 test was ready to begin, the candidate items that emerged, including those from the spring 2024 field test, had undergone multiple reviews, including:

- Reviews by DRC content-area test development specialists and curriculum specialists to ensure that all items were properly aligned with content standards
- Formal bias, fairness, and sensitivity review by the Bias, Fairness, and Sensitivity Committee consisting of a multi-ethnic group of men and women having expertise with students with special needs and English Learners
- Formal review by the content committees consisting of Pennsylvania educators, including teachers as well as district personnel
- PDE review
- Item data review by members of the PDE subject-area teacher committees

The item and bias reviews are detailed in Chapter Three. The results of the data review are summarized in Chapter Five.

The end product of the above process was an item status designation for each field-tested item. All items having an item status code of Acceptable/Active were candidates to be selected for the 2025 PSSA. To have an item status code of Acceptable/Active meant that the item met the following criteria:

- Appropriately aligned with its designated Assessment Anchor Content Standard (Assessment Anchor) and sub-classifications
- Acceptable in terms of bias/fairness/sensitivity issues, including differential item functioning (for gender and ethnicity)
- Acceptable in terms of psychometric standards, including a special review of flagged items

Next, all relevant information regarding the acceptable items, including associated graphics, was entered into the item banking system known as IDEAS (Item Development and Education Assessment System). From IDEAS and other database sources, Microsoft Excel files were created for each content area at each grade. These files contained all relevant content codes and statistical characteristics. IDEAS also created an item card displaying each acceptable item, any associated graphic, and all relevant content codes and item statistics for use by the content-area test development specialists and psychometric services staff.

DRC test development specialists reviewed the test design blueprint, including the number of items per strand for each content-area test. Special considerations, such as calculator use and manipulatives, were noted.

Psychometricians provided content-area test development specialists with an overview of the psychometric guidelines for forms construction.

Senior DRC content-area test development specialists reviewed all items in the operational pool to make an initial selection for common (core) positions according to test blueprint requirements and psychometric guidelines. Changes to items were not encouraged since alterations could affect how an item might perform on subsequent testing.

For the common items, this meant that the combination of SR and CR items would yield the appropriate range of points while tapping an appropriate variety of the Assessment Anchors and related Eligible Content within each Reporting Category. Items selected in the first round were examined with regard to how well they went together as a set. Of particular concern were the following:

- One item providing cues as to the correct answer to another item
- Context redundancy (e.g., mathematics items with a sports context)
- Presence of clang (distractors not unique from one another)
- Diversity of names and artwork for gender and ethnicity

The first round of items was then evaluated for statistical features such as an acceptable point-biserial correlation and whether correct answers were distributed equally—that is, whether approximately 25 percent of correct answers appeared in each of the four possible positions (A, B, C, or D). Selected items that were deemed psychometrically less advantageous in contrast to the overall psychometric characteristics of the core resulted in a search by the senior reviewer for suitable replacements. At this point, the second round of items was analyzed. If necessary, this iterative process between content-based selections and statistical properties continued in an effort to reach the best possible balance.

Once the recommendations were finalized for the core items they were submitted to PDE for review. Department staff provided feedback, which could be in the form of approval or recommendations for replacing certain items. Any item replacement was accomplished by the collective effort of the test development specialists, psychometricians, and PDE staff until final PDE approval was given. Once final PDE approval of the forms was given, PDE also participated in the construction and review of scrambled forms.

SPECIAL FORMS USED IN THE 2025 PSSA

SPANISH TRANSLATION OF THE MATHEMATICS AND SCIENCE ASSESSMENTS

Starting with the 2005 assessment, school personnel had the option of allowing Spanish-speaking students who had been enrolled in schools in the United States for less than three years to respond to a Spanish version of the PSSA for mathematics. In 2009, a Spanish version was also added for the science component of the PSSA. The original translation of the items and the *Directions for Administration Manual* was completed by Second Language Testing, Incorporated (SLTI). SLTI used translators with varying cultural and regional backgrounds to create the Spanish versions of the mathematics and science assessments. The translations were then reviewed and verified by DRC's internal Spanish group. As part of the internal review, a Spanish style guide is maintained to document Spanish word choice from administration to administration and across grades within an administration.

For the current Spanish forms, DRC utilized an outside vendor (Tri-Lin Integrated Services) for translations of PSSA mathematics and science items by using the style guide setup and continuously used since 2005. Once Tri-Lin has completed the initial translation of the entire set of materials, all translated material and the original English version are then sent to Language Services Consultants (LSC) for a third-party verification of the translation. LSC's review helps to ensure the equivalence of the original and translated assessments. When completed, the verified materials, along with any recommendations or questions, are passed back to DRC for processing.

Once Language Services Consultants (LSC) has adjudicated the initial translation completed by Tri-Lin Integrated Services, the translated text is returned to DRC for final processing and typesetting. DRC has a Spanish translation team comprised of native Spanish-speaking translators and native English-speakers with formal education in Spanish. DRC's Spanish Team is supported by all content areas and their respective content leads in order to maintain the integrity of each translated item or passage. DRC conducts a minimum of five separate reads during the final preparation of the translated material. These reads include editorial reviews of items and forms and are used to polish language and eliminate any typographical errors.

An initial reading of items and passages is conducted individually by each member of the team. The team then reads, discusses, and edits the items as a group before sending the material to be entered into the item bank that houses Pennsylvania's test items (IDEAS). As part of the discussion and editing process, DRC's Spanish Team may also conduct an informational investigation, validating concepts within the translation related to specialized topics. Once the data entry is completed, DRC's Spanish Team confirms that the correct edits have been made and the items are read once again. After all newly-translated items have been edited and approved in this round of review, a

PDF of the entire test form is produced. The Spanish Team then conducts a group review of the complete test form, coinciding with an independent review outside the team, making any edits that are necessary. Within each review, checks are performed to ensure accuracy of semantics, lexicon, syntax, and grammar.

Internal reviewers are instructed to address a number of issues when reviewing a translation, including the following:

- Are the stimulus and the item translated correctly?
- Are there inappropriate omissions in the translation?
- Are there inappropriate additions in the translation?
- Is there any wording that may not be comprehensible to speakers of a particular dialect? If so, the reviewer will enter an alternate wording in parentheses.
- Are standard item writing guidelines followed in the translated version?
- Are any options less or more attractive than in the English version? If so, the reviewer will suggest an alternate wording.
- Is the content of any item culturally insensitive or offensive? Is a substitute item required? Why?
- Is the wording of any item culturally insensitive or offensive?
- Is the language of the translation at the same register as the original?
- Is the language of the translation at an appropriate register for the grade level of the examinee?

Instructions for the appropriate use of these special forms are detailed in accommodation manuals titled *Accommodations Guidelines* and *Accommodations Guidelines for English Learners.*

AUDIO

For students requiring an auditory presentation accommodation, a text-to-speech synthesizer is available to students taking the online mode of test delivery. For each operational exam, one form was selected for the creation of the audio version. Special scripts are crafted, writing out each item, distractor, graphic, and directions to utilize the rich, synthesized voice features while accounting for specific nuances of the intended sounds. The resulting audio information is provided to students receiving the accommodation. Since additional software is required to generate the vocalization from the scripted text and since headphones are required to minimize disruptions within a computer lab setting, local school personnel generally must preplan to use the audio version in order to ensure that the student has a properly equipped computer and a proper setting.

BRAILLE, LARGE PRINT, AND VIDEO SIGN LANGUAGE

Students were able to respond to test materials that were available in Braille, large print, or Video Sign Language. At each grade level assessed, one form was selected for the creation of these accommodations.

The large print edition is a replication of the standard print form; 8.5×11 standard form is enlarged to an 11×17 page format to achieve a font size of approximately 18-point. A side-by-side verification is completed between the standard print and large print forms to ensure that the integrity of all formatting and graphics is maintained on the large print forms.

For Braille production, the final selected form is delivered to American Printing House for the Blind (APH) via APH's secure website. APH ensures that all tests are translated correctly and accurately by using a translator and a validator. After all Braille booklets are printed, APH conducts a quality assurance step to ensure all items are bound in order and directions are included. All Braille booklets are shipped from APH to DRC via UPS.

DRC applies a security barcode to each large print and Braille booklet for purposes of shipping, distributing, and collecting the materials. This security barcode is used with DRC's Operations Materials Management System (Ops MMS).

School personnel were directed to transcribe all student answers (SR and CR) into scannable answer documents exactly as the student responded. No alterations or corrections of student work were permitted, and the transcribed answer document had to have the same form designation as the Braille and large print version.

DRC utilizes Wolfgang Productions for the production of Sign Language Videos. The items are passed to Wolfgang Productions via a secure ftp site. Two to three different interpreters are used to interpret and validate the translations during video recording. After the interpretations are recorded and returned to DRC via a secure ftp site, DRC loads these videos in the online test engine. When school personnel assign the specific sign language accommodation, the student will be able to play each video next to the item.

SUMMARY OF THE TRANSLATION VERIFICATION STUDY BY SLTI OF THE 2009 PSSA SCIENCE ASSESSMENTS

From November 2009 through January 2010 SLTI conducted a translation verification study of the 2009 PSSA Science Assessments titled "Translation Verification Study of the 2009 Pennsylvania System of School Assessment (PSSA) of Science for Grades 4, 8, and 11." In this study, the appropriateness of the transadaptation of the PSSA Science Assessments into Spanish was investigated. Three independent reviewers, specialists in bilingual science education and science translation, determined the appropriateness of each translated or adapted item. The purpose of the report was to conduct qualitative research on the comparability of the Spanish and English versions of the PSSA Science Assessments.

The report of this study by Second Language Testing, Incorporated described the assessments, the purpose of the translation verification study, the reviewers, the translation verification process, and the translation verification results. A total of 185 items covering tests at Grades 4 (63 items), 8 (63 items), and 11 (59 items) were reviewed. The study showed that none of the 185 reviewed items were judged by the reviewers to be inappropriately translated or adapted into Spanish. The study did provide suggestions for nine items that were judged appropriate but whose translation could still be improved in the event the items were used again.

Overall, the report concluded that the transadaptation of the 2009 PSSA Science Assessments was clearly appropriate. Since both the English and Spanish versions are comparable in the sense that both versions assess the same content, use the same format, have equal numbers of items, follow the same test administration and scoring procedures, and are used and interpreted in the same way, the study concluded that the English and Spanish versions of the science assessments measured the same content in two different languages. Thus, the study indicated that both language versions showed the same degree of alignment and the same depth-of-knowledge described in the Assessment Anchors alignment study. As a result, the report concluded that there was no need to conduct a separate alignment study of the Spanish version of the PSSA Science Assessments.

Beyond the findings presented in the study, the report recommended that appropriate quantitative analyses be carried out on construct equivalence. Unless such analyses clearly demonstrate a lack of equivalence, it is appropriate to assume that there is no need to conduct a separate linking study or a separate standard setting study for the Spanish versions of the tests. Both versions can be scored on the same scale, and scores on each version have the same meaning in terms of student mastery of the Science Assessment Anchors as defined by the Eligible Content.

The full report can be obtained by request from the Pennsylvania Department of Education.

SUMMARY OF COMPARABILITY REPORT FROM SIRECI PSYCHOMETRIC SERVICES

In addition to the study conducted by Second Language Testing, Incorporated, a second comparability study of the 2009 PSSA Spanish translations for science was completed in February 2010 by Sireci Psychometric Services. The report of the study is titled "Evaluating the Comparability of English and English-Spanish Science Tests from the Pennsylvania System of School Assessment."

In this study, the data from the English language and English-Spanish dual-language Pennsylvania science tests for Grades 4, 8, and 11 were analyzed. These analyses were designed to evaluate the consistency of the structure of the data and the consistency of item functioning across the English and Spanish versions of these assessments using various psychometrics methods.

The full report can be obtained by request from the Pennsylvania Department of Education.

CHAPTER SEVEN: TEST ADMINISTRATION PROCEDURES

TEST SESSIONS, TEST SECTIONS, TEST TIMING, AND TEST LAYOUT

Some assessments utilized separate test booklets and answer booklets. An answer booklet was used to respond to the selected-response items (i.e., multiple-choice items and evidence-based selected-response items) and constructed-response items (i.e., open-ended items, short-answer items, and text-dependent analysis items,) and to collect demographic information. The selected-response items and all stimulus-text were placed within the test booklet. Other assessments used a single consumable booklet. When a single scannable answer booklet was utilized, the contents of the answer booklet and the test booklet were combined into one integrated booklet.

Table 7–1. Booklet Type by Administration

Assessment	Grade	Booklet Type
Mathematics	3	Single Consumable Booklet
Mathematics	4	Single Consumable Booklet
Mathematics	5	Single Consumable Booklet
Mathematics	6	Single Consumable Booklet
Mathematics	7	Single Consumable Booklet
Mathematics	8	Single Consumable Booklet
ELA	3	Single Consumable Booklet
ELA	4	Test Booklet and Answer Document
ELA	5	Test Booklet and Answer Document
ELA	6	Test Booklet and Answer Document
ELA	7	Test Booklet and Answer Document
ELA	8	Test Booklet and Answer Document
Science	5	Single Consumable Booklet
Science	8	Single Consumable Booklet

For the Grade 3 ELA assessment, a single booklet was used for each assessment to accommodate the younger age of the students, whereas a separate test booklet and answer booklet were used to separate the selected-response items and constructed-response items for grade 4 through 8.

The number of sections for the 2025 operational assessment varied based on the content area of the assessment. The ELA assessments consisted of three sections. The mathematics and science assessments consisted of two sections. See also Appendix G.

Table 7–2. PSSA Test Section Information

Content Area	No. of Sections per Form
Mathematics	2
ELA	3
Science	2

Table 7–3. PSSA Testing Load and Duration by Subject by Grade

Assessment	Grade	Total No. of SR/TE Items per Form per Administration	Total No. of CR Items per Form per Administration	Total Estimated Administration Time per Form (in Minutes)
Mathematics	3	48	4	156
Mathematics	4	48	4	156
Mathematics	5	48	4	156
Mathematics	6	48	4	156
Mathematics	7	48	4	156
Mathematics	8	48	4	156
ELA	3	52	3	134 to 166
ELA	4	57	2	225 to 246
ELA	5	57	2	225 to 246
ELA	6	57	2	225 to 246
ELA	7	57	2	225 to 246
ELA	8	57	2	225 to 246
Science	5	46	4	82
Science	8	48	4	90

Table 7–4. PSSA Testing Load and Duration by Grade by Subject

Grade	Content	Total No. of Items per Form per Administration	Total Estimated Administration Time per Form (in Minutes)	Total No. of Items per Student	Total Estimated Administration Time per Student (in Minutes)
3	Mathematics	52	156	107	290 to 322
3	ELA	55	134 to 166	107	290 to 322
4	Mathematics	52	156	111	381 to 402
4	ELA	59	225 to 246	111	381 to 402
5	Mathematics	52	156	161	463 to 484
5	ELA	59	225 to 246	161	463 to 484
5	Science	50	82	161	463 to 484
6	Mathematics	52	156	111	381 to 402
6	ELA	59	225 to 246	111	381 to 402
7	Mathematics	52	156	111	381 to 402
7	ELA	59	225 to 246	111	381 to 402
8	Mathematics	52	156	163	471 to 492
8	ELA	59	225 to 246	163	471 to 492
8	Science	52	90	163	471 to 492

In general, the estimated testing times allowed 1–3 minutes per multiple-choice item and technology-enhanced item, depending on the content area. The evidence-based selected-response items were estimated to take approximately 3–5 minutes per item, depending on the number of responses required by the item. The open-ended or short-answer items were estimated to take approximately 5–10 minutes per item, also depending on the content area. Text-dependent analysis questions were estimated to take approximately 55–65 minutes per item.

Test administrators were instructed that each section in a form should be scheduled as one assessment session. However, they were allowed to combine multiple sections into a single session, as long as the sections were administered in the sequence in which they are printed in the test booklets (or shown on the screen). In all cases, individual assessment sections had to be completed within one school day.

Since not all students finished the assessment sections at the same time, test administrators were advised to use the flexibility of the time limits to the students' advantage. For example, test administrators managed the testing time so that students did not feel rushed while they were taking any assessment section, and no student was penalized because he or she worked slowly. It was equally stressed to test administrators that a student should not be given an opportunity to waste time. Students were told to close their booklets when they had finished the section of the assessment in which they had been working. Students who finished early were allowed to sit quietly or read for pleasure until all students had finished. Students with special requirements and/or abilities (i.e., physical, visual, auditory, or learning disabilities as defined by their IEP or service contracts) and students who just worked slowly may have required extended time. Special assessment situations were arranged for these students. When all students in a testing session indicated that they had finished an assessment section, test administrators ended the section and began the next section or allowed the students to return to regular activities.

Scheduled extended time was provided by a test administrator, and students were allowed to request extended time if they indicated that they had not completed the task. Such requests were granted if the test administrator found the request to be educationally valid. Test administrators were advised that not permitting ample time for students to complete the assessment might impact the students' and school's performance.

As a general guideline, however, when all students indicated that they had finished a section, that section was closed. Students requiring time beyond the majority of the student population were allowed to continue immediately following the regularly scheduled session in another setting. When such accommodations were made, school personnel ensured that students were monitored at all times to prevent sharing of information. Students were not permitted to continue a section of the assessment after a significant lapse of time from the original session.

TESTING WINDOW

The testing window for the 2025 operational assessments were as follows:

- English Language Arts: April 21–25, 2025
- Mathematics, Science, and Make-ups: April 28–May 9, 2025

SHIPPING, PACKAGING, AND DELIVERY OF MATERIALS

Sites receive the *Handbook for Assessment Coordinators*, the *Directions for Administration Manual*s, the administrative materials (e.g., Return Shipping labels, District/School labels, Do Not Score labels, Student Precode labels) and secure materials (e.g., consumable test/answer books) for each grade tested at a school participating in the English Language Arts, Mathematics, and Science assessments. All materials arrive at least two weeks prior to the start of the testing window.

DRC ensured that all assessment materials were assembled correctly prior to shipping. DRC operations staff used the automated Operations Materials Management System (Ops MMS) to assign secure materials to a school at the time of ship out. This system used barcode technology to provide an automated quality check between items requested for a site and items shipped to a site. A shipment box manifest was produced for and placed in each box shipped. DRC operations staff double-checked all box contents with the box manifest prior to sealing the box for shipping to ensure accurate delivery of materials. DRC operations staff performed lot acceptance sampling on both shipments. Districts and schools were selected at random and examined for correct and complete packaging and labeling. This sampling represented a minimum of 10 percent of all shipping sites.

DRC's materials management system, along with the systems of shippers, allowed DRC to track materials from DRC's warehouse facility to receipt at the district, school, or testing site. All DRC shipping facilities, materials processing facilities, and storage facilities are secure. Access is restricted by security code. Non-DRC personnel are escorted by a DRC employee at all times. Only DRC inventory control personnel have access to stored secure materials. DRC employees are trained in and made aware of the high level of security that is required.

DRC used United Parcel Service (UPS) to deliver the secure materials to the testing sites.

ONLINE TESTING

Online administration is managed through the DRC INSIGHT Portal that provides tiered, secure access to all required administrative functions. Within the DRC INSIGHT Portal, users manage student information and create test sessions.

Student information from the Pennsylvania Information Management System (PIMS) is imported into the DRC INSIGHT Portal Test Setup application via file transfer. If a record was not transferred via the PIMS file, LEAs also have the opportunity to upload a student(s) directly into the DRC INSIGHT Portal so the student can be included in a test session.

Once the student data is loaded into Test Setup, users organize students into test sessions. Test sessions can be created by class, grade, or school. Through Test Setup, users can also update student accommodation information, print test tickets, and monitor student testing status.

The student login ticket contains unique login credentials used by the student to access the testing software. For a selected test session, users can download and print a PDF document containing instructions, a roster of student tickets being printed, and the actual test tickets. Student test tickets are considered secure materials and LEAs are required to keep printed tickets in a predetermined, locked, secure storage area.

The web-based test engine, DRC INSIGHT Online Learning System, is downloaded onto computers that students will access during the assessment. Test items and forms can only be accessed using a valid test ticket. During testing, responses are sent to a DRC server each time the student navigates away from an item or clicks the *Next* button to submit an answer. The system is configured to allow students to review answers before submitting their test.

TEST SECURITY MEASURES

Test security is essential to obtaining reliable and valid scores for accountability purposes. Test Security Certifications were required to be signed by each building Principal, School Assessment Coordinator, District Assessment Coordinator, Test Administrator, and Proctor after the assessment is administered. All signed Certifications were returned to the Chief School Administrator who must retain the Certifications for three years. The purpose of the Certifications was to serve as a tool to document that the individuals responsible for administering the assessments both understood and acknowledged the importance of test security and accountability. The Certifications attested that all security measures were followed concerning the handling of secure materials. Additional details can be found in the *Handbook for Assessment Coordinators*. A screen shot of the Test Administrator Certificate is provided in Figure 7–1.

Figure 7–1. Test Administrator and Proctor PSSA Test Security Certification

PSSA Test Security Certification

(Test Administrator and Proctor)

District: _____

School: _____

AUN: _____

Maintaining the security and integrity of all assessment materials, preventing any dishonest or fraudulent behavior in the administration and handling of the assessment, and promoting a fair and equitable testing environment are essential in order to obtain reliable and valid student scores. In that regard, I certify the following:

Prior to the administration of the assessment, I completed the Pennsylvania State Test Administration Training, and I understand that the assessment materials are secure, confidential, and proprietary documents owned by the Pennsylvania Department of Education.

I have not reviewed, discussed, disseminated, described, or otherwise revealed the contents of the assessment to anyone. I have not removed any assessment materials from the school building unless I was specifically authorized to administer the assessment to a student on homebound instruction. I have not kept, copied, reproduced, released, or used any assessment, assessment question, specific assessment content, or examinee response to any item or any section of the secure assessment in any manner that is inconsistent with the instructions provided by or through the Pennsylvania Department of Education. I have not provided any examinee with an answer to an assessment question or in any way influenced an examinee's response to any assessment question. I have not in any manner altered or caused the alteration of any examinee response, assessment booklet, or papers used by examinees.

I understand that any breach in assessment security could result in the invalidation of assessment results, professional discipline, and/or criminal prosecution.

I understand that false statements herein are made subject to the penalties of 18 Pa.C.S. § 4904.

Administrator/Proctor Name	Administrator/Proctor Signature	Date of Signature

SAMPLE MANUALS

Copies of the *Handbook for Assessment Coordinators* and the *Directions for Administration Manual*s can be found on the PDE website at www.pa.gov/agencies/education.

TESTING WINDOW ASSESSMENT ACCOMMODATIONS

PDE develops an *Accommodation Guidelines* handbook for use with the PSSA administration. This manual can be found on the PDE website at www.pa.gove/agencies/education. Additional information regarding assessment accommodations can be found in Chapter Four and Six of this report.

CHAPTER EIGHT: PROCESSING AND SCORING

RECEIPT OF MATERIALS

Receipt of PSSA test materials began on April 30, 2025, and concluded by June 6, 2025. DRC's Operations Materials Management System (Ops MMS) was utilized to receive assessment materials securely, accurately, and efficiently. This system features innovative automation and advanced barcode scanners. Captured data were organized into reports, which provided timely information with respect to suspected missing material.

The first step in the Ops MMS was the Box Receipt System. When a shipment arrived at DRC, the boxes were removed from the carrier's truck and passed under a barcode reader, which read the barcode printed on the return label and identified the district and school. The number of boxes was immediately compared to what was picked up at the district. The data collected in this process were stored in the Ops MMS database. After the barcode data were captured, the boxes were placed on a pallet and assigned a corresponding pallet number.

Once the box receipt process was completed, the materials separation phase began. Warehouse personnel opened the boxes and sorted materials by grade, subject, and status (used or unused booklets) into scanning boxes. Every booklets' security barcode and precode barcode were hand-scanned to link each document to the original box. As the booklets were sorted, the Ops MMS system guided the floor operator to which box to place the document. The Ops MMS system kept count and record of the materials placed in each box. This count remained correlated to the box as an essential quality-control step throughout the secure booklet processing and provided a target number for all steps of the check-in process. Once a box was closed, an MMS Processing Label was placed on that box.

Once labeled, the sorted and counted boxes proceeded to the Quality Assurance process, where a secure booklet check-in operator used a hand scanner to scan the MMS Processing Label. This procedure identified the material type and quantity parameters for what the Ops MMS should expect within a box. The box contents were then loaded into the streamfeeder.

The documents were fed past oscillating scanners that captured both the security code and precode from the booklets. A human operator monitored an Ops MMS screen that displayed scan errors, an ordered accounting of what was successfully scanned, and the document count for each box. The system ensured that each material within the box matched the information obtained from the original hand-scanning process.

When all materials were scanned and the correct document count was confirmed, the box was sealed and placed on a pallet. If the correct document count was not confirmed, or if the operator encountered difficulties with material scanning, the box and its contents were delivered to an exception handling station for resolution.

This check-in process occurred immediately upon receipt of materials; therefore, DRC provided feedback to districts and schools regarding any missing materials based on actual receipt versus expected receipt. Sites that had 100 percent of their materials missing after the date they were due to DRC were contacted, and any issues were resolved.

Throughout the process of secure booklet check-in, DRC project management ran a daily missing materials report. Every site that was missing any number of booklets was contacted by DRC. Results of these correspondences were recorded for inclusion in the final Missing Materials Report if the missing booklets were not returned by the testing site. DRC produced the Missing Materials Report for PDE upon completion of secure booklet check-in. The report listed all schools in each participating district along with security barcodes for any booklets not returned to DRC.

After scannable materials (used answer booklets) were processed through booklet check-in, the materials became available to the DRC Document Processing log-in staff for document log-in. The booklets were logged-in using the following process:

- A DRC scannable barcode batch header was scanned, and a batch number was assigned to each box of booklets.

- The DRC box label barcode was scanned into the system to link the box and booklets to the newly created batch and to create a Batch Control Sheet.
- The DRC box label barcode number, along with the number of booklets in the box, was printed on the Batch Control Sheet for document tracking purposes. All booklets that were linked to the box barcode were assigned to the batch number and tracked through all processing steps. As booklets were processed, DRC staff dated and initialed the Batch Control Sheet to indicate that proper processing and controls were observed.

Before the booklets were scanned, all batches went through a quality inspection to ensure batch integrity and correct document placement.

After a quality check-in at the DRC Document Processing log-in area, the spines were cut off the scannable documents, and the pages were sent to DRC's Imaging and Scoring System.

SCANNING OF MATERIALS

Customized scanning programs for all scannable documents were prepared to read the booklets and to format the scanned information electronically. Before materials arrived, all image scanning programs went through a quality review process that included scanning of mock data from production booklets to ensure proper data collection.

DRC's image scanners were calibrated using a standard deck of scannable pages with 16 known levels of gray. On a predefined page location, the average pixel darkness was compared to the standard calibration to determine the level of gray. Marks with an average darkness level of 4 or above on a scale of 16 (0 through F) were determined to be valid responses, per industry standards. If multiple marks were read for a single item and the difference of the grayscale reads was greater than four levels, the lighter mark was discarded. If the multiple marks had fewer than four levels of grayscale difference, the response was flagged systematically and forwarded to an editor for resolution.

DRC's image scanners read selected-response, demographic, and identification information. The image scanners also used barcode readers to read pre-printed barcodes from a label on the booklets.

The scannable documents were automatically fed into the image scanners where predefined processing criteria determined which fields were to be captured electronically. Open-ended response images were separated out for image-based scoring.

During scanning, a unique serial number was printed on each sheet of paper. This serial number was used for document integrity and to maintain sequencing within a batch of booklets.

A monitor randomly displayed images, and the human operator adjusted or cleaned the scanner when the scanned image did not meet DRC's strict quality standards for image clarity.

All images passed through a software clean-up program that despeckled, deskewed, and desmeared the images. A random sample of images was reviewed for image quality approval. If any document failed to meet image quality standards, the document was returned for rescanning.

Page-scan verification was performed to ensure that all predefined portions of the booklets were represented in their entirety in the image files. If a page was missing, the entire booklet was flagged for resolution.

After each batch was scanned, booklets were processed through a computer-based editing program to detect potential errors as a result of smudges, multiple marks, and omissions in predetermined fields. Marks that did not meet the predefined editing standards were routed to editors for resolution.

Experienced DRC Document Processing editing staff reviewed all potential errors detected during scanning and made necessary corrections to the data files. The imaging system displayed each suspected error. The editing staff then inspected the image and made any needed corrections using the unique serial number printed on the document during scanning.

Upon completion of editing, quality control reports were run to ensure that all detected potential errors were reviewed again and a final disposition was determined.

Before batches of booklets were extracted for scoring, a final edit was performed to ensure that all requirements for final processing were met. If a batch contained errors, it was flagged for further review before being extracted for scoring and reporting.

During this processing step, the actual number of documents scanned was compared to the number of booklets assigned to the box during book receipt. Count discrepancies between book receipt and booklets scanned were resolved at this time.

Once all requirements for final processing were met, the batch was released for scoring and student level processing.

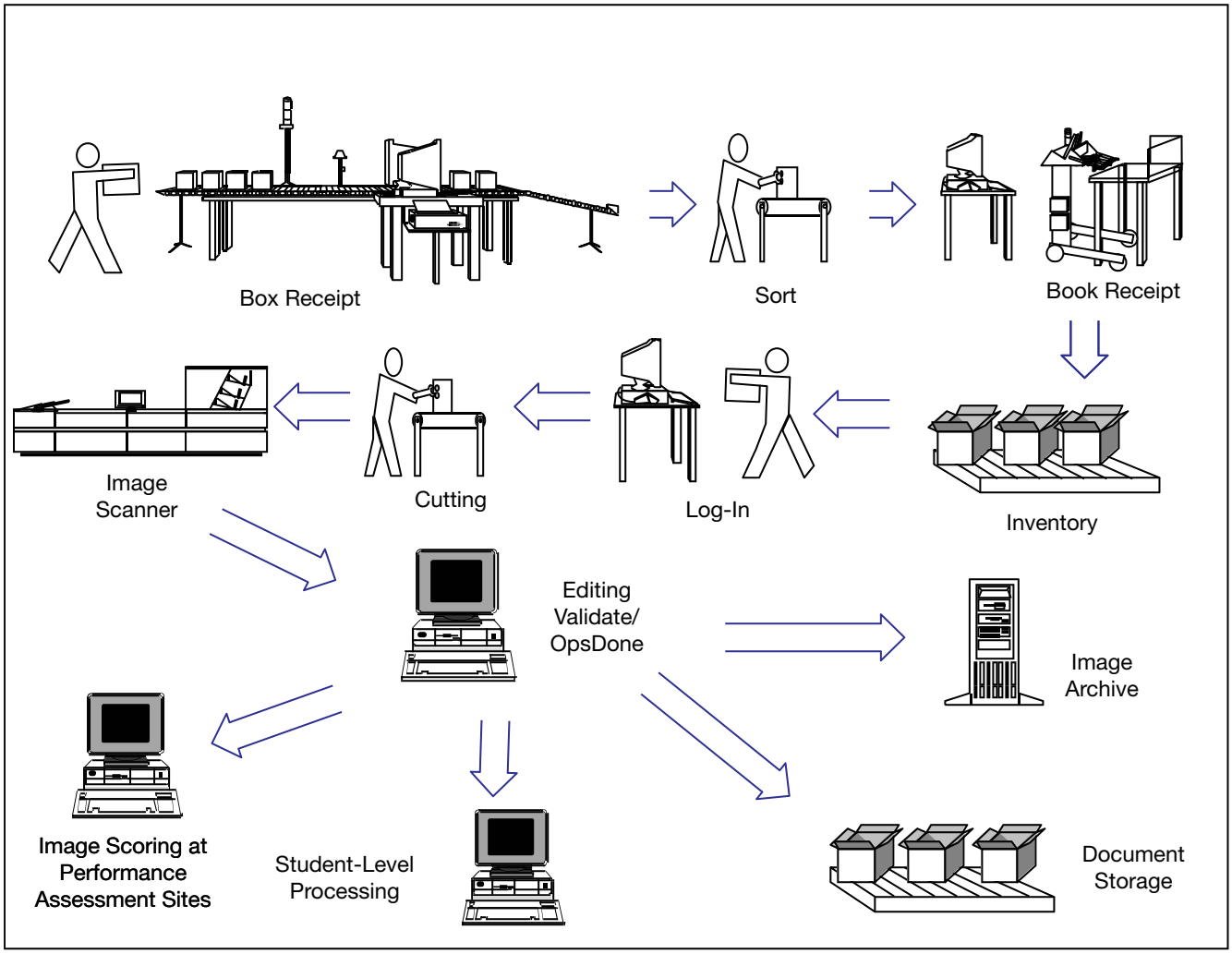
Table 8–1 shows the number of answer booklets received through booklet check-in, the number of booklets that contained student responses that were scanned and scored, the number of test booklets received, and the total number of booklets received for the English Language Arts assessment (ELA), the Mathematics assessment, and the Science assessment.

Table 8–1. Counts of 2025 PSSA Materials Received: Grades 3–8

Subject	Grade	Answer Booklets Received	Used Answer Booklets Received	Test Booklets Received	Total Booklets Received	Total Booklets Shipped
Mathematics	3	83,247	58,966	NA	82,759	83,254
Mathematics	4	81,981	57,732	NA	78,334	81,998
Mathematics	5	77,810	54,484	NA	71,336	77,819
Mathematics	6	72,539	50,600	NA	68,597	72,554
Mathematics	7	72,079	51,320	NA	68,117	72,127
Mathematics	8	71,798	51,206	NA	83,247	71,831
ELA	3	83,676	60,522	NA	83,676	83,680
ELA	4	82,759	59,118	82,760	65,519	165,556
ELA	5	78,334	55,662	78,345	156,679	156,702
ELA	6	71,336	50,395	71,331	142,667	142,690
ELA	7	68,597	48,812	68,597	137,194	137,226
ELA	8	68,117	48,492	68,119	136,236	136,274

Figure 8–1 illustrates the production workflow for DRC's Ops MMS and Image Scanning and Scoring System from receipt of materials through all processing of materials and the presentation of scanned images for scoring.

Figure 8–1. Workflow System



MATERIALS STORAGE

Upon completion of processing, student response documents were boxed for security purposes and final storage:

- Project-specific box labels were created containing unique customer and project information, material type, batch number, pallet/box number, and the number of boxes for a given batch.
- Boxes were stacked on pallets that were labeled with the project information and a list of the pallet's contents before delivery to the Materials Distribution Center for final secure storage.
- Materials will be destroyed one year after contract year ends, with PDE written approval.

ONLINE TESTING

The DRC INSIGHT test engine runs on a custom web browser that is designed to ensure a fully secure environment during testing. The secure browser "locks down" the student's testing device, preventing the student from accessing the desktop, the Internet, and other external programs. For non-secure testing such as practice and training sessions, students can use the Online Tools Training (OTT) environment, which runs on a standard web browser.

The custom browser software is downloaded from the DRC INSIGHT Portal and installed onto student testing devices. The secure browser can be installed on computers individually, or it can be downloaded to a central location, copied, and distributed to multiple computers simultaneously using common network distribution tools. Everything needed for testing is found within the secure browser, eliminating the need for districts to coordinate updates to third-party software.

Prior to operational use, DRC's quality assurance staff will perform full system-level tests in an independent test environment that simulates the production configuration. Tests are run on all supported computer platforms and browsers and include comprehensive review of system functionality, usability, reliability, security, and overall performance. Test content is also validated during this process.

Multiple methods are used to ensure secure data transfer, including encryption technologies and Secure Sockets Layer (SSL) protocol through Hypertext Transfer Protocol Secure (HTTPS). Test content is encrypted at the host server, and remains encrypted throughout all network transmissions; content is decrypted only once the student login is validated. Decrypted test content on the student workstation is stored only in memory during each test session. Once the session is ended (the test is completed or the student logs out), computer memory is purged to ensure security of test content is maintained.

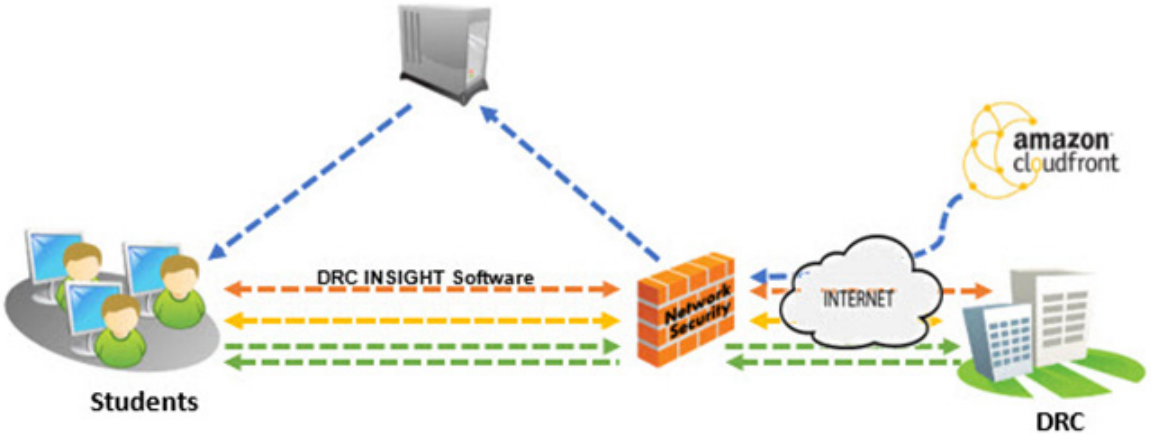
Responses are saved automatically every 45 seconds during testing, or when the student navigates away from an item or answers a selected-response item (whichever comes first). If a particular question takes the student longer than 45 seconds to answer, then the partial, incomplete responses are submitted at 45-second intervals until the student completes the item. This auto-save helps safeguard against students losing their work on longer items, such as constructed-response items. When the student returns to the test after a break or interruption, the student is returned to the point that they left off without having to navigate through all previously answered questions.

Table 8–2. Counts of 2025 PSSA Online Assessments: Grades 3–8

Subject	Grade	Total Online Assessments Completed
Mathematics	3	64,607
Mathematics	4	61,044
Mathematics	5	68,262
Mathematics	6	71,892
Mathematics	7	71,918
Mathematics	8	73,408
ELA	3	63,621
ELA	4	60,309
ELA	5	67,871
ELA	6	72,943
ELA	7	75,490
ELA	8	77,044

Figure 8–2 illustrates the secure transfer of online test responses between the student and DRC.

Figure 8–2. Architecture of the Student Testing Experience



SCORING MULTIPLE-CHOICE ITEMS

The scoring process included the scoring of multiple-choice items against the answer key and the aggregation of raw scores from the open-ended responses. A student's raw score is the actual number of points achieved by the student for tested elements of an assessment. From the raw scores, the scale scores were calculated.

The student file was scored against the final and approved multiple-choice answer key. Items were scored as right, wrong, omitted, or double-gridded (more than one answer was bubbled for an item). Sections of the test were evaluated as a whole and an attempt status was determined for each student for each subject. The score program defined all data elements at the student level for reporting.

RANGEFINDING

After student answer documents were received and processed, DRC's Performance Assessment Services (PAS) staff assembled groups of responses that exemplified the different score points for each subject. The score point ranges were represented by the following scoring guidelines:

- 0–3 item-specific scoring guidelines for ELA: reading (short-answer)
- 1–4 holistic scoring guideline for ELA: text-dependent analysis
- 0–4 item-specific scoring guidelines for math
- 0–3 item-specific scoring guidelines for science

  Note: For English language arts and mathematics at all grade levels (3–8), Pennsylvania Core Standards (PCS) items were rangefound and field tested. ELA rangefound/field tested 9 forms per subject, per grade. Mathematics rangefound/field tested 9 forms per grade. Science rangefound/field tested 8 forms (4 items per form), per grade level tested (5 and 8), aligned to the STEELS standards. All items, with the exception of Science which was a stand-alone field test, were embedded in the 2025 operational PSSA.

Responses were pulled from the field test portion of the PSSA for each subject. Once examples covering the range of score points were selected for each item, sets were assembled for rangefinding, and copies were made for each rangefinding participant. Rangefinding committees consisted of Pennsylvania educators, PDE staff members, DRC Test Development staff, and DRC Performance Assessment Services staff. The rangefinding meetings were as follows:

- ELA: Text-Dependent Analysis (TDA) Field Test Rangefinding (grades 4–8), June 9–13, Lancaster Marriott at Penn Square in Lancaster, PA
- Reading Field Test Rangefinding (grade 3), June 9–11, Lancaster Marriott at Penn Square in Lancaster, PA
- Math Field Test Rangefinding (grades 6–8), June 9–11, Lancaster Marriott at Penn Square in Lancaster, PA
- Math Field Test Rangefinding (grades 3–5), June 11-13, Lancaster Marriott at Penn Square in Lancaster, PA
- Science Field Test Rangefinding (grades 5 and 8), June 9-12, Lancaster Marriott at Penn Square in Lancaster, PA

Each rangefinding meeting began in a joint session with a review of the history of the assessment as well as a discussion of the purpose of the rangefinding meeting and the role rangefinding plays within the item development process. The session then broke into subject/grade-specific committees. Sets of student responses were presented to the committees, one item at a time. Each committee initially reviewed and scored student responses as a group to ensure consistency in the interpretation of the scoring guidelines. Committee members then went on to score responses independently. For each student response, committee members' scores were discussed until a consensus was reached. Only those responses for which there was strong agreement among committee members were chosen for inclusion in training materials for DRC raters.

Discussions of student responses included the mandatory use of scoring guideline language. This ensured that committee members remained focused on the specific requirements of each score level. DRC PAS staff took notes addressing how and why the committees arrived at score point decisions, and this information was used by the scoring directors in rater training.

DRC and PDE discussed scoring guideline edits suggested by the rangefinding committees. Changes approved by PDE were then incorporated into the scoring guidelines by DRC Test Development staff. The edited scoring guidelines were used in the preparation of materials and the training of raters.

RATER RECRUITMENT/QUALIFICATIONS

DRC retains a number of raters from year to year; the overall return rate in 2025 was 62%. This pool of experienced raters was drawn from to staff the scoring of the 2025 PSSA. To complete the rater staffing, applications for rater positions were screened by DRC's recruiting staff and one-on-one interviews were scheduled. Candidates were personally interviewed by DRC staff. In addition, each candidate was required to provide a writing sample, a math sample, references, and proof of a four-year college degree. In this screening process, preference was given to candidates with previous experience scoring large-scale assessments and degrees emphasizing expertise in mathematics, English language arts, or science. Staffing partners were used to augment hiring using the same practices as those employed by DRC. The rater pool consisted of educators and other professionals with content-specific backgrounds. These individuals were valued for their content-specific knowledge, but they were required to set aside their own biases about student performance and accept the scoring standards outlined in the PSSA.

LEADERSHIP RECRUITMENT/QUALIFICATIONS

Scoring directors and team leaders were selected from a pool of employees who displayed expertise as raters and leaders on previous DRC projects. These individuals had strong backgrounds in mathematics, English language arts, or science, and demonstrated organizational, leadership, communication, and management skills. All scoring directors had previous leadership experience working on large scale assessments. All scoring directors, team leaders, and raters were required to sign confidentiality agreements before handling secure materials.

Each group of raters was assigned a scoring director. All handscoring activities were led by a scoring director for the duration of the project. Scoring directors assisted in rangefinding, worked with supervisors to create training materials, conducted team leader training, and were responsible for training the raters. The scoring director made sure that reports were available and interpreted those reports for the raters. The scoring director also supervised the team leaders. Scoring directors were monitored by the project managers throughout the project.

Team leaders assisted the scoring director with rater training by answering individual questions that raters may not have felt comfortable asking in a large group. Once raters were qualified, team leaders were responsible for monitoring and maintaining the accuracy and workload of each team member. Ongoing monitoring identified those individuals having difficulty scoring accurately. These raters received one-on-one retraining from the team leader or scoring director. Any rater who could not be successfully retrained had his/her scores purged and was released from the project.

TRAINING

As part of preparation for the 2025 ELA, mathematics, and science PSSA assessments, DRC's PAS staff assembled the PDE-approved scoring guidelines and scored student responses approved by rangefinding committees into sets used for training raters. The item-specific scoring guidelines for mathematics, science and ELA: reading (short-answer), as well as the focused holistic scoring guidelines for TDAs served as the raters' constant reference. Responses that were relevant in terms of the scoring concepts they illustrated were annotated and included in an anchor set. The full range of each score point was clearly represented and annotated in the anchor set, which was used for reference by raters throughout the project.

Training sets and qualifying sets contained student responses consensus-scored by rangefinding committee members. Raters were instructed on how to apply the scoring guidelines and were required to demonstrate a clear comprehension of each anchor set by performing well on the associated training materials. Responses were selected for training to show raters the range of each score point (e.g., high, mid, and low 2s). Examples of 0s were also included for all mathematics, reading, and science items. This process helped raters recognize the various ways that a student could respond in order to earn each score point outlined and defined in the scoring guidelines.

The scoring director conducted a team leader training session before training the raters. This session followed the same procedures as rater training but was more rigorous and in-depth due to the extra responsibilities required of team leaders. During team leader training, all pertinent materials were reviewed and discussed. Team leaders were given access to fully annotated training materials with committee justifications from the rangefinding meetings. To facilitate scoring consistency, it was imperative that all team leaders imparted the same rationale for each response. Once the team leaders were qualified, leadership responsibilities were reviewed, and team assignments were given. A ratio of one team leader per 7–10 raters ensured sufficient monitoring rates for team members.

Rater training began with the scoring director providing an intensive review of the scoring guidelines and anchor responses. Next, raters practiced by independently scoring the responses in the training sets. After each training set was taken, the scoring director led a thorough discussion of the responses.

Once the scoring guidelines, anchor sets, and training sets were thoroughly discussed, each rater was required to demonstrate understanding of the scoring criteria by qualifying (i.e., scoring with acceptable agreement to the true scores) on at least one of the qualifying sets. Raters who failed to achieve at least 70 percent exact agreement on the first qualifying set were given additional training, either individually or in a small group setting. Raters who did not perform at the required level of agreement by the end of the qualifying process were not allowed to score any student responses. These individuals were removed from the pool of potential raters in DRC's imaging system and released from the project.

DRC's remote scoring is designed to very closely emulate the work that was done in our physical scoring locations. The platform, content, and expectations for quality remain the same, and interactive technology and content training and discussions are conducted live (virtually). The differences come with the method through which training is delivered (online), and in the modes of communication that are used (web screen sharing, webcast, video chat, and chat). Our scoring leaders are equipped with a variety of tools to ensure every scorer is successful in understanding and applying scoring criteria to student responses.

The 2025 assessment included the opportunity for students to respond in Spanish to mathematics items. Rater training for the Spanish language response scoring was conducted by Tri-Lin Integrated Services in San Antonio, Texas, and was overseen by a DRC project manager, who is a Spanish language speaker with a strong handscoring background. All Spanish raters were bilingual and hired specifically to score the Spanish portion of the assessment and were required to meet the same standards set for raters of the English language version of the assessment.

Table 8–3. Qualification Rates for 2025 PSSA Open-Ended Response Items

Subject	% Qualifying	% That Did Not Qualify
Math	98	2
ELA	99	1

HANDSCORING PROCESS

Student responses were scored independently. All responses were scored once, and ten percent of the responses were scored a second time. The data collected from the ten-percent double-read portion was used to calculate the exact and adjacent agreement rates in the Scoring Summary Reports. The responses that were used for the ten percent read behind were randomly chosen by the imaging system at the item level. Additional read behinds by the team leaders and scoring directors were done to further ensure reliability.

Raters scored the imaged student responses remotely on either laptop or desktop computers.

Raters worked in a secure location in their homes. Image distribution was controlled, ensuring that student images were sent only to designated groups of raters qualified to score those items. Imaged student responses were electronically separated for routing to individual raters by item. Raters were only provided with student responses for items that they were qualified to score. Scores were keyed into DRC's imaging system.

To handle possible alerts (i.e., student responses indicating potential issues related to students' safety and well-being that sometimes require attention at the state or local level), DRC's imaging system allows raters to forward responses needing attention to the scoring director. These alerts are reviewed by project management, who then notifies the students' schools and PDE of the occurrences. PDE does not receive any identifying information about the students. At no time in the alerts process do raters, or other DRC handscoring staff, acquire any knowledge concerning a student's personal identity.

HANDSCORING VALIDITY PROCESS

One of the training tools PAS utilized to ensure rater accuracy was the validity process. The goal of the validity process is to ensure that scoring standards are maintained. Specifically, the objective is to make sure that raters score student responses in a manner consistent with statewide standards both within a single administration of the PSSA and across consecutive administrations. During the scoring of the 2025 PSSA, scoring consistency was maintained, in part, through the validity process.

The validity process began with the selection of scored responses. Forty validity responses were selected for each core open-ended (OE) item. These 40 responses were drawn from a pool of exemplars (responses that are representative of a particular score point and have been verified by the scoring director). The scores on validity responses are considered true scores.

The validity responses were then implemented to test rater accuracy. The responses were selected within the imaging system and dispersed intermittently to the raters. By the end of the project, raters had scored all 40 validity responses for any items they were qualified to score. Raters were unaware when they were being dealt pre-scored validity responses and assumed that they were scoring live student responses. This helped bolster the internal validity of the process. All raters who received validity responses had already successfully completed the training/qualifying process.

The scores that the raters assigned to the validity responses were compared to the true scores in order to determine the validity of the raters' scores. For each item, the percentage of exact agreement as well as the

percentage of high and low scores was computed. This data was accessed through the Validity Item Detail Report. The same sort of data was also computed for each specific rater. This data was accessed through the Validity Reader Detail Report. Both of these may be run as daily or cumulative reports.

The Validity Reader Detail Report was used to identify particular raters for retraining. If a rater on a certain day generated a lower rate of agreement on a group of validity responses, it was immediately apparent in the Validity Reader Detail Report. A lower rate of agreement was defined as anything below 70 percent exact agreement with the true scores. Any time a rater's validity agreement rate fell below 70 percent, the scoring director was cued to examine that rater's scoring. First, the scoring director attempted to ascertain what kind of validity responses the rater was scoring incorrectly. This was done to determine whether there was any sort of a trend (e.g., trending low on the 1–2 line). Once the source of the low agreement rate was determined, the rater was retrained. If it was determined that the rater had been scoring live responses inaccurately, then his/her scores were purged for that day, and the responses were re-circulated and scored by other raters.

The cumulative Validity Item Detail Report was utilized to identify potential group-wide trends in need of correction. For instance, if a particular validity response with a true score of 3 was given a score of 2 by a significant number of raters within the group, that trend would be revealed in the Validity Item Detail Report. To correct a trend of this sort, the scoring director would look for student responses similar to the validity paper being scored incorrectly. Once located, these responses would be used in group-wide re-training, usually in the form of an annotated handout or a short set of responses without printed scores given to raters as a recalibration test.

Validity was employed on all operational mathematics and ELA: reading OE items, as well as on all operational TDAs. Each 40-response validity set was formulated to mirror the score point distribution that the item generated during its previous administration. Each validity set included at least five examples of each score point. Examples of different types of responses were included to ensure that raters were tested on the full spectrum of response types.

The exact rater agreement rate generated during the validity process is sometimes higher than the inter-rater agreement rate for the same item. The reason for this sort of difference often has to do with how validity sets are formulated. The 40 validity responses for each item are intended to cover the full breadth of each score point. For example, each validity set contains examples of high, mid, and low 2s. This sort of scope ensures that the validity process is truly valid in terms of addressing the complete spectrum of response types. However, certain types of responses are generally not included in validity sets. These include line responses (i.e., examples of score points that are so close to the adjacent score point that raters are instructed to consult with a supervisor before assigning a score) and responses that, because of poor word choice/writing, are difficult to understand. The reason for these exclusions is that confusing/line/illegible responses often do not impart a teachable lesson. Since these types of responses are generally unique, any potential lesson the response might teach would apply only to that particular response. Conversely, responses in validity sets are selected because they represent common response-types and teach lessons that can be applied to other similar responses. Due to this distinction, validity sets sometimes generate a slightly higher agreement rate than is generated during operational scoring.

QUALITY CONTROL

Rater accuracy was monitored throughout the scoring session by means of daily and on-demand reports. These reports ensured that an acceptable level of scoring accuracy was maintained throughout the project. Interrater reliability was tracked and monitored with multiple quality control reports that were reviewed by quality assurance analysts. These reports and other quality control documents were generated at the scoring centers, where they were reviewed by the scoring directors, team leaders, and project managers. The following reports and documents were used during the scoring of the open-ended items:

The Scoring Summary Report (includes two related reports)

1. The Reader Monitor Report monitored how often raters were in exact agreement with one another and ensured that an acceptable agreement rate was maintained. This report provided daily and cumulative exact and adjacent inter-rater agreement on the ten percent that was double read.
2. The Score Point Distribution Report monitored the percentage of responses given each of the score points. For example, the mathematics daily and cumulative reports showed what percentage of 0s, 1s, 2s, 3s, and 4s a rater – or group of raters - had given to all the responses scored at the time the report was produced. It also indicated the number of responses read by each rater so that production rates could be monitored.

The Item Status Report monitored the progress of handscoring. This report tracked each response and indicated the status (e.g., not read, complete, awaiting supervisor review, etc.). This report ensured that all responses were scored by the end of the project.

The Reader Score Report identified all responses scored by an individual rater. This report was useful if any responses needed rescoring due to possible rater drift.

The Validity Reports (addressed in detail on previous pages) tracked how raters performed by comparing pre-scored responses to raters' scores for the same responses. If a rater's scoring fell below the 70 percent determined agreement rate, remediation occurred. Raters who did not retrain to the required level of agreement were released from the project.

Read Behinds were used by the team leader/scoring director to monitor individual rater reliability. Team leaders read randomly selected, scored responses from each team member on a daily basis. If the team leader disagreed with a rater's score, remediation occurred. This proved to be a very effective type of feedback because it was performed in real time with live student responses scored by each rater.

Recalibration Sets were used throughout the scoring sessions to ensure accuracy by comparing each rater's scores with the true scores on a pre-selected set of responses. Recalibration sets helped to refocus raters on Pennsylvania scoring standards. These checks made sure there was no change in the scoring pattern as the project progressed. Raters failing to achieve 70 percent agreement with the recalibration true scores were given additional training to achieve the highest degree of accuracy possible. Raters who were unable to recalibrate were released from the project. The process for creating and administering recalibration sets was similar to the one employed for creating and administering training sets.

Table 8–4. Inter-rater Agreement for 2025 PSSA Mathematics Grades 3–8 Open-Ended Response Items and Validity

Mathematics	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 3	1	83	17	100	86
Grade 3	2	92	8	100	94
Grade 3	3	86	14	100	92
Grade 4	1	85	15	100	93
Grade 4	2	83	17	100	88
Grade 4	3	84	16	100	92
Grade 5	1	88	12	100	95
Grade 5	2	94	6	100	96
Grade 5	3	81	19	100	89
Grade 6	1	93	7	100	97
Grade 6	2	91	9	100	96
Grade 6	3	80	20	100	89
Grade 7	1	83	17	100	90
Grade 7	2	92	8	100	95
Grade 7	3	88	12	100	90
Grade 8	1	93	7	100	94
Grade 8	2	90	10	100	92
Grade 8	3	90	10	100	95

Note. 0–4 possible score points

Table 8–5. Percentages Awarded for Each Possible Score Point 2025 PSSA Mathematics Grades 3–8

Mathematics	Common Item	%0	%1	%2	%3	%4	%B/NS*
Grade 3	1	12	20	25	25	14	4
Grade 3	2	21	30	25	15	4	4
Grade 3	3	19	21	20	20	15	4
Grade 4	1	23	20	21	16	17	3
Grade 4	2	25	25	22	12	11	5
Grade 4	3	22	24	22	23	7	3
Grade 5	1	18	20	19	21	18	4
Grade 5	2	20	40	23	5	8	3
Grade 5	3	16	28	22	20	11	4
Grade 6	1	29	22	15	23	9	3
Grade 6	2	29	36	16	10	5	4
Grade 6	3	18	23	22	19	11	6
Grade 7	1	29	26	18	16	7	4
Grade 7	2	38	30	15	8	3	6
Grade 7	3	35	29	13	11	8	5
Grade 8	1	13	38	18	14	6	11
Grade 8	2	30	25	16	12	9	7
Grade 8	3	20	33	17	17	9	4

Note. *B=blank and NS=non-scoreable

Table 8–6. Inter-rater Agreement for 2025 PSSA Reading Grade 3 Open-Ended Response Items and Validity

Reading	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 3	1	81	19	100	90
Grade 3	2	79	21	100	91

Note. 0–3 possible score points

Table 8–7. Percentages Awarded for Each Possible Score Point 2025 PSSA Reading Grade 3

Reading	Common Item	%0	%1	%2	%3	%B/NS*
Grade 3	1	12	49	27	5	7
Grade 3	2	25	34	25	9	7

Note. *B=blank and NS=non-scoreable

Table 8–8. Inter-rater Agreement for 2025 PSSA ELA Grades 4–8 Text-Dependent Analysis Items and Validity

TDA	Common Item	% Exact Agreement	% Adjacent Agreement	% Exact + Adjacent Agreement	% Exact Validity Agreement
Grade 4	1	89	11	100	92
Grade 5	1	88	12	100	91
Grade 6	1	86	14	100	88
Grade 7	1	85	15	100	91
Grade 8	1	88	12	100	86

Note. 1–4 possible score points

Table 8–9. Percentages Awarded for Each Possible Score Point 2025 PSSA TDA items Grades 4–8

TDA	Common Item	%1	%2	%3	%4	%B/NS*
Grade 4	1	20	42	16	2	19
Grade 5	1	21	39	19	3	19
Grade 6	1	16	48	20	5	11
Grade 7	1	21	41	20	4	14
Grade 8	1	17	33	24	8	19

Note. *B=blank and NS=non-scoreable

CHAPTER NINE: DESCRIPTION OF DATA SOURCES AND SAMPLING ADEQUACY

This chapter describes the data sources (e.g., *n*-counts, characteristics of students) used for the various analysis procedures discussed in the remaining chapters of this technical report. Psychometric analyses are conducted at several points for the PSSA: 1) early analyses for quality control purposes and key validation; 2) analyses associated with the pre-equating validation; 3) analyses used for item banking; and 4) analyses for the technical report. Detailed information regarding the attributes of students is provided in Chapter Ten.

PRIMARY STUDENT FILTERING CRITERIA

For many data files, the primary means of filtering students for inclusion/exclusion from any data analysis are based on the state reporting criteria which are outlined below. Within the state reporting rules are separate attempt criteria for individual subject areas. The attempt criteria are discussed more fully below.

STATE REPORTING CRITERIA

The state reporting criteria are as follows:

- The student must be enrolled for the full academic year.
- The student must be attributed to a public district/school (state).
- The student must receive a score (i.e., met the subject attempt logic—see additional information below).
- The student is not a homeschool student.
- The student is not a foreign exchange student.
- The student is not a first year EL student (mathematics/ELA only).

PSSA ATTEMPT CRITERIA

For all data sources, only students who meet the attempt criteria are included. For mathematics, ELA, and science, the attempt criteria required students to complete a minimum of five items (multiple-choice (MC) or open-ended (OE)) in each respective subject area section of the test booklets. All subject counts were based on operational and nonoperational items. Starting in Spring 2024, PDE introduced a new attempt criterion for students with Individualized Education Plans (IEP). For this new attempt logic, students with IEPs must complete one item on the entire test. DRC continues to utilize the previous criteria for analyses.

KEY VALIDATION DATA

These data are only mentioned for the sake of completeness, as no formal results from these data are provided in this technical document. An analysis for all operational selected-response (SR) items is conducted early in the scoring process to ensure that the items are performing as expected. This is an important quality check that is always done for the PSSA. This analysis is usually (but not always) done using students from early-return schools and/or computer-based testers. While the sample does not need to be representative of the entire state for these quality checks, we need to have sufficient counts for each form. Available student data typically suffices if there is reasonable variability in total test scores. Key validation data included all public-school students who had their SR items scanned and scored by early May and met preliminary attempt criteria (i.e., attempt was determined based on SR items only). Note that the full state reporting criteria were not in effect for this file (only attribution to a public school based on tested site and preliminary attempt criteria were used to filter students).

PRE-EQUATING VALIDATION DATA

Data used for pre-equating validation included students who met the preliminary state reporting criteria (including attempt criteria) by May 22. The state reporting criteria were preliminary, meaning that attributions and final PIMS[1] information were not complete by this time. No sampling was undertaken in this data (i.e., it included all students who met the above criteria with operational test scores up to this point[2]). This data file was used to analyze differences in the pre-equated solutions and post-equated solutions to make the final decision to proceed with the pre-equated solution.

ITEM BANK DATA

The item bank data included students who met the state reporting criteria by July 15th. No sampling was undertaken in this data (i.e., it included all students who met the above criteria, were administered either paper-pencil or computer-based tests with scored field- test data up to this point). The data banked for field-test items as well as the updates for operational item parameters were based on this data file.

FINAL DATA

The final datafile included all students who met state reporting criteria by September 4th for all subject areas. The final data reflects updates by schools for correction of certain fields (e.g., student ethnicity). All other files contained preliminary data. Most of the results included in this technical report were derived using the final data file.

FINAL *N*-COUNTS FOR ALL DATA SOURCES

The *n*-counts for all data sources are provided in Table 9–1. The pre-equating validation count includes students who met the preliminary state reporting criteria, while the final count includes students who met the final state reporting criteria. Computer-based test (CBT) forms were offered for all subjects. Final data shows the number of students in both modes. Students administered a mixed-mode test are counted as CBT administrations. Data from both paper-based tests and CBT were used for item banking.

Table 9–1. Data Source *N*-Counts

Subject	Grade	Key Validation (Paper)	Key Validation (CBT)	Pre-equating Validation (Paper/CBT)	Item Bank (Paper/CBT)	Final (Paper/CBT)
Mathematics	3	11347	63236	93723	119615	118833
Mathematics	4	10752	59650	90491	115027	114325
Mathematics	5	10154	66502	94222	118394	117903
Mathematics	6	7996	69730	92373	117910	117473
Mathematics	7	6862	69010	90245	117518	117043
Mathematics	8	6624	69797	90084	117897	117469
ELA	3	31245	61832	105200	119713	118530
ELA	4	31080	58646	101812	115104	113952
ELA	5	27624	65871	104926	118724	117617
ELA	6	23090	70569	103470	118413	117329
ELA	7	21983	72191	102898	118147	116989
ELA	8	20576	73163	102688	118645	117561
Science	5	NA	NA	NA	97708	117667
Science	8	NA	NA	NA	96629	117036

Note. The 2025 PSSA Science was a stand-alone field test. No operational analyses were conducted.

[1] Pennsylvania Information Management System

[2] Historically, PSSA has retained all students who met the stated criteria in the calibration data set, even those who had testing accommodations.

COMPUTER-BASED TEST (CBT)

Table 9–2 displays the count of students who took the 2025 PSSA broken out by subject, grade, and mode (e.g., paper, CBT) with the final data. The proportion of CBT administrations for mathematics and ELA was between 51% and 62% of all administrations and increased from the proportion of CBT administrations in 2024 (between 23% and 38%). The PSSA Science stand-alone field test had a higher proportion of CBTs (~82%). The increase in CBT in 2025 was in advance of the transition to full online testing in Spring 2026. Consistent with previous administrations, CBT administrations for lower grade levels tended to be slightly lower than higher grade levels.

Table 9–2. Final *N*-Counts and Proportion by Mode

Subject	Grade	*N*-Counts Paper	*N*-Counts CBT	Proportion (%) Paper	Proportion (%) CBT
Mathematics	3	56403	62430	47.46	52.54
Mathematics	4	55501	58824	48.55	51.45
Mathematics	5	52164	65739	44.24	55.76
Mathematics	6	48358	69115	41.17	58.83
Mathematics	7	48505	68538	41.44	58.56
Mathematics	8	47961	69508	40.83	59.17
ELA	3	57068	61462	48.15	51.85
ELA	4	55811	58141	48.98	51.02
ELA	5	52208	65409	44.39	55.61
ELA	6	47184	70145	40.22	59.78
ELA	7	45046	71943	38.50	61.50
ELA	8	44542	73019	37.89	62.11
Science	5	20841	96826	17.71	82.29
Science	8	21264	95772	18.17	81.83

SPIRALING OF FORMS

PSSA forms were spiraled during test administration for all grades and subjects. Appendix H provides summary statistics for scaled scores disaggregated by mode, test form, for each subject and grade. The mean scaled scores across forms are similar, indicating the student populations taking each form are of approximately equal ability and item scrambling are appropriate. This equivalence of ability distributions across forms is the desired outcome of spiraling and allows for optimum analysis of the embedded field-test items.

SCRAMBLING OF FORMS

PSSA forms were scrambled during form construction in response to test security issues raised in prior PSSA administrations. Eight scrambled patterns of operational forms were constructed for each mathematics ELA assessment. The eight scrambled patterns are labeled letters A-G, and M represents the master core. A new pattern, *S*, was introduced in 2025 to represent a special accommodated form in which technology-enhanced items were replaced with approximations to measure the same knowledge and skills. In 2025, pattern *S* was also spiraled to collect data on the comparability of technology-enhanced item replacements. No scrambling was necessary for the science stand-alone field test in 2025. The core form was constructed following the prior test development and psychometric guidelines and will be referred to as the Master Core throughout the remainder of this document. Based on previous TAC recommendation, the Master Core is the pattern of the test that would have been administered to all students in the absence of scrambling.

Once the Master Core was constructed and approved, DRC and PDE content specialists built seven scrambled patterns of the Master Core for each grade and subject. OE items were not scrambled, meaning each operational OE item appeared in the same position on every form. Some MC items also appeared in the same position on multiple forms due to content constraints. In some subjects and grades the number of field-test forms was greater than the number of scrambled patterns. In these instances, the Master Core and scrambled patterns were repeated with no specific pattern appearing more than two times. Prior to 2023, only three forms were offered for CBT due to the low CBT administration volume; however starting in 2023, all forms were offered both as a paper-pencil form and as a CBT.

The Master Core was used at least as often, or more often, than any scrambled version of the core form. Since form 1 was used for all accommodated forms (e.g., Braille, Large Print, Audio, and Spanish) it was never designated as a Master Core. The specific forms presenting the Master Core vary across grades within each content area. Given that all forms were spiraled at the student level, the distribution of forms is reasonably uniform. The exception is Form 1, which had higher participation since it is the only form used for accommodations.

Based on TAC recommendations to minimize possible item position effects, each section of the Master Core was divided into blocks of non-overlapping MC and EBSR items. Recall that other item types were not part of the scrambling. The blocks typically contained six to seven items (or one passage), but the block sizes varied depending on the content and section. Within each block, items were scrambled following general psychometric and content guidelines to create up to five versions of the block in addition to the Master Core sequencing. The blocks were assembled to create seven scrambled versions of the Master Core (named A, B, C, D, E, F, and G) in addition to the Master Core.

Prior to scrambling the Master Core, DRC and PDE content specialists developed the following general psychometric and content guidelines:

- Items cannot move between blocks.
- DRC and PDE content specialists will work to ensure that the scrambling does not result in making content more difficult than the Master Core item sequence. For example, items of similar cognitive complexity will be swapped rather than random scrambling.
- A block scramble pattern is only valid if it does not contain an invalid key distribution within the block. Additional checks for an invalid key distribution across blocks must be made when combining block scramble patterns to create forms. For example, scrambling must not create more than three (3) of the same key positions in a row.
- A block scramble pattern is only valid if it does not contain an invalid standard (AA/EC) distribution within a block. Additional checks for standard distribution across blocks must be made when combining block scramble patterns to create forms. An exception was made for one mathematics scramble for each grade which ordered items within block by eligible content per PDE request.
- Scrambling should not place a difficult item as the first item in a section or a passage set; however, the first item in a block that does NOT begin a section may be a difficult item since blocks are invisible to the student.
- For subjects with passage-based items, a block scramble pattern is only valid if it does not create dissonance between the items and passage(s).
- Within a set of items connected to a paired set of passages, an item associated with both passages can be swapped only with another item associated with both passages. (These items must remain at the end of the set of items associated with the passage set.)

Table 9–3 shows a summary of the scrambling strategy employed for the PSSA. For mathematics and ELA, each grade used a total of eight different patterns of the core including the Master Core. For science, no scrambling was necessary because it was a stand-alone field test.

Table 9–3. Form Scrambling

Subject	Grade	Forms	Total Patterns	Master Cores
Mathematics	3	9	8	2
Mathematics	4	9	8	2
Mathematics	5	9	8	2
Mathematics	6	9	8	2
Mathematics	7	9	8	2
Mathematics	8	9	8	2
ELA	3	9	8	2
ELA	4	9	8	2
ELA	5	9	8	2
ELA	6	9	8	2
ELA	7	9	8	2
ELA	8	9	8	2
Science	5	8	NA	NA
Science	8	8	NA	NA

Note. Form scrambles were not necessary for the science stand-alone field test in 2025.

An important assumption for effectively collapsing forms into pattern groups is that the form spiraling yielded randomly equivalent groups. Table 9–4 provides the count of paper-pencil and online administrations, the mean raw score, the standard deviation by each scramble pattern, form, and mode. No data is presented for the science stand-alone field test in 2025 because there were no common set of operational items in which student performance could be compared. It is important to note that online Form 1 is used for all accommodated administrations and as such reflects different performance than that of other forms.

Table 9–4M. Mathematics Mean Scores by Form

Subject	Grade	Form	Count (Paper)	RS Mean (Paper)	RS SD (Paper)	Count (CBT)	RS Mean (CBT)	RS SD (CBT)
Mathematics	3	01A	6799	26.29	12.24	14055	22.35	11.60
Mathematics	3	01S	NA	NA	NA	5406	29.93	11.50
Mathematics	3	02M	6197	27.60	12.20	5350	29.69	11.30
Mathematics	3	03B	6196	27.65	12.13	5380	29.85	11.47
Mathematics	3	04C	6160	27.46	12.03	5373	29.85	11.40
Mathematics	3	05M	6214	27.72	12.07	5392	29.82	11.36
Mathematics	3	06D	6214	27.82	12.11	5394	29.81	11.41
Mathematics	3	07E	6232	27.72	12.12	5341	30.04	11.49
Mathematics	3	08F	6195	27.76	12.21	5372	29.70	11.50
Mathematics	3	09G	6196	27.78	12.05	5367	29.82	11.44
Mathematics	4	01G	6745	26.46	12.26	13817	22.36	11.56
Mathematics	4	01S	NA	NA	NA	4974	30.21	11.44
Mathematics	4	02M	6069	27.58	12.04	5042	30.29	11.58
Mathematics	4	03A	6071	27.68	11.99	5017	30.21	11.45
Mathematics	4	04B	6128	27.84	12.10	5004	30.30	11.47
Mathematics	4	05C	6072	27.63	12.12	5009	30.03	11.58
Mathematics	4	06D	6122	27.54	12.24	4997	30.20	11.53
Mathematics	4	07E	6116	27.53	11.96	4987	30.24	11.48
Mathematics	4	08M	6090	27.64	12.21	4990	30.18	11.66
Mathematics	4	09F	6088	27.79	12.11	4987	30.29	11.56
Mathematics	5	01A	6535	25.29	11.71	15005	21.56	10.81
Mathematics	5	01S	NA	NA	NA	5611	29.16	11.11
Mathematics	5	02M	5686	26.80	11.77	5629	29.25	11.22
Mathematics	5	03D	5719	26.94	11.64	5669	29.19	11.24
Mathematics	5	04M	5682	26.59	11.51	5653	29.24	11.23
Mathematics	5	05C	5691	26.67	11.47	5615	29.44	11.21
Mathematics	5	06B	5681	26.56	11.59	5659	29.20	11.20
Mathematics	5	07E	5704	26.65	11.53	5660	29.17	11.17
Mathematics	5	08F	5723	26.47	11.42	5632	29.43	11.18
Mathematics	5	09G	5743	26.59	11.59	5606	29.19	11.22
Mathematics	6	01F	6083	24.59	11.78	15011	21.63	11.18
Mathematics	6	01S	NA	NA	NA	6043	28.71	11.45
Mathematics	6	02M	5291	26.36	11.85	6013	28.79	11.46
Mathematics	6	03G	5279	26.19	11.87	6029	28.95	11.73
Mathematics	6	04A	5295	26.36	11.63	6017	28.65	11.53
Mathematics	6	05B	5299	26.18	11.75	5981	28.72	11.67
Mathematics	6	06M	5317	26.32	11.70	5986	28.98	11.60

Subject	Grade	Form	Count (Paper)	RS Mean (Paper)	RS SD (Paper)	Count (CBT)	RS Mean (CBT)	RS SD (CBT)
Mathematics	6	07C	5263	26.45	11.83	5986	28.70	11.49
Mathematics	6	08D	5269	26.23	11.76	6031	28.78	11.75
Mathematics	6	09E	5262	26.28	11.91	6018	28.78	11.49
Mathematics	7	01D	6142	22.42	12.24	13450	19.67	11.25
Mathematics	7	01S	NA	NA	NA	6113	25.82	11.89
Mathematics	7	02M	5304	23.81	12.07	6129	25.72	11.99
Mathematics	7	03B	5305	23.88	12.04	6141	25.77	11.94
Mathematics	7	04A	5358	24.11	12.09	6099	25.80	11.92
Mathematics	7	05C	5294	24.11	12.14	6093	25.99	11.94
Mathematics	7	06E	5284	24.17	12.24	6144	26.19	11.94
Mathematics	7	07G	5284	24.26	12.15	6129	25.90	11.82
Mathematics	7	08F	5268	23.91	12.23	6119	25.79	11.91
Mathematics	7	09M	5266	24.06	12.13	6121	25.74	11.90
Mathematics	8	01E	6099	23.70	11.82	13027	21.18	11.24
Mathematics	8	01S	NA	NA	NA	6259	27.01	11.65
Mathematics	8	02M	5230	25.62	12.10	6273	27.30	11.72
Mathematics	8	03A	5225	25.33	12.03	6263	26.88	11.75
Mathematics	8	04B	5262	25.36	12.07	6260	27.17	11.83
Mathematics	8	05C	5170	25.46	12.00	6270	27.25	11.72
Mathematics	8	06D	5228	25.29	11.78	6265	26.88	11.71
Mathematics	8	07M	5265	25.73	11.92	6314	27.49	11.86
Mathematics	8	08F	5227	25.19	12.03	6317	26.91	11.85
Mathematics	8	09G	5255	25.46	12.04	6260	27.32	11.67

Table 9–4E. ELA Mean Scores by Form

Subject	Grade	Form	Count (Paper)	Raw Score Mean (Paper)	Raw Score SD (Paper)	Count (CBT)	Raw Score Mean (CBT)	Raw Score SD (CBT)
ELA	3	01A	6392	22.69	9.13	13351	17.88	8.22
ELA	3	01S	NA	NA	NA	5357	23.45	8.48
ELA	3	02M	6359	22.47	9.23	5381	23.18	8.43
ELA	3	03B	6342	22.55	9.07	5358	23.20	8.53
ELA	3	04M	6321	22.62	9.03	5370	23.23	8.46
ELA	3	05C	6322	22.73	9.17	5348	23.31	8.49
ELA	3	06D	6333	22.90	9.19	5361	23.35	8.47
ELA	3	07E	6308	22.80	9.28	5303	22.95	8.50
ELA	3	08F	6347	22.99	9.17	5325	23.37	8.43
ELA	3	09G	6344	22.80	9.19	5308	23.35	8.50
ELA	4	01A	6232	31.59	12.15	13165	24.97	11.62
ELA	4	01S	NA	NA	NA	4975	33.31	11.12
ELA	4	02M	6168	31.35	12.01	4982	33.33	10.96
ELA	4	03B	6227	31.51	11.91	4967	33.27	11.26
ELA	4	04C	6197	31.39	11.79	5029	32.89	11.04
ELA	4	05D	6177	31.44	12.02	5013	33.04	11.06
ELA	4	06M	6178	31.82	12.03	5008	33.18	11.11
ELA	4	07E	6224	31.86	12.02	4990	33.27	11.23
ELA	4	08F	6211	31.84	12.06	5057	33.54	11.24
ELA	4	09G	6197	32.08	12.02	4955	32.91	11.21
ELA	5	01A	5825	31.39	11.95	14440	25.42	11.93
ELA	5	01S	NA	NA	NA	5676	33.76	11.34
ELA	5	02M	5804	31.25	12.04	5635	33.59	11.49
ELA	5	03B	5780	31.67	11.93	5657	33.62	11.79
ELA	5	04C	5813	31.45	11.81	5720	33.39	11.39
ELA	5	05D	5823	31.45	11.78	5668	33.72	11.65
ELA	5	06E	5792	31.21	11.69	5629	33.11	11.66
ELA	5	07M	5808	31.15	11.89	5624	33.24	11.47
ELA	5	08F	5770	31.39	11.82	5694	33.55	11.49
ELA	5	09G	5793	31.54	12.00	5666	33.78	11.61
ELA	6	01A	5275	32.53	11.59	14813	26.84	11.64
ELA	6	01S	NA	NA	NA	6168	34.51	11.16
ELA	6	02M	5285	32.47	11.73	6181	34.28	11.07
ELA	6	03B	5252	32.84	11.59	6182	34.62	11.02
ELA	6	04C	5242	32.53	11.47	6135	34.47	11.00
ELA	6	05M	5187	32.50	11.70	6150	34.07	11.20
ELA	6	06D	5218	32.90	11.70	6165	34.46	11.25

Subject	Grade	Form	Count (Paper)	Raw Score Mean (Paper)	Raw Score SD (Paper)	Count (CBT)	Raw Score Mean (CBT)	Raw Score SD (CBT)
ELA	6	07E	5233	32.53	11.73	6127	34.34	11.30
ELA	6	08F	5234	32.45	11.55	6121	34.09	11.01
ELA	6	09G	5258	32.71	11.66	6103	34.56	11.32
ELA	7	01A	5079	32.60	12.07	13646	27.85	11.79
ELA	7	01S	NA	NA	NA	6502	34.47	11.40
ELA	7	02M	5007	32.92	12.04	6421	34.41	11.13
ELA	7	03B	4991	32.77	12.12	6462	34.57	11.18
ELA	7	04C	5011	33.29	12.01	6523	34.55	11.36
ELA	7	05D	5010	32.76	11.97	6446	34.40	11.34
ELA	7	06E	4987	32.74	12.32	6465	34.40	11.37
ELA	7	07F	4997	32.80	12.06	6487	34.34	11.44
ELA	7	08M	4986	33.11	12.26	6484	34.66	11.47
ELA	7	09G	4978	32.93	12.18	6507	34.40	11.32
ELA	8	01A	4979	33.24	13.40	13218	27.71	13.04
ELA	8	01S	NA	NA	NA	6665	34.64	12.71
ELA	8	02M	4952	33.15	13.20	6598	34.19	12.58
ELA	8	03B	4949	33.29	13.11	6624	34.74	12.63
ELA	8	04C	4953	33.60	13.06	6611	34.65	12.62
ELA	8	05D	4912	33.26	13.18	6594	34.79	12.59
ELA	8	06E	4955	33.27	13.22	6645	34.65	12.56
ELA	8	07F	4930	33.28	13.06	6695	34.49	12.54
ELA	8	08M	4961	33.04	12.98	6706	34.37	12.47
ELA	8	09G	4951	33.44	13.32	6663	34.36	12.47

Table 9–5 shows the number of students who took each form pattern (recall that pattern M is the Master Core version), and Table 9–6 shows the form to scramble pattern conversion.

Table 9–5. Form Pattern Administration Counts

Subject	Grade	A	B	C	D	E	F	G	M	S
Mathematics	3	20854	11576	11533	11608	11573	11567	11563	23153	5406
Mathematics	4	11088	11132	11081	11119	11103	11075	20562	22191	4974
Mathematics	5	21540	11340	11306	11388	11364	11355	11349	22650	5611
Mathematics	6	11312	11280	11249	11300	11280	21094	11308	22607	6043
Mathematics	7	11457	11446	11387	19592	11428	11387	11413	22820	6113
Mathematics	8	11488	11522	11440	11493	19126	11544	11515	23082	6259
ELA	3	19743	11700	11670	11694	11611	11672	11652	23431	5357
ELA	4	19397	11194	11226	11190	11214	11268	11152	22336	4975
ELA	5	20265	11437	11533	11491	11421	11464	11459	22871	5676
ELA	6	20088	11434	11377	11383	11360	11355	11361	22803	6168
ELA	7	18725	11453	11534	11456	11452	11484	11485	22898	6502
ELA	8	18197	11573	11564	11506	11600	11625	11614	23217	6665

Notes. 1. Final data was used.
2. Form scrambles were not necessary for the science stand-alone field test in 2025.

Table 9–6. Form to Pattern Conversion Table

Subject	Grade	1	2	3	4	5	6	7	8	9
Mathematics	3	A,S	M	B	C	M	D	E	F	G
Mathematics	4	G,S	M	A	B	C	D	E	M	F
Mathematics	5	A,S	M	D	M	C	B	E	F	G
Mathematics	6	F,S	M	G	A	B	M	C	D	E
Mathematics	7	D,S	M	B	A	C	E	G	F	M
Mathematics	8	E,S	M	A	B	C	D	M	F	G
ELA	3	A,S	M	B	M	C	D	E	F	G
ELA	4	A,S	M	B	C	D	M	E	F	G
ELA	5	A,S	M	B	C	D	E	M	F	G
ELA	6	A,S	M	B	C	M	D	E	F	G
ELA	7	A,S	M	B	C	D	E	F	M	G
ELA	8	A,S	M	B	C	D	E	F	M	G

Notes. 1. Form 1S was the same set and sequencing of OP items as the other form pattern shown.
2. Form scrambles were not necessary for the science stand-alone field test in 2025.

SCRAMBLING ANALYSIS

FORM LEVEL

The test-level and item-level effects of scrambling are presented in the following section. Table 9–7 shows the mean raw score difference from the Master Core for each scramble pattern (scramble pattern mean minus Master Core mean). The highlighted mean differences are statistically significant at family-wise Type I error rate (alpha) 0.01 with two-sample t-test. For example, with grade 3 math, seven two sample t-tests were conducted (Master Core vs. A, B, C, D, E, F, and G) and each test had Type I error rate (alpha) of 0.001428571 to keep the family-wise Type I error rate 0.01. Form 1, the form designated for use with accommodations was included in these analyses and as expected, a statistically significant difference was found wherever a pattern corresponds to Form 1. This difference, however, is likely attributable to the general pattern of lower item and test level scores for examinees using accommodations, and not to scrambling effects. Form 1 for all ELA followed pattern A, whereas math forms differed by grade level.

Table 9–7 shows that, aside from results that are likely influenced by examinees receiving accommodations (form 1), 2 math form patterns for grade 8, and 1 ELA form pattern for grade 3 had raw score means that were statistically significant from the Master Core.

Table 9–7. Mean Raw Score Differences from the Master Core

Subject	Grade	A	B	C	D	E	F	G	S
Mathematics	3	-4.99	0.04	-0.06	0.11	0.16	0.03	0.10	1.29
Mathematics	4	0.03	0.15	-0.09	-0.06	-0.05	0.12	-5.09	1.41
Mathematics	5	-5.28	-0.09	0.08	0.10	-0.07	-0.03	-0.10	1.20
Mathematics	6	-0.11	-0.17	-0.04	-0.10	-0.08	-5.21	-0.03	1.02
Mathematics	7	0.11	-0.01	0.22	-4.37	0.36	0.01	0.24	0.92
Mathematics	8	-0.44	-0.27	-0.17	-0.46	-4.63	-0.49	-0.15	0.40
ELA	3	-3.41	0.00	0.15	0.26	0.02	0.32	0.21	0.60
ELA	4	-5.23	-0.04	-0.27	-0.18	0.16	0.27	0.12	0.98
ELA	5	-5.15	0.35	0.13	0.28	-0.14	0.17	0.36	1.47
ELA	6	-5.07	0.40	0.18	0.34	0.10	-0.07	0.30	1.11
ELA	7	-4.74	-0.09	0.13	-0.19	-0.20	-0.20	-0.11	0.59
ELA	8	-4.55	0.35	0.43	0.36	0.29	0.20	0.19	0.87

Notes. 1. Highlighted cells indicate the scramble pattern is statistically significantly different from the Master Core form at family-wise $\alpha = 0.01$ (corrected for pairwise comparisons) for each subject and grade.
2. Form scrambling analyses were not applicable for the science stand-alone field test in 2025.

ITEM LEVEL

The item level scrambling was examined using differential item functioning (DIF) described in Chapter Five. The *Mantel-Haenszel* procedure (Mantel & Haenszel, 1959) for detecting differential item functioning is a commonly used technique for MC items in educational testing and contrasts a focal group with a reference group.

In this section, master core form is reference group and non-master core forms were the focal groups. The items are assigned a severity code based on the magnitude of the effect sizes. Items classified as A+ or A- have little or no statistical indication of DIF. Items classified as B+ or B- have some indication of DIF but may be judged to be acceptable for future use. Items classified as C+ or C- have strong evidence of DIF and should be reviewed. Table 9–8 shows the number of MC items with C-DIF. There was 1 item in Mathematics grade 5 that exhibited C-level DIF on one form (S) and 3 instances of the same MC item with C-DIF in ELA grade 6 (patterns B, D, G).

Table 9–8. The Number of Items with C DIF for Scrambling Effect

Subject	Item Type	Grade	A	B	C	D	E	F	G	S
Mathematics	MC	3	0	0	0	0	0	0	0	0
Mathematics	MC	4	0	0	0	0	0	0	0	0
Mathematics	MC	5	0	0	0	0	0	0	0	1
Mathematics	MC	6	0	0	0	0	0	0	0	0
Mathematics	MC	7	0	0	0	0	0	0	0	0
Mathematics	MC	8	0	0	0	0	0	0	0	0
ELA	MC	3	0	0	0	0	0	0	0	0
ELA	MC	4	0	0	0	0	0	0	0	0
ELA	MC	5	0	0	0	0	0	0	0	0
ELA	MC	6	0	1	0	1	0	0	1	0
ELA	MC	7	0	0	0	0	0	0	0	0
ELA	MC	8	0	0	0	0	0	0	0	0

Note. Form scrambling analyses were not applicable for the science stand-alone field test in 2025.

CHAPTER TEN: SUMMARY DEMOGRAPHIC, PROGRAM, AND ACCOMMODATION DATA FOR THE 2025 PSSA

ASSESSED STUDENTS

The PSSA assessed students include those from public schools who are required to participate as well as those from a small number of non-public schools (fewer than 500 students per grade level) that elected to participate. Also included were home-schooled students (fewer than 100 students per grade) and a small number of foreign exchange students (generally fewer than 30 students per grade). An exception was granted for those IEP students with quite significant cognitive impairments who met each of the following criteria, making them eligible to participate in the Pennsylvania Alternate System of Assessment (PASA) for mathematics, reading, and science: 1) was enrolled in the assessed grade level for the subject area, 2) had a very severe cognitive disability, 3) required very intensive instruction, 4) required very extensive adaptation and support to perform or participate meaningfully, 5) required very substantial modification of the general education curriculum, and 6) participated in the general education curriculum that differed markedly in form and substance from that of other students. (See the *2025 Pennsylvania System of School Assessment: Handbook for Assessment Coordinators*.)

Results for this chapter are presented in tables for the two of the three PSSA subject areas (mathematics and ELA), as PSSA science was a stand-alone field test in 2025 and no student scores were reported. Accompanying each numbered table is a letter (M or E) to designate the subject area. Mathematics results are indicated by "M," and ELA results are indicated by "E." Tables 10–1M and 10-1E provide a summary of the assessed students for each subject. The last line combines the number of paper and online tests that are processed. This number is typically less than the "Used Answer Booklets Received" column shown in Table 8–1. The reason for the difference is that completely blank answer booklets (no student name and no items responded to) are removed from the initial batch of materials scanned. See Chapter Eight for more details on processing. Some processed booklets have student identifying information but will not receive a score. These results are presented within the 10–1 tables. Explanations for non-assessed students are provided later in this chapter.

Table 10–1M. Students Assessed on the 2025 PSSA: Mathematics

Description	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Total number of PPT processed (Number)	59,371	58,292	55,185	51,414	52,146	51,951
Total number of CBT processed (Number)	64,607	61,044	68,262	71,892	71,918	73,408
Total number of tests processed (Number)	123,978	119,336	123,447	123,306	124,064	125,359
Total number of tests processed with a score (Number)	122,000	117,292	120,841	120,351	120,047	120,246
Total number of tests processed with a score (Percent)	98.4	98.3	97.9	97.6	96.8	95.9
Total number of tests processed without a score (Number)	1,978	2,044	2,606	2,955	4,017	5,113
Total number of tests processed without a score (Percent)	1.6	1.7	2.1	2.4	3.2	4.1
Students with a Mathematics score used in state summaries (Number)	118,946	114,405	118,011	117,605	117,200	117,652

Notes. PPT = Paper/Pencil Test
CBT = Computer-Based Test

Table 10–1E. Students Assessed on the 2025 PSSA: ELA

Description	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Total number of PPT processed (Number)	59,987	58,600	55,114	49,972	48,272	47,945
Total number of CBT processed (Number)	63,621	60,309	67,871	72,943	75,490	77,044
Total number of tests processed (Number)	123,608	118,909	122,985	122,915	123,762	124,989
Total number of tests processed with a score (Number)	120,989	116,213	119,853	119,513	119,300	119,671
Total number of tests processed with a score (Percent)	97.9	97.7	97.5	97.2	96.4	95.7
Total number of tests processed without a score (Number)	2,619	2,696	3,132	3,402	4,462	5,318
Total number of tests processed without a score (Percent)	2.1	2.3	2.5	2.8	3.6	4.3
Students with an English Language Arts score used in state summaries (Number)	118,825	114,210	117,850	117,599	117,288	117,878

Notes. PPT = Paper/Pencil Test
CBT = Computer-Based Test

NON-ASSESSED STUDENTS

As may be observed from Tables 10–1M and 10–1E, not all students were assessed. Although there are a variety of reasons for this, the major ones pertain to the following:

- Extended absence from school that continued beyond the assessment window.
- Failure to meet the attempt criteria on one or more subject-area test sections and no exclusion code was marked by school personnel. For mathematics, ELA, and science, the attempt criteria required a minimum of five items to be completed in each subject area section for students without Individualized Education Plans (IEP).
- EL students in their first year in U.S. schools (ELA only).
- Medical emergency.
- Parental request in which the student's parent/guardian reviewed the assessment, found it to be in conflict with his/her religious belief, and requested in writing that the student be excluded from participation.
- Parental request in which the student's parent/guardian chose to have his/her child excluded from participation based on reasons other than conflict with religious belief, even though there is no provision for this exclusion in Pennsylvania regulation.
- Other reasons.

The numbers of students without test scores for these reasons are presented in Tables 10–2M and 10–2E.

Table 10–2M. Counts of Students without Scores on the 2025 PSSA: Mathematics

Reason for Non-Assessment	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Extended absence from school (Number)	162	193	216	344	518	770
Extended absence from school (Percent)	8.2	9.4	8.3	11.6	12.9	15.1
Non-attempt (Number)	191	182	262	282	461	512
Non-attempt (Percent)	9.7	8.9	10.1	9.5	11.5	10
EL in first year in U.S. schools (Number)	477	431	418	386	313	282
Medical emergency (Number)	108	87	167	161	240	297
Medical emergency (Percent)	5.5	4.3	6.4	5.4	6	5.8
Parental request - Chapter 4 (Number)	671	774	954	1,037	1,310	1,597
Parental request - Chapter 4 (Percent)	33.9	37.9	36.6	35.1	32.6	31.2
Parental request - Other reasons (Number)	671	623	792	858	1,108	1,459
Parental request - Other reasons (Percent)	33.9	30.5	30.4	29	27.6	28.5
Other reasons (Number)	175	185	215	273	380	478
Other reasons (Percent)	8.8	9.1	8.3	9.2	9.5	9.3
Total not assessed (Number)	1,978	2,044	2,606	2,955	4,017	5,113

Table 10–2E. Counts of Students without Scores on the 2025 PSSA: ELA

Reason for Non-Assessment	Gr. 3	Gr. 4	Gr. 5	Gr. 6	Gr. 7	Gr. 8
Extended absence from school (Number)	134	160	185	290	456	658
Extended absence from school (Percent)	5.1	5.9	5.9	8.5	10.2	12.4
Non-attempt (Number)	376	435	408	438	593	589
Non-attempt (Percent)	14.4	16.1	13	12.9	13.3	11.1
EL in first year in U.S. schools (Number)	530	477	447	431	438	386
EL in first year in U.S. schools (Percent)	20.2	17.7	14.3	12.7	9.8	7.3
Medical emergency (Number)	88	72	143	149	211	259
Medical emergency (Percent)	3.4	2.7	4.6	4.4	4.7	4.9
Parental request - Chapter 4 (Number)	713	761	967	1,035	1,306	1,589
Parental request - Chapter 4 (Percent)	27.2	28.2	30.9	30.4	29.3	29.9
Parental request - Other reasons (Number)	674	657	812	859	1,136	1,433
Parental request - Other reasons (Percent)	25.7	24.4	25.9	25.2	25.5	26.9
Other reasons (Number)	216	208	248	276	405	485
Other reasons (Percent)	8.2	7.7	7.9	8.1	9.1	9.1
Total not assessed (Number)	2,619	2,696	3,132	3,402	4,462	5,318

COMPOSITION OF SAMPLE USED IN SUBSEQUENT TABLES

Students included in the following demographic analyses were those who contributed to state summary statistics, using the final individual student data file provided to the Pennsylvania Department of Education in August 2025. Students not included in the state summary data were those who were 1) enrolled in a Pennsylvania school after October 1, 2024, 2) coded as EL and enrolled in a US school fewer than 12 cumulative months, 3) foreign exchange students, 4) home schooled, 5) enrolled in a non-public school, or 6) without a subject-area test score.

Demographic data for students taking the PSSA is presented separately for each subject area in Appendix I. Results for accommodations received were collected separately by subject area and are presented in separate tables as well.

COLLECTION OF STUDENT DEMOGRAPHIC INFORMATION

Data for analyses involving demographic characteristics were obtained primarily from information supplied by school district personnel through the Pennsylvania Information Management System (PIMS) and subsequently transmitted to DRC. Updates of attribution data were carried out through the DRC Attribution System. Some data such as accommodation information is marked directly on the student answer document at the time the PSSA is administered.

PARTICIPATION BY ADMINISTRATION MODE

Online (CBT) testing was available for the PSSA. As anticipated the majority of students were assessed utilizing paper/pencil tests (PPT). The bottom row of the tables presented in Appendix I present the number of students involved in the PPT and CBT administrations as well as Table 9–2 in Chapter Nine. Overall, the percent of students responding by CBT was approximately 51 to 62 percent for mathematics and ELA. There was a substantial increase across each subject and grade level between 2019 and 2021 and again from 2024 to 2025. For ELA and math, higher grade levels tend to administer more computer-based tests.

DEMOGRAPHIC CHARACTERISTICS

Frequency data for each demographic category is presented in Appendix I. Percentages are based on students with scores in a subject area, which are shown at the bottom of the appropriate table. Included are students receiving education in a non-traditional setting, such as a court-agency placement.

TEST ACCOMMODATIONS PROVIDED

School personnel supplied information regarding accommodations that a student may have received while taking the PSSA. Accommodations are classified in terms of presentation, response, setting, and timing to enable students to better manage disabilities that hinder their ability to learn and respond to assessments. An accommodations manual entitled, 2025 *Accommodations Guidelines: Keystone Exams and PSSA* guides the development and analysis of the PSSA. This manual may be found on the PDE website at www.education.pa.gov. A glossary of accommodation terms as applied to the PSSA is provided in Table 10–3 at the end of this chapter.

The frequency with which accommodations were utilized for PPT and CBT formats is summarized separately for each subject area in Appendix J. Tabled values are based on all students whose score contributed to state summary statistics in a given subject area. In the tables an NA denotes those instances in which a particular accommodation does not apply to one of the testing modes.

PRESENTATION ACCOMMODATIONS RECEIVED

Presentation Accommodations are those that provide alternate ways for students to access and process printed instructional material and assessments. These include auditory, tactile, visual, and combined auditory/visual modes of presentation. The number of presentation accommodations provided in the 2025 PSSA varied by subject and testing mode and are presented in Appendix J.

As depicted in Appendix J, the actual frequencies were low, with all but the read-aloud and audio accommodations being used by less than one percent of assessed students statewide. Among accommodations specific to CBT the use of audio was the most frequent. For CBT administration, there were unique accommodations, audio, color chooser, contrasting text chooser, and refreshable Braille, available for mathematics, ELA, and science. Video sign language was also available for mathematics and science.

RESPONSE ACCOMMODATIONS RECEIVED

Response Accommodations permit students to complete assignments, tests, and activities in different ways to solve or organize problems using some type of assistive device or organizer. The number of response accommodations provided on the 2025 PSSA varied by subject and testing mode and are presented in Appendix J.

SETTING ACCOMMODATIONS RECEIVED

Setting Accommodations permit a change in location in which a student receives instruction or participates in an assessment. There were four categories of setting accommodations for mathematics, ELA, and science on the 2025 PSSA. As depicted in Appendix J, the most common accommodation across subject areas was small group setting. This was true for both PPT and CBT modes of administration.

TIMING ACCOMMODATIONS RECEIVED

Timing Accommodations involve a change in the allowable length of time to complete assignments or assessments, including the way in which time is organized. There were four categories of timing accommodations for mathematics, ELA, and science on the 2025 PSSA. As depicted in Appendix J, the most commonly used accommodation was extended time, followed by frequent breaks. One consistent finding was that students responding by CBT had a higher usage of frequent breaks and extended time than observed for students taking a PPT.

ACCOMMODATION RATE FOR NON-IEP AND IEP STUDENTS

A comparison between students without an IEP (non-IEP students) and those with an IEP (IEP students) with regard to having received an accommodation is provided in Appendix K. In this data, accommodated means that a student received one or more of the total number of accommodations available for a given subject area; however, this also varies with administration mode. The total number of available accommodations for students taking a PPT was as follows: mathematics and science, 31; and ELA, 28. The number of available accommodations for students taking a CBT was as follows: mathematics and science, 29; and ELA, 25. The category of non-accommodated indicates that a student did not receive any accommodation during testing.

As expected, the general pattern of findings reveals a consistent and substantially higher percentage of IEP students receiving an accommodation in contrast to non-IEP students. This same pattern holds true regardless of test administration mode and PSSA test.

THE INCIDENCE OF ACCOMMODATIONS AND IEP AND EL STATUS

As noted in Appendix L, students with an IEP received an accommodation of some type far more often than non-IEP students, with the exception of the extended time accommodation. As the PSSA is designed as having no time limit, any student may opt for extended time. Certain accommodations with very low frequencies are specific to particular disabilities while others, such as extended time are far more common and may also apply to any student. Accommodations having the largest frequencies can potentially supply the most stable data when separated out for subgroup analysis. Listed below are the most commonly used accommodations, which were chosen for display.

- Some test items/questions read aloud (mathematics, science)
- All test items/questions read aloud (mathematics, science)
- Small group setting (mathematics, ELA, science)
- Extended time (mathematics, ELA, science)
- Frequent breaks (mathematics, ELA, science)

- Some language questions/text-dependent analysis questions read aloud (ELA)
- All language questions/text-dependent analysis questions read aloud (ELA)

Coding for IEP is dichotomous, as students are classified IEP and non-IEP. For purposes of this analysis, an English Learner (EL) is a student classified EL and enrolled in a U.S. school fewer than 12 cumulative months. All other assessed students, including those who have exited an ESL/bilingual program and are in the first or second year of monitoring, are regarded as non-EL. Students coded as EL and enrolled in a U.S. school fewer than 12 cumulative months, are excluded from state summary statistics as stated earlier in this chapter.

Customarily, a considerably larger percentage of IEP students receive a given accommodation than non-IEP students. Although less frequent, certain accommodations also have a high frequency rate for EL students. To separate out the effect of being classified IEP or EL, four possible combinations are presented in the Appendix L. These include general education students who are neither IEP nor EL, students who are IEP but non-EL, students who are EL but non-IEP, and students who are both IEP and EL. The bottom row for each grade provides the total number of assessed students in each of the four classifications.

GLOSSARY OF ACCOMMODATION TERMS

Table 10–3 provides a brief description of accommodation terms as used in the PSSA. Accommodation data was supplied by school personnel as noted in the left column of the table. The right column contains an explanation derived from the PDE publication, 2025 *Accommodations Guidelines: Keystone Exams and PSSA*. This manual may be found on the PDE website at www.education.pa.gov.

Table 10–3. Glossary of Accommodation Terms as Applied in the 2025 PSSA

Type of Testing Accommodation	Explanation
Student used the following Presentation Accommodations	
Braille format	Students may use a Braille format of the test. Answers must then be transcribed into the answer booklet without alteration.
Large print format	Students with visual impairments may use a large print format. Answers must then be transcribed into the answer booklet without alteration.
Magnification device	Devices to magnify print may be used for students with visual impairments and/or print disabilities.
Color overlay	Students with visual impairments may place a color overlay on a printed page of the test document to make text more readable.
Computer assistive technology (e.g., electronic screen reader) (PDE approval required)	Students with severe visual disabilities that prevent them from accessing instructional material or performing the skill may use computer assistive technology; however, PDE must approve the program and functions prior to the test window.
Test items/questions/text-dependent analysis signed	Deaf/hearing impaired students may receive test directions from a qualified interpreter. Signing is also permitted for PSSA ELA writing section multiple-choice items, and text-dependent analysis questions and all items in PSSA mathematics and science and for Keystone Algebra and Biology.
Test items/questions/text-dependent analysis interpreted for EL	A qualified interpreter may translate directions or clarify instructions for the assessments. The interpreter may translate but not define specific words or test questions on the PSSA mathematics, science, ELA writing section multiple-choice items, and text-dependent analysis questions and Keystone Algebra and Biology exams.
Some or all test items/questions/text-dependent analysis read aloud	Students unable to decode text visually may have items/questions read aloud for PSSA ELA writing section multiple-choice items, and text-dependent analysis questions and all items in PSSA mathematics and science and for Keystone Algebra and Biology; however, words may not be defined. For a few students, this accommodation is available on the full ELA and Literature Exams if the student meets specified criteria listed in the *Accommodations Guidelines*.
Amplification device	In addition to using hearing aids, an amplification device to enhance clarity may be required.
Other (PDE approval required)	Other presentation accommodations indicated in the *Accommodation Guidelines* may be provided; however, PDE approval is required prior to the test window.
Spanish version for PSSA (Math and Science) and Keystone (Algebra and Biology)	Students whose first language is Spanish and who have been enrolled in U.S. schools for fewer than three years may take this version.
Student used the following Online Presentation Accommodations	
Audio	The online test form reads permissible test directions and items for a student unable to decode text. The accommodation must be marked within the test engine system. The accommodation is available on PSSA mathematics, science, ELA writing section multiple-choice items, and text-dependent analysis questions and Keystone Algebra and Biology exams.
Video sign language (per accommodations guidelines)	Eligible students who use a sign language accommodation during instructional periods may use VSL on the PSSA mathematics and science and Keystone Algebra and Biology assessments.
Color chooser or contrasting text chooser	The use of this accommodation enables a visually impaired student to change the background color or text color to make text more readable.

Table 10–3 (continued). Glossary of Accommodation Terms as Applied in the 2025 PSSA

Type of Testing Accommodation	Explanation
Refreshable Braille	This accommodation allows students to use a screen reader to produce a Braille translation output.
Student used the following Response Accommodations	
Brailler/Note taker (per *Accommodations Guidelines*)	Students using this device as part of their regular instructional program may use it on the assessments; however, without thesaurus, spelling, or grammar checker.
Test administrator scribed **open-ended** responses at student's direction	A test administrator may record word-for-word exactly what a student dictated directly into the test booklet. This includes MC and OE responses Keystone Algebra, Biology, and Literature tests and PSSA mathematics, ELA, and science.
Test administrator marked **multiple-choice** responses at student's direction	A test administrator may mark an answer booklet at the direction of a student (e.g., a student may point to an MC answer with the test administrator marking the response in the answer booklet).
Test administrator transcribed student responses (per **Accommodations Guidelines**)	A test administrator may transcribe (copy) a student's written, typed, or keyed response into a standard answer booklet.
Qualified Interpreter translated, transcribed, and/or scribed student's **signed** responses	A qualified interpreter may interpret a student's **signed** responses into written English for Keystone Algebra and Biology exams, and PSSA mathematics and science assessments. Interpreters are not permitted to make corrections or change the meaning of the response.
Qualified Interpreter translated, transcribed, and/or scribed EL student responses	A qualified interpreter may interpret a student's non-English oral responses into written English for Keystone Algebra and Biology exams, and PSSA mathematics and science assessments. Interpreters are not permitted to make corrections or change the meaning of the response.
Mixed-mode test administration	Examinee taking the PSSA in computer-based mode provides handwritten responses to constructed-response items in paper answer booklet.
Augmentative communication device	Students with severe communication difficulties may use a special device to convey responses, which must be transcribed into the answer booklet by the test administrator.
Keyboard, word processor, or computer (per *Accommodations Guidelines*)	This is an allowable accommodation as a typing function only for students with the identified need. Supports such as dictionaries, thesauri, spell checkers, and grammar checkers must be turned off. Answers must then be transcribed into the answer booklet without alteration.
Translation dictionary for EL student	A word-to-word dictionary that translates native language to English (or vice versa) without word definitions or pictures is allowed on any portion of the Keystone Algebra and Biology exams, and PSSA mathematics and science tests.
Computer assistive technology (e.g., electronic screen reader) (PDE approval required)	Students with blindness or extremely low vision may use dictate text into a computer. Responses must be transcribed verbatim into student's regular answer booklet.
Other (per *Accommodations Guidelines* or PDE approval)	Other accommodations may be appropriate and available if they do not compromise the integrity of the assessment. Documentation must be provided to PDE.
Student used the following Setting Accommodations	
Hospital/home testing	A student who is confined to a hospital or to home during the testing window may be tested in that environment.
One-on-one setting	One-on-one settings are necessitated in certain instances, such as to reduce distraction or in the use of certain devices. A separate room may be used to reduce distraction.

Table 10–3 (continued). Glossary of Accommodation Terms as Applied in the 2025 PSSA

Type of Testing Accommodation	Explanation
Small group setting	Some students may require a test setting with fewer students or a setting apart from all other students to minimize distraction.
Smartphone or smartwatch for medical/glucose monitoring	Student had an approved electronic device on their desk to be used as a medical device.
Other (per *Accommodations Guidelines* or PDE approval)	Other accommodations may be appropriate and available if they do not compromise the integrity of the assessment. Documentation must be provided to PDE.
Student used the following Timing Accommodations	
Extended time	Extended time may be allotted for each section of the test as a planned accommodation to enable students to finish.
Frequent breaks	Frequent breaks (breaks within a test section) may be scheduled for the completion of each test section; however, a test section must be completed within one school day.
Changed test schedule	Students whose disabilities prevent them from following a regular, planned test schedule may follow an individual schedule that enables test completion.
Other (per *Accommodations Guidelines* or PDE approval)	Other accommodations may be appropriate and available if they do not compromise the integrity of the assessment. Documentation must be provided to PDE.

CHAPTER ELEVEN: CLASSICAL ITEM STATISTICS

This chapter provides an overview of the two most familiar item-level statistics obtained from any classical (traditional) item analysis: item difficulty and item discrimination. The following results were estimated using final data and pertain only to operational PSSA items (i.e., those items that contributed to a student's total test score). Rasch item statistics are discussed in Chapter Twelve and test-level statistics are found in Chapter Seventeen. Results from PSSA Science in 2025 are not presented in this chapter due to the stand-alone field test. Item-Level Statistics

Appendix F provides classical item statistics and Rasch parameters for all PSSA items. Results are organized by subject and grade. These statistics represent the item characteristics most often used to determine whether an item functioned properly and/or how a group of students performed on a particular item. The item statistics in the appendices include *p*-values for multiple-choice (MC) items and item means for open-ended (OE)[1] items (indicators of item difficulty); point-biserial correlations for MC items and item-test correlations for OE items (indicators of item discrimination); and the proportion of students selecting each MC item option or earning each OE item score point.

ITEM DIFFICULTY

At the most general level, an item's difficulty is indicated by its mean score in some specified group (e.g., grade level).

$$\bar{x} = \frac{1}{n} \cdot \sum_{i=1}^{n} x_i$$

In the mean score formula above, the individual item scores (x_i) are summed and then divided by the total number of students (n). For multiple-choice and dichotomously scored technology-enhanced items, student scores are represented by 0s and 1s (0 = wrong, 1 = right). With 0–1 scoring, the equation above also represents the number of students correctly answering the item divided by the total number of students. Therefore, this is also the proportion correct for the item, or the *p*-value. In theory, *p*-values can range from 0.00[2] to 1.00 on the proportion-correct scale. For example, if an item has a *p*-value of 0.89, it means 89 percent of the students answered the item correctly. Additionally, this value might also suggest that the item was relatively easy and/or the students who attempted the item were relatively high achievers. In other words, item difficulty and student ability are somewhat confounded.

For polytomously scored items, mean scores can range from the minimum possible score (usually zero) to the maximum possible score. Often, a pseudo *p*-value is calculated for multi-point items by dividing the mean item score by the maximum possible item score.

The minimum and maximum extremes of the difficulty scale are typically not seen in applied practice. However, understanding the extremes helps illustrate that relatively lower values correspond to more difficult items, and that relatively higher values correspond to easier items. (As a result, some assert that this index would be more accurately referred to as the item's easiness.)

Item difficulty is an important consideration for the PSSA tests because of the ranging achievement levels of students in Pennsylvania (Below Basic, Basic, Proficient, and Advanced). Items that are either very hard or very easy provide little information about student differences in achievement. However, an item answered correctly by a high percentage of students would suggest that the knowledge or skill the item measures has been mastered by most students. Conversely, an item answered incorrectly by a low percentage of students would suggest few students have mastered the knowledge or skill the item taps. On a standards-referenced test like the PSSA, a test development goal is to include a wide range of item difficulties.

[1] OE items for ELA include Short-Answer (SA), Evidence-Based Selected-Response (EBSR), Text-Dependent Analysis (TDA).
[2] For MC items with four response options, pure random guessing would lead to an expected *p*-value of 0.25.

ITEM DISCRIMINATION

At the most general level, item discrimination[3] indicates an item's ability to differentiate between high and low achievers. It is expected that students with high ability (i.e., those who perform well on the PSSA overall) would be more likely to answer any given PSSA item correctly, while students with low ability (i.e., those who perform poorly on the PSSA overall) would be less likely to answer the same item correctly. For the PSSA tests, Pearson's product-moment correlation coefficient between item scores and test scores is used to indicate discrimination. (As commonly practiced, DRC removes the item score from the total score such that the resulting correlations will not be spuriously high.) The correlation coefficient can range from -1.0 to +1.0. If this expectation is met (high-scoring students tend to answer the item correctly while low-scoring students answer the item incorrectly), the correlation between the item score and the total test score will be both positive and noticeably large in its magnitude (i.e., well above zero), meaning the item is a good discriminator between high and low ability students. This should be the case for all PSSA operational test items.

In summary, the correlation will be positive in value when the mean test score of the students answering the item correctly is higher than the mean test score of the students answering the item incorrectly.[4] In other words, this indicates that students who did well on the total test tended to do well on the item as well. However, an interaction can exist between item discrimination and item difficulty. Items answered correctly (or incorrectly) by a large proportion of examinees (i.e., the items have extreme *p*-values) can have reduced power to discriminate, and thus, can have lower correlations.

Discrimination is an important consideration for the PSSA because the use of more discriminating items on a test is associated with more reliable test scores. This in turn means that score estimates will be more precise (i.e., there will be smaller confidence intervals around the scores) and, perhaps more importantly, that more accurate performance level placements will be made. The issues of reliability, confidence intervals, and performance level classifications are further discussed in Chapter Eighteen.

[3] As noted earlier, the discrimination index for PSSA dichotomously-scored items is typically referred to as the point-biserial correlation coefficient. For multi-point items, the term item-test correlation is sometimes used.

[4] It is legitimate to view the point-biserial correlation as a standardized mean difference. A positive value indicates students who chose that response had a higher mean score than the average student; a negative value indicates students who chose that response had a lower than average mean score.

CLASSICAL ITEM ANALYSIS RESULTS

Table 11–1 provides the summary statistics for the difficulty and discrimination with respect to each subject and grade. The spread of item difficulties and discriminations can be seen in both Table 11–1 and Figure 11–1. There is a wide range of difficulties across all subjects, where *p*-values typically range from approximately 0.30 to approximately 0.85. Average *p*-values are consistent with test specifications. The item-total correlations typically range from about 0.20 to 0.70, where higher item-total correlations are often observed for multi-point items (see Table 11–2).

Table 11–1. Summary Statistics of Difficulty and Discrimination by Subject and Grade

Subject	Grade	Mean P-val.	Min P-val.	Q1 P-val.	Median P-val.	Q3 P-val.	Max P-val.	Mean I-T Corr.	Min I-T Corr.	Q1 I-T Corr.	Median I-T Corr.	Q3 I-T Corr.	Max I-T Corr.
Mathematics	3	0.55	0.36	0.44	0.52	0.65	0.85	0.46	0.24	0.39	0.46	0.52	0.79
Mathematics	4	0.56	0.28	0.46	0.54	0.68	0.82	0.46	0.25	0.41	0.46	0.51	0.76
Mathematics	5	0.54	0.31	0.44	0.55	0.59	0.88	0.44	0.22	0.35	0.44	0.52	0.72
Mathematics	6	0.54	0.28	0.44	0.54	0.65	0.92	0.46	0.29	0.39	0.44	0.49	0.75
Mathematics	7	0.50	0.25	0.41	0.50	0.59	0.72	0.46	0.22	0.38	0.47	0.52	0.78
Mathematics	8	0.52	0.34	0.44	0.54	0.59	0.71	0.45	0.27	0.36	0.43	0.49	0.76
ELA	3	0.50	0.25	0.40	0.50	0.59	0.74	0.40	0.22	0.29	0.42	0.50	0.65
ELA	4	0.52	0.26	0.44	0.53	0.61	0.80	0.39	0.14	0.32	0.38	0.48	0.63
ELA	5	0.51	0.33	0.44	0.53	0.57	0.78	0.38	0.13	0.31	0.39	0.47	0.64
ELA	6	0.53	0.26	0.46	0.52	0.62	0.75	0.39	0.16	0.31	0.40	0.47	0.63
ELA	7	0.54	0.32	0.46	0.52	0.60	0.80	0.39	0.15	0.32	0.39	0.47	0.66
ELA	8	0.54	0.28	0.45	0.55	0.62	0.79	0.41	0.18	0.32	0.41	0.49	0.69
Science	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes. 1. I-T Corr. is the item-test score correlation.
2. The 2025 PSSA Science was a stand-alone field test; no student scores were reported.

Table 11–2 disaggregates results for the MC and OE items. The mean *p*-values for MC items ranged from about 0.52 to 0.57 for Mathematics and from 0.49 to 0.55 for ELA. On average, OE items were slightly more difficult for mathematics, where *p*-values ranged from 0.30 to 0.47. *P*-values for ELA OE items were similar to that of MC items.

The mean item-test correlations ranged from roughly 0.35 to 0.44 and 0.47 to 0.77 for the MC and OE items, respectively. These are similar to historic trends. The OE correlations tended to be higher than the MC correlations, which is not surprising because the OE items include more score points. Based on the distribution of the discrimination (correlation) statistics, the overall item quality appears quite good. However, it is difficult to make global conclusions about overall test quality from these item statistics alone. With that caveat in mind, the results presented in this chapter indicate that the PSSA item difficulty and discrimination were in expected and acceptable ranges, and further evidence of the quality of the internal test structure is provided in the chapters that follow.

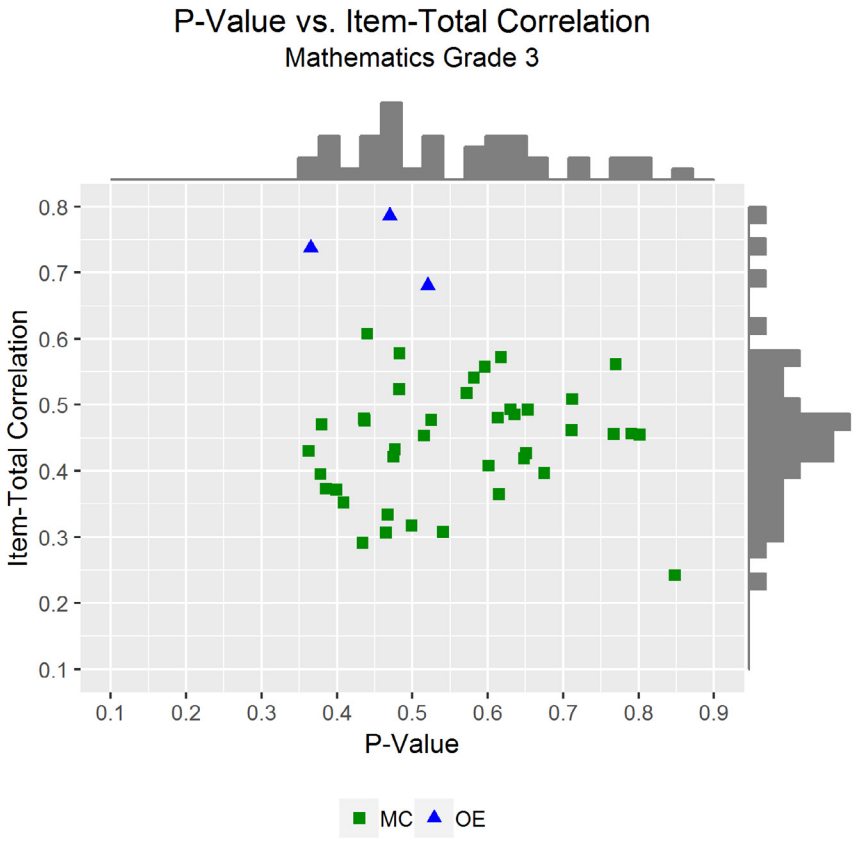
Table 11–2. Sum and Mean Statistics for MC and OE Items

Subject	Grade	MC Points	MC Sum	MC Mean P-val.	MC Mean I-T Corr.	OE Points	OE Sum	OE Mean P-val.	OE Mean I-T Corr.
Mathematics	3	40	22.48	0.56	0.44	12	5.42	0.45	0.73
Mathematics	4	40	22.94	0.57	0.44	12	5.01	0.42	0.73
Mathematics	5	40	21.90	0.55	0.42	12	5.14	0.43	0.71
7Mathematics	6	40	22.19	0.55	0.43	12	4.57	0.38	0.73
Mathematics	7	40	20.68	0.52	0.44	12	3.63	0.30	0.77
Mathematics	8	40	21.27	0.53	0.43	12	4.42	0.37	0.73
ELA	3	29	14.24	0.49	0.36	16	8.36	0.52	0.57
ELA	4	32	16.78	0.52	0.38	19	9.48	0.50	0.47
ELA	5	32	16.24	0.51	0.35	19	9.83	0.52	0.51
ELA	6	32	17.14	0.54	0.37	19	9.30	0.49	0.48
ELA	7	32	17.23	0.54	0.37	19	9.91	0.52	0.49
ELA	8	32	17.73	0.55	0.38	19	9.29	0.49	0.52
Science	5	NA	NA	NA	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA	NA	NA	NA

Notes. 1. I-T Corr. is the item-test score correlation. OE items for ELA include SA, EBSR, and TDA.
2. The 2025 PSSA Science was a stand-alone field test; no student scores were reported.

Figure 11–1 presents scatterplots for each subject and grade and displaying each item plotted by its *p*-value on the *x*-axis and its item-total correlation on the *y*-axis. Note that pseudo *p*-values (described above) are used for OE items in these plots. These plots provide information about the distribution of item discrimination and item difficulty in a histogram along the y-axis and x-axis, respectively. Green squares indicate MC items and blue triangles indicate OE items. For ELA, OE items include SA, EBSR, and TDA item types. From the difficulty distributions illustrated in Figure 11–1, a wide range of item difficulties appeared on each exam, which was one test development goal. The bivariate relationship between item discrimination (item-test *correlations*) and difficulty (item *p-values*) shows a common trend that items with extreme difficulties can have lower discrimination values.

Figure 11–1. Discrimination and Difficulty Scatterplot



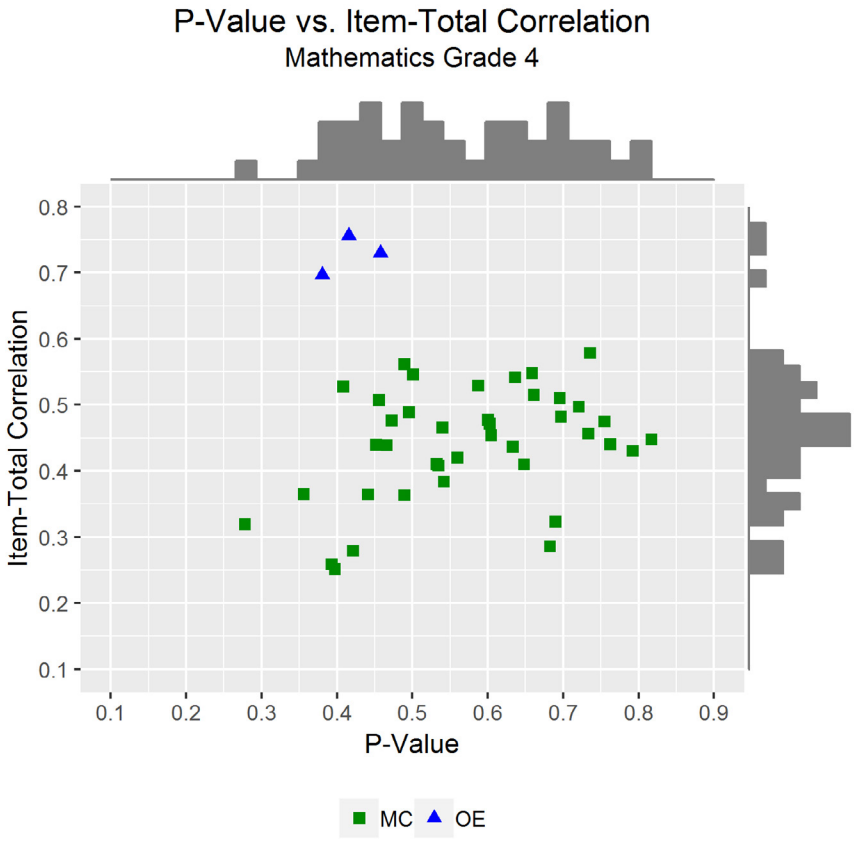
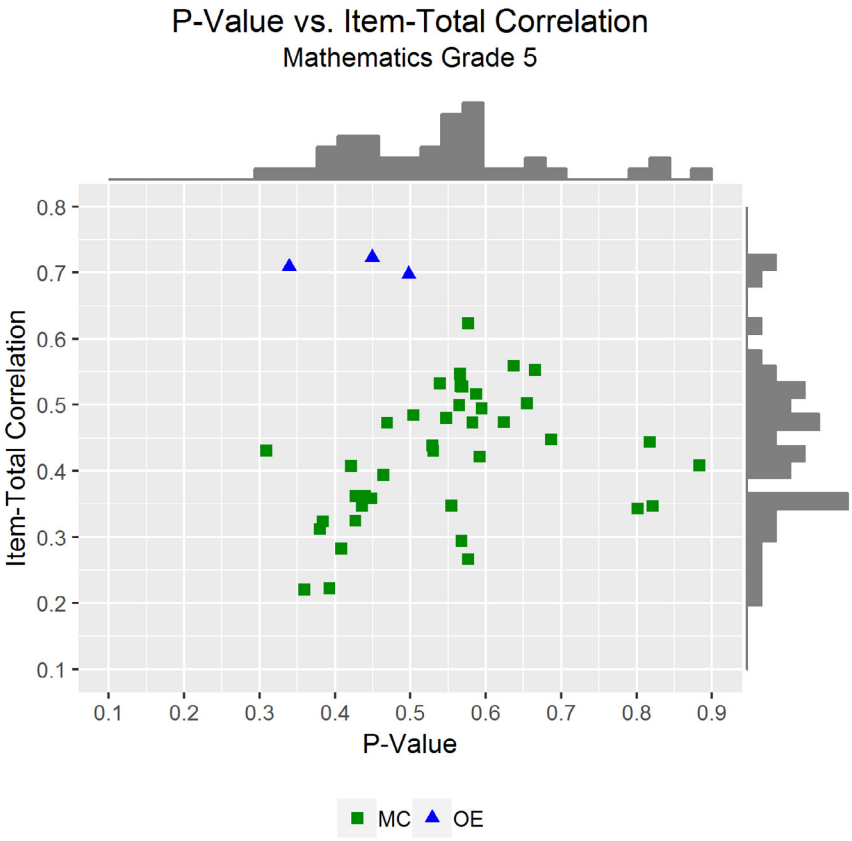


Figure 11–1 (continued). Discrimination and Difficulty Scatterplot



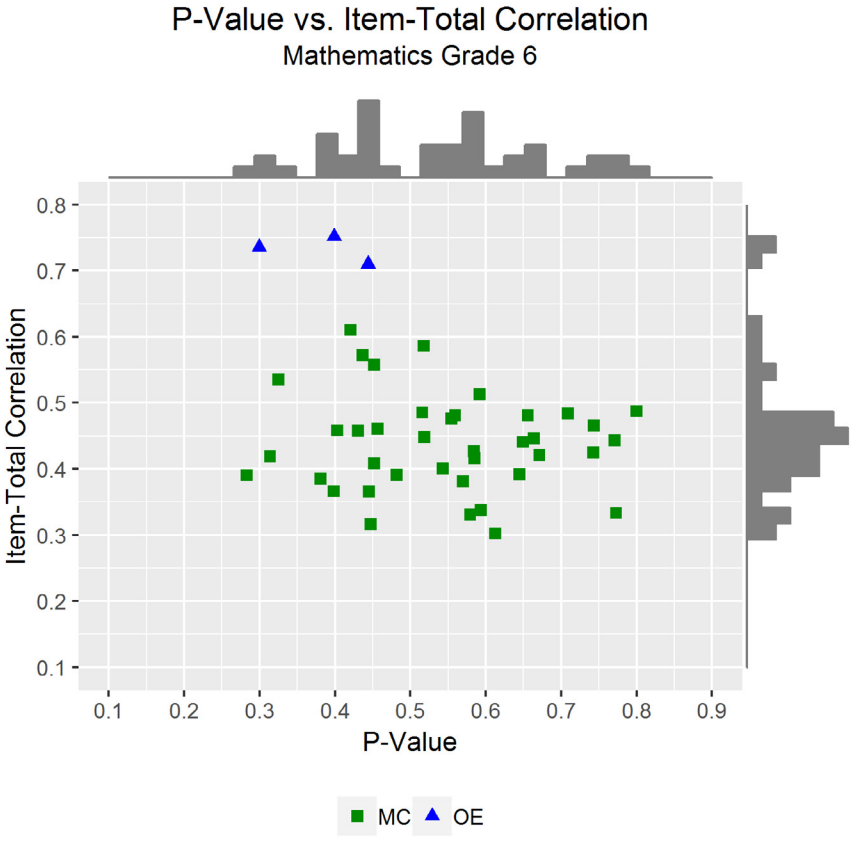
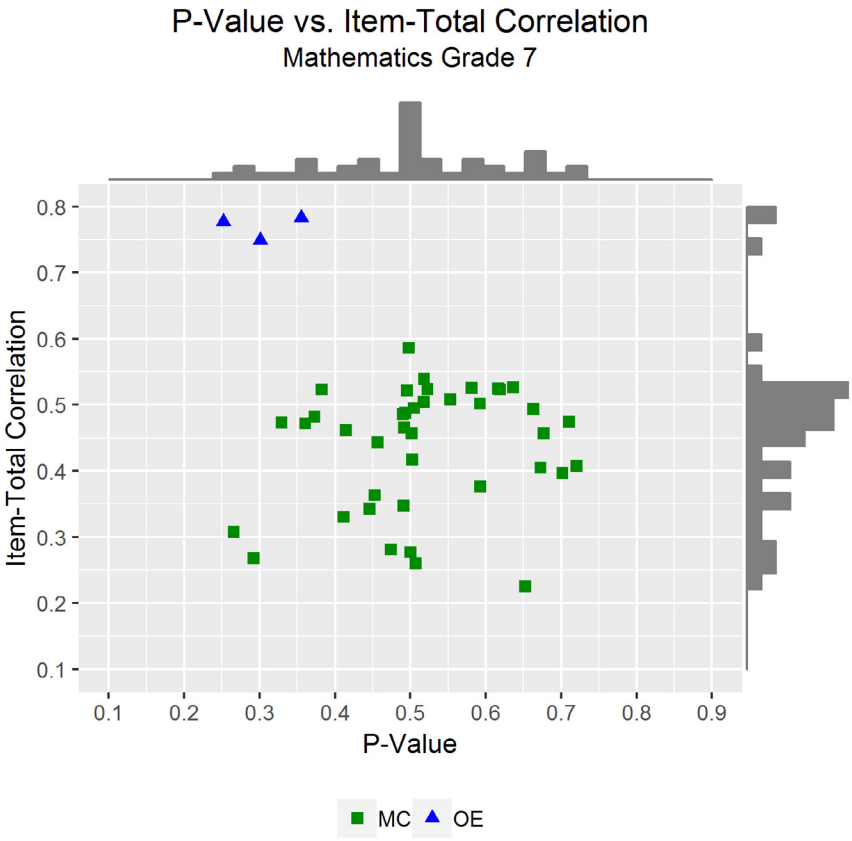


Figure 11–1 (continued). Discrimination and Difficulty Scatterplot



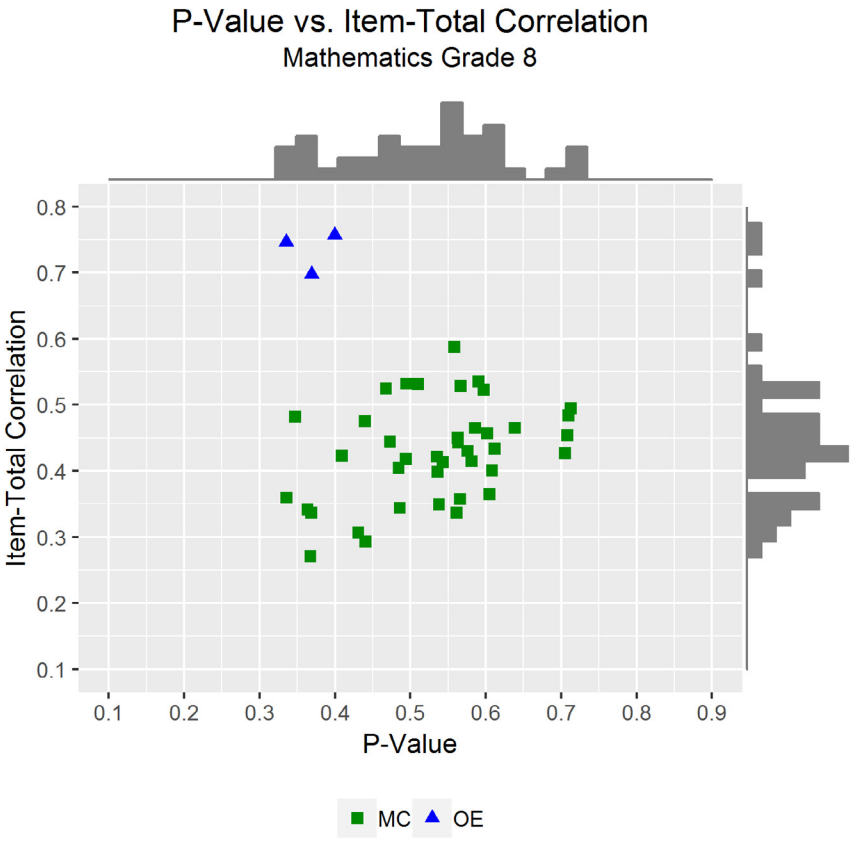
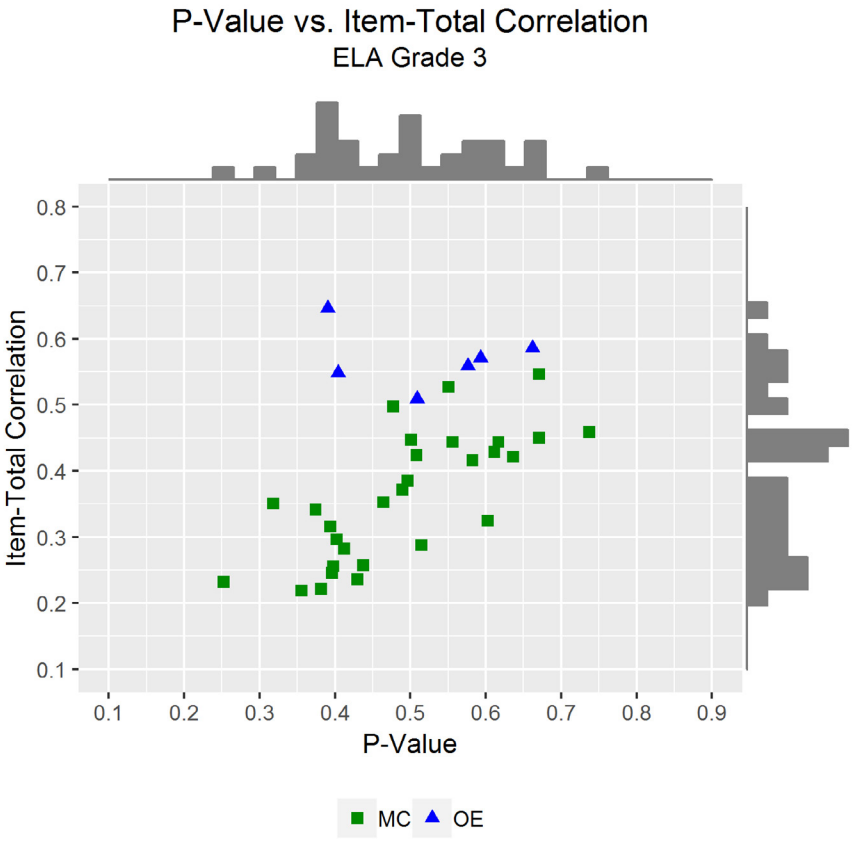


Figure 11–1 (continued). Discrimination and Difficulty Scatterplot



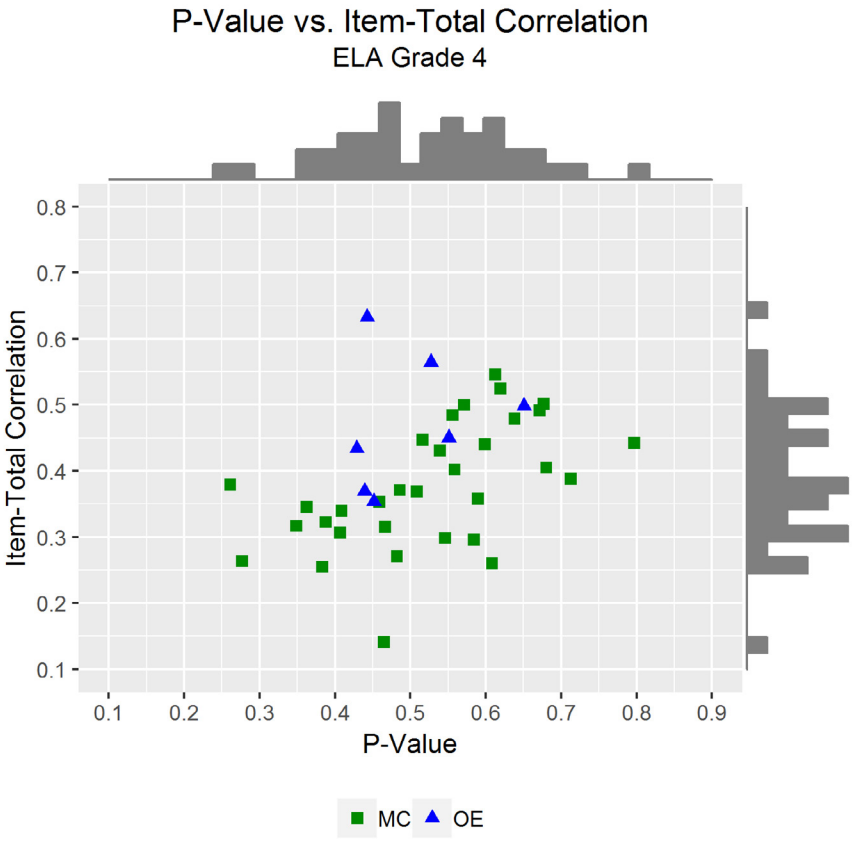
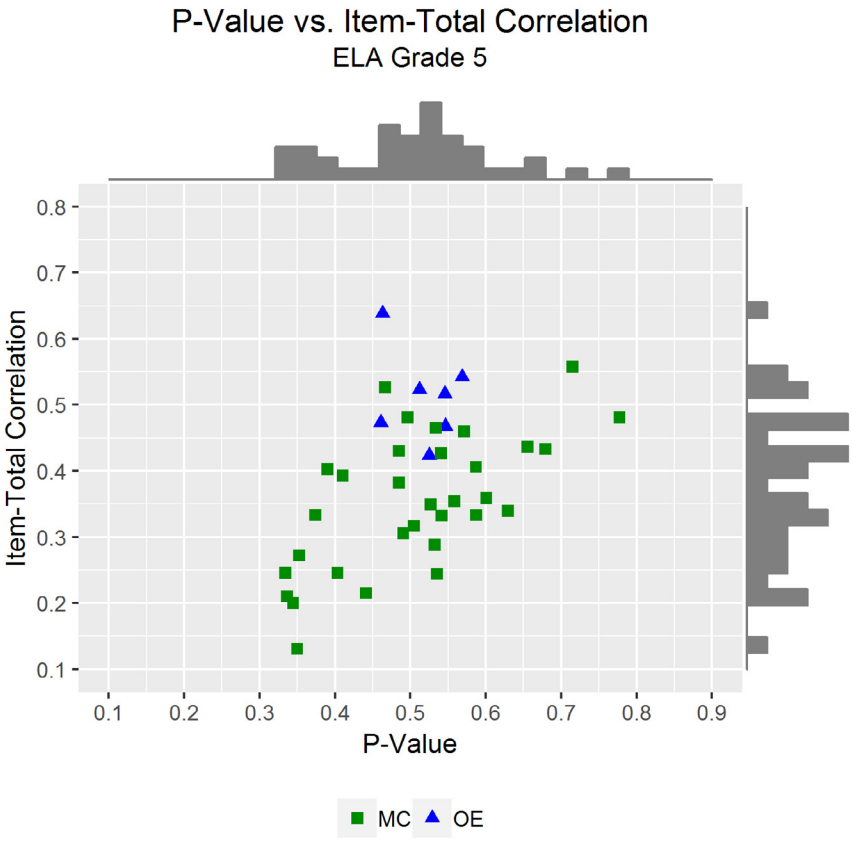


Figure 11–1 (continued). Discrimination and Difficulty Scatterplot



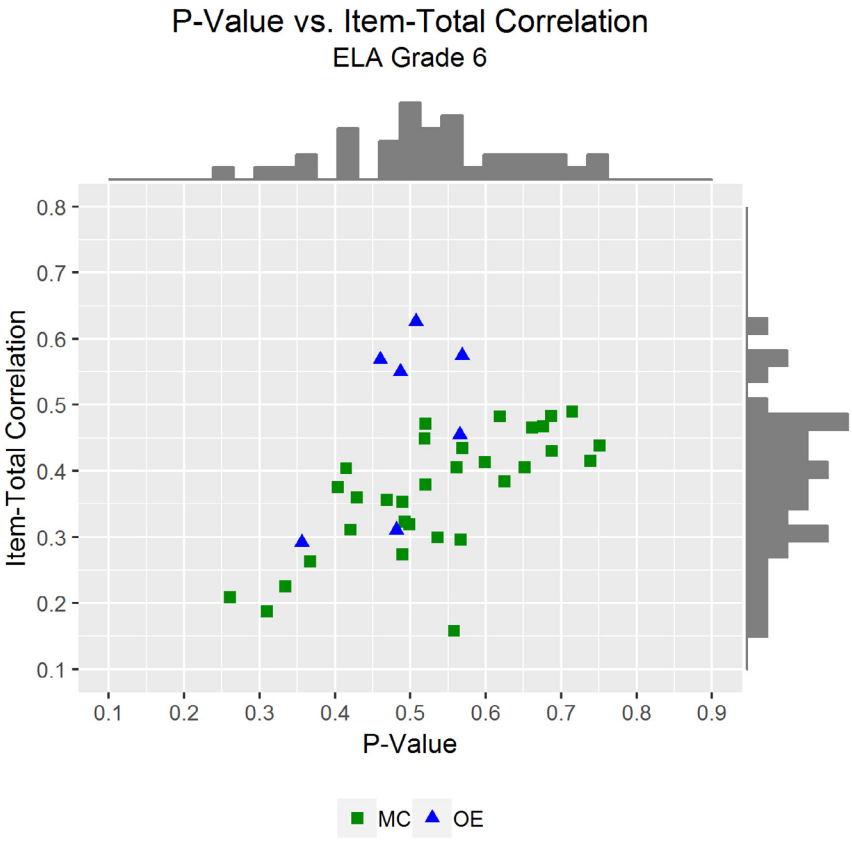
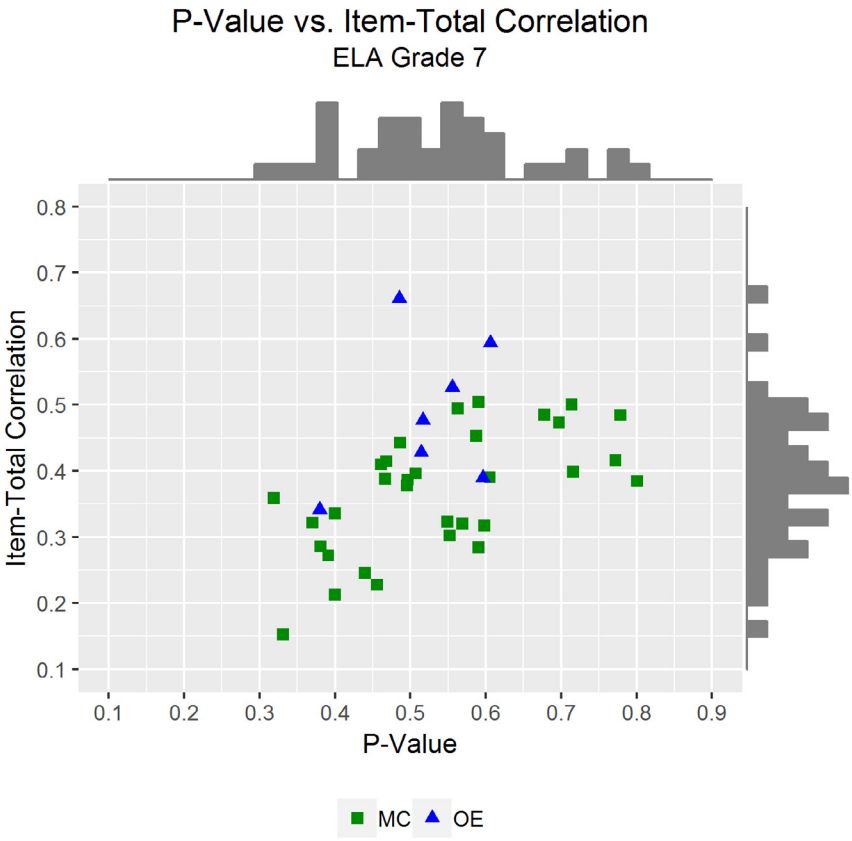
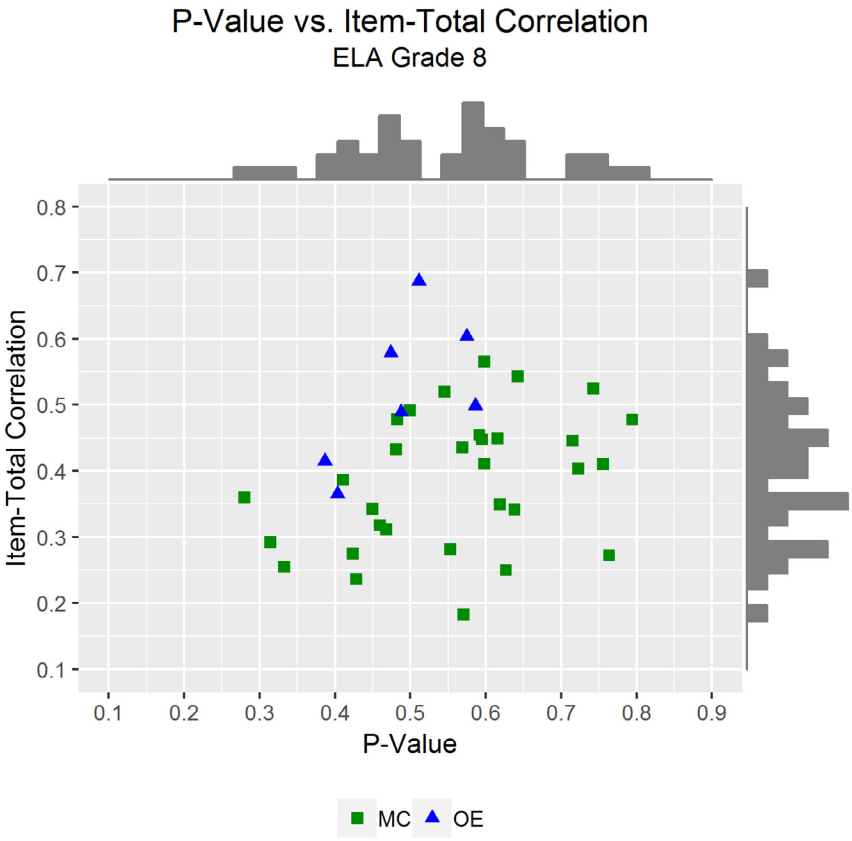


Figure 11–1 (continued). Discrimination and Difficulty Scatterplot





CHAPTER TWELVE: RASCH ITEM CALIBRATION

The item response theory (IRT) model used for the PSSA is based on the work of Georg Rasch. Rasch models have had a long-standing presence in applied testing programs and it has been the methodology continually used to calibrate PSSA data in recent history. IRT has several advantages over classical test theory, so it has become the standard procedure for analyzing item response data in large-scale assessments. However, IRT models make several strong assumptions related to dimensionality, local independence, model-data fit, and item parameter invariance. Resulting inferences derived from any application of IRT rests strongly on the degree to which the underlying assumptions are met.

This chapter outlines the procedures used for calibrating the operational PSSA items. Generally, item calibration is the process of assigning a difficulty-parameter estimate to each item on an assessment so that all items are placed onto a common scale. This chapter briefly introduces the Rasch model, reports the results from evaluations of the adequacy of the Rasch assumptions, and summarizes the Rasch item statistics for the PSSA mathematics and ELA tests. Results from PSSA Science in 2025 are not presented in this chapter due to the stand-alone field test. Information about the calibration procedures for science can be found in Appendix U. Additional Rasch procedures are discussed with respect to equating in Chapter Fifteen.

DESCRIPTION OF THE RASCH MODEL

The Rasch partial credit model (RPCM; Wright & Masters, 1982) was used to calibrate PSSA items because both multiple-choice (MC) and open-ended (OE) items were part of the assessment. The RPCM extends the Rasch model (Rasch, 1960) for dichotomous (0, 1) items so that it accommodates the polytomous OE item data. Under the RPCM, for a given item *i* with m_i score categories, the probability of person n scoring x (x = 0, 1, 2,... m_i) is given by:

$$P_{ni}(X = x) = \frac{\exp\sum_{j=0}^{x}(\theta_n - D_{ij})}{\sum_{k=0}^{m_i}\exp\sum_{j=0}^{k}(\theta_n - D_{ij})},$$

where θ_n represents a student's proficiency (ability) level, and D_{ij} is the step difficulty of the j^{th} step on item i. For dichotomous MC items, the RPCM reduces to the standard Rasch model and the single step difficulty is referred to as the item's difficulty. The Rasch model predicts the probability of person n getting item i correct as follows:

$$P_{ni}(X = 1) = \frac{\exp(\theta_n - D_{ij})}{1 + \exp(\theta_n - D_{ij})}.$$

The Rasch model places both student ability and item difficulty (estimated in terms of log-odds or logits) on the same continuum. When the model assumptions are met, the Rasch model provides estimates of a person's ability which are independent of the items employed in the assessment, and conversely, estimates item difficulty independently of the sample of examinees. (As noted in Chapter Eleven, interpretation of item *p*-values confounds item difficulty and student ability.)

SOFTWARE AND ESTIMATION ALGORITHM

Item calibration was implemented via WINSTEPS 4.2 computer program (Linacre, 2019), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE).

SAMPLE CHARACTERISTICS

The characteristics of calibration samples are reported in Chapter Nine. These samples only include the students who attempted the tests. All omits (no response) and multiple responses (more than one response selected) were scored as incorrect answers (coded as 0s) for calibration.

CHECKING RASCH ASSUMPTIONS

Since the Rasch model was the basis of all calibration, scoring, and scaling analyses associated with the PSSA, the validity of the inferences from these results depends on the degree to which the assumptions of the model were met and how well the model fits the test data. Therefore, it is important to check these assumptions. This section evaluates the dimensionality of the data, local item independence, and item fit. It should be noted that only operational items were analyzed since they are the basis of student scores.

UNIDIMENSIONALITY

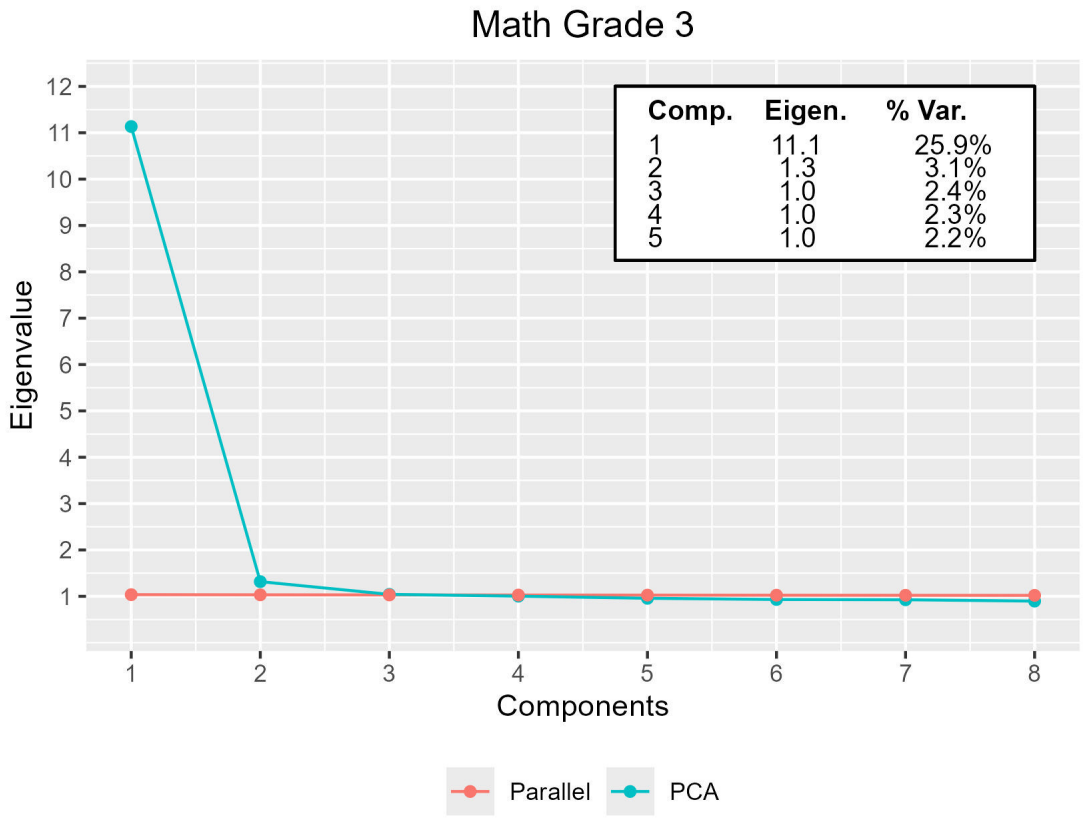
Rasch models assume that one dominant dimension determines the difference among students' performances. Principal Components Analysis (PCA) can be used to assess the unidimensionality assumption. The purpose of the analysis is to verify whether any other dominant component(s) exist among the items. If any other dimensions are found, the unidimensionality assumption would be violated.

Figure 12–1 shows the PCA results for the mathematics, ELA, and science tests. The results include the eigenvalues and the percentage of variance explained for the first five components as well as the scree plots. The scree plots show the eigenvalues plotted by component number and the results from a parallel analysis. The total number of components in PCA is same as the total number of items in a test; however, Figure 12–1 shows only the first 8 components given that beyond 8th component the additional information would be negligible.

Parallel analysis is a technique to decide how many factors exist in principal components (Horn, 1965). Parallel analysis was also conducted to help distinguish components that are real from components that are random. For the parallel analysis, 100 random data sets were created of size equal to the original data. For each random data set, a PCA was performed and the resulting eigenvalues stored. Then for each component, the upper 95th percentile value of the distribution of the 100 eigenvalues from the random data sets was plotted. Given the size of the data generated for the parallel analysis, the reference line is essentially equivalent to plotting a reference line for an eigenvalue of 1.

As can been seen in Figure 12–1, for PSSA mathematics forms the primary dimension explained between 24.1 to 25.9 percent of the total variance. The second component accounted for approximately 3.1 to 3.6 percent of the variance, with eigenvalues ranging from 1.3 to 1.6. For ELA, the primary dimension explained 19.4 to 22.4 percent and the second dimension explained 3.0 to 3.5 percent of the variance. Although the eigenvalues for the second or third component may be greater than 1, the percent of variance explained does not support that any of the examinations measure a second or third dominant dimension. Meaning the results from the PCA suggest that there is one clear dominant dimension for all mathematics and ELA tests. The 2025 PSSA Science was a stand-alone field test; no results are reported.

Figure 12–1. Scree Plots



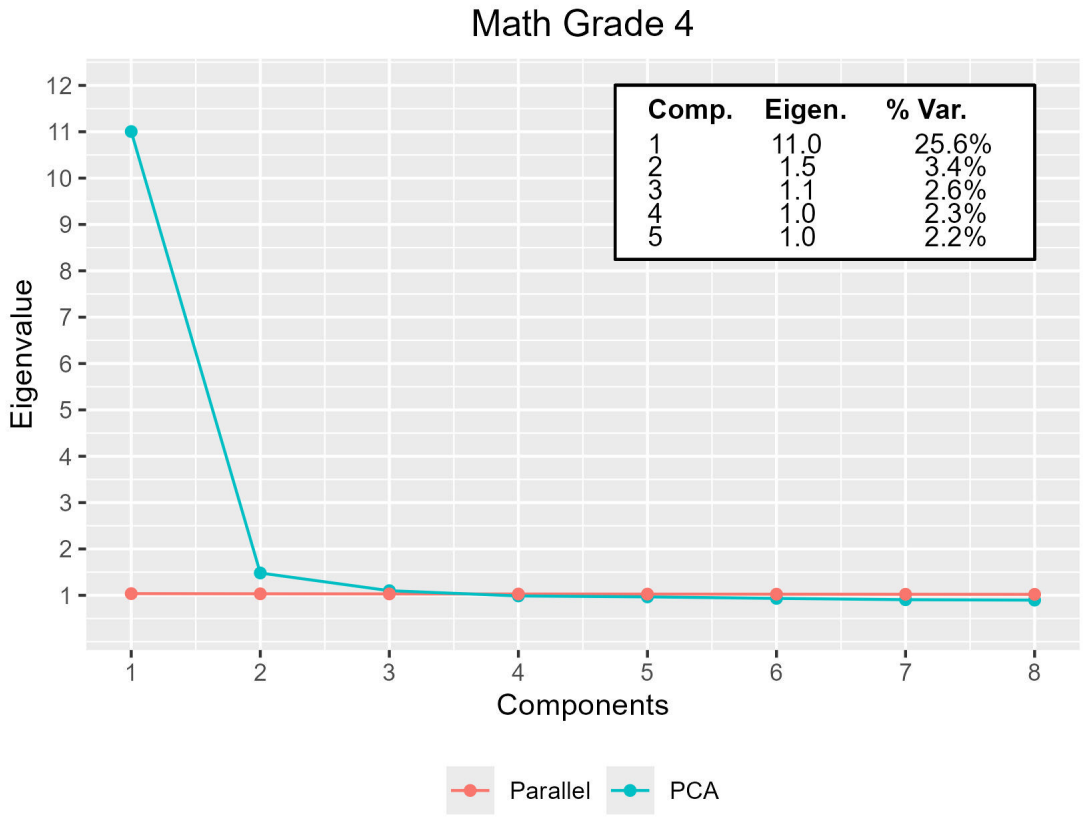
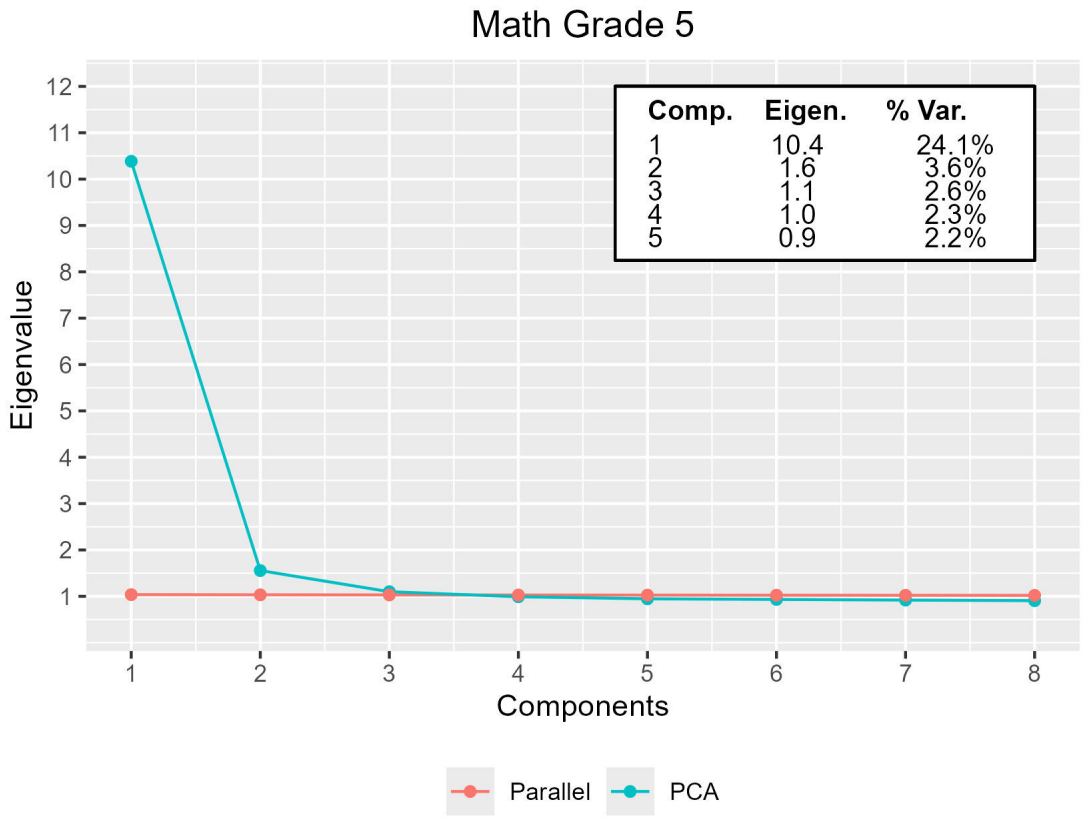


Figure 12–1 (continued). Scree Plots



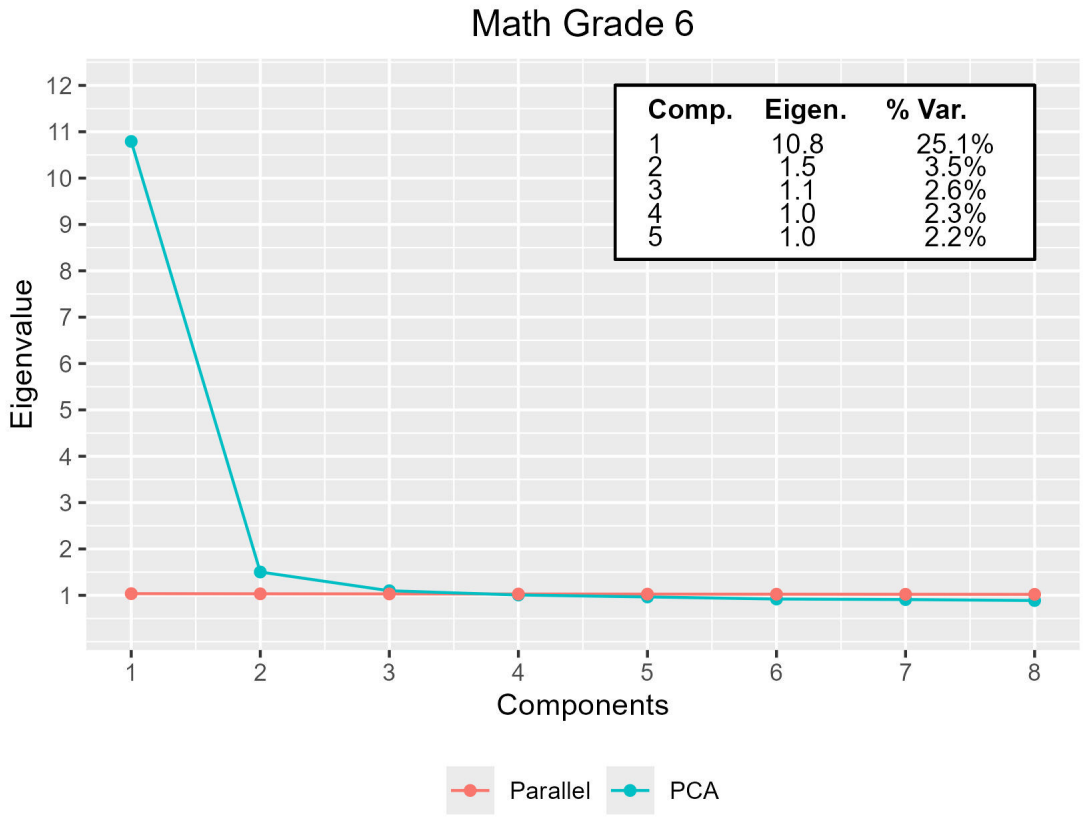
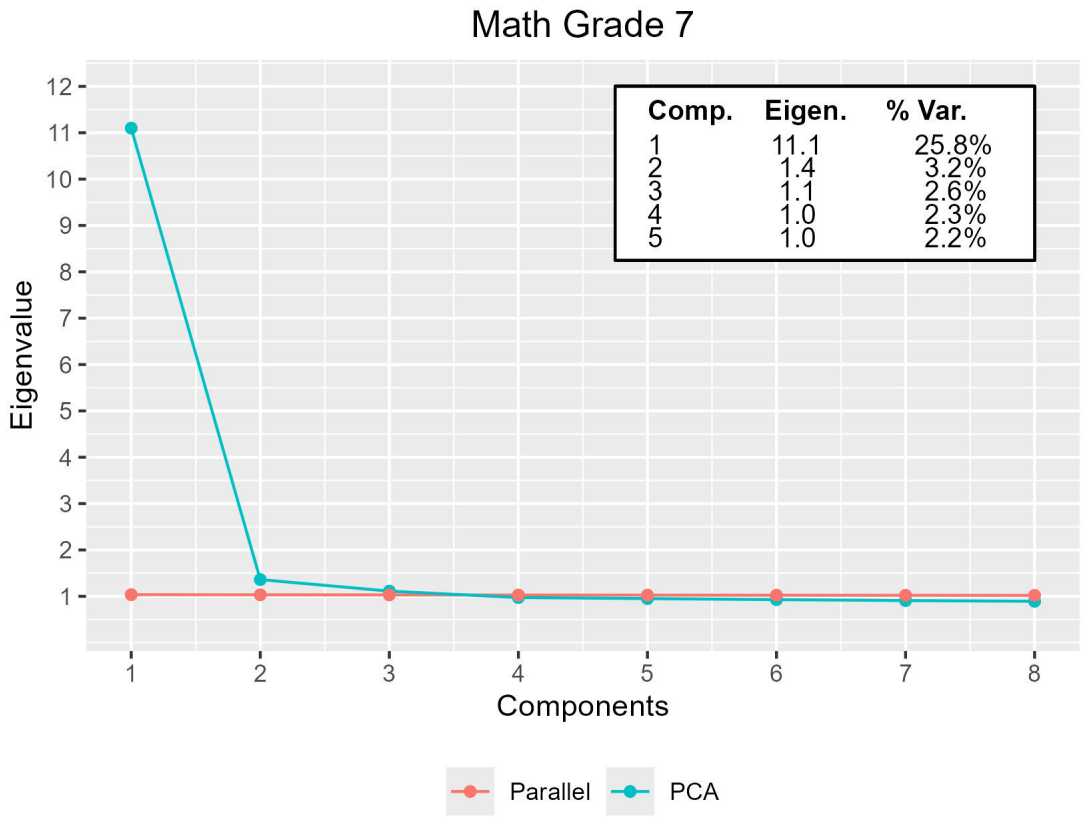


Figure 12–1 (continued). Scree Plots



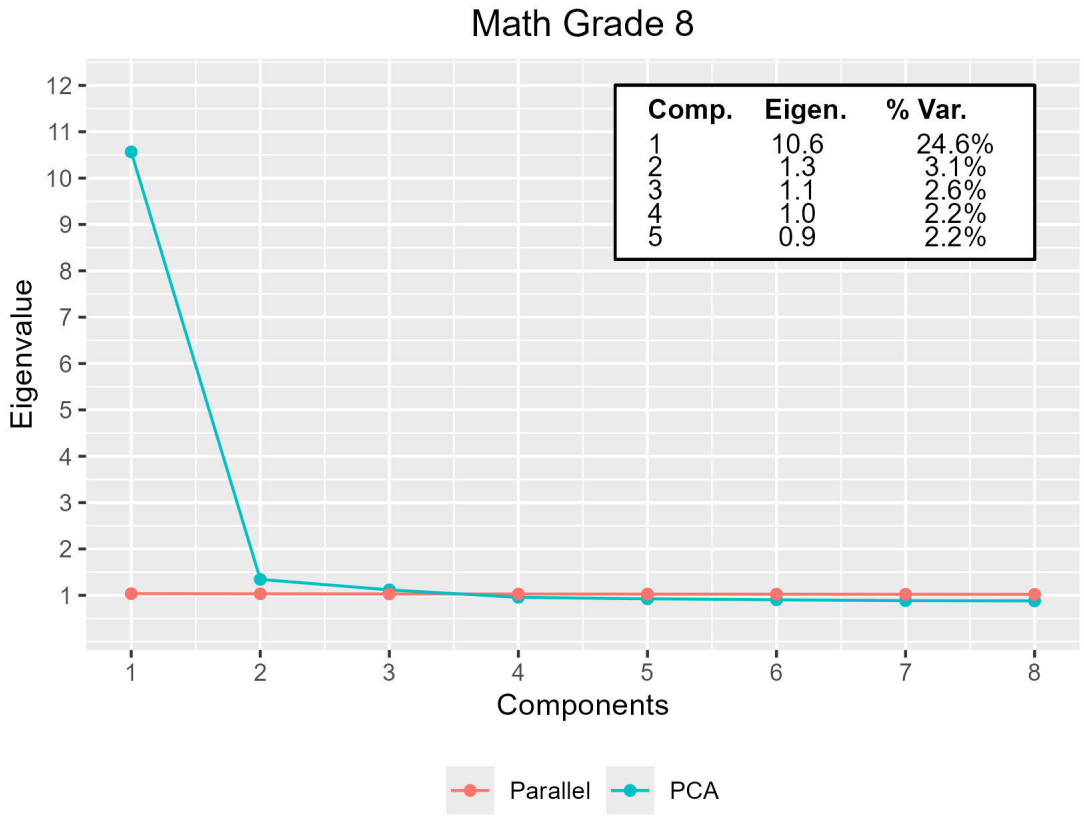
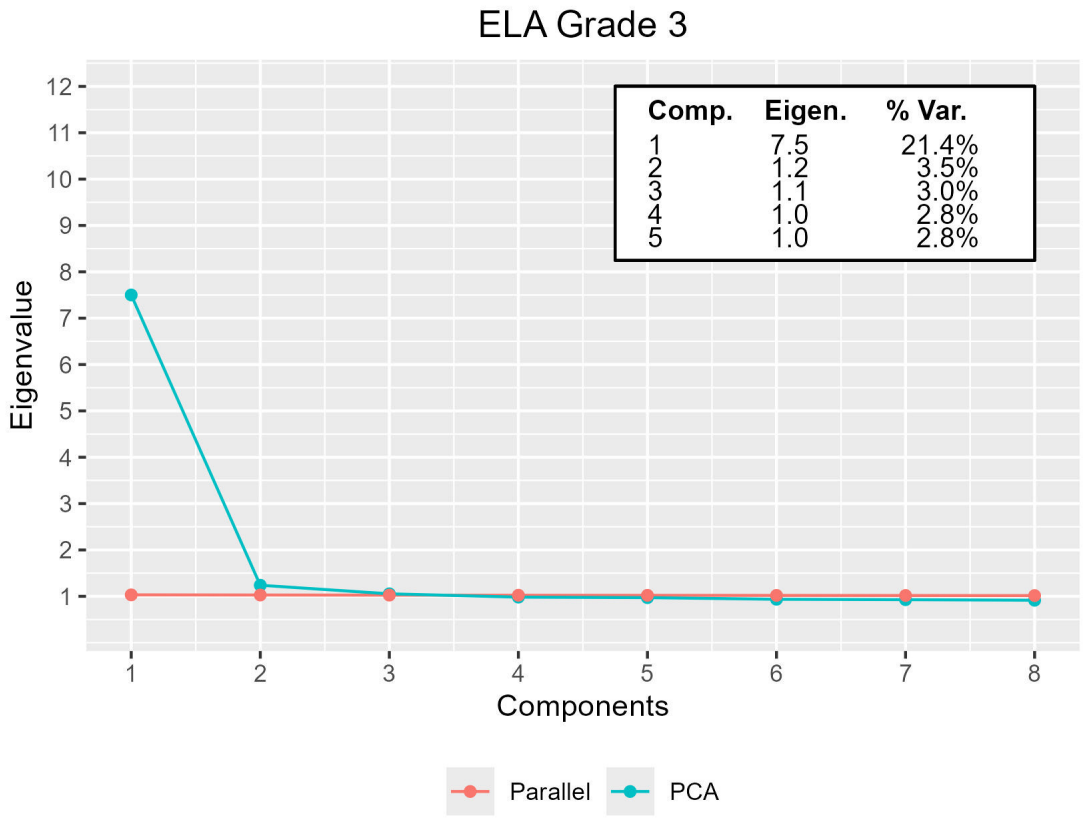


Figure 12–1 (continued). Scree Plots



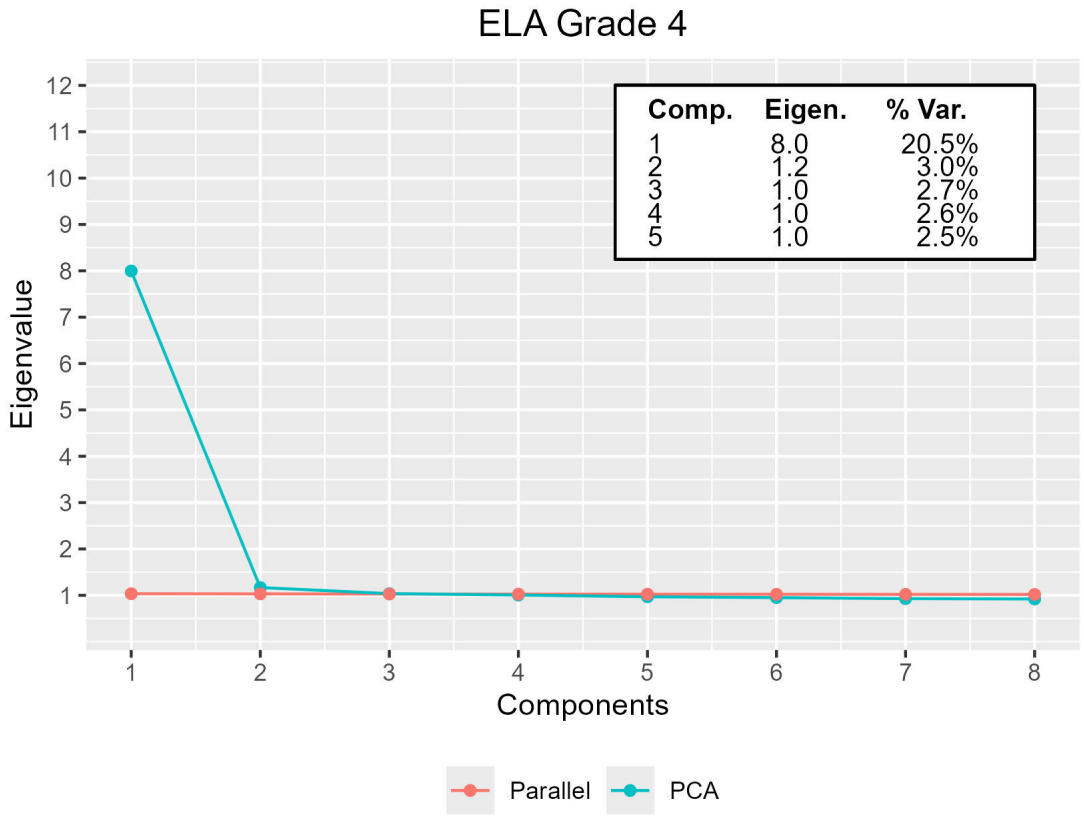
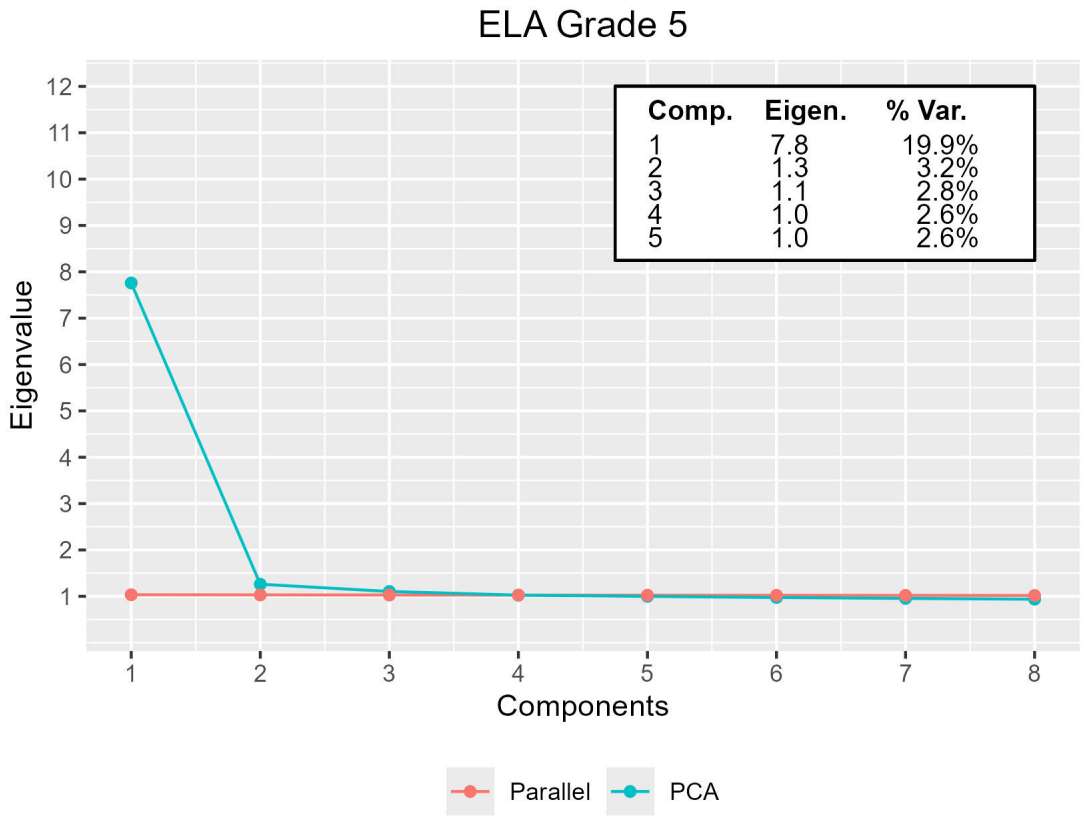


Figure 12–1 (continued). Scree Plots



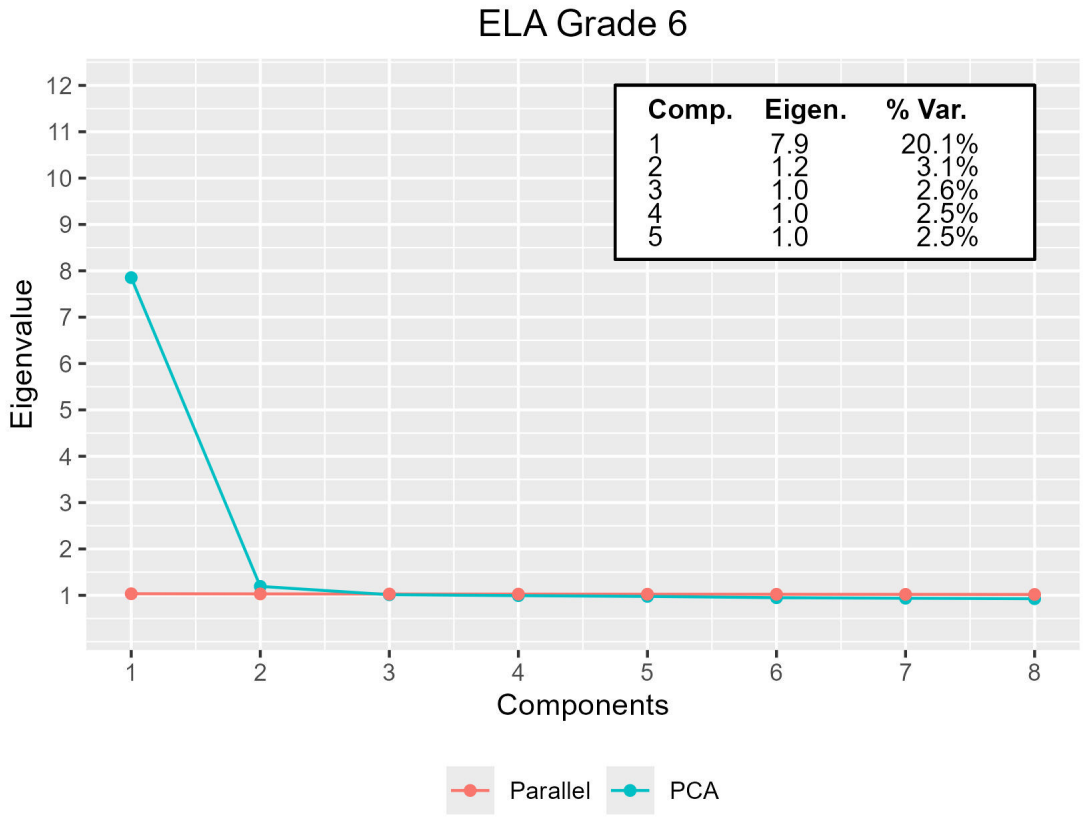
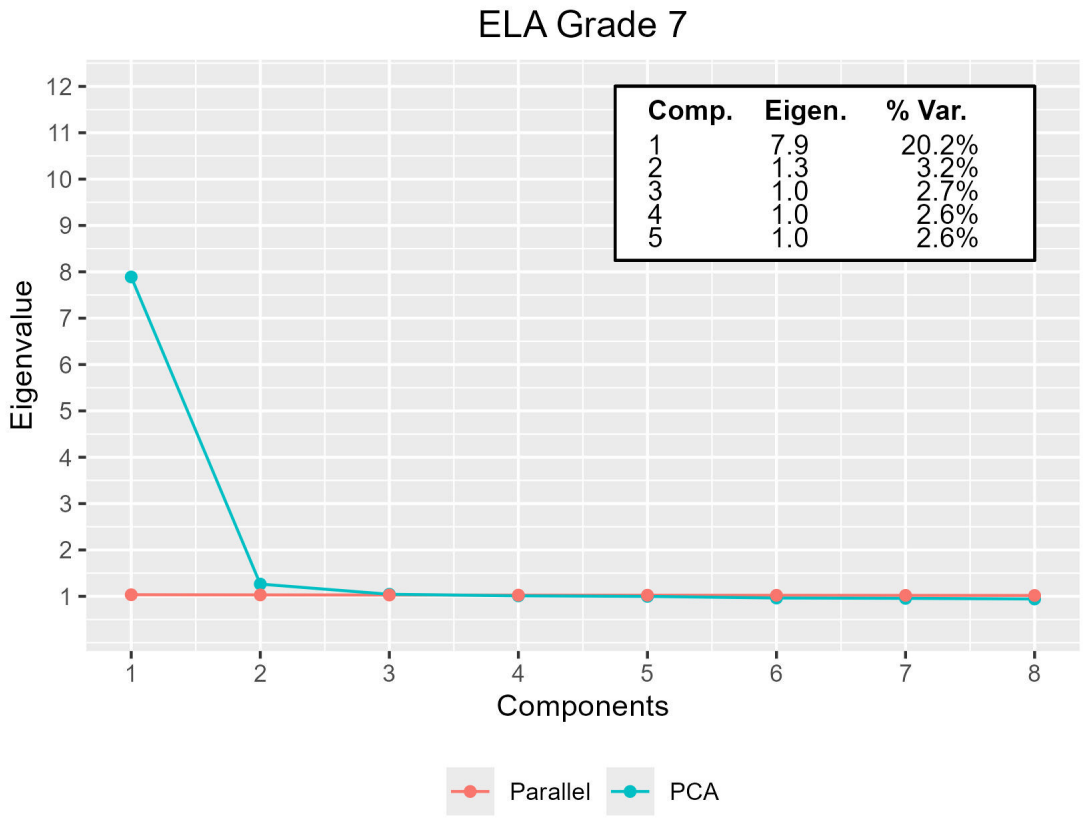
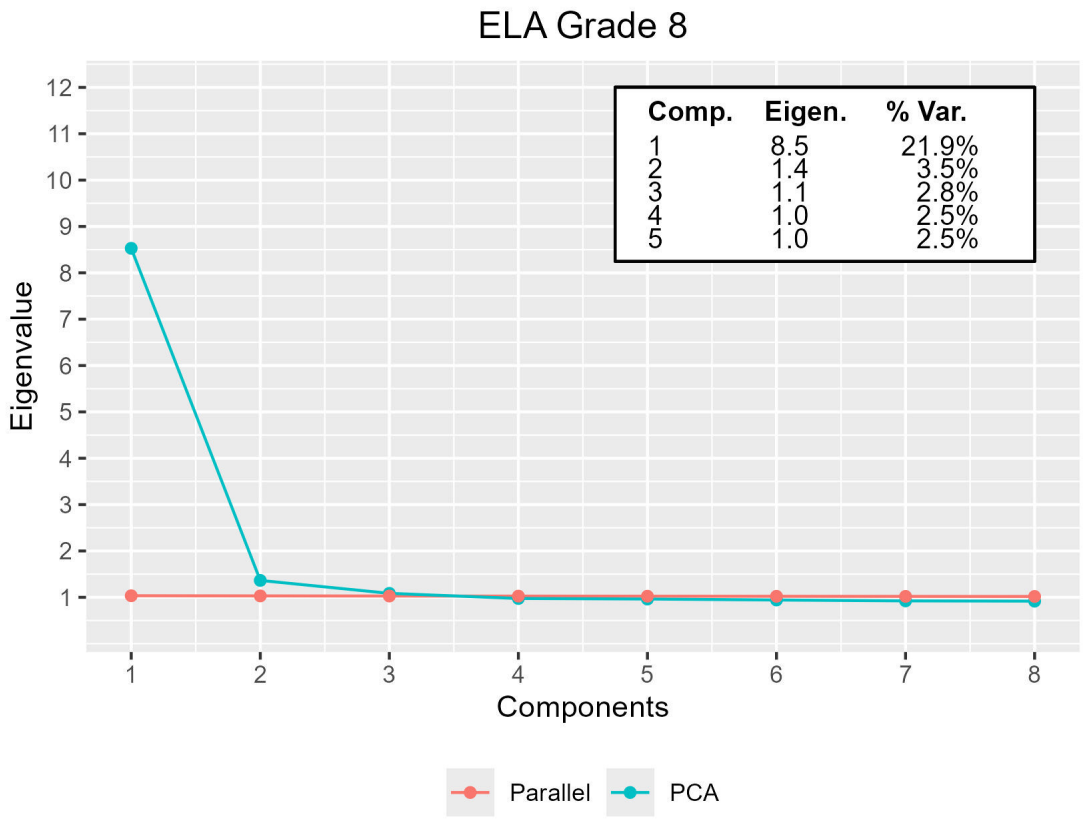


Figure 12–1 (continued). Scree Plots





ITEM INDEPENDENCE

Local independence (LI) is a fundamental assumption of IRT. No relationship should exist between examinees' responses to different items after accounting for the abilities measured by a test. In formal statistical terms, a test X that is comprised of items $X_1, X_2,\ldots X_n$ is locally independent with respect to the latent variable θ if, for all $x = (x_1, x_2,\ldots x_n)$ and θ,

$$P\left(\mathbf{X} = \mathbf{x} \mid \theta\right) = \prod_{i=1}^{I} P\left(X_i = x_i \mid \theta\right).$$

This formula essentially states that the probability of any pattern of responses across all items ($\mathbf{x}$), after conditioning on the abilities (θ) measured by the test, should be equal to the product of the conditional probabilities across each item (cf. the multiplication rule for independent events where the joint probabilities are equal to the product of the associated marginal probabilities).

The equation above shows the condition after satisfying the strong form of local independence. A weak form of local independence (LI) was proposed by McDonald (1979). The distinction is important as many indicators of local dependency are framed by LI. The requirement would be for the conditional covariances of all pairs of item responses, conditioned on the abilities, to be equal to zero. When this assumption is met, the joint probability of responses to an item pair, conditioned on abilities, is the product of the probabilities of responses to these two items, as shown below. (This is a weaker form because higher-order dependencies among items are allowed.) Based on the LI, the following expression can be derived:

$$P\left(X_i = x_i, X_j = x_j \mid \theta\right) = P\left(X_i = x_i \mid \theta\right) P\left(X_j = x_j \mid \theta\right).$$

Marais and Andrich (2008) pointed out that local item dependence in the Rasch model can occur in two ways that some may not distinguish. The first way occurs when the assumption of unidimensionality is violated. Here, other nuisance dimensions besides a dominant dimension determine student performance (this can be called "trait dependence"). The second violation occurs when responses to an item depend on responses to another. This is a violation of statistical independence and can be called response dependence. Many people treat the assumptions of unidimensionality and local independence as one phenomenon and believe that once unidimensionality holds, that local independence also holds. By distinguishing the two sources of local dependence, one can see that while local independence can be related to unidimensionality, the two are different assumptions and therefore, require different tests.

Residual item correlations provided in WINSTEPS for each item pair were used to assess the local dependence among the PSSA items. In general, these residuals are computed as follows. First, expected item performance based on the Rasch model is determined using ability and item parameter estimates. Next, deviations (residuals) between the examinees' expected and observed performance is determined for each item. Finally, for each item pair, a correlation between the respective deviations is computed.

Three types of residual correlations are available in WINSTEPS: raw, standardized, and logit. It should be noted that the raw score residual correlation essentially corresponds to Yen's Q_3 index, a popular LI statistic. The expected value for the Q_3 statistic is approximately -1/(k-1) when no local dependence exists, where k is test length (Yen, 1993). Thus, the expected Q_3 values should be approximately -0.02 for the PSSA tests (since most of the PSSA tests had close to 40 core items). Index values that are greater than 0.20 indicate a degree of local dependence that probably should be examined by test developers (Chen & Thissen, 1997).

Since the three residual correlations are very similar, the default "standardized residual correlation" in WINSTEPS was used for these analyses. Table 12–1 shows the summary statistics—mean, SD, minimum, maximum, and several percentiles (P_{10}, P_{25}, P_{50}, P_{75}, P_{90}) — for all the residual correlations for each test. The total number of item pairs (N) and the number of pairs with the residual correlations greater than 0.20 are also reported in this table. The mean residual correlations were close to Q3 index. Nine item pairs in ELA and one item pairs in Mathematics showed residual correlations greater than 0.2, and all were less than 0.28, suggesting local item independence holds reasonably well for the 2025 PSSA ELA and mathematics tests. The 2025 PSSA Science was a stand-alone field test; no results are reported. Refer to Table 12–1 and 12–2 for details.

Table 12–1M. Summary of Item Residual Correlations for PSSA Mathematics

Statistic	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
N	903	903	903	903	903	903
Mean	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
SD	0.03	0.03	0.03	0.03	0.03	0.03
Minimum	-0.11	-0.10	-0.11	-0.11	-0.12	-0.11
P10	-0.05	-0.05	-0.06	-0.05	-0.05	-0.05
P25	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
P50	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
P75	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
P90	0.01	0.01	0.02	0.01	0.01	0.01
Maximum	0.14	0.25	0.10	0.14	0.19	0.15
>|0.20|	0	1	0	0	0	0

Table 12–1E. Summary of Item Residual Correlations for PSSA ELA

Statistic	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
N	595	741	741	741	741	741
Mean	-0.03	-0.02	-0.02	-0.02	-0.02	-0.01
SD	0.03	0.03	0.04	0.03	0.03	0.04
Minimum	-0.14	-0.22	-0.20	-0.23	-0.24	-0.28
P10	-0.06	-0.04	-0.04	-0.04	-0.05	-0.05
P25	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03
P50	-0.03	-0.01	-0.01	-0.01	-0.01	-0.01
P75	-0.01	0.00	0.00	0.00	0.00	0.01
P90	0.00	0.01	0.02	0.02	0.02	0.02
Maximum	0.15	0.12	0.11	0.08	0.07	0.15
>|0.20|	0	1	1	2	2	3

Table 12–2 lists all item pairs with absolute residual correlations greater than or equal to 0.20. In addition, the item sequence, type, and Eligible Content is also displayed. Item sequence in the table represents the master form's item sequence, but the MC items are scrambled across forms.

There were nine item pairs in ELA and one item pairs in Mathematics that had absolute residual correlations greater than 0.2. The item pairs had residual correlations ranging from -0.28 to 0.25. These correlations showed that, after the relationship between the items and the construct is accounted for, there may be small, but different factors that are contributing to examinee performance on the item pairs. This is a consistent finding with prior administrations. Test blueprints determine what Assessment Anchors, as defined by the Eligible Content, will be assessed. PDE and DRC make every effort to avoid one item cueing another through careful item selection and sequencing, so this is an unlikely source of local item dependence for PSSA.

Table 12–2. Item Pairs with Large Residual Correlations

Subject	Grade	Item 1 Seq.	Item 1 Type	Item 1 Eligible Content	Item 2 Seq.	Item 2 Type	Item 2 Eligible Content	Resid. Corr.
Mathematics	4	3	MC	A-F.2.1.6	31	MC	A-F.2.1.7	0.25
ELA	4	20	ESR	A-K.1.1.1	53	TDA	E.1.1	-0.22
ELA	5	52	ESR	B-C.3.1.2	53	TDA	E.1.1	-0.20
ELA	6	20	ESR	A-K.1.1.1	53	TDA	E.1.1	-0.20
ELA	6	29	ESR	B-C.3.1.1	53	TDA	E.1.1	-0.23
ELA	7	16	ESR	A-K.1.1.2	53	TDA	E.1.1	-0.20
ELA	7	26	ESR	B-C.2.1.1	53	TDA	E.1.1	-0.24
ELA	8	14	ESR	B-K.1.1.3	53	TDA	E.1.1	-0.28
ELA	8	28	ESR	B-K.1.1.1	53	TDA	E.1.1	-0.23
ELA	8	50	ESR	A-K.1.1.3	53	TDA	E.1.1	-0.26

ITEM FIT

Additional evidence of validity related to the internal test structure is obtained through an ongoing evaluation of item fit, person fit, and test summary statistics. The item fit of the Rasch Model is routinely evaluated within field testing as well as within each operational administration. Person fit of the Rasch model is routinely evaluated and the data are expected to fit well regardless of gender, ethnicity, or level of performance (see Chapter Fifteen and Appendix T). Comparability of each test form is evaluated in terms of the test characteristics curves, test information function, and CSEM (see Chapter Eighteen). Regular maintenance of item fit, person fit, and test summary statistics within a test and across test forms provides validity evidence that supports the PSSA.

WINSTEPS provides two item fit statistics (infit and outfit) for evaluating the degree to which the Rasch model predicts the observed item responses. Each fit statistic can be expressed as a mean square (MnSq) statistic or on a standardized metric (Zstd with mean = 0 and variance = 1). MnSq values are more oriented toward practical significance, while Zstd values are more oriented toward statistical significance. Though both are informative, the Zstd values are very likely too sensitive to the large sample sizes observed on the PSSA. In this situation it is recommended that the Zstd values be ignored if the MnSq values are acceptable (Linacre, 2014).

Both infit and outfit MnSq are the average of standardized residual variance (the difference between the observed score and the Rasch estimated score divided by the square root of the Rasch model variance). The difference is that the outfit statistic gives all examinees equal weight in computing the fit and tends to be affected more by unexpected responses far from the person, item, or rating scale category measure (i.e., it is more sensitive to outlying, off-target, low-information responses). The infit statistic is weighted by the examinee locations relative to item difficulty and tends to be affected more by unexpected responses close to the person, item, or rating scale category measure (i.e., informative, on-target responses). Some feel that extreme infit values are a greater threat to the measurement process than extreme outfit since most tests intend to measure the on-target population rather than extreme outliers.

The expected MnSq value is 1.0 and can range from 0 to infinity. Deviation in excess of the expected value can be interpreted as noise or lack of fit between the items and the model. Values lower than the expected value can be interpreted as item redundancy or overfitting items (too predictable, too much redundancy), and values greater than the expected value indicate underfitting items (too unpredictable, too much noise). Rules of thumb regarding "practically significant" MnSq values vary. More conservative users might prefer items with MnSq values that range from 0.8 to 1.2. Others believe reasonable test results can be achieved with values from 0.5 to 1.5. The results shown in this section highlight values outside of a range of 0.7 to 1.3 given their practical importance.

Table 12–3 presents the summary statistics of infit and outfit mean square statistics for the PSSA mathematics and ELA tests, including the mean, SD, and minimum and maximum values. The 2025 PSSA Science was a stand-alone field test; no results are reported. The number of items within the range of [0.7, 1.3] is also reported. The mean values for both infit and outfit statistics were close to 1.00 across all subjects and grade levels. Almost all the items

had infit values falling in the range of [0.7, 1.3], suggesting reasonable model infit. Slightly more outfit values fell either below 0.7 or above the 1.3 threshold. Values above 1.3 can sometimes suggest higher than normal guessing or careless mistake patterns on items, and values below 0.7 can suggest an item is over fit. The maximum outfit values noted are close to the 1.3 threshold, and the minimum values noted are very close to 0.7, which could also suggest well discriminating items. There is slightly more variability in infit and outfit for ELA tests than mathematics, indicated by the mean and distribution of infit and outfit statistics. For example, 77% of the ELA grade 7 items (M = 1.09, SD = 0.22) fit in terms of outfit, whereas 91% of the Math grade 7 items (M = 0.99, SD = 0.20) fit the model in terms of outfit.

Table 12–3. Summary of Item Infit and Outfit Mean Square Statistics by Subject and Grade

Subject	Grade	Mean*	SD*	Min*	Max*	[0.7,1.3]*	Mean†	SD†	Min†	Max†	[0.7,1.3] †
Mathematics	3	0.97	0.12	0.74	1.20	43/43	0.97	0.17	0.68	1.30	41/43
Mathematics	4	0.97	0.11	0.78	1.24	43/43	0.97	0.18	0.65	1.38	39/43
Mathematics	5	0.98	0.14	0.59	1.25	42/43	0.98	0.20	0.43	1.39	37/43
Mathematics	6	0.97	0.12	0.63	1.22	42/43	0.97	0.18	0.47	1.41	40/43
Mathematics	7	0.99	0.13	0.74	1.28	43/43	0.99	0.20	0.70	1.57	39/43
Mathematics	8	0.99	0.11	0.77	1.20	43/43	0.99	0.15	0.72	1.35	42/43
ELA	3	1.02	0.12	0.81	1.23	35/35	1.05	0.18	0.72	1.45	32/35
ELA	4	1.02	0.15	0.53	1.39	37/39	1.04	0.18	0.53	1.44	35/39
ELA	5	1.05	0.12	0.66	1.28	38/39	1.09	0.18	0.66	1.49	35/39
ELA	6	1.04	0.13	0.70	1.37	36/39	1.09	0.20	0.72	1.63	34/39
ELA	7	1.05	0.15	0.62	1.41	37/39	1.09	0.22	0.62	1.56	30/39
ELA	8	1.08	0.16	0.76	1.61	37/39	1.15	0.25	0.61	1.77	27/39
Science	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes. 1. * denotes Infit Mean Square and † denotes Outfit Mean Square
2. The 2025 PSSA Science was a stand-alone field test; no student scores were reported.

RASCH ITEM STATISTICS

As noted earlier, the Rasch model expresses item difficulty (and student ability) in units referred to as logits, rather than on the percent-correct metric. The logit metric has several mathematical advantages. Logits have an interval scale, meaning that two items with logits of 0.0 and +1.0 (respectively) are the same distance apart as two items with logits of +3.0 and +4.0. Logits are not dependent on the ability level of the students. For example, a test form can have a mean logit of zero regardless of how the student sample performed on the item.

The standard Rasch calibration procedure arbitrarily sets the mean difficulty of the items on any form at zero. Under normal circumstances where all students are administered the same set of items, any item with a *p*-value lower than the average item on the form receives a positive logit difficulty and any item with a *p*-value higher than the average receives a negative logit. Consequently, the logits for any calibration, whether it is the grade 3 ELA test or the grade 8 science test, relate to an arbitrary origin defined by the center of items on that form. The average third-grade ELA item will have a logit of zero; the average grade 8 science item will have a logit of zero. Logits for both item difficulties and student abilities are placed on the same scale and relate to the same mean item difficulty.

There are a number of other arbitrary choices that could be made for centering the item difficulties. Rather than using all the items, the origin could be defined by a subset. For the PSSA, all test forms within each subject and grade level share the same operational item set. All items on each form can then be easily adjusted to a single (but still arbitrary) origin by defining the origin as the mean of the operational items. With this done, the origins for all the forms will be statistically equal. For example, items on any two forms that are equally difficult will now have statistically equal logit difficulties. This is partly how PSSA items can be placed on the same logit difficulty scale across years. Chapter Fifteen has more detailed information about the PSSA equating procedure.

Appendix F reports the item statistics including classical and Rasch logit difficulties for all operational items that were used for pre-equating (see Chapter Fifteen). Table 12–4 summarizes the Rasch logit difficulties of the operational items on each test that are on the base scale, which were set in 2015 for math and ELA. Given the PSSA science was a stand-alone field test in 2025, the baseline scale will be set following the first operational administration in Spring 2026. Refer to Appendix U for additional information about the calibration procedure for science. The minimum and maximum values and standard deviations suggest that the PSSA items covered a relatively wide range of difficulties. It is important to note that the logit difficulty values presented have not been linked to a common scale of measurement across grades and subjects. Therefore, the relative magnitude of the statistics across content areas and grades cannot be compared.

Table 12–4. Summary of Rasch Item Difficulties by Subject and Grade

Subject	Grade	N	Mean	SD	Min	Max
Mathematics	3	43	0.28	0.66	-1.28	1.27
Mathematics	4	43	-0.11	0.64	-1.39	1.30
Mathematics	5	43	0.10	0.61	-1.42	1.14
Mathematics	6	43	0.13	0.75	-1.83	1.36
Mathematics	7	43	0.02	0.58	-0.99	1.39
Mathematics	8	43	-0.25	0.50	-1.36	0.79
ELA	3	35	0.42	0.62	-1.16	1.79
ELA	4	39	0.24	0.60	-1.21	1.42
ELA	5	39	0.26	0.57	-1.22	1.21
ELA	6	39	0.48	0.62	-0.80	2.04
ELA	7	39	0.35	0.64	-0.92	1.46
ELA	8	39	0.14	0.69	-1.48	1.82
Science	5	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA

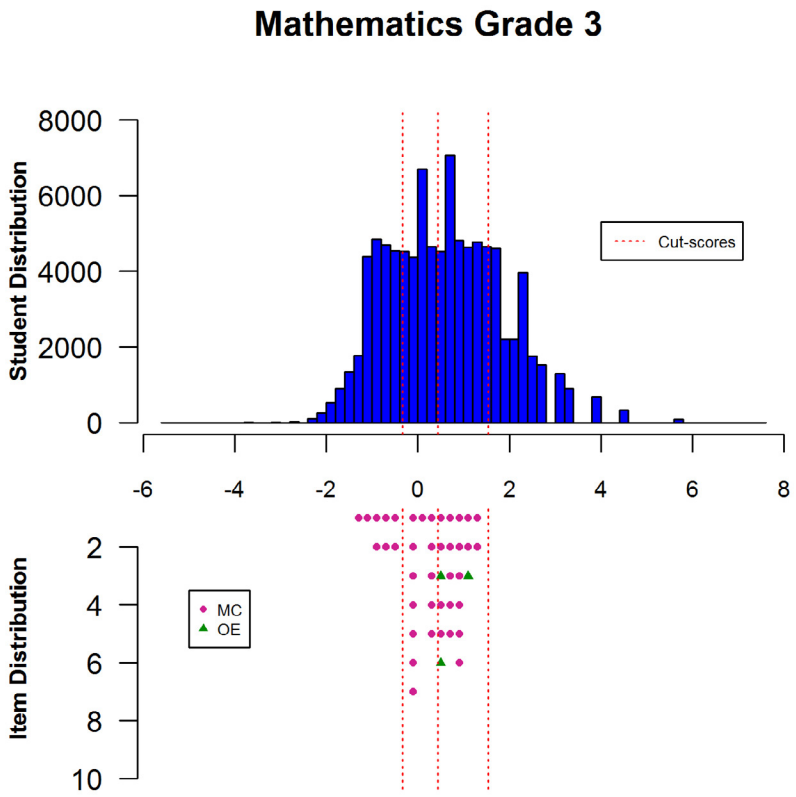
Notes. 1. The base scales were set in 2015 for mathematics and ELA so the means are not expected to be zero.
2. The 2025 PSSA Science was a stand-alone field test; the baseline scale will be set following the Spring 2026 administration.

ITEM DIFFICULTY-STUDENT ABILITY WRIGHT MAPS

The distributions of the Rasch item logits (item difficulty estimates) are shown on the item difficulty-student ability maps presented in Figure 12–2. In each item-student map, the top bar graph displays the student distribution on the logit scale, and the bottom displays markers of item difficulty parameter estimates. MC items are represented by a circle (all subjects), OE and TDA items are represented by a triangle (all subjects), and ESR items are represented by a square (ELA only). OE, TDA and ESR items are worth multiple points. As noted earlier, the Rasch model enables placement of both items and students on the same scale. Consequently, one can easily visualize information regarding the relationship between the distributions of item difficulty and student ability. The vertical red lines show the cut-points for each performance level. On the top plot, the logit represents lower abilities (negative values) to higher abilities (positive values), whereas on the bottom plot the logit represents easier items (negative values) to harder items (positive values). To achieve precise measures of student ability, the student distribution should mirror the item distribution.

In 2016, a pattern noted across the maps for many grades and content areas was for students to have relatively higher ability and for items to be relatively easier. Accordingly, test development for the 2017 PSSAs focused on centering the predicted test difficulties on the center of the 2016 examinee ability distribution to more closely align item difficulty with examinee performance. The same targets used to construct the 2017 PSSAs were used for future form construction. The Wright maps are presented in Figure 12–2.

Figure 12–2. Wright Maps



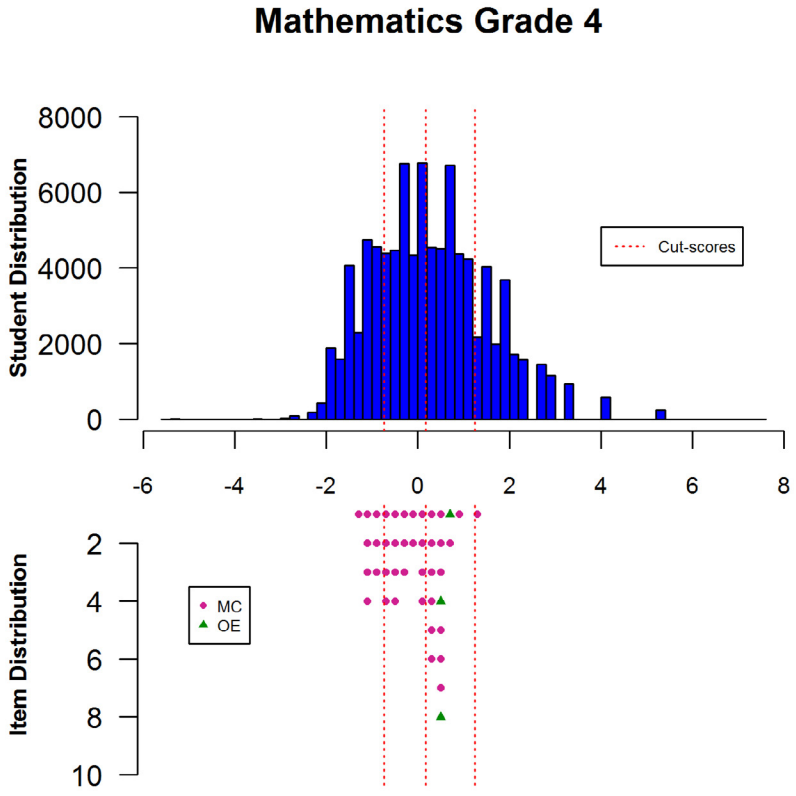
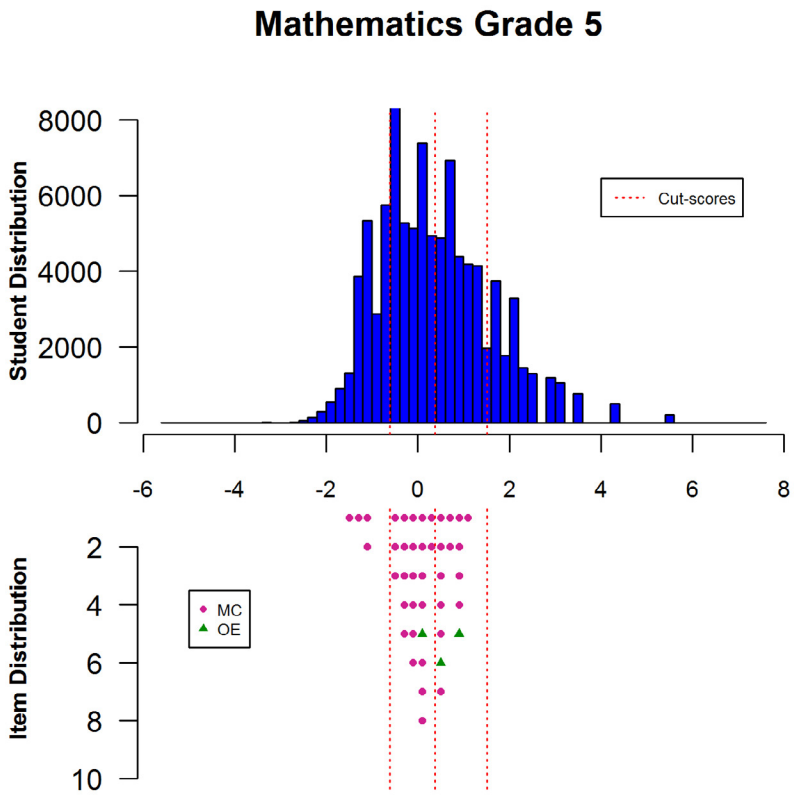


Figure 12–2 (continued). Wright Maps



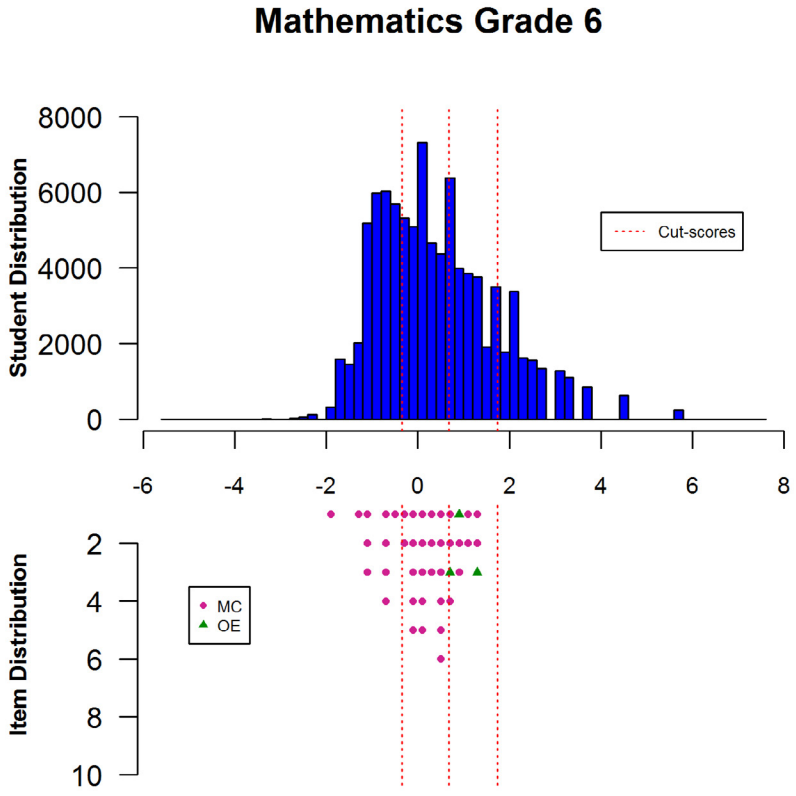
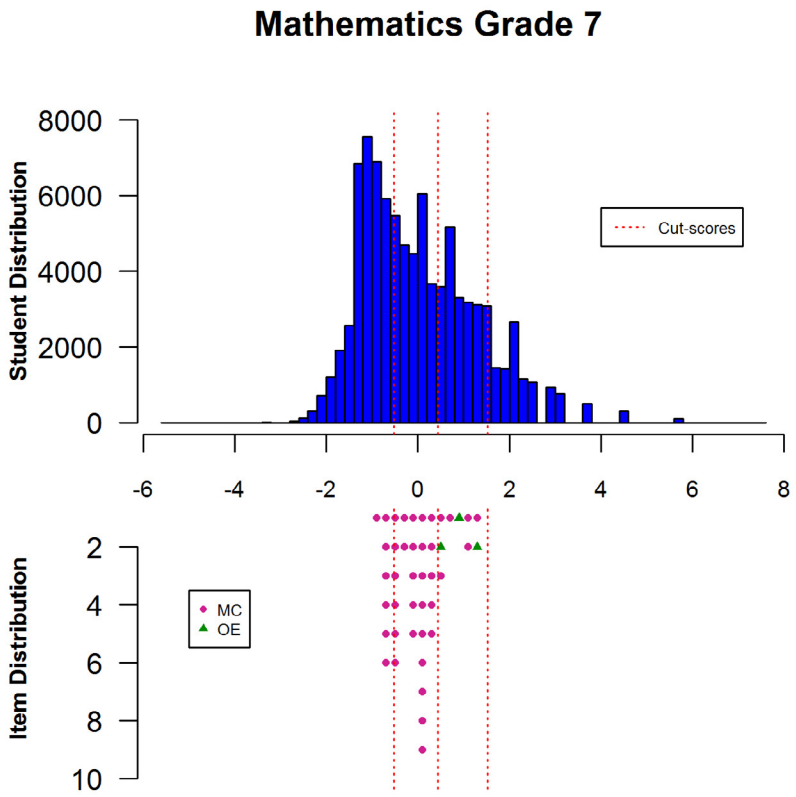


Figure 12–2 (continued). Wright Maps



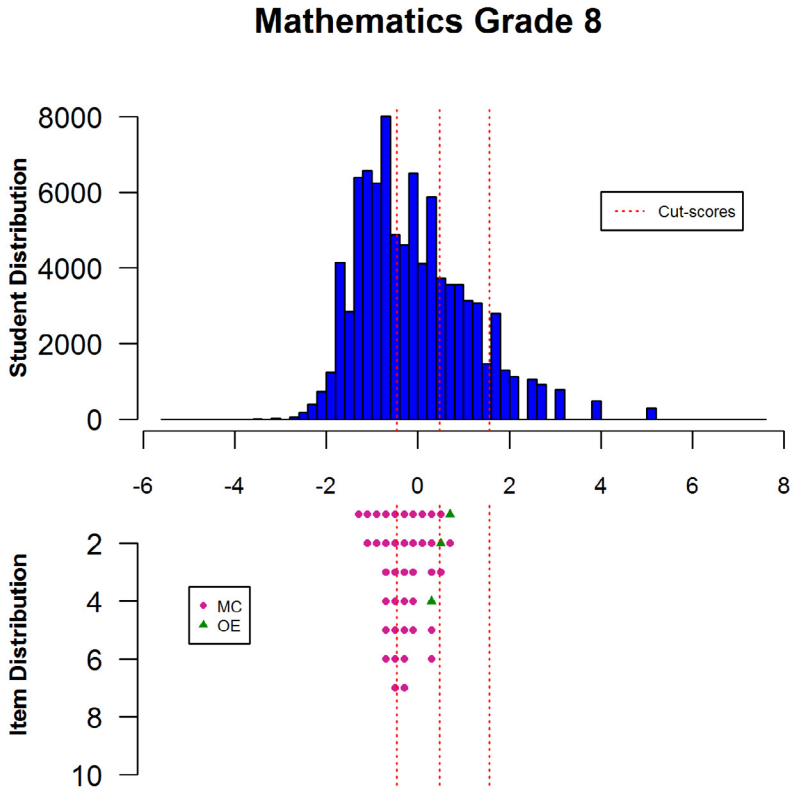
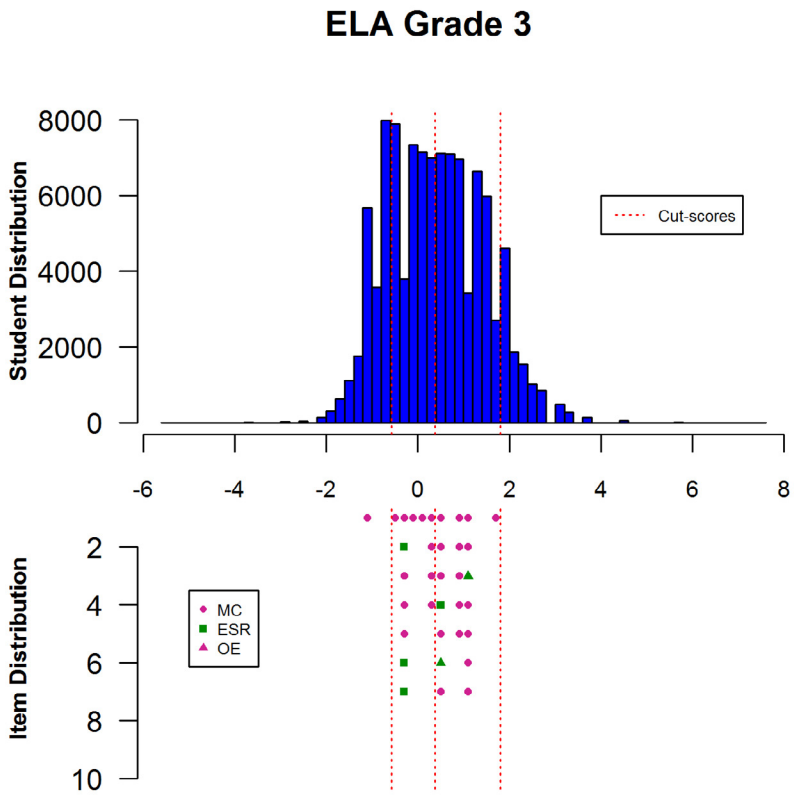


Figure 12–2 (continued). Wright Maps



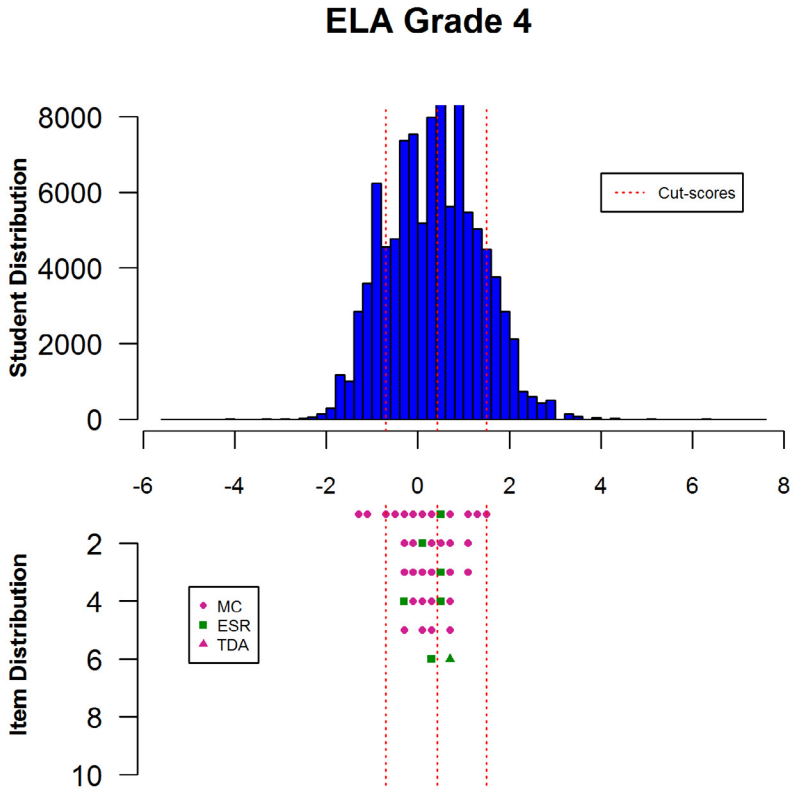
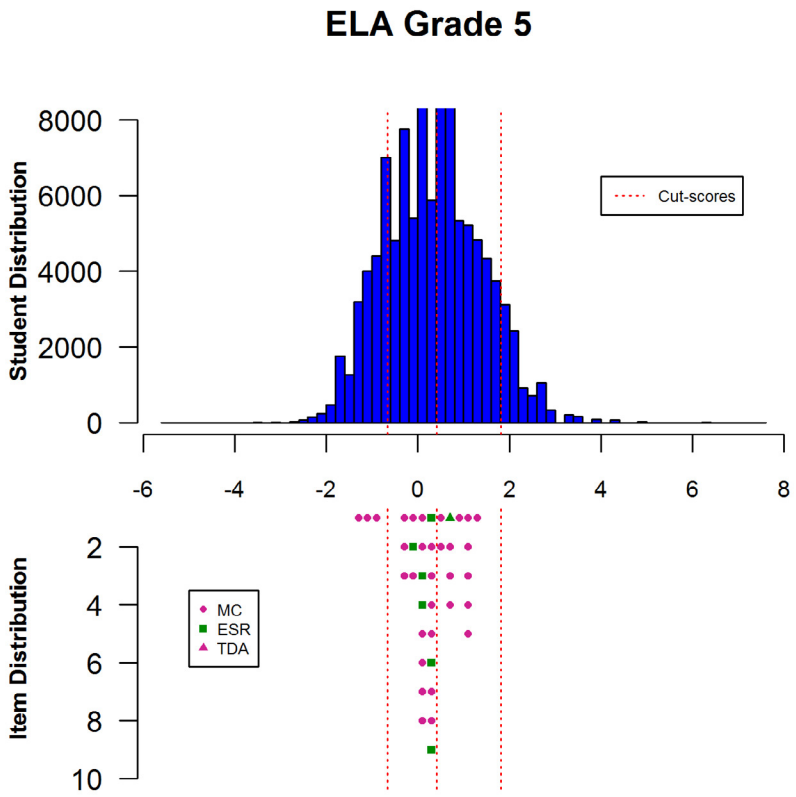


Figure 12–2 (continued). Wright Maps



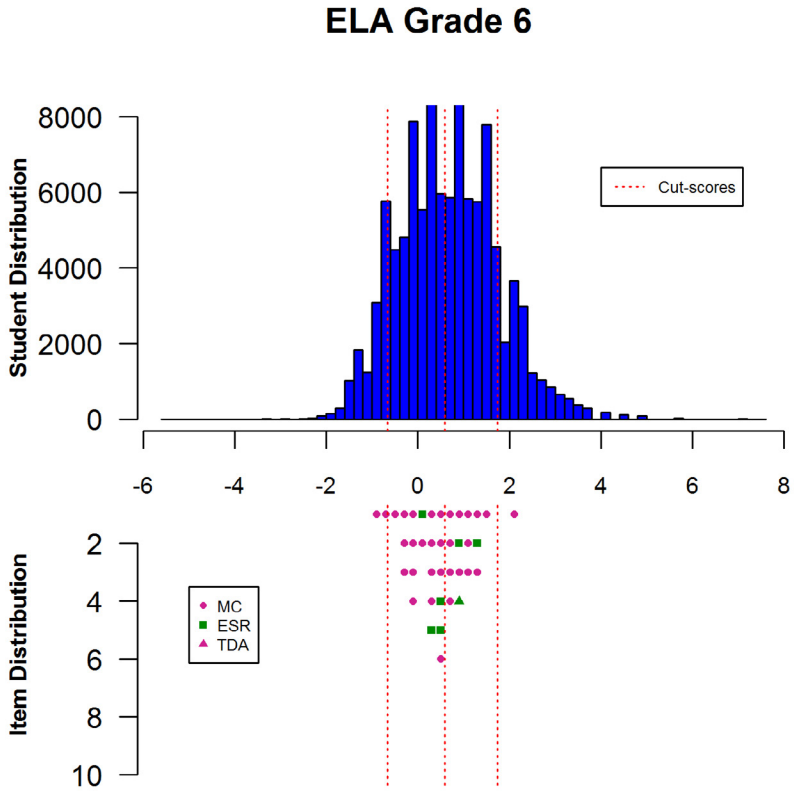
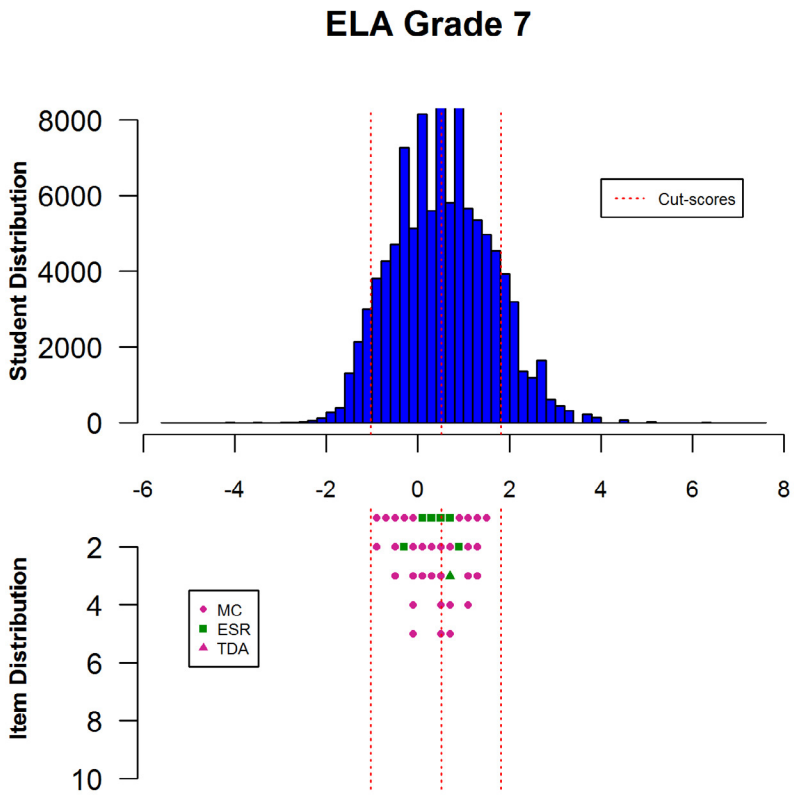
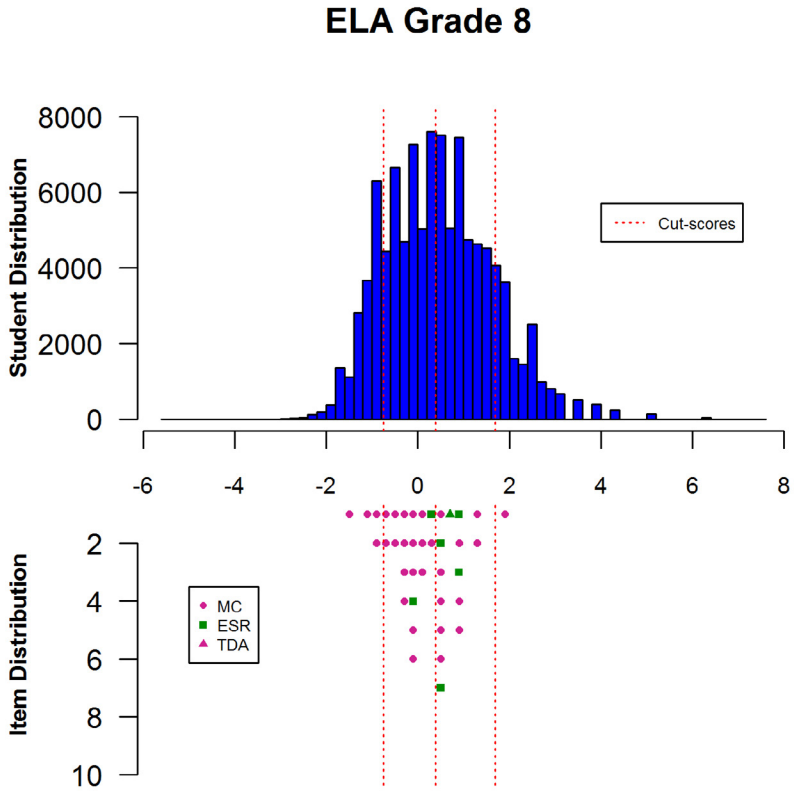


Figure 12–2 (continued). Wright Maps





CHAPTER THIRTEEN: PERFORMANCE LEVEL SETTING

Performance level setting events for grades 3 through 8 in mathematics and ELA took place June 9–12, 2015. Performance level setting will occur for PSSA Science grades 5 and 8 as well as Keystone Biology in the summer of 2026 following the first operational assessment in alignment with the recently adopted Science, Technology, Engineering, Environmental Literacy and Sustainability (STEELS) Academic Standards. A history (dates and methodology) of performance level setting events are provided in Table 13–1. The resulting cut scores from those events are provided in Table 13–2. For mathematics and ELA, please refer to the performance level setting report in 2015 for full details on the procedures used and the standard setting results.

Following the first administration of the reduced length tests detailed in the Preface and Chapter Seven, the ELA cut scores reported below in Table 13–2 were validated by Pennsylvania educators during a modified Bookmark standards validation procedure in the Summer of 2018. Please refer to the standards validation report in 2018 for full details.

Table 13–1. Performance Level Setting/Validation Event Dates and Methodology

Subject	Grade	Methodology	Validation?	Event Date
Mathematics	3,4,5,6,7,8	Bookmark	No	Summer 2015
ELA	3,4,5,6,7,8	Bookmark	No	Summer 2015

Note. The new Science Standards will be set in Summer 2026.

PSSA CUT SCORES

Appendix M provides the scaled score cuts for each PSSA test. For reader convenience, these are documented next in a different format. Table 13–2 documents the cut scores on the scaled-score metric. PSSA scaling procedures are discussed further in Chapter Fourteen. In 2025, PSSA Science was a stand-alone field test; no scaled scores or performance levels were reported.

Table 13–2. PSSA Scaled-Score Metric Cut Scores by Subject and Grade

Subject	Grade	BB/B	B/P	P/A
Mathematics	3	923	1000	1110
Mathematics	4	908	1000	1107
Mathematics	5	901	1000	1113
Mathematics	6	897	1000	1105
Mathematics	7	904	1000	1109
Mathematics	8	906	1000	1108
ELA	3	905	1000	1143
ELA	4	887	1000	1107
ELA	5	893	1000	1139
ELA	6	875	1000	1115
ELA	7	845	1000	1130
ELA	8	886	1000	1130
Science	5	NA	NA	NA
Science	8	NA	NA	NA

Note. BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.

CHAPTER FOURTEEN: SCALING

The purpose of a scaling analysis is to create a score scale. Scaling is used to transform test score values onto a scale more easily interpreted by users. For the PSSA, the resulting scaled scores will be used for score reporting and performance level classification. The PSSA classifies students into four achievement levels: Below Basic, Basic, Proficient, and Advanced.

The adoption of the Pennsylvania Core Standards in 2013 brought several changes to the PSSA in mathematics and ELA. In mathematics, content changed for grade levels, items involved more problem solving for deeper understanding, rulers were provided in grade 3 only, protractors were provided in grade 4, and formula sheets were provided in grades 4 through 8. In ELA, the new PSSA replaced PSSA Reading and PSSA Writing. Additional changes in ELA included reading passages that reflect the increased expectations of text complexity and new item types to reflect the emphasis on text-based answers and evidence to support claims. In 2025, PSSA science assessed the newly adopted Science, Technology, Engineering, and Environmental Literacy standards in grades 5 and 8 The PSSA science was a stand-alone field test and no scaling was conducted. Scaling for science will be conducted following the first operational administration in 2026.

The changes to mathematics and ELA necessitated performance level setting and the establishment of new score scales in 2015. Therefore, mathematics and ELA scaled scores for 2018 are not comparable to years prior to 2015. Table 14–1 shows the scaled-score cuts for each subject and grade level.

SCALED SCORES

Individual student scores are reported as scaled scores. However, they are initially estimated as Rasch abilities (more information on the Rasch model is given in Chapter Twelve). Generally, scaled scores are preferred over Rasch ability values for reporting purposes. One issue is that Rasch ability values are on a scale that includes negative and decimal values. By transforming the Rasch ability values to scaled scores, all reported values can become positive integers. Scaled scores are usually obtained through some linear transformation of the Rasch ability values. The linear transformations used for the PSSA produce numeric values with three or four digits that are unit interval scaled scores. Each grade and subject has its own unique PSSA scaled score. Positive scores with no decimals make more sense to parents and students. Since Rasch ability values are comparative after linking to the base year, the transformed scaled scores have a common scale across years, even though the corresponding raw scores may differ. (Equating is discussed further in Chapter Fifteen.)

Essentially, PSSA scaled scores are derived through a two-step process. First, there is a nonlinear transformation that converts number correct scores to Rasch ability logits. Second, a linear transformation is used to convert logits to scaled scores. These and some additional considerations (e.g., rounding rules), are discussed further below.

DEFINITION OF SCOREABILITY

Answer documents are considered scoreable if they meet the attempt logic criterion for inclusion in the data files (see Chapter Nine).

At the item level, responses that were considered non-attempted or non-scoreable were assigned a score of zero. Details by item type are provided below.

- Multiple-choice (MC) items: All omit (no response) and multiple marks (more than one response selected without machine-discernible erasures) were scored as zeros.
- Open-ended (OE) items: All blank, copied, non-scoreable, foreign language, off-task, refusal, or unreadable responses were scored as zeros.
- Evidence-based selected-response (EBSR) items: Blank response for both parts OR part one marked with multiple marks and part two marked for all responses were scored as zeros.

WINSTEPS SCALING

Parameter estimates are derived using the WINSTEPS computer program (Linacre, 2019), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE). WINSTEPS provides a conversion table that maps raw scores to logits (Rasch ability estimates). The logits are transformed to scaled scores as discussed below. Every year each test is scaled separately and then linked (see Chapter Fifteen).

ZERO AND PERFECT SCORES

WINSTEPS does not provide a direct ability estimate for zero (no points earned) or perfect (all points earned) raw scores. However, WINSTEPS has a default procedure for estimating such extreme scores, and this was used for the PSSA. Essentially, a fractional raw score (a value less than one) is added to zero scores and subtracted from perfect scores to determine the corresponding logit values for these extreme scores.

LINEAR TRANSFORMATION FORMULAS

PSSA scaled scores are obtained through a linear transformation of the Rasch ability estimates ($\hat{\theta}$). Specifically,

$$SS = m\hat{\theta} + b,$$

where *m* is the slope and *b* is the intercept.

For mathematics and ELA, the slope and intercept for each grade were derived by anchoring the Proficient cut score to a scaled score of 1000 and fixing the slope at 100. For science, the slope and intercept for each grade were derived by anchoring the Basic cut score at 1150 and the Proficient cut score at 1275.[1]

The slopes and intercepts for deriving PSSA scaled scores are provided in Table 14–2.

ROUNDING

The linearly transformed scaled scores are generally rounded to the nearest integer value for reporting purposes. Values greater than or equal to 0.50 are rounded up. Values less than 0.50 are rounded down.

LOWEST OBTAINABLE SCALED SCORES

PSSA mathematics and ELA tests have a lowest obtainable scaled score (LOSS) of 600. The selection of a LOSS is mainly based on two considerations: 1) extreme low scaled scores may have an impact on the average of the scaled scores at school/district level and 2) score truncation makes sense from a score precision perspective given measurement errors at the extremes are large. The LOSS values are documented in Table 14–1. See tables in Appendix N for LOSS *n*-counts.

HIGHEST OBTAINABLE SCALED SCORES

A highest obtainable scaled score (HOSS) is not set for the PSSA. Thus, the maximum possible scaled score value can float for each subject and grade. The upper bound varies from year to year, depending on the difficulty of the test form. Table 14–1 shows the maximum possible observed score for the current year's test. (Note: It may be that no student earned the maximum possible.) See tables in Appendix N for HOSS *n*-counts.

[1] Anchoring two cut scores for mathematics and ELA was considered. However, this led to large variability in scaled scores across grades. Therefore, it was determined that one cut score would be anchored and the slope set at 100 for all grades.

RAW-SCORE-TO-SCALED-SCORE TABLES

Full raw-to-scaled score tables can be found in Appendix N.

Table 14–1. PSSA Scaled Score Cuts for Each Performance Level by Subject and Grade

Subject	Grade	Min	BB/B[1]	B/P[1]	P/A[1]	Max[2]
Mathematics	3	600	923	1000	1110	1532
Mathematics	4	600	908	1000	1107	1516
Mathematics	5	600	901	1000	1113	1507
Mathematics	6	600	897	1000	1105	1506
Mathematics	7	600	904	1000	1109	1526
Mathematics	8	600	906	1000	1108	1462
ELA	3	600	905	1000	1143	1536
ELA	4	600	887	1000	1107	1581
ELA	5	600	893	1000	1139	1580
ELA	6	600	875	1000	1115	1647
ELA	7	600	845	1000	1130	1584
ELA	8	600	886	1000	1130	1589
Science	5	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA

Notes. 1. BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.
2. Scaled Score Maximum Values are unique for each year's test.
3. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores were not reported.

Table 14–2. PSSA Intercept and Slope by Subject and Grade

Subject	Grade	Intercept	Slope
Mathematics	3	956.31	100.00
Mathematics	4	981.92	100.00
Mathematics	5	961.69	100.00
Mathematics	6	931.41	100.00
Mathematics	7	956.16	100.00
Mathematics	8	951.76	100.00
ELA	3	962.47	100.00
ELA	4	957.49	100.00
ELA	5	958.32	100.00
ELA	6	940.78	100.00
ELA	7	947.65	100.00
ELA	8	961.11	100.00
Science	5	NA	NA
Science	8	NA	NA

Notes. 1. Linear Transformation Intercepts and Slopes are used to derive the Scaled Scores.
2. 2025 was a stand-alone field test for Science grades 5 and 8 and no scaling was conducted.

STRAND (REPORTING CATEGORY) SCORE STRENGTH PROFILE

Strength profiles for strand (reporting category) scores have been provided since 2009. The following process was followed to derive the profile:

- The items for each strand were identified.
- WINSTEPS runs were undertaken that anchored the logit values for each strand's items to get the raw-to-logit score table for each strand. This is sometimes referred to as fixed item parameter scaling.
- The appropriate linear transformations (based on content and grade from Table 14–2) were applied to the logit values to derive strand scaled scores.

The strand scaled scores were categorized as follows: L=Low; M=Medium; H=High. The maximum possible strand scaled score was converted to H in cases where no strand scaled score equaled or exceeded the Advanced scaled score cut. Note that these designations are provided as an indication of performance levels within a strand, but as standards have not been set that describe strand performance as has been done at the overall test level, performance level descriptions for the overall test should not be used to describe strand performance. See Chapter Sixteen for information regarding strength profiles used in score reports.

CHAPTER FIFTEEN: EQUATING

Equating is a statistical process that is used to adjust scores on test forms so that scores on all forms on the test scale can be used interchangeably (Kolen & Brennan, 2004) even though the test forms consist of different items. In large-scale testing programs, it is a common practice to have different item sets appear in different test forms across administrations. Students' raw scores (or number-correct scores) cannot be directly compared between forms or administrations because they depend on the difficulty of the items on a form. The same student can score higher on an easy test than on a difficult test. Although there are various equating methods available for different psychometric paradigms (IRT and CTT), the PSSA utilizes an IRT approach aligned with the assumptions of the Rasch model, the IRT pre-equating method. The first step in any IRT equating method is to conduct scale linking, in which item difficulties from independent calibrations are transformed so that they can be placed on the same scale (Kolen & Brennan, 2014). Once scale linking is conducted, we can proceed with any IRT-based equating methods.

Prior to 2019, the PSSA employed a post-equating design with a chain-linking approach for scale linking. For the first time in 2019, a pre-equating design was implemented for PSSA due to the many advantages it offers. Specifically, employing a pre-equating method allowed for a shortened turn-around for score reporting due to the use of previously linked item parameters for test construction and development of raw-to-scaled-score tables. In this chapter, we provide a brief comparison of pre- and post-equating, the procedure implemented for the 2025 PSSA, and the evaluation of pre-equated and post-equated solutions. Summary results are also presented.

PRE- VS. POST-EQUATING

As with other Pennsylvania assessment programs, the Rasch model is used to guide the test design, form construction, calibration, scaling, and equating of the PSSA. The first step in equating test forms using the Rasch model is to place the item parameters from different administrations on the same scale, also referred to as scale linking. Once the item parameters are on the same scale, the Newton Raphson procedure can be used to convert number-correct scores to Rasch ability levels, which in turn are transformed to scaled scores, ultimately allowing for score comparability within and across administrations.

As is the case with many K–12 large-scale assessment programs, all scored items are field tested prior to operational use. In theory, once the field-test items' difficulties are placed on the base scale one should not expect their Rasch item difficulties to change, except within a reasonable range of measurement error, after they are administered in an operational test provided the Rasch model fits the data. The subsequent use of these item parameters for test scoring is referred to as pre-equating.

In contrast, post-equating requires data from the current administration to be calibrated. Then, newly estimated item parameters are linked and placed on the same scale as banked item parameters, and scores are equated. With this in mind, pre-equating is advantageous because much of the work is completed before test administration, allowing more time for quality control; whereas post-equating relies on the same given timeframe for calibration, scale linking, equating scores, and implementing quality control procedures.

As the calibration of item parameters using IRT methods assumes equivalent samples of students from the same population, the two equating approaches should, in theory, yield the same results. However, this is unlikely to be true in practice, so there are practical advantages and disadvantages of each approach. The use of pre-equating can facilitate the operational process in terms of rapid score reporting, more time for quality control, and more flexibility in the assessment. One successful application of pre-equating is for computer-adaptive tests (CAT), such as the Pennsylvania Classroom Diagnostic tools (CDT), where test questions are tailored to a student's achievement as the test progresses. The CDT is designed to provide diagnostic information about student performance and is available throughout the school year at no cost. CATs require automated scoring for all item types (including constructed-response) and allow for immediate score reporting upon completion of the test. However, a variety of issues need to be considered when using pre-equating in practice. For example, students may not be motivated to take the field tests, especially standalone field tests, which may make the items appear harder in the field test than in the operational test (Eignor, 1985; Eignor & Stocking, 1986; Stocking & Eignor, 1986; Kolen & Harris, 1990). Other concerns for the field-test items include item context, item position, and sample size. In contrast, post-equating, when applicable, does not have the same motivational concerns as pre-equating. Also, post-equating uses post-administration data and is sometimes considered to yield more accurate analysis results, given that the number of students who take the operational tests is usually large. On the other hand, when the reporting window is extremely

tight, post-equating must occur within a very short time and therefore allows less time for the equating analyses and quality control.

CONSIDERATIONS FOR IMPLEMENTING PRE-EQUATING IN PSSA

To implement the pre-equating model in PSSA, additional efforts have been made to enhance the accuracy of pre-equating results based on findings from literature. For example, to address the concerns regarding students' motivation to take field tests, stand-alone field tests were not used; field-test items were embedded throughout the test so that students would perceive no differences between field-test items and operational items. This approach allows Rasch item difficulty estimates to be used for future pre-equating purposes and is based on the assumption that students should be equally motivated to take the operational and embedded field-test items, especially when they are not aware of which items are field-test items. To minimize item context and item position effects (i.e., lack of motivation and fatigue), field-test items were interspersed within the operational sections. With this design, students have a smaller chance of knowing the field-test item positions. Fatigue effects due to field-test items being placed in the last section of the operational test can be mitigated in this design as well. To improve the accuracy of the Rasch item difficulties estimated from the field-test data, DRC scored all MC items and a large sample of CR items, given that larger sample sizes can increase the estimation accuracy. The test designs for the operational PSSA mathematics, ELA, and science assessments used multiple test forms that shared several common elements. The operational items were the same on all forms and for all students. Student total raw scores and scaled scores, as well as accountability reporting, were based exclusively on the operational items[1].

The primary purpose of implementing pre-equating methodologies in PSSA was to shorten the score reporting window. Although PSSA forms have always been built using previously administered FT items with estimated Rasch difficulties, item selection for assessment programs that utilize pre-equating relies heavily on data-model fit, and in turn, the form construction process relies on items' statistical properties. Once items were selected for forms, approved by DRC staff and PDE, raw-to-scaled score tables were built using the same statistical properties.

SCALE LINKING

PSSA utilizes a chained scale linking design to conduct pre-equating verification, to obtain item parameters for field-tested items, and to update item parameters for operational items. Results from scale linking are item parameters (Rasch difficulties and thresholds) for field-tested (FT) items that are on the base scale. The chain originates from a scale of measurement defined for each test's base form, which is used as the reference for calibrating all items in the item pool. The base form is usually the form upon which the cut scores were established (see Chapter Thirteen). In the case of the PSSA, scales and cut scores were established for ELA and mathematics in 2015. Therefore, the 2025 mathematics and ELA tests are chain linked to the scales set in 2015. The PSSA science baseline scale and cut scores will be established following the 2026 administration.

The Rasch Partial Credit Model (RPCM) is used for the calibrating data for the PSSA, given its flexibility for dichotomously scored (i.e., MC) and polytomously scored (i.e., CR, EBSR) item types (Masters, 1982). The RPCM is discussed in detail in Chapter Twelve. Without employing scale linking, Rasch difficulties for the field-tested items would not be directly comparable to other items on the base scale. A partially anchored calibration was employed to estimate all item parameters for each test on its respective base scale. First, all OP item parameters were evaluated for model fit to ensure that previously estimated (banked) item parameters were still reasonable and appropriate. If misfitting items were identified, their parameters were re-estimated (see Appendix O for OP item difficulties). Then OP item parameters were anchored and FT item parameters were freely estimated for each subject and grade level. This allowed for the estimation of FT item parameters on the baseline scale (see Appendix F for all item statistics).

[1] In 2025, PSSA science was a stand-alone field test; no scaled scores were reported and no scaling and equating procedures were conducted. The baseline scale for PSSA science will be established following the 2026 administration.

For the pre-equating verification, we evaluated the differences between the fully anchored pre-equated solution and the partially anchored pre-equated solution (if misfitting items were identified). Both sets of item parameters were then used to estimate student abilities, which were then transformed to scaled scores. (Transformation formulas are provided in Chapter Fourteen.) The following steps outline the scale linking procedure used for PSSA. All calibration was conducted using WINSTEPS (Linacre, 2019).

1. Calibrate operational (OP) items in a fully anchored design.
    a. Exclude FT items.
    b. Identify include only students that have completed the test.
2. Identify misfitting items from Step 1 using the following criteria.
    a. Identify items with infit mean-square values greater than 1.3 or items with absolute displacement greater than 0.5 logits.
3. For any item identified in Step 2 due to infit and stability issues, allow OP item parameters to be freely calibrated in a partially-anchored design. This allows for item parameters to be updated for misfitting items[2].
    a. Exclude FT items.
    b. Include only students that have completed the test.
4. Calibrate OP and auto-scored FT items in a partially-anchored concurrent design.
    a. Anchor OP item parameters to the banked values (used in Step 1) or the updated values (estimated in Step 3).
    b. Include all operational (OP) and auto-scored (MC, TE, or EBSR) FT items.
    c. Include only students that have completed the test.
5. Calibrate OP and FT items in a partially-anchored concurrent design.
    a. Anchor OP item parameters to the banked values (used in Step 1) or the updated values (estimated in Step 3).
    b. Anchor FT autoscored item parameters to those estimated in Step 4.
    c. Include all operational (OP) and field-test (FT) items.
    d. Include only students with scores for FT CR items.
    e. The resulting item parameters are banked for future use.

[2] Step 3 is part of the scale maintenance plan discussed later in this chapter.

PRE-EQUATING VERIFICATION

Although extra care has been taken to guarantee the success of pre-equating during the test design, form construction, and calibration of embedded field-test items, DRC ensured that the pre-equated results had reasonable data-model fit during the pre-equating verification process. Once sufficient data was available, pre-equating verification was conducted to assess data-model fit and allow the parameters of any misfitting items to be freely calibrated. Any misfitting item was identified, and parameters were freely estimated in a subsequent calibration (using a partially anchored design) to improve data-model fit. The data and results presented in this section refer to misfitting items as those in which infit mean-square values exceeded a criterion of 1.3. The number of items identified during pre-equating verification for each subject and grade level is shown in Table 15–1. Items were identified across for math grades 3, 5, and 6, and all ELA grades except grade 5. Differences were analyzed between fully anchored pre-equated results (hereinafter "pre-equated") and partially anchored pre-equated results (hereinafter "post-equated"). Pre-equating verification analyses were conducted at the item level, person level, and form level. Complete detailed results from the pre-equating verification analyses can be found in Appendix T.

Table 15–1. Number of Misfitting Items Identified during Pre-Equating Verification

Grade	Mathematics	ELA	Science*
Grade 3	1	1	-
Grade 4	0	3	-
Grade 5	1	0	NA
Grade 6	2	2	-
Grade 7	0	1	-
Grade 8	0	4	NA

Note. Science was a stand-alone field test in 2025. No operational analyses were conducted.

At the same time, DRC test development specialists reviewed all misfitting items (i.e., items with infit mean-square values greater than 1.3) and items with large displacement values (i.e., an absolute value greater than 0.5) to ensure that items were presented in the same manner as they were in prior administrations.

ITEM-LEVEL ANALYSES

Item-level analyses indicate whether the data fit the Rasch model with respect to item-fit statistics. This analysis included identifying the number of items that had reasonable fit statistics (i.e., greater than 0.7 and less than 1.3) supported by prior literature (Wright & Linacre, 1994). Tables 15–2M and 15–2E show the item fit statistics comparisons for mathematics and ELA, respectively. No summary is provided for science because the 2025 PSSA science was a stand-alone field test. The items fit the pre-equated and post-equated solutions similarly. The results show that the data fit the pre-equated solution well, which provided evidence that the pre-equated solution was appropriate.

Table 15–2M. Mathematics Item Infit and Outfit Mean-Square Statistics by Grade

Grade	Method	N	Mean*	SD*	Min*	Max*	[0.7,1.3]*	Mean+	SD+	Min+	Max+	[0.7,1.3]+
3	Pre	93723	0.97	0.12	0.74	1.20	43/43	0.97	0.17	0.68	1.30	41/43
3	Post	93723	0.97	0.12	0.74	1.20	43/43	0.97	0.17	0.68	1.30	41/43
4	Pre	90491	0.97	0.11	0.78	1.24	43/43	0.97	0.18	0.65	1.38	39/43
4	Post	90491	0.97	0.11	0.78	1.24	43/43	0.97	0.18	0.65	1.38	39/43
5	Pre	94222	0.98	0.14	0.59	1.25	42/43	0.98	0.20	0.43	1.39	37/43
5	Post	94222	0.99	0.13	0.77	1.25	43/43	0.98	0.20	0.54	1.40	36/43
6	Pre	92373	0.97	0.12	0.63	1.22	42/43	0.97	0.18	0.47	1.41	40/43
6	Post	92373	0.98	0.11	0.76	1.19	43/43	0.97	0.16	0.59	1.28	41/43
7	Pre	90245	0.99	0.13	0.74	1.28	43/43	0.99	0.20	0.70	1.57	39/43
7	Post	90245	0.99	0.13	0.74	1.28	43/43	0.99	0.20	0.70	1.57	39/43
8	Pre	90084	0.99	0.11	0.77	1.20	43/43	0.99	0.15	0.72	1.35	42/43
8	Post	90084	0.99	0.11	0.77	1.20	43/43	0.99	0.15	0.72	1.35	42/43

Notes. *Denotes Infit
+Denotes Outfit

Table 15–2E. ELA Item Infit and Outfit Mean-Square Statistics by Grade

Grade	Method	N	Mean*	SD*	Min*	Max*	[0.7,1.3]*	Mean+	SD+	Min+	Max+	[0.7,1.3]+
3	Pre	105200	1.02	0.12	0.81	1.23	35/35	1.05	0.18	0.72	1.45	32/35
3	Post	105200	1.01	0.11	0.81	1.21	35/35	1.03	0.17	0.72	1.40	32/35
4	Pre	101812	1.02	0.15	0.53	1.39	37/39	1.04	0.18	0.53	1.44	35/39
4	Post	101812	1.01	0.14	0.53	1.39	37/39	1.03	0.18	0.53	1.44	35/39
5	Pre	104926	1.05	0.12	0.66	1.28	38/39	1.09	0.18	0.66	1.49	35/39
5	Post	104926	1.05	0.12	0.66	1.28	38/39	1.09	0.18	0.66	1.49	35/39
6	Pre	103470	1.04	0.13	0.70	1.37	36/39	1.09	0.20	0.72	1.63	34/39
6	Post	103470	1.04	0.13	0.70	1.39	36/39	1.09	0.20	0.72	1.59	34/39
7	Pre	102898	1.05	0.15	0.62	1.41	37/39	1.09	0.22	0.62	1.56	30/39
7	Post	102898	1.04	0.15	0.62	1.35	37/39	1.09	0.22	0.62	1.51	31/39
8	Pre	102688	1.08	0.16	0.76	1.61	37/39	1.15	0.25	0.61	1.77	27/39
8	Post	102688	1.07	0.17	0.76	1.62	37/39	1.14	0.26	0.61	1.75	26/39

Notes. *Denotes Infit
+Denotes Outfit

PERSON-LEVEL ANALYSES

The second set of analyses conducted consisted of analyzing person-level fit statistics, which can be another indicator of whether the data fit the model. Tables 15–3M and 15–3E summarize the overall person infit and outfit statistics by grade level for both the pre-equated and post-equated solutions for mathematics and ELA, respectively. No summary is provided for science because the 2025 PSSA science was a stand-alone field test. The table specifies the mean, standard deviation (SD), minimum (Min), maximum (Max), and proportion of persons that had reasonable fit statistics (i.e., greater than 0.5 and less than 1.5)[3] for both infit and outfit statistics. The results in the tables indicate that person-level fit does not vary by equating method.

Furthermore, Appendix T includes the results for the pre-equating verification, including the person infit boxplots for all subjects and grade levels for both pre-equated and post-equated solutions. Appendix T also provides boxplots disaggregated by gender, ethnicity, English Learners (ELs), and students with individualized educational plans (IEPs). The person infit plots indicate that the data fits the pre- and post-equated solutions similarly.

Table 15–3M. Mathematics Person Infit and Outfit Mean-Square Statistics by Grade

Grade	Method	N	Mean*	SD*	Min*	Max*	[0.5,1.5]*	Mean+	SD+	Min+	Max+	[0.5,1.5]+
3	Pre	93723	0.95	0.18	0.54	3.24	99.2%	0.97	0.22	0.10	5.34	96.6%
3	Post	93723	0.95	0.18	0.54	3.24	99.2%	0.97	0.22	0.10	5.30	96.6%
4	Pre	90491	0.98	0.20	0.52	3.49	98.1%	0.97	0.24	0.12	5.91	95.6%
4	Post	90491	0.98	0.20	0.52	3.49	98.1%	0.97	0.24	0.12	5.91	95.6%
5	Pre	94222	0.98	0.19	0.54	3.44	98.3%	0.98	0.22	0.14	7.00	96.8%
5	Post	94222	0.98	0.20	0.53	3.44	98.2%	0.98	0.23	0.14	6.98	96.0%
6	Pre	92373	0.97	0.19	0.48	3.15	98.6%	0.97	0.25	0.10	7.10	95.4%
6	Post	92373	0.97	0.20	0.48	3.15	98.6%	0.97	0.26	0.10	7.13	95.1%
7	Pre	90245	0.96	0.17	0.48	3.58	99.0%	0.99	0.20	0.06	4.46	97.5%
7	Post	90245	0.96	0.17	0.48	3.58	99.0%	0.99	0.20	0.06	4.46	97.5%
8	Pre	90084	0.97	0.17	0.51	3.88	98.9%	0.99	0.18	0.14	4.57	98.1%
8	Post	90084	0.97	0.17	0.51	3.88	98.9%	0.99	0.18	0.14	4.57	98.1%

Notes. *Denotes Infit
+Denotes Outfit

[3] While items and persons are on the same scale, items tend to be more stable. As such, stricter rules are applied to item-fit statistics than person-fit statistics in determining reasonable fit.

Table 15–3E. ELA Person Infit and Outfit Mean-Square Statistics by Grade

Grade	Method	N	Mean*	SD*	Min*	Max*	[0.5,1.5]*	Mean+	SD+	Min+	Max+	[0.5,1.5]+
3	Pre	105200	1.01	0.21	0.48	2.43	98.1%	1.05	0.27	0.18	7.15	93.6%
3	Post	105200	0.99	0.20	0.49	2.42	98.6%	1.03	0.25	0.18	6.59	95.1%
4	Pre	101812	0.96	0.27	0.35	3.38	96.0%	1.00	0.25	0.12	4.23	95.1%
4	Post	101812	0.95	0.27	0.36	3.37	96.1%	0.99	0.24	0.12	4.28	95.3%
5	Pre	104926	1.00	0.30	0.35	3.00	92.8%	1.06	0.30	0.12	9.90	90.5%
5	Post	104926	1.00	0.30	0.35	3.00	92.8%	1.06	0.30	0.12	9.90	90.5%
6	Pre	103470	1.02	0.36	0.24	3.53	91.6%	1.06	0.35	0.08	9.09	90.0%
6	Post	103470	1.02	0.35	0.24	3.51	91.6%	1.06	0.35	0.08	9.14	90.1%
7	Pre	102898	1.00	0.31	0.37	3.39	92.2%	1.05	0.31	0.12	9.32	91.0%
7	Post	102898	1.00	0.31	0.37	3.40	92.1%	1.05	0.31	0.12	9.32	91.1%
8	Pre	102688	1.09	0.38	0.32	3.56	86.9%	1.12	0.40	0.11	9.90	86.1%
8	Post	102688	1.08	0.38	0.32	3.55	87.3%	1.11	0.40	0.11	9.90	86.8%

Notes. *Denotes Infit
+Denotes Outfit

NORMALIZED SCALED SCORE DIFFERENCES

On the form-level, we evaluated differences between pre-equated and post-equated results. Normalized differences were calculated as the difference between the scaled score divided by the average CSEM of pre- and post-equated results at each raw score point (see Equation below). Normalized differences were all within reasonable expectations (min = -0.15, max = 0.11), where the largest differences were observed for ELA grade 3 (min = -0.15, max = 0). The plots for normalized scaled score differences are included in Appendix T.

$$Normalized\ Scaled\ Score\ Difference = \frac{SS_{Pre} - SS_{Post}}{(CSEM_{Pre} + CSEM_{Post})/_2}$$

PERFORMANCE LEVEL CLASSIFICATION

Pre-equated solutions were considered reasonable if classification consistency did not change more than 5%. Table 15–4 shows the consistency of classifications with respect to performance levels. The three numeric values within each cell refer to the proportion of performance classifications that do not agree at each of the three cuts (Basic, Proficient, and Advanced, respectively). If a numeric entry is followed by a negative sign, then pre-equating resulted in a lower percentage of students in the adjacent performance level when compared to post-equating. On the other hand, if the numeric entry is followed by a positive sign, then pre-equating resulted in a higher percentage of students in the adjacent performance level when compared to post-equating. "Exact" indicates that there was exact agreement between the pre-equated and post-equated solutions. Lastly, a dash indicates that no items were identified during pre-equating validation, and no post-equating was conducted.

Performance level classification was identical between the pre- and post-equated solutions for most subjects and grade levels. There were differences for Math grade 3, in which the differences between the pre-equated scoring table and the post-equated scoring table was 1 raw cut-score at the Basic and Proficient cut-score. Specifically, 2% of students were classified as Basic when pre-equating was used and Below Basic when post-equating was used and 2% of students were classified as Proficient when pre-equating was used and Basic when post-equating was used. Math grade 5 and ELA grade 3 showed small differences at the Basic cut-score. After comparing and evaluating the results, the percentage of students classified differently was less than 5% within each classification, subject, and grade level. The TAC agreed that if classification consistency was less than 5%, then pre-equated solutions should be accepted. The comparison of raw-to-scale score conversion tables for pre-equated and post-equated solutions are shown in Appendix T, Table T–1.

Table 15–4. Performance Level Impact Summary Between Pre- and Post-equated Solutions by Subject and Grade

Grade	Mathematics	ELA	Science
Grade 3	(2+,2+,0)	Exact	NA
Grade 4	-	(2-,0,0)	NA
Grade 5	(3+,0,0)	-	NA
Grade 6	Exact	Exact	NA
Grade 7	-	Exact	NA
Grade 8	-	Exact	NA

Notes. 1. A dash (-) represents that no items were identified during the pre-equating verification process, therefore post-equated solutions were not compared for these grade levels.
2. Science was a stand-alone field test in 2025. No operational analyses were conducted.

SCALE STABILITY AND MAINTENANCE

Scale stability is a critical component of any testing program. The 2014 Standards of Educational and Psychological Testing state that "Testing programs that attempt to maintain a common scale over time should conduct periodic checks of the stability of the scale on which the scores are reported" (p.103). Conducting item parameter checks, ensuring that item parameters do not drift over time, and potentially updating operational item parameters are a few ways in which testing programs can maintain scale stability. Although many of these aspects are checked during the pre-equating verification process, it is also important to analyze student performance and scale stability following each administration. Prior to 2021, operational item parameters were updated following each administration by calculating a mean shift constant based on a specified anchor set and transforming all operational item parameters back onto the base scale. In 2021, operational item parameters were not updated due to the expected impact from the Covid-19 pandemic, including but not limited to the disruption to teaching and learning, the lower participation in state-wide summative assessments, and the elongated testing windows.

Starting in 2022, operational item parameters were re-estimated and updated only if items showed misfit (mean-square infit values greater than 1.3), or items showed displacement (absolute displacement greater than 0.5). As previously discussed, item parameters were re-estimated during a partially-anchored concurrent calibration, where all other operational items were fixed to their previously banked values.

TEST CHARACTERISTIC CURVES AND LOGIT PLOTS

Figure 15–1 helps visualize the across-year differences in the difficulties of operational items. For each subject and grade level, two plots are presented: the test characteristic curves (TCCs) and the relationship between pre-equated and post-equated item difficulties. The plot on the left shows the prior and current TCCs and indicates alignment between the prior and current forms in terms of difficulty in the logit metric. TCCs that are closely aligned translate into similar raw-score cut points and similar test difficulty across years. The three dotted vertical lines represent the Basic, Proficient, and Advanced cut-scores on the logit (theta) scale. All subjects and grades showed very small year-to-year differences in TCCs from 2024 to 2025. The standard error of measurement (SEM) overlays the TCCs to show that the minimum SEM typically occurs close to the Proficient cut-score, which indicates that the Proficient cut-scores tend to be the most precise, as desired.

The right plot in Figure 15–1 displays the relationship between the pre-equated item difficulties (x-axis) and the post-equated item difficulties (y-axis) on the logit (theta) scale. The black line represents the identity line; if points fall on the identity line it indicates that there is no difference between the pre-equated and post-equated item difficulty. Points that do not fall on the identity line indicate items that were identified as misfitting during the pre-equating verification process and were freely estimated in a subsequent calibration. In most cases, the item difficulties that were freely estimated under the post-equated model were relatively close to the identity line. The plots provide evidence of reasonable across-year stability of item difficulty, meaning the pre-equated item difficulties were similar to the post-equated item difficulties.

Figure 15–1. Test Characteristic Curves and Logit Plot

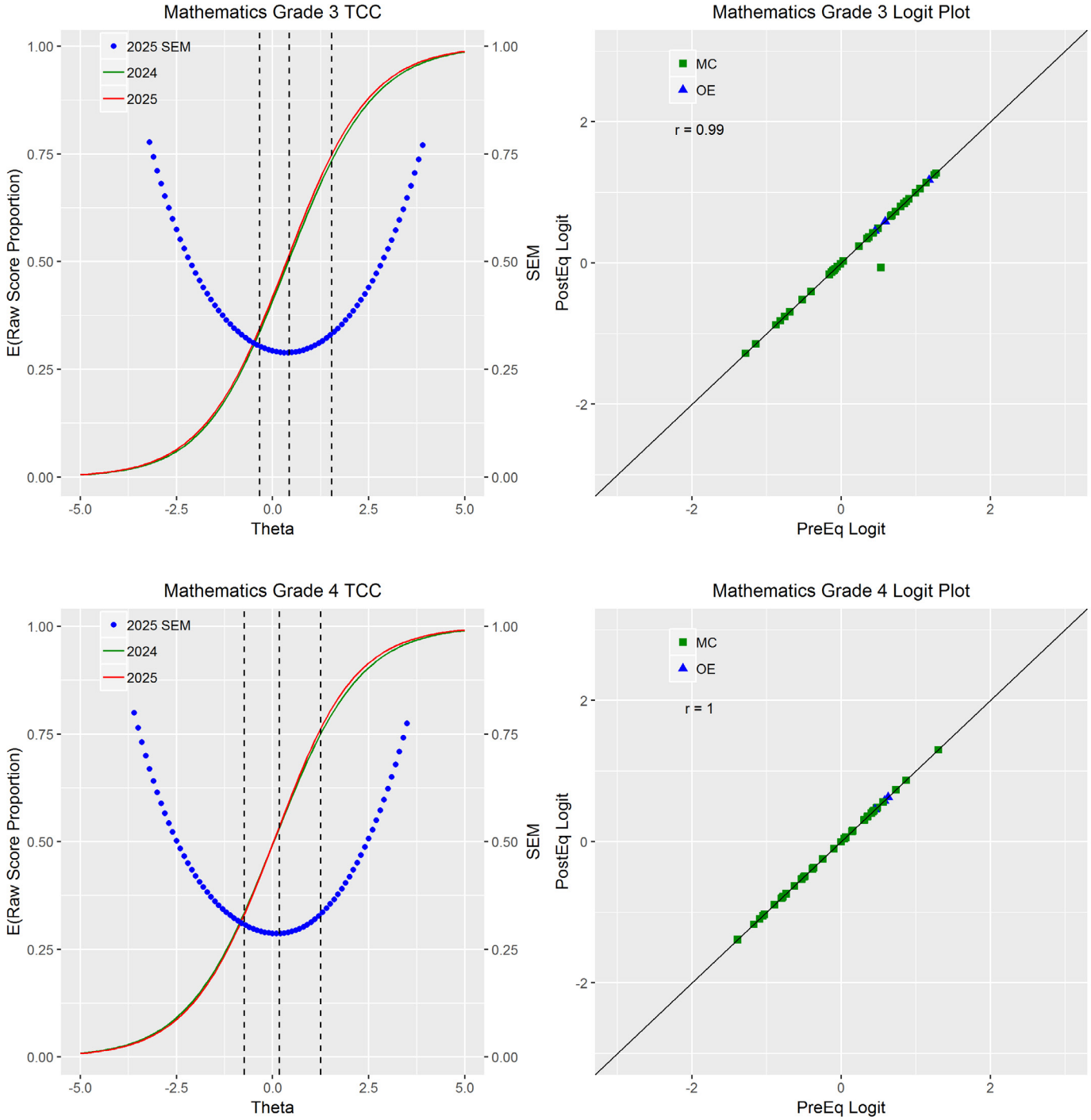


Figure 15–1 (continued). Test Characteristic Curves and Logit Plot

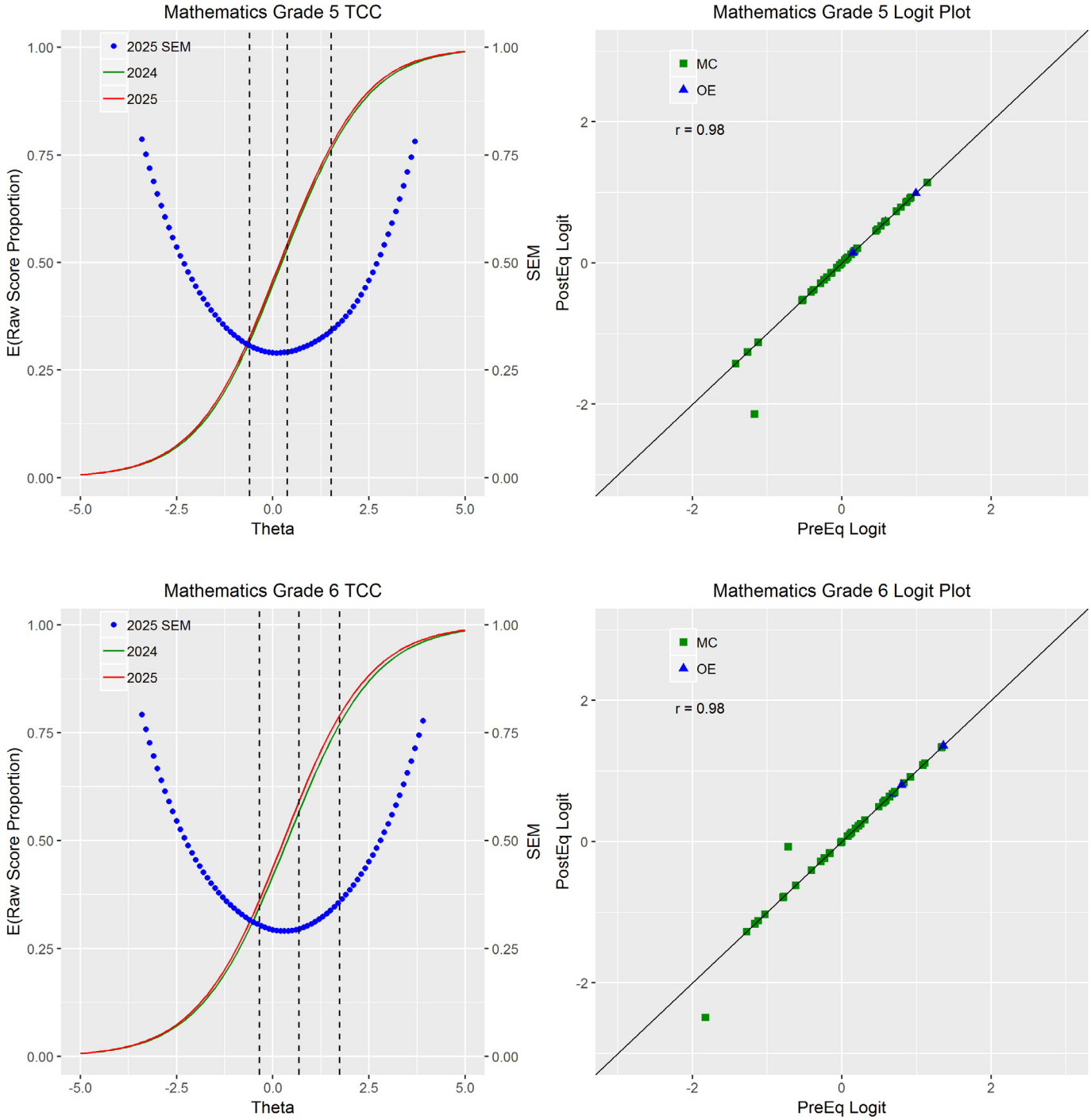


Figure 15–1 (continued). Test Characteristic Curves and Logit Plot

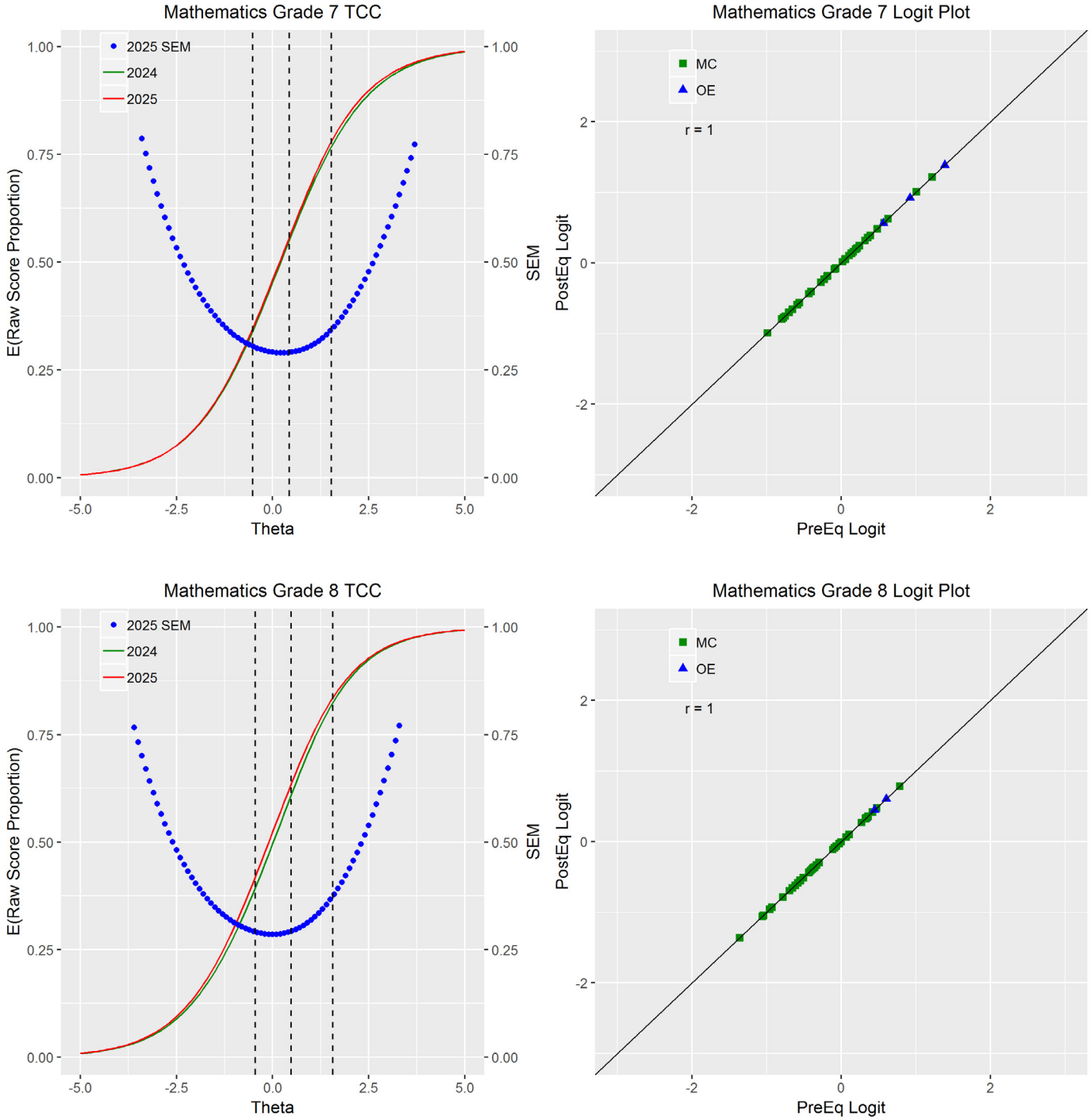


Figure 15–1 (continued). Test Characteristic Curves and Logit Plot

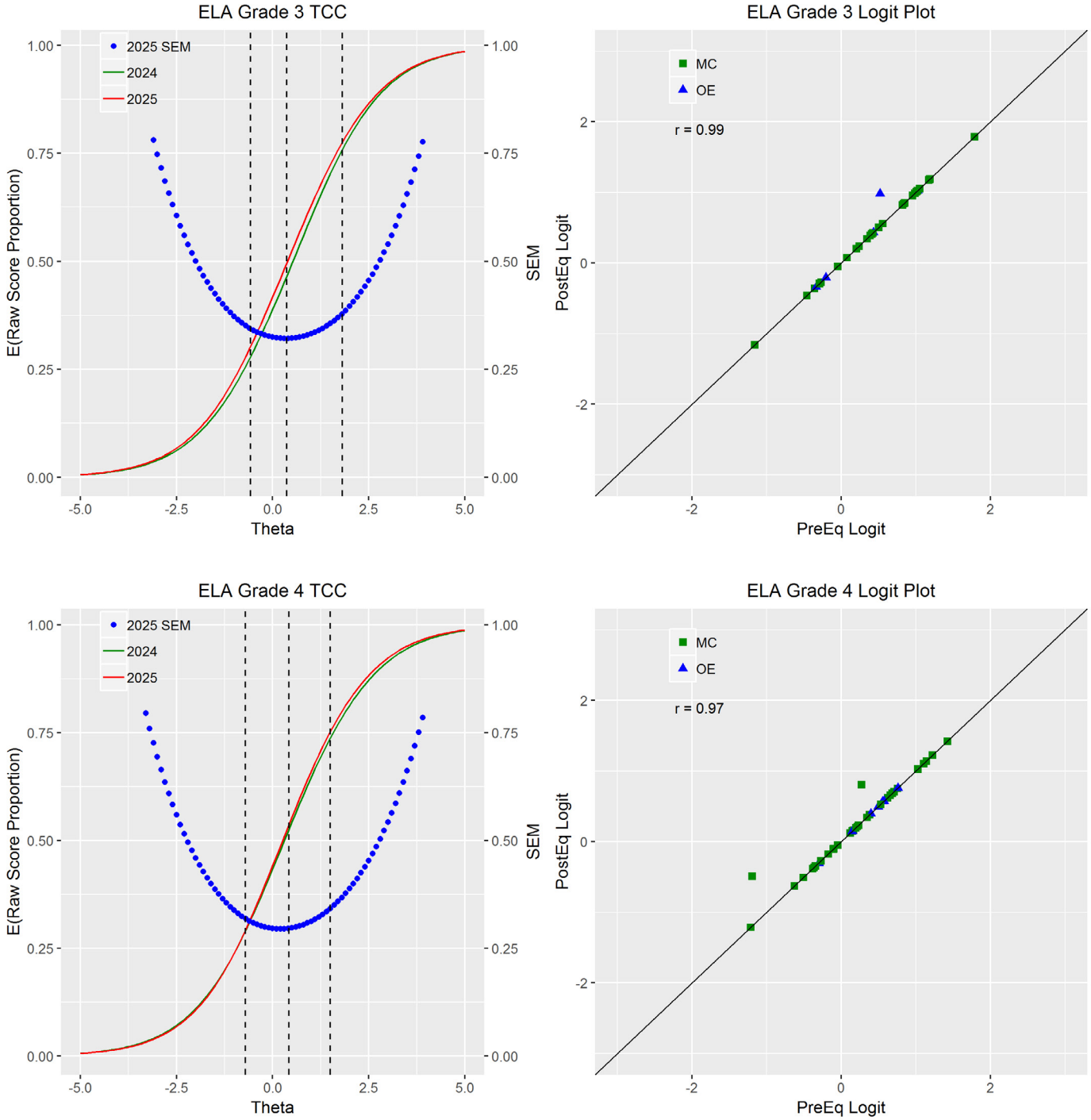


Figure 15–1 (continued). Test Characteristic Curves and Logit Plot

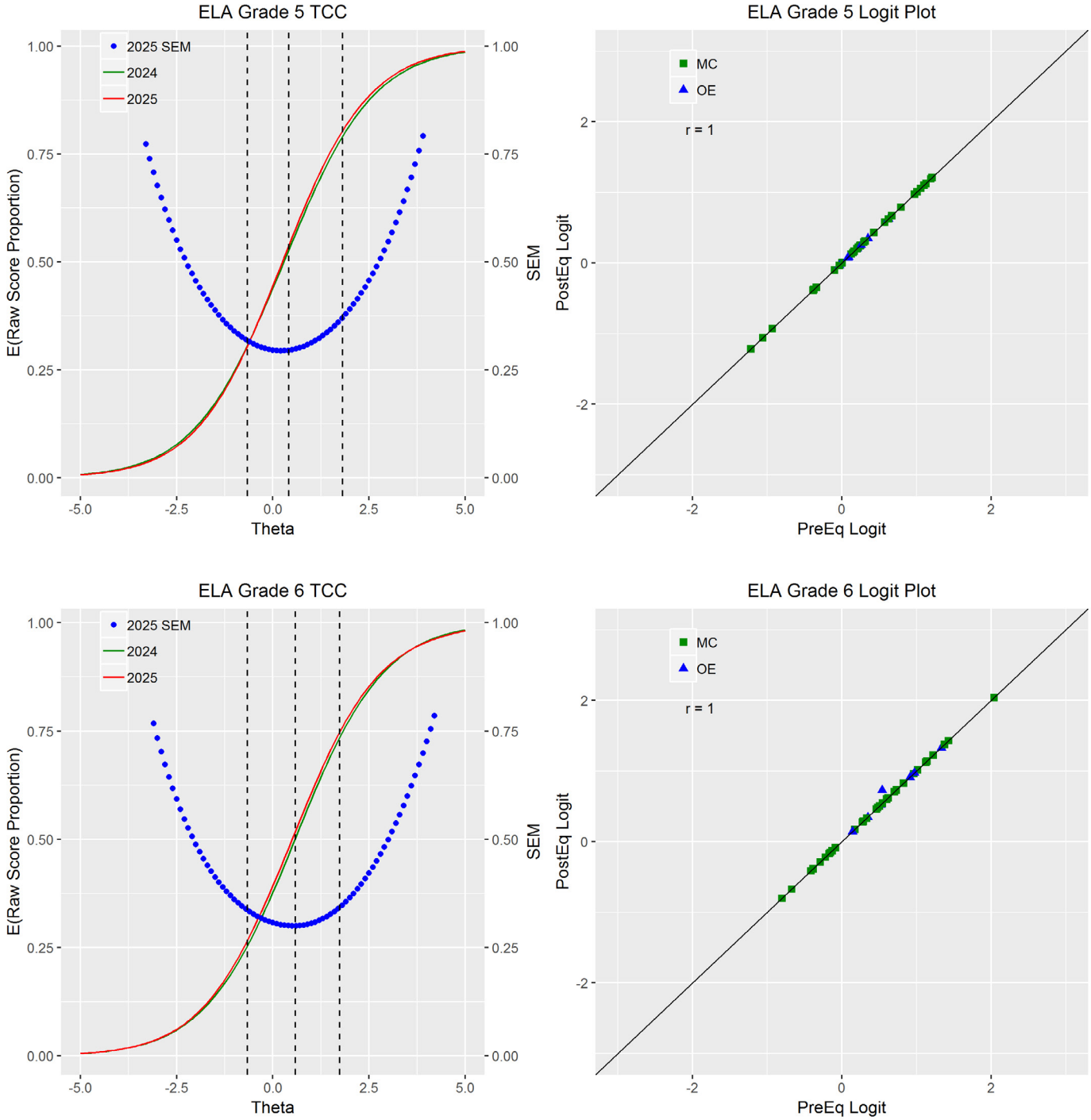
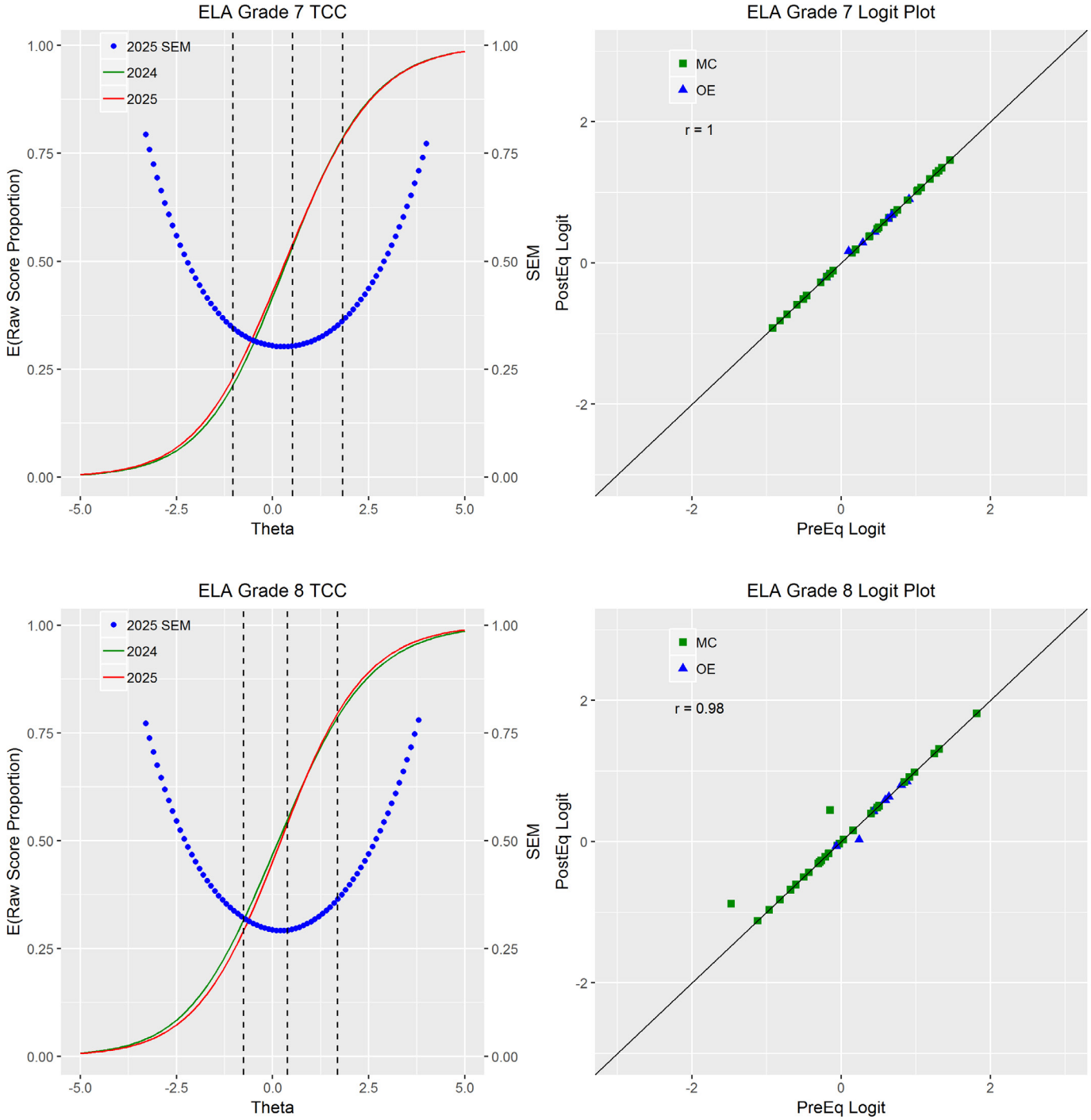


Figure 15–1 (continued). Test Characteristic Curves and Logit Plot



CHAPTER SIXTEEN: SCORES AND SCORE REPORTS

This chapter provides information about the scores provided for the PSSA (e.g., scaled scores, performance levels, and strand scores), how they are presented on score reports, and appropriate and inappropriate uses of the scores.

In 2025, PSSA Science was a stand-alone field test and no student scores were reported. The tables and figures in this section do not include student performance for PSSA Science.

SCORING THE PSSA

The PSSA is composed of multiple-choice (MC) and open-ended (OE) items. Technology-enhanced (TE) items are included as field-test items and do not contribute to students' total score. Each correct response to a multiple-choice item receives a score of 1. Incorrect responses receive a score of 0. Scores on OE items range from zero to four, depending on the subject and grade. Table 16–1 summarizes the types of items used on each subject-area test. More detailed information about the various item types is provided in Chapter Two.

Table 16–1. Item Types Used by Subject Area

Item Type	Mathematics	ELA	Science*
Multiple-Choice	1 point	1 point	1 point
Constructed-Response	4 points	3 points	3 points
Evidence-Based Selected-Response	NA	2 or 3 points	NA
Text-Dependent Analysis	NA	4 points	NA

Notes. 1. Text-dependent analysis items are weighted.
2. Constructed-response item type includes open-ended for math and science and short-answer for ELA grade 3.
3. PSSA Science was a stand-alone field test in 2025. No student scores were reported.

DESCRIPTION OF TOTAL TEST SCORES

Different types of scores have been developed for PSSA reporting. Since the underlying properties of these scores are not necessarily the same, the resulting scores depend on the purposes of the test. The following types of scores are included on score reports for each PSSA subject-area test:

- Raw scores
- Scaled scores
- Performance levels

RAW SCORES

A raw score is the number of points a student earned over the operational MC and OE items. By itself, the raw score has limited utility. One limitation is that it can only be interpreted with reference to the total number of items on a subject-area test (e.g., a raw score of 15 on a 20-item test is different than a raw score of 15 on a 30-item test). In addition, raw scores depend on the difficulty of test items across test forms (e.g., a raw score of 15 on a test with 20 easy items is different than a raw score of 15 on a test with 20 difficult items). Because the difficulty of the items on a test can change from year to year, raw scores should not be compared across tests or administrations.

SCALED SCORES

Scaled scores are introduced in Chapter Fourteen. In the simplest sense, a scaled score is a transformed number-correct score. The specifics of the transformation processes for the PSSA are also discussed in Chapter Fourteen. When all students take the same items, as with the operational items on the PSSA, the more points the student earns, the higher the associated scaled score will be. The value of using the methods described in Chapters Fourteen and Sixteen to produce a scaled score metric is that it produces more general, interpretable, and equitable results that can be compared across years. As noted above, a raw score of 30 is meaningless unless the maximum raw score is known. The difficulty of the test items was also mentioned as an additional challenge with interpreting raw scores. Number-correct scores are transformed to scaled scores to remove the effects of test length and item difficulty. Strictly speaking, transformation of number-correct scores to percent-correct scores would also remove the effect of test length, but it would do nothing to adjust for the difficulty of the items to support year-to-year equivalence of scores.

Another advantage of scaled scores is that they lend themselves to interpretations of what is referred to as an interval level, whereas raw scores do not. Interval-level scales allow an interpretation of a scaled score difference of 5 points to be the same whether the scores are 1095 vs. 1100 or 1245 vs. 1250. Raw score differences, in this context, cannot be interpreted in this manner and are thus neither generalizable nor equitable.

When test scores are properly equated across years, a scaled score of 1300—or any other value for a subject and grade, should have the same absolute meaning in the current year as it had in previous years. Meaning, if a student's scaled score on a specific subject and grade level increased across two years, then that student's performance improved;[1] it does not say anything about whether this year's test is easier or harder than last year's test. These interpretations require no information about the length or the difficulty of the test in either year, although these variables are essential for the process of deriving the scaled scores.

There is considerable auxiliary information presented in this report that might aid the reader in further contextualizing PSSA scaled scores. The reader is specifically referred to the following information:

- Chapter Fourteen provides information on the development of the PSSA scaled score system, including transformation formulas, rounding rules, and general scale characteristics (e.g., minimum values).
- Chapter Seventeen provides total test score statistics. In particular, Table 17–2 lists the scaled score means and standard deviations for this year's test results.

PERFORMANCE LEVELS

PSSA results are also reported using four Performance Levels: Below Basic, Basic, Proficient, and Advanced. The cut scores on the scaled score metric (i.e., the lowest possible scaled score to enter the Basic, Proficient, and Advanced levels) were presented earlier in this report. However, the information is repeated below (Table 16–2) for convenience.

[1] This example is not an endorsement of conducting a trend analysis with only two years of results. Further, small differences may not be statistically or practically significant.

Table 16–2. PSSA Scaled Score Cuts for Each Performance Level by Subject and Grade

Subject	Grade	Min	BB/B[1]	B/P[1]	P/A[1]	Max[2]
Mathematics	3	600	923	1000	1110	1532
Mathematics	4	600	908	1000	1107	1516
Mathematics	5	600	901	1000	1113	1507
Mathematics	6	600	897	1000	1105	1506
Mathematics	7	600	904	1000	1109	1526
Mathematics	8	600	906	1000	1108	1462
ELA	3	600	905	1000	1143	1536
ELA	4	600	887	1000	1107	1581
ELA	5	600	893	1000	1139	1580
ELA	6	600	875	1000	1115	1647
ELA	7	600	845	1000	1130	1584
ELA	8	600	886	1000	1130	1589
Science	5	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA

Notes. 1. BB = Below Basic; B = Basic; P = Proficient; and A = Advanced.
2. Scaled Score Maximum Values are unique for each year's test.
3. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores were not reported.

Performance levels descriptors (PLDs) are another way to attach meaning to the scaled score metric. PLDs associate precise quantitative ranges of scaled scores with verbal, qualitative descriptions of student performance. While much less precise, the qualitative description of the levels is one way for parents and teachers to interpret the student scores. They are also useful in assessing the status of the school. The Pennsylvania General Performance Level Descriptors, as developed by PDE and teacher panels, are given below. These are also included on student score reports.

- Advanced: The Advanced Level reflects superior academic performance, and work at this level demonstrates a thorough command of, and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates advanced academic preparation for engaging successfully in further studies in this content area.
- Proficient: The Proficient Level reflects satisfactory academic performance, and work at this level demonstrates an adequate command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates academic preparation for engaging successfully in further studies in this content area.
- Basic: The Basic Level reflects marginal academic performance, and work at this level demonstrates a partial command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates additional academic support may be needed for engaging successfully in further studies in this content area.
- Below Basic: The Below Basic Level reflects inadequate academic performance, and work at this level demonstrates a minimal command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates extensive additional academic support may be needed for engaging successfully in further studies in this content area.

DESCRIPTION OF STRAND (REPORTING CATEGORY) SCORES

The following types of scores are provided for PSSA:

- Strand (Reporting Category) Scores
- Strength Profile

STRAND (REPORTING CATEGORY) SCORES

A strand (reporting category) score describes performance of a student, school, or district on a particular strand (content standard defined in the test). For the PSSA, strand scores are raw scores, indicating the points a student or a school/district earned for that strand. Attributes of raw scores are described earlier in this chapter and should be interpreted with caution. This is particularly true with respect to year-to-year comparisons where item difficulties may vary. Strand scores cannot be compared across years because they are not statistically linked nor are they interval scores. Also, it is not advisable to compare strand raw scores even within the same form because some strands may contain items that are easier or more difficult than other strands (the strength profile, discussed below, mitigates this problem to some degree). Another concern is the low reliability of many of these scores, especially for strand scores based on a small number of possible points. Chapter Eighteen provides more information about strand-score reliability.

When compared to other results from the same year, strand scores can be somewhat helpful in identifying a group's strengths and weaknesses as measured by the test. For example, it can be informative to compare average strand scores of a school against the scores of another reference group (e.g., the state average). Hence, strand scores can suggest group strengths and weaknesses relative to another reference group. (Challenges pertaining to interpreting results for individual students are discussed below.)

STRENGTH PROFILE

The strength profile provides another indication of a student's performance within each of the strands. This profile can be used to identify areas in which a student needs to improve and areas in which a student has performed more successfully. Unlike strand scores that are reported as raw scores, strength profile scores categorize students into one of three levels: Low, Medium, and High. These categories take into account the difficulty of the items and are based on the same scaling techniques used to derive the PSSA scaled scores (See Chapter Fourteen for a description of how strength profiles are produced). Scaled scores for reporting categories, however, are not included on score reports. High, medium, and low designations are provided as an indication of performance within a strand, but as standards have been set at the test level only, performance level descriptions for the overall test should not be used as validated descriptions of strand performance.

APPROPRIATE SCORE USES

INDIVIDUAL STUDENTS

Scaled scores on the PSSA indicate a student's achievement of the PSSA Assessment Anchors and Eligible Content. Scaled scores are primarily used to determine student performance level classifications (i.e., a criterion-referenced inference). Scaled scores that are based on Item Response Theory (IRT) models are typically assumed to be of the interval type; so, comparisons may be made on differences in scaled scores. If this assumption holds, then it would be safe to infer for Grade 4 ELA that the ability difference between 1110 and 1120 represents the same ability difference that separates 1250 and 1260. Scaled scores can also be used to compare the performance of an individual student to the performance of a similar demographic or subgroup at a school or district. However, when comparing performance of an individual student, test score standard errors (discussed in Chapter Eighteen) should be considered because scaled scores are estimate of students' achievement which comes with estimation error.

GROUPS OF STUDENTS

Test results can be used to evaluate performance over time. Mean scaled scores can be compared across administrations within the same subject and grade to indicate whether student performance is improving across years. Generally, such trend analyses benefit from using mean results from as many test administration years as possible. Different cohorts of students are used (i.e., the same student or students are not tracked across grade levels). All scores can be analyzed within the same subject and grade for any single administration to determine which demographic or program group had, for example, the highest average performance or the highest percentage of students at or above the Proficient standard.

Strand scores can help evaluate academic areas for relative strengths or weaknesses. These category scores provide information to identify areas where further diagnosis is warranted. Generalizations from test results may be made to the specific content domain represented by the academic standards measured in the PSSA. However, all instruction and program evaluations should include as much information from other sources as possible to provide a more complete picture of student performance.

CAUTIONS FOR SCORE USES

EXTREME ERROR FOR EXTREME SCORES

Student scores toward the minimum or maximum ends of the score range have very large standard errors of measurement and, therefore, such scores should be viewed very cautiously. The maximum scaled score only provides a very rough estimate of a student's ability. For instance, if a student achieved the maximum score for ELA grade 6, it could not be determined whether the student could have achieved an even higher scaled score. If the test were 10 items longer, a different estimate might have been obtained. Similarly, if the items in a new test were more difficult than the items on a previous administration, the maximum scaled score would likely be higher on the new test because it would take a greater level of achievement to answer the items correctly. In this manner, extreme scaled scores may vary from one administration to the next even if the number of test items does not change. The fluctuation of extreme scaled scores complicates the comparisons of students with scaled scores at the extreme ends of the score distribution. To minimize confusion and potential misinterpretation, the minimum scaled scores possible on the PSSA tests have been fixed (see Table 16–2) so they do not change between administrations. However, the maximum scaled score values have not been fixed. Therefore, caution must be taken when comparing scores at the maximum end of the scale.

EACH TEST HAS A UNIQUE SCALE

Scaling was conducted for each subject and grade level separately. Therefore, PSSA scaled scores should be interpreted only within each respective subject and grade. PSSA scaled scores are not status indicators in the same sense as percentile ranks (or scales that are essentially transformations of percentile ranks) and, therefore, cannot be used to profile relative strengths and weaknesses across subject areas. As an example, scaled scores of 1250 in Grade 4 ELA and 1200 in Grade 4 mathematics do not necessarily imply that the student performed better in ELA than in mathematics. Neither do the PSSA scaled scores represent a developmental or vertical scale. This means that, although the content is aligned across grades to reflect the grade-to-grade articulations in the Pennsylvania Standards, across-grade statistical comparisons or growth statements for a student are not appropriate. For example, a 1200 in Grade 4 ELA and a 1200 in Grade 5 ELA does not mean a student had no achievement growth in ELA from Grade 4 to Grade 5.

STRENGTH PROFILE CAVEATS

The category labels of Low, Medium, and High are deliberately used instead of the PSSA performance level names—Below Basic, Basic, Proficient, and Advanced—to acknowledge that the PSSA cut scores were established based on the total test score and standards were set on this total test score. Therefore, the categories should not be interpreted in the same way as PSSA performance levels because they likely do not carry the same meaning.

While the strength profile might facilitate comparisons of a student's strengths and weaknesses across strands in some cases, several factors merit caution. As noted earlier, strand scores are often not as reliable as scores on the full-length test. The scaling underlying the strength profile does not mitigate this problem.

Additionally, the categories reflect more absolute comparisons. Relative comparisons are more difficult to make. As an example, if one scored High in both strand A and B, we know the student did very well in both strands compared to overall performance in the state (i.e., absolute status). However, we do not know whether the student's performance in strand A was better or worse relative to the performance in strand B (relative status).

Finally, some seemingly unusual results might occur that may be difficult for users to understand. As one example, it may be possible for a student to earn Medium in all strands but have an Advanced performance level. This can happen because the strand scores are correlated, meaning the distributional properties of the total score depends not only on the variances of the strand scores, but also on the covariances among the strand scores. (An analogy would be when a school track team places first overall in a competition although they did not win a single event.)

USING PSSA RESULTS FOR OTHER PURPOSES

Scaled scores and performance level classifications are used primarily to measure how well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics and ELA. They are also used to provide information on school and district accountability. These same results, plus strand scores and strength profiles are also appropriate for use in improving curricular and instructional practices. Evidence supporting the validity of such interpretations is framed in Chapter Nineteen and provided throughout this technical report.

Other uses or inferences based on PSSA results may or may not be valid as the validity evidence and arguments provided in Chapter Nineteen may not necessarily support other score uses and interpretations. According to the AERA/APA/NCME *Standards* (2014) (i.e., Standard 1.4), if a test is used in a way that has not been validated, it is incumbent on the user to justify the new use, collecting new evidence if necessary. Finally, a universal caveat for any test's result is that it not be used for placement and educational planning alone. Instead, other information about the student (e.g., other test performance data) should be considered.

REPORTS

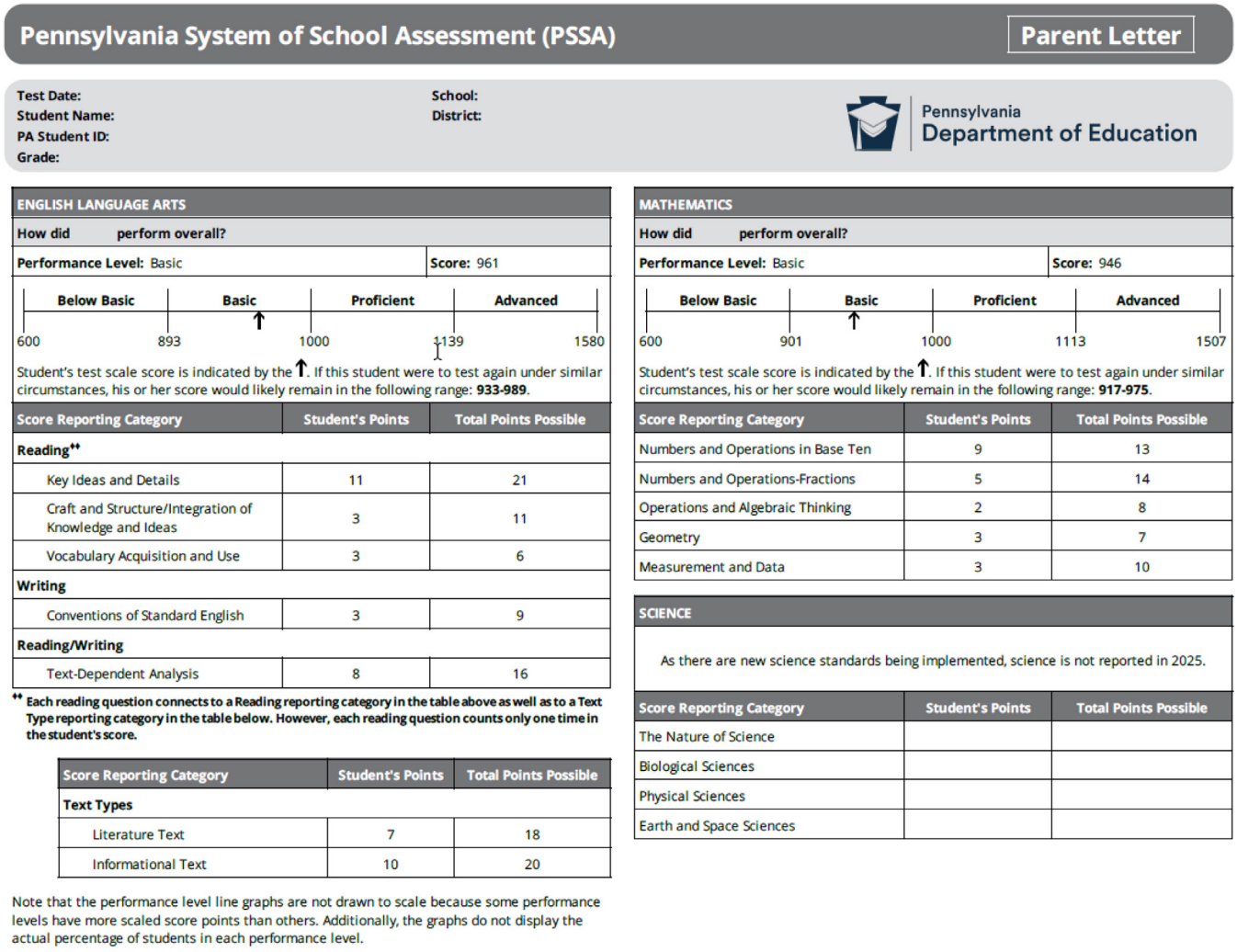
The following score reports are provided to students, parents, schools, and districts for the PSSA tests in mathematics and ELA:

- Individual Student Report
- School Summary Report
- District Summary Report
- Interpretive Guide

PARENT LETTER

Parent letters were delivered to Pennsylvania districts when student performance files were posted for all test-takers. This score report provided parents and students with their first glimpse of performance on the PSSA tests. This report provides results at the student level. A sample of the report is provided in Figure 16–1.

Figure 16–1. Parent Letter



Pennsylvania System of School Assessment (PSSA) — **Parent Letter**

Test Date: **School:**
Student Name: **District:**
PA Student ID:
Grade:

Pennsylvania Department of Education

ENGLISH LANGUAGE ARTS

How did perform overall?

Performance Level: Basic | **Score:** 961

Below Basic | Basic | Proficient | Advanced
600 | 893 | 1000 | 1139 | 1580

Student's test scale score is indicated by the ↑. If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **933-989**.

Score Reporting Category	Student's Points	Total Points Possible
Reading**		
Key Ideas and Details	11	21
Craft and Structure/Integration of Knowledge and Ideas	3	11
Vocabulary Acquisition and Use	3	6
Writing		
Conventions of Standard English	3	9
Reading/Writing		
Text-Dependent Analysis	8	16

** **Each reading question connects to a Reading reporting category in the table above as well as to a Text Type reporting category in the table below. However, each reading question counts only one time in the student's score.**

Score Reporting Category	Student's Points	Total Points Possible
Text Types		
Literature Text	7	18
Informational Text	10	20

Note that the performance level line graphs are not drawn to scale because some performance levels have more scaled score points than others. Additionally, the graphs do not display the actual percentage of students in each performance level.

MATHEMATICS

How did perform overall?

Performance Level: Basic | **Score:** 946

Below Basic | Basic | Proficient | Advanced
600 | 901 | 1000 | 1113 | 1507

Student's test scale score is indicated by the ↑. If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **917-975**.

Score Reporting Category	Student's Points	Total Points Possible
Numbers and Operations in Base Ten	9	13
Numbers and Operations-Fractions	5	14
Operations and Algebraic Thinking	2	8
Geometry	3	7
Measurement and Data	3	10

SCIENCE

As there are new science standards being implemented, science is not reported in 2025.

Score Reporting Category	Student's Points	Total Points Possible
The Nature of Science		
Biological Sciences		
Physical Sciences		
Earth and Space Sciences		

INDIVIDUAL STUDENT REPORT

An individual student report is provided for all students who took the PSSA. Two copies of the individual student report were sent to each school district and charter school for distribution to parents, teachers, guidance counselors, and/or principals. This report is a four-page color document that provides the types of scores explained earlier in this chapter. Appendix R contains detailed information about the development of the Individual Student Reports. Screen shots of the four pages from a sample individual student report are provided in Figures 16–2A to 16–2D.

Figure 16–2A. Page 1 of the Individual Student Report

PENNSYLVANIA
System of School Assessment (PSSA)

Student Report

Student Name:

PA Student ID:

School:

District:

Test Date:

Grade:

What Is the Pennsylvania System of School Assessment (PSSA)?

- The PSSA is an assessment system used to measure a student's progression toward mastery of the
  - Pennsylvania Core Standards in English Language Arts and Mathematics
  - Pennsylvania Science, Technology & Engineering, Environmental Literacy & Sustainability (STEELS) Standards
- For additional information, visit the Pennsylvania Department of Education's website at www.pa.gov

What Is Included in This report?

- This report provides information about the student's recent performances on the
  - English Language Arts and Mathematics PSSA assessments
- It is not intended to summarize all aspects of student learning.

For Additional Information

- For more information about a student's performance, consult the school or the classroom teacher.
- A Report Interpretation Guide is available at www.pa.gov. Type "PSSA Interpretation Guide" in the search field or consult the local school district or school.

Student's Results

	Performance Level			
			Goal Range*	
	Below Basic	Basic	Proficient	Advanced
English Language Arts		✓		
Mathematics			✓	
Science				

*Goal Range: The goal is for all students in the Commonwealth of Pennsylvania to score proficient or above.

As there are new science standards being implemented, science is not reported in 2025.

Performance Levels

The Below Basic Level reflects inadequate academic performance, and work at this level demonstrates a minimal command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates extensive additional academic support may be needed for engaging successfully in further studies in this content area.

The Basic Level reflects marginal academic performance, and work at this level demonstrates a partial command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates additional academic support may be needed for engaging successfully in further studies in this content area.

The Proficient Level reflects satisfactory academic performance, and work at this level demonstrates an adequate command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates academic preparation for engaging successfully in further studies in this content area.

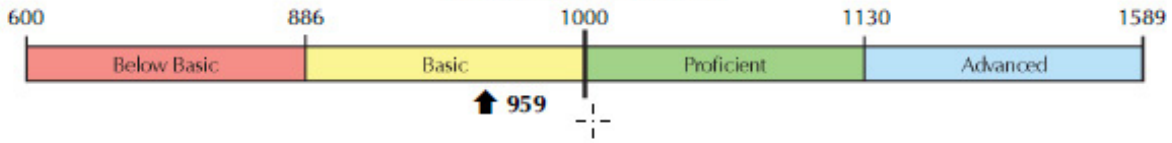
The Advanced Level reflects superior academic performance, and work at this level demonstrates a thorough command of and ability to apply the knowledge, skills, and practices represented in the Pennsylvania standards. Consistent performance at this level indicates advanced academic preparation for engaging successfully in further studies in this content area.

Pennsylvania
Department of Education

Figure 16–2B. Page 2 of the Individual Student Report

English Language Arts

Performance Level



Student's test scale score is indicated by the (⬆). If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **932-986**

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile♦
Reading♦♦			
Key Ideas and Details	**8**	22	**Low**
Craft and Structure/Integration of Knowledge and Ideas	**4**	12	**Low**
Vocabulary Acquisition and Use	**3**	4	**Medium**
Writing			
Conventions of Standard English (Writing)	**5**	9	**Medium**
Text-Dependent Analysis			
Text-Dependent Analysis (Reading/Writing)	**8**	16	**Medium**

♦♦Each reading question connects to a Reading reporting category in the table above as well as to a Text Type reporting category in the table below. However, each reading question counts only one time in the student's score.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile♦
Text Types			
Literature Text	**7**	20	**Low**
Informational Text	**8**	18	**Low**

To learn more about the Score Reporting Categories, see page 4.

♦The Strength Profile (Low, Medium, High): The strength profile provides an indication of this student's performance within each reporting category. The Strength Profile takes into account the difficulty of the test questions and can be used to help identify the student's strengths and/or areas of need. A profile of N/A represents too few points in a reporting category to determine a strength.

Figure 16–2C. Page 3 of the Individual Student Report

Mathematics

Performance Level



Student's test scale score is indicated by the (⬆). If this student were to test again under similar circumstances, his or her score would likely remain in the following range: **1014-1076**

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile♦
The Number System	**5**	8	**Medium**
Expressions and Equations	**13**	17	**Medium**
Functions	**7**	10	**Medium**
Geometry	**7**	10	**Medium**
Statistics and Probability	**6**	7	**Medium**

Science

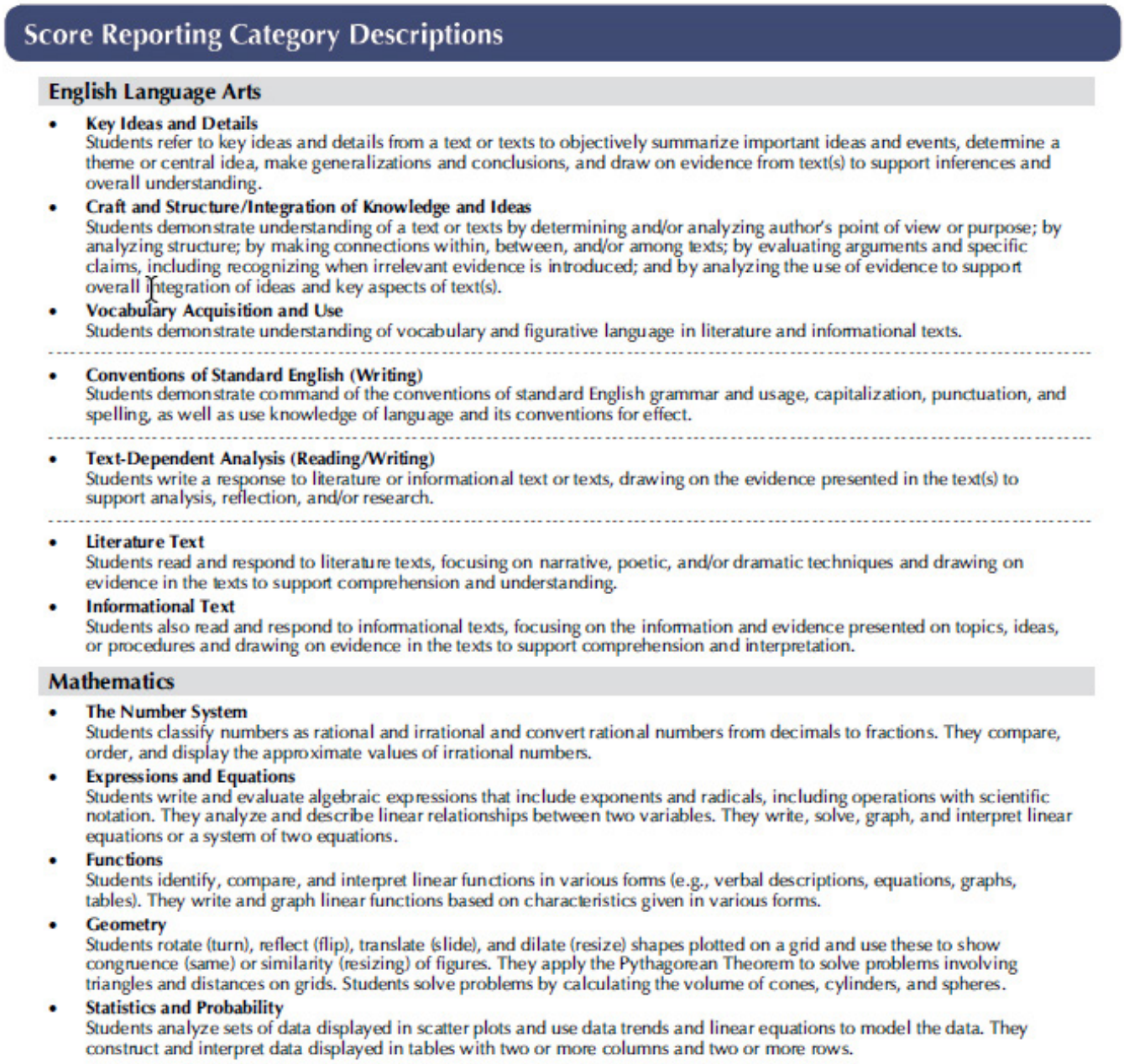
Performance Level



As there are new science standards being implemented, science is not reported in 2025.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile♦
The Nature of Science			
Biological Sciences			
Physical Sciences			
Earth and Space Sciences			

Figure 16–2D. Page 4 of the Individual Student Report



Score Reporting Category Descriptions

English Language Arts

- **Key Ideas and Details**
  Students refer to key ideas and details from a text or texts to objectively summarize important ideas and events, determine a theme or central idea, make generalizations and conclusions, and draw on evidence from text(s) to support inferences and overall understanding.
- **Craft and Structure/Integration of Knowledge and Ideas**
  Students demonstrate understanding of a text or texts by determining and/or analyzing author's point of view or purpose; by analyzing structure; by making connections within, between, and/or among texts; by evaluating arguments and specific claims, including recognizing when irrelevant evidence is introduced; and by analyzing the use of evidence to support overall integration of ideas and key aspects of text(s).
- **Vocabulary Acquisition and Use**
  Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.

- **Conventions of Standard English (Writing)**
  Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, as well as use knowledge of language and its conventions for effect.

- **Text-Dependent Analysis (Reading/Writing)**
  Students write a response to literature or informational text or texts, drawing on the evidence presented in the text(s) to support analysis, reflection, and/or research.

- **Literature Text**
  Students read and respond to literature texts, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the texts to support comprehension and understanding.
- **Informational Text**
  Students also read and respond to informational texts, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the texts to support comprehension and interpretation.

Mathematics

- **The Number System**
  Students classify numbers as rational and irrational and convert rational numbers from decimals to fractions. They compare, order, and display the approximate values of irrational numbers.
- **Expressions and Equations**
  Students write and evaluate algebraic expressions that include exponents and radicals, including operations with scientific notation. They analyze and describe linear relationships between two variables. They write, solve, graph, and interpret linear equations or a system of two equations.
- **Functions**
  Students identify, compare, and interpret linear functions in various forms (e.g., verbal descriptions, equations, graphs, tables). They write and graph linear functions based on characteristics given in various forms.
- **Geometry**
  Students rotate (turn), reflect (flip), translate (slide), and dilate (resize) shapes plotted on a grid and use these to show congruence (same) or similarity (resizing) of figures. They apply the Pythagorean Theorem to solve problems involving triangles and distances on grids. Students solve problems by calculating the volume of cones, cylinders, and spheres.
- **Statistics and Probability**
  Students analyze sets of data displayed in scatter plots and use data trends and linear equations to model the data. They construct and interpret data displayed in tables with two or more columns and two or more rows.

SCHOOL AND DISTRICT SUMMARY REPORTS

Summary reports are provided at the school and district level. These reports contain summary information about the percentage of students in each of the four performance levels. Raw scores are also provided by assessment anchor to allow schools or districts to identify strengths or weaknesses at the content strand level. Districts are able to access this summary data within the *Data Interaction*™ tool.

INTERPRETATIVE GUIDE

An interpretative guide is provided to help parents and other PSSA stakeholders better understand test result information presented in the individual student report. The interpretative guide can be found on the PDE website.

CHAPTER SEVENTEEN: OPERATIONAL TEST STATISTICS

This chapter presents various summary statistics for the PSSA total test scores based on the final data file described in Chapter Nine. Related information covered elsewhere in this report includes the item-level statistics presented in Chapter Eleven (classical item statistics) and Chapter Twelve (Rasch item statistics). These chapters provide additional consideration as item difficulty distributions can affect total score distributions.

In 2025, PSSA Science was a stand-alone field test and no student scores were reported. The tables and figures in this section do not include student performance for PSSA Science.

PERFORMANCE LEVEL STATISTICS

Table 17–1 presents performance level percentages by grade and content. Appendix Q provides historical statistics including performance level percentages for prior years.

Table 17–1. Performance Level Percentages for 2025 PSSA

Subject	Grade	Below Basic (%)	Basic (%)	Proficient (%)	Advanced (%)
Mathematics	3	25.06	21.30	29.97	23.67
Mathematics	4	24.81	24.52	29.22	21.45
Mathematics	5	22.84	33.21	27.78	16.17
Mathematics	6	30.84	31.33	23.01	14.82
Mathematics	7	37.76	28.47	20.23	13.54
Mathematics	8	43.78	25.70	20.54	9.98
ELA	3	20.12	31.12	38.21	10.55
ELA	4	17.24	34.30	35.11	13.35
ELA	5	19.21	35.99	36.19	8.61
ELA	6	11.19	37.93	35.27	15.61
ELA	7	5.82	44.84	36.57	12.77
ELA	8	15.92	34.67	34.86	14.56
Science	5	NA	NA	NA	NA
Science	8	NA	NA	NA	NA

Note. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores and performance levels were not reported.

SCALED SCORES

SUMMARY STATISTICS

Table 17–2 provides the scaled score means and standard deviations. See the section Every Test has a Unique Scale in Chapter Sixteen for caveats regarding interpretation of scale scores.

Table 17–2. Means and Standard Deviations for the 2025 PSSA Scaled Scores

Subject	Grade	Mean Scaled Score	SD Scaled Score
Mathematics	3	1014.17	124.58
Mathematics	4	1007.50	126.39
Mathematics	5	995.52	121.04
Mathematics	6	972.76	128.55
Mathematics	7	961.43	125.11
Mathematics	8	943.13	122.55
ELA	3	1001.28	104.82
ELA	4	991.13	99.95
ELA	5	990.01	104.39
ELA	6	1005.92	107.54
ELA	7	1001.49	107.02
ELA	8	1005.32	117.17
Science	5	NA	NA
Science	8	NA	NA

Note. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores and performance levels were not reported.

SCALED-SCORE DISTRIBUTIONS

Scaled scores are based on a linear transformation of the Rasch ability estimates. Distributions of the Rasch abilities are provided at the end of Chapter Twelve.

RAW SCORES

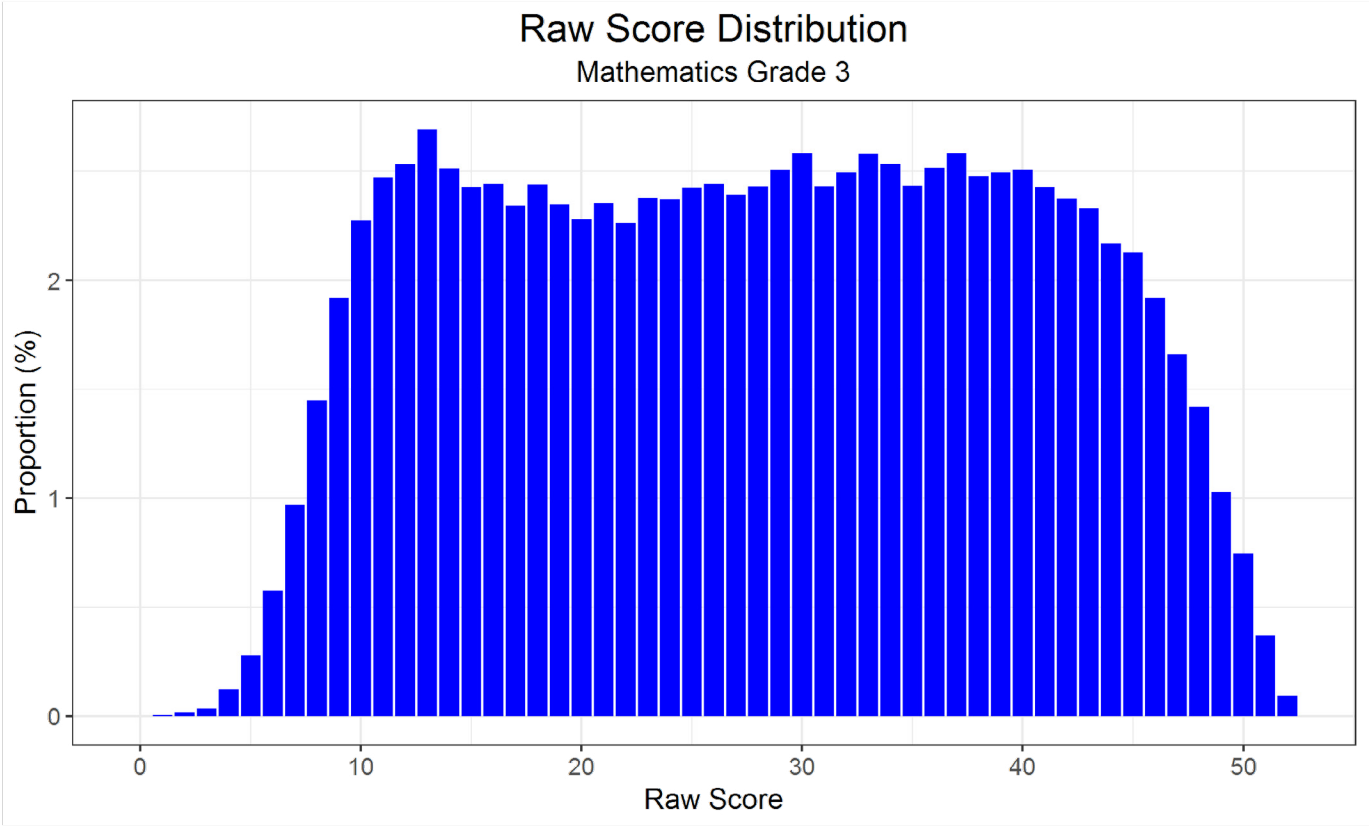
SUMMARY STATISTICS

Appendix P provides reliabilities and summary statistics for the operational raw scores. The statistics reported include the number of points possible (Total Points), number of items (N Items), number of students tested (N), mean number of score points received (Mean), standard deviation of test scores (SD), reliability (r), traditional standard error of measurement (SEM), and item types (Item Type(s)) used to determine each score. These statistics are based on the total test using both MC and OE items for the operational sections of each form. For each subject and grade level, tables present reliabilities disaggregated by gender, Ethnicity, whether students had an individualized educational plan (IEP), whether students were considered an English Learner (EL), and whether students had a low-income background (Low Income). For information disaggregated by item type, Chapter Eleven provides breakout statistics for MC and OE items.

SCORE DISTRIBUTIONS

Figure 17–1 displays the raw score relative-frequency distributions as the proportion of students earning each raw score point. No figures are included for PSSA Science because it was a stand-alone field test in 2025 and student scores were not reported.

Figure 17–1. 2025 PSSA Raw Score Distributions



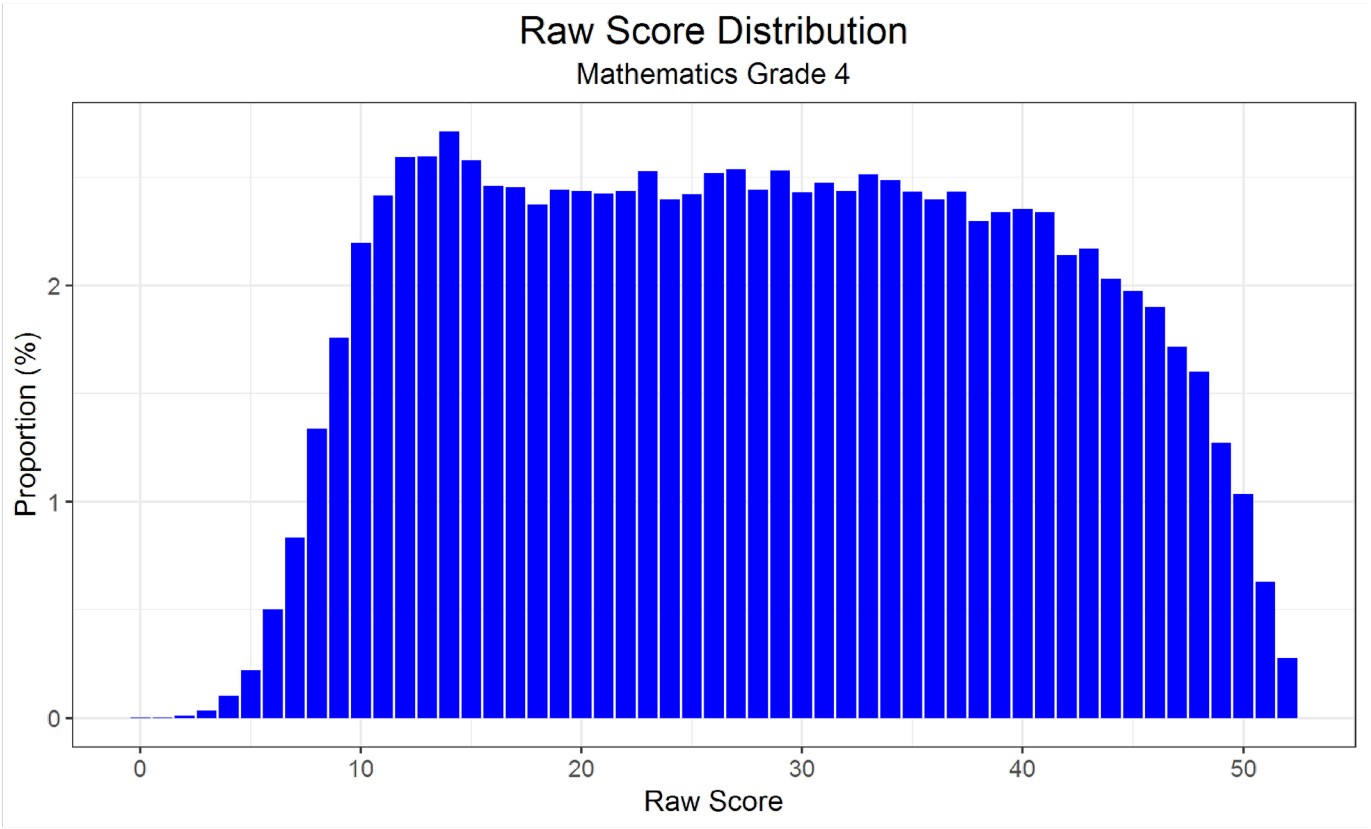
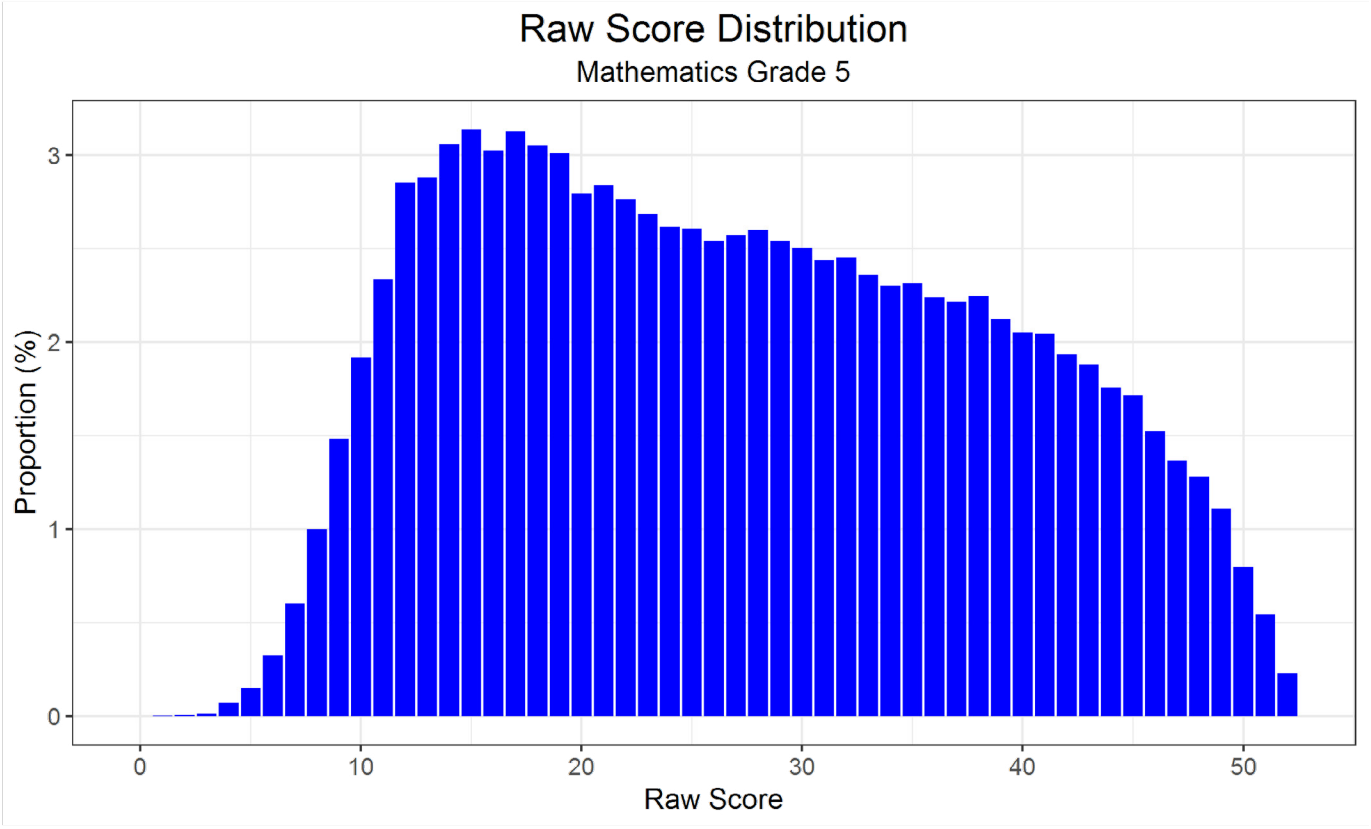


Figure 17–1 (continued). 2025 PSSA Raw Score Distributions



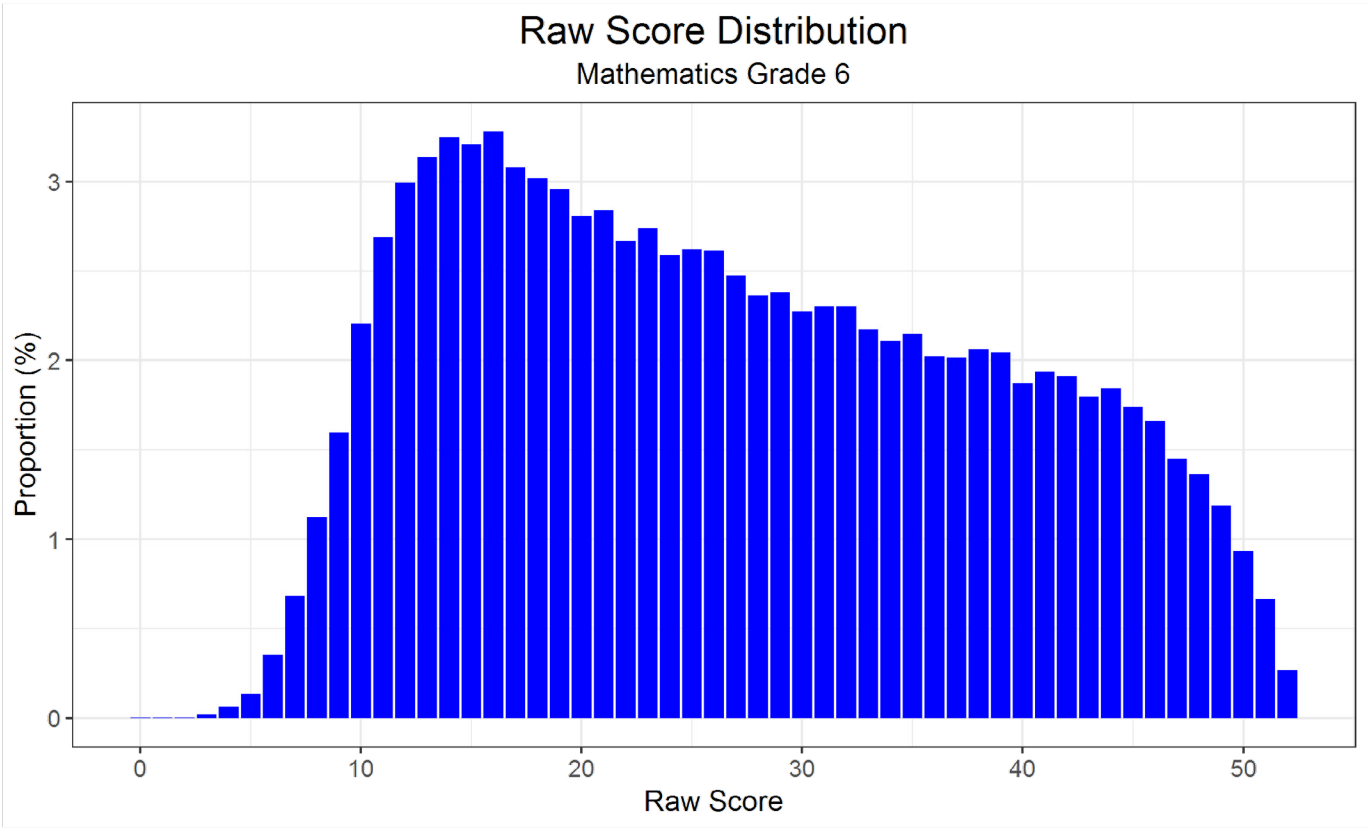
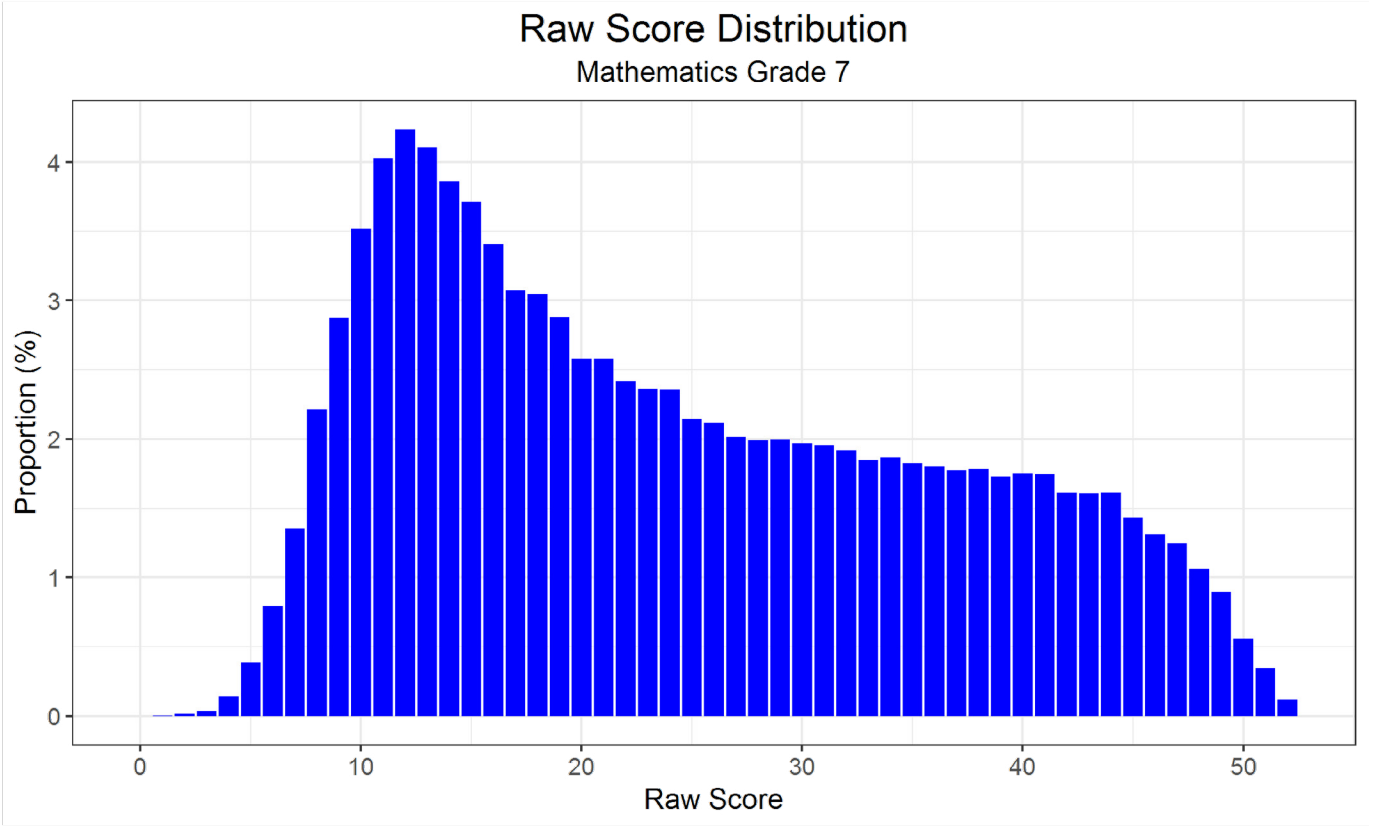


Figure 17–1 (continued). 2025 PSSA Raw Score Distributions



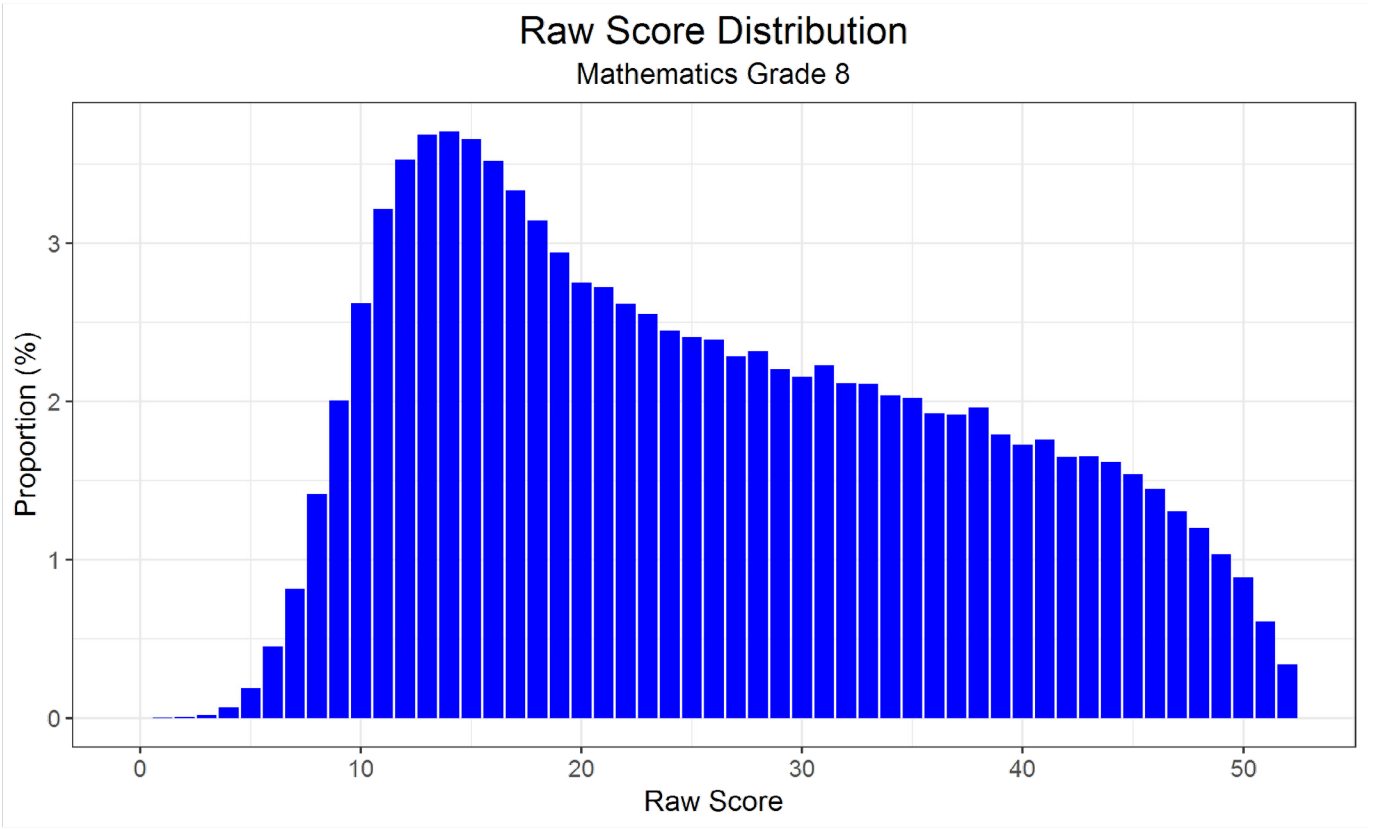
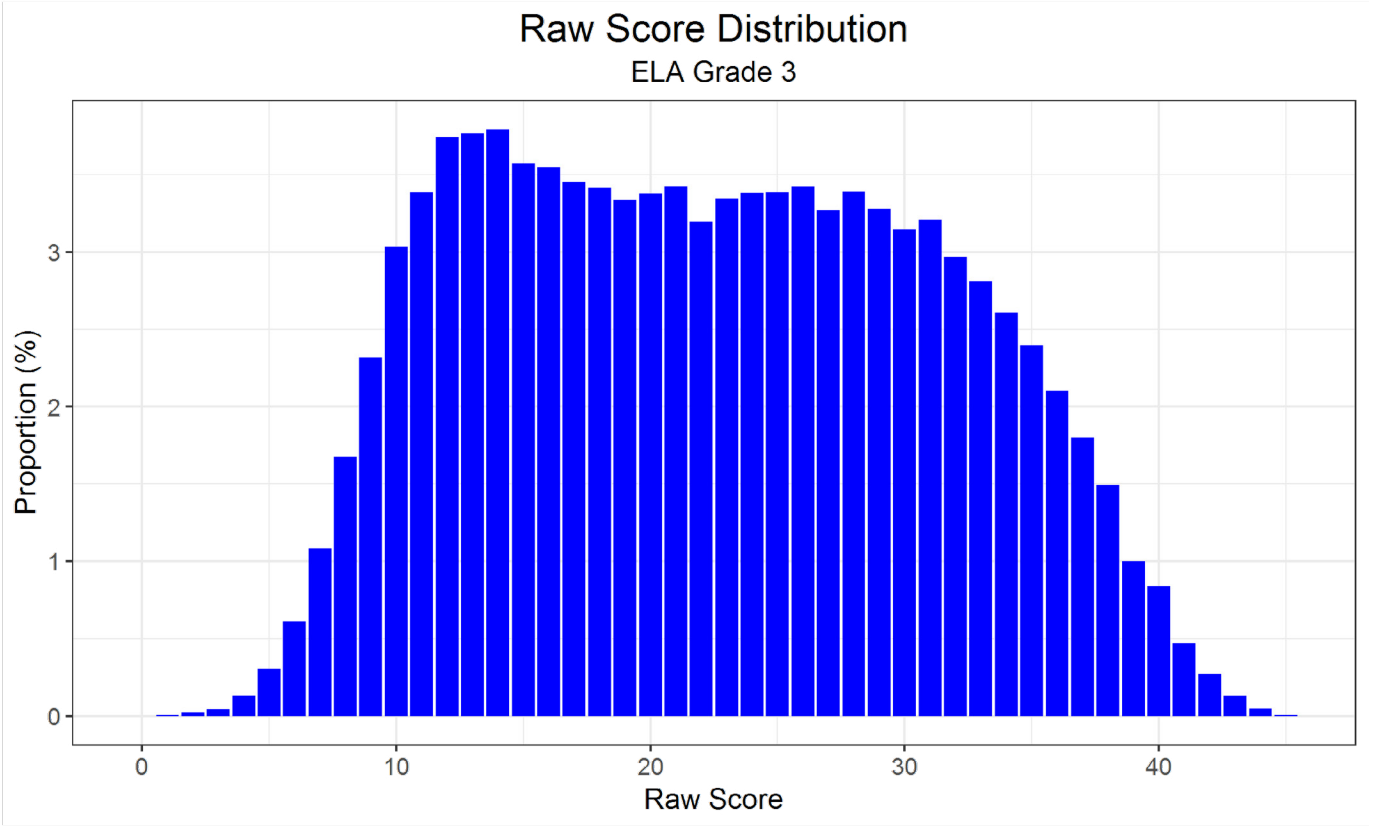


Figure 17–1 (continued). 2025 PSSA Raw Score Distributions



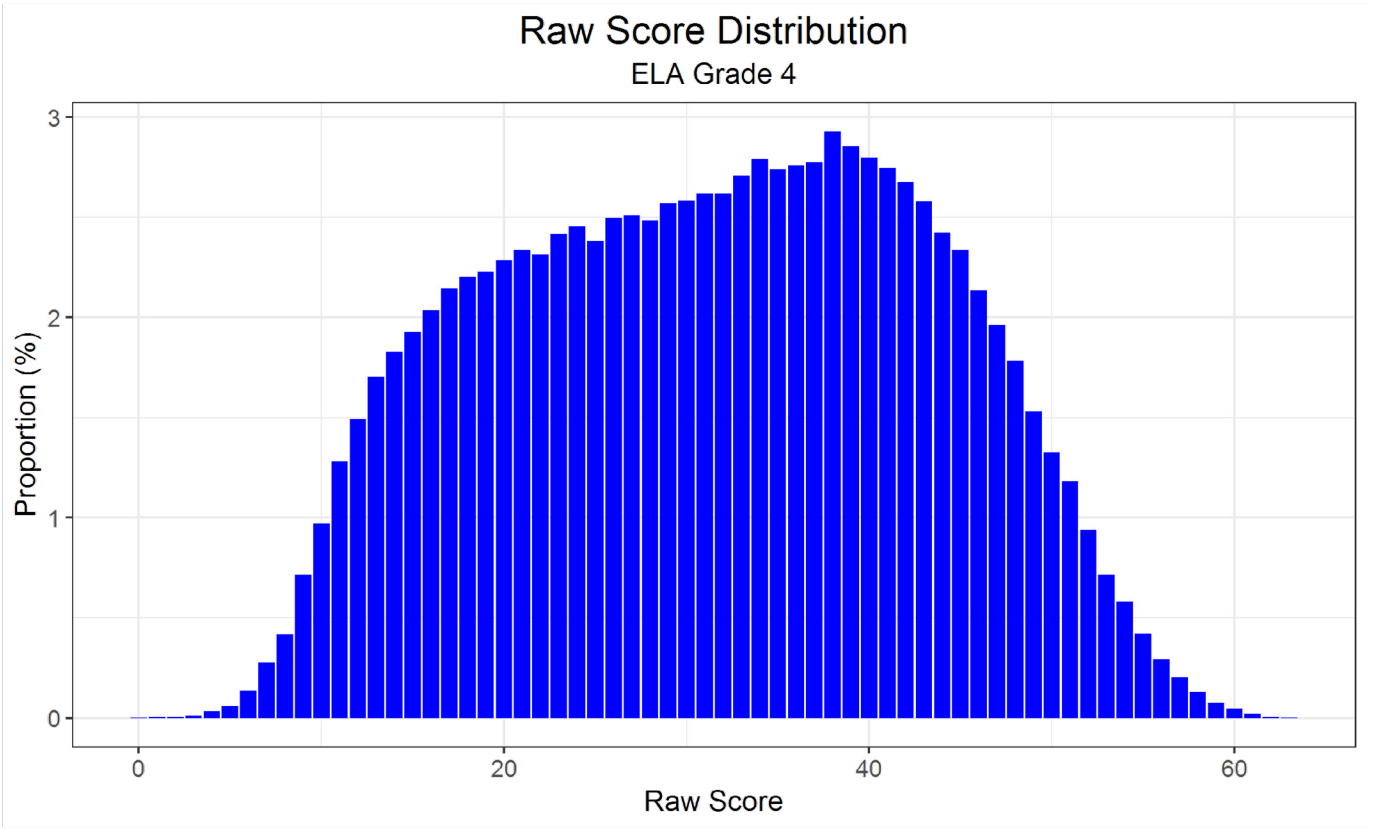
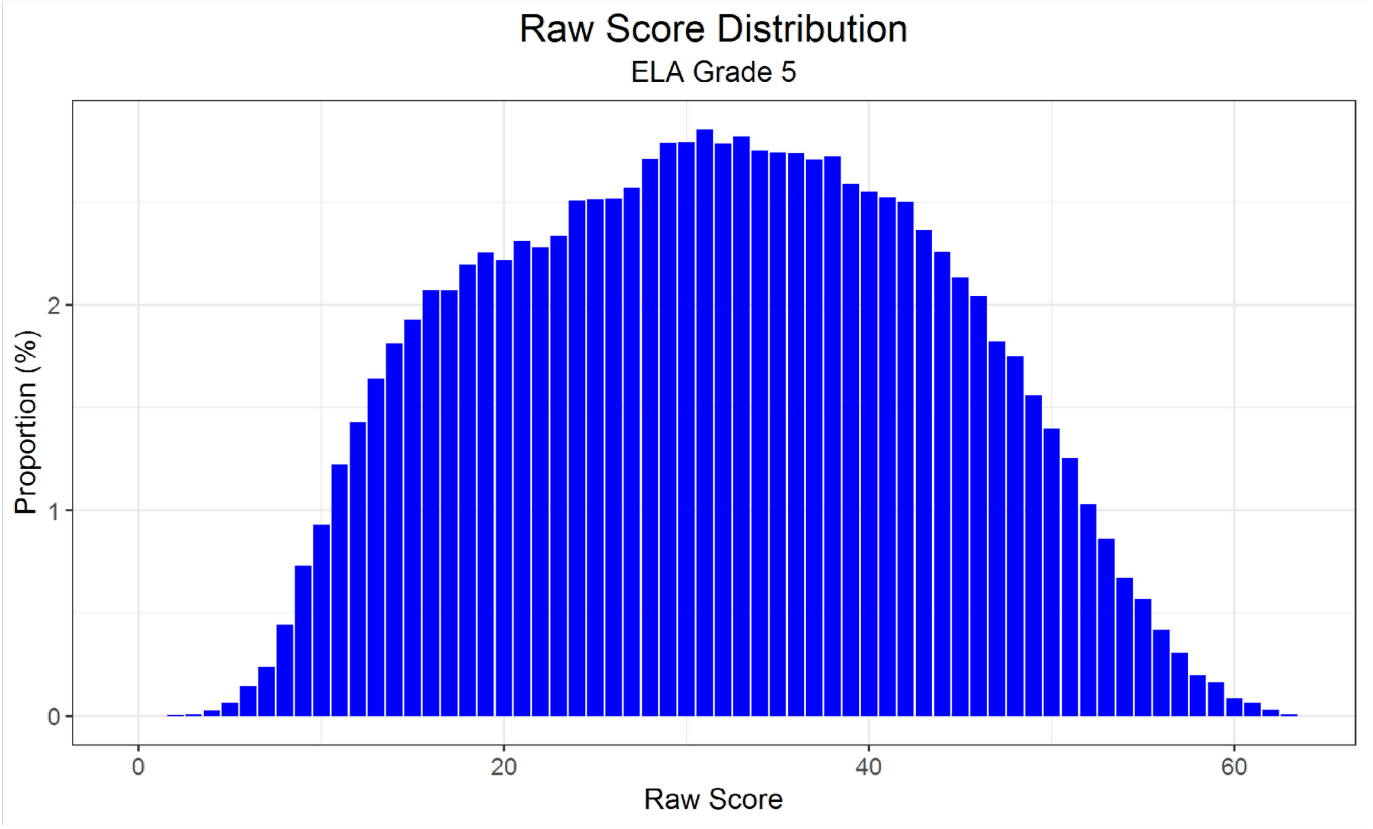


Figure 17–1 (continued). 2025 PSSA Raw Score Distributions



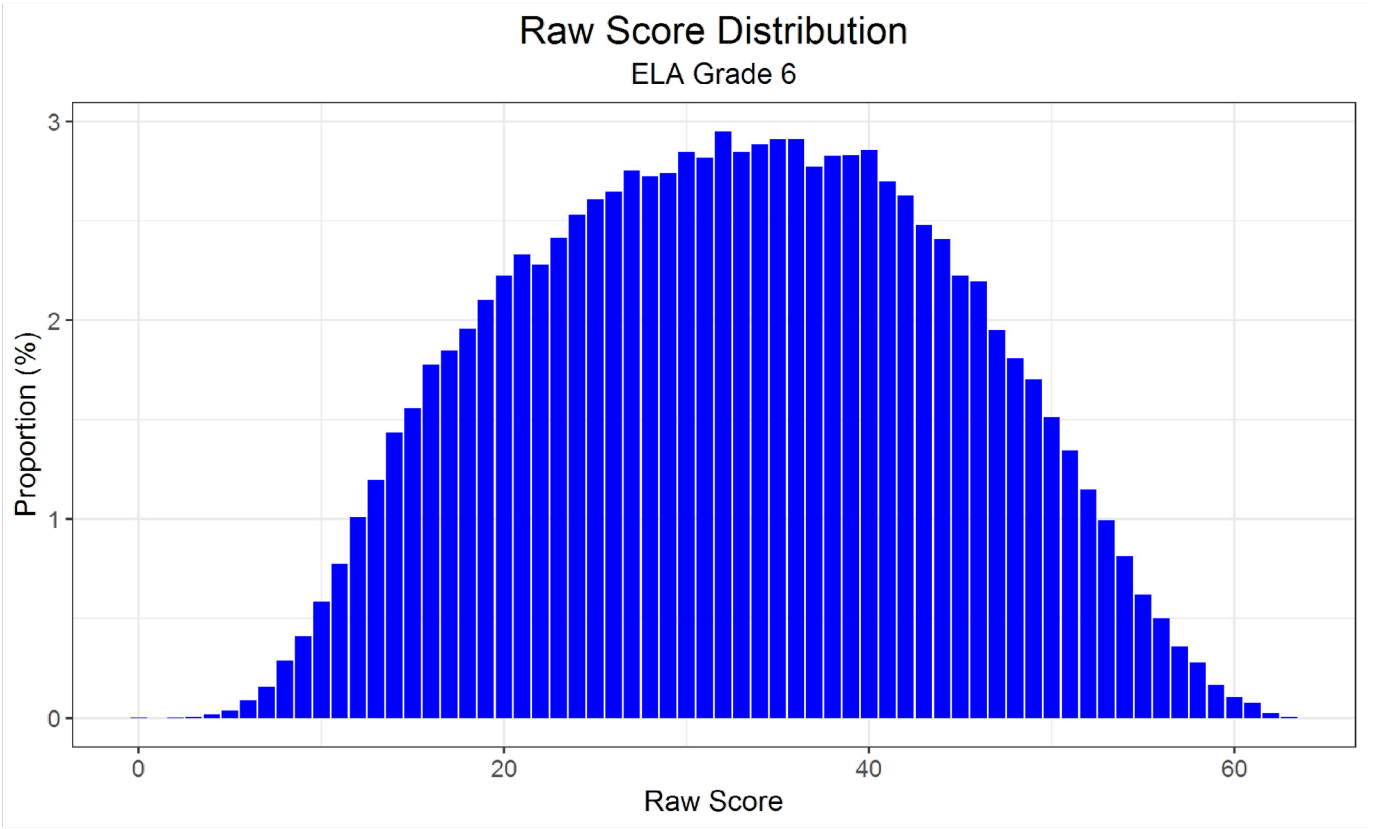
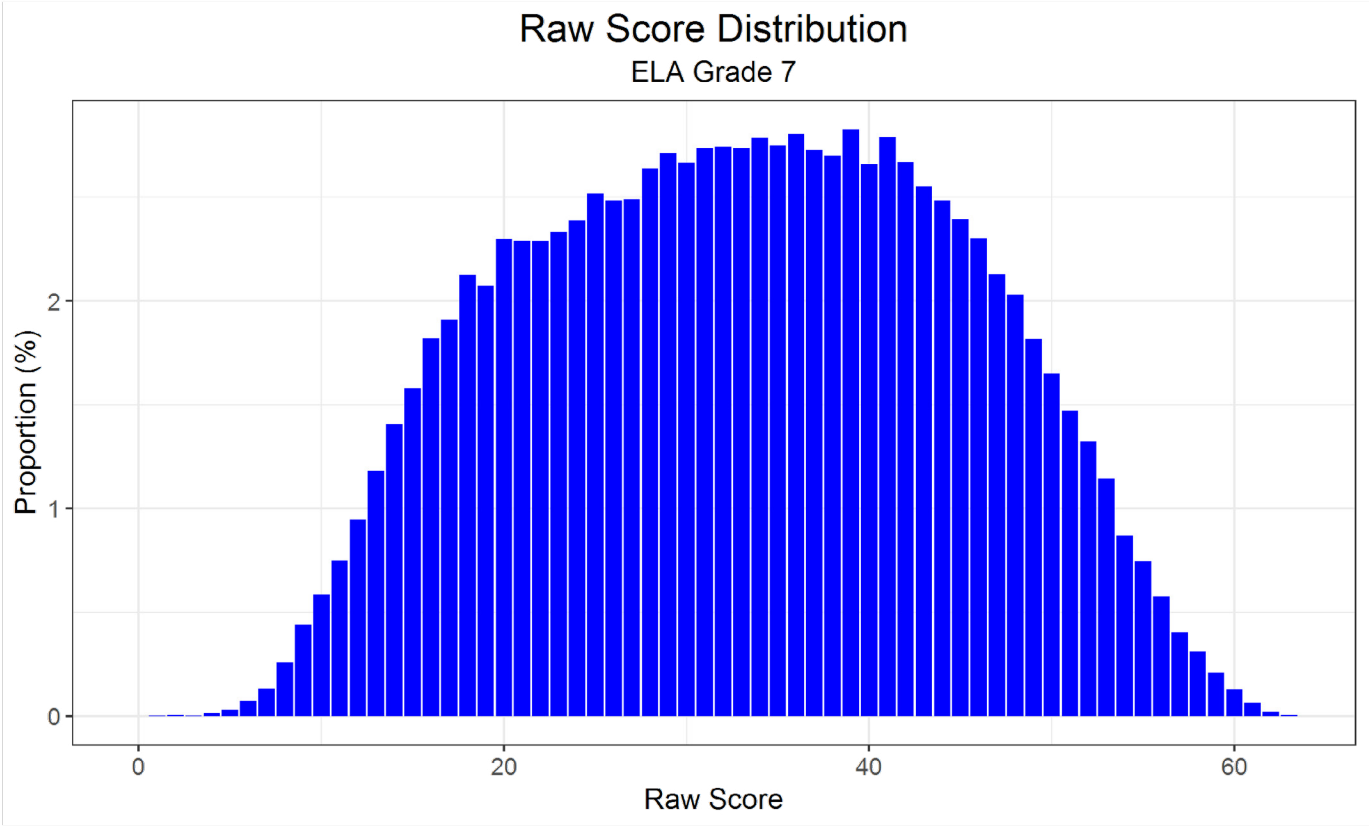
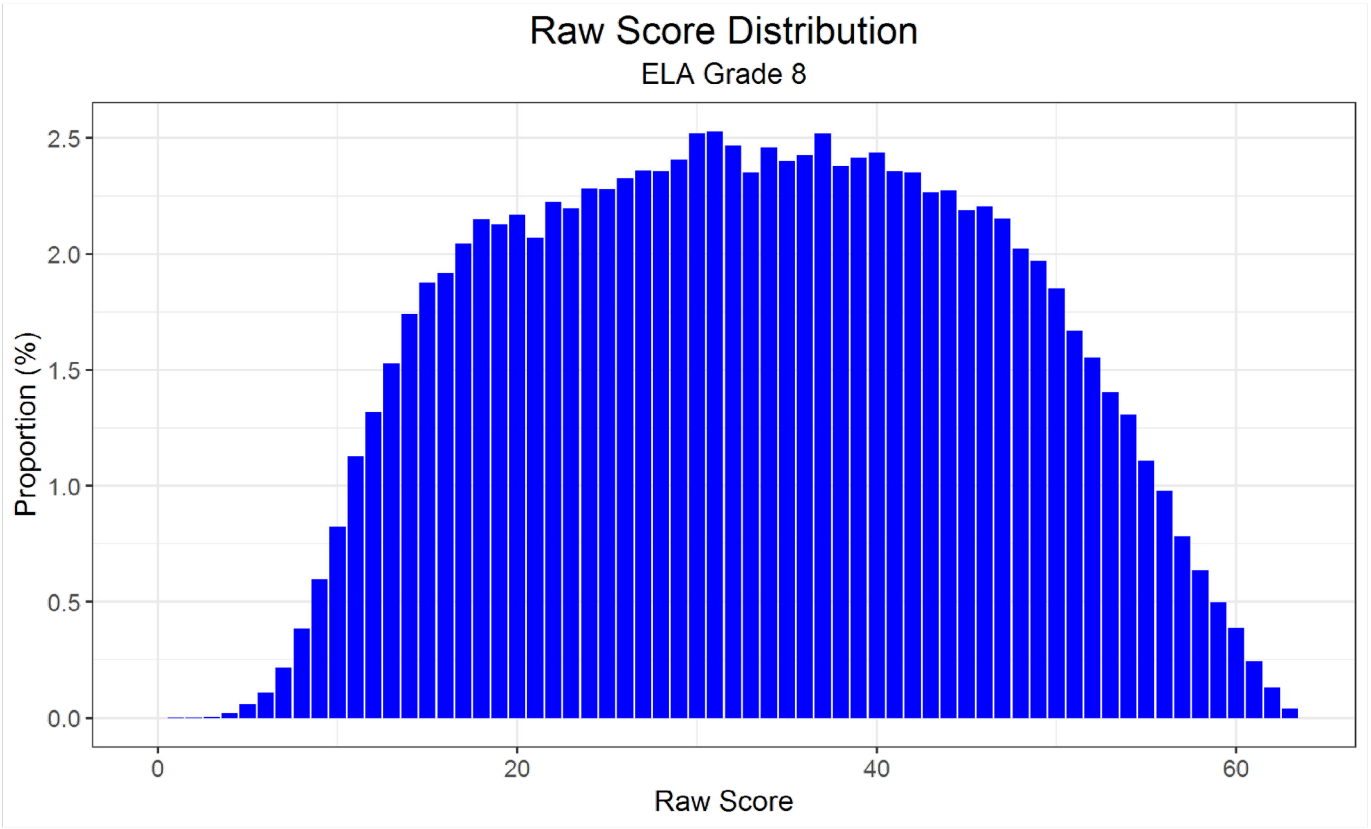


Figure 17–1 (continued). 2025 PSSA Raw Score Distributions





CHAPTER EIGHTEEN: RELIABILITY

This chapter addresses the reliability of PSSA test scores. According to the *Standards for Educational and Psychological Testing (*AERA, APA, & NCME, 2014), the general notion of reliability/precision refers to:

> the consistency of scores across replications of a testing procedure, regardless of how this consistency is estimated or reported (p.33).

This chapter will use the term reliability.

Frisbie (2005) highlighted several elements of reliability. First, reliability is a property of test scores, not a test itself. Many may appreciate this distinction, but in casual usage, individuals frequently refer to a reliable test. While reliability concerns test scores (and not the test specifically), it is important to emphasize the fact that test scores can be affected by characteristics of the instrument. For example, all other things being equal, tests with more items or points tend to be more reliable than tests with fewer items or points. Second, reliability coefficients are group specific. Reliabilities tend to be higher in populations that are more heterogeneous and lower in populations that are more homogeneous. Consequently, both test length and population heterogeneity should be considered when evaluating reliability.

There is a reliability consideration that may be less evident from the *Standard's* definition, yet still important for test users to understand. While freedom from measurement error is very important, reliability is specifically concerned with random sources of error. Indeed, the degree of inconsistency due to random error sources is what determines reliability: less consistency is associated with lower reliability and more consistency is associated with higher reliability. Of course, systematic error sources also exist. These can artificially increase reliability and decrease validity. (Validity is further discussed in Chapter Nineteen.)

Another noteworthy issue is that multiple sources of error exist (e.g., the day of testing, the items used, the raters who score the items). However, most widely used reliability indices only reflect a single type of error. Consequently, it is important for test users to understand what specific type of error is being considered in a reliability study, and equally, if not more important, what types are not.

Understanding the distinction between relative error and absolute error is also important as many reliability indices only reflect relative error. Relative error is of interest whenever the relative ordering of individuals respective to their test performance is of interest. Understanding examinee rank-order stability is important; however, such stability might be well achieved even when the specific score values are considerably different. When specific score values are considered important (e.g., if cuts cores are used), then absolute error is too. Generally, there is more error variance when considering the absolute scores of examinees, which in turn suggests lower reliability.

As suggested, reliability is a complex, nonunitary notion that cannot be adequately represented by a single number. There are several reliability indices available, and these may not provide the same results (Frisbie, 2005). The remainder of this chapter covers the following:

- Reliability coefficients and their interpretation
- Unconditional and conditional standard errors of measurement (SEMs and CSEMs)
- Decision consistency
- Rater agreement

RELIABILITY INDICES

As the equation shows below, the reliability coefficient expresses the consistency of test scores as the ratio of true score variance to total score variance. The total variance contains two components: 1) the variance in true scores and 2) the variance due to the imperfections in the measurement process. Put differently, total variance equals true score variance plus error variance.[1]

$$\rho_X^2 = \frac{\sigma_T^2}{\sigma_X^2} = \frac{\sigma_T^2}{\sigma_T^2 + \sigma_E^2}$$

Reliability coefficients indicate the degree to which differences in test scores reflect true differences in the attribute being tested rather than random fluctuations. Total test score variance (i.e., individual differences) is partly due to real differences in the attribute (true variance) and partly due to random error in the measurement process (error variance).

Reliability coefficients range from 0.0 to 1.0. If all test score variances were true, the index would equal 1.0. The index will be 0.0 if none of the test score variances were true. Such scores would be pure random noise (i.e., all measurement error). A reliability index of 1.0 would indicate that scores were perfectly consistent (i.e., contain no measurement error). Although values of 1.0 are never achieved in practice, larger coefficients are more desirable because they indicate that test scores are less influenced by random error. (How big is big enough and how small is too small are issues considered in a later section.)

As previously noted, there are several different indices that can be used to estimate this ratio. One approach is referred to as internal consistency, which is derived from analyzing the performance consistency of individuals over the items within a test. As discussed below, these internal consistency indices do not account for other sources of error, for example, variations due to random errors associated with the linking process, day-to-day variations (student health, testing environment, etc.), and rater inconsistency.

COEFFICIENT ALPHA

Although several reliability indices exist, perhaps the one most frequently reported for achievement tests is Coefficient Alpha. Consequently, this index is the one reported for the PSSA. Alpha indicates the internal consistency over the responses to a set of items measuring an underlying trait, in this case, academic achievement in subject areas such as mathematics, ELA, and science.

Alpha is an internal consistency index. It can be conceptualized as the extent to which an exchangeable set of items from the same domain would result in a similar rank ordering of students. Note that relative error is reflected in this index. Consider two hypothetical vocabulary tests intended for the same group of students. Each test contains different sets of unique words that are believed to be randomly equivalent, perhaps like the ones shown below.

Table 18–1. Two Hypothetical Vocabulary Tests

Test One	Test Two
Abase	Abate
Boon	Bilk
Capricious	Circuitous
Deface	Debase
....	....
Zealous	Zenith

[1] A covariance term is not required as true scores, and error are assumed to be uncorrelated in classical test theory.

If a representative group of students could take both tests, and the correlation between the scores could be obtained, then that result would represent the parallel forms reliability of the test scores. However, such data-collection designs are impractical in large-scale settings and experimental confounds like fatigue and practice effects are likely to affect the results. Internal-consistency reliability indices arose in part to provide reliability measures using the data from just a single test administration. So, if students only took Test One and the Coefficient Alpha index for those test scores was high, then this would suggest that Test Two would provide a very similar rank ordering of the students if they had taken it instead. If Coefficient Alpha were low, dissimilar rank orderings would likely be observed—again, relative-error variance is reflected in Alpha. (It should also be noted that Coefficient Alpha is algebraically identical to a *Person* × *Item* design under Generalizability Theory when relative error variance is assumed.)

FORMULA

Consider the data matrix in Table 18–2 representing the scores of persons (*p*) in rows, and items (*i*) in columns. Each cell is the score of person "*p*" on item i, and Y represents each item raw score for each person.

Table 18–2. Person × Item Score (X_{pi}) Infinite (Population-Universe) Matrix

Person	Item 1	Item 2	Item *i*
1	Y_{11}	Y_{12}	$\ldots Y_{1i}$
2…	Y_{21}	Y_{22}	$\ldots Y_{2i}$
p	Y_{p1}	Y_{p2}	$\ldots Y_{pi}$

The general computational formula for Alpha is as follows:

$$\alpha = \frac{N}{N-1}\left(1 - \frac{\sum_{i=1}^{N}\sigma_{Yi}^2}{\sigma_X^2}\right),$$

where *N* is the number of parts (items or testlets), σ_X^2 is the variance of total test scores, and σ_{Yi}^2 is the variance of part i.

FURTHER INTERPRETATIONS

RULES OF THUMB

What reliability value is considered high enough? What values are considered too low? Although frequently asked for, any rules of thumb for interpreting the magnitude of reliability indices are mostly arbitrary. Another approach is to research the reliabilities from similar testing instruments to see what values are commonly observed. For the PSSA, comparisons to tests of similar lengths that were administered to similar student populations from other large-scale assessment programs would be relevant. For many other state assessment programs, reliabilities in the low 0.90s are usually the highest ever observed and reliabilities in the high 0.80s are very common.

The lower a given reliability coefficient, the greater the potential for over-interpretation of the associated results. As suggested above, there is no firm guideline regarding how low is too low. However, as an informative point of reference, a reliability coefficient of 0.50 would suggest that there is as much error variance as true-score variance in the scores.

IS ALPHA A LOWER LIMIT TO RELIABILITY?

According to Brennan (1998), "the conventional wisdom that Coefficient Alpha is a lower limit to reliability is based largely on a misunderstanding." In reflecting on the 50th anniversary of his seminal 1951 article, Cronbach—in Cronbach and Shavelson (2004)—expressed similar misgivings about this conventional wisdom:

> one could argue that alpha was almost an unbiased estimate of the desired reliability…. the almost in the preceding sentence refers to a small mathematical detail that causes the alpha coefficient to run a trifle lower than the desired value. This detail is of no consequence and does not support the statement made frequently in textbooks or in articles that alpha is a lower value to the reliability coefficient. That statement is justified by reasoning that starts with the definition of the desired coefficient as the expected consistency among measurements that had a higher degree of parallelism than the random parallel concept implied.

The assumptions for three common parallelism models are presented in Table 18–3. Alpha's assumptions come from the Essentially-Tau Equivalent model, which does not require equal means or equal variances across test parts. Based on this, Brennan (1998) asserts that the lower-limit issue, as conceptualized by many, provides an answer to a question that is of minimal importance. Reframed differently, the goal of selecting a reliability coefficient is not to find the one that provides the highest coefficient, but the one that most accurately reflects the test data under study.

It is important to note that there are factors encountered in practice that may legitimately make Coefficient Alpha an underestimate of reliability. However, there are also factors that might make Coefficient Alpha an overestimate of reliability. Both possibilities are discussed further below and generally arise when the Essentially-Tau Equivalent assumptions are strained.

Table 18–3. Summary of Expectations/Observable Relationships for Different Parallelism Models

Relationship	Classically Parallel	Essentially-Tau Equivalent	Congeneric
Content Similarity	Yes	Yes	Yes
Equal Means across Parts	Yes	No	No
Equal Variances across Parts	Yes	No	No
Equal Covariances across Parts	Yes	Yes	No
Equal Covariances with Other Variables	Yes	Yes	No

* Other models exist but are not considered here due to their limited application in practice.

FACTORS OR BIASES THAT MAY UNDERESTIMATE ALPHA

There are factors that might negatively bias Coefficient Alpha, which possibly lower the resultant reliability coefficients. Two situations frequently encountered in practice that might cause this include tests that are composed of mixed item types (e.g., multiple-choice (MC), technology-enhanced (TE) and open-ended (OE) items) and tests that include a planned stratification of the test items according to topics or subdomains.

Although both situations strictly violate the assumptions on which Coefficient Alpha is derived (i.e., the tests are not based on equal part lengths in the former case and are not randomly parallel in the latter case), neither necessarily guarantees that the reliability will be markedly lower. In the latter case, reliability will be underestimated only when strand items are homogeneous enough for the average covariance within strata to exceed the average covariance between strata. Although both are potential influences for the PSSAs, the total test score reliabilities reported in Appendix P range from 0.83 to 0.92, indicating highly consistent test scores for the PSSA.

BIASES THAT MIGHT MAKE ALPHA AN OVERESTIMATE OF RELIABILITY

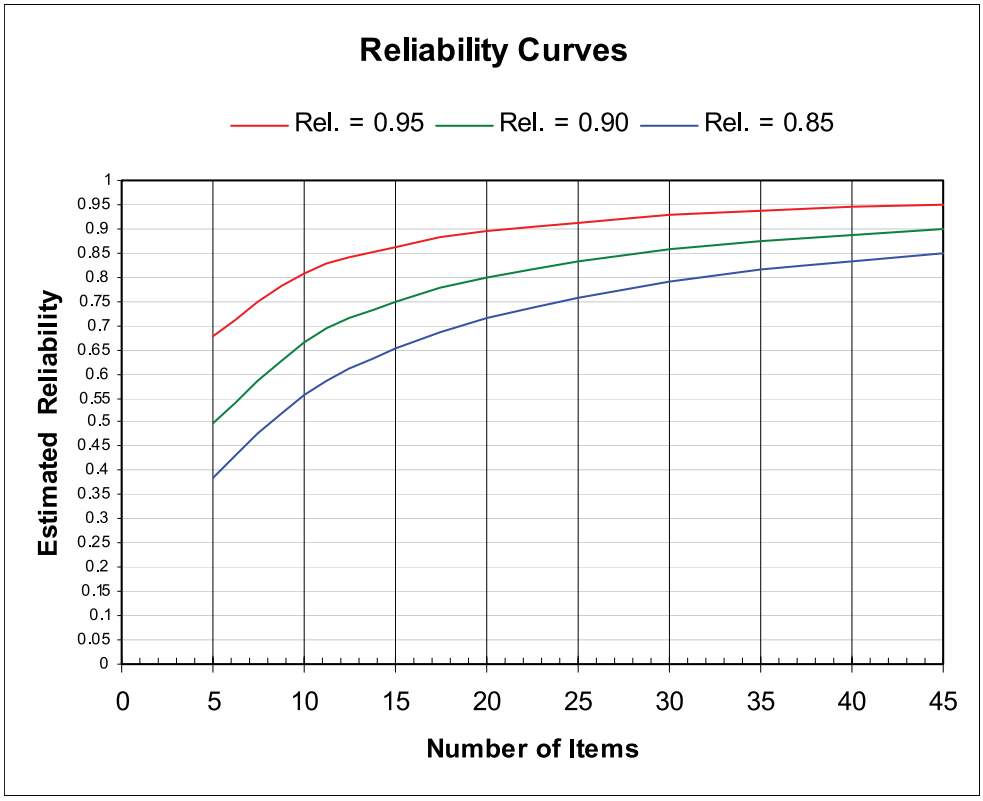
As emphasized in earlier sections, Coefficient Alpha only takes into account measurement error that arises from the selection of items used on a particular test form. There are other sources of random inaccuracy. One is due to the occasion of testing. Other various random conditions that might affect students on any particular testing occasions include illness, fatigue, and anxiety. Also, when a test includes OE items, as the PSSA does, another source that can cause random fluctuation is the OE item scorers. In a sense, Alpha may be positively biased because it does not take into account these other important sources of random error. Any internal consistency reliability index could understate the overall problem of measurement error because it ignores such sources or random error.

Another positive bias can occur when items are associated (clustered) with a common stimulus. Item bundles and testlets are other frequently used terms for this situation. One concrete example is when multiple reading comprehension items are associated with a common passage selection. Again, such a situation does not guarantee that the reliability estimate will be markedly affected, but the potential exists.

STRAND SCORES

As noted in the introduction, reliabilities tend to go up in value with an increase in test length and go down in value with a decrease in test length. Figure 18–1 illustrates this relationship for a hypothetical 45-point test with three total score reliabilities: 0.95, 0.90, and 0.85. As an example, the curve for reliability equal to 0.90 suggests that a 15-item strand would be expected to have a score reliability of 0.75. The use of the Spearman-Brown prophecy formula assumes all items are exchangeable, which in practice they may not be. While such a chart may not perfectly model actual strand correlations, the intent is only to illustrate the substantial impact that limited numbers of strand items can have on strand-score reliability. One should not be surprised that strand scores with more points tend to show higher reliability coefficients and those with fewer points tend to show lower reliability coefficients. Further, what is most important for PSSA users to note is that some strand score reliabilities may be too low to warrant interpretation at the individual student level.

Figure 18–1. Example of the Relationship between Test Length and Reliability



Note. Tabled values derived using the Spearman-Brown formula.

INDIVIDUAL-LEVEL VERSUS GROUP-LEVEL SCORES

The results presented in this chapter pertain to the reliability of individual scores. Group results (e.g., state and district levels) are also provided on PSSA score reports, but the reliability of those scores is not specifically calculated here. However, as a general rule, the reliabilities of group mean scores are almost always higher (sometimes substantially) than the corresponding reliabilities for individual scores. This is especially important to remember for strand scores because those scores can be quite reliable at the group level, even though their individual reliabilities may be low. Because the reliability of group means (e.g., school or district means) tends to be higher than that of individual scores, the interpretation of strand scores at these aggregate levels is likely very reasonable in most instances. Even though the reliability for means scores based on only a few items might be adequate, the validity of those same scores might be suspect because use of only a few items may not adequately cover the construct of interest. Validity is further discussed in Chapter Nineteen.

RELIABILITY OF WRITING SCORES

An extension of Coefficient Alpha that was derived to specifically fit stratified parallel tests (sometimes called stratified alpha; Cronbach, Schonemann, & McKie, 1965) was used to compute the PSSA ELA score reliabilities. This approach is often used when it is believed that Alpha may be yielding a lower coefficient than it should for the reasons noted above. Although originally developed for content-stratified tests, Qualls (1995) demonstrated its utility for mixed-format tests as well when the stratification is based on item type. It may be computed as

$$_{strat\alpha}\rho_{xx'} = 1 - \frac{\Sigma\sigma^2 x_h (1 - {}_{\alpha}\rho_{x_h x_{h'}})}{\sigma^2 x},$$

where *h* indexes the individual strata.

The reliability of ELA assessments (and many other performance-based tests) with mixed-format tends to be lower than reliabilities for other tests. Part of the reason for this is that there can be student-by-task, rater-by-task, and rater-by-examinee response interactions on such assessments. In the case of ELA, individual student performance may fluctuate significantly across text-dependent analysis (TDA) and evidence-based selected-response (EBSR) item types on the same test. In principle, adding more prompts and items can improve reliability to a more acceptable level. However, this is challenging in practice because of costs, testing time, and student fatigue. These conditions can result in reliabilities for ELA assessments that are slightly lower than those for mathematics and science assessments.

STANDARD ERROR OF MEASUREMENT

The reliability coefficient is a unit-free indicator that reflects the degree to which scores are free of measurement error. The reliability coefficient always ranges between 0 and 1 regardless of the test's scale. Reliability coefficients best reflect the extent to which measurement inconsistencies may be present or absent in a group. However, they are not that useful for helping users interpret test scores. The standard error of measurement (SEM) is another indicator of degree of consistency for the scores obtained by individual examinees. A relatively large SEM indicates relatively low reliability. The conditional SEMs (CSEM) discussed further below is the SEM at the score level.

TRADITIONAL STANDARD ERROR OF MEASUREMENT

A precise, theoretical interpretation of the SEM is somewhat unwieldy. A beginning point for understanding the concept is as follows. If everyone being tested had the same true score,[2] there would still be some variation in observed scores due to imperfections in the measurement process, such as random differences in attention during instruction or concentration during testing and the sampling of test items. The standard error is defined as the standard deviation[3] of the distribution of observed scores for students with identical true scores. Because the SEM is an index of the random variability in test scores in actual score units, it represents very important information for test score users.

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[2] True score is the score the person would receive if the measurement process were perfect.

[3] The standard deviation of a distribution is a measure of the dispersion of the observations. For the normal distribution, about 16 percent of the observations are more than one standard deviation above the mean.

The SEM formula is provided below.

$$SEM = SD\sqrt{1—reliability}$$

This formula indicates the value of the SEM depends on both the reliability coefficient and the standard deviation of test scores. If the reliability were equal to 0.00 (the lowest possible value) the SEM would be equal to the standard deviation of the test scores. If test reliability were equal to 1.00 (the highest possible value) the SEM would be 0.0. In other words, a perfectly reliable test has no measurement error (Harvill, 1991). Additionally, the value of the SEM takes the group variation (i.e., score standard deviation) into account. Consider that an SEM of 3 on a 10-point test would be very different than an SEM of 3 on a 100-point test.

TRADITIONAL STANDARD ERROR OF MEASUREMENT CONFIDENCE INTERVALS

The SEM is an index of the random variability in test scores in actual score units, which is why it has such great utility for test score users. SEMs allow statements regarding the precision of individual test scores. SEMs help place 'reasonable limits' (Gulliksen, 1950) around observed scores through construction of an approximate score band. Often referred to as confidence intervals, these bands are constructed by taking the observed scores, *X*, and adding and subtracting a multiplicative factor of the SEM. As an example, students with a given true score will have observed scores that fall between +/-1 SEM about two-thirds of the time.[4] For +/-2 SEM confidence intervals, this increases to about 95 percent.

FURTHER INTERPRETATIONS

ONE STANDARD ERROR OF MEASUREMENT FOR ALL TEST SCORES

The SEM approach described above only provides a single numerical estimate for constructing the confidence intervals for examinees regardless of their score level. However, such confidence intervals vary according to a student's score. Consequently, care should be taken using the SEM for students with extreme scores. (In the next sections, an alternate approach is described that conditions the SEM on a student's score estimate.)

GROUP SPECIFIC

As noted in the introduction, reliabilities are group specific. The same is true for SEMs because both score reliabilities and score standard deviations vary across groups.

RAW-SCORE METRIC

The SEM approach is calculated using raw scores, and as such, the resulting confidence interval bands are on the raw score metric. Error bands on the scaled score metric are considered in the next section.

TYPE OF ERROR REFLECTED

The interpretation of the SEM should be driven by the type of score reliability that underpins it. So, the PSSA SEMs involve the same source of error relevant to internal consistency indices. As noted earlier, a precise technical explanation of the SEM (and resulting confidence intervals) can be unwieldy. Because of this, score users are often provided fewer complex interpretations.

One simpler description is that a confidence interval represents the possible score range one would observe if a student could be tested twice with the same instrument. Taking the same test on a different day implies the only source of random error being considered is related to the occasion of testing, such as a student might be sleepier one day than another, or may be sick, or did not get a good breakfast. There is a reliability index that captures this source of random error, and it is referred to as the test-retest reliability coefficient. This is not the type of reliability computed for the PSSAs. When internal consistency reliability estimates are used, such an explanation blurs the fact that random error based on testing is not considered.

When SEMs are derived from internal consistency reliability estimates, a better approach is to describe the confidence interval as providing reasonable bounds for the range of scores that a student might receive if he or she took an equivalent version of the test; that is, the student took a test that covered exactly the same content

[4] Some prefer the following interpretation: if a student were tested an infinite number of times, the +/-1 SEM confidence intervals constructed for each score would capture the student's true score 68 percent of the time.

but included a different set of items (if an infinite number of tests with equivalent content were taken, the student's true score will lie within the constructed confidence intervals 68 percent of the time). As an example, if the PSSA score was 1150 and the SEM band was 1100 to 1200, then a student would be likely to receive a score somewhere between 1100 and 1200 if a different version of the test had been taken.

RESULTS AND OBSERVATIONS

Reliability coefficients and associated (traditional) SEMs for PSSA scores are documented in Table 18–4 and Appendix P. Reliability coefficients are not reported for PSSA Science in 2025 due to the stand-alone field test. Values were derived using the PSSA final data file (see Chapter Nine). The reliabilities for all student scores reported in Table 18–4 and Appendix P differ only for ELA grades 4 to 8 as reliabilities were calculated differently. The Stratified Alpha Coefficient based on unweighted raw scores was used to estimate the reliabilities in Table 18–4, whereas the Coefficient Alpha based on total (weighted raw scores) was used to estimate the reliabilities in Appendix P. It is not appropriate to estimate Stratified Alpha by reporting category (as shown in Appendix P) because often the number of items is smaller by reporting category and each category may not include more than one item of each item format. Moreover, the purpose of Appendix P is to show the comparability of the Cronbach Alpha coefficient across reporting categories and also to show the total score reliability for consistency.

Results are organized by subject and grade level. Each table in Appendix P also disaggregates the various reporting categories and groups of interest (i.e., the total student population, gender and ethnic groups, English learners (EL), students with individualized education plan (IEP), and students who are economically disadvantaged). The statistics reported in Appendix P include number of points possible (Total Points), number of items (N Items), number of students tested (N), mean number of score points received (Mean), standard deviation of test scores (SD), reliability (r), traditional standard error of measurement (SEM), and item types (Item Types). Reliabilities for reporting category "E" for ELA grades 4 to 8 are not computed because it only consists of one Text-Dependent Analysis (TDA) item and reliabilities cannot be computed for only one item.

The reliabilities and standard error of measurement for each subject and grade level are reported in Table 18–4. The reliability of mathematics scores range from .92 to .93, the reliability of ELA scores range from .89 to .90. Reliability and SEM were not computed for PSSA Science because 2025 was a stand-alone field test and no student scores were reported.

Table 18–4. Reliabilities and Standard Errors of Measurement

Subject	Grade	Reliability	*SEM*
Mathematics	3	0.92	3.29
Mathematics	4	0.92	3.36
Mathematics	5	0.92	3.35
Mathematics	6	0.92	3.30
Mathematics	7	0.93	3.29
Mathematics	8	0.92	3.35
ELA	3	0.89	3.02
ELA	4	0.89	3.21
ELA	5	0.89	3.22
ELA	6	0.89	3.18
ELA	7	0.89	3.18
ELA	8	0.90	3.28
Science	5	NA	NA
Science	8	NA	NA

Notes. 1. Reliabilities are based on unweighted raw scores.
2. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores were not reported.

Note that these tables in Appendix P report the standard deviations of observed scores. Assuming normally distributed scores, one would expect about two-thirds of the observations to be within one standard deviation of the mean. An estimate of the standard deviation of the true scores can be computed as

$$\hat{\sigma}_T = \sqrt{\hat{\sigma}_x^2 - \hat{\sigma}_x^2(1-\hat{\rho}_{xx})}.$$

The results are historically consistent with past PSSA reliability results. The overall test score reliability values are strong, as they are above .80 and close to .90. In theory and in practice, test reliability is influenced by test length. However, theory and practice also provide methods to offset this tendency and facilitate the production of reliable assessments under different test length scenarios. These methods focus on the statistical information that is provided by items. When this information is proven to be high during field testing, and is balanced with test blueprint requirements, the use of such items allows for the optimization of content validity and test reliability. This is the approach that was first used for construction of the 2019 PSSAs and will continue to be used moving forward as the item pool is routinely replenished with similarly high-quality items.

Across the grades and subjects tabled in Appendix P, reliabilities for each reporting category are also provided. Reporting categories are detailed in Chapter Two. Reporting categories with more items tend to show higher reliability coefficients, but the test length reductions implemented in 2018 resulted in a larger decrease of score reliability at the reporting category level compared to the total test level. Also, groups exhibiting more variability in test scores tended to have higher reliability coefficients. Perhaps the most significant result pertains to an earlier caution (i.e., that some reporting category reliabilities may be too low to warrant interpretation at the individual student level). Once again, there is no firm guideline regarding how low is too low. The lower a given reliability coefficient, the greater the potential for over-interpretation. As a point of reference, a reliability coefficient of 0.50 would suggest that there is as much error variance as true-score variance in the scores. It should be noted that the reliability of group means (e.g., school or district means) tends to be higher than that of individual scores, suggesting interpretation of strand scores at these aggregate levels is likely reasonable.

RASCH CONDITIONAL STANDARD ERROR OF MEASUREMENT

The CSEM also indicates the degree of measurement error but does so in scaled-score units and varies as a function of a student's actual scaled score. Therefore, the CSEM may be especially useful in characterizing measurement precision with respect to score levels used for decision-making—such as cut scores for identifying students who meet a performance standard.

Technically, when a Rasch model is applied, the CSEM at any given point on the ability continuum is defined as the reciprocal of the square root of the test information function derived from the Rasch scaling model.

$$CSEM(\hat{\theta}) = \frac{1}{\sqrt{I(\hat{\theta})}}$$

where is the conditional standard error of measurement and $I(\hat{\theta})$ is the test information function. Test information depends on the sum of the corresponding information functions for the test items. Item information depends on each item's difficulty and conditional item score variance. The formula above utilizes the Rasch ability (θ) metric. The conditional standard error on the scaled score (SS) metric is determined by simply multiplying the $CSEM(\hat{\theta})$ by the slope (multiplicative constant, *m*) of the linear transformation equation used to convert the Rasch ability estimates to scaled scores.

$$\text{CSEM(SS)} = CSEM(\hat{\theta}) * m$$

Chapter Fourteen provides the linear transformation formulas for each PSSA test.

RASCH CONDITIONAL STANDARD ERROR OF MEASUREMENT CONFIDENCE INTERVALS

CSEMs also allow statements regarding the precision of individual tests scores. And like SEMs, they help place reasonable limits around observed scaled scores through construction of an approximate score band. The confidence intervals are constructed by adding and subtracting a multiplicative factor of the CSEM and may be interpreted as described in the earlier section.

FURTHER INTERPRETATIONS

DIFFERENT CONDITIONAL STANDARD ERROR OF MEASUREMENT FOR DIFFERENT TEST SCORES

The CSEM approach provides different numerical estimates for constructing the confidence intervals for examinees depending on their specific score level. The magnitude of the CSEM values is U-shaped with larger CSEM values associated with lower and higher scores.

GROUP SPECIFIC

Assuming reasonable model-data fit—as explored in Chapter Twelve—the Rasch based CSEMs (conditioned on score level) should not vary across groups.

SCALED-SCORE METRIC

The CSEM and associated confidence interval bands are on the scaled score metric.

TYPE OF ERROR REFLECTED

The SEMs documented on the PSSA score reports are the Rasch-based conditional standard errors of measurement described above. These are provided by the WINSTEPS scaling program described in Chapter Twelve. As noted earlier, these CSEMs are based on the concept of statistical information. To provide a simpler explanation of SEMs to test score users, the earlier description of SEMs framed using the idea of internal consistency reliability was provided in the PSSA score report interpretive documents.[5] Score report content is considered in greater detail in Chapter Sixteen.

RESULTS AND OBSERVATIONS

Figure 18–2 shows the Rasch CSEMs associated across the scaled score distribution. CSEM plots are not provided for PSSA Science in 2025. (This information is also provided in the raw-to-scaled score conversion tables in Appendix N.) Values were derived using the pre-equated data file described in Chapter Nine, and the post-equated data file described in Chapter Fifteen. The values are consistent across a large range of the scaled scores, as demonstrated by the relatively flat bottoms of most plots. The values increase at both extremes (i.e., at smaller and larger scaled scores) giving these figures their typical U-shaped pattern. (Only the SEMs for scores greater than the lowest observable scaled scores [LOSS] are shown in the figures; consequently, the complete U-shape does not appear in most plots.) The three red-dashed lines represent the Basic, Proficient, and Advanced scaled score cuts, respectively, moving from lower to higher scaled score values. CSEM values at the cut score lines were generally associated with smaller CSEM values, indicating more precise measurement occurs at these points on the scales. The curves are presented for the current year, and the most recent four administrations.

Figure 18–2 displays the CSEM curves for each PSSA from 2021 through 2025.Across all plots, the shape of the 2021 and 2025 curves is quite similar, pointing to good isolation of the statistical impact of the reduction alone as the primary source of difference. Moreover, the CSEM curves are often overlapping, showing similarity in the precision of scores at each cut-score.

[5] Because IRT CSEMs are based on statistical information, it is questionable whether they account for error variance due to items. However, it seems difficult to construct a simple explanation of IRT CSEMs for the general public.

Figure 18–2. Conditional Standard Error Plots by Subject and Grade

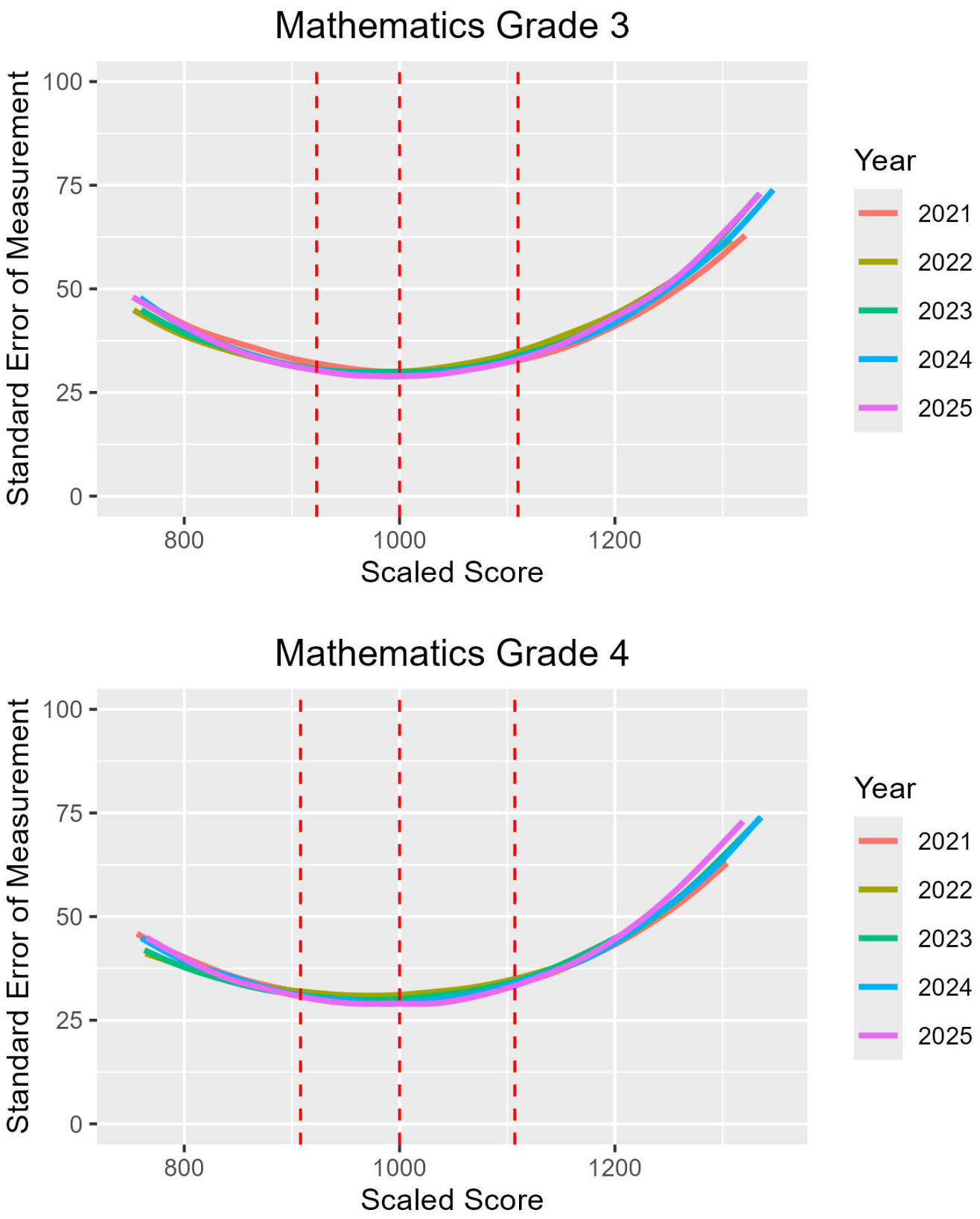


Figure 18–2 (continued). Conditional Standard Error Plots by Subject and Grade

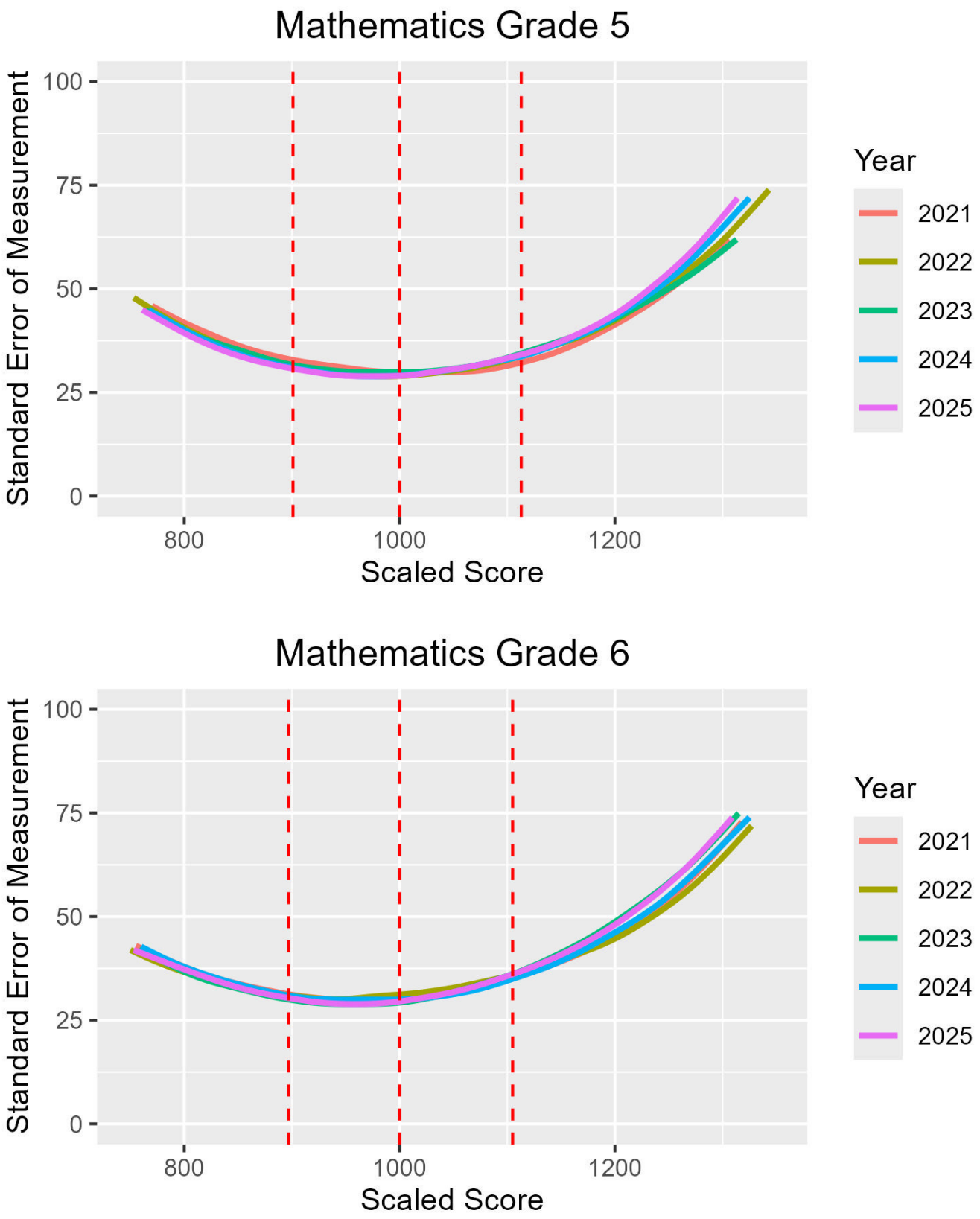


Figure 18–2 (continued). Conditional Standard Error Plots by Subject and Grade

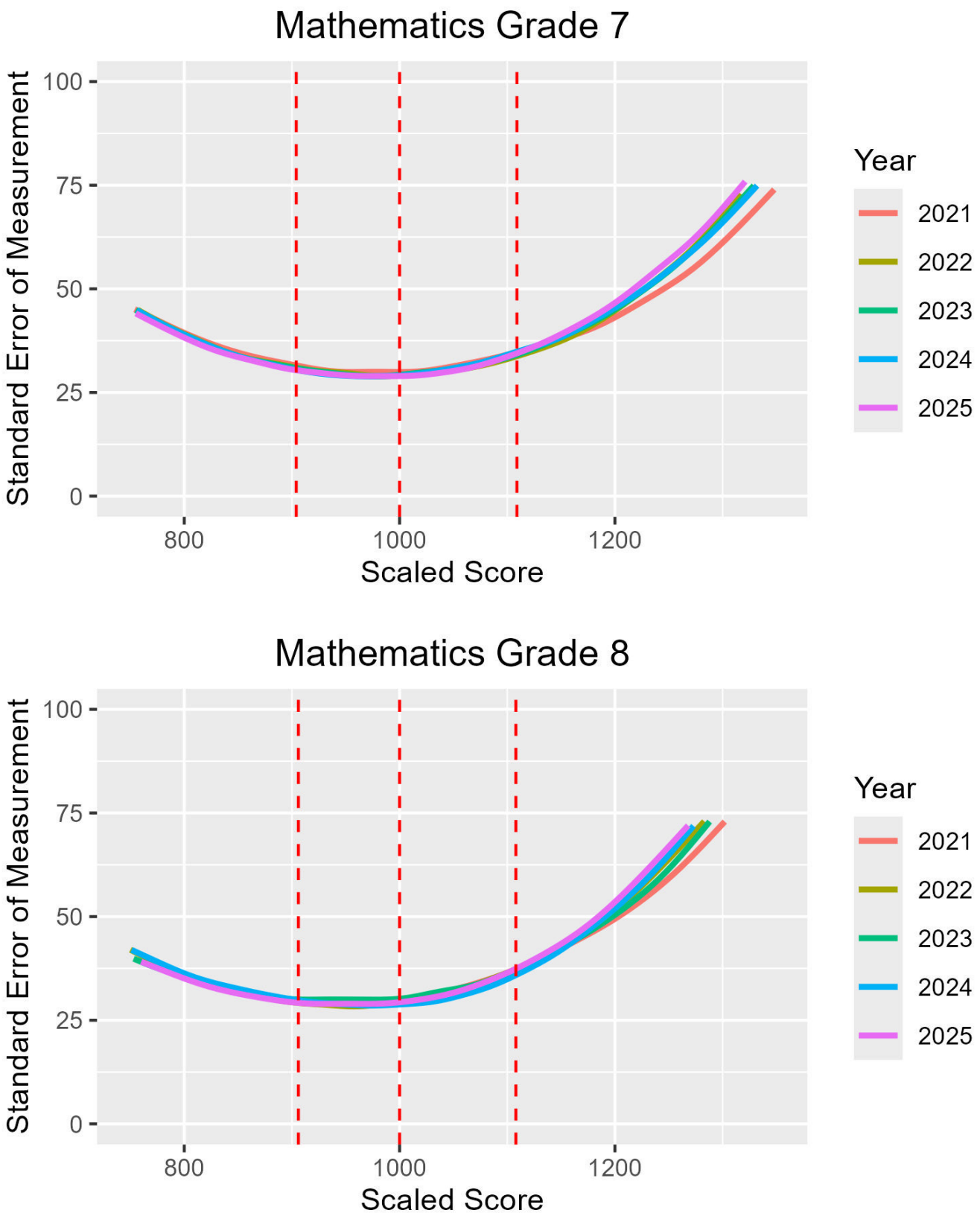


Figure 18–2 (continued). Conditional Standard Error Plots by Subject and Grade

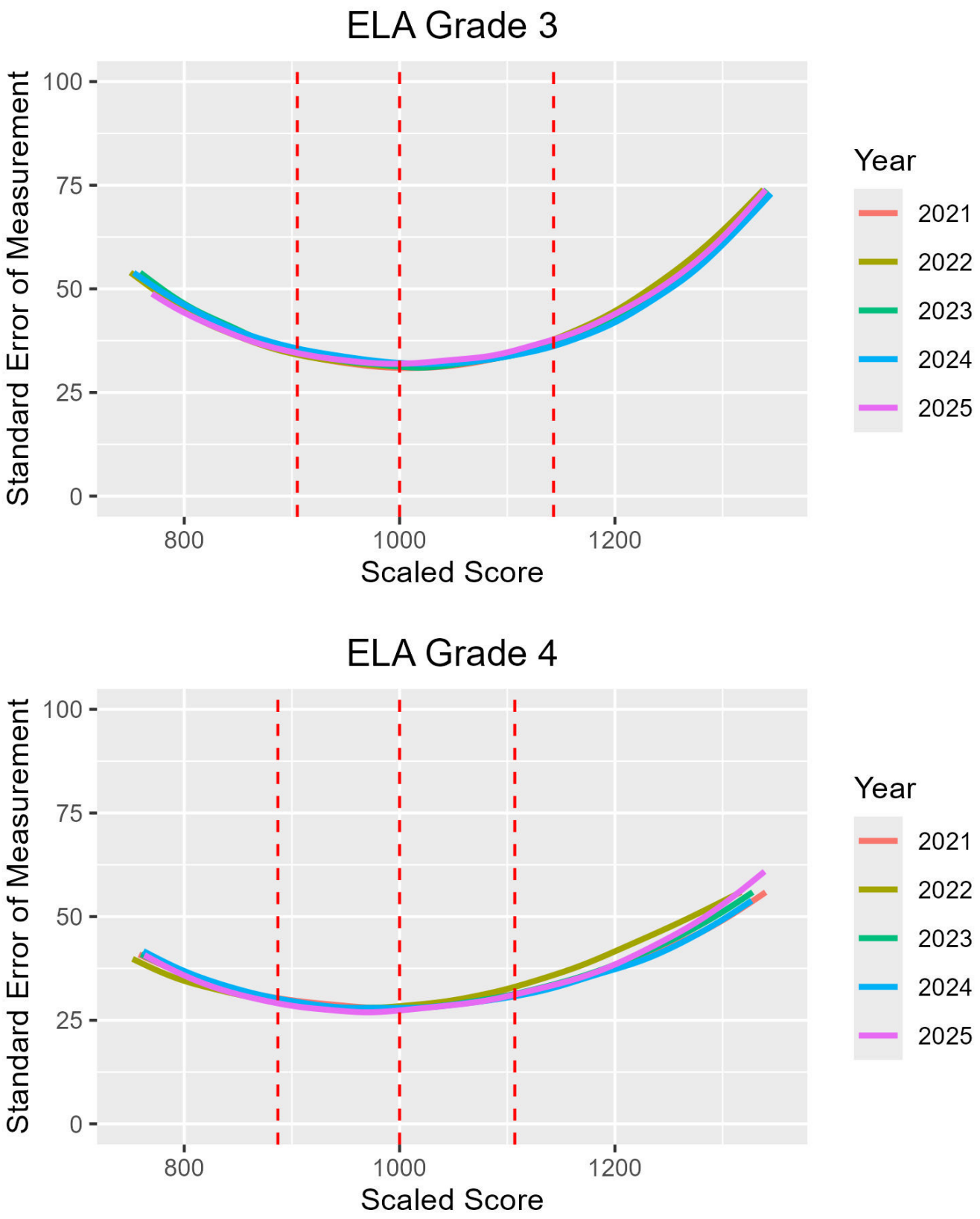


Figure 18–2 (continued). Conditional Standard Error Plots by Subject and Grade

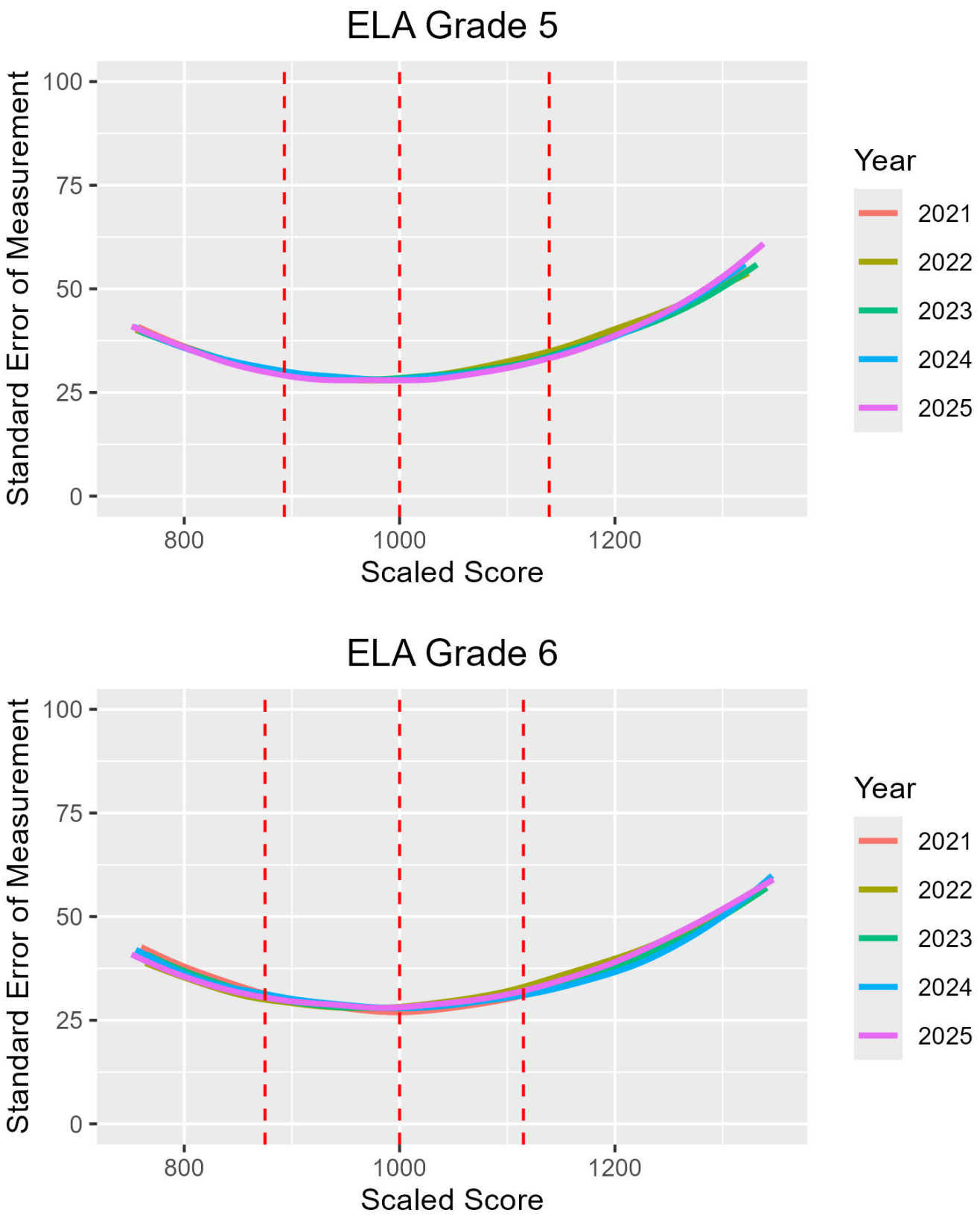
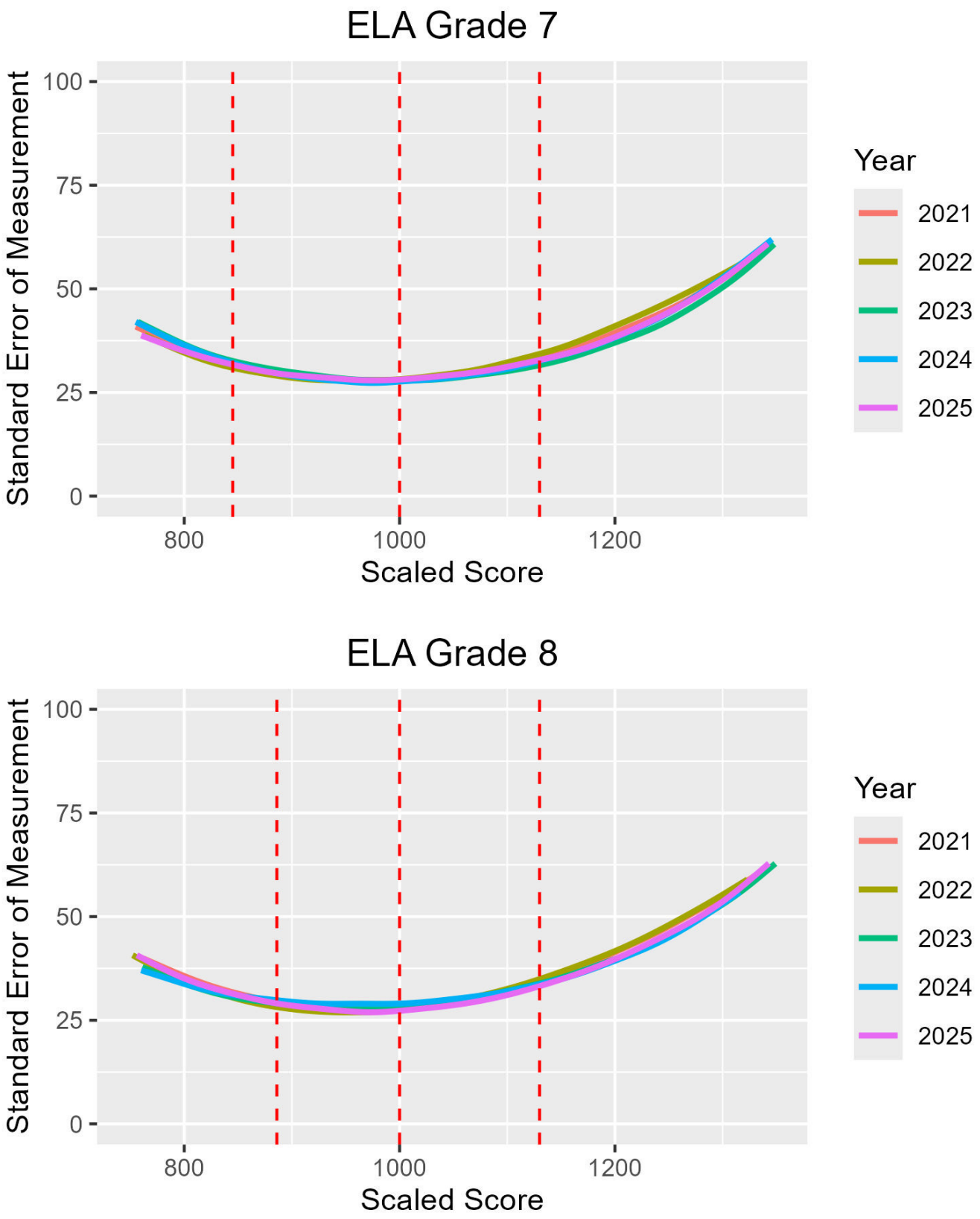


Figure 18–2 (continued). Conditional Standard Error Plots by Subject and Grade



DECISION CONSISTENCY AND ACCURACY

In a standards-based testing program there should be great interest in knowing how accurately students are classified into performance categories. In contrast to Coefficient Alpha that is concerned with the relative rank-ordering of students, it is the absolute values of student scores that are important in decision consistency and accuracy.

Classification consistency refers to the degree to which the achievement level for each student can be replicated upon retesting using an equivalent form (Huynh, 1976). Decision consistency answers the question: What is the agreement between the classifications based on two non-overlapping, equally difficult forms of the test. If two parallel forms of the test were given to the same students, the consistency of the measure would be reflected by the extent that the classification decisions made from the first set of test scores matched the decisions based on the second set of test scores. Consider Tables 18–5 and 18–6 below.

Table 18–5. Pseudo-Decision Table for Two Hypothetical Categories

Tests One and Two	Test One Level I	Test One Level II	Test One Marginal
Test Two Level I	φ11	φ12	φ1●
Test Two Level II	φ21	φ22	φ2●
Test Two Marginal	φ●1	φ●2	1

Table 18–6. Pseudo-Decision Table for Four Hypothetical Categories

Tests One and Two	Test One Level I	Test One Level II	Test One Level III	Test One Level IV	Test One Marginal
Test Two Level I	φ11	φ12	φ13	φ14	φ1●
Test Two Level II	φ21	φ22	φ23	φ24	φ2●
Test Two Level III	φ31	φ32	φ33	φ34	φ3●
Test Two Level IV	φ41	φ42	φ43	φ44	φ4●
Test Two Marginal	φ●1	φ●2	φ●3	φ●4	1

If a student is classified as being in one category based on Test One's score, how probable would it be that the student would be reclassified as being in the same category if he or she took Test Two (a non-overlapping, equally difficult form of the test)?

The proportions of correct decisions, φ, for two and four categories are computed by the following two formulas, respectively:

$$\varphi = \varphi_{11} + \varphi_{22}$$

$$\varphi = \varphi_{11} + \varphi_{22} + \varphi_{33} + \varphi_{44}$$

It is the sum of the diagonal entries—that is, the proportion of students classified by the two forms into the same achievement level—that signifies the overall consistency.

Classification accuracy refers to the agreement of the observed classifications of students with the classifications made based on their true scores. An observed score contains measurement error while a true score is free of measurement error. A student's observed score can be formulated by the sum of his or her true score plus measurement error. Decision accuracy is an index to determine the extent to which measurement error causes a classification different than expected from the true score.

Since true scores are unobserved and since it is not feasible to repeat PSSA testing to estimate the proportion of students who would be reclassified in the same performance levels, a statistical model needs to be imposed on the data to estimate the true scores and to project the consistency and accuracy of classifications solely using data from the available administration (Hambleton & Novick, 1973). Although several procedures are available, one well-known method was developed by Livingston and Lewis (1995) utilizing a specific True Score Model. This approach is fairly complex, and the cited source contains details regarding the statistical model used to calculate decision consistency and accuracy from the single PSSA administration.

FURTHER INTERPRETATIONS

Several factors might affect decision consistency and accuracy. One important factor is the reliability of the scores. All other things being equal, more reliable test scores tend to result in more similar reclassifications and less measurement error. Another factor is the location of the cut score in the score distribution. More consistent and accurate classifications are observed when the cut scores are located away from the mass of the score distribution. For example, when scores are close to being normally distributed, the mass is concentrated in the middle of the distribution, and, thus classifications tend to become more consistent when cut scores go up from 70 percent to 80 percent to 90 percent or, alternatively, go down from 30 percent to 20 percent to 10 percent. The number of performance levels is also a consideration. Consistency and accuracy indices for four performance levels should be lower than those based on two categories. This is not surprising since classification and accuracy using four levels would allow more opportunity to change achievement levels. Hence, there would be more classification errors and less accuracy with four achievement levels, resulting in lower consistency indices.

RESULTS AND OBSERVATIONS

The results for the overall consistency across all four performance levels as well as for the dichotomies created by the three cut scores are presented in Table 18–7. PSSA Science was a stand-alone field test in 2025; therefore, no results are presented. The tabled values were derived using the program *BB-Class* (Brennan, 2004) and applies the Livingston and Lewis (1995) method. Across all subjects and grade levels, the overall decision accuracy ranged from the 0.71 to 0.82 (M = 0.77) while the decision consistency ranged from 0.61 to 0.75 (M = 0.68). It should be noted that the overall consistency and accuracy indices across the four performance levels should be lower than those based on two categories (discussed above). Dichotomous decisions at the proficient cut had accuracy values that range from 0.88 to 0.94 (M = 0.91) and consistency values that range from 0.83 to 0.92 (M = 0.87).

Table 18–7. Decision Consistency and Accuracy Results

Subject	Grade	Statistic	Overall	Bel. Basic/ Basic	Basic/ Proficient	Proficient/ Advanced
Mathematics	3	accuracy	0.80	0.93	0.93	0.93
Mathematics	3	consistency	0.72	0.90	0.90	0.91
Mathematics	4	accuracy	0.79	0.93	0.93	0.94
Mathematics	4	consistency	0.71	0.90	0.89	0.91
Mathematics	5	accuracy	0.79	0.92	0.92	0.95
Mathematics	5	consistency	0.70	0.88	0.89	0.93
Mathematics	6	accuracy	0.80	0.92	0.93	0.95
Mathematics	6	consistency	0.73	0.88	0.90	0.94
Mathematics	7	accuracy	0.82	0.92	0.94	0.96
Mathematics	7	consistency	0.74	0.88	0.92	0.94
Mathematics	8	accuracy	0.82	0.92	0.94	0.96
Mathematics	8	consistency	0.75	0.89	0.91	0.95
ELA	3	accuracy	0.76	0.92	0.91	0.94
ELA	3	consistency	0.67	0.88	0.87	0.92
ELA	4	accuracy	0.71	0.91	0.89	0.91
ELA	4	consistency	0.61	0.88	0.84	0.88
ELA	5	accuracy	0.73	0.91	0.88	0.94
ELA	5	consistency	0.62	0.87	0.83	0.91
ELA	6	accuracy	0.73	0.93	0.88	0.92
ELA	6	consistency	0.63	0.90	0.83	0.89
ELA	7	accuracy	0.75	0.95	0.88	0.92
ELA	7	consistency	0.66	0.93	0.84	0.89
ELA	8	accuracy	0.71	0.91	0.89	0.92
ELA	8	consistency	0.61	0.87	0.84	0.89
Science	5	accuracy	NA	NA	NA	NA
Science	5	consistency	NA	NA	NA	NA
Science	8	accuracy	NA	NA	NA	NA
Science	8	consistency	NA	NA	NA	NA

Notes. 1. Results derived using PSSA final data file (see Chapter Nine).
2. 2025 was a stand-alone field test for Science grades 5 and 8. Scaled scores were not reported.

RATER AGREEMENT

Because open-ended items are included on the PSSAs, another source of random error is related to the scorers of those items. Frisbie (2005) noted that "test score reliability differs from scorer reliability" and that "the need for one kind of estimate cannot be satisfied by the other." Additionally, the data most easily obtainable that captures this information comes from the "10 percent read behinds" collected during the scoring process (see Chapter Eight for a description). Partly because of the way that this data is obtained and reported (i.e., it is not a ratio of true score variance over observed score variance), the term rater agreement or inter-rater agreement are used here, rather than rater reliability or inter-rater reliability as these terms are somewhat misleading as explained above.

FURTHER INTERPRETATIONS

For the PSSAs, both within-year and across-year rater consistency are available. As part of the data collected for that process, additional across-year rater consistency data is available for consideration.

RESULTS AND OBSERVATIONS

Within-year rater agreement information is provided in Chapter Eight. This information is reformatted in Tables 18–8 through 18–10 for PSSA mathematics and ELA OE items, respectively. PSSA Science was a stand-alone field test in 2025; therefore no results are presented. Refer to Appendix U for additional information about the PSSA Science stand-alone field test. In addition, the percentages awarded to each score point are also presented in these tables. As seen from these tables, the inter-rater exact agreement percentages range from 83 percent to 94 percent for mathematics and 79 percent to 89 percent for ELA. Mathematics had validity ranging from 86 percent to 97 percent and ELA had validity ranging from 86 percent to 92 percent (Validity in terms of scoring practices is discussed further in Chapter Eight.)

Table 18–8a. Inter-Rater Agreement for OE Items—Mathematics

Grade	Item	Percent Exact	Percent Adjacent	Validity
3	1	83	17	86
3	2	92	8	94
3	3	86	14	92
4	1	85	15	93
4	2	83	17	88
4	3	84	16	92
5	1	88	12	95
5	2	94	6	96
5	3	81	19	89
6	1	93	7	97
6	2	91	9	96
6	3	80	20	89
7	1	83	17	90
7	2	92	8	95
7	3	88	12	90
8	1	93	7	94
8	2	90	10	92
8	3	90	10	95

Note. For more information regarding validity, see the section on Handscoring Validity Process in Chapter Eight.

Table 18–8b. Percentage Awarded for Each Score Point for OE Items—Mathematics

Grade	Item	0	1	2	3	4	Blank or non-scoreable
3	1	12	20	25	25	14	4
3	2	21	30	25	15	4	4
3	3	19	21	20	20	15	4
4	1	23	20	21	16	17	3
4	2	25	25	22	12	11	5
4	3	22	24	22	23	7	3
5	1	18	20	19	21	18	4
5	2	20	40	23	5	8	3
5	3	16	28	22	20	11	4
6	1	29	22	15	23	9	3
6	2	29	36	16	10	5	4
6	3	18	23	22	19	11	6
7	1	29	26	18	16	7	4
7	2	38	30	15	8	3	6
7	3	35	29	13	11	8	5
8	1	13	38	18	14	6	11
8	2	30	25	16	12	9	7
8	3	3	20	33	17	17	9

Table 18–9a. Inter-Rater Agreement for OE Items—ELA

Grade	Item	Item Type	Percent Exact	Percent Adjacent	Validity
3	1	SA	81	19	90
3	2	SA	79	21	91
4	1	TDA	89	11	92
5	1	TDA	88	12	91
6	1	TDA	86	14	88
7	1	TDA	85	15	91
8	1	TDA	88	12	86

Note. EBSR items are machine scored because they are two-part MC like items and not shown in this table. For more information regarding validity, see the section on Handscoring Validity Process in Chapter Eight.

Table 18–9b. Percentage Awarded for Each Score Point for OE Items—ELA

Grade	Item	Item Type	0	1	2	3	4	Blank or non-scoreable
3	1	SA	12	49	27	5	NA	7
3	2	SA	25	34	25	9	NA	7
4	1	TDA	NA	20	42	16	2	19
5	1	TDA	NA	21	39	19	3	19
6	1	TDA	NA	16	48	20	5	11
7	1	TDA	NA	21	41	20	4	14
8	1	TDA	NA	17	33	24	8	19

Note. EBSR items are machine scored because they are two-part MC like items and not shown in this table.

CHAPTER NINETEEN: VALIDITY

As defined in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 2014), validity refers to "the degree to which evidence and theory support the interpretation of test scores entailed by proposed uses of tests" (p. 11). The *Standards* provides a framework for describing the sources of evidence that should be considered when evaluating validity. These sources include evidence based on 1) test content, 2) response processes, 3) the internal structure of the test, 4) the relationships between test scores and other variables, and 5) the consequences of testing. In addition, when Item Response Theory (IRT) models are used to analyze assessment data, validity considerations related to those processes should also be explored.

The validity process involves the collection of evidence from a variety of sources to support the proposed test score interpretations and uses. This technical report describes throughout, the technical aspects of the PSSA tests in support of their score interpretations and uses. Each of the previous chapters contributes important evidence components that pertain to score validation: test development, test administration, test scoring, item analysis, Rasch calibration, scaling, linking, score reporting, and reliability. This chapter summarizes and synthesizes the evidence based on the *Standards'* framework. The purposes and intended uses of PSSA test scores are reviewed first, then each type of validity evidence is addressed in turn. Results from PSSA Science in 2025 are not presented in this chapter due to the stand-alone field test.

PURPOSES AND INTENDED USES OF THE PSSA

The *Standards* emphasize that validity pertains to how test scores are used. To help contextualize the evidence that will be presented below, the purposes of the PSSA will be reviewed first. As stated in Chapter One, the purpose of the PSSA is to measure how well students acquire the knowledge and skills described in the *Pennsylvania Assessment Anchor Content Standards* (Assessment Anchors) as defined by the Eligible Content for mathematics, ELA, and Science. The intended uses of the PSSA are to:

1. Provide information for use in school and district accountability systems
2. Improve curricular and instructional practices to help students reach proficiency in the Pennsylvania Core Standards (ELA and Mathematics) or the Pennsylvania Science Technology, Engineering, Environmental Literacy and Sustainability Academic Standards (Science)

TEST LENGTH REDUCTION

The Pennsylvania Department of Education (PDE) established new, reduced length PSSA test designs in 2017 for administration beginning in 2018. The PSSA test length reductions were designed to reduce PSSA testing burdens while maintaining rigor in test reliabilities, and test score validity arguments. The approved test design changes can be briefly summarized as:

- Mathematics
    - Proportional reduction of each reporting category
    - Grades 3–8: 72 to 52 total raw score points
- ELA
    - Removed writing prompt and selection of standalone multiple-choice language items
    - Grade 3: 62 to 45 total raw score points (weighted)
    - Grades 4–8: 84 to 63 total raw score points (weighted)

The PSSA tests have been consistently constructed with attention to balancing content and statistical requirements to optimize test score reliability and validity. This remained true during construction of the reduced length tests. Although test reliability is influenced by test length (Spearman & Brown, 1910), the use of high-quality items, with strong statistical features, can facilitate the production of reliable assessments under different test length scenarios. As discussed in Chapter Eighteen, reliability results for the shortened tests continued to show strong internal consistency of scores.

As there was a change to the test blueprint for ELA beyond a proportional reduction of the content, caution was used to ensure that the original 2015 standards appropriately defined performance on the reduced length ELA tests. Consequently, a standards validation was conducted in June of 2018 prior to formally reporting ELA scores. The purpose of the standards validation was to consider if the 2015 cut scores continued to reflect appropriate distinctions in performance on the ELA tests, given the removal of the writing prompt and nine language items. Pennsylvania educators participated in a four-day workshop to review the new tests and applied a modified Bookmark standard setting procedure. Results of the standards validation confirmed that the existing standards still appropriately classify examinee performance into the four levels of Below Basic, Basic, Proficient, and Advance. For example, a score of 1000 was determined to appropriately separate examinee performance on the ELA tests between the Below Basic and Proficient levels. The same was true for each of the remaining cut scores for grades 3 through 8, Below Basic and Advanced. Please refer to the Pennsylvania System of School Assessment Grades 3–8 English Language Arts Standards Validation 2018 Final Technical Report for full details regarding the standards validation design, implementation, committee review, and final results.

Beyond standards validation, the provision of ongoing of validity evidence will continue to be a central feature in the PSSA technical documentation. This chapter proceeds with a discussion of five sources of validity evidence for the PSSA, including studies that were conducted to evaluate the PSSAs for evidence of any shifts in the ELA construct related to the test design modification for ELA, i.e. removal of the writing prompt and nine language items.

EVIDENCE BASED ON TEST CONTENT

Test content validity evidence for the PSSA rests greatly on establishing a link between each component of the assessment (i.e., the items) and what the students should know and be able to do as required by the Assessment Anchors, Eligible Content, and/or the Academic Content Standards (refer to Chapter Two for a description of each of these elements). The PSSA tests are intended to measure students' knowledge and skills described in the Assessment Anchors as defined by the Eligible Content for mathematics, ELA, and science. Thus, the evidence supporting the alignment among the PSSA tasks, the Assessment Anchors as defined by the Eligible Content and the Academic Content Standards should be provided.

Lane (1999) suggests taking the following steps to support the content validity of tests:

- Evaluate the degree to which the test specifications represent and align with the knowledge and skills described in the Assessment Anchors as defined by the Eligible Content for mathematics, ELA, and science.
- Evaluate the alignment between the test items and test specifications to ensure representativeness.
- Evaluate the extent to which the curriculum aligns with the Assessment Anchors. If some contents are not included in the curriculum, then low scores on the test should not be interpreted as meaning that instruction was ineffective.
- Conduct content reviews of the test items using a panel of content experts to see whether they measure the intended construct or are the sources of construct-irrelevant variance.
- Conduct fairness reviews of the items to avoid issues related to a specific subpopulation.
- Evaluate procedures for administration and scoring, such as the appropriateness of instructions to examinees, time limit for the assessment, and training of raters.
- Submit operational tests to third-party, independent reviews.

Chapters Two through Eight of this report present evidence related to test content. As described in these chapters, all PSSA test blueprints (specifications) and items were developed and aligned with the PSSA Assessment Anchors and Eligible Content for mathematics, ELA, and science, consistently following well-established procedures. After the items were developed, they underwent multiple rounds of content and bias reviews. After they were field-tested, they were reviewed with respect to their statistical properties. Items selected for the operational assessment had to pass content, psychometric, and PDE reviews. Tests were administered according to standardized procedures with allowable accommodations. The following summarizes the efforts described in greater detail in Chapters Two through Eight:

- DRC used Webb's (1999) Depth of Knowledge (DOK) model to ensure the PSSA items aligned with the Assessment Anchors as defined by the Eligible Content and the Academic Content Standards in terms of both content and cognitive levels.
- DRC established detailed test and item/passage development specifications and ensured the items were sufficient in number and adequately distributed across content and levels of cognitive complexity and difficulty.
- DRC selected qualified item writers and provided training to help ensure they wrote high-quality items.
- Each newly developed item was first reviewed by content specialists and editors at DRC to make sure that all items measured the intended Assessment Anchors, as defined by the Eligible Content for Mathematics, ELA, and Science. Appropriateness for the intended grade was also considered, as well as depth of knowledge, graphics, grammar/punctuation, language demand, and distractor reasonableness.
- Before field-testing, the test items were submitted to content committees (composed of Pennsylvania educators) for review using, but not limited to, the following categories:
    - Overall quality and clarity
    - Anchor, eligible content, and/or standard alignment
    - Grade-level appropriateness
    - Difficulty level
    - Depth of knowledge
    - Appropriate sources of challenge (e.g., unintended content and skills)
    - Correct answer
    - Quality of distractors
    - Graphics
    - Appropriate language demand
    - Freedom from bias
- The items were also submitted to a Bias, Fairness, and Sensitivity Committee for review. This committee reviewed items for issues related to diversity, gender, and other pertinent factors.
- Items passing all the prior hurdles were tried out in a field-test event. Several statistical analyses were conducted on the field-test data, including classical item analyses, distractor analyses, and differential item functioning (DIF). Items were once again carefully reviewed by DRC staff and a committee of Pennsylvania teachers with respect to their statistical characteristics. DIF was used to detect test items that might bias test scores for subgroups. Empirical investigation of DIF strengthens the validity evidence related to score interpretations for student groups by eliminating potential sources of construct-irrelevant variance as such, DIF results might be better considered as internal structure validity evidence.

- The PSSA tests were administered according to standardized procedures with allowable accommodations and recommended testing times.
- As shown in Chapter Eight, the raters for open-ended (OE) items were carefully recruited and well trained. Their scoring was monitored throughout the scoring session to ensure that an acceptable level of scoring accuracy was maintained.

In addition to the foundational and routine procedures described above and in Chapters Two through Five, and summarized in Appendix C, two external studies were conducted to assess the alignment of the PSSA tests to the PSSA Assessment Anchors and Eligible Content. Achieve, Inc., Washington, D.C., conducted a preliminary review of the science Assessment Anchors in 2003 to evaluate the alignment with the Academic Standards and produced a follow-up report on the anchors in 2005.

EVIDENCE BASED ON RESPONSE PROCESSES

Response-process evidence is used to examine the extent to which the cognitive skills and processes employed by students match that identified in the test developer's defined construct domains for all students and for each subgroup. Think-aloud procedures or cognitive labs can be used to collect this type of evidence. In addition, when an assessment includes OE items, an examination of the extent to which the raters interpret and apply the scoring criteria accurately when assigning scores to students' responses on OE items also provides validity of the response-processes evidence.

For the PSSA science tests, DRC conducted a science cognitive lab study to gather relative information about the thinking processes students used to solve science scenario items. The use of the cognitive lab helped ensure that the intended response processes were employed by students.

For all the PSSA tests, well-organized scorer training and subsequent monitoring of rating accuracy helped ensure that raters strictly followed the scoring criteria to minimize rater biases that may affect their scoring. Refer to Chapter Eight for a detailed description of all hand-scoring procedures, and to Chapter Eighteen for statistical information regarding inter-rater reliability.

EVIDENCE BASED ON INTERNAL STRUCTURE

As described in the *Standards* (2014), internal-structure evidence refers to the degree to which the relationships between test items and test components conform to the construct on which the proposed test interpretations are based. For each PSSA test, one total test score as well as strand scores are reported (see Chapter Sixteen for more information about PSSA scores). Additionally, principal component and parallel analyses were conducted and provide strong internal-structure evidence of the unidimensionality of the PSSAs.

ITEM DIFFICULTY RANGES AND DISCRIMINATION

Multiple sources of evidence are provided that address the appropriateness of the range of difficulty and discrimination of the items on the PSSA tests. Plots of item *p*-values by point biserial correlations are provided in Chapter Eleven, and summary statistics are provided for IRT item difficulty parameters in Chapter Twelve.

ITEM RESPONSE THEORY DIMENSIONALITY

Results from principal component and parallel analyses were presented in Chapter Twelve. The PSSA mathematics, ELA and science tests are shown through a principal components analysis to be strongly unidimensional, providing evidence that the tests are measuring a single construct without undue irrelevant variance.

A confirmatory factor analysis was also applied to the 2017 original length and all tests that followed the reduced length to assess the degree to which the intended construct for each test explains performance on the operational test items. Specifically, significant factor loadings, consistency of standardized variances of the unique factor scores, and model fit were examined across the CFA models for the original and reduced length tests, for each PSSA test.

Using *Mplus* (Muthén & Muthén, 1998–2012) a single factor model was specified for the original and reduced length tests, for each PSSA test as:

$$y_i = \tau + \Lambda\eta_i + \varepsilon_i$$

where y_2 is the outcome vector, t is the intercept vector, Λ is the factor loading matrix, η_i is the common factor score, and represents the unique factor scores. For each model, the factor variance was fixed to 1.0 for model identification purposes. As the indicators in these models are ordered categorical variables and likely violate the assumption of multivariate normality required for maximum likelihood estimation, the models were fit using robust weighted least squares estimation. Model fit was evaluated for each model using adjusted Chi-Square tests of fit (Satorra & Bentler, 1994; Asparouhov & Muthén, 2010), Root Mean Square Error of Approximation (RMSEA), and the comparative fit index (CFI). RMSEA values below 0.06 and CFI values of 0.90 and above were considered to represent good fit (Hu & Bentler, 1999).

The Chi-square test of fit results for the CFAs show that, for all tests, the model does not fit perfectly in the population with p-values < 0.000. MacCallum (2001) notes that this is often the finding with larger sample sizes. Consistent with results from the shortened test in 2018 and 2019 the RMSEA results indicate good fit for the 2025 PSSA with values ranging between 0.015 and 0.025 for the original length tests in 2017 and between 0.016 and 0.026 for the reduced length tests in 2025. The CFI results also show good fit with values ranging from 0.926 to 0.972 for the original length tests in 2017 and from 0.981 to 0.989 for the reduced length tests in 2025. Table 19–1 provide a summary of the CFA results for the 2025 PSSA.

Note that as the models are not nested, a direct statistical comparison of model fit would not be informative. Procedures that allows for the comparison of non-nested models such as Akaike's Information Criterion (AIC; Akaike, 1973) and the Bayesian Information Criterion (BIC; Schwarz, 1978) are designed primarily for model selection purposes, so are less useful here where the model has been chosen based on based on criteria external to the test.

Overall, the factor analysis results suggest that a single factor (the ELA construct as detailed in Chapter Two) is explaining the variance in responses well for both the 2017 and 2025 (Table 19–1) reduced length tests, supporting an overall conclusion of construct stability between the original and reduced length tests.

Table 19–1. CFA Model Fit for Reduced Length PSSAs – 2025

Subject	Grade	N Items	N	RMSEA	CFI	Chi-Square DF	Chi-Square Adj. *P*-Value
Mathematics	3	43	118833	0.022	0.987	860	<.0000
Mathematics	4	43	114325	0.025	0.982	860	<.0000
Mathematics	5	43	117903	0.024	0.981	860	<.0000
Mathematics	6	43	117473	0.026	0.981	860	<.0000
Mathematics	7	43	117043	0.024	0.984	860	<.0000
Mathematics	8	43	117469	0.022	0.985	860	<.0000
ELA	3	35	118530	0.021	0.983	560	<.0000
ELA	4	39	113952	0.016	0.989	702	<.0000
ELA	5	39	117617	0.020	0.982	702	<.0000
ELA	6	39	117329	0.016	0.989	702	<.0000
ELA	7	39	116989	0.019	0.985	702	<.0000
ELA	8	39	117561	0.022	0.983	702	<.0000
Science	5	NA	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA	NA

Note. The 2025 PSSA Science was a stand-alone field test; no student scores were reported.

EVIDENCE RELATED TO THE USE OF THE RASCH MODEL

Since the Rasch model is the basis of all calibration, scaling, and linking analyses associated with the PSSA, the validity of the inferences from these results depends on the degree to which the assumptions of the model are met as well as the fit between the model and test data. As discussed at length in Chapter Twelve, the underlying assumptions of Rasch models were essentially met for all the PSSA data, indicating the appropriateness of using the Rasch models to analyze the PSSA data.

In addition, the Rasch model was also used to link operational PSSA tests across years. The accuracy of the linking also affects the accuracy of student scores and the validity of score uses. As described in Chapter Fifteen, DRC Psychometric Services staff utilize a linking procedure previously vetted by the Pennsylvania National TAC. Moreover, DRC internal replication and review ensured the accuracy of the linking and equating results.

TEST RELIABILITY, ERRORS OF MEASUREMENT, AND DECISION CONSISTENCY AND ACCURACY

Reliability estimates, SEM, and decision consistency and accuracy results are presented in Chapter Eighteen and provide important evidence that the PSSA tests have strong internal consistency, expected measurement errors, and that examinees are being appropriately classified into performance levels based on the test scores and standards set on those scores.

STRAND CORRELATIONS

Correlations and disattenuated correlations between strand scores within each subject area are presented below. Values were computed using the PSSA final data file (see Chapter Nine). This data can also provide information on score dimensionality that is part of internal-structure validity evidence. As noted in Chapter Two, the PSSA mathematics tests have four strands (denoted by M.A, M.B, M.C, and M.D). The PSSA ELA tests have four strands (denoted by E.A, E.B, E.D, and E.E), except grade 3 which has three strands (E.A, E.B, and E.D). No results are presented for the stand-alone field test for PSSA Science in 2025.

For each grade, Pearson's correlation coefficients between these strands are reported in Tables 19–2a through 19–2f. The inter-correlations between the strands within the content areas are positive and generally range from moderate to high in value, and correlations between strands across content areas are generally slightly lower, providing contrasting evidence of convergent and discriminant validity.

Table 19–2a. Correlations between Mathematics and ELA Strands for Grade 3

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	0.82	-					
M.C	0.69	0.69	-				
M.D	0.81	0.80	0.67	-			
E.A	0.66	0.69	0.63	0.64	-		
E.B	0.68	0.69	0.64	0.66	0.76	-	
E.D	0.61	0.61	0.58	0.59	0.64	0.65	-

Table 19–2b. Correlations between Mathematics and ELA Strands for Grade 4

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D	E.E
M.A	-							
M.B	0.81	-						
M.C	0.68	0.66	-					
M.D	0.80	0.76	0.65	-				
E.A	0.65	0.64	0.56	0.61	-			
E.B	0.70	0.69	0.60	0.66	0.74	-		
E.D	0.64	0.62	0.56	0.61	0.61	0.65	-	
E.E	0.58	0.55	0.49	0.54	0.56	0.59	0.53	-

Table 19–2c. Correlations between Mathematics and ELA Strands for Grade 5

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D	E.E
M.A	-							
M.B	0.76	-						
M.C	0.67	0.59	-					
M.D	0.77	0.67	0.62	-				
E.A	0.66	0.61	0.53	0.59	-			
E.B	0.71	0.66	0.57	0.63	0.75	-		
E.D	0.57	0.52	0.47	0.51	0.55	0.56	-	
E.E	0.62	0.57	0.46	0.52	0.57	0.60	0.48	-

Table 19–2d. Correlations between Mathematics and ELA Strands for Grade 6

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D	E.E
M.A	-							
M.B	0.79	-						
M.C	0.74	0.69	-					
M.D	0.77	0.72	0.70	-				
E.A	0.69	0.65	0.57	0.61	-			
E.B	0.71	0.68	0.59	0.64	0.74	-		
E.D	0.61	0.57	0.51	0.55	0.61	0.61	-	
E.E	0.60	0.53	0.50	0.55	0.58	0.57	0.50	-

Table 19–2e. Correlations between Mathematics and ELA Strands for Grade 7

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D	E.E
M.A	-							
M.B	0.84	-						
M.C	0.79	0.77	-					
M.D	0.70	0.69	0.68	-				
E.A	0.68	0.66	0.62	0.53	-			
E.B	0.69	0.67	0.64	0.56	0.74	-		
E.D	0.61	0.59	0.57	0.50	0.61	0.61	-	
E.E	0.61	0.58	0.56	0.46	0.62	0.60	0.52	-

Table 19–2f. Correlations between Mathematics and ELA Strands for Grade 8

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D	E.E
M.A	-							
M.B	0.79	-						
M.C	0.72	0.79	-					
M.D	0.67	0.76	0.68	-				
E.A	0.63	0.70	0.63	0.62	-			
E.B	0.63	0.70	0.63	0.62	0.76	-		
E.D	0.58	0.64	0.58	0.56	0.63	0.63	-	
E.E	0.59	0.63	0.57	0.54	0.63	0.63	0.56	-

The correlations in Tables 19–2a through 19–2f are based on the observed strand scores. These observed-score correlations are weakened by the existing measurement error contained within each strand. As a result, disattenuating the observed correlations can provide an estimate of the relationships between strands if there were no measurement error. (An important caveat is provided further below.) The disattenuated correlation coefficients (R_{xy}) can be computed by using the formula (Spearman 1904, 1910) below:

$$R_{xy} = \frac{r_{xy}}{\sqrt{r_{xx}\, r_{yy}}},$$

where r_{xy} is the observed correlation, and r_{xx} and r_{yy} are the reliabilities for strand X and strand Y. Disattenuated correlations very near 1.00 might suggest that the same or very similar constructs are being measured. Values somewhat less than 1.00 might suggest that different strands are measuring slightly different aspects of the same construct. Values markedly less than 1.00 might suggest the strands reflect different constructs.

Tables 19–3a through 19–3f show the corresponding disattenuated correlations for the 2025 PSSA tests for each grade. Note that with ELA, text-dependent analysis (TDA) items belong to a separate strand and is the only item for the strand. Given that this strand (E.E) has only one item, reliability cannot be computed. Therefore, disattenuated correlation cannot be computed with these strands and is not included in Table 19–3. Where reliability can be computed, the disattenuated strand correlations are higher than their observed score counterparts, given that strand scores do not have perfect reliabilities (see Chapter Eighteen).

Some within-subject correlations are very high (e.g., above 0.95), suggesting that the within-subject strands appear to be measuring essentially the same construct. This, in turn, suggests that some strand scores might not provide entirely unique information about the strengths or weaknesses of students.

Table 19–3a. Disattenuated Strand Correlations for Mathematics and ELA for Grade 3

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.04	-					
M.C	1.14	1.15	-				
M.D	1.02	1.02	1.10	-			
E.A	0.84	0.88	1.06	0.82	-		
E.B	0.88	0.90	1.08	0.86	1.00	-	
E.D	0.88	0.89	1.09	0.86	0.93	0.96	-

Table 19–3b. Disattenuated Strand Correlations for Mathematics and ELA for Grade 4

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.03	-					
M.C	1.09	1.13	-				
M.D	1.01	1.02	1.09	-			
E.A	0.83	0.88	0.97	0.83	-		
E.B	0.86	0.91	1.00	0.86	0.98	-	
E.D	0.91	0.94	1.06	0.91	0.94	0.95	-

Table 19–3c. Disattenuated Strand Correlations for Mathematics and ELA for Grade 5

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.11	-					
M.C	0.95	1.07	-				
M.D	1.05	1.17	1.05	-			
E.A	0.81	0.96	0.82	0.87	-		
E.B	0.86	1.02	0.86	0.92	0.99	-	
E.D	0.85	0.98	0.87	0.91	0.88	0.89	-

Table 19–3d. Disattenuated Strand Correlations for Mathematics and ELA for Grade 6

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.00	-					
M.C	0.97	0.93	-				
M.D	1.02	0.98	0.97	-			
E.A	0.87	0.85	0.76	0.84	-		
E.B	0.91	0.89	0.80	0.87	0.98	-	
E.D	0.90	0.88	0.79	0.87	0.94	0.94	-

Table19–3e. Disattenuated Strand Correlations for Mathematics and ELA for Grade 7

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.05	-					
M.C	1.05	1.05	-				
M.D	0.97	0.99	1.03	-			
E.A	0.86	0.85	0.86	0.78	-		
E.B	0.88	0.87	0.89	0.82	0.98	-	
E.D	0.90	0.89	0.92	0.85	0.93	0.94	-

Table 19–3f. Disattenuated Strand Correlations for Mathematics and ELA for Grade 8

Strand	M.A	M.B	M.C	M.D	E.A	E.B	E.D
M.A	-						
M.B	1.06	-					
M.C	1.10	1.06	-				
M.D	1.02	1.01	1.04	-			
E.A	0.89	0.87	0.89	0.88	-		
E.B	0.88	0.86	0.89	0.87	0.99	-	
E.D	0.92	0.88	0.91	0.88	0.93	0.91	-

Some caution is needed in interpreting the disattenuated results because the reliabilities used to calculate the disattenuated correlations are subject to both upward and downward biases. (These are also discussed in some detail in Chapter Eighteen.) Consequently, some of the values tabled above may be higher or lower than they should be, depending on which bias prevails for any given pair of strand scores. When the reliabilities are lower than they should be, the disattenuated correlations will be inflated (and in some instances, can appear larger than the theoretical correlation maximum value of 1.00).

EVIDENCE BASED ON RELATIONSHIPS WITH OTHER VARIABLES

As described in the *Standards* (2014), "Evidence based on relationships with other variables provides evidence about the degree to which relationships are consistent with the construct underlying the proposed test score interpretations" (p. 16). This category of evidence is classified by three types—convergent, discriminant, and criterion-related evidence. Convergent evidence is provided by relationships between students' performance on different assessments intended to measure a similar construct. Discriminant evidence is provided by relationships between students' performance on different tests intended to measure different constructs. Criterion-related evidence, either predictive or concurrent, is provided by relationships between students' test scores and their performance on a criterion measure (Cronbach, 1971; Messick, 1989).

Evidence of the relationship of the PSSA with other variables for previous PSSA mathematics and reading tests has been examined by HumRRO in a series of independent studies using 2001–2003 PSSA data (Koger, Thacker & Dickinson, 2004; Sinclair & Thacker, 2005; Thacker, Dickinson, & Koger, 2004).

As useful validity studies rely heavily on the technical quality of the criteria measures, the Pennsylvania Classroom Diagnostic Tools (CDT) assessments were used to assess convergent and discriminant validity. The CDT is a well-documented high-quality computer-based series of assessments aligned to the same Assessment Anchors and Eligible Content as the PSSA tests. Table 19–4 shows the correlations between the PSSA and CDT assessments. The within subject correlations are strong, ranging from 0.75 to 0.81. This illustrates a strong positive relationship between the PSSA and the CDT where the subjects are the same or similar. Conversely, the correlations between different content areas in 2025 are noticeably lower, ranging from 0.68 to 0.74. These patterns demonstrate reasonable convergent and discriminant validity of performance on PSSA.

Table 19–4. Correlations among Student Performance on PSSA and CDT

PSSA	CDT	N	R
Mathematics Grade 3	Mathematics - Lower Grades	18569	0.79
Mathematics Grade 3	Reading - Lower Grades	15941	0.70
Mathematics Grade 3	Science - Lower Grades	3252	0.68
Mathematics Grade 3	Writing - Lower Grades	2890	0.68
Mathematics Grade 4	Mathematics - Lower Grades	18932	0.81
Mathematics Grade 4	Reading - Lower Grades	16040	0.72
Mathematics Grade 4	Science - Lower Grades	7932	0.71
Mathematics Grade 4	Writing - Lower Grades	2795	0.68
Mathematics Grade 5	Mathematics - Lower Grades	20593	0.81
Mathematics Grade 5	Reading - Lower Grades	18037	0.71
Mathematics Grade 5	Science - Lower Grades	19902	0.70
Mathematics Grade 5	Writing - Lower Grades	3653	0.69
Mathematics Grade 6	Mathematics	26508	0.82
Mathematics Grade 6	Reading/Literature	22316	0.73
Mathematics Grade 6	Science	14216	0.71
Mathematics Grade 6	Writing/English Comprehension	4113	0.69
Mathematics Grade 7	Mathematics	27185	0.80
Mathematics Grade 7	Reading/Literature	25287	0.70
Mathematics Grade 7	Science	22988	0.69
Mathematics Grade 7	Writing/English Comprehension	5813	0.69
Mathematics Grade 8	Mathematics	23570	0.78
Mathematics Grade 8	Reading/Literature	24837	0.68
Mathematics Grade 8	Science	37544	0.66
Mathematics Grade 8	Writing/English Comprehension	5686	0.67
ELA Grade 3	Mathematics - Lower Grades	18557	0.69
ELA Grade 3	Reading - Lower Grades	15927	0.79
ELA Grade 3	Science - Lower Grades	3246	0.71
ELA Grade 3	Writing - Lower Grades	2882	0.77
ELA Grade 4	Mathematics - Lower Grades	18888	0.71
ELA Grade 4	Reading - Lower Grades	16010	0.81
ELA Grade 4	Science - Lower Grades	7918	0.74
ELA Grade 4	Writing - Lower Grades	2772	0.79
ELA Grade 5	Mathematics - Lower Grades	20571	0.72
ELA Grade 5	Reading - Lower Grades	18017	0.80
ELA Grade 5	Science - Lower Grades	19858	0.74
ELA Grade 5	Writing - Lower Grades	3645	0.78
ELA Grade 6	Mathematics	26496	0.73
ELA Grade 6	Reading/Literature	22293	0.80

PSSA	CDT	N	R
ELA Grade 6	Science	14205	0.72
ELA Grade 6	Writing/English Comprehension	4103	0.78
ELA Grade 7	Mathematics	27202	0.70
ELA Grade 7	Reading/Literature	25302	0.78
ELA Grade 7	Science	22984	0.71
ELA Grade 7	Writing/English Comprehension	5811	0.77
ELA Grade 8	Mathematics	23589	0.69
ELA Grade 8	Reading/Literature	24834	0.76
ELA Grade 8	Science	37569	0.68
ELA Grade 8	Writing/English Comprehension	5687	0.75
Science Grade 5	Mathematics - Lower Grades	NA	NA
Science Grade 5	Reading - Lower Grades	NA	NA
Science Grade 5	Science - Lower Grades	NA	NA
Science Grade 5	Writing - Lower Grades	NA	NA
Science Grade 8	Mathematics	NA	NA
Science Grade 8	Reading/Literature	NA	NA
Science Grade 8	Science	NA	NA
Science Grade 8	Writing/English Comprehension	NA	NA

Note. PSSA Science was a stand-alone field test in 2025. No student scores were reported.

To further assess discriminant validity for the 2025 PSSA tests, correlations between students' test scores on different PSSA tests, including mathematics and ELA are shown in Table 19–5. PSSA Science was a stand-alone field test in 2025; therefore no results are reported. In this table, both the observed and disattenuated correlations are reported.

Table 19–5. Correlations among Students' Performance on All PSSA Tests

Grade	Mathematics/ELA
3	0.80(0.88)
4	0.80(0.91)
5	0.80(0.92)
6	0.80(0.92)
7	0.79(0.90)
8	0.80(0.92)

Notes. 1. Numbers in the parenthesis are disattenuated correlations. The PSSA final data file was used for these calculations (see Chapter Nine). Case-wise elimination of missing data was used.
2. PSSA Science was a stand-alone field test in 2025. No student scores were reported.

Each PSSA assessment measures a different construct, so the correlations between them were not expected to be extremely high. The values in this table are consistent with this expectation. As can be seen, the correlations between the PSSA subject tests are almost all nearly 0.8.

As 2015 was the first year of new PSSA mathematics and ELA, several additional analyses were conducted in 2017 in support of the federal peer review process for the PSSA. These studies included 1) an analysis of how well the PSSA scores predict performance (predictive validity) on high school exams in Algebra I and Literature (Keystone exams), and 2) multiple comparisons of PSSA mathematics and ELA results with other external criteria. These studies provide additional evidence in support of arguments for the convergent and discriminant validity of the PSSA test results detailed in the 2015 and 2016 PSSA Technical Reports referenced above. This report provides a summary of these seven additional analyses and results:

- Keystone predictions
- PSSA relation to other variables:
    - PSSA mathematics and ELA relationship with NAEP
    - PSSA mathematics and ELA relationship with Classroom Diagnostic Tools (CDT)
    - PSSA ELA relationship with GRADE (Group Reading Assessment and Diagnostic Evaluation) literacy assessments
    - PSSA mathematics and ELA relationship with Terra Nova Complete Battery ELA and mathematics
    - PSSA mathematics and ELA relationship with teacher ratings of student proficiency
    - PSSA mathematics and ELA subscore correlations

The results of these analyses provide reasonably strong evidence of the convergent and discriminant validity of the PSSA, as well its predictive relationship with college and career readiness expectations. Results for this set of analyses are reported in Appendix T of the 2018 PSSA Technical Report.

EVIDENCE BASED ON CONSEQUENCES OF TESTING

Based on the *Standards* (2014), evidence supporting the appropriateness of the consequences of testing is an additional source of validity information. Often, this part of the validity argument for a test includes evidence that the test serves all students comparably. The most common methods that are used for this purpose are those that examine the invariance of construct measurement across student groups, and those that seek to detect bias in test content that might lead to some construct irrelevant variation in examinee responses.

As reported in Chapter Five and Appendix F, review and consideration of differential item functioning results with respect to gender and ethnicity offers some evidence that construct-irrelevant variance affecting these groups differentially is not present. The presence of construct-irrelevant variance is generally considered to be a serious a threat to the validity of inferences made from test scores, where those differences are due to content that is unrelated to the intended construct for one or more groups. A distinct limitation of DIF methods is that they treat such variance at the examinee group level and not at the individual level. As not all members of a defined group can ever be assumed to share the exact same characteristics, it can be inappropriate to generalize the group level results to all group members. Nevertheless, the presence of suspected group level construct irrelevant variance may indicate the need to review and reconsider the inclusion of items that have been statistically flagged for DIF. As noted in that chapter, field-test items are screened and reviewed for DIF. Only items approved by teacher committees are eligible for operational use.

Additionally, analyses were conducted to assess the comparability of scores across paper-pencil and computer-based modes of assessment (PPT and CBT) by evaluating differences in person fit. Results of these analyses indicate that the PSSA tests are functioning similarly across mode and mode by subgroups. Refer to Appendix S for a detailed discussion of these analyses and findings.

A comprehensive independent study of the invariance of scores across accommodations was also conducted by Sireci and Wells (2016) with results that support claims of measurement invariance across the PSSA tests for accommodated groups with sufficient cases for analysis.

As evidence of consequential validity is related to its uses, as well as to statistical measures of invariance, it is difficult to directly measure all aspects of consequential validity. Test data provide important evidence of the validity of PSSA scores for their intended uses, and as such, may serve to warrant the intended purpose and use that is defined in this technical report and supporting documentation. Generally, the results of the many content development and review procedures, and the statistical analyses discussed throughout this report, provide evidence that PSSA scores are sufficiently comparable across all examinees, regardless of conditions of gender, ethnicity, test mode, and accommodations used. This has remained true under the reduced test length design. Population invariance, however, will be monitored annually for violations.

Regarding the use of test scores, Chapter Sixteen provides an explanation of the different types of scores and shows samples of the various score reports distributed for the PSSA. Chapter Sixteen also provides accurate and clear test score and report information to help users avoid unintended uses and interpretations of the PSSA results. The extent to which various groups of users (e.g., students, teachers, and parents) interpret these scores and reports appropriately affects the validity of subsequent uses of these results. PDE continues to gather evidence to improve or guide decisions pertaining to all aspects of intended and unintended consequences of the PSSA program.

VALIDITY EVIDENCE SUMMARY

Validity evidence related to test content was reviewed earlier in this chapter. Overall, the early chapters of this technical report show that a strong link can be established between each PSSA item and its associated eligible content. Details regarding how the PSSA operational assessments were assembled to reflect the state content standards and detailed information regarding educator reviews (including content, bias, data, and sensitivity reviews) are presented in Chapters Three and Five.

Evidence of the validity of score interpretations is also provided as it relates to response processes. Cognitive labs for Science scenario-based items showed that examinees were responding as intended and routine hand-scoring processes describe in Chapter Eight provide evidence that ratings show reasonable consistency and that rigorous scoring processes are in place to reduce rater bias and increase consistency.

Evidence of the validity related to internal test structure is provided through the results of multiple analyses including, high test score reliabilities, reasonable SEM and CSEM values, good decision consistency and accuracy, strongly unidimensional constructs, and selections of items that have appropriate difficulty ranges, and discriminate performance well.

Strand score inter-correlations are also presented in this chapter. In general, within-subject-area strands (e.g., mathematics) correlate more highly with themselves than they do with other subject-area strands (e.g., ELA). These results, as well as the additional analyses of the relationship between the PSSA ELA and Mathematics tests with other established measures and classroom performance provides evidence of their convergent, discriminant and predictive validity.

A study of the relationship of PSSA scores with CDT scores shows a strong relationship between similar content areas, and a slightly weaker relationship across different content areas, providing useful convergent and discriminant validity evidence.

Last, evidence that PSSA test scores are largely invariant across multiple subgroups of students is also provided through the results of DIF analyses and subsequent item selection processes, a multi-method study on the invariance of accommodated test scores, and a person fit analysis to investigate the comparability of scores from different modes of administration for different populations of students.

APPENDIX A: GENERAL SCORING GUIDELINES

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR READING SHORT-ANSWER QUESTIONS

3 Points

- The response provides a complete answer to the task (e.g., a statement that offers a correct answer as well as text-based support).
- The response provides specific, appropriate, and accurate details (e.g., naming, describing, explaining, or comparing) or examples.

2 Points

- The response provides a partial answer to the task (e.g., indicates some awareness of the task and at least one text-based detail).
- The response attempts to provide sufficient, appropriate details (e.g., naming, describing, explaining, or comparing) or examples; may contain minor inaccuracies.

1 Point

- The response provides an incomplete answer to the task (e.g., indicating either a misunderstanding of the task or no text-based details.
- The response provides insufficient or inappropriate details or examples that have a major effect on accuracy.
- The response consists entirely of relevant copied text.

0 Points

- The response provides insufficient material for scoring.
- The response is inaccurate in all aspects.

Categories within zero reported separately:

BLK (blank):	No response or written refusal to respond too brief to determine response
OT:	Off task/topic
LOE:	Response in a language other than English
IL:	Illegible

TEXT-DEPENDENT ANALYSIS SCORING GUIDELINES

Score	Description
4	• Effectively addresses all parts of the task demonstrating in-depth analytic understanding of the text(s) • Effective introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Strong organizational structure that effectively supports the focus and ideas • Thorough analysis of explicit and implicit meanings from text(s) to effectively support claims, opinions, ideas, and inferences • Substantial, accurate, and direct reference to the text(s) using relevant key details, examples, quotes, facts, and/or definitions • Substantial reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Skillful use of transitions to link ideas • Effective use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Few errors, if any, are present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present do not interfere with meaning
3	• Adequately addresses all parts of the task demonstrating sufficient analytic understanding of the text(s) • Clear introduction, development, and conclusion identifying an opinion, topic, or controlling idea related to the text(s) • Appropriate organizational structure that adequately supports the focus and ideas • Clear analysis of explicit and implicit meanings from text(s) to support claims, opinions, ideas, and inferences • Sufficient, accurate, and direct reference to the text(s) using relevant details, examples, quotes, facts, and/or definitions • Sufficient reference to the main idea(s) and relevant key details of the text(s) to support the writer's purpose • Appropriate use of transitions to link ideas • Appropriate use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Some errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present seldom interfere with meaning

Score	Description
2	• Inconsistently addresses some parts of the task demonstrating partial analytic understanding of the text(s) • Weak introduction, development, and/or conclusion identifying an opinion, topic, or controlling idea somewhat related to the text(s) • Weak organizational structure that inconsistently supports the focus and ideas • Weak or inconsistent analysis of explicit and/or implicit meanings from text(s) that somewhat supports claims, opinions, ideas, and inferences • Vague reference to the text(s) using some details, examples, quotes, facts, and/or definitions • Weak reference to the main idea(s) and relevant details of the text(s) to support the writer's purpose • Inconsistent use of transitions to link ideas • Inconsistent use of precise language and domain-specific vocabulary drawn from the text(s) to explain the topic and/or to convey experiences/events • Errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present may interfere with meaning
1	• Minimally addresses part(s) of the task demonstrating inadequate analytic understanding of the text(s) • Minimal evidence of an introduction, development, and/or conclusion • Minimal evidence of an organizational structure • Insufficient or no analysis of the text(s); may or may not support claims, opinions, ideas, and inferences • Insufficient reference to the text(s) using few details, examples, quotes, facts, and/or definitions • Minimal reference to the main idea(s) and/or relevant details of the text(s) • Few, if any, transitions to link ideas • Little or no use of precise language or domain-specific vocabulary drawn from the text(s) • Many errors may be present in sentence formation, grammar, usage, spelling, capitalization, and punctuation; errors present often interfere with meaning

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR MATHEMATICS OPEN-ENDED QUESTIONS

4–The response demonstrates a *thorough* understanding of the mathematical concepts and procedures required by the task.

The response provides correct answer(s) with clear and complete mathematical procedures shown and a correct explanation, as required by the task. Response may contain a minor "blemish" or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

3–The response demonstrates a *general* understanding of the mathematical concepts and procedures required by the task.

The response and explanation (as required by the task) are mostly complete and correct. The response may have minor errors or omissions that do not detract from demonstrating a *general* understanding.

2–The response demonstrates a *partial* understanding of the mathematical concepts and procedures required by the task.

The response is somewhat correct with *partial* understanding of the required mathematical concepts and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

1–The response demonstrates a *minimal* understanding of the mathematical concepts and procedures required by the task.

0–The response has no correct answer and *insufficient* evidence to demonstrate any understanding of the mathematical concepts and procedures required by the task for that grade level.

Response may show only information copied from the question.

Special Categories within zero reported separately:

BLK (blank):	Blank, entirely erased, or written refusal to respond
OT:	Off-task
LOE:	Response in a language other than English
IL:	Illegible

GENERAL DESCRIPTION OF SCORING GUIDELINES FOR SCIENCE OPEN-ENDED QUESTIONS

3 Points

- The response demonstrates a *thorough* understanding of the scientific content, concepts, and procedures required by the task(s).
- The response provides a clear, complete, and correct response as required by the task(s). The response may contain a minor blemish or omission in work or explanation that does not detract from demonstrating a *thorough* understanding.

2 Points

- The response demonstrates a *partial* understanding of the scientific content, concepts, and procedures required by the task(s).
- The response is somewhat correct with *partial* understanding of the required scientific content, concepts, and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

1 Point

- The response demonstrates a *minimal* understanding of the scientific content, concepts, and procedures required by the task(s).
- The response is somewhat correct with *minimal* understanding of the required scientific content, concepts, and/or procedures demonstrated and/or explained. The response may contain some work that is incomplete or unclear.

0 Points

- The response provides *insufficient* evidence to demonstrate any understanding of the scientific content, concepts, and procedures as required by the task(s) for that grade level.
- The response may show only information copied or rephrased from the question or *insufficient* correct information to receive a score of 1.

Special Categories within zero reported separately:

Blank:	No response or written refusal to respond or too brief to determine response
Off Task:	Off task/topic
Foreign Language:	Response in a language other than English
Illegible:	Illegible

APPENDIX B: TALLY SHEETS

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Use place-value understanding and properties of operations to perform multi-digit arithmetic.						
	1	1		Apply place-value strategies to solve problems.		4	4		1	1
	1	1	1	Round two- and three-digit whole numbers to the nearest ten or hundred, respectively.	1		1	1		1
	1	1	2	Add two- and three-digit whole numbers and/or subtract two- and three-digit numbers from three-digit whole numbers.	1		1	1		1
	1	1	3	Multiply one-digit whole numbers by two-digit multiples of ten.	1		1	1		1
	1	1	4	Order a set of whole numbers from least to greatest or greatest to least.	1		1	1		1
	Total for Assessment Anchor A-T.1 Use place-value understanding and properties of operations to perform multi-digit arithmetic.				4	4	8	4	1	5
Total For Reporting Category A-T					4	4	8	4	1	5

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Develop an understanding of fractions as numbers.						
	1	1		Develop and apply number theory concepts to compare quantities and magnitudes of fractions and whole numbers.	1		1	1		1
	1	1	1	Demonstrate that when a whole or set is partitioned into y equal parts, the fraction 1/y represents 1 part of the whole and/or the fraction x/y represents x equal parts of the whole.	1		1	1		1
	1	1	2	Represent fractions on a number line.	1		1	1		1
	1	1	3	Recognize and generate simple equivalent fractions.	2		2	2		2
	1	1	4	Express whole numbers as fractions, and/or generate fractions that are equivalent to whole numbers.	1		1	1		1
	1	1	5	Compare two fractions with the same denominator, using the symbols >, =, or <, and/or justify the conclusions.	1		1	1		1
	Total for Assessment Anchor A-F.1 Develop an understanding of fractions as numbers.				7		7	7		7
Total For Reporting Category A-F					7		7	7		7

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Represent and solve problems involving multiplication and division.						
	1	1		Understand various meanings of multiplication and division.						
	1	1	1	Interpret and/or describe products of whole numbers.	1		1	1		1
	1	1	2	Interpret and/or describe whole-number quotients of whole numbers.	2		2	2		2
	1	2		Solve mathematical and real-world problems using multiplication and division, including determining a missing number in a multiplication and/or division equation.						
	1	2	1	Use multiplication and/or division to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.	1		1	1		1
	1	2	2	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	1		1	1		1
	Total For Assessment Anchor B-O.1 Represent and solve problems involving multiplication and division.				5		5	5		5
	2			Understand properties of multiplication and the relationship between multiplication and division.						
	2	1		Use properties to simplify and solve multiplication problems.						
	2	1	1	Apply the commutative property of multiplication (not identification or definition of the property).	1		1	1		1
	2	1	2	Apply the associative property of multiplication (not identification or definition of the property).	2		2	2		2
	2	2		Relate division to a missing-number multiplication equation.						
	2	2	1	Interpret and/or model division as a multiplication equation with an unknown factor.	2		2	2		2
	Total For Assessment Anchor B-O.2 Understand properties of multiplication and the relationship between multiplication and division.				5		5	5		5

3			Solve problems involving the four operations, and identify and explain patterns in arithmetic.	1	4	5	1	1	2
3	1		Use operations, patterns, and estimation strategies to solve problems (may include word problems).						
3	1	1	Solve two-step word problems using the four operations. Limit to problems with whole numbers and having whole-number answers.						
3	1	2	Represent two-step word problems using equations with a symbol standing for the unknown quantity. Limit to problems with whole numbers and having whole-number answers.						
3	1	3	Assess the reasonableness of answers. Limit problems posed with whole numbers and having whole-number answers.						
3	1	4	Solve two-step equations using order of operations (equation is explicitly stated with no grouping symbols).						
3	1	5	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and/or explain them using properties of operations.						
3	1	6	Create or match a story to a given combination of symbols and numbers.						
3	1	7	Identify the missing symbol that makes a number sentence true.						
Total For Assessment Anchor B-O.3 Solve problems involving the four operations, and identify and explain patterns in arithmetic.				1	4	5	1	1	2
Total For Reporting Category B-O				11	4	15	11	1	12

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Reason with shapes and their attributes.		4	4		1	1
	1	1		Analyze characteristics of polygons.	1		1	1		1
	1	1	1	Explain that shapes in different categories may share attributes and that the shared attributes can define a larger category.	1		1	1		1
	1	1	2	Recognize rhombi, rectangles, and squares as examples of quadrilaterals and/or draw examples of quadrilaterals that do not belong to any of these subcategories.	1		1	1		1
	1	1	3	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.	1		1	1		1
	Total For Assessment Anchor C-G.1 Reason with shapes and their attributes.				4	4	8	4	1	5
Total For Reporting Category C-G					4	4	8	4	1	5

Grade 03 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
	1			Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.						
	1	1		Determine or calculate time and elapsed time.						
	1	1	1	Tell, show, and/or write time (analog) to the nearest minute.	1		1	1		1
	1	1	2	Calculate elapsed time to the minute in a given situation.	1		1	1		1
	1	2		Use the attributes of liquid volume, mass, and length of objects.						
	1	2	1	Measure and estimate liquid volumes and masses of objects using standard units and metric units.	1		1	1		1
	1	2	2	Add, subtract, multiply, and divide to solve one-step word problems involving masses or liquid volumes that are given in the same units.						
	1	2	3	Use a ruler to measure lengths to the nearest quarter inch or centimeter.						
	1	3		Count, compare, and make change using a collection of coins and one-dollar bills.						
	1	3	1	Compare total values of combinations of coins and/or dollar bills less than $5.00.	1		1	1		1
	1	3	2	Make change for an amount up to $5.00 with no more than $2.00 change given.	1		1	1		1
	1	3	3	Round amounts of money to the nearest dollar.	1		1	1		1
	Total For Assessment Anchor D-M.1 Solve problems involving measurement and estimation of intervals of time, money, liquid volumes, masses, and lengths of objects.				6		6	6		6

D-M: Measurement and Data	2			Represent and interpret data.						
	2	1		Organize, display, and answer questions based on data.						
	2	1	1	Complete a scaled pictograph and a scaled bar graph to represent a data set with several categories.	1		1	1		1
	2	1	2	Solve one- and two-step problems using information to interpret data presented in scaled pictographs and scaled bar graphs.	1		1	1		1
	2	1	3	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Display the data by making a line plot, where the horizontal scale is marked in appropriate units—whole numbers, halves, or quarters.	1		1	1		1
	2	1	4	Translate information from one type of display to another. Limit to pictographs, tally charts, bar graphs, and tables.	1		1	1		1
	Total For Assessment Anchor D-M.2 Represent and interpret data.				4		4	4		4
	3			Geometric measurement: understand concepts of area and relate area to multiplication and to addition.						
	3	1		Find the areas of plane figures.	1		1	1		1
	3	1	1	Measure areas by counting unit squares.						
	3	1	2	Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real-world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	1		1	1		1
	Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of area and relate area to multiplication and to addition.				2		2	2		2

	4			Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.						
	4	1		Find and use the perimeters of plane figures.	1		1	1		1
	4	1	1	Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, exhibiting rectangles with the same perimeter and different areas, and exhibiting rectangles with the same area and different perimeters. Use the same units throughout the problem.	1		1	1		1
	Total For Assessment Anchor D-M.4 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.				2		2	2		2
Total For Reporting Category D-M					14		14	14		14

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Generalize place-value understanding for multi-digit whole numbers.						
	1	1		Apply place-value and numeration concepts to compare, find equivalencies, and round.	1		1	1		1
	1	1	1	Demonstrate an understanding that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.	1		1	1		1
	1	1	2	Read and write whole numbers in expanded, standard, and word form through 1,000,000.	1		1	1		1
	1	1	3	Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using >, =, and < symbols.	1		1	1		1
	1	1	4	Round multi-digit whole numbers to any place.	1		1	1		1
	Total For Assessment Anchor A-T.1 Generalize place-value understanding for multi-digit whole numbers.				5		5	5		5
	2			Use place-value understanding and properties of operations to perform multi-digit arithmetic.	1		1	1		1
	2	1		Use operations to solve problems.						
	2	1	1	Add and subtract multi-digit whole numbers.	1		1	1		1
	2	1	2	Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.	1		1	1		1
	2	1	3	Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders.	1		1	1		1
	2	1	4	Estimate the answer to addition, subtraction, and multiplication problems using whole numbers through six digits.	1		1	1		1
	Total For Assessment Anchor A-T.2 Use place-value understanding and properties of operations to perform multi-digit arithmetic.				5		5	5		5
Total For Reporting Category A-T					10		10	10		10

Grade 04

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Extend understanding of fraction equivalence and ordering.						
	1	1		Find equivalencies and compare fractions.						
	1	1	1	Recognize and generate equivalent fractions.	1		1	1		1
	1	1	2	Compare two fractions with different numerators and different denominators using the symbols >, =, or < and justify the conclusions.	1		1	1		1
	Total For Assessment Anchor A-F.1 Extend understanding of fraction equivalence and ordering.				2		2	2		2
	2			Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.						
	2	1		Solve problems involving fractions and whole numbers (straight computation or word problems).						
	2	1	1	Add and subtract fractions with a common denominator.						
	2	1	2	Decompose a fraction or a mixed number into a sum of fractions with the same denominator.	1		1	1		1
	2	1	3	Add and subtract mixed numbers with a common denominator.						
	2	1	4	Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators.	1		1	1		1
	2	1	5	Multiply a whole number by a unit fraction.	1		1	1		1
	2	1	6	Multiply a whole number by a non-unit fraction.	1		1	1		1
	2	1	7	Solve word problems involving multiplication of a whole number by a fraction.	1		1	1		1
	Total For Assessment Anchor A-F.2 Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.				5		5	5		5

	3			Understand decimal notation for fractions and compare decimal fractions.						
	3	1		Use operations to solve problems involving decimals, including converting between fractions and decimals.	1		1	1		1
	3	1	1	Add two fractions with respective denominators 10 and 100.	1		1	1		1
	3	1	2	Use decimal notation for fractions with denominators of 10 or 100.	1		1	1		1
	3	1	3	Compare two decimals to hundredths using the symbols >, =, or <, and justify the conclusions.	1		1	1		1
	Total For Assessment Anchor A-F.3 Understand decimal notation for fractions and compare decimal fractions.				4		4	4		4
Total For Reporting Category A-F					11		11	11		11

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Use the four operations with whole numbers to solve problems.						
	1	1		Use numbers and symbols to model the concepts of expressions and equations.						
	1	1	1	Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.	1		1	1		1
	1	1	2	Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison.	1		1	1		1
	1	1	3	Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.	1		1	1		1
	1	1	4	Identify the missing symbol that makes a number sentence true.	1		1	1		1
	Total For Assessment Anchor B-O.1 Use the four operations with whole numbers to solve problems.				4		4	4		4
	2			Gain familiarity with factors and multiples.		4	4		1	1
	2	1		Develop and apply number theory concepts to represent numbers in various ways.	1		1	1		1
	2	1	1	Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is a multiple of a given one-digit number. Determine whether a given whole number in the interval 1 through 100 is prime or composite.	1		1	1		1
	Total For Assessment Anchor B-O.2 Gain familiarity with factors and multiples.				2	4	6	2	1	3

	3			Generate and analyze patterns.						
	3	1		Recognize, describe, extend, create, and replicate a variety of patterns.						
	3	1	1	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.	1		1	1		1
	3	1	2	Determine the missing elements in a function table.	1		1	1		1
	3	1	3	Determine the rule for a function given a table.	1		1	1		1
	Total For Assessment Anchor B-O.3 Generate and analyze patterns.				3		3	3		3
Total For Reporting Category B-O					9	4	13	9	1	10

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Draw and identify lines and angles, and classify shapes by properties of their lines and angles.		4	4		1	1
	1	1		List properties, classify, draw, and identify geometric figures in two dimensions.	1		1	1		1
	1	1	1	Draw points, lines, line segments, rays, angles, and perpendicular and parallel lines. Identify these in two-dimensional figures.	1		1	1		1
	1	1	2	Classify two-dimensional figures based on the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	1		1	1		1
	1	1	3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry.	1		1	1		1
	Total For Assessment Anchor C-G.1 Draw and identify lines and angles, and classify shapes by properties of their lines and angles.				4	4	8	4	1	5
Total For Reporting Category C-G					4	4	8	4	1	5

Grade 04 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
asurement and Data	1			Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.		4	4		1	1
	1	1		Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.						
	1	1	1	Know relative sizes of measurement units within one system of units including standard units, metric units, and time. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.						
	1	1	2	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.	1		1	1		1
	1	1	3	Apply the area and perimeter formulas for rectangles in real-world and mathematical problems.						
	1	1	4	Identify time (analog or digital) as the amount of minutes before or after the hour.						
	Total For Assessment Anchor D-M.1 Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.				1	4	5	1	1	2

D-M: Me	2			Represent and interpret data.						
	2	1		Organize, display, and answer questions based on data.	1		1	1		1
	2	1	1	Make a line plot to display a data set of measurements in fractions of a unit.	1		1	1		1
	2	1	2	Solve problems involving addition and subtraction of fractions by using information presented in line plots.	1		1	1		1
	2	1	3	Translate information from one type of display to another.						
	Total For Assessment Anchor D-M.2 Represent and interpret data.				3		3	3		3
	3			Geometric measurement: understand concepts of angle; measure and create angles.						
	3	1		Use appropriate tools and units to sketch an angle and determine angle measurements.						
	3	1	1	Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of a specified measure.	1		1	1		1
	3	1	2	Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems.	1		1	1		1
	Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of angle; measure and create angles.				2		2	2		2
Total For Reporting Category D-M					6	4	10	6	1	7

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-T: Numbers and Operations in Base Ten	1			Understand the place-value system.		4	4		1	1
	1	1		Demonstrate understanding of place-value of whole numbers and decimals, and compare quantities or magnitudes of numbers.						
	1	1	1	Demonstrate an understanding that in a multi-digit number, a digit in one place represents 1/10 of what it represents in the place to its left.	1		1	1		1
	1	1	2	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	1		1	1		1
	1	1	3	Read and write decimals to thousandths using base-ten numerals, word form, and expanded form.	1		1	1		1
	1	1	4	Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols.						
	1	1	5	Round decimals to any place.	1		1	1		1
	Total For Assessment Anchor A-T.1 Understand the place-value system.				4	4	8	4	1	5
	2			Perform operations with multi-digit whole numbers and with decimals to hundredths.						
	2	1		Use whole numbers and decimals to compute accurately.	1		1	1		1
	2	1	1	Multiply multi-digit whole numbers.	1		1	1		1
	2	1	2	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors.	2		2	2		2
	2	1	3	Add, subtract, multiply, and divide decimals to hundredths.	1		1	1		1
	Total For Assessment Anchor A-T.2 Perform operations with multi-digit whole numbers and with decimals to hundredths.				5		5	5		5
Total For Reporting Category A-T					9	4	13	9	1	10

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-F: Numbers and Operations—Fractions	1			Use equivalent fractions as a strategy to add and subtract fractions.						
	1	1		Solve addition and subtraction problems involving fractions.						
	1	1	1	Add and subtract fractions with unlike denominators.	3		3	3		3
	Total For Assessment Anchor A-F.1 Use equivalent fractions as a strategy to add and subtract fractions.				3		3	3		3
	2			Apply and extend previous understandings of multiplication and division to multiply and divide fractions.						
	2	1		Solve multiplication and division problems involving fractions and whole numbers.	2		2	2		2
	2	1	1	Solve word problems involving division of whole numbers leading to answers in the form of fractions.	2		2	2		2
	2	1	2	Multiply a fraction by a fraction.	3		3	3		3
	2	1	3	Demonstrate an understanding of multiplication as scaling.	2		2	2		2
	2	1	4	Divide unit fractions by whole numbers and whole numbers by unit fractions.	2		2	2		2
	Total For Assessment Anchor A-F.2 Apply and extend previous understandings of multiplication and division to multiply and divide fractions.				11		11	11		11
Total For Reporting Category A-F					14		14	14		14

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-O: Operations and Algebraic Thinking	1			Write and interpret numerical expressions.		4	4		1	1
	1	1		Analyze and complete calculations by applying the order of operations.						
	1	1	1	Use multiple grouping symbols in numerical expressions and evaluate expressions containing these symbols.	1		1	1		1
	1	1	2	Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them.	1		1	1		1
	Total For Assessment Anchor B-O.1 Write and interpret numerical expressions.				2	4	6	2	1	3
	2			Analyze patterns and relationships.						
	2	1		Create, extend, and analyze patterns.						
	2	1	1	Generate two numerical patterns using two given rules.	1		1	1		1
	2	1	2	Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rules.	1		1	1		1
	Total For Assessment Anchor B-O.2 Analyze patterns and relationships.				2		2	2		2
Total For Reporting Category B-O					4	4	8	4	1	5

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Graph points on the coordinate plane to solve real-world and mathematical problems.	1		1	1		1
	1	1		Identify parts of a coordinate grid and describe or interpret points given an ordered pair.	1		1	1		1
	1	1	1	Identify parts of the coordinate plane and the ordered pair. Limit the coordinate plane to quadrant I.	1		1	1		1
	1	1	2	Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane and interpret coordinate values of points in the context of the situation.	2		2	2		2
	Total For Assessment Anchor C-G.1 Graph points on the coordinate plane to solve real-world and mathematical problems.				5		5	5		5
	2			Classify two-dimensional figures into categories based on their properties.						
	2	1		Use basic properties to classify two-dimensional figures.						
	2	1	1	Classify two-dimensional figures in a hierarchy based on properties.	2		2	2		2
	Total For Assessment Anchor C-G.2 Classify two-dimensional figures into categories based on their properties.				2		2	2		2
Total For Reporting Category C-G					7		7	7		7

Grade 05 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
D-M: Measurement and Data	1			Convert like measurement units within a given measurement system.						
	1	1		Solve problems using simple conversions.						
	1	1	1	Convert between different-sized measurement units within a given measurement system.	1		1	1		1
	Total for Assessment Anchor D-M.1 Convert like measurement units within a given measurement system.				1		1	1		1
	2			Represent and interpret data.						
	2	1		Organize, display, and answer questions based on data.	1	4	5	1	1	2
	2	1	1	Solve problems involving computation of fractions by using information presented in line plots.	1		1	1		1
	2	1	2	Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. A grid will be provided to display data on bar graphs or line graphs.	1		1	1		1
	Total For Assessment Anchor D-M.2 Represent and interpret data.				3	4	7	3	1	4
	3			Geometric measurement: understand concepts of volume and relate volume to mutliplication and to addition.						
	3	1		Use, describe, and develop procedures to solve problems involving volume.						
	3	1	1	Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms with whole-number edge lengths in the context of solving real-world and mathematical problems.	1		1	1		1
	3	1	2	Find volumes of solid figures composed of two non-overlapping right rectangular prisms.	1		1	1		1
	Total For Assessment Anchor D-M.3 Geometric measurement: understand concepts of volume and relate volume to mutliplication and to addition.				2		2	2		2
Total For Reporting Category D-M					6	4	10	6	1	7

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-N: The Number System	1			Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1		1	1		1
	1	1		Solve real-world and mathematical problems involving division of fractions.						
	1	1	1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions.	1		1	1		1
	Total For Assessment Anchor A-N.1 Apply and extend previous understandings of multiplication and division to divide fractions by fractions.				2		2	2		2
	2			Compute with multi-digit numbers and find common factors and multiples.						
	2	1		Compute with multi-digit numbers using the four arithmetic operations with or without a calculator.						
	2	1	1	Solve problems involving operations with whole numbers, decimals, straight computation, or word problems.	2		2	2		2
	2	2		Apply number theory concepts.	1		1	1		1
	2	2	1	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12.						
	2	2	2	Apply the distributive property to express a sum of two whole numbers, 1 through 100, with a common factor as a multiple of a sum of two whole numbers with no common factor.						
	Total For Assessment Anchor A-N.2 Compute with multi-digit numbers and find common factors and multiples.				3		3	3		3

3			Apply and extend previous understandings of numbers to the system of rational numbers.		4	4		1	1
3	1		Understand that positive and negative numbers are used together to describe quantities having opposite directions or values and locations on the number line and coordinate plane.						
3	1	1	Represent quantities in real-world contexts using positive and negative numbers, explaining the meaning of 0 in each situation.						
3	1	2	Determine the opposite of a number and recognize that the opposite of the opposite of a number is the number itself.						
3	1	3	Locate and plot integers and other rational numbers on a horizontal or vertical number line; locate and plot pairs of integers and other rational numbers on a coordinate plane.	1		1	1		1
3	2		Understand ordering and absolute value of rational numbers.						
3	2	1	Write, interpret, and explain statements of order for rational numbers in real-world contexts.	1		1	1		1
3	2	2	Interpret the absolute value of a rational number as its distance from 0 on the number line and as a magnitude for a positive or negative quantity in a real-world situation.						
3	2	3	Solve real-world and mathematical problems by plotting points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.						
Total For Assessment Anchor A-N.3 Apply and extend previous understandings of numbers to the system of rational numbers.				2	4	6	2	1	3
Total For Reporting Category A-N				7	4	11	7	1	8

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-R: Ratios and Proportional Relationships	1			Understand ratio concepts and use ratio reasoning to solve problems.						
	1	1		Represent and/or solve real-world and mathematical problems using rates, ratios, and/or percents.						
	1	1	1	Use ratio language and notation to describe a ratio relationship between two quantities.	2		2	2		2
	1	1	2	Find the unit rate a/b associated with a ratio a:b and use rate language in the context of a ratio relationship.	2		2	2		2
	1	1	3	Construct tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and/or plot the pairs of values on the coordinate plane. Use tables to compare ratios.	1		1	1		1
	1	1	4	Solve unit rate problems including those involving unit pricing and constant speed.	2		2	2		2
	1	1	5	Find a percent of a quantity as a rate per 100; solve problems involving finding the whole, given a part and the percentage.	2		2	2		2
	Total For Assessment Anchor A-R.1 Understand ratio concepts and use ratio reasoning to solve problems.				9		9	9		9
Total For Reporting Category A-R					9		9	9		9

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-E: Expressions and Equations	1			Apply and extend previous understandings of arithmetic to numerical and algebraic expressions.		4	4		1	1
	1	1		Identify, write, and evaluate numerical and algebraic expressions.						
	1	1	1	Write and evaluate numerical expressions involving whole-number exponents.	1		1	1		1
	1	1	2	Write algebraic expressions from verbal descriptions.	1		1	1		1
	1	1	3	Identify parts of an expression using mathematical terms.						
	1	1	4	Evaluate expressions at specific values of their variables, including expressions that arise from formulas used in real-world problems.	1		1	1		1
	1	1	5	Apply the properties of operations to generate equivalent expressions.						
	Total For Assessment Anchor B-E.1 Apply and extend previous understandings of arithmetic to numerical and algebraic expressions.				3	4	7	3	1	4
	2			Interpret and solve one-variable equations and inequalities.						
	2	1		Create, solve, and interpret one-variable equations or inequalities in real-world and mathematical problems.						
	2	1	1	Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	1		1	1		1
	2	1	2	Write algebraic expressions to represent real-world or mathematical problems.	1		1	1		1
	2	1	3	Solve real-world and mathematical problems by writing and solving equations of the form x + p = q and px = q for cases in which p, q, and x are all non-negative rational numbers.	1		1	1		1
	2	1	4	Write an inequality of the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem and/or represent solutions of such inequalities on number lines.	1		1	1		1
	Total For Assessment Anchor B-E.2 Interpret and solve one-variable equations and inequalities.				4		4	4		4

	3			Represent and analyze quantitative relationships between dependent and independent variables.						
	3	1		Use variables to represent two quantities in a real-world problem that change in relationship to one another.	1		1	1		1
	3	1	1	Write an equation to express the relationship between the dependent and independent variables.	1		1	1		1
	3	1	2	Analyze the relationship between the dependent and independent variables using graphs and tables and/or relate these to an equation.	1		1	1		1
	Total For Assessment Anchor B-E.3 Represent and analyze quantitative relationships between dependent and independent variables.				3		3	3		3
Total For Reporting Category B-E					10	4	14	10	1	11

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Solve real-world and mathematical problems involving area, surface area, and volume.						
	1	1		Find area, surface area, and volume by applying formulas and using various strategies.						
	1	1	1	Determine the area of triangles and special quadrilaterals.	1		1	1		1
	1	1	2	Determine the area of irregular or compound polygons.	1		1	1		1
	1	1	3	Determine the volume of right rectangular prisms with fractional edge lengths.	2		2	2		2
	1	1	4	Given coordinates for the vertices of a polygon in the plane, use the coordinates to find side lengths and area of the polygon.	1		1	1		1
	1	1	5	Represent three-dimensional figures using nets made of rectangles and triangles.	1		1	1		1
	1	1	6	Determine the surface area of triangular and rectangular prisms.	2		2	2		2
	Total For Assessment Anchor C-G.1 Solve real-world and mathematical problems involving area, surface area, and volume.				8		8	8		8
Total For Reporting Category C-G					8		8	8		8

Grade 06 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
D-S: Statistics and Probability	1			Demonstrate understanding of statistical variability by summarizing and describing distributions.						
	1	1		Display, analyze, and summarize numerical data sets in relation to their context.		4	4		1	1
	1	1	1	Display numerical data in plots on a number line, including line plots, histograms, and box-and-whisker plots.	2		2	2		2
	1	1	2	Determine quantitative measures of center and variability.	1		1	1		1
	1	1	3	Describe any overall pattern and any deviations from the overall pattern with reference to the context in which the data were gathered.	2		2	2		2
	1	1	4	Relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.	1		1	1		1
	Total For Assessment Anchor D-S.1 Demonstrate understanding of statistical variability by summarizing and describing distributions.				6	4	10	6	1	7
Total For Reporting Category D-S					6	4	10	6	1	7

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-N: The Number System	1			Apply and extend previous understandings of operations to add, subtract, multiply, and divide rational numbers.	2		2	2		2
	1	1		Solve real-world and mathematical problems involving the four operations with rational numbers.						
	1	1	1	Apply properties of operations to add and subtract rational numbers, including real-world contexts.	2		2	2		2
	1	1	2	Represent addition and subtraction on a horizontal or vertical number line.	2		2	2		2
	1	1	3	Apply properties of operations to multiply and divide rational numbers, including real-world contexts; demonstrate that the decimal form of a rational number terminates or eventually repeats.	2		2	2		2
	Total For Assessment Anchor A-N.1 Apply and extend previous understandings of operations to add, subtract, multiply, and divide rational numbers.				8		8	8		8
Total For Reporting Category A-N					8		8	8		8

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-R: Ratios and Proportional Relationships	1			Demonstrate an understanding of proportional relationships.		4	4		1	1
	1	1		Analyze, recognize, and represent proportional relationships and use them to solve real-world and mathematical problems.	1		1	1		1
	1	1	1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.	1		1	1		1
	1	1	2	Determine whether two quantities are proportionally related.	2		2	2		2
	1	1	3	Identify the constant of proportionality in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	1		1	1		1
	1	1	4	Represent proportional relationships by equations.	1		1	1		1
	1	1	5	Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation, with special attention to the points (0, 0) and (1, r), where r is the unit rate.	2		2	2		2
	1	1	6	Use proportional relationships to solve multi-step ratio and percent problems.	2		2	2		2
	Total For Assessment Anchor A-R.1 Demonstrate an understanding of proportional relationships.				10	4	14	10	1	11
Total For Reporting Category A-R					10	4	14	10	1	11

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-E: Expressions and Equations	1			Represent expressions in equivalent forms.						
	1	1		Use properties of operations to generate equivalent expressions.						
	1	1	1	Apply properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.	2		2	2		2
	Total For Assessment Anchor B-E.1 Represent expressions in equivalent forms.				2		2	2		2
	2			Solve real-world and mathematical problems using numerical and algebraic expressions, equations, and inequalities.	1	4	5	1	1	2
	2	1		Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers.						
	2	1	1	Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate.	1		1	1		1
	2	2		Use variables to represent quantities in a real-world or mathematical problem and construct simple equations and inequalities to solve problems.						
	2	2	1	Solve word problems leading to equations of the form $px + q = r$ and $p(x+q) = r$, where p, q, and r are specific rational numbers.	2		2	2		2
	2	2	2	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers, and graph the solution set of the inequality.	1		1	1		1
	2	3		Determine the reasonableness of the answer(s) in problem-solving situations.						
	2	3	1	Determine the reasonableness of answer(s) or interpret the solution(s) in the context of the problem.	2		2	2		2
	Total For Assessment Anchor B-E.2 Solve real-world and mathematical problems using numerical and algebraic expressions, equations, and inequalities.				7	4	11	7	1	8
Total For Reporting Category B-E					9	4	13	9	1	10

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Demonstrate an understanding of geometric figures and their properties.	1		1	1		1
	1	1		Demonstrate and apply properties of geometric figures.						
	1	1	1	Solve problems involving scale drawings of geometric figures, including finding length and area.	1		1	1		1
	1	1	2	Identify or describe the properties of all types of triangles based on angle and side measures.	2		2	2		2
	1	1	3	Use and apply the triangle inequality theorem.	1		1	1		1
	1	1	4	Describe the two-dimensional figures that result from slicing three-dimensional figures.						
	Total For Assessment Anchor C-G.1 Demonstrate an understanding of geometric figures and their properties.				5		5	5		5
	2			Solve real-world and mathematical problems involving angle measure, circumference, area, surface area, and volume.						
	2	1		Identify, use, and describe properties of angles and their measures.						
	2	1	1	Identify and use properties of supplementary, complementary, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.						
	2	1	2	Identify and use properties of angles formed when two parallel lines are cut by a transversal.	1		1	1		1
	2	2		Determine circumference, area, surface area, and volume.	1		1	1		1
	2	2	1	Find the area and circumference of a circle. Solve problems involving area and circumference of a circle(s).	1		1	1		1
	2	2	2	Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	1		1	1		1
	Total For Assessment Anchor C-G.2 Solve real-world and mathematical problems involving angle measure, circumference, area, surface area, and volume.				4		4	4		4
Total For Reporting Category C-G					9		9	9		9

Grade 07 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
D-S: Statistics and Probability	1			Use random sampling to draw inferences about a population.		4	4		1	1
	1	1		Use random samples.						
	1	1	1	Determine whether a sample is a random given a real-world situation.	1		1	1		1
	1	1	2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.						
	Total For Assessment Anchor D-S.1 Use random sampling to draw inferences about a population.				1	4	5	1	1	2
	2			Draw comparative inferences about populations.						
	2	1		Use statistical measures to compare two numerical data distributions.						
	2	1	1	Compare two numerical data distributions using measures of center and variability.	1		1	1		1
	Total For Assessment Anchor D-S.2 Draw comparative inferences about populations.				1		1	1		1
	3			Investigate chance processes and develop, use, and evaluate probability models.						
	3	1		Predict or determine the likelihood of outcomes.						
	3	1	1	Predict or determine whether some outcomes are certain, more likely, less likely, equally likely, or impossible.	1		1	1		1
	3	2		Use probability to predict outcomes.						
	3	2	1	Determine the probability of a chance event given relative frequency. Predict the approximate relative frequency given the probability.	1		1	1		1
	3	2	2	Find the probability of a simple event, including the probability of a simple event not occurring.						
	3	2	3	Find probabilities of independent compound events using organized lists, tables, tree diagrams, and simulation.						
	Total For Assessment Anchor D-S.3 Investigate chance processes and develop, use, and evaluate probability models.				2		2	2		2
Total For Reporting Category D-S					4	4	8	4	1	5

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
A-N: The Number System	1			Demonstrate an understanding of rational and irrational numbers.		4	4		1	1
	1	1		Apply concepts of rational and irrational numbers.						
	1	1	1	Determine whether a number is rational or irrational. For rational numbers, show that the decimal expansion terminates or repeats.	1		1	1		1
	1	1	2	Convert a terminating or repeating decimal to a rational number.	1		1	1		1
	1	1	3	Estimate the value of irrational numbers without a calculator.	1		1	1		1
	1	1	4	Use rational approximations of irrational numbers to compare and order irrational numbers.	1		1	1		1
	1	1	5	Locate/identify rational and irrational numbers at their approximate locations on a number line.						
	Total For Assessment Anchor A-N.1 Demonstrate an understanding of rational and irrational numbers.				4	4	8	4	1	5
Total For Reporting Category A-N					4	4	8	4	1	5

Grade 08					Mathematics					
Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
	1			Demonstrate an understanding of expressions and equations with radicals and integer exponents.						
	1	1		Represent and use expressions and equations to solve problems involving radicals and integer exponents.	1		1	1		1
	1	1	1	Apply one or more properties of integer exponents to generate equivalent numerical expressions without a calculator.	1		1	1		1
	1	1	2	Use square root and cube root symbols to represent solutions to equations of the form x^2 = p and x^3 = p, where p is a positive rational number. Evaluate square roots of perfect squares and cube roots of perfect cubes without a calculator.	1		1	1		1
	1	1	3	Estimate very large or very small quantities by using numbers expressed in the form of a single digit times an integer power of 10 and express how many times larger or smaller one number is than another.	1		1	1		1
	1	1	4	Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Express answers in scientific notation and choose units of appropriate size for measurements of very large or very small quantities. Interpret scientific notation that has been generated by technology.	1		1	1		1
Total For Assessment Anchor B-E.1 Demonstrate an understanding of expressions and equations with radicals and integer exponents.					5		5	5		5

B-E: Expressions and Equations	2			Understand the connections between proportional relationships, lines, and linear equations.						
	2	1		Analyze and describe linear relationships between two variables, using slope.	1		1	1		1
	2	1	1	Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways.	1		1	1		1
	2	1	2	Use similar right triangles to show and explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane.	1		1	1		1
	2	1	3	Derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.	1		1	1		1
	Total For Assessment Anchor B-E.2 Understand the connections between proportional relationships, lines, and linear equations.				4		4	4		4

	3			Analyze and solve linear equations and pairs of simultaneous linear equations.						
	3	1		Write, solve, graph, and interpret linear equations in one or two variables, using various methods.	1		1	1		1
	3	1	1	Write and identify linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms until an equivalent equation of the form x = a, a = a, or a = b results.	1		1	1		1
	3	1	2	Solve linear equations that have rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.	1		1	1		1
	3	1	3	Interpret solutions to a system of two linear equations in two variables as points of intersection of their graphs because points of intersection satisfy both equations simultaneously.	1		1	1		1
	3	1	4	Solve systems of two linear equations in two variables algebraically and estimate solutions by graphing the equations. Solve simple cases by inspection.	1		1	1		1
	3	1	5	Solve real-world and mathematical problems leading to two linear equations in two variables.	2		2	2		2
	Total For Assessment Anchor B-E.3 Analyze and solve linear equations and pairs of simultaneous linear equations.				7		7	7		7
Total For Reporting Category B-E					16		16	16		16

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
B-F: Functions	1			Analyze and interpret functions.						
	1	1		Define, evaluate, and compare functions displayed algebraically, graphically, or numerically in tables or by verbal descriptions.						
	1	1	1	Determine whether a relation is a function.	2		2	2		2
	1	1	2	Compare properties of two functions, each represented in a different way.	1		1	1		1
	1	1	3	Interpret the equation y = mx + b as defining a linear function whose graph is a straight line; give examples of functions that are not linear.	2		2	2		2
	Total For Assessment Anchor B-F.1 Analyze and interpret functions.				5		5	5		5
	2			Use functions to model relationships between quantities.		4	4		1	1
	2	1		Represent or interpret functional relationships between quantities using tables, graphs, and descriptions.	1		1	1		1
	2	1	1	Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values.	1		1	1		1
	2	1	2	Describe qualitatively the functional relationship between two quantities by analyzing a graph. Sketch or determine a graph that exhibits the qualitative features of a function that has been described verbally.						
	Total For Assessment Anchor B-F.2 Use functions to model relationships between quantities.				2	4	6	2	1	3
Total For Reporting Category B-F					7	4	11	7	1	8

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
C-G: Geometry	1			Demonstrate an understanding of geometric transformations.						
	1	1		Apply properties of geometric transformations to verify congruence or similarity.						
	1	1	1	Identify and apply properties of rotations, reflections, and translations.	1		1	1		1
	1	1	2	Given two congruent figures, describe a sequence of transformations that exhibits the congruence between them.	1		1	1		1
	1	1	3	Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.	1		1	1		1
	1	1	4	Given two similar two-dimensional figures, describe a sequence of transformations that exhibits the similarity between them.	1		1	1		1
	Total For Assessment Anchor C-G.1 Demonstrate an understanding of geometric transformations.				4		4	4		4
	2			Understand and apply the Pythagorean theorem.						
	2	1		Solve problems involving right triangles by applying the Pythagorean theorem.						
	2	1	1	Apply the converse of the Pythagorean theorem to show a triangle is a right triangle.	1		1	1		1
	2	1	2	Apply the Pythagorean theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.	1		1	1		1
	2	1	3	Apply the Pythagorean theorem to find the distance between two points in a coordinate system.	1		1	1		1
	Total For Assessment Anchor C-G.2 Understand and apply the Pythagorean theorem.				3		3	3		3

	3			Solve real-world and mathematical problems involving volume.						
	3	1		Apply volume formulas of cones, cylinders, and spheres.						
	3	1	1	Apply formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems.	2		2	2		2
	Total For Assessment Anchor C-G.3 Solve real-world and mathematical problems involving volume.				2		2	2		2
Total For Reporting Category C-G					9		9	9		9

Grade 08 **Mathematics**

Reporting Category	Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points			Items		
					Total Core Points			Total Number of Core Items		
					MC	OE	Total	MC	OE	Total
D-S: Statistics and Probability	1			Investigate patterns of association in bivariate data.						
	1	1		Analyze and interpret bivariate data displayed in multiple representations.	1		1	1		1
	1	1	1	Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative correlation, linear association, and nonlinear association.	1		1	1		1
	1	1	2	For scatter plots that suggest a linear association, identify a line of best fit by judging the closeness of the data points to the line.	1		1	1		1
	1	1	3	Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpeting the slope and intercept.	1		1	1		1
	1	2		Understand that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table.						
	1	2	1	Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible associations between the two variables.		4	4		1	1
	Total For Assessment Anchor D-S.1 Investigate patterns of association in bivariate data.				4	4	8	4	1	5
Total For Reporting Category D-S					4	4	8	4	1	5

Grade 03

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	2	2	3	7	2	1	1	4
		1	1	2	Recount poems, dramas, or stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.	2			2	2			2
		1	1	3	Describe characters in a story and explain how their actions contribute to the sequence of events.	1	3		4	1	1		2
		Total For Assessment Anchor A-K.1 Key Ideas and Details				5	5	3	13	5	2	1	8
	A-C	2	1	1	Explain the point of view from which a story is narrated, including the difference between first- and third-person narrations.	2			2	2			2
		Total For Assessment Anchor A-C.2 Craft and Structure				2			2	2			2
	A-C	3	1	1	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of word relationships and nuances in word meanings.	2			2	2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				3			3	3			3
Total For Reporting Category A						10	5	3	18	10	2	1	13

Grade 03

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	1			1	1			1
		1	1	2	Determine the main idea of a text; recount the key details and explain how they support the main idea.	1	2		3	1	1		2
		1	1	3	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.	2	3	3	8	2	1	1	4
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	5	3	12	4	2	1	7
	B-C	2	1	1	Explain the point of view from which a text is written.	2			2	2			2
		2	1	2	Use text features and search tools to efficiently locate information relevant to a given topic.	1			1	1			1
		Total For Assessment Anchor B-C.2 Craft and Structure				3			3	3			3
	B-C	3	1	1	Describe the logical connection between particular sentences and paragraphs to support specific points in a text.	1			1	1			1
		3	1	2	Compare and contrast the most important points and key details presented in two texts on the same topic.	1			1	1			1
		3	1	3	Use information gained from illustrations, maps, photographs, and the words in a text to demonstrate understanding of the text.								
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				2			2	2			2
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of word relationships and nuances in word meanings.								
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				1			1	1			1
Total For Reporting Category B						10	5	3	18	10	2	1	13

Grade 03

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons.								
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.								
		1	3		Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 03

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences.								
		1	1	2	Form and use regular and irregular plural nouns.	1			1	1			1
		1	1	3	Use abstract nouns.								
		1	1	4	Form and use regular and irregular verbs.	1			1	1			1
		1	1	5	Form and use the simple verb tenses.								
		1	1	6	Ensure subject-verb and prounoun-antecedent agreement.	1			1	1			1
		1	1	7	Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified.								
		1	1	8	Use coordinating and subordinating conjunctions.	1			1	1			1
		1	1	9	Produce simple, compound, and complex sentences.	1			1	1			1
		1	2	1	Capitalize appropriate words in titles.	1			1	1			1
		1	2	2	Use commas in addresses.								
		1	2	3	Use commas and quotation marks in dialogue.								
		1	2	4	Form and use possessives.	1			1	1			1
		1	2	5	Use conventional spelling for high-frequency and other studied words and for adding suffixes to base words.	1			1	1			1
		1	2	6	Use spelling patterns and generalizations in writing words.								
		Total For Assessment Anchor D.1 Conventions of Standard English				8			8	8			8
		2	1	1	Choose words and phrases for effect.	1			1	1			1
		Total For Assessment Anchor D.2 Knowledge of Language				1			1	1			1
Total For Reporting Category D						9			9	9			9

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Refer to details and examples in a text when explaining what the text explicitly says and when drawing inferences from the text.	3			3	3			3
		1	1	2	Determine a theme of a story, drama, or poem from details in the text; summarize the text.	2	5		7	2	2		4
		1	1	3	Describe in depth a character, setting, or event in a story, drama, or poem, drawing on specific details in the text.	2			2	2			2
		Total For Assessment Anchor A-K.1 Key Ideas and Details				7	5		12	7	2		9
	A-C	2	1	1	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	2			2	2			2
		Total For Assessment Anchor A-C.2 Craft and Structure				2			2	2			2
		3	1	1	Compare and contrast the treatment of similar themes and topics and patterns of events in stories, myths, and traditional literature from different cultures.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	2			2	2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				3			3	3			3
Total For Reporting Category A						12	5		17	12	2		14

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	2			2	2			2
		1	1	2	Determine the main idea of a text and explain how it is supported by key details; summarize the text.	1	5		6	1	2		3
		1	1	3	Explain events, procedures, ideas, steps, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.	1			1	1			1
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	5		9	4	2		6
	B-C	2	1	1	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in focus and the information provided.								
		2	1	2	Describe the overall structure of events, ideas, concepts, or information and text features in a text or part of a text.	2			2	2			2
		Total For Assessment Anchor B-C.2 Craft and Structure				2			2	2			2
	B-C	3	1	1	Explain how an author uses reasons and evidence to support particular points in a text.	1	5		6	1	2		3
		3	1	2	Integrate information from two texts on the same topic in order to demonstrate subject knowledge.								
		3	1	3	Interpret text features and/or make connections between text and the content of text features.	1			1	1			1
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				2	5		7	2	2		4
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.	2			2	2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				3			3	3			3
Total For Reporting Category B						11	10		21	11	4		15

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons and information.								
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.								
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, descriptive details, and clear event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
D: Language	D	1	1	1	Use relative pronouns and relative adverbs.								
		1	1	2	Form and use the progressive verb tenses.								
		1	1	3	Use modal auxiliaries to convey various conditions.	1			1	1			1
		1	1	4	Order adjectives within sentences according to conventional patterns.	1			1	1			1
		1	1	5	Form and use prepositional phrases.								
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	1			1	1			1
		1	1	7	Correctly use frequently confused words.	1			1	1			1
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.								
		1	2	1	Use correct capitalization.	1			1	1			1
		1	2	2	Use commas and quotation marks to mark direct speech and quotations from a text.	1			1	1			1
		1	2	3	Use a comma before a coordinating conjunction in a compound sentence.	1			1	1			1
		1	2	4	Spell grade-appropriate words correctly.								
		Total For Assessment Anchor D.1 Conventions of Standard English				7			7	7			7
	D	2	1	1	Choose words and phrases to convey ideas precisely.	1			1	1			1
		2	1	2	Choose punctuation for effect.								
		2	1	3	Choose words and phrases for effect.	1			1	1			1
		Total For Assessment Anchor D.2 Knowledge of Language				2			2	2			2
Total For Reporting Category D						9			9	9			9

Grade 04 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			4	4			1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						4	4			1	1
Total For Reporting Category E								4	4			1	1

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
A: Literature Text	A-K	1	1	1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences and/or making generalizations from the text.	2			2	2			2
		1	1	2	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.	3	2		5	3	1		4
		1	1	3	Compare and contrast two or more characters, settings, or events in a story, drama, or poem, drawing on specific details in the text.	1	3		4	1	1		2
		Total For Assessment Anchor A-K.1 Key Ideas and Details				6	5		11	6	2		8
	A-C	2	1	1	Describe how a narrator's or speaker's point of view influences how events are described; describe an author's purpose and explain how it is conveyed in the text.	2	2		4	2	1		3
		Total For Assessment Anchor A-C.2 Craft and Structure				2	2		4	2	1		3
	A-C	3	1	1	Compare and contrast stories in the same genre on their approaches to similar themes and topics.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	2			2	2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2			2	2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				4			4	4			4
Total For Reporting Category A						12	7		19	12	3		15

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
B: Informational Text	B-K	1	1	1	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences and/or making generalizations from the text.	3			3	3			3
		1	1	2	Determine two or more main ideas of a text and explain how they are supported by key details; summarize the text.	1			1	1			1
		1	1	3	Explain the relationships or interactions between two or more individuals, events, ideas, steps, or concepts in a historical, scientific, or technical text based on specific information in the text.		6		6		2		2
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	6		10	4	2		6
	B-C	2	1	1	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent.								
		2	1	2	Compare and contrast the overall structure of events, ideas, concepts, or information and text features in two or more texts.								
		Total For Assessment Anchor B-C.2 Craft and Structure											
	B-C	3	1	1	Explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point(s).	2	2		4	2	1		3
		3	1	2	Integrate information from several texts on the same topic in order to demonstrate subject knowledge.								
		3	1	3	Interpret text features and/or make connections between text and the content of text features.	3			3	3			3
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				5	2		7	5	1		6
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2			2	2			2
Total For Reporting Category B						11	8		19	11	3		14

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write opinion pieces on topics or texts, supporting a point of view with reasons and information.								
		1	2		Write informative/explanatory texts to examine a topic and convey ideas and information clearly.								
		1	3		Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
D: Language	**D**	1	1	1	Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences.								
		1	1	2	Form and use the perfect verb tenses.	2			2	2			2
		1	1	3	Use verb tense to convey various times, sequences, states, and conditions.								
		1	1	4	Recognize and correct inappropriate shifts in verb tense.								
		1	1	5	Use correlative conjunctions.								
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.								
		1	1	7	Correctly use frequently confused words.								
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.	1			1	1			1
		1	2	1	Use punctuation to separate items in a series.								
		1	2	2	Use a comma to separate an introductory element from the rest of the sentence.								
		1	2	3	Use a comma to set off the words yes and no, to set off a tag question from the rest of the sentence, and to indicate direct address.	1			1	1			1
		1	2	4	Use underlining, quotation marks, or italics to indicate titles of works.	1			1	1			1
		1	2	5	Spell grade-appropriate words correctly.								
		Total For Assessment Anchor D.1 Conventions of Standard English				5			5	5			5
		2	1	1	Expand, combine, and reduce sentences for meaning, reader/listener interest, and style.								
		2	1	2	Choose words and phrases to convey ideas precisely.	1			1	1			1
		2	1	3	Choose punctuation for effect.	1			1	1			1
		2	1	4	Choose words and phrases for effect.	2			2	2			2
		Total For Assessment Anchor D.2 Knowledge of Language				4			4	4			4
Total For Reporting Category D						9			9	9			9

Grade 05 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			4	4			1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						4	4			1	1
Total For Reporting Category E								4	4			1	1

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text.	1			1	1			1
		1	1	2	Determine a theme or central idea of a text and how it is conveyed through relevant details; provide a summary of the text distinct from personal opinions or judgments.	2	2		4	2	1		3
		1	1	3	Describe how the plot of a particular story, drama, or poem unfolds; as well as how the characters respond or change as the plot moves toward a resolution.		6		6		2		2
		Total For Assessment Anchor A-K.1 Key Ideas and Details				3	8		11	3	3		6
	A-C	2	1	1	Determine an author's purpose in a text and explain how it is conveyed in the text; explain how an author develops the point of view of the narrator or speaker in a text; describe the effectiveness of the point of view used by the author.	2			2	2			2
		2	1	2	Analyze how a particular sentence, chapter, scene, or stanza fits into the overall structure of a text and contributes to the development of the theme, setting, or plot.	2			2	2			2
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of a specific word choice on meaning and tone.	2			2	2			2
		Total For Assessment Anchor A-C.2 Craft and Structure				6			6	6			6
		3	1	1	Compare and contrast texts in different forms or genres in terms of their approaches to similar themes and topics.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	2			2	2			2
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				3			3	3			3
Total For Reporting Category A						12	8		20	12	3		15

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences and/or generalizations drawn from the text.	2	2		4	2	1		3
		1	1	2	Determine a central idea of a text and how it is conveyed through relevant details; provide a summary of the text distinct from personal opinions or judgments.	1			1	1			1
		1	1	3	Analyze in detail how a key individual, event, or idea is introduced, illustrated, or elaborated in a text.	1	2		3	1	1		2
		Total For Assessment Anchor B-K.1 Key Ideas and Details				4	4		8	4	2		6
	B-C	2	1	1	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.		3		3		1		1
		2	1	2	Analyze how a particular sentence, paragraph, chapter, section, or text feature fits into the overall development of the ideas.	1			1	1			1
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text.	2			2	2			2
		Total For Assessment Anchor B-C.2 Craft and Structure				3	3		6	3	1		4
		3	1	1	Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.	2			2	2			2
		3	1	2	Compare and contrast one author's presentation of events with that of another.								
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				2			2	2			2
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexbily from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2			2	2			2
Total For Reporting Category B						11	7		18	11	3		14

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.								
		1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.								
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant descriptive details, and well-structured event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
D: Language	D	1	1	1	Ensure that pronouns are in the proper case.								
		1	1	2	Use intensive pronouns.								
		1	1	3	Recognize and correct inappropriate shifts in pronoun number and person.	1			1	1			1
		1	1	4	Recognize and correct vague pronouns.	1			1	1			1
		1	1	5	Recognize and correct inappropriate shifts in verb tense.	1			1	1			1
		1	1	6	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	1			1	1			1
		1	1	7	Correctly use frequently confused words.								
		1	1	8	Ensure subject-verb and pronoun-antecedent agreement.								
		1	2	1	Use punctuation to set of nonrestrictive/parenthetical elements.	1			1	1			1
		1	2	2	Spell correctly.								
		1	2	3	Use punctuation to separate items in a series.								
		Total For Assessment Anchor D.1 Conventions of Standard English				5			5	5			5
		2	1	1	Vary sentence patterns for meaning, reader/listener interest, and style.	1			1	1			1
		2	1	2	Maintain consistency in style and tone.	2			2	2			2
		2	1	3	Choose words and phrases to convey ideas precisely.	1			1	1			1
		2	1	4	Choose punctuation for effect.								
		2	1	5	Choose words and phrases for effect.								
		Total For Assessment Anchor D.2 Knowledge of Language				4			4	4			4
Total For Reporting Category D						9			9	9			9

Grade 06 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			4	4			1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						4	4			1	1
Total For Reporting Category E								4	4			1	1

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	1	2		3	1	1		2
		1	1	2	Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	2	3		5	2	1		3
		1	1	3	Analyze how particular elements of a story, drama, or poem interact.	3			3	3			3
		Total For Assessment Anchor A-K.1 Key Ideas and Details				6	5		11	6	2		8
	A-C	2	1	1	Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.	1	2		3	1	1		2
		2	1	2	Analyze how a drama's or poem's form or structure contributes to its meaning.								
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of rhymes and other repititions of sounds on a specific verse or stanza of a poem or section of a story or drama.	2			2	2			2
		Total For Assessment Anchor A-C.2 Craft and Structure				3	2		5	3	1		4
	A-C	3	1	1	Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.	2			2	2			2
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				3			3	3			3
Total For Reporting Category A						12	7		19	12	3		15

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	1	3		4	1	1		2
		1	1	2	Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	2			2	2			2
		1	1	3	Analyze the interactions between individuals, events, and ideas in a text.		2		2		1		1
		Total For Assessment Anchor B-K.1 Key Ideas and Details				3	5		8	3	2		5
	B-C	2	1	1	Determine an author's point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.	2			2	2			2
		2	1	2	Analyze the structure an author uses to organize a text, including how major sections and text features contribute to the whole and to the development of the ideas.	2			2	2			2
		2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text; analyze the impact of a specific word choice on meaning and tone.	1			1	1			1
		Total For Assessment Anchor B-C.2 Craft and Structure				5			5	5			5
	B-C	3	1	1	Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.	1	3		4	1	1		2
		3	1	2	Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.								
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				1	3		4	1	1		2
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
		4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2			2	2			2
Total For Reporting Category B						11	8		19	11	3		14

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.								
		1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.								
		1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant descriptive details, and well-structured event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of phrases and clauses in general and their function in specific sentences.	1			1	1			1
		1	1	2	Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.								
		1	1	3	Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
		1	1	4	Recognize and correct inappropriate shifts in pronoun number and person.	1			1	1			1
		1	1	5	Recognize and correct vague pronouns.								
		1	1	6	Recognize and correct inappropriate shifts in verb tense.	1			1	1			1
		1	1	7	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.	1			1	1			1
		1	1	8	Correctly use frequently confused words.	1			1	1			1
		1	1	9	Ensure subject-verb and pronoun-antecedent agreement.								
		1	2	1	Use a comma to separate coordinate adjectives.	1			1	1			1
		1	2	2	Spell correctly.								
		1	2	3	Use punctuation to set of nonrestrictive/parenthetical elements.								
		1	2	4	Use punctuation to separate items in a series.	1			1	1			1
		Total For Assessment Anchor D.1 Conventions of Standard English				7			7	7			7
		2	1	1	Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.								
		2	1	2	Vary sentence patterns for meaning, reader/listener interest, and style.	1			1	1			1
		2	1	3	Maintain consistency in style and tone.	1			1	1			1
		2	1	4	Choose punctuation for effect.								
		2	1	5	Choose words and phrases for effect.								
		Total For Assessment Anchor D.2 Knowledge of Language				2			2	2			2
Total For Reporting Category D						9			9	9			9

Grade 07 **English Language Arts**

Reporting Category		Assessment Anchor	Descriptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			4	4			1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						4	4			1	1
Total For Reporting Category E								4	4			1	1

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
A: Literature Text	A-K	1	1	1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions, and/or generalizations drawn from the text.	1	3		4	1	1		2
	A-K	1	1	2	Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.	2			2	2			2
	A-K	1	1	3	Analyze how particular lines of dialogue or incidents in a story, drama, or poem propel the action, reveal aspects of a character, or provoke a decision.	3	2		5	3	1		4
		Total For Assessment Anchor A-K.1 Key Ideas and Details				6	5		11	6	2		8
	A-C	2	1	1	Analyze how differences in the points of view of the characters and the audience or reader ESReate such effects as suspense or humor.	1	2		3	1	1		2
	A-C	2	1	2	Compare and contrast the structure of two or more texts, and analyze how the differing structure of each text contributes to its meaning and style.								
	A-C	2	1	3	Determine how the author uses the meaning of words or phrases, including figurative and connotative meanings, in a text; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	4			4	4			4
		Total For Assessment Anchor A-C.2 ESRaft and Structure				5	2		7	5	1		6
	A-C	3	1	1	Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths and traditional stories, including desESRibing how the material is rendered new.								
		Total For Assessment Anchor A-C.3 Integration of Knowledge and Ideas											
	A-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
	A-V	4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.								
		Total For Assessment Anchor A-V.4 Vocabulary Acquisition and Use				1			1	1			1
Total For Reporting Category A						12	7		19	12	3		15

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
B: Informational Text	B-K	1	1	1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences, conclusions and/or generalizations drawn from the text.	1			1	1			1
	B-K	1	1	2	Determine a central idea of a text and analyze its development over the course of the text, including its relationship to supporting ideas; provide an objective summary of the text.	1			1	1			1
	B-K	1	1	3	Analyze how a text makes connections among and distinctions between individuals, ideas, or events.	1	6		7	1	2		3
		Total For Assessment Anchor B-K.1 Key Ideas and Details				3	6		9	3	2		5
	B-C	2	1	1	Determine an author's point of view or purpose in a text and analyze how the author acknowledges and responds to conflicting evidence or viewpoints.	1			1	1			1
	B-C	2	1	2	Analyze in detail the structure of a specific paragraph in a text, including the role of particular sentences in developing and refining a key concept.	2			2	2			2
	B-C	2	1	3	Determine how the author uses the meaning of words or phrases, including figurative, connotative, or technical meanings, in a text; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.	2			2	2			2
		Total For Assessment Anchor B-C.2 ESRaft and Structure				5			5	5			5
	B-C	3	1	1	Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient; recognize when irrelevant evidence is introduced.	1	2		3	1	1		2
	B-C	3	1	2	Analyze a case in which two or more texts provide conflicting information on the same topic, and identify where the texts disagree on matters of fact or interpretation.								
		Total For Assessment Anchor B-C.3 Integration of Knowledge and Ideas				1	2		3	1	1		2
	B-V	4	1	1	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.	1			1	1			1
	B-V	4	1	2	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	1			1	1			1
		Total For Assessment Anchor B-V.4 Vocabulary Acquisition and Use				2			2	2			2
Total For Reporting Category B						11	8		19	11	3		14

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	WP	Total	MC	ESR	WP	Total
C: Writing	C	1	1		Write arguments to support claims with clear reasons and relevant evidence.								
	C	1	2		Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.								
	C	1	3		Write narratives to develop real or imagined experiences or events using effective techniques, relevant desESRiptive details, and well-structured event sequences.								
		Total For Assessment Anchor C.1 Text Types and Purposes											
Total For Reporting Category C													

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	OE	Total	MC	ESR	OE	Total
D: Language	D	1	1	1	Explain the function of verbals in general and their function in particular sentences.								
	D	1	1	2	Form and use verbs in the active and passive voice.								
	D	1	1	3	Form and use verbs in the indicative, imperative, interrogative, conditional, and subjunctive mood.								
	D	1	1	4	Recognize and correct inappropriate shifts in verb voice and mood.								
	D	1	1	5	Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.								
	D	1	1	6	Recognize and correct inappropriate shifts in pronoun number and person.								
	D	1	1	7	Recognize and correct vague pronouns.								
	D	1	1	8	Recognize and correct inappropriate shifts in verb tense.								
	D	1	1	9	Produce complete sentences, recognizing and correcting inappropriate fragments and run-on sentences.								
	D	1	1	10	Correctly use frequently confused words.	1			1	1			1
	D	1	1	11	Ensure subject-verb and pronoun-antecedent agreement.								
	D	1	2	1	Use punctuation to indicate a pause or a break.								
	D	1	2	2	Use an ellipsis to indicate an omission.	1			1	1			1
	D	1	2	3	Spell correctly.								
	D	1	2	4	Use punctuation to set of nonrestrictive/parenthetical elements.	1			1	1			1
	D	1	2	5	Use punctuation to separate items in a series.	1			1	1			1
		Total For Assessment Anchor D.1 Conventions of Standard English				4			4	4			4
	D	2	1	1	Use verbs in the active and passive voice and in the conditional and subjunctive mood to achieve particular effects.	1			1	1			1
	D	2	1	2	Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.	1			1	1			1
	D	2	1	3	Vary sentence patterns for meaning, reader/listener interest, and style.	1			1	1			1
	D	2	1	4	Maintain consistency in style and tone.	1			1	1			1
	D	2	1	5	Choose punctuation for effect.								
	D	2	1	6	Choose words and phrases for effect.	1			1	1			1
		Total For Assessment Anchor D.2 Knowledge of Language				5			5	5			5
Total For Reporting Category D						9			9	9			9

Grade 08 **English Language Arts**

Reporting Category		Assessment Anchor	DesESRiptor (Sub-anchor)	Eligible Content	Focus	Points				Items			
						Total Core Points				Total Number of Core Items			
						MC	ESR	TDA	Total	MC	ESR	TDA	Total
E: Text-Dependent Analysis	E	1	1		Draw evidence from literary or informational texts to support analysis, reflection, and/or research.			4	4			1	1
		Total For Assessment Anchor E.1 Evidence-based Analysis of Text						4	4			1	1
Total For Reporting Category E								4	4			1	1

APPENDIX C: ITEM AND TEST DEVELOPMENT PROCESS

ITEM AND TEST DEVELOPMENT PROCESS FOR PSSA

Step	Description
1. Review Guiding Documentation	Each year item and test development specialists meet internally to review all guiding documentation related to the PSSA. Documentation reviewed includes the test design blueprints, the Pennsylvania Assessment Anchors and Eligible Content, the test item specifications, the test style specifications (style guide), and all test content descriptions.
2. Meet with PDE to Confirm Understanding of Program	The goal of the meeting each year is to ensure that item and test development teams have a clear understanding of PDE's vision for test development. A successful development cycle requires a clear understanding of Pennsylvania's content-area test specifications and of any unique interpretations of the Pennsylvania Assessment Anchors (if any).
3. Create Preliminary Test Item Development Plan	Item and test development specialists generate a preliminary development plan which includes an overview of the program, the internal and external (PDE) review and approval processes, a projected schedule for development of test items—including the number of test items to be developed for review by PDE and subsequent review by the committees of Pennsylvania educators. Item and test development specialists also generate strategies for securing passages and developing science scenarios and passage-based items, etc.
4. Meet with PDE to Finalize Test Item Development Plan	Over the course of the meeting, item and test development specialists verify all steps in the development process including timelines and schedules for test item/test development.
5. Analyze Item Bank	Existing test items in the current PSSA Item Bank are reviewed for technical psychometric quality as well as for their match to the Assessment Anchors. During this phase, test development specialists also make a tally of the test items by Assessment Anchor—including test development specialists' best thinking regarding the number of usable test items in the existing item bank. A tally is also made of the number of usable passages, as well as other stimulus prompts in the bank, including science scenarios.
6. Refine Test Item Development Plan to Include Writers and Subcontractors	Item and test development specialists identify the writers who will write the test items (test development specialists or other professional item writers, subcontractors, etc.), the estimated number of writers needed, the qualifications of writers, and the approximate number of test items to be submitted by each source.
7. Train Item Writers	Item and test development specialists train item writers, as needed. Item writers who have written for the PSSA in the past receive updated information, as needed.
8. Write and Review Items	Test items are written by item writers after training is complete, and feedback is provided by the item and test development specialists to item writers on a regular basis. As test items are written, they are reviewed and edited in a series of internal reviews. Item and test development specialists review and edit items to include, but not limited to, the following: match to Assessment Anchor/Eligible Content, relevance to purpose, accuracy of content, item difficulty, interest level, grade appropriateness, depth of knowledge and cognitive complexity, adherence to the principles of Universal Design, and freedom from issues of bias/fairness/sensitivity. At the same time, the process of procuring permissions also begins, including securing permissions for passages, art, etc.
9. Enter Test Items into Database	Upon acceptance from item writers, test items are entered into the item management system, IDEAS (*Item Development and Educational Assessment System*). Item data stored in the system database includes, but is not limited to, the following: readability, cognitive level, estimated level of difficulty, alignment to Assessment Anchors, and correlation to stimulus prompts and passages.
10. Prepare Item Set for Sample Item Review by PDE	Item and test development specialists prepare a subset of the items for review by PDE.

Step	Description
11. PDE Conducts Sample Item Review	After a subset of the items is submitted to PDE for review, PDE reviews the items and provides feedback to item and test development teams via a conference call. Items are revised per PDE feedback.
12. Continue to Write and Review Items	The remaining items are written, and feedback is provided by the item and test development specialists to item writers on a regular basis. Items are entered into the item management system, IDEAS (*Item Development and Educational Assessment System*) (See step 8 and step 9).
13. Review Items Prior to Test Item Review and Validation Sessions	Prior to New Item Content Review, all items are submitted to PDE for review. Item and test development specialists incorporate all PDE feedback, and PDE-requested edits to items are made.
14. Prepare for Test Item Review Sessions (the New Item Content Review and the Bias, Fairness, and Sensitivity Review)	Item and test development specialists prepare all items and stimulus passages for review by the New Item Content Review Committee (consisting of Pennsylvania educators) and by the separate Bias, Fairness, and Sensitivity Committee (consisting of a panel of experts including Pennsylvania educators). Item and test development specialists also prepare training materials needed for training committee members to review items for content or for bias, fairness, and sensitivity issues. All training materials and other ancillary materials (e.g., agendas, presentations, etc.) are also developed and then submitted to PDE for review and approval. Invitations are sent to Pennsylvania educators and national experts from PDE-approved committee lists.
15. Conduct Test Item Review Sessions (the New Item Content Review and the Bias, Fairness, and Sensitivity Review)	Committees of Pennsylvania educators and national experts review items in two meetings: one addressing item content and quality, the other addressing bias, fairness, and sensitivity. PDE, with support from item and test development specialists, presents training on how to review new test items for content considerations or bias/fairness/sensitivity issues. At the New Item Content Review, suggested edits to test items are made and/or replacement test items are written during the actual item review so that both the committee and the PDE are able to observe changes to the test items and approve the test items during the committee review process. At the Bias, Fairness, and Sensitivity Review, experts in bias, fairness, and sensitivity review all test items and passages and come to a consensus about any issues that are noted. At both meetings the results are carefully documented.
16. Conduct Item Review Resolution and Cleanup	Following the conclusion of the New Item Content Review Committee meetings, PDE re-examines the consensus changes suggested by the committee members during the New Item Content Review Committee meetings. DRC item and test development specialists then record all of PDE's follow-up decisions and changes. During this cleanup process, PDE either accepts the changes as requested by the committee or rejects the decision of the committee. If a committee decision is rejected, PDE provides an alternate decision for DRC to implement. During this cleanup process, PDE also interprets the report from the Bias, Fairness, and Sensitivity Committee meetings and subsequently identifies changes to test items and passages. DRC item and test development specialists then apply the changes to the test items and passages per PDE's decisions.
17. Submit Field-Test Items for Final Sign-Off	PDE-approved changes are applied to the items, scenarios, non-permissioned passages, prompts, etc. (Changes reflect PDE's arbitration of the committee decisions.) Once all revisions to the items, non-permissioned passage text, and/or the art used by test items and passages are completed, the test items are submitted to PDE for final review and sign-off. (Changes requested to permissioned passages are sought from the publisher of record, and, if approved by the copyright holders, changes are implemented.) [PDE's approval process for field-test items generally occurs simultaneously with PDE's approval of the core test forms. See step 25.]
*To follow the path for new field-test items, skip to **step 22**, or to follow the chronological test development path, continue with **step 18**.*	

Step	Description
18. Review Results of the Field Test	Following the administration of a field-test form and the subsequent rangefinding and field-test scoring processes for field-test items, performance data for all field-test items are analyzed by DRC psychometricians and test development specialists. Test item performance data that meet certain triggering criteria are flagged for additional reviews by test development specialists. Flagged field-test items with extreme performance data are considered psychometrically unusable and are removed from future operational consideration. Field-test items with marginal performance data are prepared for the Field-Test Item Data Review meeting.
19. Prepare for Field-Test Item Data Review	Test development specialists prepare the items and stimulus passages for review by the Field-Test Item Data Review Committee (which consists of Pennsylvania educators). Psychometricians also prepare training materials needed for training committee members to review items for their performance. All training materials and other ancillary materials (e.g., agendas, presentations, etc.) are submitted to PDE for review and approval. Invitations are also sent to Pennsylvania educators from PDE-approved committee lists.
20. Conduct Field-Test Item Data Review	Committees of Pennsylvania educators review the performance data of flagged field-test items. Psychometricians present training on how to review field-test items based on their performance data. At the Item Data Review, committee members examine the performance of the items and determine whether each field-test item is technically sound and appropriate for use on an operational PSSA test. Since test items cannot be modified at the Field-Test Item Data Review, the committee can either accept an item as is, or the committee can reject the item.
21. Conduct Field-Test Item Data Review Reconciliation	Following the conclusion of the Field-Test Item Data Review Committee meetings, PDE re-examines the consensus decisions (accept or reject) suggested by the committee members during the Field-Test Item Data Review Committee meetings. Test development specialists record all of PDE's follow-up decisions and changes. During this cleanup process, PDE either accepts the decisions of the data review committee, or PDE rejects the decisions of the data review committee. If a committee decision is not accepted, PDE provides an alternate decision for test development specialists to implement. All PDE-approved changes to the test items status (accepted or rejected) are incorporated into the *Item Development and Educational Assessment System*, IDEAS.
22. Select Items to Fill Core, Field-Test, and Equating Block Positions in Core and Field-Test Forms	After the PDE-approved changes to the new field-test items is completed AND the results of the prior field test have been finalized following data review, test development specialists collaborate with psychometricians to follow the Test Design Blueprints and build requirements to make the initial selection of items for core, field-test, and equating block positions for all test forms.
23. Review Core and Equating Block Selections	After test content and psychometric requirements have been achieved for core and equating block positions, the core and equating block items are provided to PDE for review and approval. Any changes to the content of the core or equating block requested by PDE are balanced with psychometric requirements until all core and equating block positions are approved by PDE, test development specialists, and psychometricians. Test development specialists work with psychometricians and PDE staff to create scrambled versions of the core items that will appear across forms.
24. Construct Test Forms	Items, passages, and test components are assembled into forms using the form construction and typesetting function of DRC's *Item Development and Educational Assessment System*, IDEAS. Forms are reviewed internally for style and formatting requirements.
25. Review Typeset Forms	After forms are constructed in IDEAS, draft hard copies of the forms are produced and presented to PDE for review and approval. Any changes to the content of the core or equating block requested by PDE are balanced with psychometric requirements until all core and equating block positions are approved by PDE, test development specialists, and psychometricians. PDE also re-reviews all field-test items appearing in the test forms. DRC applies changes to the field-test items as required.

Step	Description
26. Print Test Forms	Following PDE's approval of the test forms, DRC completes a series of final proofing of all test forms. Final forms (along with ancillary materials) are then approved for printing.
27. Assemble Documentation of Test Materials	Metadata for each test item and form is documented and proofed, including: grade, form, session/section, item sequence, reporting category, Assessment Anchor, descriptor (sub-anchor), Eligible Content, number of points, item type, number of answer options, item usage, stimulus ID, etc.
28. Prepare Online Forms	Following approval of the print forms, all online forms are prepared. Forms are rendered in form sets, and items and forms are compared for continuity with the print forms as well as to ensure that all tools and features are functioning as expected.
*To follow the path for new field-test items, return to **step 18**.*	

APPENDIX D: ITEM AND DATA REVIEW CARD EXAMPLES

ITEM REVIEW CARD EXAMPLE

Standard: Use the four operations with whole numbers to solve problems.

1.

A.

B.

PA - Item Card

Item ID
Content Area
Mathematics
Passage ID
Passage Title
Grade
4
CCAACS Standards
B-O.1
Item Type
Open Ended
Points
4
Depth of Knowledge
2
Bloom's Taxonomy
Est Difficulty
Medium
Key
Calculator
C

1. ***Continued.*** Please refer to the previous page for task explanation.

C.

Standard: Describe how prominent Earth features in Pennsylvania (e.g., mountains, valleys, caves, sinkholes, lakes, rivers) were formed.

1. [redacted]

PA - Data Card

Item ID	[redacted]
Content Area	Science
Passage ID	
Passage Title	
Grade	4
Standards	AACS: D.1.1.1
Item Type	Multiple Choice
Points	1
Depth of Knowledge	2
Est Difficulty	Medium
Key	A
Focus	

Data Recognition Corporation [redacted]

PA - Master Statistics Data Card

Administration(s)

Form Name	Use Function	Rptg Flag	Seq	Period	Year	Session	Calc	Model/Ext	Grade	N	P-Value	Item Total Corr
				Spring	2015		Yes	Rasch	4	1548	0.54	0.34

Traditional Statistics

N	P-Val	Mean	Item Total Corr
122762	0.54		0.34

Distractor/Step Specific

Label	Proportion	Corr	Avg Meas	Step Meas
A*	0.54	0.34		
B	0.20	-0.10		
C	0.14	-0.21		
D	0.12	-0.16		
MULTS	0.00			
OMITS	0.00			

DIF Analysis

Category	Bias Code	Num Value	N - Ref	N - Focal
MALEFEMALE	A-	-0.26	5349	5011
WHITEBLACK	A+	0.14	7285	1569
WHITEHISPANIC	A-	-0.40	7285	889

Data Recognition Corporation

Reviewer Signature: _____

Item Rating Sheet

Content Area: _____ Grade: _____

	Content Alignment	Rigor Level Alignment				Technical Design			Universal Design		STATUS
	Standards	Grade	Difficulty	Depth of Knowledge	Source of Challenge	Correct Answer	Distractors	Graphics	Language Demand	Bias	Acceptance Status
Unique ID number	—Higher —Lower —None	—Above —At —Below	—Hard —Medium —Easy	—Recall —Application —Strategic Thinking	—Yes —No	—Yes —No	—Yes —No	—Yes —No	—Yes —No	—Yes —No	— Approved as is — Accepted with suggested revisions — Dissenting View

Item Review Criteria Guidelines

The purpose of this form is to provide guidelines to the item review process in terms of item characteristics that are essential in building a fair and balanced assessment. Use these guidelines in conjunction with the Item Rating Sheet when recording your feedback on individual items.

Content Alignment		Options
Standards, Anchors, Eligible Content	Does the content of the item align with the Standard/Anchor/Eligible Content? Each item was written to assess a particular Standard/Anchor/ Eligible Content statement which is indicated on the individual Item Card. Consider the degree to which the item is, in fact, aligned with the indicated eligible content. In making this judgment, it is important to consider whether the **content** is aligned (e.g., do the eligible content and the item both deal with fractions) and whether the required **performance** is aligned (e.g., if the eligible content calls for a comparison to be made, is this reflected in the item).	**HIGHER**—Aligns to the higher level of the EC **LOWER**—Aligns to the lower level of the EC **NONE**—No alignment with EC

Rigor Level Alignment		Options
Grade	Is the item grade-level appropriate? Is the content consistent with the experiences of a student at the grade level assessed? Is the challenge level appropriate for the grade?	**ABOVE** Grade Level **AT** Grade Level **BELOW** Grade Level
Difficulty	Do you agree with the item's difficulty rating? Item Difficulty is indicated as Easy, Medium, and Hard? Is your rating in agreement with the difficulty rating on the Item Form?	**HARD** **MEDIUM** **EASY**
Depth of Knowledge	Depth of Knowledge is based on the alignment work of Norman Webb. Rate each item based on the cognitive demand, using the following levels: 1. Recall – ***Recall*** of a fact, information, or procedure. 2. Basic Application of Skill or Concept – ***Use*** of information, conceptual knowledge, procedures, two or more steps, etc. 3. Strategic Thinking – Requires reasoning, developing a plan or sequence of steps; has some complexity; more than one possible answer. 4. Extended Thinking – Requires an investigation, time to think and process multiple conditions of the problem or task, and more than 10 minutes to do non-routine manipulations. (This level is generally not assessed in on-demand assessments.)	**4** = Extended Thinking **3** = Strategic Thinking **2** = Basic Application **1** = Recall

Source of Challenge	Is the source of challenge appropriately targeted to the content? The hardest part of the item (i.e., source of challenge) should be the content that is targeted. For example, in mathematics, the mathematics should be the major source of challenge rather than the wording or graphic. Students should not give an incorrect answer to a mathematics item because the reading level is too high or a graphic is flawed. Conversely, students should not give correct answers for reasons such as prior knowledge that make the answer to the question obvious (e.g., if the question asks which country has the largest population and students are to read a graph that includes China, there is no need to read the graph to answer the question).	**Y** = Yes **N** = No

Technical Design		**Options**
Correct Answer	Is there one clear, correct answer? There should be no other answer that "could" be correct. CAUTION: This does not mean that "good" distractors are unfair.	**Y** = Yes **N** = No
Distractors	Are distractors fair and appropriate? Distractors that are appropriate offer students reasonable choices that can be arrived at by making common errors. There should be no distractors that make no sense at all. It should be possible to examine each option and to reason how a student with some deficiency in knowledge or skill could choose it. The distractors should be formatted according to acceptable standards of test construction (e.g., a phrase that is common to each distractor should be placed in the stem).	**Y** = Yes **N** = No
Graphics	Are the graphics clear and accurate?	**Y** = Yes **N** = No

Universal Design		**Options**
Language Demand	Is language clear, well-formatted, and precise? Does the item use correct terminology for the content area? In order for all students to enter into the questions of the assessment, they must be able to understand them. If the items are formatted poorly, use unnecessarily complex words or phrases, or use figures or layouts that are difficult to understand, some students will give incorrect answers due to these factors rather than the content that is being assessed.	**Y** = Yes **N** = No
Bias	Is the item free of bias? All students will not be able to enter into the assessment if bias considerations are not resolved. Does the item contain clear bias problems? *A thorough, independent bias review* (separate from this meeting) *will be completed for all items.*	**Y** = Yes **N** = No

Status		**Options**
Acceptance Status	This is an overall judgment about the item. Based on the consensus of the committee, indicate whether the item was approved without revision to the content of the item or whether the item was accepted by the committee after revision of the content of the item. If there is a dissenting view (opposed to the committee consensus), record a brief explanation of the dissenting view on the back of the Item Rating Sheet.	**—Approved** as is **—Accepted** with suggested revisions **—Dissenting View**

NOTES:

- If you leave a box blank on the Item Rating Sheet, it will be recorded to indicate that you did not have any specific feedback for that item or issue.
- If you object to the consensus of the committee, please note this on the item rating sheet and then record a brief explanation of the dissenting view on the back of the Item Rating Sheet.
- **Do NOT remove any items from the item binder at any time.**
- You must sign your Item Rating Sheet.

APPENDIX F: ITEM STATISTICS

Appendix contains item statistics for each item type (multiple-choice, evidence-based selected-response, open-ended, text-dependent analysis, and technology-enhanced) by each mode (paper/pencil and computer-based). A form number of 0 indicates that the item was presented on all forms.

Multiple-Choice Paper/Pencil Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Stand1	Standard
Depth	Depth of Knowledge
N	N
PValue	*P*-Value
P(A)	Proportion A
P(B)	Proportion B
P(C)	Proportion C
P(D)	Proportion D
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(A)	Correlation A
Corr(B)	Correlation B
Corr(C)	Correlation C
Corr(D)	Correlation D
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit-Z	Infit Z-Standardized
Infit-MS	Infit Mean Square
Outfit-Z	Outfit Z-Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	710614	0	CCAACS	2	A-C	56268	0.4267	0.1972	0.2347	0.4162	0.1274	0.0225	0.002	0.3169	-0.1197	-0.1118	0.3264	-0.1355	-0.1214	-0.0588	0.957	0.0227	9.9011	1.1099	9.9012	1.176	A+	A+	A+
ELA	3	743367	0	CCAACS	2	A-C	56820	0.4924	0.2384	0.1405	0.485	0.1211	0.0127	0.0023	0.5301	-0.2094	-0.3052	0.5321	-0.182	-0.0726	-0.0661	0.4105	0.0222	-9.8991	0.8959	-9.8991	0.8683	A-	A+	A+
ELA	3	710616	0	CCAACS	1	A-K	56028	0.7688	0.079	0.7467	0.0694	0.0762	0.0275	0.0012	0.4969	-0.2868	0.5049	-0.1923	-0.2685	-0.1268	-0.0408	-1.1588	0.0265	0.991	1.0141	-2.1891	0.9439	A+	A-	A+
ELA	3	710617	0	CCAACS	2	A-K	56290	0.6475	0.6319	0.1156	0.1111	0.1172	0.0216	0.0025	0.4961	0.5069	-0.2255	-0.2651	-0.207	-0.1319	-0.0649	-0.2929	0.023	-4.629	0.9572	-5.5591	0.9179	A+	A+	A+
ELA	3	743369	0	CCAACS	2	A-K	57058	0.683	0.1356	0.6756	0.0798	0.0982	0.0101	0.0007	0.593	-0.3165	0.5944	-0.2726	-0.2937	-0.0756	-0.0394	-0.4614	0.0234	-9.8992	0.8104	-9.8993	0.7161	A+	A+	A+
ELA	3	743370	0	CCAACS	2	A-K	56913	0.3784	0.2694	0.1907	0.3734	0.1532	0.0122	0.0012	0.2805	-0.069	-0.0191	0.283	-0.2534	-0.0632	-0.0175	1.022	0.0228	9.9011	1.149	9.9012	1.2364	A+	A+	A+
ELA	3	710620	0	CCAACS	1	A-V	56255	0.4919	0.1483	0.1398	0.2074	0.4798	0.0238	0.001	0.3946	-0.2613	-0.2876	0.0274	0.403	-0.1218	-0.0425	0.4255	0.0222	4.441	1.0375	3.851	1.0439	A-	A+	A+
ELA	3	710726	0	CCAACS	2	A-V	56465	0.5336	0.214	0.5223	0.0984	0.1442	0.0193	0.0018	0.315	-0.1753	0.3272	-0.2051	-0.0313	-0.1246	-0.0539	0.5021	0.0222	9.9011	1.1006	9.9011	1.1232	A-	A+	A-
ELA	3	743373	0	CCAACS	2	A-V	57062	0.4942	0.1465	0.4889	0.2712	0.0826	0.01	0.0007	0.4262	-0.2233	0.4285	-0.1707	-0.1879	-0.0672	-0.0347	0.3876	0.0222	2.161	1.0181	1.601	1.0181	A-	A-	A-
ELA	3	743375	0	CCAACS	2	A-V	57181	0.6173	0.612	0.1155	0.1312	0.1326	0.0078	0.0009	0.5012	0.5038	-0.2659	-0.2674	-0.186	-0.0691	-0.0349	-0.2699	0.0229	-5.029	0.9539	-2.889	0.9573	A-	A+	A-
ELA	3	747166	0	CCAACS	2	B-C	56611	0.3616	0.2683	0.3548	0.2576	0.1007	0.0144	0.0041	0.2975	-0.1207	0.3017	-0.0208	-0.2315	-0.0622	-0.0726	1.1842	0.0232	9.9012	1.1628	9.9013	1.2756	A+	A+	A+
ELA	3	747168	0	CCAACS	1	B-C	56513	0.3769	0.28	0.1523	0.1781	0.3693	0.0186	0.0016	0.395	-0.1267	-0.1743	-0.1641	0.3941	-0.0545	-0.014	1.1888	0.0232	3.681	1.0368	7.4811	1.1131	A-	A+	A+
ELA	3	747169	0	CCAACS	2	B-C	56939	0.5727	0.5653	0.206	0.1364	0.0794	0.0101	0.0028	0.4855	0.4877	-0.2577	-0.2001	-0.2199	-0.0657	-0.0531	-0.294	0.023	2.771	1.0262	0.381	1.0056	A-	A+	A+
ELA	3	747246	0	CCAACS	2	B-C	57088	0.562	0.1197	0.104	0.5562	0.2099	0.0091	0.0012	0.493	-0.2707	-0.2551	0.4953	-0.1773	-0.0723	-0.0374	0.3445	0.0222	-9.6191	0.9219	-8.4391	0.9072	A-	A-	A-
ELA	3	747254	0	CCAACS	2	B-C	56725	0.4051	0.1038	0.3768	0.1045	0.3984	0.0094	0.0072	0.3616	-0.2645	-0.0426	-0.2074	0.3674	-0.0701	-0.0996	0.8215	0.0225	4.201	1.0374	4.041	1.0495	A-	A-	A+
ELA	3	747257	0	CCAACS	2	B-C	56903	0.434	0.1646	0.4281	0.1677	0.226	0.0104	0.0032	0.3267	-0.1257	0.3314	-0.1218	-0.1456	-0.0689	-0.0707	0.8383	0.0225	9.9011	1.1317	9.9012	1.1727	A-	A+	A+
ELA	3	747174	0	CCAACS	2	B-K	56800	0.5072	0.2141	0.1015	0.4994	0.1697	0.0143	0.001	0.5005	-0.2532	-0.2292	0.5015	-0.182	-0.0692	-0.0363	0.2037	0.0222	-5.119	0.9576	-5.2791	0.939	A-	A-	A+
ELA	3	747253	0	CCAACS	2	B-K	56957	0.5332	0.5265	0.1786	0.1672	0.1151	0.0101	0.0025	0.4729	0.4754	-0.1835	-0.2198	-0.2371	-0.0651	-0.0583	0.4229	0.0222	-3.389	0.9719	-3.469	0.9615	A-	A+	A+
ELA	3	747177	0	CCAACS	2	B-V	56732	0.4148	0.408	0.2642	0.1462	0.1652	0.0152	0.0013	0.3047	0.3087	-0.059	-0.1828	-0.1358	-0.0745	-0.0435	0.8508	0.0225	9.9012	1.1545	9.9012	1.2186	A-	A-	A-
ELA	3	747247	0	CCAACS	2	B-V	57166	0.5136	0.1094	0.1273	0.2454	0.509	0.0079	0.0011	0.4276	-0.2019	-0.216	-0.1698	0.43	-0.0625	-0.0409	0.5585	0.0222	1.721	1.0146	1.561	1.0176	A-	A-	A+
ELA	3	662661	0	CCAACS	2	D	57192	0.2469	0.2838	0.2448	0.1353	0.3275	0.0067	0.0018	0.2671	-0.1421	0.2683	-0.1481	0.0094	-0.0479	-0.0263	1.7865	0.0254	9.0011	1.1209	9.9014	1.3834	A-	A+	A+
ELA	3	714297	0	CCAACS	1	D	57054	0.673	0.0722	0.6657	0.0832	0.1681	0.0057	0.0053	0.5136	-0.2968	0.5143	-0.273	-0.2238	-0.0517	-0.0395	-0.3585	0.0232	-9.8991	0.8807	-9.8992	0.8252	A-	A-	A-
ELA	3	714299	0	CCAACS	1	D	57104	0.3974	0.2444	0.1036	0.3934	0.2485	0.0059	0.0041	0.289	-0.1176	-0.1054	0.2915	-0.1234	-0.0518	-0.0376	1.1725	0.0231	9.9012	1.1976	9.9013	1.3022	A+	A-	A-
ELA	3	714809	0	CCAACS	1	D	57114	0.6065	0.0613	0.1679	0.6005	0.1604	0.0088	0.001	0.4809	-0.2131	-0.2519	0.4812	-0.2321	-0.0449	-0.0315	-0.0463	0.0225	-8.1491	0.9304	-7.7291	0.9017	A+	A-	B-
ELA	3	743407	0	CCAACS	2	D	57228	0.585	0.5804	0.0573	0.0757	0.2787	0.0066	0.0013	0.3821	0.3846	-0.2455	-0.2745	-0.1217	-0.0574	-0.0262	0.0744	0.0224	3.521	1.0303	4.5411	1.0572	A-	A+	A-
ELA	3	743412	0	CCAACS	2	D	57239	0.3969	0.1801	0.3939	0.1794	0.2389	0.0054	0.0023	0.3532	-0.251	0.3551	-0.1905	0.0039	-0.06	-0.0258	1.0069	0.0228	9.9011	1.1064	9.9012	1.1746	A+	A-	A+
ELA	3	743414	0	CCAACS	2	D	57274	0.4043	0.1968	0.1763	0.2183	0.4014	0.0055	0.0016	0.313	-0.137	-0.1069	-0.1326	0.3143	-0.0414	-0.0269	0.9898	0.0227	9.9011	1.1199	9.9012	1.1777	A-	A+	A+
ELA	3	743477	0	CCAACS	2	D	56902	0.3089	0.3056	0.1859	0.1903	0.3048	0.005	0.0085	0.3762	-0.1871	-0.0667	-0.1269	0.3795	-0.0474	-0.1024	1.0541	0.0229	-5.299	0.9509	-1.549	0.9791	A-	A-	A+
ELA	3	743485	0	CCAACS	2	D	57310	0.5202	0.5169	0.3496	0.059	0.068	0.0053	0.0012	0.5666	0.5667	-0.4462	-0.134	-0.1374	-0.0435	-0.0317	0.2399	0.0222	-9.8991	0.8532	-9.8992	0.8239	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	795950	1	CCAACS	2	A-C	6390	0.5332	0.146	0.5276	0.1256	0.1903	0.0087	0.0017	0.3896	-0.2727	0.3914	-0.2529	-0.0235	-0.0432	-0.049	0.2427	0.0669	0.321	1.0081	-0.319	0.9883	A+	A+	A+
ELA	3	795942	1	CCAACS	2	A-K	6410	0.6819	0.1397	0.0421	0.6769	0.134	0.006	0.0012	0.3882	-0.1771	-0.2109	0.3908	-0.2173	-0.0473	-0.0372	-0.5265	0.0693	1.9211	1.0545	1.8911	1.095	A-	A+	A+
ELA	3	795943	1	CCAACS	2	A-K	6397	0.7314	0.1284	0.0914	0.7246	0.0463	0.0054	0.0039	0.5637	-0.3115	-0.3186	0.5636	-0.2365	-0.0593	-0.0279	-0.4909	0.0691	-8.8292	0.7749	-7.5293	0.6793	A+	A-	A+
ELA	3	795945	1	CCAACS	3	A-K	6424	0.6155	0.068	0.1338	0.1807	0.6124	0.004	0.0011	0.4533	-0.2718	-0.2094	-0.2018	0.4557	-0.057	-0.0317	-0.072	0.0672	-4.1891	0.8961	-3.7991	0.8603	A+	A-	A-
ELA	3	795948	1	CCAACS	2	A-K	6406	0.5681	0.1391	0.201	0.0884	0.5636	0.0063	0.0015	0.4941	-0.2917	-0.1591	-0.2663	0.4951	-0.0479	-0.0369	0.285	0.067	-3.9791	0.9001	-3.6991	0.875	A+	A-	A-
ELA	3	795939	1	CCAACS	2	A-V	6401	0.5212	0.1127	0.1061	0.5166	0.2558	0.007	0.0017	0.1862	-0.2814	-0.2138	0.1879	0.1473	-0.0161	-0.0486	0.2383	0.0669	7.2012	1.1971	7.0913	1.271	A+	A+	A+
ELA	3	795940	1	CCAACS	2	A-V	6416	0.6661	0.1066	0.6619	0.1075	0.1177	0.0057	0.0006	0.4684	-0.2425	0.4657	-0.2936	-0.1655	-0.0063	-0.0297	-0.3682	0.0683	-3.2991	0.9139	-3.1491	0.8649	A-	A-	A-
ELA	3	795941	1	CCAACS	1	A-V	6225	0.6914	0.6666	0.1795	0.0438	0.0742	0.0121	0.0239	0.4752	0.4791	-0.2427	-0.2212	-0.2581	-0.0688	-0.0805	-0.3828	0.0684	-4.5591	0.8823	-3.0191	0.8693	A+	A+	A-
ELA	3	781875	1	CCAACS	1	D	12728	0.7768	0.7695	0.0698	0.0818	0.0695	0.0087	0.0007	0.4436	0.4421	-0.2323	-0.2288	-0.2352	-0.0378	-0.0358	-0.8314	0.0593	-7.9092	0.8064	-6.2693	0.7168	A+	A+	A-
ELA	3	781876	1	CCAACS	3	D	12735	0.2742	0.3934	0.1773	0.1483	0.2716	0.0084	0.001	0.3569	-0.1198	-0.1181	-0.1443	0.3567	-0.0318	-0.0274	1.5559	0.0565	-1.359	0.9642	2.0511	1.0873	A-	A-	A-
ELA	3	781881	1	CCAACS	2	D	19039	0.8735	0.0432	0.0488	0.8644	0.0332	0.0097	0.0006	0.4298	-0.2362	-0.2373	0.4274	-0.2308	-0.0502	-0.0351	-1.8743	0.0665	-3.9492	0.832	-7.1995	0.5199	A+	A-	A-
ELA	3	780349	2	CCAACS	3	A-C	6365	0.5364	0.2468	0.1076	0.5316	0.1051	0.0072	0.0017	0.446	-0.0966	-0.2756	0.4484	-0.2933	-0.0549	-0.0513	0.2126	0.0673	-1.689	0.9563	-1.6791	0.9374	A-	A-	A+
ELA	3	780341	2	CCAACS	2	A-K	6340	0.5276	0.5209	0.1101	0.2155	0.1408	0.0107	0.002	0.3764	0.3786	-0.2486	-0.1321	-0.1431	-0.0473	-0.0531	0.3049	0.0671	1.211	1.0313	0.891	1.0329	A+	A+	A-
ELA	3	780342	2	CCAACS	2	A-K	6323	0.6049	0.1774	0.1193	0.5956	0.0923	0.0056	0.0098	0.3844	-0.1849	-0.1254	0.3854	-0.2437	-0.0613	-0.0278	-0.0751	0.0684	-0.919	0.9747	-0.349	0.9844	A+	A-	A-
ELA	3	780344	2	CCAACS	3	A-K	6380	0.4809	0.2158	0.4777	0.1931	0.1068	0.0047	0.0019	0.4119	-0.1987	0.4135	-0.1735	-0.1671	-0.0427	-0.0418	0.666	0.0673	0.361	1.0091	1.041	1.0381	A+	A-	A+
ELA	3	780345	2	CCAACS	3	A-K	6356	0.436	0.2052	0.1068	0.2462	0.4315	0.0064	0.0039	0.4436	-0.1821	-0.18	-0.1907	0.4468	-0.0704	-0.0706	0.7541	0.0675	-3.2591	0.9165	-1.4091	0.9474	A+	A-	A-
ELA	3	780339	2	CCAACS	2	A-V	6347	0.7244	0.0972	0.0554	0.1197	0.716	0.0101	0.0016	0.5255	-0.2873	-0.2465	-0.2735	0.5243	-0.0441	-0.0437	-0.785	0.0746	-4.3191	0.8524	-4.9593	0.7074	A+	A+	A+
ELA	3	780340	2	CCAACS	2	A-V	6357	0.793	0.0791	0.0589	0.785	0.067	0.0086	0.0016	0.4261	-0.3134	-0.2137	0.4288	-0.1374	-0.0577	-0.0416	-1.2397	0.0819	-3.4691	0.8505	-2.2692	0.8169	A-	A-	B-
ELA	3	782060	2	CCAACS	2	A-V	6370	0.7174	0.7116	0.107	0.0746	0.0987	0.007	0.0011	0.464	0.4654	-0.2944	-0.2165	-0.194	-0.0477	-0.0327	-0.7693	0.0744	-3.3191	0.8857	-3.0492	0.8132	A-	A+	A+
ELA	3	781864	2	CCAACS	2	D	19054	0.8327	0.0606	0.0748	0.0302	0.8243	0.0093	0.0009	0.3855	-0.1931	-0.2375	-0.1905	0.3878	-0.0566	-0.0353	-1.5123	0.0619	-2.8091	0.8996	-3.4492	0.7747	A+	A-	A-
ELA	3	781870	2	CCAACS	1	D	12694	0.5579	0.1884	0.1019	0.5524	0.1474	0.0085	0.0014	0.4089	-0.251	-0.2436	0.4097	-0.0757	-0.0445	-0.0263	0.0919	0.0549	-1.519	0.9682	-1.619	0.9502	A+	A-	A-
ELA	3	781874	2	CCAACS	1	D	19064	0.6814	0.0836	0.6749	0.0918	0.14	0.0084	0.0013	0.4029	-0.2178	0.4048	-0.2082	-0.1829	-0.0489	-0.035	-0.487	0.0504	-2.249	0.951	-1.7491	0.9348	A-	A+	A-
ELA	3	783608	3	CCAACS	2	A-C	6363	0.3402	0.2007	0.3819	0.0729	0.3381	0.0048	0.0016	0.4031	-0.0369	-0.2175	-0.2575	0.4036	-0.026	-0.043	1.17	0.0692	0.161	1.0044	0.631	1.0263	A-	A-	A-
ELA	3	783602	3	CCAACS	2	A-K	6331	0.32	0.2231	0.1622	0.2869	0.3164	0.0095	0.0019	0.2521	-0.1486	-0.1782	0.035	0.2541	-0.0464	-0.0444	1.4101	0.0715	1.001	1.0323	1.4211	1.0713	A-	A-	A-
ELA	3	783603	3	CCAACS	2	A-K	6344	0.3928	0.3987	0.0835	0.3891	0.1193	0.0083	0.0011	0.3813	-0.1198	-0.2559	0.383	-0.1566	-0.0536	-0.0496	0.9977	0.068	-2.3191	0.9378	-1.5091	0.9423	A+	A-	A-
ELA	3	783605	3	CCAACS	3	A-K	6331	0.4589	0.4536	0.1554	0.1788	0.2008	0.0059	0.0055	0.2803	0.2853	-0.1915	-0.2152	0.048	-0.0571	-0.0682	0.5831	0.0663	4.8511	1.1243	4.4612	1.1533	A-	A-	A-
ELA	3	783606	3	CCAACS	3	A-K	6355	0.729	0.0963	0.7235	0.0751	0.0974	0.0069	0.0008	0.5289	-0.2909	0.5261	-0.2352	-0.2841	-0.0262	-0.0378	-0.8694	0.0746	-6.3292	0.788	-5.2593	0.7004	A+	A-	A-
ELA	3	783599	3	CCAACS	2	A-V	6354	0.6111	0.2058	0.0951	0.6063	0.0849	0.0061	0.0017	0.4168	-0.263	-0.0856	0.4183	-0.2437	-0.0326	-0.0582	-0.2048	0.068	-2.9391	0.923	-2.4891	0.8996	A-	A+	A-
ELA	3	783600	3	CCAACS	2	A-V	6347	0.626	0.097	0.1054	0.1683	0.6204	0.0075	0.0014	0.5177	-0.2864	-0.2395	-0.233	0.5189	-0.0496	-0.0552	-0.1953	0.0679	-7.1492	0.8206	-6.4192	0.7568	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	798176	3	CCAACS	2	A-V	6367	0.6947	0.6907	0.1374	0.1271	0.039	0.0044	0.0014	0.2849	0.2893	-0.1902	-0.0854	-0.1799	-0.048	-0.0465	-0.5041	0.0703	2.7511	1.0847	2.6511	1.1385	A+	A-	B-
ELA	3	781863	3	CCAACS	2	D	18902	0.2381	0.1692	0.3249	0.2565	0.2346	0.0096	0.0052	0.251	-0.3117	-0.2079	0.2552	0.2502	-0.0429	0.0135	1.8542	0.0545	3.0011	1.0869	4.3412	1.2159	A-	A-	A-
ELA	3	781867	3	CCAACS	1	D	19009	0.4824	0.196	0.1611	0.1556	0.4778	0.0076	0.0019	0.3081	-0.1395	-0.1065	-0.1524	0.3096	-0.0373	-0.0375	0.5216	0.0472	5.1111	1.0947	5.1111	1.127	A+	A-	A-
ELA	3	781873	3	CCAACS	1	D	12653	0.2586	0.2558	0.2751	0.1286	0.3298	0.0088	0.0018	0.0364	0.0391	0.0563	-0.0019	-0.0777	-0.0402	-0.0297	1.6793	0.0611	9.3413	1.309	9.9017	1.724	A-	A+	A+
ELA	3	799630	4	CCAACS	2	A-C	6354	0.5331	0.1829	0.2084	0.0729	0.5299	0.0048	0.0011	0.5018	-0.2327	-0.246	-0.2176	0.5028	-0.0467	-0.0377	0.2368	0.0669	-4.3991	0.8916	-4.4591	0.8526	A-	A-	A-
ELA	3	799535	4	CCAACS	2	A-K	6336	0.5819	0.1119	0.2081	0.5768	0.0945	0.0077	0.0011	0.4292	-0.2328	-0.1923	0.4294	-0.1924	-0.0331	-0.0466	0.0638	0.0672	-2.8491	0.9278	-2.8591	0.897	A+	A-	A+
ELA	3	799536	4	CCAACS	2	A-K	6230	0.5626	0.5483	0.1009	0.2566	0.0688	0.0236	0.0017	0.3548	0.3558	-0.259	-0.0661	-0.238	-0.0501	-0.0553	0.0783	0.0672	0.261	1.0065	-0.259	0.9901	A+	A-	A-
ELA	3	799537	4	CCAACS	2	A-K	6348	0.7064	0.1231	0.0591	0.1094	0.7015	0.0055	0.0014	0.4643	-0.2653	-0.2288	-0.2152	0.4658	-0.0445	-0.0416	-0.5661	0.0713	-2.2591	0.9316	-2.3091	0.8797	A+	A+	A+
ELA	3	799538	4	CCAACS	2	A-K	6338	0.5707	0.1697	0.0882	0.5659	0.1677	0.0041	0.0044	0.4598	-0.2126	-0.2407	0.4627	-0.1977	-0.026	-0.0868	0.1495	0.067	-2.5591	0.9355	-2.5091	0.9125	A+	A+	A-
ELA	3	799628	4	CCAACS	2	A-K	6339	0.6367	0.1108	0.117	0.6314	0.1325	0.007	0.0013	0.4949	-0.1375	-0.3053	0.4969	-0.2719	-0.0541	-0.0488	-0.3085	0.0691	-5.7392	0.8475	-5.1692	0.7809	A+	A+	A-
ELA	3	799625	4	CCAACS	2	A-V	6330	0.3891	0.2153	0.081	0.3853	0.3087	0.0083	0.0014	0.2817	-0.1746	-0.21	0.2851	-0.0044	-0.0659	-0.0444	0.9057	0.068	4.4611	1.1291	4.6912	1.184	A-	B+	A-
ELA	3	799626	4	CCAACS	2	A-V	6366	0.7081	0.7053	0.1231	0.1023	0.0652	0.0036	0.0005	0.3865	0.3887	-0.1847	-0.1949	-0.2192	-0.0414	-0.0405	-0.5252	0.0709	-0.589	0.9819	-0.849	0.9552	A-	A-	A-
ELA	3	781865	4	CCAACS	2	D	6322	0.4255	0.0936	0.4208	0.2661	0.2085	0.0077	0.0033	0.162	-0.2224	0.1639	-0.0328	0.0065	-0.0128	-0.0556	0.8245	0.0676	7.3212	1.2131	6.7713	1.2625	A+	A-	A-
ELA	3	805427	5	CCAACS	3	A-C	6351	0.5834	0.5793	0.111	0.1951	0.1076	0.0058	0.0013	0.4416	0.4416	-0.305	-0.0668	-0.2986	-0.0295	-0.0271	-0.0144	0.0671	-2.5191	0.9368	-2.3991	0.9124	A+	A-	A-
ELA	3	805420	5	CCAACS	2	A-K	6187	0.4467	0.1371	0.1004	0.2977	0.4321	0.0302	0.0025	0.3933	-0.288	-0.2341	-0.0338	0.3891	-0.0298	-0.0547	0.8659	0.0669	0.211	1.0051	1.161	1.0403	A+	A+	A+
ELA	3	805422	5	CCAACS	3	A-K	6354	0.4983	0.2136	0.1554	0.495	0.1295	0.0044	0.0022	0.3946	-0.1849	-0.2256	0.3977	-0.1043	-0.0486	-0.0668	0.5704	0.0661	-1.389	0.9668	-1.139	0.9635	A+	A-	A-
ELA	3	805423	5	CCAACS	3	A-K	6322	0.6754	0.6676	0.1848	0.0611	0.0749	0.0098	0.0017	0.4512	0.4523	-0.2232	-0.2551	-0.2221	-0.0456	-0.0568	-0.455	0.0703	-2.5291	0.9252	-2.1691	0.8958	A+	A-	A-
ELA	3	805424	5	CCAACS	2	A-K	6333	0.6496	0.1088	0.6432	0.1054	0.1327	0.0081	0.0017	0.506	-0.2473	0.5036	-0.2695	-0.2286	-0.0196	-0.0523	-0.3275	0.0691	-3.8391	0.894	-3.9292	0.8314	A+	A+	A+
ELA	3	805416	5	CCAACS	2	A-V	6333	0.8541	0.0482	0.0474	0.8457	0.0489	0.0092	0.0006	0.4974	-0.2721	-0.2608	0.4951	-0.2736	-0.0575	-0.027	-1.7764	0.0956	-3.4592	0.7928	-5.8095	0.4809	A+	A-	B-
ELA	3	805417	5	CCAACS	2	A-V	6341	0.4906	0.4003	0.0535	0.4864	0.0513	0.0078	0.0008	0.3742	-0.1346	-0.27	0.3765	-0.2517	-0.0561	-0.0367	0.5331	0.066	0.831	1.0199	1.331	1.0427	A+	A+	A+
ELA	3	808582	5	CCAACS	2	A-V	6340	0.5342	0.5295	0.0983	0.1101	0.2533	0.0073	0.0014	0.1668	0.1719	-0.283	-0.1375	0.11	-0.0566	-0.039	0.2964	0.0661	8.1512	1.209	9.2413	1.3343	A-	A+	A-
ELA	3	783871	6	CCAACS	2	B-C	6331	0.3279	0.3683	0.1778	0.1188	0.3244	0.0094	0.0013	0.3842	-0.205	0.0139	-0.2477	0.3847	-0.0541	-0.0321	1.2682	0.0695	-1.209	0.9643	0.281	1.0113	A-	A-	A-
ELA	3	783872	6	CCAACS	2	B-C	6342	0.4248	0.421	0.2629	0.1117	0.1955	0.0067	0.0022	0.2202	0.2248	-0.0937	-0.1843	-0.0096	-0.0706	-0.0447	0.82	0.0668	6.0012	1.1601	5.7412	1.2109	A-	A-	A+
ELA	3	783864	6	CCAACS	2	B-K	6312	0.3702	0.1202	0.2527	0.3652	0.2483	0.0091	0.0045	0.1986	-0.1449	0.0106	0.2	-0.1128	-0.0361	-0.0242	1.1024	0.0682	6.1912	1.1812	6.5013	1.2774	A+	A-	A-
ELA	3	783865	6	CCAACS	2	B-K	6334	0.4054	0.2311	0.1742	0.4013	0.1832	0.0084	0.0017	0.3553	-0.1784	-0.0348	0.3577	-0.2056	-0.0544	-0.0592	0.9401	0.0673	0.251	1.0064	1.5911	1.0581	A+	A-	A+
ELA	3	783867	6	CCAACS	3	B-K	6355	0.2818	0.1957	0.2799	0.2241	0.2935	0.005	0.0019	0.0817	-0.0793	0.0852	-0.0685	0.0622	-0.0613	-0.0512	1.6	0.0729	7.0213	1.2623	8.6715	1.5383	A-	A-	A-
ELA	3	783869	6	CCAACS	1	B-K	6344	0.5876	0.148	0.0888	0.1721	0.5826	0.0067	0.0019	0.5232	-0.268	-0.2527	-0.2281	0.5215	-0.0278	-0.0421	0.0383	0.067	-3.5091	0.9135	-2.9091	0.892	A+	A-	A-
ELA	3	783863	6	CCAACS	2	B-V	6299	0.6155	0.0645	0.6059	0.0755	0.2385	0.0145	0.0011	0.4283	-0.2722	0.4297	-0.2689	-0.1491	-0.062	-0.0324	-0.0991	0.0677	-1.419	0.9629	0.091	1.0031	A-	A-	A-
ELA	3	800668	6	CCAACS	2	B-V	6354	0.625	0.135	0.6206	0.0989	0.1385	0.0053	0.0017	0.4539	-0.152	0.4562	-0.2643	-0.2466	-0.0427	-0.0543	-0.2132	0.0684	-3.1791	0.9153	-3.3091	0.8596	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	781884	6	CCAACS	2	D	12679	0.8158	0.0922	0.0552	0.807	0.0349	0.0098	0.0009	0.4378	-0.2893	-0.1916	0.4362	-0.2154	-0.0451	-0.0246	-1.2944	0.0671	-5.0892	0.821	-4.8593	0.6967	A+	A-	A-
ELA	3	799501	7	CCAACS	2	B-C	6342	0.2731	0.174	0.2652	0.2829	0.2713	0.0061	0.0006	0.1175	-0.1563	-0.1518	0.1711	0.1192	-0.0357	-0.0404	1.6637	0.0742	4.1412	1.1572	5.7214	1.3667	A-	A+	A+
ELA	3	799509	7	CCAACS	2	B-C	6352	0.5584	0.5555	0.054	0.3383	0.047	0.0034	0.0017	0.5197	0.5221	-0.2209	-0.3334	-0.2173	-0.0602	-0.0541	0.0974	0.0666	-4.9091	0.8826	-4.5192	0.85	A-	A-	A-
ELA	3	799510	7	CCAACS	1	B-C	6329	0.6211	0.1514	0.1331	0.6157	0.091	0.008	0.0008	0.4717	-0.2387	-0.2012	0.4714	-0.2461	-0.0456	-0.0197	-0.1662	0.0678	-5.8891	0.8509	-5.3592	0.7988	A-	A-	A-
ELA	3	799505	7	CCAACS	1	B-K	6346	0.7644	0.7597	0.1168	0.055	0.0623	0.0056	0.0005	0.4418	0.442	-0.2832	-0.1623	-0.2378	-0.0418	-0.0103	-0.947	0.0761	-3.4391	0.8731	-3.5092	0.7826	A-	A-	A-
ELA	3	799507	7	CCAACS	1	B-K	6354	0.2993	0.2252	0.3875	0.2979	0.0846	0.0044	0.0005	0.2023	0.0096	-0.0669	0.2035	-0.2203	-0.0382	-0.0305	1.4452	0.0715	4.4212	1.1497	7.2414	1.4065	A+	A+	A-
ELA	3	799508	7	CCAACS	1	B-K	6293	0.5508	0.211	0.1308	0.5428	0.101	0.0132	0.0013	0.4864	-0.1781	-0.2216	0.4853	-0.2926	-0.0444	-0.0319	0.2066	0.0663	-3.0291	0.9275	-2.9391	0.9044	A-	A-	A-
ELA	3	799502	7	CCAACS	2	B-V	6343	0.5592	0.5555	0.138	0.2113	0.0886	0.0063	0.0003	0.292	0.2938	-0.0802	-0.1692	-0.1609	-0.038	-0.0319	0.1137	0.0666	2.3611	1.0594	1.5311	1.0536	A-	A+	A-
ELA	3	799503	7	CCAACS	2	B-V	6346	0.7884	0.0468	0.0526	0.7836	0.1109	0.0047	0.0014	0.4813	-0.2482	-0.2239	0.484	-0.2919	-0.0447	-0.0583	-1.1264	0.0792	-4.1192	0.8341	-4.8793	0.6776	A-	A-	A-
ELA	3	805392	8	CCAACS	2	B-C	6356	0.3175	0.2207	0.0813	0.3148	0.3747	0.0067	0.0019	0.116	0.0617	-0.2273	0.1199	-0.0246	-0.063	-0.0497	1.2872	0.0698	5.8512	1.184	7.6814	1.3844	A+	A-	A-
ELA	3	805394	8	CCAACS	2	B-C	6315	0.4833	0.3535	0.0714	0.0841	0.4761	0.0129	0.002	0.3206	-0.0489	-0.2133	-0.2692	0.3236	-0.0554	-0.0519	0.476	0.0667	4.1611	1.109	3.6511	1.1288	A+	A-	A-
ELA	3	805396	8	CCAACS	2	B-C	6357	0.442	0.1376	0.1685	0.4383	0.2472	0.0069	0.0016	0.3608	-0.2085	-0.081	0.3634	-0.1649	-0.065	-0.0424	0.8629	0.0674	0.211	1.0054	0.291	1.0101	A+	A-	A+
ELA	3	805387	8	CCAACS	2	B-K	6355	0.726	0.1075	0.0838	0.0803	0.7197	0.007	0.0017	0.4536	-0.2141	-0.2061	-0.2764	0.4549	-0.0417	-0.0552	-0.5905	0.0726	-3.9491	0.8741	-3.8892	0.7917	A+	A-	A+
ELA	3	805389	8	CCAACS	2	B-K	6357	0.6256	0.6203	0.126	0.0786	0.1666	0.0066	0.0019	0.4404	0.4436	-0.2282	-0.2418	-0.1799	-0.0625	-0.0548	-0.0986	0.0684	-3.9591	0.8943	-4.2392	0.8305	A+	A-	A-
ELA	3	805398	8	CCAACS	2	B-V	6376	0.5935	0.0914	0.1122	0.5902	0.2007	0.0041	0.0014	0.4984	-0.3182	-0.2658	0.4999	-0.1633	-0.0462	-0.0515	0.001	0.0679	-3.3791	0.9115	-3.1491	0.8787	A-	A-	A-
ELA	3	805400	8	CCAACS	2	B-V	6364	0.5614	0.1125	0.1898	0.1331	0.5573	0.0056	0.0017	0.5278	-0.1629	-0.3407	-0.2086	0.5309	-0.0762	-0.0515	0.218	0.0671	-5.9991	0.8527	-5.7992	0.8041	A-	A-	A-
ELA	3	808628	8	CCAACS	2	B-V	6373	0.7411	0.158	0.7367	0.0624	0.037	0.0036	0.0023	0.5236	-0.3766	0.5284	-0.2191	-0.1859	-0.0636	-0.0715	-0.8471	0.076	-4.8592	0.8275	-5.0693	0.6936	A-	A-	A-
ELA	3	781869	8	CCAACS	1	D	6344	0.5098	0.0646	0.2385	0.182	0.5044	0.0097	0.0008	0.3697	-0.204	-0.1331	-0.1923	0.3689	-0.0312	-0.0114	0.4172	0.0668	-0.789	0.9799	-0.709	0.9754	A-	A-	A-
ELA	3	800898	9	CCAACS	3	B-C	6337	0.6033	0.1599	0.5958	0.151	0.0809	0.01	0.0025	0.4627	-0.1975	0.4646	-0.2213	-0.2521	-0.0528	-0.0479	-0.0454	0.0678	-3.7191	0.9039	-3.4191	0.8689	A-	A-	A+
ELA	3	800903	9	CCAACS	1	B-C	6350	0.2945	0.2914	0.259	0.3696	0.0695	0.0084	0.002	0.3681	0.368	-0.0851	-0.1438	-0.2219	-0.023	-0.0439	1.4549	0.0721	-1.8791	0.9388	-0.219	0.9874	A-	A-	A-
ELA	3	800904	9	CCAACS	2	B-C	6366	0.6197	0.2088	0.6148	0.1233	0.0452	0.0055	0.0025	0.3765	-0.228	0.3783	-0.1951	-0.111	-0.0214	-0.0529	-0.1172	0.0681	-1.209	0.9674	-1.6291	0.9333	A+	A-	A+
ELA	3	800900	9	CCAACS	2	B-K	6350	0.3017	0.3943	0.1212	0.1755	0.2986	0.0083	0.0022	0.3432	-0.2031	-0.1302	-0.0271	0.3441	-0.0366	-0.0448	1.4227	0.0718	-0.739	0.9755	0.211	1.0097	A+	A-	A+
ELA	3	800902	9	CCAACS	2	B-K	6304	0.2146	0.2799	0.1479	0.2108	0.3438	0.0159	0.0017	0.0288	0.1551	-0.2589	0.0323	0.0346	-0.0474	-0.0345	1.9879	0.0794	2.4311	1.1066	7.1416	1.6149	A-	A-	A-
ELA	3	800906	9	CCAACS	3	B-K	6345	0.3455	0.3416	0.1537	0.189	0.3045	0.0084	0.0028	-0.0484	-0.0407	-0.145	-0.08	0.245	-0.0736	-0.0597	1.2392	0.0701	9.9014	1.3885	9.9016	1.5706	A-	A+	A+
ELA	3	800897	9	CCAACS	2	B-V	6379	0.8279	0.823	0.0531	0.0606	0.0573	0.0039	0.002	0.4742	0.4765	-0.2501	-0.2626	-0.2498	-0.0401	-0.056	-1.4036	0.0846	-4.0192	0.8155	-5.4294	0.5796	A+	A-	A-
ELA	3	806926	9	CCAACS	2	B-V	6332	0.7104	0.701	0.1124	0.0351	0.1384	0.0112	0.002	0.4875	0.4873	-0.2261	-0.2287	-0.298	-0.0475	-0.0387	-0.676	0.0727	-3.6791	0.8826	-2.3891	0.8654	A-	A-	A-
ELA	4	744208	0	CCAACS	2	A-C	55885	0.4802	0.476	0.2082	0.1009	0.206	0.0078	0.0012	0.2114	0.218	-0.1442	-0.2517	0.0871	-0.0949	-0.0409	0.5301	0.019	9.9013	1.2511	9.9014	1.3626	A-	A+	A+
ELA	4	744014	0	CCAACS	2	A-K	55902	0.596	0.2313	0.0911	0.5909	0.0781	0.0068	0.0018	0.5486	-0.2922	-0.2723	0.5485	-0.2336	-0.049	-0.0331	-0.1046	0.0193	-9.8991	0.9238	-9.6391	0.8947	A+	A+	A+
ELA	4	744015	0	CCAACS	2	A-K	55855	0.5733	0.5678	0.1574	0.1973	0.068	0.008	0.0015	0.4495	0.4508	-0.2508	-0.1382	-0.2817	-0.0515	-0.0389	0.1628	0.0191	-0.469	0.9966	0.861	1.0087	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	744016	0	CCAACS	2	A-K	55748	0.6376	0.1609	0.1046	0.0929	0.6303	0.0075	0.0038	0.5747	-0.271	-0.281	-0.2922	0.574	-0.05	-0.0385	-0.175	0.0194	-9.8992	0.8474	-9.8992	0.7931	A+	A+	A+
ELA	4	744200	0	CCAACS	2	A-K	55891	0.5049	0.1032	0.1864	0.5004	0.2012	0.0077	0.0011	0.4972	-0.2705	-0.155	0.5007	-0.2438	-0.1006	-0.0349	0.1212	0.0191	-3.209	0.9769	-2.349	0.9761	A-	A+	A+
ELA	4	744203	0	CCAACS	3	A-K	55914	0.5209	0.1969	0.5165	0.1925	0.0857	0.0073	0.0011	0.4313	-0.2009	0.4352	-0.141	-0.2604	-0.0932	-0.036	0.1969	0.019	5.781	1.0419	8.3211	1.0858	A-	A-	A+
ELA	4	744206	0	CCAACS	1	A-K	55976	0.6103	0.1044	0.2061	0.6058	0.0764	0.0061	0.0012	0.4149	-0.2464	-0.2115	0.4203	-0.1345	-0.0956	-0.0383	-0.2707	0.0196	8.5511	1.0705	9.4111	1.1213	A+	A+	A+
ELA	4	744020	0	CCAACS	2	A-V	55987	0.3679	0.2478	0.3157	0.0641	0.3652	0.0052	0.0019	0.3789	-0.1861	-0.0672	-0.2696	0.3802	-0.0529	-0.0384	1.1428	0.0198	5.791	1.0481	9.7811	1.1303	A+	A+	A+
ELA	4	744022	0	CCAACS	2	A-V	56051	0.6862	0.1639	0.6821	0.0682	0.0799	0.0044	0.0016	0.4467	-0.19	0.4497	-0.2583	-0.2524	-0.0603	-0.0395	-0.3827	0.0199	-7.7991	0.9358	-7.1691	0.9077	A+	A+	A+
ELA	4	744197	0	CCAACS	1	A-V	55717	0.3921	0.254	0.1262	0.2205	0.3874	0.0107	0.0012	0.361	-0.1353	-0.164	-0.1273	0.3652	-0.0995	-0.0453	1.1074	0.0197	9.9011	1.1202	9.9012	1.2183	A-	A+	A+
ELA	4	711550	0	CCAACS	2	B-C	55964	0.5253	0.2321	0.1488	0.0903	0.5213	0.0058	0.0017	0.4602	-0.1847	-0.2303	-0.2233	0.463	-0.0705	-0.0493	0.3812	0.019	-5.649	0.9607	-3.419	0.967	A-	A-	A+
ELA	4	711610	0	CCAACS	3	B-C	55866	0.4676	0.3128	0.0924	0.4633	0.1223	0.0076	0.0016	0.3566	-0.0845	-0.2062	0.3602	-0.2202	-0.075	-0.0512	0.6581	0.0191	9.9011	1.086	9.9011	1.1336	A+	A+	A+
ELA	4	712024	0	CCAACS	2	B-C	55736	0.3937	0.227	0.1378	0.3891	0.2345	0.0093	0.0023	0.3787	-0.098	-0.2772	0.3827	-0.091	-0.094	-0.0507	0.6232	0.019	3.971	1.0286	6.1911	1.0634	A-	A-	A-
ELA	4	712026	0	CCAACS	2	B-C	55765	0.3721	0.2693	0.2284	0.1233	0.368	0.0085	0.0026	0.3727	-0.1034	-0.1652	-0.1667	0.3767	-0.1022	-0.0445	0.7561	0.0192	3.321	1.0243	5.4911	1.0586	A-	A-	A+
ELA	4	712028	0	CCAACS	2	B-C	55641	0.4817	0.278	0.4753	0.1382	0.0953	0.0108	0.0024	0.4318	-0.0751	0.4367	-0.2715	-0.2654	-0.0982	-0.054	0.3446	0.019	2.771	1.0197	5.4711	1.0544	A+	A-	A-
ELA	4	711545	0	CCAACS	2	B-K	55971	0.564	0.1593	0.11	0.5598	0.1635	0.0055	0.0019	0.538	-0.1696	-0.355	0.5403	-0.2363	-0.0787	-0.043	0.2154	0.019	-9.8991	0.9053	-9.8991	0.892	A+	A+	A+
ELA	4	711548	0	CCAACS	3	B-K	55880	0.4041	0.4005	0.1317	0.2623	0.1965	0.0054	0.0035	0.3011	0.3043	-0.169	-0.0743	-0.1297	-0.0717	-0.0424	1.2241	0.02	9.9012	1.2024	9.9013	1.3488	A+	A+	A+
ELA	4	712031	0	CCAACS	3	B-K	55717	0.4662	0.4607	0.2333	0.0979	0.1962	0.0103	0.0016	0.4029	0.4073	-0.1154	-0.2891	-0.1435	-0.0955	-0.0417	0.7074	0.0191	8.2011	1.0604	9.9011	1.108	A-	A+	A+
ELA	4	712032	0	CCAACS	2	B-K	55871	0.6877	0.0938	0.6814	0.0718	0.1439	0.0074	0.0017	0.5481	-0.3143	0.5537	-0.2627	-0.25	-0.1013	-0.0496	-0.4991	0.0201	-9.8991	0.8964	-9.8992	0.827	A+	A+	A+
ELA	4	712033	0	CCAACS	2	B-K	55797	0.4152	0.1493	0.3194	0.4109	0.11	0.0086	0.0019	0.3552	-0.2086	-0.0578	0.3602	-0.2057	-0.1	-0.0544	0.7996	0.0192	9.9011	1.0754	9.9011	1.1482	A-	A+	A+
ELA	4	711544	0	CCAACS	2	B-V	55997	0.5877	0.1936	0.5836	0.1497	0.0662	0.005	0.0019	0.4952	-0.1788	0.4981	-0.3144	-0.2231	-0.0725	-0.0486	-0.0981	0.0193	-6.8891	0.9483	-5.2491	0.9419	A-	A-	A-
ELA	4	712034	0	CCAACS	2	B-V	55686	0.625	0.1771	0.1223	0.071	0.6172	0.0098	0.0026	0.5495	-0.2574	-0.2682	-0.2749	0.5544	-0.1027	-0.0517	-0.3626	0.0198	-9.8991	0.899	-9.8992	0.8467	A-	A-	A-
ELA	4	712035	0	CCAACS	2	B-V	55748	0.6404	0.6331	0.1447	0.0695	0.1413	0.0086	0.0027	0.5185	0.5251	-0.2138	-0.2839	-0.2657	-0.1077	-0.0612	-0.6272	0.0205	3.961	1.0374	3.091	1.0484	A-	A-	A-
ELA	4	662798	0	CCAACS	3	D	55766	0.7087	0.1248	0.0828	0.0805	0.7009	0.0086	0.0024	0.4386	-0.2267	-0.2048	-0.229	0.4443	-0.0856	-0.0389	-0.5068	0.0202	-9.8291	0.9156	-9.1491	0.8745	A+	A-	A-
ELA	4	714306	0	CCAACS	2	D	56049	0.265	0.4123	0.098	0.2203	0.2634	0.0029	0.0031	0.3999	-0.154	-0.1323	-0.1359	0.4007	-0.0519	-0.0407	1.4243	0.0205	-9.7991	0.912	-2.369	0.9643	A-	A-	A-
ELA	4	714803	0	CCAACS	2	D	55830	0.6556	0.6491	0.0734	0.1953	0.0724	0.0078	0.0021	0.5445	0.5481	-0.2525	-0.3183	-0.2322	-0.0817	-0.0485	-0.3442	0.0198	-9.8992	0.8197	-9.8993	0.7481	A+	A-	A-
ELA	4	714814	0	CCAACS	2	D	55832	0.5695	0.5639	0.2193	0.1247	0.0823	0.0073	0.0026	0.3447	0.3495	-0.0924	-0.2021	-0.2189	-0.0719	-0.0406	0.1495	0.0191	9.9011	1.0742	9.9011	1.1104	A-	A-	A-
ELA	4	744145	0	CCAACS	2	D	56157	0.5346	0.5324	0.0695	0.25	0.1441	0.0018	0.0022	0.3404	0.3421	-0.2259	-0.1878	-0.0814	-0.039	-0.0354	0.2328	0.019	9.9011	1.0996	9.9011	1.132	A+	A-	A-
ELA	4	744147	0	CCAACS	2	D	55813	0.2791	0.3401	0.2762	0.1655	0.208	0.0078	0.0024	0.2986	-0.0974	0.301	-0.0687	-0.134	-0.0723	-0.0454	1.0265	0.0195	0.191	1.0015	5.9211	1.0724	A-	A+	A-
ELA	4	744149	0	CCAACS	2	D	56133	0.5947	0.2339	0.0969	0.592	0.0727	0.0022	0.0023	0.3261	-0.156	-0.138	0.3284	-0.1955	-0.0378	-0.0419	-0.0482	0.0193	9.9011	1.0985	9.9011	1.1359	A+	B-	B-
ELA	4	744153	0	CCAACS	2	D	55814	0.7847	0.0484	0.0906	0.7767	0.0741	0.0078	0.0023	0.4915	-0.2304	-0.2929	0.4963	-0.2443	-0.0761	-0.0505	-1.2132	0.0229	-9.8992	0.8001	-9.8993	0.6797	A-	A-	A+
ELA	4	744228	0	CCAACS	2	D	56103	0.4802	0.1557	0.1047	0.4778	0.2569	0.0028	0.0022	0.3152	-0.1438	-0.2386	0.3174	-0.0665	-0.0434	-0.0427	0.6858	0.0191	9.9012	1.1563	9.9012	1.228	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	795913	1	CCAACS	2	A-C	6234	0.2916	0.0785	0.284	0.3396	0.2891	0.0073	0.0014	0.2273	-0.219	-0.0009	-0.0814	0.2292	-0.0519	-0.042	1.3329	0.0634	4.0911	1.1288	5.7113	1.3104	A-	A-	A-
ELA	4	795906	1	CCAACS	2	A-K	6246	0.6647	0.6602	0.163	0.066	0.104	0.0035	0.0033	0.4054	0.4086	-0.1987	-0.2625	-0.1614	-0.0417	-0.0569	-0.3245	0.0583	-1.229	0.9716	-1.329	0.9523	A+	A+	A+
ELA	4	795909	1	CCAACS	3	A-K	6260	0.5832	0.5805	0.0882	0.191	0.1356	0.0037	0.001	0.4566	0.4584	-0.2294	-0.2342	-0.1892	-0.0529	-0.0362	0.057	0.0575	-2.059	0.9542	-1.7991	0.9446	A+	A+	A-
ELA	4	795910	1	CCAACS	3	A-K	6197	0.4678	0.1011	0.461	0.2008	0.2225	0.0103	0.0043	0.2995	-0.2695	0.2989	-0.1557	-0.0039	-0.0234	-0.0212	0.5151	0.0581	6.8512	1.1692	7.0512	1.2436	A+	A+	A-
ELA	4	795902	1	CCAACS	2	A-V	6239	0.5192	0.515	0.1983	0.2099	0.0689	0.0041	0.0038	0.3632	0.3664	-0.1103	-0.1823	-0.2301	-0.0472	-0.059	0.0959	0.0575	2.9111	1.0667	2.4211	1.0766	A-	A-	A-
ELA	4	795903	1	CCAACS	2	A-V	6180	0.5239	0.115	0.5149	0.2756	0.0773	0.0008	0.0165	0.4375	-0.2658	0.4373	-0.1892	-0.1572	-0.0367	-0.0486	0.1807	0.0575	-0.179	0.9958	0.561	1.017	A-	A-	A-
ELA	4	795904	1	CCAACS	2	A-V	6267	0.7429	0.07	0.0689	0.1173	0.7403	0.0016	0.0019	0.4546	-0.26	-0.1801	-0.2644	0.4554	-0.024	-0.0395	-0.6389	0.0599	-5.5391	0.8671	-4.6692	0.8116	A+	A+	A+
ELA	4	802453	1	CCAACS	2	A-V	6252	0.7089	0.0773	0.1558	0.7047	0.0563	0.0037	0.0022	0.4593	-0.2248	-0.2683	0.4621	-0.2083	-0.0516	-0.0502	-0.5913	0.0596	-4.5391	0.8916	-4.3492	0.8281	A-	A+	A+
ELA	4	781971	1	CCAACS	1	D	6205	0.7558	0.1382	0.7457	0.0296	0.0731	0.0113	0.0021	0.2018	-0.2163	0.2142	-0.1672	0.078	-0.0727	-0.0653	-1.0408	0.0821	0.841	1.0351	2.9212	1.2338	A+	A-	A-
ELA	4	782012	1	CCAACS	1	D	18694	0.5305	0.5261	0.1157	0.1884	0.1615	0.0057	0.0025	0.319	0.3218	-0.1301	-0.1338	-0.166	-0.0539	-0.0325	0.1512	0.0406	6.4511	1.1049	6.0611	1.136	A+	A+	A+
ELA	4	782015	1	CCAACS	2	D	6237	0.4242	0.4207	0.3803	0.0841	0.1065	0.0049	0.0033	0.2481	0.2509	0.0716	-0.225	-0.2929	-0.0474	-0.0426	0.6492	0.0714	7.0412	1.2033	6.5513	1.2695	A+	A-	A-
ELA	4	795901	2	CCAACS	2	A-C	6192	0.661	0.0843	0.6561	0.072	0.1802	0.0058	0.0016	0.5211	-0.323	0.5226	-0.2615	-0.2209	-0.0507	-0.0538	-0.5706	0.0612	-6.8592	0.8226	-6.2493	0.7435	A+	A+	A-
ELA	4	795895	2	CCAACS	2	A-K	6188	0.6217	0.6167	0.0571	0.2759	0.0423	0.0053	0.0027	0.4398	0.4445	-0.2375	-0.2299	-0.248	-0.0759	-0.0542	-0.1504	0.0583	-1.009	0.9762	-1.5591	0.9462	A-	A-	A-
ELA	4	795897	2	CCAACS	2	A-K	6145	0.5414	0.2541	0.0845	0.5333	0.1132	0.0135	0.0014	0.3924	-0.1063	-0.2159	0.3909	-0.2637	-0.0336	-0.0338	0.1822	0.0572	0.101	1.0021	-0.249	0.9922	A+	A-	A+
ELA	4	795898	2	CCAACS	2	A-K	6187	0.6032	0.253	0.5983	0.064	0.0766	0.0066	0.0016	0.5104	-0.2954	0.5127	-0.1744	-0.2744	-0.0658	-0.0498	-0.092	0.0581	-4.9991	0.8891	-4.0391	0.869	A-	A-	A-
ELA	4	795899	2	CCAACS	2	A-K	6177	0.7207	0.0832	0.0439	0.7137	0.1494	0.0059	0.0038	0.4598	-0.2599	-0.2427	0.4641	-0.2237	-0.0754	-0.0437	-0.7413	0.0628	-3.3691	0.9029	-3.3292	0.8415	A+	A-	A-
ELA	4	795891	2	CCAACS	2	A-V	6190	0.4997	0.1161	0.4958	0.2369	0.1435	0.0042	0.0035	0.4104	-0.269	0.4121	-0.1405	-0.1545	-0.0522	-0.0443	0.4396	0.057	-0.869	0.9816	0.281	1.0079	A-	A-	A-
ELA	4	795892	2	CCAACS	2	A-V	6208	0.6092	0.1311	0.6063	0.0728	0.185	0.0026	0.0022	0.2838	-0.2086	0.2886	-0.2509	0.0008	-0.0549	-0.0631	-0.1954	0.0586	5.4311	1.1344	6.5313	1.2521	A+	A+	A+
ELA	4	802804	2	CCAACS	2	A-V	6226	0.5983	0.0888	0.0768	0.2353	0.5971	0.0006	0.0013	0.4088	-0.3081	-0.2207	-0.1237	0.4101	-0.005	-0.0588	-0.0999	0.0581	-0.189	0.9955	0.831	1.028	A-	A-	A-
ELA	4	781972	2	CCAACS	2	D	24803	0.667	0.111	0.1091	0.6597	0.1093	0.0087	0.0022	0.5169	-0.2556	-0.2451	0.5196	-0.2589	-0.0729	-0.0411	-0.4812	0.0383	-9.6092	0.8465	-9.5192	0.765	A+	A-	A-
ELA	4	782011	2	CCAACS	1	D	6190	0.5884	0.0862	0.5838	0.1162	0.206	0.0059	0.0018	0.4038	-0.2653	0.4021	-0.2432	-0.1075	-0.0154	-0.0275	-0.1557	0.0584	0.551	1.0128	0.601	1.0206	A+	A+	A-
ELA	4	782013	2	CCAACS	2	D	12359	0.5282	0.2023	0.5224	0.0895	0.1749	0.0079	0.003	0.4228	-0.1434	0.4255	-0.2288	-0.2151	-0.0614	-0.0459	0.2542	0.0575	-0.019	0.9994	0.491	1.0147	A-	A-	A-
ELA	4	805446	3	CCAACS	2	A-C	6242	0.3893	0.2255	0.1412	0.2403	0.3869	0.004	0.0021	0.3309	-0.0649	-0.223	-0.1221	0.3328	-0.0538	-0.0393	0.9283	0.0577	1.051	1.0231	3.1911	1.107	A+	A-	A-
ELA	4	805440	3	CCAACS	2	A-K	6207	0.4442	0.439	0.2594	0.0865	0.2035	0.0097	0.0019	0.5069	0.5066	-0.2003	-0.2317	-0.2291	-0.0514	-0.0273	0.6822	0.0569	-5.3491	0.8922	-3.2391	0.9082	A+	A-	A+
ELA	4	805441	3	CCAACS	2	A-K	6228	0.2895	0.2798	0.2871	0.176	0.2489	0.0049	0.0033	0.2328	-0.0138	0.2353	-0.0672	-0.1569	-0.0562	-0.0505	1.4355	0.0611	4.1711	1.117	6.3213	1.3061	A-	A-	A-
ELA	4	805442	3	CCAACS	2	A-K	6195	0.6733	0.6642	0.089	0.1672	0.0661	0.0118	0.0018	0.2743	0.2799	-0.174	-0.0992	-0.1516	-0.0588	-0.0394	-0.4386	0.0601	3.3111	1.0891	4.9712	1.2124	A+	A-	A+
ELA	4	805445	3	CCAACS	2	A-K	6256	0.6579	0.1196	0.6554	0.1011	0.1201	0.0027	0.0011	0.4754	-0.1509	0.4772	-0.2676	-0.2882	-0.0449	-0.0344	-0.4433	0.0601	-3.2791	0.916	-2.9691	0.8847	A+	A+	A-
ELA	4	805448	3	CCAACS	2	A-V	6271	0.579	0.122	0.1573	0.1411	0.5782	0.0008	0.0006	0.4399	-0.2574	-0.1515	-0.2198	0.441	-0.0399	-0.0302	-0.078	0.0579	-4.6891	0.8967	-4.2091	0.8695	A+	A+	A+
ELA	4	805550	3	CCAACS	2	A-V	6242	0.4015	0.3076	0.1463	0.399	0.1409	0.0041	0.0019	0.3228	-0.0497	-0.2396	0.3246	-0.1338	-0.0492	-0.0367	0.8239	0.0573	1.981	1.0429	3.9011	1.1247	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	808972	3	CCAACS	2	A-V	6261	0.7996	0.0868	0.0619	0.7971	0.0511	0.0019	0.0011	0.4749	-0.2675	-0.237	0.4766	-0.2562	-0.0423	-0.0275	-1.4211	0.0729	-3.8292	0.8431	-4.6893	0.6889	A-	A+	A-
ELA	4	781974	3	CCAACS	2	D	18655	0.6036	0.1109	0.5984	0.0686	0.2135	0.0068	0.0019	0.3923	-0.2249	0.3958	-0.1109	-0.2165	-0.0607	-0.0399	-0.1124	0.0412	0.451	1.0073	-0.459	0.9885	A+	A-	A-
ELA	4	781978	3	CCAACS	2	D	6239	0.3186	0.1427	0.3166	0.2361	0.2981	0.0054	0.0011	0.054	-0.1381	0.0556	0.0105	0.0451	-0.0238	-0.028	1.2661	0.0597	9.9013	1.3074	9.9016	1.5507	A+	A-	A+
ELA	4	799600	4	CCAACS	2	A-C	6231	0.3893	0.1674	0.2424	0.1979	0.3874	0.0038	0.0011	0.3807	-0.1855	-0.1297	-0.1429	0.3821	-0.0607	-0.0196	0.7671	0.0574	0.591	1.0125	2.3311	1.0739	A-	A-	A-
ELA	4	799594	4	CCAACS	1	A-K	6248	0.5683	0.2429	0.153	0.5671	0.0348	0.001	0.0013	0.3557	-0.1312	-0.2263	0.3572	-0.2014	-0.0265	-0.0427	-0.0046	0.0576	1.021	1.0228	1.171	1.037	A+	A-	A-
ELA	4	799596	4	CCAACS	3	A-K	6183	0.3932	0.1932	0.1477	0.3882	0.2582	0.0118	0.0008	0.3036	-0.2216	-0.0992	0.3034	-0.0471	-0.0325	-0.0354	0.9067	0.0579	2.001	1.0453	3.8711	1.1341	A-	A-	A-
ELA	4	799597	4	CCAACS	3	A-K	6207	0.3443	0.1656	0.3413	0.1089	0.3754	0.0072	0.0016	0.1236	-0.0744	0.1261	-0.1517	0.0415	-0.0505	-0.0177	1.1944	0.0595	9.9013	1.2733	9.9015	1.4877	A+	A+	A+
ELA	4	799599	4	CCAACS	2	A-K	6237	0.2221	0.2212	0.0279	0.0305	0.7164	0.0026	0.0014	0.0266	0.0287	-0.2052	-0.1875	0.1294	-0.0597	-0.0298	1.841	0.0662	7.9913	1.2996	9.9018	1.8128	A+	A-	A-
ELA	4	799590	4	CCAACS	2	A-V	6213	0.5089	0.505	0.2272	0.073	0.187	0.0059	0.0019	0.2733	0.2764	-0.0011	-0.2501	-0.1721	-0.0669	-0.0101	0.2813	0.0569	7.2312	1.1597	6.6712	1.2043	A-	A-	A-
ELA	4	799591	4	CCAACS	2	A-V	6244	0.8439	0.0672	0.8414	0.0549	0.0335	0.0021	0.0008	0.3405	-0.175	0.3446	-0.1651	-0.2282	-0.0569	-0.0267	-1.54	0.0746	-0.959	0.9566	-1.1091	0.9126	A+	A-	A+
ELA	4	799592	4	CCAACS	2	A-V	6223	0.6471	0.2087	0.6431	0.0551	0.0869	0.0042	0.0021	0.4616	-0.1756	0.4642	-0.269	-0.2984	-0.0451	-0.0587	-0.4182	0.0598	-1.689	0.9569	-0.739	0.9704	A-	A+	A-
ELA	4	781977	4	CCAACS	2	D	6210	0.6214	0.1327	0.1463	0.6163	0.0965	0.0061	0.0022	0.4726	-0.1802	-0.2385	0.4733	-0.2703	-0.0395	-0.0396	-0.2934	0.0589	-3.4791	0.9171	-3.7091	0.8699	A-	A-	A-
ELA	4	782008	4	CCAACS	1	D	18616	0.352	0.1964	0.2067	0.3484	0.2384	0.0082	0.0019	0.1811	-0.0765	-0.1041	0.1838	-0.0213	-0.048	-0.0363	1.0809	0.0417	8.2111	1.1458	9.5813	1.277	A+	A-	A-
ELA	4	800946	5	CCAACS	2	A-C	6137	0.3547	0.3492	0.1737	0.1554	0.306	0.0148	0.001	0.0823	0.0877	-0.0742	-0.1639	0.1184	-0.069	-0.017	1.0274	0.0583	9.9013	1.3112	9.9015	1.5011	A-	A-	A-
ELA	4	800950	5	CCAACS	3	A-K	6186	0.5892	0.5846	0.0876	0.201	0.119	0.0053	0.0026	0.3812	0.3846	-0.2325	-0.1312	-0.2003	-0.0597	-0.0399	-0.0564	0.0576	1.181	1.0264	2.0411	1.0651	A+	A+	A+
ELA	4	800951	5	CCAACS	3	A-K	6157	0.4023	0.3973	0.0836	0.294	0.2127	0.0095	0.003	0.179	0.1842	-0.2491	-0.034	0.0091	-0.0742	-0.0406	0.8551	0.0575	8.5912	1.1982	7.7813	1.2688	A-	A-	A-
ELA	4	800952	5	CCAACS	2	A-K	6202	0.115	0.4658	0.1017	0.3129	0.1144	0.0037	0.0016	-0.0992	0.0125	-0.1834	0.1838	-0.0968	-0.0595	-0.0405	2.6865	0.083	4.5813	1.279	9.9023	2.3343	A+	A-	A-
ELA	4	800974	5	CCAACS	2	A-K	6187	0.5334	0.1245	0.5293	0.204	0.1346	0.0061	0.0016	0.2886	-0.1938	0.291	-0.07	-0.1413	-0.0397	-0.0438	0.3762	0.0566	4.6611	1.0989	5.4612	1.1597	A-	A+	A+
ELA	4	800948	5	CCAACS	2	A-V	6179	0.698	0.0972	0.0606	0.6917	0.1415	0.0064	0.0026	0.3809	-0.2396	-0.2333	0.386	-0.1262	-0.076	-0.0306	-0.7203	0.0623	-1.519	0.956	-0.819	0.9612	A+	A-	A-
ELA	4	800955	5	CCAACS	2	A-V	6191	0.7962	0.0767	0.7905	0.0699	0.0558	0.005	0.0021	0.5222	-0.3192	0.5273	-0.244	-0.2596	-0.0805	-0.047	-1.3426	0.0708	-5.1192	0.8054	-6.8694	0.5944	A+	A-	A-
ELA	4	806929	5	CCAACS	2	A-V	6227	0.6742	0.0813	0.1901	0.6733	0.054	0.0008	0.0005	0.3485	-0.2681	-0.1349	0.3491	-0.1613	-0.0129	-0.0306	-0.4392	0.0598	1.441	1.0373	1.021	1.0401	A-	A-	A-
ELA	4	781979	5	CCAACS	2	D	12373	0.6434	0.0736	0.1424	0.6373	0.1371	0.0085	0.001	0.4639	-0.1983	-0.221	0.4658	-0.2571	-0.0613	-0.0265	-0.3537	0.0484	-4.0891	0.9191	-4.3291	0.8664	A+	A+	A-
ELA	4	782006	5	CCAACS	1	D	18612	0.3183	0.3154	0.3729	0.1003	0.2024	0.0067	0.0022	0.194	0.1964	0.0676	-0.206	-0.1398	-0.0539	-0.0314	1.2516	0.0424	7.4811	1.1418	9.5313	1.3061	A+	A-	A-
ELA	4	782017	5	CCAACS	2	D	6189	0.4455	0.0821	0.2874	0.4422	0.1809	0.0061	0.0013	0.2753	-0.2473	-0.0351	0.2771	-0.1287	-0.0458	-0.0207	0.5676	0.0567	6.5811	1.142	6.4412	1.1945	A-	A+	A+
ELA	4	795995	6	CCAACS	2	B-C	6231	0.5723	0.1886	0.171	0.5706	0.0667	0.0016	0.0014	0.4274	-0.2426	-0.1503	0.4289	-0.2318	-0.0254	-0.0509	0.0082	0.0575	-2.3791	0.9484	-2.2191	0.9311	A-	A-	A+
ELA	4	795996	6	CCAACS	2	B-C	6209	0.4458	0.1589	0.0954	0.4429	0.2963	0.0037	0.0029	0.2132	-0.1805	-0.1602	0.2171	0.025	-0.0626	-0.0458	0.6231	0.057	6.0711	1.1334	5.5712	1.1695	A+	A+	A+
ELA	4	795997	6	CCAACS	2	B-C	6236	0.8267	0.1011	0.0334	0.0384	0.8248	0.0008	0.0014	0.4455	-0.3492	-0.1659	-0.1696	0.4479	-0.0188	-0.0534	-1.6374	0.0771	-4.7392	0.7871	-4.4493	0.6636	A+	A-	A-
ELA	4	795989	6	CCAACS	3	B-K	6203	0.5156	0.2006	0.5117	0.1986	0.0816	0.0046	0.0029	0.4144	-0.2643	0.4178	-0.1374	-0.1481	-0.0775	-0.044	0.3325	0.0568	0.341	1.0069	0.721	1.0204	A-	A-	A-
ELA	4	795993	6	CCAACS	2	B-K	6184	0.4203	0.4131	0.0915	0.069	0.4158	0.0074	0.0032	0.3176	-0.0608	-0.1982	-0.251	0.3202	-0.0655	-0.027	0.796	0.0574	2.8011	1.0619	3.1011	1.0978	A+	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	795994	6	CCAACS	2	B-K	6195	0.707	0.0678	0.7008	0.1363	0.0862	0.008	0.0008	0.4665	-0.2534	0.4678	-0.235	-0.2278	-0.0562	-0.0319	-0.7793	0.0631	-2.4991	0.9261	-2.3591	0.884	A-	A+	A-
ELA	4	795987	6	CCAACS	2	B-V	6224	0.7751	0.7718	0.057	0.0386	0.1285	0.0024	0.0018	0.4054	0.4094	-0.3029	-0.2472	-0.1476	-0.0577	-0.0425	-1.1434	0.0679	0.081	1.0024	3.8513	1.2653	A-	A+	A+
ELA	4	795988	6	CCAACS	2	B-V	6204	0.5475	0.2603	0.5435	0.0651	0.1237	0.0034	0.004	0.3306	-0.1713	0.3348	-0.2025	-0.106	-0.067	-0.0447	0.2478	0.0569	4.0511	1.0875	3.9211	1.1175	A-	A-	A-
ELA	4	781975	6	CCAACS	2	D	6201	0.3143	0.2102	0.2763	0.1938	0.3118	0.005	0.0029	0.1768	-0.0719	-0.0148	-0.1058	0.1791	-0.0579	-0.0216	1.3536	0.0606	4.5211	1.125	7.1813	1.3327	A+	A-	A-
ELA	4	795926	7	CCAACS	2	B-C	6240	0.6038	0.5986	0.1228	0.0732	0.1967	0.0073	0.0014	0.5111	0.5128	-0.2752	-0.2129	-0.2477	-0.0645	-0.0425	-0.2881	0.0594	-4.9991	0.8804	-4.7592	0.824	A+	A-	A+
ELA	4	795934	7	CCAACS	2	B-C	6244	0.3802	0.1597	0.2559	0.1992	0.3771	0.0068	0.0013	0.1293	-0.0815	-0.0073	-0.0584	0.1351	-0.0943	-0.0372	1.0581	0.0583	9.2112	1.2281	8.1613	1.3235	A+	A+	A+
ELA	4	795935	7	CCAACS	2	B-C	6266	0.605	0.1222	0.1813	0.0898	0.6022	0.003	0.0016	0.3468	-0.1503	-0.1705	-0.1821	0.3492	-0.0475	-0.0344	-0.0185	0.0579	2.071	1.0475	1.5111	1.0518	A+	A-	A+
ELA	4	795936	7	CCAACS	2	B-C	6249	0.5787	0.5744	0.0723	0.143	0.203	0.0044	0.0029	0.3085	0.3112	-0.2516	-0.1411	-0.0853	-0.0372	-0.0469	0.0465	0.0576	1.341	1.0299	0.511	1.0165	A-	A+	A+
ELA	4	795931	7	CCAACS	2	B-K	6200	0.4685	0.1795	0.4615	0.2303	0.1136	0.0135	0.0016	0.3724	-0.149	0.3726	-0.1314	-0.2101	-0.0383	-0.0534	0.5157	0.0569	-0.289	0.9937	0.751	1.0222	A-	A+	A+
ELA	4	795933	7	CCAACS	2	B-K	6237	0.5708	0.1198	0.5655	0.247	0.0585	0.0057	0.0035	0.4656	-0.2769	0.4666	-0.1813	-0.2436	-0.05	-0.0391	0.0833	0.0575	0.701	1.0155	1.041	1.0337	A-	A-	A-
ELA	4	795927	7	CCAACS	2	B-V	6273	0.8299	0.827	0.057	0.0634	0.0491	0.0021	0.0014	0.443	0.448	-0.2273	-0.2368	-0.2511	-0.06	-0.0548	-1.5918	0.0773	-3.3392	0.8457	-4.7194	0.6435	A-	A-	A-
ELA	4	795928	7	CCAACS	2	B-V	6276	0.7076	0.7055	0.0539	0.112	0.1257	0.0019	0.0011	0.4932	0.4955	-0.2716	-0.197	-0.2982	-0.0406	-0.055	-0.7228	0.0632	-3.4191	0.8995	-3.8592	0.8139	A-	A-	A-
ELA	4	795973	8	CCAACS	2	B-C	6227	0.3374	0.1659	0.2422	0.3345	0.2488	0.0072	0.0014	0.2502	-0.1453	0.0027	0.2512	-0.1423	-0.0344	-0.0325	1.2129	0.0596	3.2311	1.0827	5.9713	1.253	A-	A-	A-
ELA	4	797524	8	CCAACS	2	B-C	6245	0.3656	0.3904	0.3635	0.1197	0.1207	0.0043	0.0014	0.3225	-0.058	0.3241	-0.2143	-0.1633	-0.0525	-0.0368	0.9658	0.0582	3.7811	1.0888	5.4312	1.1987	A-	A-	A-
ELA	4	795968	8	CCAACS	2	B-K	6223	0.5065	0.072	0.5018	0.125	0.292	0.0072	0.0021	0.3506	-0.2387	0.351	-0.1658	-0.1212	-0.0169	-0.0534	0.4218	0.057	1.081	1.0228	1.511	1.0461	A+	A+	A+
ELA	4	795969	8	CCAACS	2	B-K	6202	0.4882	0.2065	0.1441	0.4821	0.1548	0.0092	0.0033	0.3586	-0.2038	-0.0997	0.3564	-0.1607	-0.0171	-0.0138	0.5619	0.057	4.4411	1.0968	4.4511	1.141	A+	A+	A-
ELA	4	795971	8	CCAACS	2	B-K	6251	0.5089	0.1536	0.1707	0.1645	0.5064	0.004	0.0008	0.3152	-0.1718	-0.1057	-0.1442	0.3166	-0.048	-0.0035	0.3875	0.057	5.7011	1.125	4.6811	1.149	A+	A-	A+
ELA	4	795964	8	CCAACS	2	B-V	6232	0.5717	0.5673	0.0931	0.1218	0.21	0.0049	0.0029	0.4144	0.4152	-0.249	-0.2616	-0.107	-0.0547	-0.007	0.0357	0.0576	-1.669	0.9632	-1.059	0.9642	A-	A-	A-
ELA	4	795965	8	CCAACS	2	B-V	6262	0.637	0.2049	0.6351	0.0782	0.0788	0.0021	0.001	0.3928	-0.2984	0.3942	-0.14	-0.1087	-0.0298	-0.034	-0.4118	0.06	-0.559	0.9854	-0.579	0.9742	A-	A-	A-
ELA	4	804584	8	CCAACS	2	B-V	6250	0.6333	0.1729	0.1551	0.0369	0.6302	0.0027	0.0022	0.3317	-0.1697	-0.1423	-0.2226	0.3331	-0.0405	-0.0224	-0.2285	0.0588	2.6511	1.0649	2.6411	1.1059	A+	A-	A-
ELA	4	800962	9	CCAACS	2	B-C	6178	0.3283	0.2487	0.3241	0.2084	0.2062	0.012	0.0006	0.2801	-0.0446	0.2802	-0.0783	-0.1876	-0.0351	-0.015	1.1423	0.0591	3.7811	1.0942	6.8613	1.2816	A-	A-	A-
ELA	4	800963	9	CCAACS	2	B-C	6224	0.5016	0.1179	0.1883	0.499	0.1895	0.0043	0.001	0.3962	-0.2504	-0.2175	0.3965	-0.0752	-0.0299	-0.0342	0.3266	0.057	2.261	1.0482	2.6311	1.0813	A-	A-	A-
ELA	4	800964	9	CCAACS	2	B-C	6219	0.79	0.0543	0.1029	0.0515	0.7852	0.005	0.0011	0.5036	-0.2415	-0.3011	-0.2568	0.5019	-0.0425	-0.005	-1.1939	0.069	-4.1592	0.8495	-5.1393	0.6866	A-	A-	A-
ELA	4	800967	9	CCAACS	2	B-C	6234	0.6242	0.1585	0.0948	0.6219	0.1211	0.0029	0.0008	0.4696	-0.2174	-0.2959	0.4701	-0.182	-0.0355	-0.0212	-0.2911	0.0592	-4.5791	0.8915	-3.6791	0.8608	A-	A-	A-
ELA	4	800959	9	CCAACS	2	B-K	6223	0.4016	0.3994	0.2041	0.0945	0.2966	0.0032	0.0022	0.1556	0.1586	-0.1793	-0.2572	0.1632	-0.0452	-0.0459	0.8472	0.0576	9.9012	1.2426	9.9014	1.3895	A-	A+	A-
ELA	4	800960	9	CCAACS	2	B-K	6203	0.748	0.0665	0.1216	0.0617	0.7416	0.0074	0.0013	0.4253	-0.2126	-0.2207	-0.232	0.4278	-0.0644	-0.0239	-0.8304	0.064	-1.509	0.9529	-2.1991	0.8822	A-	A+	A-
ELA	4	800968	9	CCAACS	2	B-V	6247	0.8899	0.8884	0.0403	0.0395	0.0302	0.0006	0.001	0.3857	0.3867	-0.2216	-0.2162	-0.2027	-0.015	-0.0321	-1.9731	0.0857	-1.0191	0.9403	-3.2093	0.6948	A-	A-	A-
ELA	4	807269	9	CCAACS	2	B-V	6208	0.6546	0.1544	0.1112	0.077	0.6495	0.0059	0.0019	0.4236	-0.1858	-0.2423	-0.2071	0.4238	-0.033	-0.0263	-0.4135	0.06	-1.099	0.9717	-0.269	0.9879	C-	A-	A-
ELA	5	711327	0	CCAACS	3	A-C	52294	0.5716	0.1726	0.1407	0.5668	0.1114	0.0071	0.0014	0.5222	-0.2431	-0.2247	0.5252	-0.2604	-0.0848	-0.0328	-0.0982	0.0194	-3.599	0.9729	-4.189	0.9522	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	711328	0	CCAACS	2	A-C	52415	0.4347	0.2206	0.158	0.1832	0.432	0.0049	0.0013	0.4377	-0.1173	-0.2014	-0.2306	0.4401	-0.082	-0.027	0.3118	0.0191	5.471	1.0395	6.7911	1.0715	A-	A-	A-
ELA	5	711553	0	CCAACS	2	A-K	52206	0.489	0.2037	0.4841	0.1428	0.1593	0.0088	0.0014	0.4352	-0.1733	0.4382	-0.2043	-0.1888	-0.0803	-0.0313	0.2517	0.0191	7.1011	1.0516	6.4111	1.0678	A+	A+	A+
ELA	5	711738	0	CCAACS	3	A-K	52256	0.4826	0.2083	0.1293	0.175	0.4782	0.008	0.0012	0.536	-0.2141	-0.2542	-0.2307	0.5382	-0.0876	-0.0339	0.2421	0.0191	-9.8991	0.9153	-9.5991	0.9037	A+	A+	A+
ELA	5	744025	0	CCAACS	2	A-K	52452	0.5454	0.5424	0.2848	0.0694	0.0979	0.0043	0.0012	0.3703	0.373	-0.1213	-0.2873	-0.1782	-0.0596	-0.0354	0.2213	0.0191	9.9011	1.091	9.9011	1.145	A-	A+	A+
ELA	5	744029	0	CCAACS	2	A-K	52403	0.57	0.0682	0.2631	0.096	0.5663	0.0044	0.002	0.3859	-0.232	-0.123	-0.2529	0.3885	-0.0639	-0.0264	0.1481	0.0191	8.8511	1.0654	9.9011	1.1171	A+	A+	A+
ELA	5	744030	0	CCAACS	2	A-K	52390	0.5345	0.1162	0.5309	0.2809	0.0653	0.0051	0.0015	0.3377	-0.1402	0.3411	-0.1169	-0.2697	-0.0639	-0.0386	0.163	0.0191	9.9011	1.1203	9.9012	1.1864	A+	A+	A+
ELA	5	711318	0	CCAACS	1	A-V	52340	0.5784	0.574	0.1433	0.2052	0.0699	0.006	0.0016	0.44	0.4439	-0.2772	-0.1537	-0.2059	-0.0861	-0.0287	0.0045	0.0192	-0.779	0.9942	-1.559	0.9828	A-	A+	A-
ELA	5	711320	0	CCAACS	2	A-V	52288	0.5733	0.1921	0.1262	0.5684	0.1047	0.007	0.0016	0.3758	-0.0887	-0.2127	0.3809	-0.2434	-0.0833	-0.0414	-0.3853	0.0198	9.9011	1.1445	9.9012	1.2267	A-	A-	A-
ELA	5	711741	0	CCAACS	2	A-V	52325	0.3528	0.3254	0.35	0.2455	0.0712	0.0061	0.0017	0.3148	-0.0445	0.318	-0.197	-0.1475	-0.0826	-0.0411	1.057	0.0198	9.9011	1.1096	9.9013	1.3047	A+	A+	A+
ELA	5	744033	0	CCAACS	3	A-V	52471	0.6189	0.1754	0.6157	0.0644	0.1393	0.0037	0.0014	0.3925	-0.2027	0.3958	-0.2461	-0.1437	-0.06	-0.0442	-0.3414	0.0197	8.7011	1.0732	7.2511	1.0984	A+	A+	A+
ELA	5	711530	0	CCAACS	3	B-C	51978	0.4885	0.2049	0.1783	0.4815	0.1209	0.0115	0.0029	0.4608	-0.1575	-0.2287	0.4619	-0.2189	-0.0606	-0.0352	0.4303	0.0191	-4.389	0.969	-1.399	0.9857	A+	A+	A-
ELA	5	744185	0	CCAACS	1	B-C	52414	0.3707	0.1842	0.3684	0.2173	0.2239	0.0048	0.0013	0.3777	-0.0791	0.38	-0.1949	-0.1575	-0.0742	-0.0392	1.101	0.0199	9.2711	1.0791	9.9012	1.2157	A-	A-	A-
ELA	5	744195	0	CCAACS	2	B-C	52413	0.4007	0.3982	0.1535	0.1619	0.2803	0.0047	0.0015	0.2716	0.2745	-0.2321	-0.0992	-0.0181	-0.0684	-0.0354	0.7921	0.0193	9.9012	1.1606	9.9013	1.2671	A-	A+	A+
ELA	5	744196	0	CCAACS	2	B-C	52333	0.3371	0.1655	0.2668	0.3345	0.2254	0.0063	0.0014	0.291	-0.0941	-0.1002	0.2936	-0.1247	-0.0734	-0.0369	1.0078	0.0197	9.9011	1.0927	9.9012	1.2306	A+	A+	A-
ELA	5	711535	0	CCAACS	2	B-K	52562	0.5257	0.129	0.2429	0.5239	0.1009	0.0025	0.0009	0.481	-0.2881	-0.1665	0.4822	-0.2311	-0.0484	-0.0298	0.1268	0.0191	-0.679	0.9951	-0.409	0.9956	A-	A-	A-
ELA	5	711536	0	CCAACS	3	B-K	51145	0.5381	0.5219	0.173	0.103	0.1719	0.0031	0.0271	0.2835	0.2842	-0.1603	-0.2115	-0.0239	-0.0539	-0.0309	0.2029	0.0191	9.9012	1.1625	9.9012	1.2318	A-	A+	A+
ELA	5	711540	0	CCAACS	2	B-K	52330	0.532	0.1175	0.1262	0.2206	0.5279	0.0059	0.0019	0.4878	-0.2644	-0.1894	-0.2168	0.49	-0.0697	-0.0302	0.0002	0.0192	-4.959	0.9636	-4.039	0.9558	A-	A-	A-
ELA	5	744189	0	CCAACS	2	B-K	52441	0.7112	0.1553	0.7072	0.0578	0.074	0.004	0.0017	0.5834	-0.3717	0.5869	-0.211	-0.2914	-0.0819	-0.0423	-1.0589	0.022	-9.3991	0.8976	-9.8992	0.78	A+	A-	A-
ELA	5	744192	0	CCAACS	2	B-K	52388	0.5218	0.5184	0.1147	0.2314	0.1289	0.0044	0.0023	0.3908	0.3937	-0.3061	-0.1124	-0.1359	-0.0743	-0.0278	0.2944	0.0191	9.7511	1.0712	9.9011	1.1074	A-	A+	A+
ELA	5	744193	0	CCAACS	2	B-K	52379	0.5097	0.1864	0.1443	0.1562	0.5062	0.0053	0.0016	0.5137	-0.1861	-0.2375	-0.2616	0.516	-0.0788	-0.0348	0.1653	0.0191	-7.4591	0.9471	-6.0091	0.938	A+	A+	A+
ELA	5	711534	0	CCAACS	2	B-V	52537	0.7666	0.0824	0.0549	0.0951	0.7637	0.0026	0.0012	0.5182	-0.2708	-0.2464	-0.2957	0.5196	-0.0455	-0.0299	-1.2172	0.0227	-9.8992	0.8219	-9.8993	0.7176	A-	A-	A-
ELA	5	744186	0	CCAACS	2	B-V	52453	0.662	0.0875	0.0771	0.6584	0.1716	0.0042	0.0012	0.4813	-0.2278	-0.2612	0.4849	-0.2381	-0.0723	-0.042	-0.932	0.0215	9.9012	1.1556	9.9012	1.2349	A-	A+	A+
ELA	5	505539	0	CCAACS	2	D	52462	0.3465	0.246	0.3447	0.206	0.1981	0.0026	0.0027	0.1976	0.0221	0.1996	-0.1547	-0.0946	-0.0418	-0.0391	1.1284	0.0199	9.9013	1.2658	9.9015	1.4748	A-	A+	A+
ELA	5	661444	0	CCAACS	1	D	52429	0.33	0.314	0.1663	0.1858	0.328	0.0027	0.0032	0.2469	-0.0615	-0.1022	-0.1184	0.2484	-0.0397	-0.0338	1.1922	0.0201	9.9012	1.1871	9.9014	1.3809	A-	A-	A-
ELA	5	714314	0	CCAACS	1	D	52481	0.474	0.1666	0.4717	0.1938	0.1629	0.0017	0.0032	0.3502	-0.195	0.352	-0.1001	-0.1615	-0.0336	-0.0434	0.5745	0.0191	9.9011	1.1067	9.9012	1.1749	A+	A-	A-
ELA	5	714318	0	CCAACS	2	D	52356	0.3779	0.2183	0.2846	0.3751	0.1147	0.0057	0.0016	0.4337	-0.2406	-0.1386	0.4354	-0.1342	-0.0606	-0.0388	0.9746	0.0196	2.641	1.0211	6.4111	1.0813	A-	A-	A-
ELA	5	716625	0	CCAACS	2	D	52313	0.3321	0.1851	0.3294	0.2465	0.2309	0.0062	0.0019	0.2342	-0.1219	0.2372	-0.0731	-0.0611	-0.0661	-0.0392	1.2094	0.0201	9.9012	1.2147	9.9014	1.4132	A+	A-	A-
ELA	5	744681	0	CCAACS	2	D	52332	0.6674	0.0844	0.6622	0.0883	0.1574	0.0064	0.0014	0.4801	-0.231	0.4831	-0.2251	-0.2576	-0.0645	-0.0398	-0.3762	0.0198	-9.8991	0.9037	-9.8991	0.8628	A-	B-	A-
ELA	5	744682	0	CCAACS	2	D	52357	0.479	0.2847	0.1199	0.4755	0.1126	0.006	0.0013	0.347	-0.1692	-0.1327	0.3503	-0.1551	-0.0671	-0.0362	0.6254	0.0192	9.9011	1.1249	9.9012	1.2183	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	744904	0	CCAACS	2	D	52381	0.5788	0.5749	0.2389	0.1121	0.0673	0.0054	0.0014	0.4089	0.412	-0.1867	-0.1938	-0.2274	-0.0654	-0.0311	-0.0335	0.0193	3.681	1.0278	4.3911	1.0502	A+	A-	A-
ELA	5	744907	0	CCAACS	2	D	52516	0.4307	0.4289	0.1657	0.2532	0.148	0.002	0.0022	0.2541	0.2557	-0.1816	0.0034	-0.1616	-0.0364	-0.0311	0.6696	0.0192	9.9012	1.2149	9.9013	1.3347	A-	A-	A-
ELA	5	801007	1	CCAACS	2	A-C	5839	0.6082	0.1606	0.6023	0.0806	0.1469	0.0092	0.0005	0.3744	-0.0504	0.3751	-0.2722	-0.244	-0.0426	-0.0251	-0.2036	0.058	1.341	1.0309	2.9611	1.1067	A-	A-	A-
ELA	5	801000	1	CCAACS	2	A-K	5866	0.5159	0.3497	0.0824	0.0495	0.5132	0.0031	0.002	0.2297	0.0318	-0.2954	-0.2123	0.2323	-0.0459	-0.0318	-0.0198	0.0578	8.5512	1.2073	7.6213	1.274	A+	A+	A+
ELA	5	801001	1	CCAACS	2	A-K	5835	0.7587	0.069	0.0894	0.0804	0.7508	0.0088	0.0015	0.4675	-0.2549	-0.2309	-0.2413	0.4684	-0.0641	-0.0125	-0.8906	0.0614	-7.0292	0.8216	-6.1993	0.7201	A+	A+	A+
ELA	5	801004	1	CCAACS	2	A-K	5870	0.5433	0.5409	0.0967	0.3012	0.0568	0.0037	0.0007	0.2361	0.2388	-0.1813	-0.038	-0.1909	-0.0483	-0.0336	0.0447	0.0578	6.6712	1.1594	6.0212	1.2103	A+	A-	A-
ELA	5	801005	1	CCAACS	2	A-K	5871	0.5507	0.0877	0.1113	0.2485	0.5483	0.0025	0.0017	0.4393	-0.253	-0.3173	-0.1025	0.44	-0.0541	-0.0156	0.1153	0.0578	-1.079	0.9753	-0.559	0.9814	A+	A-	A-
ELA	5	801006	1	CCAACS	2	A-K	5882	0.414	0.0758	0.041	0.413	0.4678	0.0014	0.001	0.3718	-0.2565	-0.2501	0.3727	-0.1273	-0.0354	-0.0371	0.6716	0.0592	3.1511	1.08	5.8812	1.2323	A+	A-	A-
ELA	5	801010	1	CCAACS	2	A-V	5875	0.8	0.7972	0.1013	0.06	0.038	0.0027	0.0008	0.4541	0.4585	-0.2427	-0.2619	-0.232	-0.071	-0.03	-1.252	0.0649	-5.7192	0.8305	-5.2593	0.7093	A+	A+	A-
ELA	5	806932	1	CCAACS	2	A-V	5888	0.7327	0.1018	0.094	0.0712	0.7317	0.0007	0.0007	0.5336	-0.3364	-0.2682	-0.2144	0.535	-0.0389	-0.0363	-0.8258	0.0609	-9.0692	0.7789	-7.8993	0.6645	A-	A-	A-
ELA	5	784908	1	CCAACS	1	D	5848	0.5756	0.5709	0.1822	0.086	0.1528	0.0068	0.0014	0.3272	0.3259	-0.0619	-0.2597	-0.1749	-0.0189	-0.0039	-0.2013	0.058	4.3211	1.1023	3.2011	1.1159	A+	A-	A-
ELA	5	784910	1	CCAACS	1	D	23280	0.6896	0.0972	0.0818	0.6835	0.1287	0.0067	0.0021	0.4741	-0.26	-0.2401	0.474	-0.2184	-0.0341	-0.0372	-0.7676	0.0394	-7.7391	0.864	-7.3092	0.7897	A+	B-	A-
ELA	5	784922	1	CCAACS	2	D	11653	0.4516	0.3713	0.0581	0.4478	0.1143	0.006	0.0026	0.431	-0.1677	-0.21	0.4314	-0.2505	-0.0388	-0.0333	0.4762	0.0451	0.791	1.0132	1.971	1.0484	A-	B-	A-
ELA	5	783883	2	CCAACS	3	A-C	5831	0.5615	0.1289	0.558	0.235	0.0719	0.0044	0.0017	0.3584	-0.1369	0.361	-0.1887	-0.1877	-0.0495	-0.039	-0.0114	0.0578	2.171	1.0496	1.9411	1.0656	A-	A-	A-
ELA	5	783877	2	CCAACS	2	A-K	5845	0.8383	0.8352	0.0414	0.0397	0.0799	0.002	0.0017	0.4152	0.4196	-0.2061	-0.2156	-0.2512	-0.0646	-0.0357	-1.7027	0.077	-2.4591	0.8868	-3.9593	0.6881	A-	A-	A-
ELA	5	783879	2	CCAACS	3	A-K	5805	0.4589	0.1306	0.4541	0.1244	0.2804	0.009	0.0015	0.2975	-0.2021	0.3003	-0.1753	-0.0364	-0.0553	-0.0514	0.4263	0.0572	4.2811	1.0943	4.7312	1.152	A+	A+	A+
ELA	5	783881	2	CCAACS	3	A-K	5834	0.5677	0.1548	0.1294	0.5645	0.1457	0.0036	0.002	0.4045	-0.2362	-0.2259	0.4071	-0.1003	-0.0649	-0.0306	-0.1089	0.0582	-0.579	0.9865	-0.279	0.9897	A+	A+	A-
ELA	5	784393	2	CCAACS	3	A-K	5838	0.6596	0.0544	0.0758	0.6564	0.2085	0.0037	0.0012	0.4557	-0.185	-0.2787	0.4585	-0.2392	-0.0495	-0.0534	-0.6501	0.0616	-2.9991	0.9175	-2.7391	0.8753	A-	A-	A-
ELA	5	783873	2	CCAACS	2	A-V	5822	0.7753	0.0726	0.7694	0.0448	0.1055	0.0056	0.002	0.4504	-0.1975	0.4553	-0.2141	-0.2897	-0.0624	-0.0562	-1.3368	0.0702	-4.6792	0.8269	-4.2893	0.7212	A-	B-	B-
ELA	5	783875	2	CCAACS	2	A-V	5857	0.7384	0.1629	0.0448	0.7372	0.0533	0.0009	0.0009	0.4973	-0.3704	-0.1873	0.4992	-0.1856	-0.0379	-0.0456	-1.0692	0.0662	-5.7092	0.8164	-4.1892	0.7639	A+	A-	A-
ELA	5	800687	2	CCAACS	2	A-V	5841	0.5359	0.5335	0.2035	0.0629	0.1957	0.0019	0.0026	0.3794	0.3821	-0.1451	-0.2251	-0.1831	-0.0543	-0.0501	0.0363	0.0577	2.2411	1.0507	2.2911	1.0765	A-	A-	A-
ELA	5	784906	2	CCAACS	1	D	11644	0.6049	0.6	0.2166	0.0791	0.0961	0.0061	0.002	0.3253	0.3285	-0.0675	-0.2621	-0.1927	-0.0433	-0.0486	-0.2106	0.0616	3.4611	1.0887	5.1212	1.1977	A-	A-	A-
ELA	5	784920	2	CCAACS	2	D	5823	0.6093	0.0755	0.6047	0.0537	0.2586	0.0066	0.0009	0.3723	-0.2679	0.3749	-0.2165	-0.1327	-0.0545	-0.0409	-0.3601	0.0595	1.181	1.0298	0.991	1.0394	A+	A-	A-
ELA	5	784929	2	CCAACS	1	D	11645	0.6167	0.0579	0.028	0.2943	0.6119	0.0066	0.0013	0.3473	-0.2101	-0.1511	-0.2005	0.3493	-0.0502	-0.022	-0.2751	0.0622	2.9211	1.0775	1.9811	1.0791	A+	A+	A+
ELA	5	799522	3	CCAACS	3	A-C	5807	0.504	0.1007	0.5023	0.2301	0.1634	0.0027	0.0007	0.3808	-0.2173	0.3817	-0.1593	-0.1516	-0.0337	-0.0203	0.2123	0.0574	0.451	1.0095	0.231	1.0072	A-	A+	A+
ELA	5	799523	3	CCAACS	2	A-C	5794	0.263	0.4038	0.1812	0.2615	0.1478	0.0038	0.0019	0.2263	0.1354	-0.1921	0.2288	-0.244	-0.066	-0.054	1.4913	0.0624	1.8111	1.0533	6.4213	1.3461	A+	A-	A-
ELA	5	799516	3	CCAACS	2	A-K	5779	0.4295	0.2131	0.4259	0.225	0.1277	0.0069	0.0014	0.4907	-0.2283	0.4911	-0.1995	-0.1816	-0.0464	-0.0434	0.6498	0.0575	-3.9991	0.9151	-2.0191	0.9351	A+	A-	A-
ELA	5	799518	3	CCAACS	3	A-K	5766	0.5893	0.1598	0.5831	0.1109	0.1357	0.0089	0.0015	0.4775	-0.2794	0.4798	-0.2537	-0.138	-0.0683	-0.0214	-0.0846	0.0583	-3.3591	0.9248	-2.8191	0.8979	A+	A+	A-
ELA	5	799520	3	CCAACS	2	A-K	5811	0.4911	0.1452	0.215	0.4898	0.1472	0.0019	0.0009	0.3723	-0.1771	-0.2601	0.3738	-0.0412	-0.0468	-0.0332	0.3775	0.0573	2.6111	1.0568	2.7611	1.091	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	799521	3	CCAACS	3	A-K	5777	0.3831	0.1598	0.0721	0.3798	0.3798	0.0076	0.001	0.2715	-0.2032	-0.2718	0.2746	0.0377	-0.0615	-0.0478	0.9841	0.0587	6.0512	1.1501	6.6913	1.2655	A+	A+	A-
ELA	5	799513	3	CCAACS	2	A-V	5817	0.6806	0.1244	0.6794	0.0781	0.1164	0.001	0.0007	0.3108	-0.1597	0.3124	-0.2257	-0.0957	-0.0233	-0.041	-0.6447	0.062	1.451	1.0414	1.6411	1.0861	A+	A-	A-
ELA	5	805962	3	CCAACS	2	A-V	5796	0.5097	0.1491	0.1267	0.2119	0.507	0.0031	0.0022	0.3802	-0.1296	-0.2682	-0.1249	0.3821	-0.0448	-0.0446	0.3293	0.0573	1.701	1.0368	2.0011	1.0659	A+	A-	A-
ELA	5	784916	3	CCAACS	2	D	5781	0.6117	0.0273	0.1467	0.6068	0.2113	0.007	0.0009	0.5364	-0.199	-0.2043	0.5375	-0.373	-0.0609	-0.0159	-0.3878	0.0599	-5.1791	0.874	-4.4592	0.8153	A+	B-	A-
ELA	5	784924	3	CCAACS	1	D	11580	0.5246	0.0954	0.061	0.3147	0.5199	0.0075	0.0015	0.4429	-0.2539	-0.2639	-0.1673	0.4454	-0.0687	-0.0296	0.1201	0.0406	-4.7091	0.93	-3.4991	0.92	A+	B-	A-
ELA	5	784928	3	CCAACS	1	D	11587	0.6878	0.0555	0.1187	0.1352	0.6813	0.007	0.0024	0.2915	-0.1923	-0.234	-0.0351	0.2956	-0.0598	-0.0219	-0.6134	0.0644	2.8111	1.0825	2.5011	1.1345	A+	A-	A+
ELA	5	799549	4	CCAACS	3	A-C	5831	0.2229	0.221	0.0736	0.2215	0.4773	0.0037	0.0029	0.0793	-0.1037	-0.21	0.0817	0.1386	-0.0411	-0.0517	1.8752	0.067	5.4812	1.2056	9.9019	1.8913	A-	A-	A-
ELA	5	799550	4	CCAACS	3	A-C	5853	0.5204	0.1474	0.5189	0.2557	0.0751	0.002	0.0009	0.3001	-0.2192	0.3022	-0.0482	-0.1855	-0.0449	-0.0468	0.2929	0.0573	5.4711	1.1222	5.6612	1.1876	A+	A-	A+
ELA	5	799543	4	CCAACS	2	A-K	5836	0.3526	0.3506	0.347	0.1727	0.1239	0.0041	0.0017	0.2039	0.2055	-0.0213	-0.0495	-0.1994	-0.028	-0.0407	0.8874	0.0583	9.6512	1.237	9.9014	1.4152	A-	A+	A+
ELA	5	799545	4	CCAACS	3	A-K	5805	0.5349	0.2148	0.1443	0.529	0.1009	0.0106	0.0005	0.5028	-0.2239	-0.2195	0.4992	-0.2563	-0.0219	-0.0317	0.1596	0.0575	-4.1191	0.9124	-3.4191	0.8935	A+	A-	A+
ELA	5	799546	4	CCAACS	3	A-K	5843	0.5292	0.2279	0.1433	0.0974	0.5267	0.0026	0.002	0.376	-0.2116	-0.1054	-0.199	0.3775	-0.0359	-0.0425	0.2012	0.0575	1.801	1.0394	2.3011	1.0746	A+	A+	A+
ELA	5	799547	4	CCAACS	2	A-K	5844	0.7048	0.7017	0.1312	0.1055	0.0572	0.0022	0.0022	0.4963	0.4982	-0.2591	-0.2679	-0.2328	-0.0591	-0.0285	-0.7263	0.0628	-3.3191	0.9041	-4.6492	0.7811	A-	A-	A+
ELA	5	799539	4	CCAACS	2	A-V	5861	0.8304	0.8291	0.0588	0.0477	0.0629	0.001	0.0005	0.4523	0.4539	-0.2467	-0.2458	-0.2416	-0.0279	-0.041	-1.6988	0.0777	-3.9292	0.8209	-4.6794	0.631	A-	B-	A-
ELA	5	799541	4	CCAACS	2	A-V	5829	0.8931	0.0503	0.0288	0.8869	0.0271	0.0048	0.0022	0.3873	-0.2361	-0.2118	0.3893	-0.1924	-0.0583	-0.0222	-2.2664	0.0925	-2.7592	0.8276	-3.9094	0.5868	A-	B-	A-
ELA	5	784918	4	CCAACS	2	D	5828	0.7895	0.0622	0.7838	0.056	0.0908	0.006	0.0012	0.4213	-0.2089	0.4223	-0.2329	-0.2272	-0.0543	-0.0105	-1.4032	0.0719	-2.8891	0.8841	-1.6091	0.8799	B+	A-	A-
ELA	5	799620	5	CCAACS	3	A-C	5841	0.2825	0.1919	0.1784	0.3433	0.2809	0.0031	0.0024	0.2514	-0.0562	-0.1121	-0.0942	0.2524	-0.0489	-0.0196	1.4668	0.0622	3.6611	1.1089	5.1913	1.27	A+	A-	A-
ELA	5	799621	5	CCAACS	3	A-C	5844	0.3924	0.0746	0.4199	0.1102	0.3904	0.0034	0.0015	0.2879	-0.2102	-0.0517	-0.1788	0.2902	-0.0681	-0.0232	0.8193	0.0579	3.1311	1.0718	5.2712	1.1871	A-	A-	A-
ELA	5	799614	5	CCAACS	3	A-K	5801	0.3801	0.4304	0.3754	0.0908	0.0911	0.0111	0.0012	0.3186	-0.011	0.3208	-0.197	-0.2988	-0.0641	-0.0177	1.0257	0.0589	2.3511	1.057	4.2812	1.1666	A+	A+	A+
ELA	5	799616	5	CCAACS	3	A-K	5827	0.5172	0.1624	0.5132	0.2208	0.0957	0.0073	0.0005	0.4086	-0.2137	0.4076	-0.1444	-0.2146	-0.0187	-0.0116	0.1911	0.0573	0.501	1.0106	2.3311	1.0755	A+	A+	A-
ELA	5	799618	5	CCAACS	2	A-K	5850	0.1778	0.5951	0.1771	0.1289	0.095	0.0027	0.0012	0.0106	0.3576	0.0123	-0.2954	-0.2641	-0.0506	-0.0339	2.065	0.0699	6.9513	1.2973	9.902	1.9563	A-	A+	A+
ELA	5	799619	5	CCAACS	3	A-K	5779	0.4447	0.11	0.2515	0.1849	0.4376	0.015	0.001	0.2868	-0.2392	-0.1	-0.0459	0.2889	-0.0544	-0.0196	0.6092	0.0574	5.5811	1.1248	6.0912	1.2033	A+	A-	A-
ELA	5	799613	5	CCAACS	2	A-V	5861	0.5572	0.1398	0.5561	0.087	0.2151	0.0015	0.0005	0.3335	-0.2536	0.3341	-0.1302	-0.0978	-0.0169	-0.0224	0.0385	0.0577	4.3211	1.0985	3.3111	1.1143	A-	A-	A-
ELA	5	806005	5	CCAACS	2	A-V	5857	0.8518	0.8495	0.0387	0.071	0.0381	0.0019	0.0009	0.4054	0.4084	-0.2126	-0.2433	-0.2067	-0.0469	-0.0335	-1.8295	0.0808	-3.8692	0.8102	-4.9794	0.5833	B-	A-	A-
ELA	5	784923	5	CCAACS	1	D	5831	0.8985	0.892	0.0305	0.0318	0.0385	0.0061	0.001	0.3701	0.3662	-0.1963	-0.1901	-0.2263	-0.0307	-0.0185	-2.4883	0.1005	-1.1591	0.9129	-3.0694	0.6282	A+	A-	A-
ELA	5	805503	6	CCAACS	2	B-C	5852	0.7722	0.097	0.7714	0.0481	0.0825	0.0007	0.0003	0.39	-0.2591	0.3908	-0.2219	-0.1415	-0.0384	-0.0013	-1.2324	0.0684	-1.5891	0.9414	-0.519	0.963	A+	A-	A-
ELA	5	805504	6	CCAACS	2	B-C	5830	0.5106	0.1649	0.0652	0.2569	0.5082	0.0029	0.0019	0.3658	-0.1762	-0.2759	-0.1062	0.3676	-0.0489	-0.028	0.2088	0.0571	2.6711	1.0566	1.9911	1.0631	A-	A-	A-
ELA	5	805499	6	CCAACS	2	B-K	5819	0.5833	0.2252	0.0591	0.1297	0.5794	0.0056	0.001	0.5069	-0.2676	-0.2179	-0.2482	0.5073	-0.0479	-0.0106	-0.0901	0.0578	-3.3091	0.9286	-2.8491	0.9035	A+	A+	A+
ELA	5	805501	6	CCAACS	2	B-K	5821	0.7739	0.769	0.055	0.0519	0.1178	0.0039	0.0024	0.4369	0.4401	-0.2175	-0.2205	-0.2531	-0.043	-0.0553	-1.126	0.0668	-3.3291	0.8868	-4.0392	0.76	A+	A-	A-
ELA	5	805502	6	CCAACS	2	B-K	5837	0.4247	0.308	0.4232	0.0918	0.1734	0.0026	0.001	0.3136	-0.096	0.3152	-0.2087	-0.1262	-0.046	-0.0333	0.6892	0.0575	3.1111	1.0693	3.5911	1.1194	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	805494	6	CCAACS	2	B-V	5854	0.6437	0.1972	0.6432	0.0874	0.0715	0.0002	0.0005	0.3649	-0.1338	0.3656	-0.2362	-0.2109	-0.0172	-0.0259	-0.5722	0.0607	-1.269	0.9665	-1.5591	0.9295	A-	B-	A-
ELA	5	805496	6	CCAACS	2	B-V	5833	0.803	0.0604	0.0915	0.0442	0.7996	0.0024	0.0019	0.3509	-0.1712	-0.1709	-0.2353	0.3518	-0.0336	-0.0174	-1.3085	0.0696	-2.3691	0.9101	-2.6592	0.8191	A+	A-	A-
ELA	5	810360	6	CCAACS	2	B-V	5838	0.8172	0.0961	0.8144	0.0398	0.0463	0.0024	0.001	0.3831	-0.2086	0.385	-0.2188	-0.203	-0.0549	-0.0028	-1.7029	0.0772	-2.4391	0.8855	-1.9692	0.8296	A+	A-	A-
ELA	5	784913	6	CCAACS	2	D	5806	0.4669	0.0854	0.1499	0.4628	0.2931	0.007	0.0019	0.2622	-0.2186	-0.1816	0.2645	-0.0016	-0.0382	-0.0485	0.5608	0.0572	7.2012	1.161	6.9512	1.2313	A-	A+	A+
ELA	5	786670	7	CCAACS	3	B-C	5839	0.5343	0.5317	0.2779	0.0583	0.1271	0.0037	0.0012	0.3055	0.3073	-0.063	-0.2514	-0.188	-0.0388	-0.0347	0.0988	0.0573	4.0411	1.0894	5.5712	1.1821	A-	A-	A-
ELA	5	786680	7	CCAACS	2	B-C	5851	0.5727	0.0712	0.135	0.2198	0.5711	0.0019	0.001	0.4309	-0.2349	-0.2718	-0.14	0.4316	-0.0336	-0.0284	-0.0045	0.0576	-1.699	0.963	-1.5891	0.9497	A+	A+	A+
ELA	5	786681	7	CCAACS	2	B-C	5834	0.3298	0.2175	0.2142	0.3279	0.2347	0.0031	0.0027	0.2332	-0.0038	-0.0564	0.235	-0.1903	-0.037	-0.056	1.0279	0.059	7.3312	1.1861	8.9814	1.3811	A+	A-	A-
ELA	5	786673	7	CCAACS	2	B-K	5833	0.2248	0.4813	0.2234	0.1266	0.1627	0.0036	0.0024	0.1334	0.1285	0.1357	-0.1763	-0.1525	-0.0619	-0.0434	1.7599	0.066	3.8111	1.135	8.7316	1.615	A-	A-	A-
ELA	5	786674	7	CCAACS	2	B-K	5832	0.2735	0.4073	0.1208	0.1939	0.2718	0.0049	0.0012	0.0855	0.0825	-0.1622	-0.0541	0.0884	-0.0573	-0.0468	1.6967	0.0652	6.3112	1.222	8.7216	1.5871	A-	A-	A-
ELA	5	786676	7	CCAACS	3	B-K	5778	0.6319	0.181	0.6222	0.113	0.0685	0.0097	0.0056	0.4046	-0.1576	0.4063	-0.2324	-0.2175	-0.0388	-0.0535	-0.354	0.0591	0.051	1.001	0.571	1.0214	A+	A+	A+
ELA	5	786672	7	CCAACS	2	B-V	5861	0.6912	0.122	0.0772	0.6904	0.1092	0.0009	0.0003	0.4651	-0.2693	-0.289	0.4662	-0.1564	-0.0336	-0.0258	-0.6322	0.0612	-1.629	0.9552	-0.279	0.9868	A+	A-	B-
ELA	5	801600	7	CCAACS	2	B-V	5845	0.8919	0.8884	0.0349	0.0344	0.0383	0.0019	0.002	0.3622	0.3682	-0.1988	-0.2077	-0.1928	-0.0501	-0.0532	-2.3314	0.0934	-2.5492	0.8369	-3.7994	0.6018	A+	A-	A-
ELA	5	784911	7	CCAACS	1	D	11598	0.4672	0.4632	0.2383	0.1487	0.1412	0.006	0.0026	0.2363	0.239	-0.0675	-0.1541	-0.087	-0.0457	-0.035	0.4494	0.0602	7.9712	1.1887	7.9513	1.2705	A+	A-	A-
ELA	5	784926	7	CCAACS	2	D	5828	0.8629	0.0458	0.857	0.045	0.0453	0.0051	0.0017	0.4088	-0.2516	0.4038	-0.2148	-0.2027	-0.0071	-0.0371	-2.145	0.0877	-2.4891	0.8556	-4.2994	0.5952	A+	A-	B-
ELA	5	785221	8	CCAACS	3	B-C	5807	0.4386	0.2081	0.4369	0.0993	0.2518	0.0026	0.0014	0.4443	-0.2766	0.4453	-0.1696	-0.1275	-0.0253	-0.0338	0.4819	0.0568	-3.1191	0.9371	-1.369	0.9606	A-	A+	A-
ELA	5	785231	8	CCAACS	2	B-C	5807	0.6363	0.0906	0.1086	0.6338	0.1631	0.0029	0.001	0.4851	-0.2282	-0.2951	0.4861	-0.2006	-0.0342	-0.0297	-0.3801	0.0593	-4.2891	0.8967	-4.9192	0.8214	A-	A+	A+
ELA	5	785232	8	CCAACS	2	B-C	5798	0.515	0.1134	0.1724	0.1966	0.5122	0.0048	0.0007	0.3494	-0.2626	-0.1322	-0.097	0.3505	-0.0432	-0.0174	0.2798	0.0568	2.6211	1.055	2.7011	1.0802	A+	A-	A-
ELA	5	785225	8	CCAACS	2	B-K	5809	0.3464	0.2235	0.1806	0.3451	0.2472	0.0029	0.0007	0.2621	-0.2798	0.0097	0.2624	-0.0239	-0.0198	-0.0202	1.0636	0.0588	4.2311	1.1039	6.0312	1.2389	A-	A-	A+
ELA	5	785228	8	CCAACS	3	B-K	5757	0.3801	0.2871	0.1909	0.1341	0.3753	0.0087	0.0038	0.3184	-0.1107	-0.1275	-0.1459	0.3182	-0.0294	-0.0234	0.9031	0.0579	2.5311	1.0575	3.8311	1.1344	A+	A-	A-
ELA	5	785229	8	CCAACS	2	B-K	5818	0.2051	0.1698	0.2046	0.3	0.3235	0.0014	0.0007	0.1361	-0.145	0.1371	-0.0695	0.0712	-0.0453	-0.0242	1.8536	0.0668	3.5211	1.1294	8.6016	1.6133	A+	A+	A+
ELA	5	785223	8	CCAACS	2	B-V	5809	0.681	0.0866	0.0379	0.6786	0.1933	0.0027	0.0009	0.4159	-0.2447	-0.2283	0.418	-0.2013	-0.0529	-0.018	-0.6662	0.0616	-1.699	0.9522	-2.2691	0.8983	A-	A-	A-
ELA	5	801605	8	CCAACS	2	B-V	5824	0.8604	0.0362	0.8595	0.0787	0.0245	0.0007	0.0003	0.4035	-0.2274	0.4047	-0.2614	-0.1719	-0.0269	-0.0238	-2.011	0.0853	-1.3891	0.9203	-1.8092	0.8216	A+	A-	A-
ELA	5	784912	8	CCAACS	1	D	11562	0.7644	0.0486	0.0562	0.1284	0.7566	0.0084	0.0018	0.3901	-0.2215	-0.197	-0.2053	0.3954	-0.0715	-0.0351	-1.0604	0.0688	-3.0391	0.897	-0.9591	0.9434	A+	A+	A+
ELA	5	784927	8	CCAACS	2	D	5781	0.5509	0.1364	0.1851	0.5463	0.1238	0.0079	0.0005	0.4129	-0.2163	-0.1369	0.4117	-0.2283	-0.0202	-0.0257	0.0384	0.0573	0.341	1.0072	0.061	1.0016	A-	A-	A-
ELA	5	799531	9	CCAACS	3	B-C	5816	0.272	0.1818	0.2418	0.2999	0.2704	0.0046	0.0014	0.198	-0.1799	-0.0705	0.0346	0.2002	-0.0656	-0.0207	1.5334	0.0624	4.9912	1.151	5.6513	1.3024	A-	A+	A+
ELA	5	799532	9	CCAACS	2	B-C	5841	0.6081	0.0846	0.6071	0.1533	0.1533	0.001	0.0007	0.3304	-0.2616	0.3316	-0.1744	-0.0682	-0.0304	-0.0299	-0.2698	0.0591	2.5511	1.0638	1.9611	1.075	B-	A-	A-
ELA	5	799603	9	CCAACS	2	B-C	5794	0.111	0.3104	0.4442	0.1258	0.1099	0.008	0.0017	-0.1214	0.0683	0.1241	-0.1579	-0.1193	-0.0254	-0.0324	2.962	0.0897	4.3113	1.2984	9.9032	3.2019	A-	A-	A-
ELA	5	799527	9	CCAACS	2	B-K	5827	0.6266	0.1415	0.109	0.624	0.1213	0.0024	0.0017	0.5121	-0.2535	-0.2546	0.5133	-0.2375	-0.0444	-0.029	-0.3211	0.0594	-3.7891	0.9078	-3.3791	0.8742	A-	A-	A-
ELA	5	799528	9	CCAACS	2	B-K	5817	0.6447	0.1719	0.1254	0.6409	0.0559	0.0027	0.0031	0.4171	-0.1991	-0.1938	0.4211	-0.2474	-0.0545	-0.0539	-0.409	0.06	-0.569	0.9851	1.111	1.0455	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	799529	9	CCAACS	2	B-K	5833	0.3043	0.5298	0.3034	0.1036	0.0602	0.0019	0.0012	0.1063	0.161	0.1078	-0.2926	-0.1599	-0.0373	-0.0326	1.3998	0.0611	8.9513	1.2628	9.9016	1.559	A-	A+	A+
ELA	5	799530	9	CCAACS	2	B-K	5801	0.7787	0.0737	0.0596	0.0861	0.772	0.0044	0.0041	0.5281	-0.277	-0.2547	-0.2953	0.5302	-0.0491	-0.0571	-1.327	0.071	-5.6192	0.7886	-5.6594	0.6442	A+	A-	A-
ELA	5	799525	9	CCAACS	2	B-V	5821	0.5276	0.5249	0.1352	0.227	0.1078	0.005	0.0002	0.3454	0.3459	-0.2481	-0.1045	-0.1346	-0.0319	-0.0106	0.2365	0.0572	2.9611	1.0647	2.4111	1.0738	A-	A+	A+
ELA	5	784915	9	CCAACS	2	D	5796	0.6082	0.0952	0.6025	0.1742	0.1188	0.008	0.0014	0.3801	-0.1876	0.3826	-0.1919	-0.1657	-0.0526	-0.0301	-0.2032	0.0868	1.281	1.0452	0.701	1.0347	A-	A-	A-
ELA	6	744628	0	CCAACS	2	A-C	47411	0.6091	0.0907	0.1353	0.6058	0.1628	0.0041	0.0013	0.4331	-0.2322	-0.2481	0.4349	-0.1533	-0.0505	-0.0329	-0.2205	0.0203	8.7211	1.0798	9.9012	1.1884	A+	A-	A+
ELA	6	744630	0	CCAACS	2	A-C	47374	0.4059	0.1291	0.1222	0.3392	0.4035	0.0049	0.0012	0.3964	-0.2546	-0.2596	-0.0418	0.3978	-0.0563	-0.0298	1.0161	0.0193	2.291	1.017	5.1611	1.0587	A+	A-	A-
ELA	6	744632	0	CCAACS	2	A-C	47313	0.6609	0.0925	0.656	0.1563	0.0878	0.0054	0.002	0.526	-0.2992	0.5273	-0.2529	-0.2344	-0.0561	-0.0335	-0.3842	0.0207	-3.669	0.9652	-3.6191	0.9383	A-	A-	A-
ELA	6	744893	0	CCAACS	2	A-C	47463	0.6272	0.1504	0.6245	0.0933	0.1276	0.0032	0.0011	0.5279	-0.2963	0.5307	-0.2499	-0.2185	-0.0761	-0.0364	-0.0852	0.0199	-5.139	0.9572	-5.8191	0.9175	A+	A+	A+
ELA	6	744900	0	CCAACS	2	A-C	47412	0.5155	0.1525	0.1872	0.5128	0.1422	0.0042	0.0011	0.4827	-0.2283	-0.2061	0.4854	-0.2107	-0.0844	-0.032	0.2778	0.0193	0.481	1.0036	-0.589	0.9928	A+	A-	A-
ELA	6	744902	0	CCAACS	2	A-C	47410	0.5624	0.5594	0.0925	0.1614	0.1814	0.0043	0.001	0.4505	0.4533	-0.2816	-0.1817	-0.1836	-0.0744	-0.0311	0.3338	0.0193	0.621	1.0046	5.1011	1.0613	A-	A-	A+
ELA	6	744633	0	CCAACS	2	A-K	47377	0.5913	0.0581	0.5878	0.2978	0.0502	0.0044	0.0016	0.439	-0.234	0.4405	-0.2182	-0.2651	-0.0455	-0.0337	0.1733	0.0195	-1.109	0.9914	-2.019	0.9745	A+	A+	A+
ELA	6	744637	0	CCAACS	2	A-K	47311	0.6628	0.6578	0.1104	0.072	0.1523	0.0059	0.0016	0.4345	0.4369	-0.1586	-0.2836	-0.2191	-0.0525	-0.0385	-0.1536	0.0201	-0.219	0.9981	3.6611	1.0566	A+	A+	A+
ELA	6	744896	0	CCAACS	2	A-K	47384	0.7242	0.0615	0.7199	0.1199	0.0927	0.0047	0.0012	0.5224	-0.2591	0.5262	-0.2921	-0.2495	-0.0804	-0.0361	-0.8028	0.0224	0.121	1.0014	-2.3591	0.9482	A+	A-	A-
ELA	6	744897	0	CCAACS	2	A-K	47438	0.3102	0.3092	0.1905	0.1869	0.3087	0.0037	0.0011	0.2366	0.068	-0.1912	-0.1577	0.2387	-0.0685	-0.0303	1.4313	0.0199	9.9011	1.1376	9.9013	1.3113	A-	A+	A-
ELA	6	744898	0	CCAACS	2	A-K	47378	0.5051	0.1687	0.2557	0.5021	0.0676	0.0051	0.001	0.3785	-0.2154	-0.0919	0.382	-0.2531	-0.0793	-0.0357	0.6025	0.0191	9.9011	1.1005	9.9011	1.1391	A+	A+	A+
ELA	6	744935	0	CCAACS	2	A-V	47245	0.5252	0.0924	0.2046	0.1737	0.5206	0.0077	0.0012	0.4997	-0.2415	-0.1914	-0.2528	0.5022	-0.0777	-0.0359	0.5054	0.0192	-6.869	0.9511	-4.6891	0.9487	A-	A+	A+
ELA	6	660305	0	CCAACS	2	B-C	47317	0.4827	0.1352	0.0917	0.2866	0.4791	0.0064	0.0009	0.3914	-0.2568	-0.2718	-0.0531	0.3942	-0.0732	-0.027	0.7046	0.0191	9.2111	1.0673	9.9011	1.141	A-	A-	A-
ELA	6	660306	0	CCAACS	2	B-C	47355	0.4064	0.1241	0.1347	0.4037	0.3309	0.0053	0.0013	0.3511	-0.2232	-0.2575	0.3537	-0.0118	-0.0773	-0.0256	1.2254	0.0195	9.9011	1.1269	9.9012	1.2342	A-	A-	A+
ELA	6	660307	0	CCAACS	2	B-C	47350	0.5276	0.2155	0.1847	0.5241	0.069	0.0056	0.001	0.4239	-0.1477	-0.2023	0.4269	-0.2649	-0.0809	-0.023	0.4628	0.0192	6.351	1.0468	6.4511	1.0744	A-	A+	A+
ELA	6	660313	0	CCAACS	3	B-C	47162	0.3487	0.345	0.3062	0.1642	0.174	0.0095	0.001	0.2727	0.2763	0.0238	-0.2612	-0.0962	-0.082	-0.0343	1.3767	0.0198	9.9011	1.1364	9.9013	1.2943	A-	A+	A+
ELA	6	711234	0	CCAACS	2	B-C	47495	0.5643	0.5622	0.1252	0.2152	0.0937	0.0029	0.0007	0.4659	0.4677	-0.2149	-0.196	-0.2616	-0.0631	-0.0276	0.2842	0.0193	-2.069	0.9845	-2.019	0.9759	A-	A-	A-
ELA	6	711235	0	CCAACS	2	B-C	47516	0.7484	0.0522	0.746	0.0869	0.1117	0.0022	0.0009	0.4694	-0.2723	0.4724	-0.2478	-0.2262	-0.0607	-0.0374	-0.6724	0.0218	-9.1691	0.9023	-7.5391	0.852	A-	A-	A-
ELA	6	711315	0	CCAACS	3	B-C	47501	0.5187	0.098	0.1527	0.2289	0.5169	0.0024	0.001	0.3449	-0.2085	-0.2375	-0.0521	0.3474	-0.062	-0.0385	0.5449	0.0191	9.9011	1.1369	9.9013	1.2819	A-	A+	A+
ELA	6	660311	0	CCAACS	3	B-K	47175	0.3643	0.2022	0.1642	0.2628	0.3605	0.009	0.0013	0.2889	-0.1822	-0.1816	0.0194	0.2923	-0.0762	-0.0347	1.1413	0.0194	9.9011	1.1229	9.9012	1.2191	A+	A+	A+
ELA	6	711237	0	CCAACS	2	B-K	47463	0.6902	0.1202	0.1117	0.6872	0.0766	0.0032	0.001	0.5219	-0.2539	-0.265	0.5242	-0.2718	-0.0613	-0.0377	-0.1696	0.0201	-9.8991	0.8877	-9.8992	0.8162	A-	A-	A+
ELA	6	711239	0	CCAACS	3	B-K	47465	0.486	0.1863	0.484	0.2235	0.102	0.0027	0.0015	0.3895	-0.1749	0.3912	-0.1586	-0.1889	-0.0537	-0.036	0.7307	0.0191	9.9011	1.0978	9.9012	1.1571	A+	A+	A+
ELA	6	711241	0	CCAACS	2	B-K	47372	0.6792	0.1726	0.0623	0.0839	0.675	0.0051	0.0011	0.4983	-0.2342	-0.2768	-0.2642	0.501	-0.0695	-0.0313	-0.1284	0.02	-9.6191	0.9197	-7.9291	0.886	A+	A-	A+
ELA	6	584211	0	CCAACS	1	D	47446	0.2974	0.393	0.296	0.1954	0.111	0.0035	0.0011	0.2606	-0.0294	0.2624	-0.1469	-0.135	-0.0606	-0.0353	2.0407	0.0218	9.9012	1.1789	9.9016	1.5874	A+	A-	A-
ELA	6	629746	0	CCAACS	2	D	47440	0.4292	0.3307	0.1103	0.1271	0.4272	0.0014	0.0033	0.392	-0.0491	-0.2763	-0.2424	0.3937	-0.0397	-0.0498	0.9627	0.0192	6.7611	1.0504	9.7611	1.1114	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	716631	0	CCAACS	2	D	47451	0.7269	0.7236	0.1248	0.0927	0.0544	0.0034	0.0011	0.449	0.4526	-0.2366	-0.228	-0.2341	-0.0645	-0.0387	-0.4138	0.0208	-9.8991	0.8634	-9.8992	0.8277	A+	A+	A+
ELA	6	716633	0	CCAACS	2	D	47408	0.5445	0.5416	0.0715	0.2526	0.1289	0.0039	0.0015	0.3335	0.3371	-0.1931	-0.1279	-0.1698	-0.0715	-0.0331	0.2889	0.0193	9.9011	1.1205	9.9011	1.1473	A+	A-	A-
ELA	6	745253	0	CCAACS	2	D	47428	0.4934	0.1368	0.063	0.3042	0.491	0.0034	0.0016	0.3947	-0.1854	-0.2503	-0.1492	0.3973	-0.0666	-0.0378	0.828	0.0191	9.1111	1.067	9.9011	1.1154	A+	A+	A+
ELA	6	745256	0	CCAACS	1	D	47443	0.6812	0.678	0.1062	0.1288	0.0824	0.0017	0.003	0.492	0.4945	-0.2719	-0.223	-0.2471	-0.0446	-0.0522	-0.289	0.0205	-7.0891	0.9362	-5.8791	0.9063	A-	A+	A-
ELA	6	745258	0	CCAACS	2	D	47481	0.4213	0.1381	0.2597	0.1787	0.4197	0.0015	0.0023	0.4269	-0.2126	-0.1242	-0.2087	0.4279	-0.0366	-0.0416	1.1268	0.0194	3.111	1.0238	6.0011	1.0711	A+	A-	A+
ELA	6	745385	0	CCAACS	2	D	47408	0.535	0.0599	0.1228	0.5321	0.2798	0.0042	0.0012	0.2022	-0.193	-0.2215	0.2064	0.0466	-0.0662	-0.0337	0.4809	0.0192	9.9013	1.2639	9.9014	1.4213	A+	A-	A+
ELA	6	745392	0	CCAACS	2	D	47497	0.4936	0.211	0.1855	0.4919	0.1081	0.0014	0.0021	0.3388	-0.2209	-0.0894	0.3408	-0.1349	-0.0368	-0.0483	0.6205	0.0191	9.9012	1.1536	9.9012	1.2472	A-	A-	A-
ELA	6	783852	1	CCAACS	2	A-C	5324	0.5562	0.1374	0.1749	0.5557	0.1312	0.0004	0.0004	0.3746	-0.2218	-0.2195	0.3752	-0.0763	-0.0258	-0.0238	0.3207	0.0579	3.4911	1.0806	3.3211	1.121	A+	A+	A-
ELA	6	783859	1	CCAACS	2	A-C	5311	0.5287	0.1186	0.527	0.0816	0.2695	0.0024	0.0008	0.4059	-0.302	0.4075	-0.2567	-0.0731	-0.0509	-0.0203	0.4807	0.0579	-0.429	0.9901	0.161	1.0052	A+	A-	A-
ELA	6	783860	1	CCAACS	2	A-C	5314	0.6434	0.1353	0.6417	0.1682	0.0522	0.0015	0.0011	0.3861	-0.2168	0.387	-0.1608	-0.2223	-0.0397	-0.0079	0.0225	0.0585	-0.619	0.9856	0.141	1.005	A+	A-	A-
ELA	6	783854	1	CCAACS	3	A-K	5307	0.6049	0.1543	0.1526	0.0867	0.6025	0.0036	0.0004	0.5165	-0.2984	-0.2324	-0.209	0.5176	-0.0488	-0.0129	0.3183	0.0579	-7.0692	0.8485	-5.6792	0.813	A+	A-	A-
ELA	6	783856	1	CCAACS	2	A-K	5304	0.6308	0.1267	0.0663	0.1745	0.628	0.0032	0.0013	0.4865	-0.2174	-0.2724	-0.242	0.4881	-0.0527	-0.0284	0.0044	0.0585	-4.3591	0.902	-3.2291	0.8774	A+	A-	A+
ELA	6	784390	1	CCAACS	3	A-K	5295	0.5392	0.2158	0.113	0.5358	0.1291	0.0049	0.0013	0.4428	-0.2081	-0.2616	0.4436	-0.1454	-0.0441	-0.0268	0.4658	0.0579	-2.229	0.9502	-1.5091	0.9489	A+	A-	A-
ELA	6	783853	1	CCAACS	2	A-V	5310	0.7267	0.0259	0.7243	0.167	0.0794	0.0023	0.0011	0.3848	-0.1968	0.3883	-0.2594	-0.1541	-0.0548	-0.0367	-0.5311	0.0615	-2.1791	0.9422	0.751	1.0393	A+	A-	A-
ELA	6	800945	1	CCAACS	2	A-V	5307	0.5144	0.2399	0.5124	0.0843	0.1595	0.0032	0.0008	0.4618	-0.3011	0.4629	-0.1482	-0.16	-0.0349	-0.0394	0.3668	0.0579	-1.259	0.9716	1.101	1.0385	A+	A-	A-
ELA	6	783562	1	CCAACS	2	D	10545	0.2603	0.1554	0.1917	0.2586	0.3877	0.0058	0.0008	0.106	-0.1488	-0.0668	0.1081	0.0766	-0.0505	-0.0219	1.7688	0.0551	8.2012	1.2441	9.9017	1.6608	A-	A-	A-
ELA	6	783566	1	CCAACS	2	D	10303	0.7275	0.7091	0.1875	0.0403	0.0378	0.0026	0.0225	0.2492	0.2638	-0.0522	-0.2253	-0.2052	-0.0272	-0.0982	-0.5482	0.0506	4.9411	1.1251	8.7115	1.4558	A+	A+	A+
ELA	6	783567	1	CCAACS	2	D	15867	0.6149	0.1537	0.1253	0.1043	0.612	0.0032	0.0015	0.454	-0.2475	-0.2012	-0.2044	0.4551	-0.0377	-0.0332	0.0224	0.0423	-2.719	0.9527	-1.529	0.9537	A+	A-	A-
ELA	6	805449	2	CCAACS	2	A-C	5290	0.8227	0.8164	0.0405	0.0735	0.0619	0.0066	0.0011	0.44	0.4451	-0.2326	-0.2354	-0.2405	-0.0739	-0.0339	-1.1989	0.0747	-3.3091	0.8575	-2.0992	0.8277	A+	A-	A-
ELA	6	805458	2	CCAACS	2	A-C	5318	0.5466	0.0703	0.2146	0.1673	0.5453	0.0013	0.0011	0.3622	-0.2501	-0.1663	-0.1261	0.3621	0.0082	-0.0385	0.4307	0.0575	0.141	1.0028	0.661	1.0223	A+	A-	A-
ELA	6	805460	2	CCAACS	2	A-C	5291	0.354	0.1666	0.3058	0.3513	0.1688	0.0045	0.003	0.2654	-0.18	-0.0613	0.2657	-0.0769	-0.0338	-0.0094	1.3908	0.059	3.7311	1.0927	4.8212	1.1912	A+	A-	A-
ELA	6	805455	2	CCAACS	3	A-K	5299	0.5637	0.1401	0.5603	0.2107	0.0829	0.0053	0.0008	0.3955	-0.2995	0.3967	-0.0577	-0.2379	-0.0362	-0.0424	0.3039	0.0579	0.081	1.0016	1.271	1.0457	B+	A+	A+
ELA	6	805456	2	CCAACS	2	A-K	5315	0.5703	0.1769	0.1624	0.0891	0.5686	0.0021	0.0009	0.4103	-0.1509	-0.2111	-0.2305	0.4116	-0.0296	-0.0451	0.4336	0.0575	-0.059	0.9986	0.361	1.0117	A+	A-	A-
ELA	6	805457	2	CCAACS	2	A-K	5314	0.7409	0.0807	0.7385	0.1165	0.0612	0.0019	0.0013	0.4933	-0.249	0.4957	-0.2702	-0.2504	-0.0513	-0.0311	-0.5931	0.065	-5.4892	0.831	-5.2393	0.7149	A+	A-	A-
ELA	6	805451	2	CCAACS	2	A-V	5308	0.6328	0.1574	0.1424	0.6301	0.0658	0.0024	0.0019	0.4824	-0.2815	-0.2093	0.4848	-0.2174	-0.0536	-0.042	-0.1333	0.0604	-3.3391	0.915	-3.4792	0.849	A+	A-	B-
ELA	6	809359	2	CCAACS	2	A-V	5325	0.6083	0.0944	0.6076	0.1791	0.1178	0.0004	0.0008	0.426	-0.277	0.4269	-0.2523	-0.091	-0.0255	-0.0319	0.0669	0.059	0.851	1.0203	-0.289	0.9878	A+	A+	A-
ELA	6	783551	2	CCAACS	2	D	15821	0.4169	0.0998	0.4148	0.3276	0.1528	0.0037	0.0013	0.3954	-0.2064	0.3964	-0.1399	-0.1782	-0.0397	-0.0349	1.021	0.0434	1.031	1.0176	2.8511	1.078	A+	B-	A-
ELA	6	783573	2	CCAACS	2	D	15797	0.624	0.0986	0.0893	0.1858	0.6201	0.0034	0.0028	0.4636	-0.2246	-0.2327	-0.2249	0.466	-0.0585	-0.0372	-0.0357	0.0445	-1.829	0.9659	-1.8991	0.94	A+	B-	A-
ELA	6	800987	3	CCAACS	2	A-C	5279	0.5461	0.1056	0.5429	0.3028	0.0427	0.0034	0.0024	0.0953	-0.1973	0.1005	0.1361	-0.2293	-0.0605	-0.0421	0.4187	0.0572	9.9013	1.297	9.9015	1.4919	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	800997	3	CCAACS	2	A-C	5274	0.5453	0.0672	0.0712	0.5416	0.3132	0.003	0.0038	0.3182	-0.1577	-0.2038	0.3235	-0.1316	-0.0604	-0.0808	0.5092	0.057	5.5611	1.1229	5.5812	1.1727	A+	A-	A-
ELA	6	800998	3	CCAACS	2	A-C	5284	0.264	0.4392	0.1836	0.2627	0.1096	0.0021	0.0028	0.0287	0.1508	-0.0808	0.0319	-0.1662	-0.0464	-0.0676	2.0007	0.0639	8.5413	1.2911	9.9017	1.6627	A-	A-	A-
ELA	6	800990	3	CCAACS	3	A-K	5301	0.4735	0.2966	0.1198	0.1092	0.4727	0.0008	0.0009	0.384	-0.2269	-0.1286	-0.1415	0.3849	-0.0177	-0.0704	0.7786	0.0568	0.411	1.0086	0.661	1.0185	A-	A-	A-
ELA	6	800994	3	CCAACS	3	A-K	5275	0.694	0.6895	0.09	0.1226	0.0913	0.0055	0.0011	0.445	0.4446	-0.2151	-0.2819	-0.1672	-0.0199	-0.0618	-0.3407	0.0619	-2.9891	0.9172	-2.7091	0.8769	A+	A+	A+
ELA	6	800995	3	CCAACS	3	A-K	5290	0.5514	0.0972	0.1503	0.1994	0.5493	0.0009	0.0028	0.3669	-0.2064	-0.1337	-0.1774	0.3683	-0.0341	-0.0459	0.4885	0.0571	2.211	1.0478	2.2411	1.0675	A+	A-	A+
ELA	6	800989	3	CCAACS	2	A-V	5274	0.2529	0.0742	0.4369	0.2309	0.2512	0.0047	0.0021	0.0579	-0.2609	0.0782	0.0215	0.0608	-0.0497	-0.0541	1.9864	0.0637	6.6812	1.2214	9.9017	1.6543	A-	A-	A-
ELA	6	806909	3	CCAACS	2	A-V	5295	0.3926	0.3213	0.3915	0.1188	0.1655	0.0011	0.0017	0.2925	-0.0275	0.2945	-0.3057	-0.0738	-0.0449	-0.0738	1.2605	0.058	3.8111	1.0892	5.4912	1.1902	A-	A-	A+
ELA	6	783549	3	CCAACS	2	D	15812	0.4232	0.1159	0.4204	0.0922	0.365	0.0042	0.0022	0.3731	-0.1736	0.3739	-0.1605	-0.1622	-0.0415	-0.0376	0.989	0.0428	1.011	1.0165	1.721	1.041	A+	C-	A-
ELA	6	783554	3	CCAACS	2	D	10483	0.3317	0.2116	0.3194	0.133	0.3295	0.0043	0.0022	0.3042	-0.1251	-0.0401	-0.2001	0.3064	-0.0528	-0.0605	1.4954	0.0511	4.8411	1.1126	7.0813	1.2685	A-	A+	A-
ELA	6	783572	3	CCAACS	2	D	15775	0.4908	0.0939	0.2452	0.1672	0.488	0.0037	0.002	0.2437	-0.1959	-0.0175	-0.1446	0.2461	-0.0362	-0.049	0.6685	0.0425	9.9012	1.2003	9.9013	1.2831	A+	A-	A-
ELA	6	784815	4	CCAACS	3	A-C	5277	0.7317	0.1124	0.0636	0.7303	0.0919	0.0015	0.0004	0.4176	-0.2735	-0.2615	0.4182	-0.1175	-0.0408	0.0063	-0.6234	0.0655	-3.6491	0.8823	0.221	1.0122	A+	A+	A+
ELA	6	784817	4	CCAACS	3	A-C	5269	0.3494	0.3482	0.1456	0.2533	0.2495	0.0017	0.0017	0.2367	0.2381	-0.2808	0.0214	-0.048	-0.0373	-0.0349	1.3918	0.059	4.9511	1.1225	7.4713	1.3198	A+	A-	A+
ELA	6	784818	4	CCAACS	3	A-C	5249	0.7643	0.1282	0.7588	0.0639	0.0418	0.0068	0.0004	0.4631	-0.2497	0.4626	-0.2513	-0.2452	-0.0412	-0.0242	-0.8978	0.0694	-4.0891	0.8505	-3.7692	0.7503	A-	A-	A-
ELA	6	784819	4	CCAACS	3	A-C	5271	0.4735	0.0912	0.3399	0.4721	0.0938	0.0021	0.0009	0.3049	-0.2752	0.0054	0.3073	-0.2493	-0.0645	-0.0374	0.891	0.0573	6.6111	1.1477	6.8812	1.2408	A-	A-	A-
ELA	6	784809	4	CCAACS	2	A-K	5276	0.667	0.0878	0.1712	0.0734	0.6656	0.0011	0.0009	0.5565	-0.3046	-0.35	-0.1636	0.5577	-0.0373	-0.0386	-0.2956	0.062	-7.4892	0.8	-6.8093	0.6944	A+	A-	A-
ELA	6	784812	4	CCAACS	2	A-K	5239	0.5971	0.1583	0.5916	0.0949	0.146	0.0066	0.0025	0.4097	-0.1936	0.4085	-0.2111	-0.1844	-0.0295	-0.0153	0.1417	0.0588	-0.149	0.9961	1.6011	1.0632	A+	A-	A+
ELA	6	784820	4	CCAACS	2	A-V	5278	0.8467	0.0437	0.0696	0.8453	0.0397	0.0015	0.0002	0.4333	-0.2296	-0.2609	0.435	-0.2157	-0.047	-0.002	-1.4766	0.0806	-2.4991	0.8746	-3.3493	0.7012	A+	A-	A-
ELA	6	801848	4	CCAACS	2	A-V	5267	0.7006	0.1197	0.6979	0.0702	0.1084	0.0023	0.0015	0.3853	-0.2143	0.3867	-0.2362	-0.1439	-0.0494	-0.0144	-0.404	0.063	-0.219	0.993	0.651	1.0345	A+	A+	A-
ELA	6	783569	4	CCAACS	2	D	5253	0.6198	0.1158	0.1619	0.1001	0.6159	0.0049	0.0015	0.4433	-0.2369	-0.2032	-0.2056	0.4443	-0.0369	-0.0307	-0.077	0.0602	-0.139	0.9961	0.211	1.0087	A+	A-	A-
ELA	6	786687	5	CCAACS	2	A-C	5187	0.4916	0.0902	0.2416	0.4865	0.1713	0.009	0.0013	0.2347	-0.1272	-0.1234	0.2355	-0.0658	-0.022	-0.0435	0.6816	0.0572	7.1612	1.1588	8.3613	1.2892	A+	A-	A-
ELA	6	786688	5	CCAACS	3	A-C	5234	0.6851	0.6842	0.1505	0.1215	0.0424	0.0008	0.0006	0.2035	0.2038	-0.1773	-0.083	-0.0179	0.0107	-0.0371	-0.1197	0.0596	6.3612	1.1655	5.4913	1.2613	A-	A+	A+
ELA	6	786689	5	CCAACS	2	A-C	5213	0.6138	0.6106	0.1878	0.096	0.1004	0.0046	0.0008	0.3503	0.3529	-0.0843	-0.2275	-0.2258	-0.0531	-0.0247	0.0375	0.0587	2.2111	1.0523	2.2011	1.0904	A+	A+	A+
ELA	6	786685	5	CCAACS	2	A-K	5201	0.4703	0.1595	0.4667	0.2267	0.1395	0.0046	0.0031	0.3691	-0.2479	0.3713	-0.0817	-0.1578	-0.0545	-0.0346	0.7665	0.0572	1.601	1.0344	1.9211	1.0619	A+	A+	A+
ELA	6	786686	5	CCAACS	1	A-K	5232	0.331	0.2292	0.2024	0.2362	0.3305	0.001	0.0008	0.2454	-0.1819	0.0235	-0.1102	0.2463	-0.0414	-0.0275	1.3943	0.0596	4.0611	1.1064	6.1913	1.2601	A+	A-	A+
ELA	6	786692	5	CCAACS	2	A-V	5227	0.4532	0.452	0.287	0.1145	0.1439	0.0015	0.0011	0.436	0.4365	-0.1502	-0.2896	-0.1567	-0.0284	-0.0288	0.804	0.0573	-1.829	0.9613	-0.179	0.994	A-	A+	A+
ELA	6	786693	5	CCAACS	2	A-V	5220	0.492	0.274	0.0756	0.49	0.1565	0.0032	0.0008	0.2605	-0.0473	-0.1957	0.262	-0.1532	-0.0306	-0.0289	0.6728	0.0572	6.0811	1.1337	5.9712	1.2018	A-	A-	A-
ELA	6	801652	5	CCAACS	2	A-V	5225	0.3759	0.2122	0.3747	0.2284	0.1816	0.0019	0.0011	0.295	-0.0808	0.2964	-0.1826	-0.0795	-0.0357	-0.0461	1.2183	0.0586	2.7011	1.0652	4.2612	1.1594	A-	A-	A-
ELA	6	780334	6	CCAACS	3	B-C	5249	0.5512	0.2697	0.1238	0.5476	0.0524	0.0055	0.0009	0.3685	-0.0956	-0.2282	0.3724	-0.2738	-0.0855	-0.0138	0.5005	0.0578	3.2711	1.0739	3.1611	1.1163	A+	A+	A+
ELA	6	780335	6	CCAACS	2	B-C	5276	0.3287	0.1999	0.1923	0.2783	0.3282	0.0009	0.0004	0.3188	-0.2199	-0.0923	-0.0559	0.3188	0.0001	-0.0145	1.5464	0.0602	4.3811	1.1166	5.1112	1.2341	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	780336	6	CCAACS	2	B-C	5262	0.6072	0.0998	0.6048	0.1482	0.1433	0.0027	0.0013	0.3921	-0.2076	0.3942	-0.1795	-0.1806	-0.0411	-0.0376	0.0718	0.0595	0.071	1.0016	0.241	1.01	A+	A-	A+
ELA	6	780329	6	CCAACS	2	B-K	5274	0.6075	0.6065	0.1518	0.0644	0.1757	0.0009	0.0008	0.4013	0.4022	-0.1837	-0.1902	-0.2165	-0.0233	-0.0283	0.1135	0.0593	0.781	1.019	1.2811	1.0542	B-	A-	A-
ELA	6	780331	6	CCAACS	3	B-K	5271	0.4451	0.4441	0.1264	0.315	0.1122	0.0019	0.0004	0.2149	0.217	-0.2053	0.0376	-0.1711	-0.0557	-0.0305	0.9085	0.0576	9.6812	1.2263	9.9014	1.3829	A+	A+	A-
ELA	6	780333	6	CCAACS	2	B-K	5254	0.3415	0.1272	0.3396	0.1177	0.41	0.004	0.0015	0.193	-0.2198	0.1954	-0.1639	0.0775	-0.0572	-0.025	1.3515	0.059	7.6512	1.1945	7.5013	1.3194	A+	A-	A-
ELA	6	780327	6	CCAACS	2	B-V	5269	0.8871	0.0473	0.8847	0.039	0.0263	0.0015	0.0011	0.4202	-0.2613	0.4242	-0.2245	-0.2073	-0.0455	-0.0465	-1.9599	0.0943	-4.0993	0.7463	-5.3896	0.4486	A-	B-	C-
ELA	6	780328	6	CCAACS	2	B-V	5266	0.9134	0.0293	0.0299	0.9105	0.0271	0.0021	0.0011	0.3928	-0.2285	-0.2155	0.3967	-0.2119	-0.0501	-0.039	-2.253	0.1046	-3.2392	0.7625	-5.1496	0.4063	A-	B-	B-
ELA	6	783555	6	CCAACS	2	D	10506	0.6732	0.6695	0.1208	0.1151	0.0891	0.0043	0.0013	0.5323	0.5345	-0.271	-0.2707	-0.2506	-0.0627	-0.0353	-0.3098	0.0524	-5.7091	0.8692	-5.6792	0.7688	A+	B-	A-
ELA	6	783581	7	CCAACS	3	B-C	5272	0.6954	0.6941	0.1062	0.103	0.0949	0.0013	0.0006	0.4584	0.4584	-0.2309	-0.2227	-0.243	-0.018	-0.0225	-0.3708	0.0623	-2.9691	0.9169	-2.3391	0.8763	A-	A-	A-
ELA	6	783582	7	CCAACS	3	B-C	5258	0.5654	0.1899	0.1354	0.5629	0.1073	0.0025	0.0021	0.3898	-0.2323	-0.1689	0.3915	-0.1348	-0.0255	-0.0508	0.237	0.0585	1.311	1.0307	1.2711	1.0517	A-	A-	A-
ELA	6	783584	7	CCAACS	2	B-C	5265	0.6201	0.2075	0.0475	0.1236	0.6181	0.0023	0.0009	0.4711	-0.206	-0.2425	-0.2768	0.4732	-0.0484	-0.0448	-0.0202	0.0597	-4.0291	0.9019	-3.7092	0.8404	A-	A-	A-
ELA	6	783585	7	CCAACS	2	B-C	5255	0.517	0.1234	0.1397	0.2173	0.5144	0.0027	0.0025	0.4239	-0.1431	-0.2076	-0.2151	0.427	-0.0555	-0.057	0.5766	0.0577	-1.569	0.9654	-1.109	0.9597	B-	A-	A-
ELA	6	783580	7	CCAACS	3	B-K	5246	0.3275	0.3253	0.1384	0.3675	0.1621	0.0059	0.0009	0.1302	0.1328	-0.2362	0.1602	-0.1439	-0.0544	-0.0226	1.6521	0.0616	9.9013	1.3484	9.9018	1.7531	A+	A-	A-
ELA	6	783664	7	CCAACS	2	B-K	5273	0.4624	0.2868	0.1825	0.0674	0.4616	0.0013	0.0004	0.2557	-0.0869	-0.1075	-0.1826	0.2564	-0.0255	-0.0141	0.8434	0.0578	8.3112	1.1962	6.7913	1.2598	A+	A+	A+
ELA	6	783665	7	CCAACS	2	B-V	5267	0.7579	0.0481	0.7558	0.0825	0.1108	0.0009	0.0019	0.4026	-0.219	0.4027	-0.205	-0.2178	-0.0213	-0.0167	-0.8348	0.0676	-0.369	0.9864	-0.179	0.986	C-	A-	A-
ELA	6	783666	7	CCAACS	2	B-V	5275	0.7687	0.0774	0.1161	0.0375	0.7677	0.0011	0.0002	0.4896	-0.3061	-0.2602	-0.2139	0.4906	-0.0354	-0.0149	-0.9387	0.0692	-4.5392	0.8386	-4.8993	0.677	B-	A-	B-
ELA	6	795974	8	CCAACS	3	B-C	5274	0.5089	0.2066	0.5074	0.1979	0.0851	0.0021	0.0009	0.3762	-0.168	0.378	-0.1767	-0.1695	-0.0534	-0.0263	0.6378	0.0572	0.971	1.0205	1.371	1.045	A-	A-	A-
ELA	6	795983	8	CCAACS	2	B-C	5285	0.5048	0.2527	0.5043	0.134	0.1079	0.0004	0.0006	0.3743	-0.1232	0.3746	-0.2008	-0.2087	-0.0079	-0.0184	0.5793	0.0573	-0.059	0.9985	0.411	1.0131	A+	A-	A-
ELA	6	795984	8	CCAACS	2	B-C	5284	0.4905	0.2047	0.1491	0.155	0.49	0.0009	0.0002	0.2992	-0.1369	-0.1187	-0.1413	0.3	-0.0353	-0.0149	0.7075	0.0572	6.8712	1.1531	6.1612	1.2131	A+	A+	A-
ELA	6	795985	8	CCAACS	2	B-C	5273	0.2352	0.2344	0.3189	0.0881	0.3554	0.0021	0.0011	0.0149	0.0163	-0.0987	-0.0908	0.1409	-0.0296	-0.0366	2.0945	0.066	8.6613	1.3244	9.9019	1.8712	A-	A+	A-
ELA	6	795979	8	CCAACS	2	B-K	5267	0.3843	0.3826	0.1442	0.2877	0.1811	0.0038	0.0006	0.2316	0.2313	-0.2079	-0.0078	-0.0912	-0.0046	-0.0192	1.1019	0.0579	6.1511	1.1444	7.6113	1.2861	A-	A-	A-
ELA	6	795980	8	CCAACS	3	B-K	5257	0.494	0.2093	0.0945	0.4909	0.1991	0.0036	0.0026	0.3594	-0.0692	-0.2792	0.3608	-0.1657	-0.0691	-0.0043	0.6369	0.0572	0.771	1.0162	1.141	1.0372	A-	A-	A-
ELA	6	803538	8	CCAACS	2	B-V	5272	0.6629	0.6607	0.041	0.0461	0.2488	0.0019	0.0015	0.4652	0.4621	-0.2052	-0.251	-0.2914	0.0061	0.0066	-0.2692	0.0612	-3.3991	0.9097	-3.8392	0.8219	A-	A-	A-
ELA	6	803539	8	CCAACS	2	B-V	5278	0.8858	0.0406	0.0336	0.8837	0.0397	0.0009	0.0013	0.4164	-0.2317	-0.2177	0.4184	-0.2398	-0.0276	-0.0395	-2.0498	0.0959	-2.4092	0.8386	-4.5995	0.5102	A-	A-	B-
ELA	6	783558	8	CCAACS	2	D	10533	0.4377	0.1448	0.4347	0.2018	0.212	0.0054	0.0013	0.2731	-0.0714	0.2749	-0.1163	-0.1472	-0.036	-0.0478	0.9408	0.0485	8.5812	1.1634	8.4312	1.247	A+	A-	A-
ELA	6	783559	8	CCAACS	2	D	5257	0.5418	0.1091	0.2308	0.5384	0.1155	0.0051	0.0011	0.4605	-0.1998	-0.2315	0.4614	-0.2063	-0.0505	-0.0183	0.3362	0.0578	-2.8391	0.9385	-0.689	0.9753	A-	A-	A-
ELA	6	805470	9	CCAACS	2	B-C	5302	0.6524	0.1003	0.0862	0.6509	0.1603	0.0019	0.0004	0.3764	-0.2467	-0.1864	0.376	-0.1414	-0.0158	-0.0113	-0.1782	0.0607	-0.219	0.9938	0.191	1.0078	A-	A-	A-
ELA	6	805480	9	CCAACS	3	B-C	5300	0.5321	0.1125	0.2143	0.1398	0.5307	0.0015	0.0011	0.2443	-0.1991	-0.0176	-0.1457	0.2451	-0.0271	-0.0184	0.3338	0.0576	5.5311	1.1258	7.2513	1.2591	A+	A-	A-
ELA	6	809652	9	CCAACS	2	B-C	5308	0.6814	0.6807	0.0576	0.2166	0.044	0.0009	0.0002	0.3072	0.3077	-0.2212	-0.1358	-0.1717	-0.021	-0.008	-0.285	0.0616	1.8211	1.0522	2.9511	1.1452	C-	A-	A-
ELA	6	805474	9	CCAACS	2	B-K	5284	0.6766	0.1481	0.057	0.6728	0.1165	0.0036	0.0021	0.4481	-0.2235	-0.211	0.45	-0.2447	-0.0583	-0.0179	-0.2885	0.0617	-3.5591	0.9022	-2.4391	0.8879	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	805475	9	CCAACS	2	B-K	5287	0.313	0.4727	0.3114	0.0719	0.1389	0.0047	0.0004	0.1092	0.1537	0.1086	-0.1925	-0.2239	-0.0082	0.0338	1.3872	0.0585	7.1312	1.1757	7.8513	1.3111	A-	A-	A-
ELA	6	805478	9	CCAACS	2	B-K	5303	0.5278	0.1075	0.1223	0.2414	0.5267	0.0019	0.0002	0.3914	-0.2005	-0.2724	-0.1011	0.3911	-0.019	0.0104	0.6271	0.0568	0.081	1.0014	0.041	1.0009	A-	A-	A-
ELA	6	805471	9	CCAACS	2	B-V	5300	0.4766	0.3065	0.4753	0.1733	0.0422	0.0021	0.0006	0.145	0.0275	0.1466	-0.1724	-0.0912	-0.0453	-0.0122	0.7713	0.0568	9.9013	1.2671	9.9014	1.403	A-	A-	A-
ELA	6	805472	9	CCAACS	2	B-V	5290	0.8456	0.0282	0.0839	0.8417	0.0416	0.0041	0.0004	0.3358	-0.1956	-0.1608	0.3397	-0.2152	-0.059	-0.0133	-1.4463	0.0806	-2.8291	0.8571	-1.0091	0.9039	A-	A-	B-
ELA	7	623067	0	CCAACS	2	A-C	45334	0.7111	0.7073	0.0863	0.0831	0.1179	0.0047	0.0007	0.5309	0.5346	-0.2616	-0.2864	-0.2608	-0.0876	-0.025	-0.5086	0.0207	-9.8992	0.8414	-9.8992	0.7582	A+	A+	A+
ELA	7	623072	0	CCAACS	2	A-C	45299	0.4785	0.1491	0.1576	0.2115	0.4755	0.0055	0.0007	0.481	-0.2722	-0.1481	-0.2041	0.4835	-0.0861	-0.0309	0.4827	0.0191	2.861	1.0209	5.8811	1.0626	A+	A-	A+
ELA	7	744881	0	CCAACS	2	A-C	45443	0.769	0.1217	0.7666	0.0585	0.0501	0.0017	0.0013	0.514	-0.3164	0.5162	-0.2435	-0.2488	-0.0476	-0.0412	-0.8186	0.0218	-9.8992	0.781	-9.8993	0.658	A-	A-	A-
ELA	7	623064	0	CCAACS	2	A-K	45135	0.6092	0.1261	0.6032	0.1318	0.1291	0.0086	0.0012	0.4293	-0.1544	0.4337	-0.2354	-0.2159	-0.0862	-0.0273	-0.1079	0.0197	6.1611	1.0507	4.4011	1.0587	A+	A+	A+
ELA	7	623071	0	CCAACS	2	A-K	45276	0.5668	0.563	0.0867	0.2736	0.07	0.0055	0.0012	0.5194	0.5225	-0.3027	-0.2371	-0.2373	-0.0871	-0.0369	0.3821	0.0192	-9.8991	0.9228	-8.3191	0.9142	A-	A+	A+
ELA	7	744885	0	CCAACS	2	A-K	45386	0.5367	0.2448	0.5344	0.1019	0.1145	0.0029	0.0014	0.3397	-0.0531	0.3417	-0.3134	-0.1541	-0.0412	-0.0404	0.1457	0.0193	9.9011	1.1156	9.9012	1.1964	A+	A+	A-
ELA	7	744886	0	CCAACS	2	A-K	45329	0.5557	0.5526	0.048	0.0493	0.3446	0.0034	0.0022	0.3729	0.3746	-0.2585	-0.2597	-0.1491	-0.0448	-0.0291	0.1929	0.0193	9.9011	1.0891	9.9011	1.1434	A+	A-	A-
ELA	7	744889	0	CCAACS	2	A-K	45308	0.5	0.1009	0.2649	0.497	0.1312	0.0046	0.0014	0.4475	-0.2856	-0.188	0.4486	-0.1509	-0.0441	-0.0362	0.5059	0.0191	3.081	1.0225	4.281	1.0451	A+	A+	A-
ELA	7	744890	0	CCAACS	2	A-K	45316	0.5175	0.2551	0.1003	0.1243	0.5145	0.0044	0.0015	0.4494	-0.0834	-0.3075	-0.2786	0.4511	-0.0505	-0.0386	0.5732	0.0191	2.701	1.0197	5.3911	1.0569	A+	A+	A+
ELA	7	623069	0	CCAACS	1	A-V	45373	0.4536	0.0406	0.1942	0.4515	0.309	0.0034	0.0011	0.4594	-0.2395	-0.2653	0.4617	-0.1545	-0.0848	-0.0339	1.0279	0.0194	9.7111	1.077	9.9011	1.1491	A-	A-	A-
ELA	7	744882	0	CCAACS	2	A-V	45366	0.6036	0.6008	0.0686	0.2505	0.0754	0.0035	0.0013	0.3772	0.3791	-0.2822	-0.1234	-0.2162	-0.0387	-0.0414	-0.1957	0.0199	9.9012	1.1551	9.9013	1.3048	A+	A+	A+
ELA	7	744618	0	CCAACS	2	B-C	45266	0.38	0.2987	0.2314	0.0856	0.3773	0.0057	0.0012	0.3486	-0.0393	-0.1509	-0.2909	0.3515	-0.0809	-0.0365	0.8904	0.0193	8.4211	1.0645	9.2611	1.1046	A-	A-	A-
ELA	7	744620	0	CCAACS	2	B-C	45199	0.6015	0.1033	0.1205	0.1713	0.5965	0.0072	0.0012	0.536	-0.2541	-0.2675	-0.2437	0.5383	-0.0831	-0.0237	-0.274	0.02	1.221	1.0105	-0.009	0.9997	A+	A+	A+
ELA	7	744623	0	CCAACS	2	B-C	45263	0.385	0.2482	0.1487	0.3823	0.2138	0.0058	0.0012	0.338	-0.2372	-0.1395	0.3411	-0.0146	-0.0852	-0.0338	1.0704	0.0195	9.9011	1.11	9.9012	1.1972	A-	A-	A+
ELA	7	744625	0	CCAACS	2	B-C	45280	0.6924	0.1148	0.6878	0.0926	0.0981	0.0054	0.0012	0.5173	-0.2643	0.5221	-0.2801	-0.2298	-0.0895	-0.0432	-0.9185	0.0222	9.0711	1.1079	0.501	1.0106	A-	A-	A+
ELA	7	744640	0	CCAACS	2	B-C	45398	0.4949	0.1697	0.2028	0.1306	0.4929	0.003	0.001	0.4766	-0.1368	-0.3249	-0.1559	0.4783	-0.0629	-0.0361	0.5043	0.0191	-5.059	0.9637	-3.019	0.9689	A+	A-	A+
ELA	7	744642	0	CCAACS	2	B-C	45405	0.672	0.0893	0.6694	0.1469	0.0905	0.0032	0.0007	0.5322	-0.2577	0.5345	-0.2531	-0.2922	-0.0654	-0.0323	-0.1495	0.0198	-9.8991	0.8709	-9.8992	0.8043	A-	A-	A-
ELA	7	744622	0	CCAACS	2	B-K	44975	0.5736	0.17	0.5659	0.1597	0.091	0.0049	0.0084	0.4997	-0.1814	0.4985	-0.2639	-0.264	-0.0843	-0.0052	-0.1933	0.0199	4.311	1.0363	1.901	1.0264	A+	A+	A+
ELA	7	744624	0	CCAACS	2	B-K	45320	0.6002	0.5968	0.0901	0.0771	0.2302	0.0048	0.0009	0.3023	0.3074	-0.2616	-0.2501	-0.0058	-0.082	-0.035	-0.1906	0.0199	9.9012	1.1837	9.9014	1.4343	A+	A+	A+
ELA	7	744644	0	CCAACS	2	B-K	45432	0.4852	0.1534	0.2045	0.4836	0.1552	0.0026	0.0007	0.4471	-0.213	-0.2021	0.4482	-0.172	-0.0486	-0.0349	0.6403	0.0191	4.311	1.0316	5.5911	1.0591	A-	A-	A-
ELA	7	744645	0	CCAACS	2	B-K	45311	0.322	0.0753	0.4488	0.3201	0.1498	0.0052	0.0007	0.2111	-0.2456	0.0658	0.2128	-0.1765	-0.0447	-0.0354	1.3061	0.0199	9.9012	1.228	9.9014	1.4146	A+	A-	A-
ELA	7	744647	0	CCAACS	2	B-K	45408	0.3953	0.206	0.3938	0.0855	0.311	0.0026	0.0013	0.3425	-0.2138	0.3441	-0.2835	0.0037	-0.0522	-0.0416	1.1881	0.0197	9.9011	1.1421	9.9013	1.286	A-	A-	A-
ELA	7	744649	0	CCAACS	2	B-V	45381	0.6946	0.6916	0.1038	0.1502	0.05	0.003	0.0014	0.4479	0.4507	-0.2456	-0.2157	-0.2368	-0.0531	-0.0445	-0.4617	0.0205	-7.8291	0.9292	-5.7191	0.9101	C-	A-	A-
ELA	7	663532	0	CCAACS	2	D	45424	0.3849	0.0794	0.2687	0.2649	0.3836	0.0014	0.002	0.2481	-0.2571	-0.0106	-0.0996	0.2498	-0.0376	-0.0416	1.3488	0.02	9.9013	1.2613	9.9014	1.4179	A+	A+	A+
ELA	7	715024	0	CCAACS	2	D	45141	0.4316	0.3501	0.4274	0.088	0.1248	0.0013	0.0084	0.3081	-0.0703	0.3132	-0.2332	-0.1387	-0.0345	-0.0906	1.0171	0.0194	9.9012	1.1762	9.9013	1.2933	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	715028	0	CCAACS	2	D	44204	0.4404	0.4271	0.3619	0.1077	0.0731	0.0023	0.028	0.2713	0.2828	-0.1069	-0.0964	-0.1422	-0.053	-0.1158	0.7534	0.0192	9.9012	1.1957	9.9013	1.2796	A-	A-	A-
ELA	7	715765	0	CCAACS	2	D	45433	0.7931	0.1149	0.0478	0.7905	0.0435	0.0022	0.0011	0.4186	-0.2107	-0.2524	0.4225	-0.2298	-0.0564	-0.0418	-0.7257	0.0214	-9.8992	0.8017	-9.8993	0.7394	A+	A+	A-
ELA	7	717722	0	CCAACS	2	D	45442	0.3253	0.1507	0.2977	0.2242	0.3243	0.0013	0.0018	0.3839	-0.2636	-0.1107	-0.0774	0.3847	-0.0326	-0.0406	1.4588	0.0203	2.551	1.023	6.7211	1.1009	A-	A+	A+
ELA	7	745805	0	CCAACS	2	D	45432	0.5331	0.1151	0.0938	0.2565	0.5313	0.0021	0.0012	0.3584	-0.133	-0.1812	-0.1854	0.3605	-0.0496	-0.039	0.3738	0.0192	9.9011	1.0906	9.9011	1.1336	A+	A-	A-
ELA	7	745809	0	CCAACS	2	D	45426	0.4707	0.1795	0.1529	0.4691	0.1951	0.0024	0.001	0.4329	-0.2334	-0.1838	0.4342	-0.1448	-0.0479	-0.038	0.7097	0.0192	6.451	1.0479	8.7311	1.0941	A-	A-	A-
ELA	7	745811	0	CCAACS	1	D	45453	0.757	0.0863	0.0759	0.7549	0.0801	0.0011	0.0017	0.4746	-0.2603	-0.2327	0.4769	-0.2478	-0.0345	-0.0477	-0.5938	0.0209	-9.8992	0.8254	-9.8992	0.7546	A-	A+	A+
ELA	7	745861	0	CCAACS	2	D	45358	0.399	0.1604	0.397	0.257	0.1808	0.0036	0.0013	0.3795	-0.1255	0.381	-0.2325	-0.0894	-0.0522	-0.0353	1.2745	0.0199	9.9011	1.1244	9.9013	1.2751	A-	A-	A-
ELA	7	800930	1	CCAACS	2	A-C	5116	0.7459	0.0667	0.1289	0.0571	0.7417	0.0035	0.0021	0.45	-0.2577	-0.2075	-0.2546	0.454	-0.0618	-0.0468	-0.5501	0.0608	-7.0192	0.826	-5.8693	0.7447	A+	A+	A+
ELA	7	800931	1	CCAACS	2	A-C	5130	0.5953	0.0715	0.2225	0.1094	0.5936	0.0019	0.001	0.4864	-0.2458	-0.2259	-0.254	0.4881	-0.0523	-0.0265	0.0591	0.058	-3.8791	0.9138	-3.6791	0.8766	A+	A+	A+
ELA	7	800932	1	CCAACS	2	A-C	5141	0.8358	0.0533	0.061	0.8352	0.0498	0.0006	0.0002	0.4264	-0.2775	-0.241	0.4272	-0.1732	-0.0223	-0.0209	-1.3264	0.0694	-4.0691	0.8549	-4.6093	0.6909	A+	A-	A-
ELA	7	800924	1	CCAACS	2	A-K	5135	0.7566	0.7551	0.0465	0.1392	0.0573	0.001	0.001	0.4066	0.4077	-0.2221	-0.196	-0.2542	-0.0278	-0.0252	-0.8664	0.0635	-2.1091	0.938	-0.9791	0.9437	A-	A-	A-
ELA	7	800927	1	CCAACS	2	A-K	5117	0.7252	0.7213	0.049	0.0783	0.146	0.0047	0.0008	0.5302	0.528	-0.2392	-0.2967	-0.2933	-0.0167	-0.0255	-0.5104	0.0605	-8.7692	0.7887	-7.6593	0.6835	A+	A+	A-
ELA	7	800928	1	CCAACS	2	A-K	5139	0.7824	0.0976	0.0752	0.0445	0.7815	0.001	0.0002	0.4245	-0.2223	-0.233	-0.2281	0.4263	-0.0468	-0.0152	-0.8787	0.0636	-3.1791	0.9072	-2.4891	0.8612	A-	A+	A-
ELA	7	800922	1	CCAACS	2	A-V	5131	0.7893	0.7872	0.0488	0.0727	0.0886	0.0016	0.0012	0.417	0.4181	-0.2187	-0.206	-0.2405	-0.0517	-0.0044	-1.1036	0.0662	-3.7991	0.8782	-3.3792	0.7917	A-	A-	A-
ELA	7	800923	1	CCAACS	2	A-V	5104	0.4397	0.295	0.4362	0.0985	0.1623	0.0066	0.0014	0.2692	-0.0152	0.2705	-0.222	-0.1543	-0.0359	-0.0339	0.8212	0.0587	4.8011	1.1195	6.0212	1.2295	A+	A+	A-
ELA	7	786779	1	CCAACS	1	D	15198	0.3552	0.0893	0.3532	0.2397	0.312	0.0044	0.0014	0.1203	-0.126	0.122	-0.1056	0.056	-0.0295	-0.0335	1.1901	0.0419	9.9013	1.3308	9.9016	1.5674	A-	A+	A-
ELA	7	786793	1	CCAACS	2	D	10138	0.5485	0.0975	0.1346	0.2176	0.5464	0.0029	0.001	0.357	-0.2167	-0.2488	-0.062	0.3594	-0.0609	-0.0278	0.3588	0.0488	3.1611	1.0612	3.2211	1.0918	A+	A+	A-
ELA	7	786798	1	CCAACS	2	D	10138	0.6006	0.1173	0.5976	0.1262	0.1539	0.0032	0.0018	0.4357	-0.219	0.4378	-0.2204	-0.185	-0.0471	-0.038	0.029	0.0464	-0.269	0.9948	-0.059	0.9979	A-	A-	A-
ELA	7	800909	2	CCAACS	2	A-C	5060	0.313	0.3642	0.3124	0.1305	0.1907	0.0016	0.0006	0.1537	-0.0473	0.1541	-0.0414	-0.0857	0.0014	-0.0439	1.4661	0.0601	7.9412	1.2199	9.9015	1.5115	A+	A+	A-
ELA	7	800919	2	CCAACS	2	A-C	5053	0.5945	0.2288	0.068	0.5924	0.1073	0.0014	0.0022	0.5032	-0.2778	-0.2307	0.504	-0.2261	-0.0299	-0.0377	0.0975	0.0578	-4.9591	0.8928	-4.8692	0.8464	A+	A+	A-
ELA	7	800912	2	CCAACS	2	A-K	5025	0.438	0.1307	0.1617	0.2644	0.434	0.0073	0.0018	0.3433	-0.2776	-0.1554	-0.0348	0.3438	-0.038	-0.0245	0.9591	0.0573	-0.789	0.9828	1.021	1.0314	A+	A+	A+
ELA	7	800916	2	CCAACS	3	A-K	5030	0.5288	0.1378	0.5246	0.2132	0.1163	0.0073	0.0008	0.3938	-0.2169	0.3929	-0.0957	-0.2464	-0.0248	-0.0402	0.3005	0.0571	1.321	1.0283	3.3511	1.1048	A+	A-	A+
ELA	7	800917	2	CCAACS	2	A-K	5041	0.3676	0.18	0.367	0.3654	0.0816	0.0035	0.0024	0.1449	-0.2102	0.1321	0.1473	-0.1808	-0.0444	-0.0357	1.2976	0.0589	7.8212	1.2008	8.3313	1.3383	A-	A-	A-
ELA	7	800918	2	CCAACS	2	A-K	5061	0.5523	0.055	0.5512	0.2822	0.1096	0.0014	0.0006	0.4629	-0.2582	0.4629	-0.2744	-0.1497	-0.0288	0.0008	0.3724	0.057	-2.3991	0.95	-2.4491	0.9288	A+	A-	A-
ELA	7	800910	2	CCAACS	2	A-V	5060	0.6702	0.1258	0.6687	0.1031	0.1002	0.0014	0.0008	0.429	-0.1985	0.4309	-0.176	-0.2697	-0.0369	-0.0395	-0.305	0.0602	-2.5191	0.9355	-2.4291	0.9003	A-	A+	A-
ELA	7	806936	2	CCAACS	2	A-V	5067	0.7271	0.7265	0.0509	0.1822	0.0396	0.0002	0.0006	0.2302	0.2306	-0.1886	-0.0884	-0.1374	-0.0158	-0.0083	-0.7078	0.0643	2.9311	1.0956	5.1613	1.3076	A+	A-	A-
ELA	7	786780	2	CCAACS	2	D	15115	0.4958	0.123	0.4933	0.106	0.2726	0.0036	0.0015	0.3779	-0.1827	0.38	-0.2264	-0.1256	-0.0497	-0.035	0.4977	0.0426	1.581	1.0253	1.611	1.0368	A+	A-	A+
ELA	7	786791	2	CCAACS	2	D	15089	0.3992	0.2818	0.3975	0.1507	0.1657	0.0035	0.0009	0.1541	0.0302	0.1561	-0.08	-0.1561	-0.04	-0.0326	1.0261	0.0433	9.9012	1.2039	9.9013	1.3196	A-	A+	A-
ELA	7	805491	3	CCAACS	2	A-C	5037	0.4852	0.4845	0.3243	0.1352	0.0545	0.0006	0.0008	0.2903	0.2909	-0.0926	-0.1573	-0.2067	0.0092	-0.0533	0.4685	0.0577	4.3211	1.1	4.2911	1.1463	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	805493	3	CCAACS	2	A-C	5037	0.5444	0.2224	0.1348	0.5436	0.0977	0.001	0.0004	0.3414	-0.0925	-0.2116	0.3426	-0.1952	-0.047	-0.0261	0.3451	0.0579	2.6911	1.0621	2.4311	1.0838	A-	A+	A+
ELA	7	805486	3	CCAACS	2	A-K	5024	0.3545	0.1047	0.3531	0.2139	0.3243	0.0026	0.0014	0.2887	-0.2064	0.2903	-0.1168	-0.051	-0.0492	-0.0348	1.3505	0.06	3.6711	1.0968	5.4512	1.2396	A+	A+	A+
ELA	7	805487	3	CCAACS	2	A-K	5025	0.6856	0.1348	0.069	0.1094	0.683	0.003	0.0008	0.5153	-0.2351	-0.2558	-0.2944	0.5164	-0.0524	-0.0155	-0.4301	0.0619	-3.1691	0.9132	-3.3492	0.8405	A+	A+	A+
ELA	7	805488	3	CCAACS	2	A-K	5002	0.5112	0.1445	0.1118	0.5069	0.2284	0.0075	0.0008	0.3438	-0.1494	-0.2379	0.3444	-0.0967	-0.0383	-0.0291	0.5847	0.0577	5.2311	1.1212	6.1112	1.2097	A+	A+	A+
ELA	7	805490	3	CCAACS	2	A-K	5016	0.5668	0.5636	0.1848	0.1303	0.1158	0.0042	0.0014	0.4626	0.4626	-0.2037	-0.2404	-0.2085	-0.0159	-0.045	0.1338	0.0585	-2.2591	0.9476	-2.4591	0.9125	B-	A+	A+
ELA	7	805482	3	CCAACS	2	A-V	5026	0.7228	0.0343	0.1642	0.7203	0.0777	0.0022	0.0014	0.2884	-0.2246	-0.118	0.2901	-0.1617	-0.0243	-0.0321	-0.7125	0.0647	1.9911	1.0641	5.6514	1.373	A+	A+	A-
ELA	7	805483	3	CCAACS	2	A-V	5022	0.5112	0.1546	0.1503	0.1818	0.5089	0.0026	0.0018	0.3562	-0.2	-0.1193	-0.1576	0.3569	-0.0262	-0.0326	0.4685	0.0577	1.311	1.0294	1.311	1.0431	A-	A-	A-
ELA	7	786777	3	CCAACS	2	D	15100	0.6983	0.0654	0.1764	0.6949	0.0585	0.0036	0.0013	0.429	-0.2444	-0.2109	0.4306	-0.2286	-0.0417	-0.0372	-0.5816	0.0465	-3.1691	0.9335	-1.9091	0.929	A+	C-	B-
ELA	7	786786	3	CCAACS	2	D	10076	0.5563	0.1017	0.1327	0.207	0.5533	0.0035	0.002	0.3224	-0.2016	-0.2143	-0.0574	0.3255	-0.0522	-0.0431	0.1913	0.0491	1.761	1.0345	2.7211	1.0808	A+	A-	A+
ELA	7	785215	4	CCAACS	2	A-C	5060	0.3547	0.3529	0.3137	0.1854	0.1427	0.0039	0.0014	0.2762	0.2782	-0.0012	-0.1427	-0.206	-0.0517	-0.0434	1.1556	0.0585	4.1511	1.1009	4.6012	1.1685	A-	A-	A-
ELA	7	785216	4	CCAACS	2	A-C	5065	0.5499	0.2318	0.5475	0.0995	0.117	0.0029	0.0014	0.3822	-0.1275	0.3845	-0.2445	-0.1874	-0.0551	-0.0326	0.1695	0.0579	-0.219	0.9948	-0.079	0.997	A+	A-	A-
ELA	7	785217	4	CCAACS	3	A-C	5049	0.2953	0.2931	0.4059	0.1968	0.0967	0.0063	0.0012	0.1741	0.1768	0.1223	-0.1682	-0.2283	-0.0564	-0.0503	1.6753	0.0623	5.3012	1.1609	7.4114	1.3931	A-	A+	A+
ELA	7	785218	4	CCAACS	2	A-C	5077	0.4794	0.4785	0.1447	0.1386	0.2363	0.001	0.001	0.273	0.2744	-0.1195	-0.2192	-0.0401	-0.0311	-0.0401	0.6314	0.0572	5.3811	1.1207	5.5512	1.1737	A-	A-	A-
ELA	7	785214	4	CCAACS	2	A-K	5077	0.3669	0.0698	0.1176	0.3662	0.4445	0.0012	0.0008	0.1943	-0.133	-0.2449	0.1947	0.0403	0.003	-0.0425	1.1625	0.0586	7.7712	1.195	9.0314	1.3495	A-	A-	A-
ELA	7	785207	4	CCAACS	2	A-V	5064	0.5	0.0971	0.4977	0.3147	0.0859	0.0035	0.001	0.3588	-0.185	0.36	-0.151	-0.1846	-0.034	-0.042	0.5583	0.0572	2.051	1.0448	1.641	1.0493	A-	A-	A-
ELA	7	785208	4	CCAACS	2	A-V	5072	0.3186	0.3177	0.2172	0.251	0.2111	0.0022	0.0008	0.2768	0.2781	-0.1908	-0.0811	-0.0297	-0.0547	-0.0346	1.388	0.0599	2.9111	1.0759	4.2412	1.1774	A-	A-	A-
ELA	7	785210	4	CCAACS	2	A-V	5079	0.7738	0.7726	0.044	0.1235	0.0584	0.0008	0.0008	0.1846	0.1843	-0.1243	-0.1082	-0.068	-0.0123	0.0042	-0.819	0.0657	1.351	1.0452	3.4912	1.223	A+	A+	A+
ELA	7	786778	4	CCAACS	1	D	15069	0.3987	0.2068	0.1212	0.2694	0.3961	0.0047	0.0017	0.3043	-0.1354	-0.1984	-0.0581	0.3056	-0.0381	-0.0356	0.9747	0.0435	6.1111	1.1102	7.2212	1.1942	A-	A-	A-
ELA	7	783845	5	CCAACS	3	B-C	5035	0.2139	0.169	0.2124	0.3408	0.2708	0.0059	0.0012	0.341	-0.0784	0.3411	-0.0256	-0.2126	-0.027	-0.0426	2.0274	0.068	0.291	1.0102	4.6813	1.3309	A-	A-	A-
ELA	7	783846	5	CCAACS	3	B-C	5052	0.6229	0.0452	0.6206	0.1463	0.1842	0.0026	0.0012	0.4923	-0.2347	0.4935	-0.3038	-0.2069	-0.0499	-0.0179	-0.3312	0.0601	-3.8291	0.9049	-3.3991	0.8558	A-	A-	A-
ELA	7	783848	5	CCAACS	3	B-C	5056	0.8669	0.8643	0.0809	0.0286	0.0233	0.0014	0.0016	0.3919	0.3949	-0.2542	-0.2	-0.1951	-0.0595	-0.0251	-1.6395	0.0784	-2.6791	0.8727	-2.9693	0.7411	A+	A-	A-
ELA	7	783849	5	CCAACS	3	B-C	5065	0.7025	0.0939	0.7016	0.072	0.1313	0.0008	0.0004	0.4524	-0.2308	0.4535	-0.2461	-0.2224	-0.0293	-0.0304	-0.6544	0.0628	-1.529	0.9553	-1.5591	0.9169	A+	A-	A-
ELA	7	783840	5	CCAACS	3	B-K	5044	0.4155	0.1826	0.1704	0.2284	0.4133	0.002	0.0034	0.3075	-0.1422	-0.1318	-0.1026	0.31	-0.031	-0.0645	0.9939	0.0585	5.4211	1.132	5.4712	1.2067	A-	A-	A-
ELA	7	783842	5	CCAACS	2	B-K	5021	0.71	0.1408	0.0726	0.0738	0.703	0.0077	0.0022	0.5114	-0.2634	-0.2519	-0.2768	0.5062	-0.0201	-0.0039	-0.6606	0.0629	-3.7391	0.8936	-3.6092	0.8159	A+	A-	A-
ELA	7	783844	5	CCAACS	2	B-K	5049	0.3064	0.3051	0.4514	0.0911	0.1481	0.0034	0.001	0.4174	0.4184	-0.0988	-0.2453	-0.1943	-0.0568	-0.019	1.4765	0.0617	-1.479	0.9586	1.2511	1.0578	A+	A+	A-
ELA	7	783851	5	CCAACS	2	B-V	5068	0.1949	0.3611	0.4015	0.1948	0.042	0.0004	0.0002	-0.0125	0.2567	-0.1701	-0.0123	-0.1723	-0.0039	-0.0272	2.3279	0.0729	6.2013	1.2901	9.9023	2.2744	A+	A-	A-
ELA	7	786794	5	CCAACS	2	D	10087	0.4675	0.0705	0.4659	0.3557	0.1044	0.0021	0.0014	0.3612	-0.2545	0.3631	-0.0902	-0.2257	-0.0441	-0.0474	0.6144	0.0485	4.2311	1.0796	5.9812	1.1685	A-	A-	A-
ELA	7	797513	6	CCAACS	3	B-C	5014	0.5443	0.5411	0.1192	0.0757	0.2582	0.0052	0.0006	0.3249	0.326	-0.1548	-0.2022	-0.1265	-0.0329	-0.045	0.2782	0.0576	3.5611	1.0803	4.0411	1.1367	B-	A-	A-
ELA	7	797521	6	CCAACS	2	B-C	5019	0.2971	0.2957	0.1156	0.35	0.234	0.0024	0.0024	0.127	0.1291	-0.2221	0.0563	-0.0243	-0.0622	-0.029	1.6407	0.0624	6.4912	1.2017	7.9814	1.4338	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	797522	6	CCAACS	2	B-C	5040	0.5335	0.2542	0.5332	0.0736	0.1384	0.0004	0.0002	0.2369	-0.0409	0.2364	-0.1711	-0.161	0.0309	-0.0348	0.4326	0.0574	8.6712	1.2003	8.3713	1.2841	A+	A+	A-
ELA	7	797523	6	CCAACS	2	B-C	5025	0.4613	0.0775	0.4596	0.414	0.0452	0.0016	0.002	0.205	-0.198	0.2083	-0.011	-0.1959	-0.0476	-0.0633	0.7409	0.0575	9.9012	1.2467	9.9014	1.3638	A-	A-	A-
ELA	7	797517	6	CCAACS	2	B-K	5031	0.7825	0.0801	0.0408	0.7807	0.096	0.0008	0.0016	0.4672	-0.2682	-0.2142	0.4688	-0.2592	-0.0298	-0.0397	-0.9357	0.067	-4.7492	0.8426	-4.8793	0.7152	A+	A-	A-
ELA	7	797518	6	CCAACS	2	B-K	5028	0.5412	0.0518	0.0926	0.3131	0.5396	0.0022	0.0008	0.3709	-0.2603	-0.309	-0.0771	0.372	-0.0426	-0.0172	0.2456	0.0577	1.281	1.0285	1.231	1.0406	A-	A-	A+
ELA	7	797514	6	CCAACS	1	B-V	5030	0.604	0.1582	0.141	0.0958	0.6024	0.0014	0.0012	0.3036	-0.1244	-0.201	-0.1082	0.3046	-0.0287	-0.0237	-0.1	0.0591	2.3211	1.0567	2.4311	1.0973	A-	A+	A-
ELA	7	804844	6	CCAACS	3	B-V	5039	0.7756	0.0779	0.094	0.0523	0.7749	0.0004	0.0004	0.3761	-0.1047	-0.2579	-0.2384	0.3773	-0.0176	-0.0394	-0.9457	0.0672	-1.8391	0.9364	-1.4491	0.9074	A+	A-	A-
ELA	7	786783	6	CCAACS	2	D	10033	0.2753	0.159	0.1862	0.274	0.3761	0.0034	0.0013	0.2081	-0.1358	-0.1732	0.2099	0.0581	-0.0534	-0.0436	1.6549	0.053	5.0711	1.1322	6.9413	1.3194	A-	A+	A+
ELA	7	783911	7	CCAACS	3	B-C	5035	0.2773	0.3245	0.136	0.2599	0.2764	0.0024	0.0008	0.1216	0.0676	-0.1747	-0.0566	0.1222	-0.0222	-0.019	1.7027	0.0624	6.2212	1.1905	9.0915	1.5117	A+	A+	A+
ELA	7	783917	7	CCAACS	2	B-C	5047	0.4829	0.1227	0.3316	0.0624	0.4825	0.0004	0.0004	0.4086	-0.337	-0.107	-0.175	0.409	-0.0383	-0.016	0.7355	0.0573	0.401	1.0086	0.751	1.0232	A+	A-	A-
ELA	7	783919	7	CCAACS	2	B-C	5039	0.5207	0.3219	0.1111	0.5195	0.0451	0.0012	0.0012	0.4027	-0.1476	-0.2442	0.4046	-0.2546	-0.0499	-0.0546	0.4717	0.0574	0.271	1.0057	0.171	1.0051	A+	A+	A+
ELA	7	783913	7	CCAACS	2	B-K	5020	0.4305	0.4278	0.1053	0.2318	0.2289	0.0049	0.0012	0.2708	0.2719	-0.1584	-0.11	-0.0858	-0.0469	-0.0055	0.8744	0.0576	3.9811	1.0899	3.8011	1.1261	A-	A+	A+
ELA	7	783915	7	CCAACS	3	B-K	4971	0.518	0.212	0.5098	0.1495	0.1128	0.0067	0.0091	0.3651	-0.1362	0.3647	-0.1807	-0.1806	-0.0215	-0.0348	0.4725	0.0574	2.6611	1.0589	2.4411	1.0785	A+	A+	A+
ELA	7	783916	7	CCAACS	2	B-K	5028	0.464	0.4619	0.2265	0.1558	0.1513	0.0028	0.0018	0.4077	0.4091	-0.1934	-0.1652	-0.1642	-0.0604	-0.0249	0.6496	0.0573	0.771	1.0165	1.071	1.0332	A-	A+	A+
ELA	7	783912	7	CCAACS	2	B-V	5036	0.4404	0.4391	0.2411	0.1542	0.1625	0.0022	0.0008	0.2111	0.2119	-0.0167	-0.1645	-0.0997	-0.0172	-0.0362	0.8496	0.0575	8.7412	1.2038	8.0713	1.2782	A+	A+	A+
ELA	7	801245	7	CCAACS	2	B-V	5006	0.9119	0.9038	0.0249	0.0325	0.0299	0.0081	0.0008	0.3808	0.3855	-0.1862	-0.226	-0.2165	-0.0767	-0.0291	-2.3331	0.1026	-2.1992	0.836	-5.3096	0.4145	A+	A-	B-
ELA	7	786702	8	CCAACS	3	B-C	5010	0.2555	0.4354	0.2541	0.189	0.1161	0.0038	0.0016	0.0914	0.0714	0.0941	-0.1143	-0.0815	-0.0681	-0.0345	1.9036	0.0648	6.4012	1.2206	8.5916	1.56	A+	A-	A-
ELA	7	786703	8	CCAACS	3	B-C	5013	0.3116	0.3655	0.1664	0.3101	0.1533	0.0034	0.0014	0.0016	0.207	-0.2252	0.0039	-0.0397	-0.0341	-0.0362	1.4092	0.06	9.9014	1.4312	9.9017	1.6922	A-	A-	A+
ELA	7	786705	8	CCAACS	2	B-C	5011	0.3808	0.1785	0.2819	0.3788	0.1556	0.0034	0.0018	0.317	-0.114	-0.0588	0.319	-0.2206	-0.0612	-0.0275	1.1316	0.0584	1.431	1.0336	3.8111	1.1394	A-	A-	A-
ELA	7	786697	8	CCAACS	2	B-K	5018	0.5185	0.0828	0.5166	0.1672	0.2297	0.002	0.0018	0.3617	-0.1708	0.3633	-0.2729	-0.0701	-0.0409	-0.0317	0.4665	0.0572	2.4211	1.0528	2.1811	1.0672	A-	A-	A-
ELA	7	786699	8	CCAACS	3	B-K	5007	0.4136	0.2883	0.1288	0.1658	0.4112	0.0056	0.0004	0.2952	-0.0334	-0.2449	-0.1217	0.2955	-0.0273	-0.0454	0.9906	0.0579	4.2911	1.0994	5.1612	1.1788	A+	A+	A+
ELA	7	786700	8	CCAACS	3	B-K	4975	0.2718	0.1926	0.4276	0.2684	0.0991	0.0119	0.0004	0.0044	-0.2119	0.267	0.0066	-0.1601	-0.0265	-0.0394	1.8147	0.0637	9.4413	1.3204	9.9017	1.6668	A-	A-	A+
ELA	7	786695	8	CCAACS	2	B-V	5027	0.5536	0.0733	0.1005	0.5525	0.2718	0.0012	0.0008	0.4143	-0.2417	-0.1936	0.4151	-0.187	-0.0205	-0.0466	0.2702	0.0576	0.471	1.0103	-0.069	0.9976	A-	A-	A-
ELA	7	786696	8	CCAACS	2	B-V	5031	0.4377	0.086	0.141	0.3347	0.4372	0.0006	0.0006	0.2051	-0.2911	-0.217	0.1191	0.2057	-0.0186	-0.0283	0.8307	0.0574	9.3012	1.2169	8.2213	1.2772	A-	A-	A+
ELA	7	786797	8	CCAACS	2	D	5009	0.6045	0.1983	0.6012	0.0967	0.0983	0.0046	0.001	0.4559	-0.2312	0.4568	-0.2047	-0.225	-0.0404	-0.0406	-0.1195	0.0592	-1.899	0.9537	-1.8591	0.9294	A+	A-	A-
ELA	7	799559	9	CCAACS	2	B-C	4998	0.2981	0.296	0.1649	0.3735	0.1586	0.0052	0.0018	0.1688	0.17	-0.1893	0.1235	-0.1743	-0.0221	-0.0443	1.5199	0.0611	6.8712	1.1993	9.2915	1.4723	A-	A-	A-
ELA	7	799567	9	CCAACS	2	B-C	5000	0.428	0.3465	0.1256	0.0962	0.4252	0.0054	0.0012	0.2935	0.0088	-0.2353	-0.2319	0.2948	-0.0571	0.018	0.7967	0.0576	1.591	1.0352	2.4711	1.0821	A-	A+	A+
ELA	7	799568	9	CCAACS	2	B-C	5025	0.7142	0.118	0.1144	0.0529	0.7131	0.001	0.0006	0.5435	-0.3346	-0.2682	-0.2286	0.5447	-0.038	-0.0299	-0.7244	0.0648	-6.0892	0.817	-6.1193	0.6723	B-	A-	A-
ELA	7	799569	9	CCAACS	2	B-C	5005	0.3365	0.3346	0.147	0.359	0.1538	0.0032	0.0024	0.3151	0.3167	-0.1556	-0.0417	-0.1934	-0.0554	-0.0291	1.3262	0.0597	0.001	0.9999	2.1111	1.0861	A-	A+	A+
ELA	7	799570	9	CCAACS	3	B-C	5009	0.3949	0.2406	0.393	0.1144	0.2472	0.0036	0.0012	0.2705	-0.0874	0.2724	-0.1791	-0.0805	-0.0439	-0.0377	1.0875	0.0585	5.8211	1.1423	5.7112	1.2161	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	799565	9	CCAACS	2	B-K	4989	0.5071	0.5027	0.1725	0.1329	0.1832	0.0079	0.0008	0.4186	0.4177	-0.2053	-0.1947	-0.1621	-0.0222	-0.0189	0.4878	0.0575	-1.939	0.9582	-2.2091	0.9292	A-	A+	A-
ELA	7	799561	9	CCAACS	2	B-V	5025	0.7266	0.0831	0.7254	0.0689	0.121	0.0016		0.5232	-0.2535	0.5249	-0.2648	-0.2911	-0.0565		-0.718	0.0647	-5.2292	0.8418	-5.7993	0.6881	A-	A-	A-
ELA	7	806042	9	CCAACS	2	B-V	5027	0.8574	0.053	0.0668	0.8563	0.0227	0.001	0.0002	0.3903	-0.2526	-0.2305	0.3923	-0.1472	-0.0425	-0.0144	-1.6526	0.0812	-2.4391	0.8763	-3.0793	0.7148	A-	A-	A-
ELA	7	786787	9	CCAACS	2	D	5013	0.1823	0.4318	0.1607	0.2219	0.1816	0.0028	0.0012	-0.1584	0.233	-0.0031	-0.1236	-0.1568	-0.029	-0.0273	2.5028	0.0741	8.7314	1.4366	9.9026	2.5953	A-	A+	A+
ELA	8	745574	0	CCAACS	2	A-C	44746	0.326	0.4198	0.0887	0.1612	0.324	0.0054	0.0008	0.3163	-0.0581	-0.2262	-0.1368	0.3181	-0.0662	-0.0233	1.3122	0.0204	9.9011	1.146	9.9013	1.2987	A+	A+	A+
ELA	8	745582	0	CCAACS	2	A-C	44832	0.4444	0.1546	0.0955	0.3031	0.4425	0.0037	0.0006	0.3182	-0.1005	-0.2628	-0.0889	0.3206	-0.0698	-0.0224	0.5065	0.0194	9.9012	1.1964	9.9014	1.3944	A+	A+	A+
ELA	8	745583	0	CCAACS	2	A-C	44754	0.5416	0.0651	0.5383	0.0898	0.3008	0.0054	0.0007	0.3173	-0.2652	0.3214	-0.2643	-0.0281	-0.0789	-0.0239	-0.1686	0.0199	9.9013	1.2541	9.9015	1.507	A-	A+	A+
ELA	8	746409	0	CCAACS	2	A-C	44828	0.6198	0.1513	0.617	0.1326	0.0946	0.0035	0.001	0.4037	-0.2473	0.4055	-0.2145	-0.1098	-0.0462	-0.028	-0.1662	0.0199	9.9011	1.0932	9.9012	1.1941	A+	A+	A+
ELA	8	746420	0	CCAACS	2	A-C	44806	0.5676	0.5648	0.2897	0.112	0.0286	0.004	0.0009	0.2345	0.2373	-0.0662	-0.1592	-0.2014	-0.0489	-0.0243	0.1626	0.0195	9.9013	1.2776	9.9014	1.4484	A-	A+	A-
ELA	8	745577	0	CCAACS	2	A-K	44701	0.6068	0.2061	0.0659	0.6024	0.1184	0.0064	0.0009	0.4963	-0.1992	-0.2875	0.499	-0.265	-0.0758	-0.0231	-0.2123	0.02	1.691	1.0142	-0.189	0.9971	A+	A+	A+
ELA	8	745579	0	CCAACS	2	A-K	44804	0.553	0.209	0.5503	0.089	0.1467	0.0042	0.0008	0.5537	-0.2673	0.5555	-0.2821	-0.2314	-0.0752	-0.0215	-0.0544	0.0197	-3.959	0.9685	-5.8991	0.9199	A-	A+	A+
ELA	8	746413	0	CCAACS	2	A-K	44823	0.4917	0.1837	0.1644	0.4894	0.1579	0.0034	0.0012	0.5228	-0.2594	-0.2175	0.5236	-0.2113	-0.046	-0.0283	0.4829	0.0194	-5.309	0.9596	-2.649	0.969	A-	A+	A+
ELA	8	746415	0	CCAACS	2	A-K	44696	0.5718	0.1482	0.141	0.5676	0.1358	0.0065	0.0009	0.4835	-0.2543	-0.0806	0.4854	-0.3399	-0.0606	-0.027	0.0299	0.0196	0.511	1.0041	1.361	1.0183	A+	A-	A+
ELA	8	746410	0	CCAACS	2	A-V	44842	0.6058	0.0423	0.2717	0.0786	0.6033	0.0029	0.0012	0.3072	-0.2445	-0.0601	-0.2677	0.3096	-0.0489	-0.0244	-0.2656	0.0201	9.9012	1.1902	9.9014	1.4197	A+	A+	A-
ELA	8	710655	0	CCAACS	2	B-C	44852	0.6602	0.076	0.1486	0.1138	0.6577	0.0032	0.0007	0.576	-0.2592	-0.2999	-0.298	0.5774	-0.0578	-0.0275	-0.4342	0.0204	-9.8991	0.8962	-9.8992	0.8266	A-	A-	A-
ELA	8	710656	0	CCAACS	2	B-C	44915	0.6614	0.2225	0.6598	0.0702	0.0451	0.0017	0.0008	0.3873	-0.1895	0.3897	-0.2112	-0.235	-0.0507	-0.0367	-0.2872	0.0201	9.3011	1.0814	9.9012	1.2394	A+	A+	A+
ELA	8	710657	0	CCAACS	2	B-C	44846	0.618	0.289	0.0471	0.6156	0.0444	0.0031	0.0009	0.4928	-0.3071	-0.2433	0.4951	-0.2214	-0.0677	-0.0252	0.1609	0.0195	-3.679	0.9716	-3.789	0.9525	A-	A+	A+
ELA	8	710658	0	CCAACS	2	B-C	44827	0.6059	0.0891	0.1752	0.1281	0.6032	0.0035	0.001	0.4382	-0.2023	-0.1979	-0.2349	0.4398	-0.0533	-0.0228	-0.3061	0.0201	8.0111	1.0702	9.1212	1.1518	A-	A+	A-
ELA	8	743396	0	CCAACS	2	B-C	44703	0.4658	0.4624	0.2545	0.1484	0.1275	0.006	0.0012	0.4	0.4028	-0.0076	-0.2826	-0.2708	-0.071	-0.0361	0.5098	0.0194	9.9012	1.1557	9.9013	1.2585	A-	A+	A+
ELA	8	743397	0	CCAACS	2	B-C	44788	0.4433	0.3612	0.4409	0.1042	0.0883	0.0041	0.0012	0.4305	-0.134	0.4327	-0.2847	-0.2033	-0.0685	-0.0404	0.4393	0.0194	9.9011	1.0807	9.9011	1.1365	A-	A+	A+
ELA	8	743399	0	CCAACS	2	B-C	44732	0.5314	0.1444	0.1718	0.5279	0.1494	0.0056	0.001	0.5432	-0.2427	-0.2107	0.5455	-0.2822	-0.0762	-0.0407	0.4129	0.0194	-6.9491	0.9475	-5.1491	0.9399	A+	A+	A+
ELA	8	710664	0	CCAACS	2	B-K	44777	0.6186	0.6151	0.2076	0.0716	0.1001	0.0047	0.0008	0.4848	0.4862	-0.2582	-0.2063	-0.2471	-0.0591	-0.015	-0.025	0.0197	-0.679	0.9945	-1.329	0.9817	B-	A-	A+
ELA	8	743400	0	CCAACS	2	B-K	44799	0.6187	0.1446	0.119	0.1158	0.6156	0.0036	0.0014	0.5816	-0.2626	-0.3011	-0.2772	0.5835	-0.0671	-0.0345	-0.5018	0.0206	-2.509	0.9772	-3.6491	0.9366	A-	A+	A+
ELA	8	743403	0	CCAACS	2	B-K	44781	0.7549	0.7508	0.1017	0.0797	0.0623	0.0046	0.0009	0.5417	0.5448	-0.2968	-0.2752	-0.2714	-0.0737	-0.028	-0.8898	0.0218	-9.8992	0.8249	-9.8993	0.6726	A-	A+	A+
ELA	8	710665	0	CCAACS	2	B-V	44839	0.7666	0.0368	0.1528	0.7634	0.0428	0.0036	0.0006	0.3194	-0.2403	-0.1288	0.3238	-0.206	-0.061	-0.0276	-1.1197	0.0228	8.2911	1.1023	9.9016	1.5645	A-	A+	A+
ELA	8	710715	0	CCAACS	2	B-V	44853	0.7146	0.7118	0.0936	0.1141	0.0766	0.0029	0.001	0.4888	0.491	-0.2609	-0.2382	-0.2506	-0.0615	-0.0214	-0.8216	0.0216	-1.689	0.9825	-2.049	0.9569	A-	A+	A+
ELA	8	743401	0	CCAACS	2	B-V	44811	0.7342	0.0777	0.7307	0.1216	0.0652	0.0042	0.0006	0.442	-0.2786	0.4457	-0.1804	-0.239	-0.0693	-0.027	-0.6086	0.0209	-9.8991	0.8705	-8.6292	0.8461	B-	A-	A-
ELA	8	584100	0	CCAACS	2	D	44895	0.4325	0.1894	0.4313	0.2078	0.1686	0.0015	0.0015	0.393	-0.0746	0.3942	-0.1457	-0.2777	-0.0357	-0.0396	0.9842	0.0198	9.9011	1.1465	9.9013	1.252	A+	A-	A-
ELA	8	663488	0	CCAACS	2	D	44858	0.3571	0.3558	0.2226	0.2441	0.1737	0.0027	0.0011	0.2801	0.2818	-0.1158	-0.0961	-0.1101	-0.0512	-0.0341	1.2491	0.0203	9.9012	1.1822	9.9014	1.3772	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	714524	0	CCAACS	2	D	44791	0.4313	0.1105	0.2255	0.2298	0.4291	0.0013	0.0039	0.3819	-0.1715	-0.2235	-0.0902	0.384	-0.0377	-0.0573	0.4015	0.0194	9.9011	1.121	9.9012	1.2063	A+	A-	A-
ELA	8	717698	0	CCAACS	2	D	44895	0.7817	0.077	0.0677	0.7794	0.0729	0.002	0.001	0.5184	-0.2911	-0.264	0.5201	-0.2643	-0.0464	-0.0305	-0.9664	0.0221	-9.8993	0.7471	-9.8994	0.5997	A+	A-	A-
ELA	8	746437	0	CCAACS	2	D	44893	0.7222	0.0708	0.179	0.72	0.0273	0.0021	0.0009	0.4396	-0.2737	-0.2411	0.442	-0.2	-0.049	-0.0336	-0.6802	0.0211	-6.8791	0.9341	-3.9991	0.9235	A+	A+	A+
ELA	8	746438	0	CCAACS	1	D	44904	0.4663	0.465	0.1429	0.2373	0.152	0.0011	0.0016	0.4532	0.4542	-0.2656	-0.1568	-0.1789	-0.0327	-0.038	0.3995	0.0194	1.331	1.0103	2.821	1.034	A+	A-	A+
ELA	8	746439	0	CCAACS	1	D	44867	0.2626	0.1972	0.2616	0.0874	0.4502	0.0023	0.0013	0.3869	-0.2971	0.3878	-0.0827	-0.0504	-0.0545	-0.0343	1.8177	0.022	8.7311	1.101	9.9014	1.3553	A-	A-	A-
ELA	8	747122	0	CCAACS	2	D	44853	0.4484	0.1889	0.1211	0.2394	0.4467	0.0029	0.001	0.3664	-0.1671	-0.1254	-0.1708	0.3681	-0.0526	-0.0316	0.8468	0.0196	9.9012	1.1698	9.9013	1.2612	A-	A-	A-
ELA	8	747124	0	CCAACS	2	D	44896	0.4104	0.111	0.1556	0.4092	0.3213	0.0015	0.0014	0.2885	-0.1013	-0.196	0.2895	-0.0797	-0.0233	-0.0368	0.9167	0.0197	9.9013	1.2506	9.9014	1.4196	A+	A+	A-
ELA	8	783668	1	CCAACS	2	A-C	4996	0.2562	0.3523	0.1516	0.2541	0.2336	0.0077	0.0006	0.1387	0.1446	-0.1526	0.142	-0.1621	-0.0795	-0.025	1.536	0.0657	8.0013	1.2871	9.9017	1.7026	A-	A-	A-
ELA	8	783678	1	CCAACS	2	A-C	5014	0.7684	0.0873	0.7648	0.0814	0.0617	0.004	0.0008	0.4968	-0.2896	0.5012	-0.2664	-0.2172	-0.0768	-0.0322	-0.734	0.0617	-7.0192	0.8217	-4.7992	0.7656	A+	A+	A-
ELA	8	783679	1	CCAACS	2	A-C	5015	0.5246	0.1906	0.1717	0.5222	0.111	0.0026	0.002	0.4097	-0.2669	-0.0782	0.4123	-0.2128	-0.0587	-0.0404	0.106	0.0586	2.1811	1.0527	3.0711	1.1143	A-	A+	A+
ELA	8	783673	1	CCAACS	3	A-K	4968	0.5346	0.2025	0.1062	0.5272	0.1503	0.0123	0.0016	0.5146	-0.2168	-0.2353	0.5174	-0.2461	-0.0879	-0.0279	0.1656	0.0586	-1.189	0.9716	-0.849	0.9696	A+	A-	A-
ELA	8	783674	1	CCAACS	2	A-K	5011	0.653	0.0784	0.1503	0.6495	0.1165	0.0048	0.0006	0.3954	-0.2202	-0.1466	0.3998	-0.2283	-0.075	-0.0326	-0.3384	0.0596	1.671	1.0413	5.7613	1.2661	A+	A-	A-
ELA	8	783675	1	CCAACS	2	A-K	5025	0.6961	0.1006	0.6943	0.1596	0.0429	0.0016	0.001	0.4426	-0.119	0.4448	-0.3476	-0.1916	-0.0479	-0.0347	-0.6474	0.0612	-1.769	0.9538	-1.0791	0.9456	A+	A+	A+
ELA	8	783669	1	CCAACS	2	A-V	5033	0.6976	0.1727	0.049	0.6969	0.0804	0.0008	0.0002	0.5102	-0.3339	-0.2303	0.5109	-0.2122	-0.0309	-0.021	-0.5971	0.0608	-4.4491	0.8887	-3.4592	0.8392	A-	A-	A-
ELA	8	783670	1	CCAACS	2	A-V	5032	0.6286	0.6278	0.0806	0.1858	0.1046	0.0008	0.0004	0.2538	0.2549	-0.1891	-0.051	-0.1654	-0.0243	-0.0297	-0.4265	0.0599	7.0012	1.1849	9.4215	1.482	A-	A-	A-
ELA	8	786813	1	CCAACS	2	D	9987	0.4428	0.1329	0.4405	0.199	0.2225	0.004	0.0011	0.1647	-0.1441	0.168	-0.1383	0.0615	-0.0534	-0.0439	0.5368	0.0499	9.9013	1.3344	9.9015	1.4745	A+	A+	A+
ELA	8	786815	1	CCAACS	2	D	9985	0.2062	0.231	0.4185	0.1404	0.2052	0.0038	0.0011	0.2262	-0.017	0.0215	-0.2609	0.2275	-0.0591	-0.031	2.0093	0.0539	3.0611	1.0899	7.8315	1.4725	A+	A-	A-
ELA	8	786822	1	CCAACS	2	D	14930	0.5562	0.0823	0.1993	0.1597	0.553	0.0033	0.0025	0.4216	-0.2937	-0.2259	-0.0956	0.4233	-0.0369	-0.0475	0.1606	0.0415	2.251	1.038	2.6411	1.0744	A-	A-	A+
ELA	8	800976	2	CCAACS	2	A-C	4991	0.6287	0.2372	0.0733	0.6281	0.0604	0.0004	0.0006	0.3318	-0.1709	-0.2272	0.3318	-0.1178	0.0191	-0.0315	-0.2396	0.06	3.7011	1.0951	4.6312	1.2256	A+	A+	A+
ELA	8	800985	2	CCAACS	3	A-C	4981	0.6547	0.6527	0.1001	0.1571	0.0871	0.0022	0.0008	0.4715	0.4728	-0.2358	-0.2852	-0.1696	-0.0372	-0.036	-0.402	0.061	0.461	1.0118	-0.969	0.9514	A+	A+	A+
ELA	8	800980	2	CCAACS	2	A-K	4980	0.4094	0.3263	0.2002	0.0622	0.4081	0.001	0.0022	0.3716	-0.2331	-0.068	-0.1831	0.3725	-0.0237	-0.0336	0.7477	0.0588	4.0511	1.1005	4.7712	1.1787	A+	A-	A-
ELA	8	800982	2	CCAACS	2	A-K	4950	0.5764	0.0727	0.2004	0.5711	0.1467	0.0062	0.003	0.3596	-0.2414	-0.1133	0.3596	-0.1892	-0.0325	-0.0086	-0.0714	0.0592	2.4211	1.059	3.8312	1.168	A+	A+	A-
ELA	8	800984	2	CCAACS	2	A-K	4965	0.5084	0.2424	0.0843	0.1619	0.5052	0.0056	0.0006	0.4319	-0.1938	-0.1912	-0.2093	0.4314	-0.0273	-0.0145	0.3892	0.0583	0.751	1.0174	1.6911	1.0606	A+	A+	A-
ELA	8	800986	2	CCAACS	2	A-K	4983	0.6412	0.1297	0.6395	0.1449	0.0833	0.0012	0.0014	0.4143	-0.1604	0.4158	-0.2474	-0.2034	-0.0233	-0.0448	-0.2921	0.0603	-2.4291	0.9395	-2.3491	0.893	A+	A+	A-
ELA	8	800977	2	CCAACS	2	A-V	4976	0.544	0.5418	0.2266	0.1711	0.0564	0.0038	0.0002	0.2183	0.2201	-0.1551	-0.0132	-0.1606	-0.0392	-0.0186	0.1523	0.0586	9.9013	1.2832	9.9015	1.501	A-	A+	A-
ELA	8	807217	2	CCAACS	2	A-V	4988	0.9112	0.0316	0.0306	0.0264	0.9097	0.0014	0.0002	0.3562	-0.2143	-0.1893	-0.1932	0.3554	-0.022	0.0041	-2.5181	0.1027	-3.6393	0.7418	-5.8897	0.3288	B+	A+	A-
ELA	8	786803	2	CCAACS	2	D	9942	0.5799	0.5768	0.1612	0.1473	0.1095	0.0032	0.002	0.294	0.2972	-0.093	-0.1576	-0.1676	-0.0452	-0.0432	0.0023	0.0499	7.4812	1.1581	6.9413	1.2581	A+	A-	A-
ELA	8	786823	2	CCAACS	2	D	14959	0.4205	0.2296	0.4186	0.1603	0.187	0.0031	0.0014	0.3822	-0.173	0.383	-0.1083	-0.1881	-0.0353	-0.0298	0.7705	0.0437	4.1711	1.0755	4.9711	1.1377	A-	A-	A-
ELA	8	805353	3	CCAACS	2	A-C	4985	0.6152	0.6136	0.2129	0.0606	0.1102	0.0014	0.0012	0.3516	0.3538	-0.1653	-0.2167	-0.1598	-0.0504	-0.0274	-0.2201	0.06	3.3411	1.0861	3.3212	1.1606	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	805361	3	CCAACS	2	A-C	4991	0.8038	0.8027	0.042	0.099	0.0548	0.0012	0.0002	0.4715	0.4728	-0.2306	-0.2751	-0.2556	-0.0362	-0.0163	-1.2831	0.0709	-4.8792	0.8201	-4.9494	0.6409	A+	A+	A+
ELA	8	805355	3	CCAACS	2	A-K	4992	0.6478	0.078	0.1283	0.6471	0.1455	0.0008	0.0004	0.3429	-0.1979	-0.0874	0.3428	-0.23	0.0023	-0.025	-0.1969	0.0599	4.5911	1.119	3.3012	1.1578	A+	A-	A-
ELA	8	805357	3	CCAACS	3	A-K	4955	0.6924	0.1569	0.1008	0.6865	0.0472	0.0054	0.0032	0.4328	-0.1949	-0.2622	0.4276	-0.2257	-0.0059	-0.0041	-0.5341	0.0621	0.201	1.0054	2.1511	1.1213	A+	A-	A+
ELA	8	805360	3	CCAACS	2	A-K	4976	0.5139	0.1455	0.1965	0.1421	0.5116	0.0032	0.0012	0.2952	-0.2133	-0.0294	-0.1695	0.2955	-0.0095	-0.0318	0.3519	0.0583	6.5112	1.1575	6.9513	1.2794	A+	A+	A+
ELA	8	805354	3	CCAACS	2	A-V	4995	0.8002	0.0646	0.7997	0.085	0.05	0.0006		0.4241	-0.2656	0.4238	-0.2664	-0.1367	-0.0089		-1.4442	0.0736	-2.8491	0.8829	-1.8192	0.8413	A-	A+	A+
ELA	8	805546	3	CCAACS	2	A-V	4971	0.6333	0.0572	0.6299	0.2535	0.054	0.0052	0.0002	0.3412	-0.2585	0.3409	-0.1145	-0.2345	-0.0229	-0.0056	-0.3466	0.0607	3.5511	1.0956	4.7313	1.2522	A-	A-	A-
ELA	8	805547	3	CCAACS	2	A-V	4985	0.5338	0.0294	0.2713	0.1643	0.5324	0.0018	0.0008	0.3582	-0.1779	-0.2407	-0.1084	0.3594	-0.0405	-0.0125	0.1933	0.0585	3.2711	1.0777	4.1212	1.1667	A+	A-	A-
ELA	8	786811	3	CCAACS	2	D	14961	0.5144	0.1926	0.512	0.1689	0.1218	0.0034	0.0012	0.3915	-0.2135	0.3928	-0.1556	-0.1543	-0.0401	-0.0296	0.3338	0.0435	3.5811	1.0629	4.1211	1.1197	A-	A-	A-
ELA	8	784830	4	CCAACS	2	A-C	4984	0.6525	0.1082	0.1202	0.6505	0.118	0.0018	0.0012	0.5376	-0.2692	-0.2789	0.5385	-0.2481	-0.0292	-0.0331	-0.4473	0.0615	-4.0291	0.8947	-4.4592	0.7752	A-	A-	A-
ELA	8	784831	4	CCAACS	2	A-C	4988	0.8412	0.0394	0.8394	0.0766	0.0424	0.0008	0.0014	0.4207	-0.2197	0.4215	-0.2684	-0.1934	-0.0056	-0.04	-1.6999	0.0795	-4.4492	0.7933	-4.1794	0.6182	A+	A-	A-
ELA	8	784825	4	CCAACS	2	A-K	4971	0.7636	0.0912	0.059	0.0848	0.7594	0.0046	0.001	0.4645	-0.2998	-0.2076	-0.2152	0.4662	-0.0501	-0.0221	-0.9684	0.0668	-3.8691	0.8738	-3.4392	0.7686	A+	A-	A+
ELA	8	784826	4	CCAACS	2	A-K	4992	0.4429	0.4423	0.2494	0.2791	0.0278	0.001	0.0004	0.2286	0.2275	-0.1752	-0.0196	-0.1774	0.0403	-0.0236	0.6475	0.0583	8.9712	1.2216	8.8714	1.3584	A-	A-	A-
ELA	8	784828	4	CCAACS	2	A-K	4983	0.5559	0.5541	0.0872	0.1578	0.1976	0.0022	0.001	0.3671	0.3686	-0.1602	-0.305	-0.0606	-0.0459	-0.0161	0.0188	0.0589	2.5811	1.0621	3.3011	1.1471	A-	A-	A-
ELA	8	784821	4	CCAACS	2	A-V	4987	0.6551	0.6535	0.1088	0.0348	0.2004	0.0014	0.001	0.3742	0.3764	-0.2509	-0.195	-0.1561	-0.0431	-0.036	-0.4241	0.0613	2.1511	1.0584	5.4613	1.3225	A+	A-	A-
ELA	8	784823	4	CCAACS	2	A-V	4990	0.8421	0.0382	0.8406	0.067	0.0524	0.0008	0.001	0.3439	-0.1986	0.3467	-0.2513	-0.1071	-0.032	-0.0385	-1.6655	0.0788	-0.819	0.9595	1.7312	1.186	A+	A-	A-
ELA	8	802096	4	CCAACS	2	A-V	4994	0.8186	0.0552	0.0412	0.0848	0.8178	0.0002	0.0008	0.3529	-0.2066	-0.2112	-0.1662	0.3551	-0.0221	-0.0462	-1.5381	0.0761	-1.019	0.9534	0.8211	1.0793	A-	A-	B-
ELA	8	786807	4	CCAACS	2	D	4977	0.44	0.0646	0.0854	0.4075	0.4381	0.0034	0.001	0.2813	-0.2677	-0.2176	-0.0216	0.2828	-0.0339	-0.0336	0.7068	0.0584	8.7612	1.2178	8.3013	1.3342	A+	A-	A-
ELA	8	786812	4	CCAACS	2	D	9996	0.5169	0.1508	0.5151	0.1933	0.1373	0.0025	0.0011	0.3709	-0.1859	0.3719	-0.1715	-0.1425	-0.0283	-0.0353	0.3018	0.0491	3.0611	1.06	3.4611	1.1105	A+	A-	A-
ELA	8	805461	5	CCAACS	2	A-C	4956	0.6806	0.0936	0.6787	0.0501	0.1748	0.0018	0.001	0.4906	-0.2098	0.4916	-0.2345	-0.3031	-0.031	-0.0286	-0.492	0.0622	-3.4991	0.9044	-1.1591	0.9365	A+	A-	A-
ELA	8	805468	5	CCAACS	2	A-C	4934	0.5794	0.141	0.1483	0.5753	0.1282	0.0054	0.0018	0.4187	-0.1495	-0.1987	0.4196	-0.2423	-0.0392	-0.0215	0.2063	0.0586	1.491	1.0351	1.201	1.0466	A+	A+	A+
ELA	8	805552	5	CCAACS	2	A-C	4923	0.5708	0.5654	0.0915	0.0839	0.2497	0.0091	0.0004	0.4348	0.438	-0.2398	-0.2315	-0.1763	-0.0737	-0.024	0.0755	0.059	-0.409	0.9902	-0.079	0.9963	A+	A-	A-
ELA	8	805465	5	CCAACS	3	A-K	4966	0.8731	0.0433	0.8724	0.0565	0.027	0.0006	0.0002	0.4066	-0.2341	0.4084	-0.2416	-0.1947	-0.0415	-0.0203	-1.9382	0.086	-1.8991	0.8944	-3.7594	0.602	A+	A+	A-
ELA	8	805551	5	CCAACS	3	A-K	4950	0.5471	0.1316	0.235	0.0845	0.5449	0.0034	0.0006	0.3568	-0.1679	-0.1036	-0.2705	0.3573	-0.0284	-0.015	0.3265	0.0584	4.3611	1.1038	7.5213	1.3057	A+	A+	A+
ELA	8	805462	5	CCAACS	1	A-V	4964	0.7057	0.1525	0.0614	0.0801	0.7048	0.001	0.0002	0.2883	-0.0889	-0.169	-0.2156	0.2884	-0.0214	0.0093	-0.7664	0.0649	4.5011	1.1483	6.9515	1.5195	A+	A+	A-
ELA	8	805463	5	CCAACS	2	A-V	4952	0.3653	0.1113	0.364	0.1097	0.4115	0.0034	0.0002	0.1752	-0.288	0.1774	-0.137	0.1051	-0.0604	-0.0109	1.1401	0.06	9.9013	1.3312	9.9016	1.62	A-	A-	A-
ELA	8	810357	5	CCAACS	2	A-V	4964	0.8693	0.0557	0.8682	0.0384	0.0364	0.0008	0.0004	0.3651	-0.1657	0.3666	-0.2356	-0.2103	-0.0279	-0.025	-2.0309	0.0885	-2.2391	0.8699	0.8811	1.1119	A+	A-	A-
ELA	8	786806	5	CCAACS	2	D	14889	0.6377	0.0909	0.1505	0.1193	0.6349	0.0034	0.001	0.5251	-0.2014	-0.2776	-0.2862	0.5262	-0.0447	-0.025	-0.4257	0.0458	-6.4291	0.8751	-5.9192	0.79	A+	C-	A-
ELA	8	786824	5	CCAACS	2	D	14907	0.2785	0.2774	0.3307	0.1848	0.2033	0.0026	0.0011	0.2227	0.2237	-0.0331	-0.0892	-0.1174	-0.0303	-0.0352	1.5962	0.0474	6.5112	1.1547	9.9015	1.4933	A-	A-	A-
ELA	8	783609	6	CCAACS	2	B-C	4991	0.5554	0.0841	0.5535	0.229	0.13	0.0016	0.0018	0.4083	-0.1971	0.4096	-0.1122	-0.2945	-0.017	-0.0494	0.2215	0.0585	2.5511	1.0603	2.5411	1.1021	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	783618	6	CCAACS	2	B-C	4960	0.4502	0.2528	0.4459	0.1717	0.12	0.0078	0.0018	0.4791	-0.1282	0.4802	-0.2481	-0.2551	-0.054	-0.0414	0.7527	0.0585	-1.389	0.9676	0.051	1.0014	A-	A-	A-
ELA	8	783619	6	CCAACS	2	B-C	5002	0.6535	0.6528	0.1454	0.12	0.0807	0.0008	0.0004	0.43	0.4308	-0.1781	-0.2809	-0.1828	-0.0197	-0.037	-0.4081	0.0615	0.411	1.0108	0.511	1.0262	A-	A+	A+
ELA	8	783614	6	CCAACS	2	B-K	4993	0.6439	0.0865	0.642	0.1845	0.0841	0.0016	0.0014	0.4136	-0.2662	0.416	-0.1359	-0.2469	-0.0354	-0.0529	-0.2764	0.0606	0.471	1.012	5.0813	1.2735	A+	A-	A-
ELA	8	783616	6	CCAACS	2	B-K	4979	0.6656	0.6617	0.1354	0.1072	0.0899	0.0048	0.001	0.4605	0.4601	-0.2504	-0.2186	-0.215	-0.0267	-0.0332	-0.3197	0.0608	-3.9391	0.8993	-2.7991	0.8636	A+	A-	A-
ELA	8	783617	6	CCAACS	2	B-K	4993	0.5141	0.1422	0.2171	0.1252	0.5126	0.002	0.001	0.4047	-0.1867	-0.1252	-0.2502	0.4067	-0.0516	-0.0439	0.411	0.0582	1.531	1.0352	0.811	1.0299	A-	A-	A+
ELA	8	783610	6	CCAACS	2	B-V	4990	0.5511	0.0793	0.5491	0.1947	0.1733	0.002	0.0016	0.4322	-0.2437	0.4345	-0.2361	-0.1392	-0.0453	-0.0543	0.1775	0.0586	1.391	1.0327	2.2311	1.0909	A+	A+	A+
ELA	8	783611	6	CCAACS	2	B-V	5006	0.7859	0.0903	0.0883	0.0355	0.7855		0.0004	0.3777	-0.1895	-0.2262	-0.1955	0.3786		-0.037	-1.2142	0.0707	-0.509	0.9797	1.7111	1.1458	A+	A-	A-
ELA	8	786808	6	CCAACS	2	D	9952	0.3531	0.3516	0.306	0.2208	0.1175	0.0026	0.0015	0.2592	0.2601	-0.1979	-0.0138	-0.0762	-0.0284	-0.0331	1.1773	0.0509	7.0512	1.1612	7.8013	1.2994	A-	A-	A-
ELA	8	795923	7	CCAACS	3	B-C	4966	0.6025	0.1061	0.1404	0.6002	0.1494	0.0026	0.0012	0.4793	-0.2624	-0.2499	0.4785	-0.1828	-0.016	-0.022	-0.182	0.0596	-1.819	0.9549	-1.9091	0.9208	A-	A-	A-
ELA	8	795924	7	CCAACS	2	B-C	4975	0.6155	0.134	0.6142	0.1916	0.0582	0.0014	0.0006	0.3857	-0.1268	0.3866	-0.2154	-0.2502	-0.0245	-0.03	-0.0754	0.0591	0.831	1.0201	0.761	1.0301	A-	A+	A-
ELA	8	795925	7	CCAACS	2	B-C	4983	0.8936	0.8933	0.0339	0.0413	0.0311	0.0002	0.0002	0.3809	0.3818	-0.2218	-0.2413	-0.1678	-0.0178	-0.0246	-2.2026	0.094	-2.0891	0.8641	-3.0594	0.6444	A-	A-	B-
ELA	8	795917	7	CCAACS	2	B-K	4977	0.5811	0.1743	0.5801	0.1109	0.133	0.0008	0.0008	0.2999	0.0099	0.3005	-0.3074	-0.1601	-0.001	-0.0403	0.0089	0.0587	5.2511	1.1297	8.3214	1.3529	A-	A-	A-
ELA	8	795920	7	CCAACS	2	B-K	4955	0.4684	0.1474	0.4656	0.0975	0.2835	0.004	0.002	0.3064	-0.1133	0.3075	-0.1606	-0.1379	-0.0378	-0.0228	0.5779	0.0577	6.2811	1.1467	5.2312	1.1809	A+	A+	A+
ELA	8	795922	7	CCAACS	2	B-K	4976	0.584	0.063	0.1819	0.1703	0.5829	0.0016	0.0002	0.4445	-0.2191	-0.1314	-0.3043	0.444	-0.0134	-0.0083	-0.1164	0.0593	-1.649	0.9599	-0.329	0.9859	A-	A-	A-
ELA	8	795916	7	CCAACS	2	B-V	4950	0.3154	0.1184	0.2786	0.3131	0.2828	0.006	0.001	0.0472	-0.1172	-0.0231	0.0508	0.0674	-0.056	-0.044	1.4469	0.0614	9.9014	1.4238	9.9017	1.7149	A+	A+	A+
ELA	8	805033	7	CCAACS	2	B-V	4972	0.506	0.2116	0.1398	0.5047	0.1412	0.0012	0.0014	0.3306	-0.0316	-0.201	0.3318	-0.2331	-0.017	-0.0404	0.3446	0.0578	5.5811	1.1305	5.5912	1.2	A-	A-	A-
ELA	8	805428	8	CCAACS	3	B-C	5016	0.4803	0.1556	0.1244	0.4786	0.238	0.0026	0.0008	0.203	-0.1562	-0.2328	0.2055	0.0804	-0.0481	-0.0357	0.672	0.0582	9.9013	1.2751	9.9015	1.4635	A+	A+	A+
ELA	8	805435	8	CCAACS	2	B-C	5026	0.7917	0.09	0.7906	0.058	0.06	0.0008	0.0006	0.4571	-0.2713	0.4578	-0.2332	-0.2227	-0.0262	-0.0193	-1.3324	0.0714	-3.2891	0.8735	-3.2292	0.7561	A-	A-	A-
ELA	8	805436	8	CCAACS	2	B-C	5011	0.5739	0.2442	0.1045	0.5714	0.0755	0.0032	0.0012	0.3427	-0.1008	-0.2005	0.3443	-0.2367	-0.0528	-0.0057	-0.0228	0.0587	3.2611	1.0782	4.3112	1.1763	A+	A+	A+
ELA	8	805437	8	CCAACS	2	B-C	5027	0.882	0.881	0.0415	0.0447	0.0316	0.0006	0.0006	0.4313	0.4319	-0.2338	-0.269	-0.2091	-0.0209	-0.0225	-2.0583	0.0875	-3.4492	0.8072	-5.0295	0.5026	A+	A-	A-
ELA	8	805431	8	CCAACS	2	B-K	5009	0.6011	0.0761	0.0636	0.5983	0.2573	0.0044	0.0004	0.4301	-0.2455	-0.2507	0.4303	-0.1886	-0.0277	-0.0209	-0.2722	0.0598	-1.279	0.9682	-1.3291	0.9415	A-	A-	A-
ELA	8	805434	8	CCAACS	3	B-K	5016	0.5321	0.1492	0.1774	0.5303	0.1397	0.0018	0.0016	0.3383	-0.2041	-0.1715	0.339	-0.0834	-0.0199	-0.0294	0.0839	0.0584	0.581	1.0133	0.931	1.0346	A+	A-	A-
ELA	8	805430	8	CCAACS	2	B-V	5018	0.5646	0.1206	0.1939	0.5629	0.1196	0.0016	0.0014	0.2848	-0.1894	-0.0403	0.2864	-0.1914	-0.026	-0.0345	0.1014	0.0583	4.5511	1.1081	5.4712	1.2149	A+	A+	A-
ELA	8	810276	8	CCAACS	2	B-V	5020	0.8135	0.1019	0.0511	0.033	0.8114	0.0012	0.0014	0.4469	-0.272	-0.2502	-0.1996	0.4491	-0.0434	-0.0314	-1.5021	0.0744	-2.1591	0.9078	-3.4193	0.7206	A-	B-	A-
ELA	8	783586	9	CCAACS	2	B-C	4974	0.699	0.6954	0.1032	0.1006	0.0956	0.004	0.0012	0.5479	0.5483	-0.2525	-0.294	-0.2832	-0.0507	-0.0191	-0.7269	0.0641	-6.0892	0.8262	-5.2393	0.7053	A-	A-	A-
ELA	8	783594	9	CCAACS	2	B-C	4986	0.5313	0.1866	0.1846	0.0962	0.5298	0.0022	0.0006	0.4533	-0.1789	-0.2054	-0.2527	0.4542	-0.0476	-0.0241	0.2895	0.0585	-1.809	0.9576	-0.509	0.9807	A-	A+	A+
ELA	8	783596	9	CCAACS	2	B-C	4978	0.5129	0.0844	0.5106	0.1932	0.2074	0.004	0.0004	0.3858	-0.2118	0.388	-0.1125	-0.2119	-0.0705	-0.0135	0.3334	0.0585	2.2711	1.0543	1.231	1.0458	A+	A+	A+
ELA	8	783597	9	CCAACS	2	B-C	4981	0.5746	0.1252	0.1616	0.5724	0.137	0.003	0.0008	0.4305	-0.1579	-0.2353	0.4322	-0.2069	-0.0527	-0.031	0.1088	0.0589	1.391	1.0335	1.081	1.0434	A-	A+	A+
ELA	8	783589	9	CCAACS	2	B-K	4949	0.651	0.1382	0.1504	0.6444	0.0568	0.0076	0.0026	0.5595	-0.2935	-0.2896	0.561	-0.2392	-0.0872	-0.0154	-0.2386	0.0603	-6.6792	0.8378	-5.5292	0.7599	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	783591	9	CCAACS	2	B-K	4987	0.6044	0.6028	0.2076	0.106	0.081	0.0024	0.0002	0.4088	0.4116	-0.1655	-0.2312	-0.2167	-0.0708	-0.0359	-0.0482	0.0594	0.911	1.0225	0.151	1.0059	A-	A-	A+
ELA	8	783588	9	CCAACS	2	B-V	4996	0.6827	0.6822	0.2034	0.0764	0.0372	0.0006	0.0002	0.508	0.5073	-0.3046	-0.2811	-0.2051	0.0139	-0.0359	-0.6228	0.0631	-4.1691	0.8833	-4.0392	0.7796	A-	A-	A-
ELA	8	801512	9	CCAACS	2	B-V	4987	0.4506	0.2508	0.4494	0.2182	0.079	0.0018	0.0008	0.3256	-0.2788	0.3266	-0.0026	-0.141	-0.0247	-0.0521	0.6574	0.0586	6.0412	1.1505	6.5413	1.2526	A+	A-	A-
ELA	8	786805	9	CCAACS	2	D	4987	0.7828	0.1086	0.0482	0.7808	0.0598	0.002	0.0006	0.4487	-0.2494	-0.238	0.4508	-0.2329	-0.039	-0.0394	-1.4234	0.0737	-2.0391	0.9157	-0.7991	0.9253	B+	A+	A-
MATH	3	579683	0	CCAACS	2	A-F	55913	0.5982	0.5914	0.1688	0.1464	0.0821	0.0109	0.0005	0.4621	0.4638	-0.2674	-0.2066	-0.1729	-0.0662	-0.0225	0.2362	0.0232	3.191	1.0315	0.721	1.0115	A+	A+	A+
MATH	3	657713	0	CCAACS	1	A-F	56116	0.6498	0.6447	0.1689	0.0729	0.1057	0.0074	0.0004	0.5198	0.5217	-0.2485	-0.2277	-0.2966	-0.0673	-0.0211	-0.1298	0.0237	-8.6791	0.9131	-9.7992	0.8253	A-	A-	A-
MATH	3	657714	0	CCAACS	2	A-F	55146	0.5041	0.3174	0.4915	0.0975	0.0687	0.0226	0.0024	0.3497	-0.1551	0.353	-0.208	-0.1196	-0.082	-0.0025	0.4254	0.0231	9.9012	1.1769	9.9012	1.2048	A-	A+	A+
MATH	3	711343	0	CCAACS	1	A-F	55296	0.4291	0.1457	0.1549	0.2576	0.4195	0.019	0.0033	0.4974	-0.1615	-0.2557	-0.1931	0.497	-0.0666	-0.0389	0.8453	0.0231	-4.099	0.9603	-2.579	0.9624	A-	A-	A+
MATH	3	737302	0	CCAACS	1	A-F	55909	0.7523	0.0465	0.0329	0.7437	0.1655	0.0106	0.0008	0.4922	-0.2059	-0.1899	0.4954	-0.35	-0.0778	-0.0368	-0.6908	0.0253	-9.8992	0.8416	-9.8993	0.7431	A+	A-	A-
MATH	3	737304	0	CCAACS	1	A-F	55792	0.4228	0.4171	0.1276	0.145	0.2968	0.0128	0.0007	0.6357	0.6349	-0.2177	-0.1608	-0.382	-0.0755	-0.0294	0.8727	0.0232	-9.8992	0.7978	-9.8992	0.762	A-	A-	A-
MATH	3	737305	0	CCAACS	1	A-F	55273	0.3651	0.3568	0.1785	0.1863	0.2556	0.0219	0.0008	0.4613	0.4619	-0.2317	-0.1344	-0.1548	-0.0809	-0.0313	1.2745	0.0237	1.501	1.0158	2.791	1.0479	A-	A+	A+
MATH	3	394377	0	CCAACS	1	A-T	56066	0.7055	0.0626	0.0702	0.1592	0.6994	0.0082	0.0005	0.5388	-0.1954	-0.3091	-0.3131	0.5408	-0.0729	-0.0268	-0.8751	0.0261	-2.699	0.9653	-4.1991	0.8832	A-	A-	A-
MATH	3	579686	0	CCAACS	2	A-T	55651	0.4723	0.1955	0.4647	0.1209	0.2028	0.014	0.002	0.4606	-0.1916	0.4622	-0.2269	-0.1762	-0.0726	-0.0272	0.9075	0.0232	8.0611	1.0817	8.7911	1.1371	A-	A+	A+
MATH	3	657721	0	CCAACS	1	A-T	55674	0.595	0.1169	0.2338	0.5857	0.048	0.0153	0.0003	0.5975	-0.1123	-0.4876	0.5959	-0.1979	-0.0685	-0.0237	-0.0972	0.0236	-9.8991	0.8838	-8.0691	0.8569	B-	A-	A-
MATH	3	737299	0	CCAACS	1	A-T	55954	0.6175	0.611	0.0766	0.1958	0.1059	0.0102	0.0005	0.528	0.5304	-0.2667	-0.1939	-0.3325	-0.0785	-0.0233	-0.0099	0.0235	-8.9791	0.9121	-8.0791	0.8627	A+	A-	A-
MATH	3	299934	0	CCAACS	1	B-O	55679	0.5785	0.1436	0.1378	0.1335	0.5695	0.0151	0.0004	0.5625	-0.3131	-0.2329	-0.231	0.5627	-0.0776	-0.0227	0.2402	0.0232	-9.8991	0.8778	-9.8992	0.8279	A-	A+	A+
MATH	3	314248	0	CCAACS	2	B-O	56052	0.7621	0.0322	0.1594	0.7553	0.0441	0.0086	0.0003	0.5921	-0.2082	-0.4676	0.591	-0.1952	-0.0608	-0.0235	-1.1457	0.0275	-9.8992	0.8234	-9.8994	0.6494	A-	A+	A-
MATH	3	408681	0	CCAACS	2	B-O	55657	0.6148	0.605	0.1477	0.0908	0.1406	0.0154	0.0005	0.512	0.5134	-0.2055	-0.2074	-0.3116	-0.0788	-0.0198	-0.1113	0.0237	-2.489	0.9746	-1.979	0.9631	A-	A+	A+
MATH	3	624787	0	CCAACS	1	B-O	55787	0.6273	0.0822	0.1209	0.1646	0.6187	0.013	0.0006	0.3959	-0.2013	-0.1414	-0.2256	0.4	-0.0756	-0.0267	-0.0625	0.0236	9.9011	1.1175	7.6911	1.1474	A-	A+	A+
MATH	3	711346	0	CCAACS	1	B-O	55588	0.7137	0.7015	0.0883	0.0902	0.1028	0.016	0.0011	0.4968	0.4981	-0.2307	-0.2866	-0.2289	-0.0784	-0.03	-0.4039	0.0244	-9.8191	0.8956	-7.8092	0.8371	A-	A-	A-
MATH	3	711417	0	CCAACS	1	B-O	55406	0.6708	0.6572	0.1068	0.099	0.1167	0.0197	0.0006	0.4437	0.4469	-0.1992	-0.2294	-0.2175	-0.083	-0.0283	-0.5209	0.0247	5.8211	1.0678	1.831	1.0436	A+	A-	A+
MATH	3	711418	0	CCAACS	1	B-O	56066	0.6209	0.1067	0.6156	0.1829	0.0862	0.0075	0.0011	0.5269	-0.3057	0.5283	-0.2655	-0.1908	-0.0639	-0.0277	0.0287	0.0234	-8.1191	0.9208	-7.9191	0.8676	A+	A+	A+
MATH	3	711421	0	CCAACS	2	B-O	55537	0.5116	0.1956	0.5024	0.1909	0.0931	0.0173	0.0007	0.4862	-0.2983	0.4879	-0.1564	-0.1834	-0.0773	-0.0287	0.4276	0.0231	3.101	1.0303	2.801	1.0426	A-	A+	A+
MATH	3	737308	0	CCAACS	2	B-O	55213	0.5763	0.1001	0.1611	0.1525	0.5627	0.023	0.0008	0.5378	-0.314	-0.2598	-0.1713	0.5407	-0.1078	-0.027	0.2396	0.0232	-9.5791	0.9092	-9.6291	0.854	A-	A+	A+
MATH	3	737315	0	CCAACS	2	B-O	55919	0.4265	0.1668	0.4217	0.2148	0.1854	0.0106	0.0006	0.3383	-0.2904	0.3415	-0.1107	-0.0171	-0.0742	-0.0256	0.8441	0.0231	9.9012	1.2045	9.9013	1.2959	A+	A+	A+
MATH	3	743123	0	CCAACS	2	B-O	55919	0.7854	0.1034	0.7766	0.0651	0.0437	0.0109	0.0004	0.4907	-0.2225	0.4942	-0.295	-0.2751	-0.0837	-0.023	-0.7579	0.0256	-9.8992	0.7761	-9.8993	0.7011	A+	A+	A+
MATH	3	617228	0	CCAACS	1	C-G	55862	0.4741	0.1521	0.1337	0.4682	0.2337	0.0113	0.0009	0.3729	-0.2197	-0.1634	0.3768	-0.1039	-0.0829	-0.0247	0.4923	0.023	9.9012	1.1859	9.9012	1.2166	A+	A+	A+
MATH	3	713351	0	CCAACS	2	C-G	55324	0.4163	0.297	0.1305	0.1435	0.4073	0.0141	0.0077	0.4109	-0.1314	-0.201	-0.1772	0.4138	-0.0761	-0.0516	0.9958	0.0233	9.9011	1.104	9.8012	1.1572	A+	A+	A-
MATH	3	738164	0	CCAACS	1	C-G	55582	0.409	0.1248	0.1561	0.4019	0.2998	0.0124	0.0048	0.4087	-0.1961	-0.1538	0.4118	-0.1502	-0.0866	-0.0412	1.0556	0.0234	8.0711	1.0836	8.3511	1.1355	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	316233	0	CCAACS	2	D-M	55968	0.6355	0.6289	0.1154	0.0851	0.1602	0.0075	0.0029	0.488	0.4927	-0.2142	-0.2253	-0.264	-0.0719	-0.069	-0.0535	0.0236	-4.009	0.9598	-6.2491	0.8903	A+	A+	A+
MATH	3	493237	0	CCAACS	1	D-M	55991	0.3722	0.2535	0.3685	0.1459	0.2221	0.0087	0.0013	0.4997	-0.191	0.5	-0.197	-0.1978	-0.058	-0.0272	1.1379	0.0235	-5.5191	0.9445	-1.289	0.9793	A-	A-	A+
MATH	3	493239	0	CCAACS	1	D-M	56007	0.607	0.1243	0.114	0.6011	0.1509	0.0091	0.0006	0.6134	-0.2493	-0.3074	0.6136	-0.3174	-0.0653	-0.029	-0.161	0.0238	-9.8991	0.8641	-9.8992	0.8195	A-	A-	A-
MATH	3	579656	0	CCAACS	2	D-M	55800	0.4142	0.133	0.2863	0.1586	0.4087	0.0125	0.0009	0.385	-0.275	-0.0486	-0.1809	0.3877	-0.0764	-0.0207	0.7285	0.0231	9.9011	1.1268	9.9012	1.2214	A-	A+	A+
MATH	3	622961	0	CCAACS	1	D-M	55450	0.3728	0.2052	0.2269	0.3655	0.1828	0.0188	0.0008	0.4233	-0.1777	-0.0559	0.4231	-0.2577	-0.0634	-0.0137	1.2492	0.0237	5.2011	1.0554	9.9012	1.1964	A-	A-	A+
MATH	3	622963	0	CCAACS	1	D-M	56204	0.5073	0.0866	0.5042	0.2598	0.1433	0.0057	0.0006	0.3133	-0.1721	0.3161	-0.0316	-0.2584	-0.0604	-0.0315	0.3697	0.0231	9.9012	1.184	9.9013	1.2683	A-	A-	A-
MATH	3	706335	0	CCAACS	2	D-M	56114	0.8008	0.0547	0.0986	0.0444	0.7946	0.0065	0.0013	0.467	-0.2941	-0.2235	-0.2419	0.47	-0.0589	-0.0505	-0.8183	0.0259	-9.8992	0.766	-9.8993	0.6861	A+	A-	A+
MATH	3	713360	0	CCAACS	2	D-M	56059	0.4937	0.4894	0.2054	0.2126	0.0839	0.008	0.0008	0.6007	0.601	-0.2344	-0.3665	-0.1788	-0.061	-0.0287	0.6658	0.023	-9.8992	0.8482	-9.8992	0.8054	A-	A-	A-
MATH	3	713364	0	CCAACS	2	D-M	55425	0.4811	0.1878	0.4715	0.2001	0.1206	0.0176	0.0024	0.4638	-0.2948	0.4685	-0.0899	-0.205	-0.1044	-0.0467	0.8411	0.0231	7.1111	1.0714	6.9111	1.1054	A-	A-	A-
MATH	3	713370	0	CCAACS	2	D-M	55832	0.464	0.2661	0.2177	0.0454	0.458	0.0097	0.0031	0.3531	-0.2396	-0.0297	-0.2401	0.3571	-0.075	-0.0439	0.6785	0.023	9.9012	1.2103	9.9013	1.2874	A+	A-	A+
MATH	3	713617	0	CCAACS	1	D-M	56008	0.5212	0.1718	0.2788	0.5162	0.0234	0.0092	0.0005	0.5178	-0.404	-0.1723	0.5182	-0.1532	-0.0575	-0.0277	0.3465	0.0231	0.391	1.0038	-1.299	0.9801	A+	A+	A+
MATH	3	713618	0	CCAACS	2	D-M	55712	0.4393	0.0791	0.2358	0.2375	0.4327	0.0142	0.0007	0.498	-0.2243	-0.2274	-0.1892	0.499	-0.0743	-0.0314	0.7984	0.0231	-4.509	0.9565	-1.709	0.9751	A+	A+	A+
MATH	3	738167	0	CCAACS	2	D-M	55941	0.6471	0.1158	0.1429	0.6401	0.0904	0.0103	0.0005	0.4536	-0.2058	-0.2823	0.4569	-0.1615	-0.0766	-0.0261	-0.0814	0.0236	0.801	1.0082	-1.349	0.9752	B-	A-	A+
MATH	3	743132	0	CCAACS	1	D-M	55262	0.4733	0.4625	0.0985	0.1483	0.2678	0.0225	0.0004	0.5538	0.5534	-0.2294	-0.4449	-0.0821	-0.0849	-0.0241	0.6726	0.023	-8.2691	0.922	-6.5591	0.9073	A-	A-	A-
MATH	3	743136	0	CCAACS	1	D-M	56184	0.8583	0.8527	0.0788	0.0382	0.0237	0.0063	0.0003	0.2536	0.2607	-0.1581	-0.1244	-0.1346	-0.0637	-0.0261	-1.2813	0.0284	-3.9691	0.9391	0.221	1.0075	A+	A+	A+
MATH	3	314118	1	CCAACS	1	A-F	12580	0.6196	0.1765	0.089	0.6136	0.1112	0.0088	0.0008	0.4402	-0.2874	-0.2505	0.4433	-0.0873	-0.0689	-0.0368	-0.195	0.0665	-0.259	0.9923	-1.0391	0.942	A+	A-	A+
MATH	3	787127	1	CCAACS	1	A-F	6324	0.5884	0.1142	0.1571	0.136	0.5822	0.0075	0.003	0.4842	-0.261	-0.224	-0.2009	0.4848	-0.0448	-0.0337	-0.0068	0.0694	-0.719	0.9793	-1.4691	0.9278	A-	A-	A+
MATH	3	313556	1	CCAACS	1	A-T	12169	0.7479	0.0992	0.0755	0.7183	0.0675	0.0391	0.0004	0.5478	-0.276	-0.2834	0.5238	-0.2739	-0.0465	-0.0272	-0.8504	0.0723	-2.5791	0.9119	-2.4792	0.8128	A-	A-	A-
MATH	3	711419	1	CCAACS	2	B-O	6282	0.5573	0.2001	0.5478	0.107	0.128	0.015	0.002	0.4217	-0.1921	0.4245	-0.2659	-0.1259	-0.0732	-0.0283	0.1055	0.0692	-0.049	0.9984	1.8711	1.0917	A-	A-	A+
MATH	3	737084	1	CCAACS	1	B-O	6314	0.6676	0.128	0.6595	0.1338	0.0667	0.0114	0.0006	0.5439	-0.289	0.5397	-0.3025	-0.2062	-0.04	-0.0209	-0.4118	0.0708	-3.5991	0.8967	-3.1992	0.8173	A+	A+	A+
MATH	3	787068	1	CCAACS	2	C-G	6218	0.2295	0.168	0.2277	0.3539	0.2233	0.0194	0.0077	0.1982	-0.0655	-0.0705	-0.0278	0.2041	-0.0906	-0.0593	1.9783	0.0827	4.2512	1.2046	6.5217	1.6618	A+	A+	A+
MATH	3	787078	1	CCAACS	2	D-M	6329	0.5108	0.5059	0.1436	0.2424	0.0984	0.0094	0.0003	0.5514	0.5503	-0.2292	-0.3363	-0.154	-0.0448	-0.0267	0.4501	0.0695	-2.2791	0.9334	-1.4791	0.9343	A-	A-	A-
MATH	3	790598	1	CCAACS	1	D-M	6347	0.697	0.0889	0.1424	0.6922	0.0696	0.0061	0.0008	0.4517	-0.236	-0.2742	0.453	-0.1636	-0.0527	-0.0137	-0.6763	0.0726	-0.519	0.9834	0.011	0.9992	A-	A-	A-
MATH	3	787150	2	CCAACS	2	A-F	6162	0.3796	0.3734	0.1215	0.3111	0.1777	0.0073	0.0089	0.4165	0.4142	-0.2281	-0.1657	-0.1179	-0.0637	0.0148	1.1024	0.0703	2.3511	1.0732	5.0913	1.2599	A-	A-	A-
MATH	3	780057	2	CCAACS	1	A-T	6138	0.738	0.1003	0.0742	0.0822	0.7232	0.0153	0.0048	0.5478	-0.3452	-0.1988	-0.2782	0.544	-0.0393	-0.0922	-0.8102	0.0773	-4.5092	0.8385	-3.4993	0.7362	A-	A-	A-
MATH	3	265866	2	CCAACS	1	B-O	12152	0.5935	0.5754	0.1427	0.123	0.1285	0.0301	0.0003	0.6303	0.6172	-0.182	-0.3218	-0.3797	-0.0483	-0.0224	0.1055	0.0695	-6.7792	0.8156	-5.4892	0.7532	A-	A+	A+
MATH	3	711416	2	CCAACS	2	B-O	6137	0.6583	0.1212	0.645	0.1501	0.0635	0.0195	0.0008	0.4954	-0.2333	0.4949	-0.2332	-0.2731	-0.0756	-0.0123	-0.356	0.0725	-1.359	0.9563	-1.2191	0.9232	A-	A+	A+
MATH	3	787070	2	CCAACS	1	C-G	6192	0.4188	0.3048	0.1737	0.0961	0.414	0.0072	0.0043	0.4141	-0.0608	-0.2729	-0.2288	0.414	-0.0383	-0.029	1.0918	0.0702	0.731	1.022	0.681	1.0318	A-	A-	A-
MATH	3	301358	2	CCAACS	2	D-M	12372	0.4066	0.1798	0.151	0.4013	0.255	0.0105	0.0023	0.35	-0.2855	-0.1642	0.3527	0.0109	-0.0642	-0.0549	1.0331	0.0707	3.5111	1.1125	2.8211	1.1413	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	780055	2	CCAACS	2	D-M	6191	0.4037	0.1996	0.3989	0.2767	0.1132	0.0104	0.0013	0.341	-0.1763	0.3433	-0.0847	-0.1649	-0.0573	-0.0465	1.0871	0.0702	4.7512	1.1514	4.8812	1.2469	A-	A+	A+
MATH	3	780082	2	CCAACS	2	D-M	6228	0.6138	0.1437	0.1394	0.6103	0.1009	0.0054	0.0003	0.5964	-0.3004	-0.3273	0.5973	-0.2243	-0.0605	-0.0329	-0.1475	0.071	-5.1592	0.8495	-4.9293	0.7455	A-	A-	A-
MATH	3	743118	3	CCAACS	1	A-F	6228	0.8031	0.0616	0.7966	0.068	0.0656	0.0072	0.001	0.4906	-0.2721	0.4928	-0.2154	-0.2931	-0.0601	-0.0341	-1.3402	0.0875	-3.8792	0.8189	-3.6194	0.6416	A+	A-	A-
MATH	3	787120	3	CCAACS	1	A-T	6170	0.6232	0.1204	0.2183	0.6124	0.0315	0.017	0.0003	0.521	-0.0433	-0.492	0.5153	-0.1645	-0.0347	-0.0273	-0.1758	0.0719	-2.3891	0.9243	-1.5391	0.9113	A-	A-	A-
MATH	3	299662	3	CCAACS	1	B-O	12458	0.8112	0.8027	0.0517	0.0803	0.0548	0.01	0.0005	0.5038	0.5045	-0.2343	-0.2984	-0.265	-0.0679	-0.0343	-1.2732	0.0848	-4.9092	0.7896	-4.9195	0.5456	A-	A+	A+
MATH	3	787131	3	CCAACS	1	B-O	6206	0.8306	0.821	0.0729	0.0486	0.0459	0.0111	0.0005	0.4806	0.4777	-0.2799	-0.2719	-0.2167	-0.06	-0.013	-1.501	0.0911	-3.3292	0.83	-3.7894	0.5991	A+	A+	A+
MATH	3	787061	3	CCAACS	2	C-G	6180	0.6084	0.5988	0.2316	0.1196	0.0342	0.0104	0.0054	0.3209	0.3261	-0.1077	-0.2178	-0.1877	-0.0599	-0.0482	0.0351	0.0706	5.8512	1.1919	4.7913	1.2729	A+	A-	A-
MATH	3	787008	3	CCAACS	2	D-M	6215	0.4961	0.1214	0.2107	0.1667	0.491	0.0081	0.0021	0.3538	-0.2237	-0.1229	-0.1281	0.3569	-0.0685	-0.03	0.53	0.0691	3.6411	1.1091	2.7111	1.1233	A+	A-	A+
MATH	3	787082	3	CCAACS	2	D-M	6177	0.5509	0.1086	0.542	0.1551	0.1781	0.0158	0.0005	0.3617	-0.2722	0.3647	-0.2126	-0.0297	-0.0647	-0.028	0.2358	0.0697	4.4311	1.1381	2.9912	1.15	A-	A+	A+
MATH	3	787125	4	CCAACS	2	A-F	6161	0.4404	0.0721	0.4347	0.2693	0.211	0.0122	0.0006	0.4184	-0.1066	0.4212	-0.3562	-0.0345	-0.0739	-0.0396	0.8059	0.0696	0.381	1.011	1.051	1.0471	A-	A+	A+
MATH	3	787118	4	CCAACS	1	A-T	6107	0.7082	0.0735	0.0683	0.1437	0.693	0.02	0.0014	0.5418	-0.2349	-0.3021	-0.2867	0.5389	-0.0632	-0.0432	-0.6583	0.0759	-4.9592	0.8322	-4.0893	0.7061	A-	A-	A-
MATH	3	787057	4	CCAACS	2	B-O	6131	0.3681	0.1437	0.1388	0.3616	0.3382	0.0163	0.0013	0.4542	-0.1984	-0.2151	0.4552	-0.1373	-0.0749	-0.0092	1.2717	0.0714	-1.309	0.9584	0.381	1.0189	A+	A-	A-
MATH	3	787128	4	CCAACS	2	B-O	6186	0.7148	0.7085	0.1239	0.0941	0.0647	0.0087	0.0002	0.5256	0.5279	-0.3193	-0.2623	-0.2091	-0.0724	0.0007	-0.7731	0.0773	-2.5891	0.9057	-2.1092	0.8283	A-	A+	A-
MATH	3	408534	4	CCAACS	2	C-G	12224	0.3235	0.0823	0.2387	0.3401	0.3162	0.0212	0.0014	0.0044	-0.0889	0.0319	0.0325	0.011	-0.0584	-0.0333	1.5052	0.0741	9.9015	1.5027	9.9022	2.1898	A-	A+	A+
MATH	3	743128	4	CCAACS	2	C-G	6165	0.7533	0.7441	0.0931	0.0679	0.0827	0.0099	0.0022	0.4076	0.4083	-0.2071	-0.1809	-0.2406	-0.0498	-0.0267	-0.8616	0.0785	0.521	1.0198	2.7613	1.266	A+	A-	A-
MATH	3	301999	4	CCAACS	2	D-M	12395	0.8322	0.8247	0.0433	0.0684	0.0547	0.0064	0.0026	0.4488	0.454	-0.2154	-0.2565	-0.246	-0.0635	-0.061	-1.4284	0.0863	-3.2791	0.8506	-3.0593	0.6832	A+	A-	A-
MATH	3	787005	4	CCAACS	2	D-M	6172	0.4746	0.1654	0.1663	0.4693	0.188	0.0103	0.0008	0.4736	-0.2053	-0.262	0.4767	-0.1402	-0.081	-0.0408	0.6618	0.0694	-2.7891	0.9194	-2.2591	0.9014	A-	A-	A+
MATH	3	408677	5	CCAACS	1	A-F	12291	0.6907	0.1458	0.6773	0.0673	0.0902	0.0179	0.0015	0.3447	-0.1486	0.3497	-0.2311	-0.1466	-0.0786	-0.0184	-0.4422	0.073	2.2911	1.0775	1.2611	1.0847	A-	A-	A+
MATH	3	787124	5	CCAACS	1	A-F	6131	0.8338	0.816	0.0808	0.0543	0.0276	0.0211	0.0003	0.4031	0.3979	-0.2457	-0.2205	-0.1728	-0.0588	-0.0283	-1.4444	0.0891	-0.249	0.9861	-1.1491	0.8699	A+	A-	A-
MATH	3	780056	5	CCAACS	1	A-T	6163	0.6135	0.1224	0.6035	0.2281	0.0297	0.0158	0.0005	0.531	-0.1287	0.5282	-0.4131	-0.2059	-0.0595	-0.0229	-0.0635	0.0706	-2.8091	0.9158	-2.6291	0.8652	A+	A-	A-
MATH	3	780086	5	CCAACS	2	B-O	6054	0.4291	0.1962	0.2682	0.0873	0.4147	0.0078	0.0259	0.4312	-0.2044	-0.1388	-0.2243	0.4207	-0.0616	0.0264	0.9791	0.0693	0.271	1.0075	0.551	1.024	A-	A+	A+
MATH	3	787059	5	CCAACS	2	B-O	6203	0.7662	0.1199	0.0263	0.7587	0.0852	0.0096	0.0003	0.4363	-0.2905	-0.1737	0.4406	-0.2093	-0.0781	-0.0194	-0.9442	0.0797	-2.7791	0.8898	-3.1193	0.7466	A-	A+	A+
MATH	3	276999	5	CCAACS	1	C-G	12400	0.7406	0.7327	0.0609	0.0616	0.134	0.0093	0.0014	0.5019	0.5037	-0.2363	-0.2284	-0.3036	-0.0631	-0.0521	-0.7739	0.0765	-3.1291	0.8882	-3.1992	0.7623	A-	A-	A-
MATH	3	737089	5	CCAACS	2	D-M	6209	0.2281	0.226	0.0879	0.4669	0.2102	0.0083	0.0006	0.3727	0.3738	-0.0934	-0.1084	-0.1691	-0.0709	-0.0191	2.2091	0.0807	-0.619	0.9733	3.4913	1.3194	A+	A-	A-
MATH	3	737090	5	CCAACS	2	D-M	6217	0.5774	0.0629	0.222	0.573	0.1344	0.0067	0.001	0.5649	-0.2671	-0.2185	0.5665	-0.3459	-0.0684	-0.0324	0.1084	0.0697	-4.4591	0.8727	-3.0391	0.8571	A-	A-	A-
MATH	3	780051	6	CCAACS	1	A-F	6166	0.6774	0.1345	0.117	0.0659	0.6666	0.0144	0.0016	0.4206	-0.1839	-0.2308	-0.2132	0.4238	-0.0735	-0.0302	-0.3973	0.0735	-0.289	0.9902	-1.5191	0.8959	A-	A-	A-
MATH	3	787149	6	CCAACS	2	A-T	6209	0.5523	0.5472	0.1744	0.1465	0.1227	0.0081	0.001	0.494	0.4949	-0.2461	-0.2448	-0.185	-0.0552	-0.0241	0.1635	0.0703	-0.169	0.9946	-1.1791	0.9385	A-	A+	A+
MATH	3	787055	6	CCAACS	2	B-O	6187	0.6669	0.1125	0.6585	0.1058	0.1106	0.0113	0.0013	0.4913	-0.2341	0.4914	-0.2666	-0.2236	-0.0607	-0.0148	-0.333	0.073	-1.539	0.9504	-0.089	0.9925	A-	A-	A-
MATH	3	787132	6	CCAACS	2	B-O	6127	0.5856	0.1808	0.0881	0.5726	0.1363	0.0158	0.0064	0.5194	-0.3095	-0.2693	0.5197	-0.1432	-0.0872	-0.0209	0.1227	0.0704	-1.7191	0.9486	-2.0691	0.8926	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	787064	6	CCAACS	2	C-G	6160	0.6078	0.2282	0.0883	0.0691	0.5975	0.0152	0.0018	0.5063	-0.2459	-0.2577	-0.2367	0.5117	-0.1121	-0.0215	0.0091	0.0709	-3.2491	0.9034	-3.0292	0.8379	A+	A+	A-
MATH	3	738170	6	CCAACS	2	D-M	6213	0.5323	0.1468	0.1752	0.5278	0.1417	0.0077	0.0008	0.5021	-0.2595	-0.2389	0.5042	-0.1785	-0.0721	-0.0181	0.3568	0.0698	-2.7891	0.9186	-2.1791	0.8966	A-	A-	A+
MATH	3	787119	7	CCAACS	2	A-T	6227	0.6799	0.1304	0.1328	0.6709	0.0526	0.0125	0.0008	0.4313	-0.1221	-0.2971	0.4375	-0.2335	-0.0938	-0.0376	-0.437	0.0741	0.621	1.021	-0.219	0.9826	A-	A-	A-
MATH	3	711410	7	CCAACS	2	B-O	6171	0.58	0.5671	0.1317	0.2027	0.0764	0.0214	0.0008	0.4283	0.4346	-0.2686	-0.1234	-0.2209	-0.1034	-0.0464	0.0763	0.0703	2.8911	1.0887	1.7411	1.095	A-	A-	A-
MATH	3	737311	7	CCAACS	1	B-O	6202	0.7101	0.0867	0.1331	0.6978	0.0651	0.0165	0.0008	0.4948	-0.3013	-0.2325	0.4978	-0.2136	-0.0881	-0.032	-0.5735	0.0756	-2.1591	0.9239	-2.3292	0.8299	A+	A+	A+
MATH	3	780081	7	CCAACS	1	C-G	6251	0.5305	0.0436	0.5254	0.0764	0.3451	0.0089	0.0006	0.2648	-0.1528	0.2679	-0.1725	-0.107	-0.0552	-0.0298	0.4794	0.069	8.4713	1.2618	6.3413	1.3165	A-	A+	A-
MATH	3	787002	7	CCAACS	1	D-M	6233	0.5129	0.5066	0.0482	0.1743	0.2586	0.0117	0.0006	0.5472	0.5476	-0.1752	-0.4326	-0.1439	-0.0797	-0.0231	0.444	0.069	-4.3291	0.8809	-3.8592	0.8322	A-	A-	A-
MATH	3	790596	7	CCAACS	2	D-M	6245	0.6801	0.1789	0.08	0.0577	0.673	0.0093	0.0011	0.5702	-0.3846	-0.2476	-0.1958	0.5712	-0.0664	-0.0397	-0.4086	0.0738	-5.1092	0.8358	-4.4893	0.7168	A-	A-	A-
MATH	3	787126	8	CCAACS	1	A-F	6206	0.2117	0.2019	0.226	0.2096	0.3524	0.0091	0.001	0.303	-0.2433	-0.1538	0.3041	0.0954	-0.0666	-0.0341	2.1773	0.0805	2.6111	1.1151	6.3916	1.6165	A-	A+	A+
MATH	3	787121	8	CCAACS	1	A-T	6178	0.595	0.1892	0.1136	0.5864	0.0963	0.0144	0.0002	0.5226	-0.2598	-0.2575	0.5214	-0.224	-0.06	-0.0058	0.073	0.07	-3.8391	0.8897	-3.1892	0.8458	A-	A+	A-
MATH	3	787050	8	CCAACS	2	B-O	6123	0.6033	0.1562	0.5892	0.1236	0.1077	0.0228	0.0005	0.4122	-0.2936	0.4164	-0.2452	-0.0123	-0.0911	-0.0048	0.0519	0.0701	2.1311	1.0648	2.4911	1.1323	A-	A+	A+
MATH	3	787072	8	CCAACS	1	C-G	6210	0.7093	0.0962	0.1054	0.0863	0.7027	0.0077	0.0018	0.4727	-0.2271	-0.2619	-0.2203	0.478	-0.0816	-0.0506	-0.6093	0.0752	-1.9791	0.931	-2.0791	0.8521	A+	A-	A-
MATH	3	738168	8	CCAACS	2	D-M	6230	0.5843	0.2067	0.5806	0.1303	0.0761	0.0054	0.0008	0.4044	-0.1678	0.4046	-0.1845	-0.2505	-0.0404	-0.008	0.0785	0.07	2.4511	1.0745	1.6411	1.0845	A-	A-	A-
MATH	3	790597	8	CCAACS	1	D-M	6194	0.8308	0.8209	0.055	0.0691	0.0431	0.0118	0.0002	0.2972	0.3017	-0.1602	-0.1544	-0.1635	-0.0625	-0.0048	-1.3548	0.087	0.841	1.0411	3.5815	1.457	A+	A-	A+
MATH	3	787123	9	CCAACS	1	A-F	6223	0.7667	0.0667	0.7609	0.1383	0.0266	0.0065	0.001	0.4721	-0.2083	0.4751	-0.3225	-0.2047	-0.0591	-0.0534	-1.0024	0.0813	-2.9491	0.8771	-2.4992	0.7873	A+	A-	A-
MATH	3	737297	9	CCAACS	2	A-T	6191	0.7251	0.1547	0.052	0.0648	0.7159	0.0118	0.0008	0.5572	-0.3587	-0.2186	-0.257	0.5623	-0.1017	-0.0385	-0.676	0.0764	-5.8492	0.7963	-5.9894	0.6136	A-	A-	B-
MATH	3	780053	9	CCAACS	2	B-O	6162	0.3661	0.0914	0.0959	0.3598	0.4357	0.0166	0.0006	0.1707	-0.2756	-0.2561	0.1755	0.162	-0.0706	-0.0286	1.2823	0.0702	8.0113	1.2609	8.7815	1.4842	A+	A-	A-
MATH	3	787151	9	CCAACS	2	B-O	6196	0.325	0.1392	0.3738	0.3212	0.1539	0.0113	0.0005	0.2997	-0.1596	-0.0741	0.3044	-0.1082	-0.1054	-0.0381	1.5214	0.0719	0.551	1.0173	4.3413	1.2544	A-	A+	A+
MATH	3	787076	9	CCAACS	1	C-G	6206	0.7983	0.1115	0.7901	0.0386	0.0496	0.0088	0.0014	0.4563	-0.3139	0.46	-0.2135	-0.1817	-0.0719	-0.0335	-1.3299	0.0877	-3.2692	0.8419	-3.6994	0.6447	A+	A-	A-
MATH	3	780054	9	CCAACS	2	D-M	6222	0.3658	0.363	0.3592	0.1721	0.0981	0.0067	0.001	0.2079	0.211	0.1784	-0.3226	-0.1979	-0.0662	-0.0329	1.3923	0.0709	7.7313	1.2588	7.5214	1.4322	A+	A-	A-
MATH	4	313261	0	CCAACS	1	A-F	55278	0.686	0.2243	0.0574	0.6826	0.0308	0.0044	0.0004	0.3195	-0.1543	-0.2313	0.3236	-0.1603	-0.0619	-0.029	-0.6279	0.0241	9.9011	1.1364	9.9013	1.2525	A+	A+	A+
MATH	4	493256	0	CCAACS	2	A-F	54996	0.454	0.1823	0.4495	0.2277	0.1306	0.0093	0.0006	0.484	-0.2933	0.4844	-0.1578	-0.1652	-0.0542	-0.0282	0.3563	0.0231	-0.709	0.9932	-0.529	0.992	A+	A+	A+
MATH	4	622949	0	CCAACS	1	A-F	55267	0.4688	0.2223	0.2635	0.0426	0.4665	0.0045	0.0005	0.589	-0.4182	-0.2177	-0.0992	0.5896	-0.0542	-0.0297	0.1464	0.023	-9.8991	0.8843	-9.4191	0.86	A-	A-	A-
MATH	4	662427	0	CCAACS	2	A-F	54874	0.4001	0.3013	0.1285	0.1629	0.3952	0.0111	0.001	0.5428	-0.3305	-0.1549	-0.1465	0.5432	-0.0735	-0.0089	0.4815	0.0231	-9.8991	0.8933	-7.3491	0.8929	A-	A+	A+
MATH	4	662435	0	CCAACS	2	A-F	54968	0.6163	0.6099	0.1642	0.1507	0.0648	0.0096	0.0008	0.479	0.48	-0.2403	-0.236	-0.2216	-0.0563	-0.0238	-0.5305	0.0239	1.691	1.0176	-2.249	0.9533	A+	A+	A+
MATH	4	706340	0	CCAACS	2	A-F	55145	0.5133	0.2662	0.1011	0.1159	0.5096	0.0067	0.0005	0.5081	-0.2754	-0.2133	-0.1972	0.5093	-0.059	-0.0266	0.1553	0.023	-0.669	0.9936	-0.689	0.9892	A+	A-	A-
MATH	4	709895	0	CCAACS	2	A-F	55027	0.5978	0.1607	0.1524	0.5922	0.0854	0.0087	0.0006	0.5002	-0.2616	-0.2505	0.5012	-0.1944	-0.0575	-0.0222	-0.2463	0.0233	-4.179	0.9596	-6.0391	0.8945	A-	A+	A+
MATH	4	709900	0	CCAACS	1	A-F	55227	0.7486	0.7443	0.1926	0.0327	0.0247	0.0053	0.0005	0.4726	0.4738	-0.3503	-0.2109	-0.1746	-0.0474	-0.0239	-0.8936	0.0249	-9.8992	0.8379	-9.8993	0.7184	A+	A+	A-
MATH	4	736736	0	CCAACS	2	A-F	54736	0.4894	0.1479	0.2633	0.4823	0.0919	0.0137	0.0009	0.505	-0.1808	-0.263	0.506	-0.2199	-0.0724	-0.0282	0.313	0.023	-5.5091	0.9482	-2.989	0.9553	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	737335	0	CCAACS	1	A-F	55201	0.5825	0.1149	0.1845	0.1155	0.5789	0.0059	0.0003	0.5642	-0.3432	-0.1611	-0.3216	0.5642	-0.0458	-0.0185	-0.3685	0.0235	-6.7291	0.9342	-4.3991	0.9175	A+	A+	A-
MATH	4	743143	0	CCAACS	2	A-F	55104	0.6495	0.6443	0.1192	0.0942	0.1343	0.0075	0.0005	0.5846	0.5835	-0.3276	-0.2457	-0.2845	-0.0445	-0.026	-0.7899	0.0246	-9.2891	0.8999	-9.8992	0.7726	A-	A+	A+
MATH	4	662437	0	CCAACS	1	A-T	55158	0.7551	0.109	0.7498	0.0655	0.0688	0.0066	0.0003	0.5037	-0.3455	0.5059	-0.2362	-0.1869	-0.0657	-0.021	-1.03	0.0254	-9.8992	0.8135	-9.8993	0.742	A-	A+	A+
MATH	4	662438	0	CCAACS	1	A-T	54804	0.6838	0.6746	0.073	0.0432	0.1958	0.0058	0.0075	0.3506	0.3561	-0.2093	-0.2258	-0.1454	-0.051	-0.0566	-0.7369	0.0244	7.8811	1.0888	9.9013	1.3095	A-	A+	A+
MATH	4	709844	0	CCAACS	1	A-T	54820	0.819	0.0684	0.0516	0.8083	0.0587	0.006	0.007	0.4741	-0.2623	-0.2677	0.4762	-0.2252	-0.0583	-0.0554	-1.3889	0.0272	-9.8992	0.7665	-9.8993	0.6596	A-	A-	A+
MATH	4	709883	0	CCAACS	2	A-T	55089	0.6542	0.6488	0.1329	0.1294	0.0806	0.0066	0.0017	0.5592	0.5604	-0.2953	-0.2596	-0.2721	-0.0625	-0.0237	-0.4875	0.0238	-9.8991	0.8691	-9.8992	0.8102	A-	A+	A-
MATH	4	709889	0	CCAACS	2	A-T	54905	0.4794	0.2173	0.4739	0.1832	0.1141	0.0112	0.0003	0.3981	-0.1565	0.3994	-0.1717	-0.1958	-0.0555	-0.0214	0.4255	0.0231	9.9011	1.1189	9.9012	1.1603	A-	A+	A+
MATH	4	736734	0	CCAACS	1	A-T	55198	0.6891	0.6848	0.0594	0.1731	0.0765	0.0058	0.0005	0.547	0.5474	-0.1722	-0.4215	-0.1875	-0.0494	-0.0268	-0.8937	0.0249	-8.1191	0.9091	-5.5091	0.8646	A+	A-	A-
MATH	4	314170	0	CCAACS	2	B-O	54921	0.4744	0.2862	0.1218	0.1117	0.4691	0.0109	0.0003	0.497	-0.2622	-0.1859	-0.1952	0.4984	-0.0737	-0.0158	0.3503	0.0231	-4.039	0.9618	-3.279	0.9511	A+	A+	A+
MATH	4	479194	0	CCAACS	2	B-O	54978	0.4567	0.1022	0.2139	0.2216	0.452	0.0098	0.0004	0.4567	-0.2507	-0.1987	-0.1546	0.4577	-0.0588	-0.0174	0.3111	0.023	1.361	1.013	1.431	1.0217	A-	A+	A+
MATH	4	495223	0	CCAACS	2	B-O	54990	0.2794	0.2693	0.3554	0.2766	0.0887	0.0097	0.0003	0.3516	-0.1361	-0.1437	0.3514	-0.0838	-0.0395	-0.0192	1.3014	0.0247	4.131	1.0493	9.9013	1.2984	A-	A+	A+
MATH	4	495235	0	CCAACS	2	B-O	55202	0.7863	0.0687	0.7814	0.0782	0.0655	0.0057	0.0005	0.459	-0.2045	0.4613	-0.2913	-0.2256	-0.0572	-0.0261	-1.1722	0.026	-9.8992	0.818	-9.8993	0.6994	A+	A+	A+
MATH	4	575720	0	CCAACS	2	B-O	55076	0.5241	0.1017	0.5197	0.176	0.1941	0.0082	0.0003	0.4487	-0.1558	0.4491	-0.1611	-0.2821	-0.0455	-0.0146	0.3085	0.023	6.8511	1.0669	5.9811	1.0935	A-	A+	A+
MATH	4	706342	0	CCAACS	2	B-O	54816	0.5556	0.2186	0.1078	0.5483	0.1122	0.0127	0.0005	0.4462	-0.1494	-0.2305	0.4472	-0.2605	-0.0592	-0.0229	-0.0029	0.0231	3.831	1.037	1.161	1.019	A-	A+	A+
MATH	4	711428	0	CCAACS	1	B-O	54640	0.4464	0.4391	0.0694	0.0676	0.4076	0.016	0.0003	0.5293	0.5267	-0.2902	-0.3172	-0.2066	-0.048	-0.0243	0.4737	0.0231	-6.7991	0.9354	-5.5891	0.9178	A-	A+	A+
MATH	4	737337	0	CCAACS	2	B-O	54872	0.5429	0.0571	0.0925	0.3019	0.5363	0.0118	0.0004	0.4409	-0.2663	-0.2574	-0.1679	0.4423	-0.0632	-0.0129	0.0622	0.0231	5.7411	1.0557	4.6611	1.0763	A-	A+	A+
MATH	4	743148	0	CCAACS	1	B-O	55055	0.6982	0.1011	0.1168	0.0813	0.692	0.0084	0.0004	0.4973	-0.2517	-0.2403	-0.2584	0.5004	-0.0756	-0.0219	-0.7797	0.0245	-9.7491	0.8956	-9.4192	0.7895	A-	A+	A+
MATH	4	314148	0	CCAACS	2	C-G	55062	0.4315	0.1311	0.2107	0.2217	0.4278	0.0079	0.0008	0.3224	-0.1331	-0.1476	-0.1191	0.3249	-0.0646	-0.015	0.4059	0.0231	9.9012	1.2146	9.9013	1.2671	A+	A+	A+
MATH	4	408775	0	CCAACS	1	C-G	55028	0.3924	0.3887	0.1168	0.3437	0.1415	0.0087	0.0006	0.281	0.2838	-0.2294	-0.0035	-0.1617	-0.0649	-0.0245	0.5602	0.0232	9.9012	1.1968	9.9013	1.2968	A-	A+	A-
MATH	4	574169	0	CCAACS	1	C-G	55277	0.6338	0.1881	0.0702	0.6307	0.1061	0.0044	0.0004	0.4425	-0.1797	-0.2457	0.4442	-0.2518	-0.0504	-0.0241	-0.5017	0.0238	1.001	1.0103	0.751	1.0155	A+	A-	A+
MATH	4	713378	0	CCAACS	1	C-G	55020	0.4116	0.1739	0.1573	0.4077	0.2516	0.0077	0.0017	0.2893	-0.1171	-0.1102	0.2925	-0.1199	-0.0668	-0.0326	0.7345	0.0234	9.9013	1.2544	9.9014	1.383	A-	A-	A+
MATH	4	299668	0	CCAACS	1	D-M	55014	0.6086	0.0594	0.2011	0.6027	0.1271	0.0091	0.0005	0.5095	-0.3121	-0.3571	0.509	-0.082	-0.0464	-0.018	-0.3835	0.0236	-2.139	0.9787	-0.749	0.9854	A-	A+	A+
MATH	4	302228	0	CCAACS	2	D-M	54939	0.7251	0.0661	0.7172	0.1562	0.0496	0.0106	0.0004	0.6092	-0.23	0.6079	-0.4342	-0.2397	-0.0636	-0.0254	-1.0941	0.0257	-9.8992	0.7552	-9.8994	0.6165	B-	A-	A-
MATH	4	314172	0	CCAACS	2	D-M	54738	0.4342	0.1234	0.4279	0.2287	0.2056	0.0142	0.0004	0.3979	-0.1909	0.4006	-0.1034	-0.2043	-0.0765	-0.022	0.4393	0.0231	9.9011	1.1048	9.9012	1.1601	A-	A-	A-
MATH	4	497834	0	CCAACS	2	D-M	54843	0.3461	0.3417	0.2631	0.1828	0.1997	0.0121	0.0006	0.3915	0.3923	-0.1353	-0.1112	-0.1926	-0.0547	-0.023	0.8696	0.0236	5.9911	1.0636	8.9312	1.1547	A-	A-	A-
MATH	4	659938	0	CCAACS	2	D-M	54981	0.6043	0.1218	0.5982	0.1109	0.1589	0.0094	0.0008	0.4972	-0.1438	0.4973	-0.2427	-0.3147	-0.0504	-0.0235	-0.0976	0.0232	-3.139	0.97	-4.7691	0.9212	A+	A-	A+
MATH	4	706345	0	CCAACS	1	D-M	55097	0.7024	0.6968	0.1227	0.0739	0.0986	0.0057	0.0024	0.5461	0.5488	-0.2859	-0.2387	-0.2978	-0.0554	-0.0635	-0.8025	0.0246	-9.8992	0.8406	-9.8992	0.7545	A+	A-	A-
MATH	4	713628	0	CCAACS	1	D-M	55175	0.5435	0.2601	0.5398	0.1179	0.0755	0.0057	0.001	0.4244	-0.1412	0.426	-0.2455	-0.2514	-0.0498	-0.0324	0.0416	0.0231	9.8711	1.0971	6.9611	1.1161	A-	A-	A-
MATH	4	736741	0	CCAACS	2	D-M	55042	0.4912	0.2444	0.2346	0.4868	0.0252	0.0088	0.0003	0.5638	-0.3366	-0.2654	0.5649	-0.1156	-0.0734	-0.0181	0.308	0.023	-9.8991	0.8922	-8.7391	0.8731	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	743915	0	CCAACS	2	D-M	55065	0.7284	0.1127	0.0738	0.7221	0.0828	0.0081	0.0006	0.4885	-0.2561	-0.2537	0.4902	-0.2404	-0.0603	-0.0276	-1.0491	0.0255	-8.2091	0.9027	-6.3292	0.8322	A-	A-	A-
MATH	4	743917	0	CCAACS	2	D-M	55287	0.6173	0.087	0.1843	0.6144	0.1096	0.0037	0.001	0.5803	-0.2908	-0.3771	0.5812	-0.1623	-0.0446	-0.0428	-0.5248	0.0238	-9.8991	0.8588	-8.6992	0.8288	A+	A-	A-
MATH	4	780277	1	CCAACS	2	A-F	6191	0.3755	0.37	0.1848	0.3204	0.1101	0.0126	0.0021	0.3535	0.3547	-0.2359	-0.0122	-0.2122	-0.0582	-0.0239	0.8874	0.0729	2.0111	1.0703	3.4212	1.1961	A-	A+	A+
MATH	4	790601	1	CCAACS	1	A-T	6220	0.6651	0.0724	0.6584	0.1106	0.1485	0.0094	0.0006	0.4314	-0.2456	0.4343	-0.1849	-0.2164	-0.0685	-0.0299	-0.6828	0.0703	0.641	1.0184	0.521	1.0298	A-	A-	A-
MATH	4	790607	1	CCAACS	2	A-T	6227	0.4916	0.152	0.2806	0.4872	0.0713	0.0088	0.0002	0.4679	-0.1467	-0.3131	0.4689	-0.136	-0.0607	-0.0285	0.1598	0.069	-0.819	0.9761	-0.949	0.9579	A-	A-	A-
MATH	4	657734	1	CCAACS	2	B-O	6227	0.322	0.2233	0.3191	0.2564	0.1923	0.0059	0.003	0.2522	0.1068	0.2535	-0.1625	-0.2213	-0.0564	-0.0024	0.9882	0.0738	5.8012	1.2197	5.9814	1.38	A+	A-	A+
MATH	4	302039	1	CCAACS	1	C-G	12291	0.4655	0.2089	0.2283	0.4606	0.0918	0.0097	0.0006	0.346	-0.1353	-0.1055	0.3472	-0.2373	-0.0505	-0.0122	0.401	0.0642	5.4011	1.1485	5.1712	1.2186	A+	A+	A+
MATH	4	780284	1	CCAACS	2	C-G	6207	0.4279	0.4227	0.2012	0.2168	0.1472	0.0108	0.0013	0.4235	0.4246	-0.1582	-0.2376	-0.1154	-0.0609	-0.0346	0.4416	0.07	3.2311	1.1016	3.7112	1.1778	A+	A-	A-
MATH	4	302038	1	CCAACS	1	D-M	12351	0.5	0.1261	0.1036	0.2667	0.4965	0.0051	0.0018	0.2709	-0.2424	-0.2157	0.0329	0.2739	-0.0437	-0.0499	0.327	0.0646	7.7112	1.2227	7.6514	1.3497	A+	A-	A-
MATH	4	795632	1	CCAACS	1	D-M	6236	0.682	0.0777	0.2031	0.0349	0.6769	0.0065	0.001	0.5556	-0.2827	-0.3565	-0.1934	0.5568	-0.0627	-0.0265	-0.6302	0.07	-7.3592	0.8023	-5.3893	0.722	A-	A+	A+
MATH	4	662432	2	CCAACS	1	A-F	6085	0.5244	0.154	0.2686	0.0496	0.5207	0.0057	0.0013	0.5458	-0.3318	-0.24	-0.1932	0.5453	-0.0452	-0.0264	0.0003	0.069	-6.0192	0.8396	-5.0492	0.7692	A-	A-	A-
MATH	4	790612	2	CCAACS	2	A-F	6072	0.7255	0.1279	0.0749	0.7188	0.0692	0.0091		0.4909	-0.2719	-0.259	0.4911	-0.2231	-0.0539		-1.0441	0.0766	-3.2591	0.8844	-3.4393	0.7299	A+	A+	A+
MATH	4	790603	2	CCAACS	1	A-T	6081	0.7091	0.0638	0.7037	0.1273	0.0976	0.0075	0.0002	0.4282	-0.2597	0.4294	-0.2228	-0.1815	-0.0517	-0.0027	-0.9539	0.0754	-2.2691	0.9214	-1.1091	0.9094	A-	A-	A-
MATH	4	299666	2	CCAACS	1	B-O	12067	0.9409	0.9256	0.0322	0.0121	0.0138	0.0108	0.0055	0.2744	0.2916	-0.1745	-0.1317	-0.149	-0.0616	-0.1023	-2.8201	0.1202	-1.9092	0.8349	-1.9793	0.6612	B+	A-	A-
MATH	4	780280	2	CCAACS	2	B-O	6026	0.3067	0.3938	0.1503	0.1377	0.3016	0.0163	0.0003	0.4945	-0.1775	-0.2492	-0.1242	0.4931	-0.0576	-0.0241	1.2156	0.073	-4.0091	0.8693	-3.0892	0.8353	A-	A+	A+
MATH	4	313880	2	CCAACS	2	C-G	12127	0.8125	0.033	0.0366	0.8023	0.1155	0.0099	0.0027	0.337	-0.164	-0.1903	0.3434	-0.197	-0.0688	-0.0372	-1.5757	0.0826	0.571	1.0248	0.421	1.0413	A+	A-	A-
MATH	4	659936	2	CCAACS	2	D-M	6086	0.4686	0.1134	0.1421	0.2722	0.4654	0.0064	0.0005	0.1884	0.0031	-0.1077	-0.1212	0.1918	-0.0575	-0.0236	0.5036	0.0691	6.0112	1.1824	5.0212	1.2422	A+	A+	A+
MATH	4	795638	2	CCAACS	1	D-M	6098	0.4136	0.2758	0.1366	0.4116	0.1712	0.0044	0.0005	0.3382	-0.1237	-0.2293	0.3398	-0.0769	-0.0629	-0.0016	0.7739	0.07	5.1612	1.163	4.4212	1.2211	A-	A-	A-
MATH	4	790614	3	CCAACS	2	A-F	6071	0.5207	0.1075	0.2075	0.159	0.5149	0.0104	0.0007	0.5105	-0.2694	-0.1071	-0.3298	0.513	-0.08	-0.0311	0.1182	0.0692	-1.619	0.9544	-0.339	0.9831	A+	A-	A-
MATH	4	743139	3	CCAACS	2	A-T	6074	0.3561	0.064	0.0992	0.3523	0.4739	0.0103	0.0003	0.4127	-0.1969	-0.0945	0.4142	-0.2286	-0.0692	-0.019	0.9675	0.0716	1.9411	1.0629	4.1512	1.2305	A-	A-	A+
MATH	4	780276	3	CCAACS	1	A-T	6090	0.7488	0.0816	0.1313	0.0363	0.7428	0.0077	0.0003	0.4744	-0.0953	-0.4247	-0.1755	0.4766	-0.0635	-0.0257	-1.164	0.0781	-2.2991	0.913	0.061	1.0024	A-	A-	A-
MATH	4	790622	3	CCAACS	2	B-O	6099	0.7141	0.7094	0.0811	0.1023	0.1007	0.0062	0.0003	0.4182	0.42	-0.1157	-0.2467	-0.2663	-0.0481	-0.025	-0.973	0.0757	0.131	1.0041	-0.389	0.967	A-	A+	A+
MATH	4	790630	3	CCAACS	2	C-G	6055	0.3985	0.2414	0.2041	0.3931	0.1477	0.0098	0.0039	0.3839	-0.2405	-0.1216	0.3846	-0.0833	-0.0661	0.0027	0.9148	0.0712	0.941	1.0296	2.7711	1.1463	A+	A-	A-
MATH	4	314192	3	CCAACS	2	D-M	12237	0.8833	0.0505	0.0328	0.0324	0.8766	0.0063	0.0013	0.3977	-0.2332	-0.2225	-0.1987	0.3988	-0.0461	-0.0445	-2.2248	0.0979	-2.6792	0.8407	-2.0793	0.7178	B+	A-	A-
MATH	4	795631	3	CCAACS	2	D-M	6093	0.4398	0.2816	0.1979	0.4366	0.0764	0.007	0.0005	0.4152	-0.3072	-0.1328	0.4167	-0.038	-0.0599	-0.0232	0.5271	0.0696	1.581	1.0465	1.9111	1.0894	A-	A-	A-
MATH	4	302976	4	CCAACS	1	A-F	12218	0.7985	0.0399	0.1194	0.7884	0.0396	0.0121	0.0005	0.4871	-0.2145	-0.338	0.4854	-0.2026	-0.0595	-0.0289	-1.4812	0.082	-3.9892	0.8369	-3.4193	0.6726	A+	A-	A-
MATH	4	780279	4	CCAACS	1	A-F	6113	0.7016	0.0953	0.0547	0.1445	0.6927	0.0128		0.5385	-0.32	-0.2418	-0.2622	0.5366	-0.0573		-0.9232	0.0766	-4.5592	0.8389	-4.2393	0.6894	A+	A+	A+
MATH	4	790600	4	CCAACS	2	A-T	6089	0.742	0.1026	0.0922	0.0589	0.7297	0.0161	0.0005	0.5371	-0.3076	-0.2711	-0.242	0.533	-0.0582	-0.0293	-1.179	0.08	-4.2392	0.8345	-3.8793	0.673	A-	A+	A+
MATH	4	790621	4	CCAACS	2	B-O	6131	0.5464	0.2053	0.1371	0.541	0.1068	0.0094	0.0005	0.5197	-0.3605	-0.2024	0.5183	-0.1267	-0.0373	-0.0153	-0.078	0.0701	-3.3391	0.9037	-3.3992	0.8307	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	790628	4	CCAACS	2	B-O	6139	0.7557	0.7492	0.1328	0.0538	0.0557	0.0082	0.0003	0.4535	0.4527	-0.2266	-0.2541	-0.2519	-0.0431	-0.0204	-1.2292	0.0808	-0.459	0.9799	-1.0691	0.8963	A+	A+	A+
MATH	4	780283	4	CCAACS	1	C-G	6115	0.7583	0.7489	0.0867	0.0975	0.0544	0.0107	0.0018	0.4586	0.4637	-0.2748	-0.2142	-0.2203	-0.0838	-0.0385	-1.403	0.0837	-1.3991	0.937	-1.9392	0.8023	A+	A-	A-
MATH	4	780285	4	CCAACS	2	D-M	6110	0.566	0.0984	0.1609	0.5585	0.1691	0.0128	0.0005	0.5066	-0.312	-0.2699	0.5075	-0.1379	-0.0695	-0.0202	-0.0653	0.0701	-3.1891	0.908	-3.0392	0.8486	A-	A-	A-
MATH	4	653737	5	CCAACS	2	A-F	6097	0.7979	0.074	0.7927	0.0665	0.0603	0.0059	0.0007	0.4792	-0.2329	0.4804	-0.2788	-0.2507	-0.048	-0.0385	-1.608	0.0859	-4.1292	0.8114	-3.8594	0.6375	A+	A-	A-
MATH	4	790609	5	CCAACS	2	A-F	6064	0.565	0.5583	0.1317	0.1085	0.1897	0.0068	0.0051	0.5876	0.5859	-0.3241	-0.2013	-0.2888	-0.0486	-0.0217	-0.135	0.0693	-7.2392	0.8085	-6.0493	0.7379	A-	A+	A-
MATH	4	301043	5	CCAACS	1	A-T	12112	0.7768	0.7654	0.0948	0.0855	0.0397	0.0079	0.0068	0.4816	0.4807	-0.272	-0.2599	-0.2235	-0.0478	-0.0425	-1.3192	0.0782	-4.5792	0.8335	-3.7693	0.6978	A-	A-	A-
MATH	4	743153	5	CCAACS	2	B-O	6100	0.6466	0.1548	0.6427	0.1302	0.0663	0.0051	0.001	0.4762	-0.1945	0.4754	-0.2724	-0.2543	-0.0281	-0.0168	-0.6078	0.0719	-0.769	0.9756	-0.079	0.9939	A+	A-	A-
MATH	4	790620	5	CCAACS	2	B-O	6085	0.8583	0.0349	0.024	0.0816	0.8511	0.0083	0.0002	0.4471	-0.1447	-0.1777	-0.3639	0.4483	-0.0663	-0.0185	-2.0571	0.0971	-3.7192	0.7838	-3.4994	0.5905	A-	A-	A-
MATH	4	738197	5	CCAACS	2	C-G	6089	0.5224	0.5183	0.1204	0.0978	0.2557	0.0067	0.0011	0.4575	0.4581	-0.2111	-0.2909	-0.1579	-0.0463	-0.0345	0.0852	0.0687	1.8611	1.0526	0.901	1.0393	A+	A-	A-
MATH	4	795639	5	CCAACS	2	D-M	6111	0.6027	0.0782	0.6001	0.1325	0.1849	0.0037	0.0005	0.5483	-0.271	0.5484	-0.2607	-0.2703	-0.0335	-0.0247	-0.3081	0.07	-3.7291	0.8953	-3.6892	0.8201	A+	A-	A+
MATH	4	662434	6	CCAACS	2	A-F	6126	0.5757	0.0618	0.571	0.3003	0.0586	0.0076	0.0006	0.3484	-0.2522	0.35	-0.1349	-0.1975	-0.0393	-0.0322	-0.2097	0.0704	3.9911	1.1236	1.0611	1.059	A+	A+	A+
MATH	4	790610	6	CCAACS	1	A-F	6128	0.8195	0.0277	0.079	0.813	0.0724	0.0074	0.0005	0.4623	-0.2133	-0.2571	0.4624	-0.2738	-0.0515	-0.0273	-1.7932	0.0909	-4.8392	0.7603	-3.9394	0.5685	A+	A-	A-
MATH	4	300348	6	CCAACS	1	A-T	12054	0.6551	0.0871	0.0988	0.1506	0.6389	0.021	0.0037	0.5117	-0.2418	-0.2091	-0.2863	0.5087	-0.0453	-0.0803	-0.5759	0.0716	-3.5691	0.8931	-2.5792	0.8399	A+	A+	A-
MATH	4	737328	6	CCAACS	2	A-T	6110	0.4728	0.1204	0.4677	0.2762	0.1248	0.0097	0.0011	0.405	-0.1786	0.4063	-0.1584	-0.2045	-0.0657	0.0081	0.3672	0.0694	3.2211	1.0964	3.0711	1.1485	A-	A+	A+
MATH	4	790624	6	CCAACS	2	B-O	6108	0.4858	0.1883	0.1507	0.1695	0.4803	0.0107	0.0005	0.4584	-0.239	-0.2052	-0.1513	0.4584	-0.0532	0.0045	0.3173	0.0694	-0.249	0.9924	0.151	1.0061	A+	A+	A+
MATH	4	736793	6	CCAACS	2	C-G	5798	0.4776	0.2867	0.4483	0.0984	0.1052	0.0096	0.0518	0.5403	-0.2958	0.5461	-0.1967	-0.1367	-0.0813	-0.1326	0.4112	0.0695	-2.4891	0.9288	-2.0091	0.9096	A+	B-	B-
MATH	4	301390	6	CCAACS	2	D-M	12142	0.3497	0.4459	0.1406	0.3444	0.0539	0.0147	0.0006	0.4905	-0.2718	-0.1511	0.4892	-0.1699	-0.048	-0.0288	1.0222	0.073	-3.2291	0.8942	-1.8991	0.896	A+	A-	A-
MATH	4	780286	6	CCAACS	2	D-M	6128	0.5876	0.583	0.0317	0.3019	0.0754	0.0065	0.0015	0.5908	0.5906	-0.1383	-0.4101	-0.2801	-0.0376	-0.0438	-0.3857	0.0713	-5.5292	0.839	-3.7292	0.7886	A+	B-	A-
MATH	4	790617	7	CCAACS	1	A-F	6052	0.5036	0.2847	0.493	0.1483	0.0529	0.0079	0.0131	0.4735	-0.2401	0.4751	-0.1925	-0.2239	-0.0602	-0.0467	0.1676	0.069	-1.489	0.9588	-0.859	0.9584	C-	A+	A+
MATH	4	790599	7	CCAACS	2	A-T	6139	0.4097	0.2316	0.1517	0.2028	0.4068	0.0058	0.0011	0.1573	0.0582	-0.1465	-0.1138	0.1604	-0.0559	-0.0242	0.7776	0.07	8.1213	1.2596	7.7114	1.4106	A+	A+	A+
MATH	4	743146	7	CCAACS	1	B-O	6122	0.6993	0.0802	0.0877	0.6925	0.1299	0.0094	0.0003	0.4754	-0.289	-0.2503	0.4752	-0.1921	-0.0526	-0.018	-0.8659	0.0752	-2.1491	0.9253	-2.0492	0.8427	A+	A+	A-
MATH	4	790625	7	CCAACS	2	B-O	6113	0.5824	0.2921	0.0676	0.5759	0.0532	0.0099	0.0013	0.5128	-0.318	-0.2405	0.5129	-0.1871	-0.053	-0.0349	-0.2577	0.0703	-3.0291	0.9131	-2.2091	0.878	A+	A+	A+
MATH	4	790631	7	CCAACS	1	C-G	6108	0.456	0.1089	0.2255	0.2032	0.4505	0.0065	0.0055	0.4434	-0.2139	-0.1832	-0.1804	0.4424	-0.049	-0.006	0.4619	0.0691	-0.589	0.9831	-0.439	0.9792	A+	A-	A+
MATH	4	795634	7	CCAACS	2	D-M	6100	0.467	0.4609	0.2596	0.1343	0.132	0.0128	0.0005	0.4704	0.4712	-0.2781	-0.1278	-0.182	-0.0614	-0.042	0.3315	0.0689	-0.339	0.9902	-0.969	0.9549	A-	A+	A+
MATH	4	790611	8	CCAACS	2	A-F	6062	0.7049	0.1511	0.0738	0.6942	0.0658	0.0135	0.0016	0.4529	-0.2485	-0.2567	0.4497	-0.1834	-0.0361	-0.0361	-0.9406	0.0751	-1.5491	0.9469	-0.269	0.9762	A+	A-	A-
MATH	4	790605	8	CCAACS	1	A-T	6105	0.7586	0.1061	0.0567	0.0767	0.7524	0.0076	0.0005	0.4161	-0.163	-0.247	-0.2556	0.4166	-0.0436	-0.0311	-1.2493	0.079	-0.599	0.9762	-1.2991	0.8763	A-	A+	A+
MATH	4	657732	8	CCAACS	2	B-O	6109	0.2915	0.2894	0.2531	0.1063	0.3438	0.007	0.0005	0.396	0.3967	-0.3738	-0.2032	0.1048	-0.0486	-0.0215	1.3165	0.0745	-0.349	0.9871	1.4011	1.0866	A+	A-	A-
MATH	4	743152	8	CCAACS	2	B-O	6104	0.5839	0.1386	0.1737	0.579	0.1004	0.0078	0.0005	0.4006	-0.2301	-0.1978	0.4026	-0.13	-0.0575	-0.01	-0.1731	0.0699	1.011	1.0299	0.061	1.0025	A+	A+	A-
MATH	4	790635	8	CCAACS	2	C-G	6049	0.3204	0.3129	0.3149	0.2375	0.1175	0.0162	0.001	0.1274	-0.0264	0.13	0.0185	-0.1546	-0.0523	0.0127	1.2412	0.0738	9.9015	1.4803	9.9019	1.9102	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	795636	8	CCAACS	2	D-M	6093	0.5912	0.1321	0.0777	0.5852	0.195	0.0086	0.0015	0.253	-0.269	-0.1524	0.2563	0.0276	-0.0521	-0.0146	-0.213	0.0701	6.8712	1.2169	4.3113	1.2544	A-	A+	A+
MATH	4	790615	9	CCAACS	1	A-F	6052	0.6649	0.1627	0.654	0.064	0.1029	0.0159	0.0005	0.6028	-0.3339	0.6009	-0.2537	-0.2986	-0.0767	-0.0074	-0.7872	0.074	-6.6492	0.7897	-5.3793	0.6568	A-	A-	A-
MATH	4	790602	9	CCAACS	1	A-T	6080	0.8155	0.067	0.0655	0.0499	0.8058	0.0096	0.0023	0.4766	-0.2355	-0.2787	-0.2472	0.4723	-0.0418	-0.0236	-1.6133	0.0862	-3.7992	0.8258	-3.8694	0.6179	A-	A+	A+
MATH	4	780281	9	CCAACS	1	B-O	6079	0.5197	0.1858	0.5134	0.1518	0.137	0.0112	0.0008	0.4885	-0.1461	0.4907	-0.2482	-0.2642	-0.0741	-0.0252	0.0744	0.0692	-0.639	0.9816	-1.3491	0.9365	A+	A+	A-
MATH	4	790619	9	CCAACS	2	B-O	6126	0.365	0.3634	0.0484	0.084	0.4998	0.0042	0.0002	0.5153	0.516	-0.2219	-0.3474	-0.201	-0.053	-0.0197	0.9205	0.0709	-2.6291	0.92	-1.3491	0.9329	A-	A+	A-
MATH	4	743909	9	CCAACS	1	C-G	6085	0.765	0.7565	0.0608	0.073	0.0987	0.0085	0.0026	0.3955	0.3982	-0.2375	-0.2092	-0.1773	-0.0617	-0.0241	-1.3453	0.0813	-0.249	0.9889	-0.239	0.9727	A+	A-	A-
MATH	4	795635	9	CCAACS	2	D-M	6122	0.6802	0.0956	0.0804	0.6767	0.1422	0.0049	0.0002	0.5205	-0.1953	-0.2677	0.5233	-0.313	-0.0715	-0.0197	-0.7734	0.0738	-4.7092	0.8483	-3.9493	0.74	A+	A-	A+
MATH	5	300474	0	CCAACS	1	A-F	51725	0.6801	0.1012	0.0589	0.1581	0.6763	0.0052	0.0003	0.4572	-0.1008	-0.2621	-0.3252	0.458	-0.0447	-0.0187	-0.5304	0.0236	-9.8891	0.9061	-5.3091	0.8946	A+	A-	A+
MATH	5	622928	0	CCAACS	1	A-F	51758	0.5838	0.0974	0.2239	0.581	0.0928	0.0043	0.0006	0.4398	-0.19	-0.3252	0.4414	-0.0765	-0.0504	-0.0149	-0.2393	0.023	1.701	1.0157	-0.749	0.9869	A-	A+	A+
MATH	5	662448	0	CCAACS	2	A-F	51737	0.5492	0.5463	0.1181	0.1957	0.1347	0.005	0.0003	0.557	0.5574	-0.3258	-0.2183	-0.2402	-0.0501	-0.0158	0.2102	0.0227	-9.8991	0.8809	-9.8992	0.8281	A+	A-	A-
MATH	5	662449	0	CCAACS	2	A-F	51672	0.5705	0.053	0.2708	0.1029	0.5668	0.0062	0.0003	0.5531	-0.1655	-0.4137	-0.1618	0.5537	-0.0496	-0.022	0.1531	0.0227	-9.8991	0.8887	-9.8992	0.8382	A+	A-	A+
MATH	5	662453	0	CCAACS	1	A-F	51637	0.4582	0.09	0.3765	0.4549	0.0714	0.0068	0.0004	0.4183	-0.2455	-0.1714	0.4191	-0.1984	-0.0483	-0.0169	0.2054	0.0227	8.1811	1.0762	5.5111	1.083	A-	A+	A+
MATH	5	662455	0	CCAACS	1	A-F	51665	0.434	0.1995	0.0996	0.4311	0.2631	0.0063	0.0004	0.397	-0.1535	-0.1308	0.3973	-0.2116	-0.0341	-0.0206	0.5805	0.023	9.2711	1.0914	6.5811	1.0968	A-	A+	A+
MATH	5	706349	0	CCAACS	2	A-F	51713	0.3889	0.2152	0.2352	0.3867	0.1571	0.0052	0.0006	0.3425	-0.0836	-0.214	0.3439	-0.1058	-0.0477	-0.0171	0.8739	0.0234	9.9011	1.1295	9.9012	1.1916	A-	A+	A+
MATH	5	706410	0	CCAACS	2	A-F	51690	0.4602	0.3282	0.0718	0.1365	0.4573	0.0058	0.0004	0.5108	-0.1316	-0.2438	-0.3673	0.5112	-0.0467	-0.0155	0.5756	0.0229	-0.929	0.9911	-0.989	0.9859	A+	A-	A-
MATH	5	711367	0	CCAACS	1	A-F	51623	0.6571	0.0966	0.1205	0.1231	0.6522	0.007	0.0005	0.5774	-0.2364	-0.3378	-0.2759	0.5771	-0.0457	-0.0267	-0.5207	0.0236	-9.8992	0.8175	-9.8993	0.7198	A-	A-	A-
MATH	5	711369	0	CCAACS	1	A-F	51749	0.7992	0.065	0.0388	0.7952	0.0959	0.0044	0.0007	0.3634	-0.2473	-0.1877	0.367	-0.1584	-0.054	-0.0253	-1.1217	0.0257	-9.8991	0.8712	-6.1992	0.831	A+	A+	A+
MATH	5	711441	0	CCAACS	2	A-F	51562	0.495	0.1382	0.226	0.1365	0.4907	0.0083	0.0004	0.4997	-0.2993	-0.1883	-0.1829	0.5007	-0.056	-0.019	-0.0003	0.0228	-2.689	0.9759	-3.2791	0.9493	A-	A-	A-
MATH	5	711444	0	CCAACS	1	A-F	51482	0.3601	0.3564	0.1646	0.3381	0.1307	0.0098	0.0004	0.3652	0.3663	-0.2733	-0.0813	-0.0895	-0.0522	-0.0136	0.913	0.0235	9.9011	1.1206	9.9013	1.2631	A-	A+	A-
MATH	5	713632	0	CCAACS	2	A-F	51595	0.5627	0.2454	0.1235	0.0649	0.5582	0.0074	0.0006	0.6403	-0.4348	-0.2254	-0.2088	0.6397	-0.0521	-0.0205	-0.0045	0.0228	-9.8992	0.7683	-9.8993	0.6984	A-	A-	A-
MATH	5	737321	0	CCAACS	1	A-F	51780	0.2971	0.2958	0.1329	0.2356	0.3312	0.0038	0.0007	0.4558	0.4564	-0.1525	-0.098	-0.237	-0.0456	-0.0226	1.1442	0.0241	-7.5991	0.9174	-1.129	0.9805	A+	A-	A-
MATH	5	394398	0	CCAACS	1	A-T	51755	0.8136	0.1474	0.0195	0.0186	0.8095	0.0046	0.0004	0.4688	-0.397	-0.1543	-0.1401	0.4692	-0.0431	-0.0159	-1.4221	0.0273	-9.8992	0.798	-9.8994	0.6483	B-	A-	A-
MATH	5	659939	0	CCAACS	1	A-T	51682	0.5512	0.1459	0.5477	0.1988	0.1012	0.0058	0.0005	0.5309	-0.2727	0.5319	-0.1945	-0.2867	-0.0518	-0.0195	-0.1344	0.0229	-7.8891	0.9298	-7.0491	0.887	A-	A+	A+
MATH	5	659940	0	CCAACS	1	A-T	51679	0.5645	0.2106	0.5609	0.1811	0.041	0.0061	0.0003	0.3027	-0.1539	0.3057	-0.1485	-0.1361	-0.0581	-0.0175	-0.0668	0.0228	9.9012	1.1959	9.9012	1.2362	A+	A+	A+
MATH	5	659951	0	CCAACS	1	A-T	51357	0.5786	0.2186	0.107	0.0904	0.5713	0.0096	0.003	0.4958	-0.2997	-0.2366	-0.1361	0.5009	-0.0894	-0.0572	0.0615	0.0228	-5.239	0.9534	-3.049	0.9539	A+	A+	A+
MATH	5	709854	0	CCAACS	2	A-T	51674	0.5959	0.1596	0.1521	0.0898	0.592	0.0061	0.0005	0.5132	-0.1931	-0.2881	-0.259	0.5139	-0.0534	-0.0102	-0.2847	0.0231	-8.3791	0.9242	-6.2091	0.8924	A-	A+	A+
MATH	5	709857	0	CCAACS	1	A-T	51578	0.551	0.1174	0.137	0.1909	0.5463	0.008	0.0003	0.5642	-0.2154	-0.3579	-0.2126	0.5641	-0.0518	-0.0144	-0.201	0.023	-9.8991	0.8809	-9.8992	0.835	A-	A-	A-
MATH	5	711361	0	CCAACS	2	A-T	51709	0.8724	0.0325	0.8673	0.0484	0.0459	0.0057	0.0001	0.4466	-0.214	0.4482	-0.2588	-0.2575	-0.0587	-0.0174	-2.1004	0.0329	-8.4292	0.8264	-9.8995	0.5164	A-	A-	A-
MATH	5	737318	0	CCAACS	1	A-T	51770	0.6106	0.0954	0.6078	0.1726	0.1196	0.0041	0.0006	0.5088	-0.1107	0.5102	-0.2794	-0.3308	-0.0486	-0.0234	-0.4123	0.0233	-6.2391	0.9417	-2.8391	0.9462	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	738186	0	CCAACS	2	A-T	51665	0.6114	0.6073	0.0873	0.0808	0.2178	0.005	0.0017	0.592	0.5919	-0.2469	-0.2464	-0.3593	-0.0397	-0.0273	-0.3821	0.0233	-9.8992	0.8216	-9.8993	0.7264	B-	A-	A-
MATH	5	621381	0	CCAACS	1	B-O	51512	0.5527	0.1949	0.1401	0.5474	0.108	0.0085	0.0011	0.3763	-0.1984	-0.2352	0.3771	-0.074	-0.0396	-0.0253	-0.0267	0.0228	9.9011	1.0992	7.5411	1.1245	A+	A+	A+
MATH	5	706351	0	CCAACS	2	B-O	51349	0.5109	0.2623	0.5043	0.0862	0.1344	0.008	0.0047	0.4829	-0.1876	0.4847	-0.2805	-0.2141	-0.0725	-0.0229	0.1259	0.0227	-1.469	0.9867	-1.759	0.9738	A-	A+	A-
MATH	5	737097	0	CCAACS	2	B-O	51589	0.5152	0.2682	0.511	0.1319	0.0808	0.0077	0.0005	0.5739	-0.2515	0.574	-0.2653	-0.2962	-0.0517	-0.0242	0.1768	0.0227	-9.8991	0.8947	-9.1291	0.871	A+	A-	A-
MATH	5	740960	0	CCAACS	2	B-O	51596	0.5604	0.1172	0.5559	0.2232	0.0956	0.0073	0.0007	0.3355	-0.3227	0.338	-0.04	-0.1444	-0.0515	-0.0233	0.0811	0.0228	9.9012	1.1604	9.9012	1.2164	A+	A+	A+
MATH	5	303009	0	CCAACS	2	C-G	51511	0.416	0.412	0.1804	0.2675	0.1304	0.0092	0.0004	0.389	0.3905	-0.15	-0.1531	-0.181	-0.0587	-0.0104	0.5923	0.023	9.9011	1.1227	9.9012	1.171	A-	A-	A-
MATH	5	495261	0	CCAACS	2	C-G	51356	0.399	0.1645	0.1905	0.3939	0.2384	0.0104	0.0022	0.3237	-0.1383	-0.1994	0.3245	-0.0553	-0.0636	0.0217	0.8597	0.0234	9.9012	1.1811	9.9013	1.2986	A-	A+	A+
MATH	5	624820	0	CCAACS	2	C-G	51805	0.54	0.5378	0.1698	0.163	0.1254	0.0036	0.0004	0.5041	0.5045	-0.1851	-0.3127	-0.1931	-0.0368	-0.0172	-0.1472	0.0229	-3.769	0.966	-3.1991	0.9472	A+	A-	A-
MATH	5	653732	0	CCAACS	2	C-G	51562	0.4268	0.2624	0.4231	0.1661	0.1398	0.0073	0.0013	0.3929	-0.0879	0.3938	-0.2512	-0.1672	-0.0494	-0.0068	0.5253	0.0229	7.1811	1.0696	6.1511	1.0898	A-	A+	A+
MATH	5	706353	0	CCAACS	2	C-G	51632	0.4489	0.1327	0.3142	0.4456	0.1001	0.0063	0.0011	0.383	-0.2259	-0.1343	0.3852	-0.1562	-0.0604	-0.0247	0.4764	0.0228	9.5411	1.0923	9.0811	1.1343	A+	A+	A+
MATH	5	715770	0	CCAACS	1	C-G	51765	0.8149	0.0618	0.811	0.0534	0.069	0.0038	0.0009	0.3774	-0.2102	0.3807	-0.1499	-0.2394	-0.0495	-0.0313	-1.262	0.0264	-9.8992	0.8427	-5.9492	0.8256	A-	A-	A-
MATH	5	740963	0	CCAACS	2	C-G	51716	0.413	0.2165	0.1064	0.2608	0.4106	0.005	0.0007	0.4275	-0.2589	-0.1342	-0.135	0.428	-0.0394	-0.0171	0.7924	0.0233	8.1611	1.0843	8.5311	1.1327	A-	A+	A+
MATH	5	575709	0	CCAACS	2	D-M	51795	0.4207	0.0476	0.1938	0.4189	0.3355	0.0038	0.0004	0.3647	-0.0657	-0.206	0.3657	-0.174	-0.0433	-0.01	0.731	0.0232	9.9012	1.1544	9.9012	1.2178	A-	A+	A-
MATH	5	575711	0	CCAACS	2	D-M	51688	0.3854	0.3948	0.383	0.1025	0.1135	0.0059	0.0004	0.2687	-0.0175	0.2706	-0.2512	-0.1342	-0.052	-0.0157	0.4566	0.0228	9.9012	1.2302	9.9013	1.3488	A-	A-	A+
MATH	5	653734	0	CCAACS	1	D-M	51705	0.6445	0.6407	0.1789	0.0812	0.0932	0.0055	0.0004	0.5312	0.5327	-0.3567	-0.1803	-0.2236	-0.0574	-0.0168	-0.3769	0.0233	-9.8991	0.8731	-9.8992	0.8078	A-	A-	A-
MATH	5	706354	0	CCAACS	1	D-M	51551	0.5142	0.1791	0.5096	0.227	0.0754	0.0085	0.0004	0.4701	-0.2683	0.472	-0.1676	-0.2146	-0.0642	-0.0157	0.1704	0.0227	0.961	1.0087	2.031	1.0303	A-	A-	A+
MATH	5	715777	0	CCAACS	1	D-M	51749	0.5599	0.5571	0.2102	0.146	0.0816	0.004	0.0011	0.5518	0.5524	-0.2701	-0.2619	-0.2497	-0.0433	-0.0245	0.0419	0.0228	-9.8991	0.8886	-9.8992	0.8488	A-	A-	A-
MATH	5	715907	0	CCAACS	2	D-M	51646	0.3707	0.3681	0.2042	0.2161	0.2045	0.0067	0.0004	0.2435	0.2454	-0.093	-0.137	-0.0497	-0.0489	-0.024	0.9278	0.0235	9.9012	1.2159	9.9014	1.3925	A+	A+	A+
MATH	5	300475	1	CCAACS	2	A-F	11633	0.404	0.1304	0.4016	0.2313	0.2307	0.0049	0.0011	0.223	-0.1129	0.2249	-0.1442	-0.0182	-0.0411	-0.0272	0.7307	0.0681	8.7813	1.2828	7.9914	1.3864	A-	A+	A+
MATH	5	786986	1	CCAACS	1	A-F	5902	0.5266	0.0677	0.221	0.1816	0.5231	0.0057	0.0008	0.5753	-0.2228	-0.3524	-0.2114	0.5754	-0.0393	-0.0251	0.1506	0.0683	-7.3792	0.8068	-6.2692	0.7607	A-	A-	A-
MATH	5	737323	1	CCAACS	2	A-T	5901	0.5087	0.5053	0.1682	0.1904	0.1294	0.0064	0.0003	0.4637	0.4663	-0.2304	-0.2427	-0.1367	-0.0699	-0.0107	0.049	0.0681	-1.399	0.962	-2.0091	0.9172	A+	A-	A-
MATH	5	787020	1	CCAACS	1	A-T	5877	0.7101	0.7024	0.0842	0.1119	0.0907	0.0108		0.4948	0.4911	-0.2422	-0.2516	-0.2604	-0.0303		-0.8674	0.0706	-4.4491	0.8784	-3.3292	0.8033	A+	A+	A+
MATH	5	786999	1	CCAACS	2	B-O	5913	0.3306	0.3272	0.1756	0.3291	0.1634	0.0047		0.3224	-0.1364	-0.1282	0.3237	-0.0968	-0.0517		0.9967	0.0737	2.9011	1.1082	4.2212	1.2455	A-	A+	A+
MATH	5	786970	1	CCAACS	1	C-G	5880	0.7056	0.0995	0.6984	0.1197	0.0722	0.0061	0.0042	0.5346	-0.2815	0.5388	-0.2886	-0.2334	-0.0665	-0.0585	-0.9799	0.0715	-4.4291	0.8741	-3.9892	0.7536	A-	A-	A-
MATH	5	313328	1	CCAACS	1	D-M	11606	0.5064	0.1435	0.2535	0.5011	0.0915	0.0099	0.0005	0.4312	-0.2943	-0.1243	0.4319	-0.1851	-0.0499	-0.0177	0.166	0.0663	2.3211	1.0616	1.9711	1.0839	A-	A-	A-
MATH	5	741004	1	CCAACS	2	D-M	5908	0.3851	0.1703	0.3829	0.2484	0.1927	0.0056		0.352	-0.2029	0.3537	-0.0813	-0.1425	-0.0584		0.5706	0.0702	2.6411	1.085	3.4812	1.1622	A-	A-	A-
MATH	5	780063	2	CCAACS	1	A-F	5696	0.4122	0.4093	0.2956	0.0626	0.2254	0.0068	0.0003	0.3508	0.3522	-0.2095	-0.2181	-0.0481	-0.0514	-0.0233	0.6171	0.0685	4.4911	1.1305	3.9812	1.1838	A-	A-	A-
MATH	5	786985	2	CCAACS	2	A-F	5710	0.4285	0.1614	0.1795	0.4265	0.2278	0.0044	0.0003	0.4788	-0.2278	-0.2536	0.4799	-0.1238	-0.0575	-0.0241	0.5775	0.0684	-2.1891	0.9401	-2.2391	0.9046	A-	A-	A-
MATH	5	301926	2	CCAACS	1	A-T	11407	0.5419	0.1107	0.5366	0.2686	0.0744	0.0094	0.0003	0.5433	-0.3171	0.5434	-0.2342	-0.2369	-0.0551	-0.0083	0.0431	0.0716	-6.5392	0.8278	-4.8592	0.7817	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	787010	2	CCAACS	1	A-T	5695	0.7143	0.1269	0.0858	0.0709	0.7091	0.007	0.0003	0.4831	-0.2717	-0.2353	-0.2299	0.4825	-0.0407	-0.021	-0.923	0.0747	-2.8691	0.9032	-1.8491	0.8534	A+	A-	A+
MATH	5	313767	2	CCAACS	2	B-O	11327	0.5009	0.3138	0.1212	0.4942	0.0574	0.0126	0.0008	0.4052	-0.1394	-0.2732	0.4068	-0.1844	-0.0529	-0.0253	0.2534	0.0714	0.171	1.0044	2.0711	1.0923	A+	A+	A-
MATH	5	787153	2	CCAACS	2	B-O	5687	0.2017	0.1123	0.5548	0.1243	0.1999	0.0084	0.0003	0.1538	-0.2495	0.2148	-0.2597	0.155	-0.0511	0.0195	2.2006	0.0866	3.9412	1.2145	8.422	1.9876	A+	A+	A+
MATH	5	786969	2	CCAACS	2	C-G	5695	0.4353	0.2013	0.1513	0.2079	0.4321	0.0064	0.0009	0.4215	-0.2517	-0.1856	-0.0902	0.4234	-0.0608	-0.0294	0.5998	0.0685	-0.769	0.9785	-0.559	0.9751	A-	A-	A-
MATH	5	786978	2	CCAACS	2	D-M	5687	0.5164	0.2046	0.5119	0.1055	0.1693	0.0059	0.0028	0.3361	-0.2173	0.339	-0.2293	-0.0148	-0.0497	-0.0375	0.2082	0.0679	3.0611	1.0835	1.8011	1.0841	A-	A-	A-
MATH	5	786987	3	CCAACS	1	A-F	5718	0.5932	0.0699	0.2175	0.1163	0.5887	0.0068	0.0009	0.5674	-0.2311	-0.3366	-0.2427	0.5665	-0.0357	-0.0083	-0.1729	0.0694	-5.7692	0.8476	-3.7292	0.8135	A-	A-	A-
MATH	5	780060	3	CCAACS	1	A-T	5732	0.6303	0.627	0.0668	0.097	0.2039	0.0052		0.5851	0.5848	-0.2446	-0.3148	-0.3117	-0.0415		-0.5468	0.0715	-6.4492	0.8173	-5.2393	0.6949	A-	A-	A-
MATH	5	787009	3	CCAACS	1	A-T	5714	0.4151	0.4117	0.2516	0.2235	0.1048	0.0078	0.0005	0.505	0.5042	-0.2723	-0.1169	-0.2551	-0.034	-0.0076	0.6844	0.0694	-2.3791	0.9311	-1.1891	0.9477	B-	A-	A-
MATH	5	743944	3	CCAACS	2	B-O	5717	0.5606	0.1177	0.5562	0.134	0.1843	0.0066	0.0012	0.4408	-0.1294	0.4425	-0.2679	-0.2107	-0.0511	-0.0313	-0.0607	0.069	0.091	1.0021	0.001	0.9991	A-	A-	A-
MATH	5	303056	3	CCAACS	2	C-G	11466	0.3044	0.3023	0.288	0.2927	0.1103	0.0059	0.0008	0.1179	0.1199	-0.0468	0.0391	-0.1521	-0.0506	-0.0055	1.3074	0.0787	9.4614	1.4142	9.7517	1.7396	A+	A+	A-
MATH	5	743946	3	CCAACS	2	C-G	5740	0.6148	0.1394	0.1	0.6125	0.1444	0.0038		0.409	-0.1938	-0.3059	0.4107	-0.1082	-0.0518		-0.3282	0.0701	0.221	1.0061	-0.469	0.9719	A+	A-	A-
MATH	5	743948	3	CCAACS	1	D-M	5717	0.6173	0.1368	0.1442	0.0988	0.6125	0.0076	0.0002	0.4768	-0.1437	-0.3125	-0.2319	0.4752	-0.035	-0.0055	-0.4255	0.0707	-1.279	0.9629	1.3511	1.083	B-	A-	A-
MATH	5	786984	4	CCAACS	1	A-F	5678	0.636	0.0653	0.1652	0.1294	0.6287	0.011	0.0005	0.4876	-0.2022	-0.2152	-0.2998	0.4861	-0.0371	-0.0216	-0.4833	0.0704	-3.8391	0.893	-3.0092	0.831	A+	A-	A+
MATH	5	786991	4	CCAACS	1	A-F	5712	0.4604	0.2669	0.1588	0.1109	0.4579	0.0049	0.0007	0.6161	-0.3066	-0.2659	-0.2289	0.6147	-0.0168	-0.015	0.3931	0.0685	-9.6092	0.753	-7.9493	0.7008	A-	A-	A-
MATH	5	743931	4	CCAACS	2	A-T	5698	0.6908	0.6852	0.1165	0.1018	0.0884	0.0045	0.0035	0.463	0.4649	-0.2168	-0.2397	-0.2418	-0.049	-0.0325	-0.7694	0.0727	-3.9891	0.879	-3.8292	0.7541	A-	A-	A-
MATH	5	787018	4	CCAACS	1	A-T	5703	0.7969	0.1146	0.036	0.051	0.7913	0.0064	0.0007	0.4657	-0.3266	-0.1797	-0.2182	0.4635	-0.028	-0.023	-1.5038	0.0834	-2.2491	0.9	-3.2593	0.6898	A-	A+	A+
MATH	5	408807	4	CCAACS	1	C-G	11466	0.3432	0.0562	0.3413	0.4789	0.118	0.005	0.0005	0.1196	-0.226	0.1217	0.0641	-0.1053	-0.0488	-0.0112	1.0448	0.0762	8.1313	1.3199	7.6415	1.4653	A+	A-	A-
MATH	5	786976	4	CCAACS	2	D-M	5685	0.3982	0.124	0.3942	0.2133	0.2584	0.0097	0.0005	0.3366	-0.1995	0.3372	-0.099	-0.1242	-0.041	-0.0043	0.7559	0.0698	4.4011	1.1394	4.8212	1.2257	A-	A-	A+
MATH	5	786977	4	CCAACS	2	D-M	5717	0.5636	0.2143	0.5609	0.1307	0.0893	0.0044	0.0003	0.4817	-0.2323	0.4831	-0.2185	-0.2362	-0.0473	-0.0162	-0.1679	0.0689	-0.899	0.9752	-1.2091	0.94	A-	A-	A-
MATH	5	713389	5	CCAACS	2	A-F	5709	0.6304	0.1094	0.1837	0.6271	0.0746	0.0049	0.0003	0.5402	-0.2658	-0.3258	0.5407	-0.1859	-0.0445	-0.023	-0.474	0.071	-6.0792	0.8276	-4.7093	0.7465	A+	A-	A-
MATH	5	786993	5	CCAACS	2	A-F	5712	0.4424	0.4403	0.1002	0.333	0.1218	0.0044	0.0003	0.4746	0.4748	-0.1737	-0.2276	-0.2263	-0.0351	0.0014	0.5183	0.0686	-1.539	0.9568	-0.879	0.9637	A+	A+	A+
MATH	5	408650	5	CCAACS	2	A-T	11441	0.4868	0.1951	0.4832	0.2039	0.1104	0.0072	0.0002	0.2661	-0.1023	0.2681	-0.1328	-0.1141	-0.0469	-0.0161	0.3034	0.0716	6.8912	1.2103	5.2512	1.2437	A+	A+	A-
MATH	5	787014	5	CCAACS	1	A-T	5712	0.5317	0.1025	0.1382	0.5292	0.2255	0.0042	0.0005	0.5164	-0.1487	-0.2167	0.5161	-0.3247	-0.0364	0.0127	0.0444	0.0686	-4.6091	0.8773	-3.5992	0.8453	A-	A-	A-
MATH	5	786998	5	CCAACS	2	B-O	5705	0.722	0.0828	0.7177	0.1258	0.0678	0.0052	0.0007	0.4952	-0.262	0.4952	-0.2844	-0.2116	-0.0403	-0.0106	-1.0549	0.0772	-4.7392	0.8315	-4.1593	0.6923	A+	A-	A-
MATH	5	786973	5	CCAACS	2	C-G	5725	0.5336	0.1213	0.5323	0.0983	0.2457	0.0019	0.0005	0.2399	-0.2575	0.2413	-0.261	0.1007	-0.0374	-0.0158	0.052	0.0686	7.0612	1.2083	7.3014	1.3663	A-	A-	A-
MATH	5	311033	5	CCAACS	2	D-M	11412	0.2715	0.27	0.2308	0.1129	0.3809	0.0051	0.0003	0.0848	0.0856	-0.146	-0.1498	0.1498	-0.025	-0.0033	1.4808	0.0809	9.5114	1.4468	9.9019	1.8734	A-	A-	A-
MATH	5	786975	5	CCAACS	1	D-M	5706	0.6716	0.103	0.1765	0.6677	0.047	0.0058		0.5057	-0.2925	-0.2756	0.5066	-0.1914	-0.0545		-0.6955	0.0729	-4.8491	0.851	-4.5693	0.7232	A-	A-	A-
MATH	5	300509	6	CCAACS	1	A-F	11383	0.2962	0.1265	0.2927	0.4412	0.1275	0.0115	0.0005	0.1502	-0.1521	0.1527	0.0675	-0.1395	-0.0514	-0.0181	1.3256	0.0788	5.3612	1.2228	5.5014	1.3847	A+	A+	A+
MATH	5	786989	6	CCAACS	1	A-F	5699	0.408	0.2296	0.4053	0.1407	0.2179	0.0061	0.0003	0.2102	-0.0712	0.2104	-0.2732	0.0562	-0.0244	0.0209	0.6855	0.0689	8.8713	1.2793	7.7814	1.3621	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	780058	6	CCAACS	1	A-T	5669	0.5405	0.1764	0.5342	0.1876	0.0901	0.011	0.0007	0.4322	-0.2482	0.4324	-0.134	-0.222	-0.0443	-0.0211	0.0076	0.0684	-1.9191	0.9486	-2.7691	0.8794	A-	A-	A-
MATH	5	787016	6	CCAACS	2	A-T	5692	0.6207	0.1151	0.1273	0.1341	0.6159	0.007	0.0007	0.5334	-0.2186	-0.2747	-0.2755	0.5339	-0.0466	-0.0245	-0.4311	0.0703	-5.1991	0.8561	-4.9093	0.747	A-	A-	A-
MATH	5	786996	6	CCAACS	2	B-O	5680	0.5783	0.0596	0.2249	0.5727	0.133	0.0092	0.0005	0.2578	-0.199	0.0373	0.2603	-0.2726	-0.044	-0.0181	-0.083	0.0686	6.4412	1.1865	4.1212	1.2053	A+	A+	A+
MATH	5	786972	6	CCAACS	1	C-G	5708	0.6871	0.6838	0.1609	0.0779	0.0725	0.0038	0.001	0.4827	0.486	-0.2311	-0.2511	-0.2638	-0.0705	-0.0307	-0.7546	0.073	-1.299	0.9582	-1.7391	0.8851	A+	A-	A-
MATH	5	790637	6	CCAACS	1	D-M	5695	0.7241	0.1679	0.0593	0.0467	0.719	0.007	0.0002	0.5011	-0.3521	-0.2089	-0.1914	0.4995	-0.0352	-0.0199	-1.0162	0.0761	-4.3191	0.8508	-4.2293	0.6987	A+	A+	A-
MATH	5	738190	7	CCAACS	2	A-F	5733	0.4769	0.2052	0.152	0.1616	0.4729	0.0074	0.0009	0.4742	-0.1795	-0.2548	-0.1873	0.4739	-0.0449	0.0052	0.3688	0.0682	-3.0291	0.919	-0.989	0.9565	A+	A-	A-
MATH	5	786994	7	CCAACS	1	A-F	5755	0.65	0.6471	0.0837	0.0714	0.1932	0.0042	0.0003	0.4202	0.4225	-0.2582	-0.205	-0.1868	-0.0517	-0.0267	-0.5842	0.0711	-0.249	0.9922	-1.5591	0.8988	A-	A+	A+
MATH	5	787012	7	CCAACS	2	A-T	5735	0.3888	0.1014	0.1322	0.3857	0.3728	0.0071	0.0009	0.2645	-0.2196	-0.2322	0.2664	0.0408	-0.0529	-0.0009	0.8888	0.0701	5.6712	1.1843	5.7213	1.2888	A-	A+	A+
MATH	5	780065	7	CCAACS	1	B-O	5747	0.7051	0.0735	0.7009	0.0723	0.1474	0.0052	0.0007	0.4309	-0.2681	0.4304	-0.2545	-0.1656	-0.0257	-0.0252	-0.8667	0.0738	-2.1991	0.9286	-1.8791	0.8587	A+	A-	A-
MATH	5	780066	7	CCAACS	1	C-G	5766	0.8783	0.876	0.046	0.0273	0.0481	0.0026		0.3355	0.3386	-0.2437	-0.1828	-0.1316	-0.0505		-2.1317	0.1004	-0.8691	0.9401	-0.8591	0.8753	A+	A-	A-
MATH	5	737101	7	CCAACS	2	D-M	5747	0.6668	0.1	0.6629	0.1239	0.1074	0.0052	0.0007	0.4245	-0.2605	0.4273	-0.2471	-0.121	-0.0559	-0.0366	-0.6038	0.0712	-2.2191	0.935	-1.1591	0.9232	A+	A-	A-
MATH	5	662458	8	CCAACS	2	A-F	5737	0.334	0.3311	0.2312	0.2828	0.1464	0.008	0.0005	0.3001	0.3012	-0.2118	-0.0036	-0.1311	-0.0455	-0.0214	1.153	0.0715	3.0211	1.1008	4.0112	1.2151	A+	A-	A-
MATH	5	738184	8	CCAACS	1	A-T	5739	0.6057	0.074	0.1732	0.144	0.6008	0.0074	0.0007	0.5488	-0.2837	-0.2426	-0.2802	0.5479	-0.0426	-0.0113	-0.3183	0.0697	-4.5091	0.8765	-3.9192	0.8011	A-	A+	A-
MATH	5	743930	8	CCAACS	1	A-T	5752	0.4183	0.0968	0.3604	0.4158	0.1212	0.0052	0.0007	0.3985	-0.228	-0.1031	0.3988	-0.2348	-0.0307	-0.0308	0.6857	0.0688	0.811	1.023	1.041	1.0439	A-	A+	A+
MATH	5	738193	8	CCAACS	2	B-O	5752	0.5429	0.5398	0.1884	0.187	0.079	0.005	0.0009	0.5091	0.5097	-0.2355	-0.239	-0.2388	-0.0459	-0.0386	-0.09	0.0687	-4.1491	0.8908	-3.3192	0.8478	A-	A-	A-
MATH	5	786974	8	CCAACS	1	C-G	5754	0.4274	0.1711	0.1521	0.2463	0.425	0.0052	0.0003	0.4108	-0.2418	-0.1688	-0.1105	0.4118	-0.0555	-0.0128	0.5985	0.0685	0.921	1.0257	0.121	1.0046	A-	A-	A-
MATH	5	786979	8	CCAACS	2	D-M	5764	0.6442	0.0797	0.6417	0.1381	0.1367	0.0029	0.0009	0.4823	-0.1735	0.4835	-0.2647	-0.2631	-0.0438	-0.0273	-0.5685	0.0714	-1.599	0.9513	-0.9491	0.9406	A-	A-	A-
MATH	5	740957	9	CCAACS	2	A-F	5758	0.2624	0.1491	0.2488	0.3359	0.2611	0.0041	0.0009	0.2263	-0.1524	-0.103	0.0049	0.2274	-0.0416	-0.0232	1.7126	0.0778	2.3411	1.0979	3.7513	1.2786	A-	A+	A+
MATH	5	786990	9	CCAACS	1	A-F	5748	0.3723	0.25	0.3698	0.1847	0.1887	0.0066	0.0002	0.2818	-0.0615	0.2822	-0.2725	-0.003	-0.0332	0.0039	0.9313	0.0702	4.0511	1.1299	4.0312	1.1975	A-	A-	A-
MATH	5	787013	9	CCAACS	2	A-T	5689	0.562	0.5524	0.1291	0.1935	0.108	0.0162	0.0007	0.5741	0.5747	-0.2005	-0.3117	-0.2724	-0.081	-0.0217	-0.2324	0.0692	-6.4892	0.8318	-5.1093	0.7421	B-	A-	A-
MATH	5	786968	9	CCAACS	2	B-O	5734	0.7077	0.1113	0.0914	0.7012	0.0869	0.0088	0.0003	0.507	-0.2839	-0.2704	0.5065	-0.2122	-0.0489	-0.0137	-0.9191	0.075	-5.1692	0.8298	-4.4393	0.6778	A-	A-	A-
MATH	5	780067	9	CCAACS	1	C-G	5500	0.4329	0.1547	0.2443	0.4114	0.14	0.0176	0.032	0.4421	-0.1898	-0.1221	0.4539	-0.1962	-0.1084	-0.1133	0.6511	0.0688	0.581	1.0165	0.831	1.036	A-	A-	A+
MATH	5	780083	9	CCAACS	2	D-M	5735	0.415	0.1725	0.3046	0.4113	0.1026	0.0043	0.0047	0.4333	-0.2797	-0.102	0.4348	-0.1828	-0.0431	-0.045	0.5498	0.0685	0.351	1.0097	0.251	1.0101	A+	A-	A-
MATH	6	404808	0	CCAACS	2	A-N	47662	0.4022	0.3983	0.2368	0.228	0.127	0.0095	0.0004	0.4833	0.483	-0.0282	-0.3048	-0.2763	-0.0429	-0.0199	0.5802	0.023	-2.049	0.9804	-1.109	0.9832	A-	A-	A-
MATH	6	478718	0	CCAACS	1	A-N	47778	0.5417	0.5376	0.2315	0.1447	0.0788	0.0067	0.0007	0.5044	0.5051	-0.2246	-0.264	-0.2221	-0.0476	-0.0195	0.0804	0.0229	-4.729	0.9574	-4.4891	0.9247	A+	A+	A-
MATH	6	479519	0	CCAACS	1	A-N	47872	0.4364	0.1046	0.434	0.2372	0.2187	0.0046	0.0008	0.4333	-0.2191	0.4351	-0.2794	-0.0599	-0.0635	-0.022	0.5498	0.023	4.941	1.0478	4.4911	1.0695	A-	A+	A+
MATH	6	617667	0	CCAACS	1	A-N	47912	0.7705	0.0819	0.0752	0.7669	0.0714	0.0042	0.0005	0.4686	-0.222	-0.2604	0.4722	-0.2539	-0.0652	-0.0254	-1.0303	0.0258	-9.8992	0.8325	-9.8993	0.6886	A-	A-	A-
MATH	6	652192	0	CCAACS	1	A-N	47719	0.4217	0.2213	0.1679	0.184	0.418	0.0081	0.0006	0.4777	-0.1727	-0.2665	-0.1558	0.4775	-0.0365	-0.0242	0.5899	0.023	-0.969	0.9907	-0.619	0.9905	A+	A+	A+
MATH	6	743919	0	CCAACS	1	A-N	47898	0.4395	0.1202	0.1722	0.2653	0.4373	0.0044	0.0005	0.5713	-0.2035	-0.2637	-0.2575	0.5721	-0.0603	-0.0181	0.4961	0.0229	-9.8991	0.8652	-9.8992	0.8346	A+	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	478716	0	CCAACS	2	A-R	47856	0.5343	0.0541	0.1021	0.5312	0.3067	0.0056	0.0002	0.4174	-0.2071	-0.258	0.4186	-0.1741	-0.0457	-0.0143	0.3094	0.0229	5.8311	1.0547	2.641	1.0422	A-	A+	A+
MATH	6	501160	0	CCAACS	2	A-R	47553	0.564	0.1558	0.5571	0.1557	0.1192	0.0118	0.0003	0.3818	-0.2018	0.3826	-0.161	-0.1641	-0.0471	-0.0108	0.1097	0.0229	9.9011	1.106	4.2711	1.0742	A-	A+	A+
MATH	6	575151	0	CCAACS	1	A-R	47820	0.7561	0.067	0.7512	0.1192	0.056	0.0063	0.0003	0.3687	-0.1967	0.3707	-0.2249	-0.1485	-0.0459	-0.0225	-1.164	0.0264	-0.099	0.9986	-0.129	0.9955	A+	A+	A-
MATH	6	654778	0	CCAACS	2	A-R	47748	0.6513	0.6461	0.136	0.151	0.0589	0.0076	0.0004	0.5079	0.5091	-0.2585	-0.2673	-0.2292	-0.0545	-0.0232	-0.4072	0.0236	-9.8991	0.8981	-7.2992	0.8477	A-	A+	A-
MATH	6	657500	0	CCAACS	2	A-R	47862	0.7405	0.1075	0.0664	0.7363	0.0841	0.0053	0.0004	0.4489	-0.2758	-0.2435	0.4509	-0.1741	-0.0529	-0.0229	-0.789	0.0247	-9.8991	0.8734	-4.9991	0.8692	A-	A+	A+
MATH	6	711374	0	CCAACS	1	A-R	47885	0.511	0.1145	0.3139	0.5083	0.0581	0.0049	0.0003	0.5117	-0.3366	-0.2012	0.5124	-0.2229	-0.0459	-0.0149	0.2513	0.0229	-4.429	0.9599	-0.549	0.991	A-	A+	A+
MATH	6	314874	0	CCAACS	2	B-E	47869	0.5979	0.0722	0.2339	0.5946	0.0939	0.0049	0.0006	0.3378	-0.2132	-0.1673	0.3401	-0.1271	-0.0472	-0.0253	-0.0011	0.023	9.9011	1.1385	6.4111	1.1186	A-	A+	A+
MATH	6	478721	0	CCAACS	2	B-E	47706	0.2844	0.2223	0.237	0.2499	0.2819	0.0085	0.0004	0.3847	-0.1787	-0.167	-0.0529	0.3855	-0.0537	-0.0137	1.3347	0.0245	-2.189	0.9743	2.441	1.0458	A+	A+	A+
MATH	6	496613	0	CCAACS	2	B-E	47706	0.5833	0.0681	0.5781	0.0735	0.2715	0.0082	0.0007	0.3715	-0.2581	0.3738	-0.2659	-0.1009	-0.0531	-0.0213	0.0752	0.0229	7.7811	1.0727	4.8211	1.0853	A-	A+	A+
MATH	6	496957	0	CCAACS	2	B-E	47684	0.7255	0.7187	0.1281	0.0886	0.0552	0.0089	0.0005	0.5059	0.5085	-0.2454	-0.3032	-0.2331	-0.0716	-0.0225	-1.1198	0.0262	-4.8791	0.9378	-0.219	0.9925	A-	A+	A+
MATH	6	581393	0	CCAACS	1	B-E	47756	0.4814	0.1791	0.1902	0.4776	0.1452	0.0073	0.0006	0.4222	-0.1538	-0.2546	0.4239	-0.1349	-0.0554	-0.0249	0.7079	0.0232	9.9011	1.1102	9.4612	1.1502	A+	A+	A+
MATH	6	582618	0	CCAACS	1	B-E	47435	0.5225	0.0668	0.1791	0.2247	0.5149	0.014	0.0006	0.4611	-0.2232	-0.2133	-0.2075	0.4607	-0.0488	-0.0169	0.2239	0.0229	-0.419	0.9961	0.641	1.0104	A+	A+	A+
MATH	6	624476	0	CCAACS	2	B-E	47902	0.4315	0.2794	0.4294	0.1266	0.1597	0.0045	0.0003	0.4119	-0.1437	0.4132	-0.2034	-0.1879	-0.0483	-0.0204	0.9187	0.0235	9.9011	1.1305	9.9012	1.2082	A+	A+	A+
MATH	6	624650	0	CCAACS	2	B-E	47735	0.3825	0.1842	0.3793	0.2554	0.1728	0.0076	0.0007	0.4019	-0.1821	0.4021	-0.1981	-0.0907	-0.0383	-0.0192	0.8328	0.0233	7.4811	1.0778	8.8211	1.142	A-	A+	A+
MATH	6	652197	0	CCAACS	2	B-E	47760	0.3055	0.1754	0.2306	0.2831	0.3031	0.0072	0.0006	0.4255	-0.2125	-0.1596	-0.0962	0.426	-0.0483	-0.0151	1.1136	0.0239	-3.809	0.9586	-0.249	0.9957	A+	A+	A+
MATH	6	657503	0	CCAACS	1	B-E	47838	0.5707	0.0505	0.3124	0.5671	0.0638	0.0048	0.0014	0.4405	-0.201	-0.2643	0.4416	-0.1984	-0.0454	-0.0182	-0.0104	0.023	0.381	1.0034	-1.799	0.9681	A-	A+	A+
MATH	6	711451	0	CCAACS	2	B-E	47768	0.4284	0.1686	0.1956	0.2031	0.4252	0.0073	0.0003	0.582	-0.2328	-0.2535	-0.2373	0.5817	-0.0471	-0.0234	0.5636	0.023	-9.8991	0.8505	-9.8992	0.8156	A+	A+	A+
MATH	6	711454	0	CCAACS	2	B-E	47657	0.3758	0.0772	0.3721	0.2237	0.3171	0.0094	0.0006	0.4103	-0.276	0.411	-0.1888	-0.0878	-0.0506	-0.0233	1.0862	0.0238	7.7611	1.087	9.9012	1.2251	A-	A+	A+
MATH	6	711455	0	CCAACS	2	B-E	47743	0.6335	0.6283	0.1653	0.109	0.0893	0.0078	0.0003	0.4194	0.4211	-0.2027	-0.2049	-0.2087	-0.0509	-0.0208	-0.1661	0.0232	-1.329	0.9877	-2.309	0.9559	A-	A+	A+
MATH	6	745962	0	CCAACS	1	B-E	47888	0.7893	0.0338	0.1478	0.0279	0.7853	0.0048	0.0003	0.5166	-0.2391	-0.3854	-0.1738	0.5173	-0.0498	-0.0177	-1.2754	0.0271	-9.8992	0.7651	-9.8994	0.5757	A+	A-	A+
MATH	6	615356	0	CCAACS	2	C-G	47826	0.4387	0.0823	0.1768	0.4358	0.2987	0.0059	0.0005	0.4979	-0.1898	-0.2263	0.4984	-0.2287	-0.045	-0.0237	0.5762	0.023	-1.799	0.9828	-1.799	0.9729	A+	A-	A-
MATH	6	615365	0	CCAACS	2	C-G	47864	0.6259	0.287	0.6224	0.041	0.044	0.0044	0.0012	0.4813	-0.4056	0.4834	-0.1285	-0.1012	-0.0535	-0.0313	-0.1602	0.0232	-6.7391	0.9388	-4.1891	0.9213	A-	B-	A-
MATH	6	624651	0	CCAACS	1	C-G	47876	0.5384	0.5355	0.1317	0.1098	0.2177	0.005	0.0003	0.519	0.5198	-0.2638	-0.1964	-0.254	-0.0485	-0.0207	0.1288	0.0229	-5.8491	0.9475	-5.1991	0.9148	A+	A-	A+
MATH	6	652198	0	CCAACS	2	C-G	47912	0.5014	0.1905	0.4991	0.1047	0.2011	0.0042	0.0004	0.6186	-0.3535	0.619	-0.2267	-0.2438	-0.0472	-0.0243	0.1852	0.0229	-9.8992	0.8228	-9.8992	0.7551	A-	A-	A-
MATH	6	715779	0	CCAACS	1	C-G	47872	0.671	0.0738	0.1333	0.6673	0.1202	0.0051	0.0004	0.4526	-0.2423	-0.3322	0.4548	-0.1036	-0.0545	-0.0267	-0.6177	0.0242	-2.109	0.9782	-0.599	0.985	A+	A+	A+
MATH	6	715781	0	CCAACS	2	C-G	47869	0.8997	0.0466	0.0396	0.0136	0.8947	0.0034	0.0021	0.3248	-0.2084	-0.1995	-0.1171	0.3309	-0.0479	-0.0525	-2.4307	0.0381	-2.4491	0.9323	-4.9293	0.734	A+	B-	A-
MATH	6	715782	0	CCAACS	1	C-G	47889	0.4076	0.0932	0.4517	0.0445	0.4055	0.0048	0.0003	0.6422	-0.1706	-0.4741	-0.1264	0.6421	-0.0487	-0.018	0.6397	0.0231	-9.8992	0.8106	-9.8992	0.766	A+	A-	A-
MATH	6	740947	0	CCAACS	2	C-G	47904	0.5557	0.1648	0.553	0.1518	0.1256	0.0045	0.0002	0.4222	-0.2349	0.4236	-0.2414	-0.1005	-0.0482	-0.0204	-0.0053	0.023	7.0511	1.0658	3.4611	1.0629	A-	A-	A+
MATH	6	560221	0	CCAACS	2	D-S	47922	0.6855	0.1366	0.6825	0.1017	0.0748	0.0039	0.0005	0.5107	-0.2843	0.5122	-0.2503	-0.2342	-0.0518	-0.0147	-0.7796	0.0247	-9.8991	0.8778	-8.5592	0.7847	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	652199	0	CCAACS	1	D-S	47844	0.5719	0.5684	0.146	0.2124	0.0671	0.0055	0.0005	0.4613	0.4633	-0.2262	-0.2623	-0.1497	-0.0616	-0.0121	-0.0838	0.0231	1.821	1.0168	2.341	1.044	A+	A-	A-
MATH	6	652200	0	CCAACS	2	D-S	47712	0.4261	0.2063	0.4224	0.2129	0.1496	0.0083	0.0005	0.3481	-0.133	0.3497	-0.1407	-0.1577	-0.0501	-0.023	0.6776	0.0231	9.9012	1.1839	9.9013	1.2564	A+	A-	A-
MATH	6	715785	0	CCAACS	2	D-S	47870	0.6561	0.6525	0.1359	0.1254	0.0808	0.004	0.0015	0.5029	0.5051	-0.2051	-0.2896	-0.2551	-0.052	-0.0404	-0.2827	0.0234	-8.1991	0.9244	-2.6991	0.9454	A+	A-	A+
MATH	6	715786	0	CCAACS	1	D-S	47768	0.5707	0.5664	0.126	0.0675	0.2325	0.0072	0.0004	0.5427	0.543	-0.1895	-0.1855	-0.3673	-0.0489	-0.0201	-0.2333	0.0233	-8.4691	0.9226	-7.0191	0.8657	A+	A-	A-
MATH	6	740949	0	CCAACS	2	D-S	47756	0.3101	0.3077	0.1785	0.18	0.326	0.0074	0.0005	0.5539	0.5534	-0.0498	-0.2177	-0.3162	-0.0468	-0.0217	1.3407	0.0245	-8.9291	0.8981	-5.9891	0.8927	A-	A-	A-
MATH	6	743926	1	CCAACS	2	A-N	5362	0.6136	0.0922	0.6078	0.1116	0.179	0.0083	0.0011	0.4887	-0.2463	0.4893	-0.2798	-0.193	-0.0522	-0.024	-0.5207	0.069	-1.109	0.9708	-1.3091	0.917	A-	A-	A-
MATH	6	654991	1	CCAACS	2	A-R	5342	0.3534	0.2407	0.1807	0.2167	0.3488	0.0127	0.0004	0.3124	-0.0669	-0.1365	-0.1506	0.3141	-0.0515	-0.0413	1.0669	0.074	4.8912	1.1887	5.6613	1.3488	A-	A+	A-
MATH	6	740943	1	CCAACS	2	B-E	5016	0.4161	0.3856	0.2152	0.1692	0.1567	0.0072	0.0661	0.334	0.3012	-0.1552	-0.2284	-0.0432	-0.0551	0.0932	0.6724	0.0706	6.2412	1.2099	5.5013	1.2894	A-	A-	A-
MATH	6	790966	1	CCAACS	2	B-E	5381	0.7043	0.0473	0.1035	0.7002	0.1432	0.0054	0.0006	0.4567	-0.2147	-0.2791	0.461	-0.2128	-0.0741	-0.0296	-0.9114	0.0717	-3.3291	0.9041	-1.7791	0.8651	A+	A-	A+
MATH	6	401968	1	CCAACS	2	C-G	10690	0.3819	0.1038	0.3795	0.2226	0.2876	0.0055	0.001	-0.0037	-0.1408	0.0002	0.0044	0.1017	-0.0565	-0.0257	0.9265	0.0719	9.9015	1.5427	9.9018	1.7502	A+	A+	A-
MATH	6	736751	1	CCAACS	2	C-G	5374	0.5015	0.1652	0.4979	0.1955	0.1343	0.0068	0.0004	0.5322	-0.2724	0.5332	-0.2348	-0.1965	-0.0576	-0.0315	0.2059	0.0684	-1.399	0.9616	-1.3091	0.938	A-	A-	A-
MATH	6	412893	1	CCAACS	2	D-S	10682	0.2924	0.2505	0.1947	0.258	0.2905	0.0053	0.0009	0.2907	0.0234	-0.2343	-0.1052	0.2917	-0.038	-0.0329	1.4694	0.0764	2.1211	1.0825	3.1912	1.2109	A+	A+	A+
MATH	6	791450	1	CCAACS	2	D-S	5358	0.5427	0.1282	0.2141	0.5372	0.1103	0.0092	0.0009	0.2957	-0.1541	-0.1876	0.3008	-0.0438	-0.0702	-0.0347	-0.0559	0.068	6.5612	1.1818	6.1514	1.3506	A+	A-	A+
MATH	6	335188	2	CCAACS	1	A-N	10549	0.3699	0.3031	0.176	0.1442	0.3659	0.0104	0.0003	0.3989	-0.0625	-0.1948	-0.2397	0.3996	-0.0522	-0.0003	1.0051	0.08	1.9711	1.0737	2.3111	1.1347	A-	A-	A+
MATH	6	709862	2	CCAACS	1	A-N	5314	0.7128	0.0443	0.7084	0.1438	0.0973	0.0056	0.0006	0.5167	-0.2123	0.5159	-0.2624	-0.3223	-0.0364	-0.0192	-0.9258	0.0779	-4.7192	0.8309	-3.5993	0.6792	A+	A+	A+
MATH	6	790651	2	CCAACS	2	A-R	5327	0.8337	0.0447	0.0771	0.8306	0.0439	0.0036	0.0002	0.4508	-0.2106	-0.2931	0.4534	-0.2191	-0.0592	0.002	-1.7557	0.095	-4.8493	0.7358	-4.0495	0.5162	A-	A-	A-
MATH	6	745963	2	CCAACS	1	B-E	5314	0.2234	0.222	0.1459	0.2132	0.4128	0.0052	0.0009	0.3707	0.3708	-0.1498	-0.1146	-0.1033	-0.0408	-0.0152	1.9195	0.0791	0.681	1.0282	0.641	1.0461	A-	A-	A-
MATH	6	745966	2	CCAACS	2	B-E	5312	0.6455	0.1605	0.0789	0.6413	0.1128	0.0062	0.0004	0.4916	-0.2555	-0.2606	0.4939	-0.2138	-0.0629	-0.016	-0.4788	0.0728	-2.0691	0.9358	-2.1592	0.8398	A+	A-	A+
MATH	6	791038	2	CCAACS	2	C-G	5313	0.453	0.1421	0.2027	0.1986	0.4502	0.006	0.0004	0.3995	-0.1255	-0.1627	-0.2181	0.399	-0.0301	0.0028	0.5954	0.0693	-0.419	0.9877	-0.759	0.9627	A+	A-	A-
MATH	6	791448	2	CCAACS	2	D-S	5325	0.7401	0.737	0.0699	0.0658	0.1231	0.0034	0.0007	0.5139	0.5138	-0.2671	-0.2182	-0.3086	-0.0338	-0.022	-1.1149	0.0808	-4.2092	0.834	0.011	0.9975	A+	A-	A-
MATH	6	790644	3	CCAACS	1	A-N	5306	0.7469	0.0873	0.0673	0.0971	0.7427	0.0049	0.0007	0.5152	-0.2933	-0.1827	-0.3162	0.5126	-0.0182	-0.0233	-0.9428	0.0767	-5.2792	0.8172	-4.0193	0.6841	A-	A-	A-
MATH	6	790654	3	CCAACS	2	A-R	5309	0.6338	0.0931	0.1415	0.6306	0.1297	0.0045	0.0006	0.478	-0.1611	-0.3681	0.4751	-0.1602	-0.0022	-0.0088	-0.4464	0.0715	-1.9091	0.9432	-1.5591	0.8989	B-	A-	A+
MATH	6	303011	3	CCAACS	1	B-E	10624	0.4572	0.2422	0.1385	0.158	0.4537	0.0068	0.0007	0.1664	0.0477	-0.1954	-0.0904	0.1689	-0.0447	-0.0149	0.5231	0.0772	8.8413	1.3128	8.1515	1.4682	A-	A-	A-
MATH	6	736750	3	CCAACS	2	B-E	5319	0.4379	0.4365	0.2528	0.154	0.1535	0.0026	0.0006	0.3576	0.3582	-0.1104	-0.1639	-0.1905	-0.0294	-0.0142	0.6489	0.0689	2.9511	1.0863	2.9911	1.137	A-	A+	A-
MATH	6	791001	3	CCAACS	2	B-E	5280	0.4479	0.1248	0.4432	0.2063	0.2151	0.0097	0.0007	0.2743	-0.1189	0.2755	-0.1658	-0.0643	-0.0366	-0.0152	0.5889	0.0688	7.5112	1.2273	7.3014	1.357	A+	A+	A+
MATH	6	791035	3	CCAACS	1	C-G	5300	0.7025	0.0753	0.1141	0.6977	0.1061	0.0062	0.0006	0.4389	-0.2344	-0.2642	0.4357	-0.1728	-0.0076	-0.0155	-0.8532	0.0756	-1.9491	0.9322	-0.459	0.9601	A+	A-	A-
MATH	6	791449	3	CCAACS	1	D-S	5308	0.4621	0.0901	0.4597	0.1229	0.322	0.0047	0.0006	0.4691	-0.239	0.469	-0.1698	-0.2296	-0.0236	-0.0268	0.3927	0.0685	0.941	1.026	1.1811	1.0538	A+	A-	A-
MATH	6	780070	4	CCAACS	2	A-N	5300	0.2262	0.2244	0.2219	0.4216	0.1239	0.0071	0.0011	0.242	0.2433	-0.3533	0.1591	-0.0856	-0.0493	-0.0267	1.8756	0.0797	4.4512	1.2035	5.6015	1.466	A-	A+	A-
MATH	6	790640	4	CCAACS	2	A-N	5308	0.267	0.3129	0.1886	0.2266	0.2652	0.0065	0.0002	0.3749	-0.3199	-0.067	0.0322	0.3758	-0.0585	-0.0097	1.5949	0.076	0.091	1.0029	2.1811	1.1407	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	401316	4	CCAACS	2	A-R	10633	0.2836	0.2975	0.2401	0.2817	0.1742	0.0057	0.0007	0.3286	-0.1716	-0.0584	0.3294	-0.1078	-0.0438	-0.0212	1.4951	0.086	2.0711	1.0946	4.0213	1.3155	A-	A-	A-
MATH	6	790655	4	CCAACS	1	A-R	5322	0.5314	0.5292	0.2801	0.1014	0.0851	0.0037	0.0004	0.3984	0.3986	-0.2103	-0.2085	-0.1408	-0.0365	-0.0038	0.0851	0.0685	2.9711	1.0815	1.4311	1.0709	A-	A-	A-
MATH	6	275712	4	CCAACS	1	B-E	10569	0.3569	0.157	0.3535	0.213	0.267	0.0091	0.0005	0.3068	0.0572	0.308	-0.2175	-0.1673	-0.0456	-0.0322	1.0651	0.0804	4.5812	1.1818	4.9813	1.3035	A+	A-	A-
MATH	6	791011	4	CCAACS	2	B-E	5200	0.3271	0.1518	0.1029	0.4001	0.3183	0.0067	0.0202	0.361	-0.263	-0.1988	-0.0172	0.3576	-0.047	0.0032	1.3288	0.0732	1.361	1.0481	3.2412	1.1843	A-	A+	A-
MATH	6	780077	4	CCAACS	2	C-G	5321	0.6185	0.0752	0.1811	0.6158	0.1235	0.0034	0.0009	0.4494	-0.2305	-0.2675	0.452	-0.1573	-0.056	-0.0333	-0.2128	0.0695	-0.329	0.9907	-0.629	0.9638	A+	A-	A-
MATH	6	791451	4	CCAACS	2	D-S	5292	0.3912	0.2158	0.1396	0.2476	0.3874	0.0088	0.0009	0.1471	0.2292	-0.2672	-0.1609	0.1503	-0.0541	-0.0112	0.9581	0.0703	9.9014	1.3805	9.8115	1.5216	A+	A-	A-
MATH	6	269222	5	CCAACS	2	A-N	10632	0.3975	0.3127	0.1311	0.394	0.1534	0.0085	0.0004	0.487	-0.2117	-0.2504	0.487	-0.1413	-0.0449	-0.0134	0.8409	0.0796	-0.509	0.981	0.341	1.0178	A-	A-	A-
MATH	6	790645	5	CCAACS	2	A-N	5323	0.4088	0.1913	0.4061	0.1404	0.2557	0.0058	0.0007	0.3737	-0.1916	0.3755	-0.1926	-0.0851	-0.0572	-0.0257	0.7862	0.07	3.8811	1.1223	3.5112	1.1714	A+	A+	A-
MATH	6	790653	5	CCAACS	2	A-R	5317	0.6344	0.0959	0.131	0.1359	0.6295	0.0071	0.0006	0.5002	-0.249	-0.1465	-0.3323	0.5032	-0.0724	-0.0149	-0.438	0.0716	-5.2392	0.8486	-3.6092	0.7738	B-	A-	A-
MATH	6	791019	5	CCAACS	1	B-E	5336	0.6975	0.6947	0.1034	0.1075	0.0903	0.0039	0.0002	0.5312	0.5324	-0.2627	-0.259	-0.2854	-0.0487	-0.0117	-0.8203	0.0751	-6.0192	0.8069	-4.0793	0.6936	A+	A+	A+
MATH	6	736752	5	CCAACS	1	C-G	5340	0.5043	0.1601	0.5026	0.2286	0.1053	0.003	0.0004	0.312	-0.1439	0.3124	-0.1883	-0.0751	-0.0242	-0.0001	0.2802	0.0691	7.2812	1.2229	6.8214	1.3665	A-	A-	A+
MATH	6	658117	5	CCAACS	2	D-S	5301	0.5995	0.1028	0.1851	0.5931	0.1082	0.0105	0.0002	0.3704	-0.1628	-0.2144	0.3722	-0.1437	-0.0525	-0.0105	-0.1424	0.07	3.0011	1.089	1.6111	1.0943	A+	A+	A+
MATH	6	736753	5	CCAACS	2	D-S	5324	0.4333	0.4306	0.1443	0.3195	0.0993	0.005	0.0013	0.3798	0.3826	-0.2591	-0.086	-0.1761	-0.0623	-0.0345	0.6525	0.0695	4.1711	1.1289	5.2713	1.261	A+	A-	A-
MATH	6	657499	6	CCAACS	2	A-N	5325	0.2796	0.3593	0.2755	0.0797	0.2773	0.0078	0.0004	0.1589	0.0878	-0.1898	-0.0904	0.1612	-0.0573	0.0021	1.7275	0.0775	7.3713	1.3255	8.0716	1.6456	A-	A+	A-
MATH	6	790649	6	CCAACS	1	A-R	5333	0.6572	0.084	0.6528	0.1125	0.144	0.0063	0.0004	0.5412	-0.1862	0.5406	-0.3103	-0.2974	-0.0354	-0.0243	-0.5768	0.0726	-4.5891	0.8628	-3.6293	0.7473	A-	A-	A-
MATH	6	790997	6	CCAACS	1	B-E	5328	0.6274	0.1291	0.1401	0.6226	0.1006	0.0076		0.5085	-0.2335	-0.2868	0.5088	-0.2149	-0.0483		-0.459	0.0716	-4.2591	0.877	-3.1792	0.7889	A+	A-	A-
MATH	6	791031	6	CCAACS	2	B-E	5329	0.4939	0.4902	0.2017	0.1958	0.1049	0.0071	0.0004	0.5215	0.5199	-0.1671	-0.2836	-0.2538	-0.0232	-0.0326	0.2796	0.0687	-4.4991	0.8809	-2.9291	0.8608	A+	A+	A-
MATH	6	791034	6	CCAACS	2	C-G	5351	0.4377	0.0607	0.2544	0.2453	0.4362	0.0028	0.0006	0.2383	-0.1229	0.0081	-0.2087	0.2407	-0.0599	-0.0227	0.787	0.0697	7.9013	1.2544	7.1414	1.3684	A-	A-	A-
MATH	6	791447	6	CCAACS	2	D-S	5319	0.7926	0.7852	0.1064	0.0419	0.0572	0.0076	0.0017	0.476	0.4739	-0.3025	-0.2036	-0.2423	-0.0254	-0.0507	-1.4408	0.0853	-2.4091	0.8884	-3.1093	0.671	A+	A-	A-
MATH	6	743925	7	CCAACS	2	A-N	5296	0.5393	0.2083	0.1487	0.5363	0.1012	0.0051	0.0004	0.29	-0.0023	-0.1835	0.2922	-0.2511	-0.054	0.0043	0.221	0.0684	7.1912	1.2077	5.5413	1.2852	A+	A-	A+
MATH	6	300409	7	CCAACS	2	A-R	10567	0.3511	0.3483	0.1738	0.2595	0.2105	0.0075	0.0005	0.1697	0.1714	-0.1212	-0.0124	-0.0648	-0.0402	-0.017	1.1037	0.0814	9.4614	1.4165	8.6116	1.5753	A+	A+	A+
MATH	6	790650	7	CCAACS	2	A-R	5298	0.5317	0.1921	0.1407	0.1331	0.529	0.0043	0.0008	0.4748	-0.266	-0.2266	-0.1484	0.4758	-0.0492	-0.0101	0.2061	0.0684	-1.519	0.9592	-1.8391	0.9143	B-	A-	A+
MATH	6	301839	7	CCAACS	2	B-E	10565	0.3803	0.1595	0.2234	0.2324	0.3776	0.0062	0.0009	0.337	-0.1871	-0.1811	-0.0364	0.3385	-0.045	-0.0407	0.9443	0.08	3.2811	1.1266	3.2012	1.1824	A+	A+	A+
MATH	6	663835	7	CCAACS	2	B-E	5241	0.4583	0.1089	0.4511	0.2781	0.1461	0.0156	0.0002	0.4343	-0.1557	0.4358	-0.2218	-0.1731	-0.063	-0.0039	0.552	0.0688	0.341	1.0094	0.121	1.0047	A-	A-	A+
MATH	6	780075	7	CCAACS	2	B-E	5296	0.3927	0.4235	0.1129	0.3906	0.0676	0.0047	0.0008	0.3143	-0.0838	-0.2134	0.3166	-0.1621	-0.0596	-0.0275	0.8664	0.07	4.9312	1.16	5.1913	1.2505	A-	A+	A+
MATH	6	745971	7	CCAACS	1	C-G	5301	0.6267	0.1192	0.1542	0.0982	0.6238	0.0043	0.0002	0.5561	-0.2904	-0.2891	-0.228	0.5569	-0.0528	0.0031	-0.3794	0.0704	-6.9892	0.8152	-5.2893	0.6987	A+	A+	A-
MATH	6	791455	7	CCAACS	2	D-S	5295	0.3245	0.3226	0.1996	0.351	0.1211	0.0051	0.0006	0.2577	0.2586	-0.2875	0.1029	-0.1603	-0.0354	-0.0101	1.3143	0.0732	7.8413	1.3043	7.8315	1.4745	A-	A-	A-
MATH	6	709926	8	CCAACS	1	A-N	5289	0.7603	0.7548	0.0907	0.085	0.0623	0.0064	0.0008	0.5124	0.5159	-0.2905	-0.2718	-0.2323	-0.073	-0.026	-1.2484	0.0819	-3.7292	0.8472	-3.0593	0.7075	A-	B-	A-
MATH	6	780069	8	CCAACS	1	A-N	5308	0.5254	0.1532	0.1639	0.1558	0.5236	0.0028	0.0008	0.556	-0.2439	-0.2296	-0.2826	0.5565	-0.0353	-0.0277	0.0899	0.0692	-6.8292	0.8199	-3.1692	0.8444	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	658870	8	CCAACS	2	A-R	5290	0.2716	0.1143	0.4913	0.2698	0.1177	0.0062	0.0008	0.1743	-0.0883	0.0559	0.1762	-0.228	-0.0523	-0.0161	1.6347	0.0759	6.6213	1.2733	9.7317	1.7495	A-	A+	A+
MATH	6	791025	8	CCAACS	2	B-E	5279	0.2241	0.1363	0.5314	0.2221	0.1012	0.0083	0.0008	0.1766	-0.2417	0.0419	0.1792	-0.0188	-0.0634	-0.0382	2.0499	0.0815	3.9712	1.1859	8.9819	1.9027	A-	A+	A+
MATH	6	780076	8	CCAACS	1	C-G	5314	0.5363	0.0419	0.535	0.1325	0.2882	0.0021	0.0004	0.5937	-0.1837	0.5947	-0.3363	-0.3156	-0.0495	-0.0299	0.0391	0.0693	-7.9192	0.7929	-5.9993	0.7147	A+	A-	A+
MATH	6	780078	8	CCAACS	2	D-S	5284	0.3656	0.0918	0.3338	0.2037	0.3627	0.0075	0.0006	0.1787	-0.2253	-0.0737	0.0426	0.1808	-0.042	-0.0259	1.1429	0.0716	6.6812	1.2344	6.5314	1.3603	A+	A-	A-
MATH	6	709860	9	CCAACS	2	A-N	5294	0.4737	0.2707	0.4718	0.145	0.1084	0.0041		0.2958	-0.013	0.2969	-0.2358	-0.1834	-0.037		0.5055	0.0682	6.1812	1.1771	4.2412	1.1955	A-	A+	A+
MATH	6	780072	9	CCAACS	2	A-R	5283	0.608	0.6042	0.088	0.0884	0.2131	0.006	0.0002	0.4909	0.4917	-0.2153	-0.2727	-0.2396	-0.0483	-0.014	-0.331	0.0701	-3.5291	0.9033	-2.1891	0.8714	C-	A-	A-
MATH	6	658873	9	CCAACS	2	B-E	5279	0.4012	0.1204	0.3984	0.1465	0.3277	0.0068	0.0002	0.2807	-0.1774	0.282	-0.2418	0.0187	-0.043	-0.0048	0.8099	0.0692	6.9512	1.2162	5.8913	1.281	A+	A+	A+
MATH	6	790978	9	CCAACS	2	B-E	5285	0.3811	0.1847	0.3789	0.1593	0.2713	0.0055	0.0004	0.3428	-0.0791	0.3444	-0.2114	-0.1233	-0.0512	-0.0207	0.9594	0.0699	2.2311	1.0691	3.0011	1.1423	A-	A-	A-
MATH	6	791039	9	CCAACS	2	C-G	5296	0.8758	0.8725	0.0645	0.0461	0.0132	0.003	0.0008	0.2665	0.2738	-0.1949	-0.117	-0.1273	-0.0652	-0.0298	-1.9416	0.0981	0.9711	1.0629	2.0213	1.306	A-	B-	A-
MATH	6	791446	9	CCAACS	2	D-S	5288	0.33	0.317	0.1859	0.3283	0.1637	0.0049	0.0004	0.1631	0.0394	-0.2302	0.1648	-0.0077	-0.0419	-0.0215	1.281	0.0723	8.5413	1.3185	9.5316	1.5799	A-	A-	A+
MATH	7	301881	0	CCAACS	2	A-N	48046	0.4535	0.1346	0.4509	0.2806	0.1279	0.0056	0.0003	0.3723	-0.1784	0.3735	-0.1531	-0.1579	-0.0431	-0.0113	0.3901	0.0232	9.9011	1.1301	9.9012	1.1628	A-	A+	A+
MATH	7	615280	0	CCAACS	1	A-N	48038	0.5837	0.1376	0.0905	0.1857	0.5801	0.0057	0.0004	0.5507	-0.2632	-0.2319	-0.2858	0.5511	-0.0436	-0.0193	-0.1825	0.0229	-9.8991	0.8722	-9.8992	0.8118	A+	A+	A+
MATH	7	629172	0	CCAACS	1	A-N	47987	0.5738	0.5697	0.2394	0.1179	0.0659	0.0067	0.0005	0.5463	0.5471	-0.2894	-0.2796	-0.212	-0.0512	-0.0204	-0.5865	0.0232	-6.3191	0.9426	-6.2891	0.883	A-	A+	A+
MATH	7	656443	0	CCAACS	2	A-N	48078	0.5183	0.1653	0.1231	0.5155	0.1908	0.0048	0.0005	0.319	-0.1882	-0.2233	0.321	-0.0344	-0.0477	-0.0146	0.1958	0.023	9.9013	1.2598	9.9014	1.3655	A+	A+	A+
MATH	7	709909	0	CCAACS	2	A-N	48131	0.669	0.1573	0.6663	0.0992	0.0731	0.0039	0.0003	0.4436	-0.2961	0.445	-0.1846	-0.1687	-0.0445	-0.0108	-0.5626	0.0232	-4.989	0.9546	-5.0791	0.9059	A+	A-	A-
MATH	7	711510	0	CCAACS	1	A-N	47975	0.6374	0.1588	0.1524	0.0487	0.6326	0.0068	0.0006	0.5446	-0.3004	-0.2916	-0.2001	0.5467	-0.0644	-0.022	-0.6565	0.0233	-9.8992	0.8475	-9.8992	0.7612	A-	A+	A+
MATH	7	737103	0	CCAACS	2	A-N	48125	0.7113	0.0679	0.0862	0.7083	0.1334	0.0038	0.0005	0.4426	-0.2017	-0.2119	0.4454	-0.2597	-0.0588	-0.0152	-0.9902	0.0241	-9.8991	0.8963	-6.7292	0.8453	A+	A-	A-
MATH	7	740969	0	CCAACS	2	A-N	48084	0.3168	0.1763	0.289	0.2144	0.3151	0.0046	0.0006	0.4972	-0.0966	-0.3028	-0.1296	0.498	-0.056	-0.0108	1.0062	0.0246	1.171	1.0141	2.061	1.0385	A+	A+	A-
MATH	7	478164	0	CCAACS	2	A-R	48035	0.4757	0.1592	0.1201	0.4728	0.2417	0.0058	0.0004	0.41	-0.1167	-0.2091	0.4117	-0.2117	-0.0523	-0.0141	0.0517	0.0229	9.9011	1.1228	9.9012	1.1767	A-	A-	A-
MATH	7	496114	0	CCAACS	2	A-R	48012	0.5755	0.1209	0.5717	0.2388	0.062	0.0064	0.0003	0.4282	-0.2483	0.4295	-0.1742	-0.2215	-0.0462	-0.0134	-0.4346	0.023	6.6111	1.0618	2.681	1.0486	A-	A+	A+
MATH	7	560206	0	CCAACS	1	A-R	48041	0.5164	0.0964	0.5133	0.2035	0.1808	0.0056	0.0004	0.5416	-0.1301	0.5427	-0.3396	-0.2386	-0.053	-0.0155	0.1057	0.0229	-4.449	0.9579	-4.7491	0.9311	A-	A-	A-
MATH	7	617925	0	CCAACS	1	A-R	48138	0.5046	0.5026	0.156	0.2074	0.13	0.0037	0.0004	0.4784	0.4794	-0.1838	-0.2742	-0.1749	-0.0461	-0.0125	-0.1894	0.0229	-0.649	0.994	-0.329	0.9946	A+	A+	A-
MATH	7	632831	0	CCAACS	2	A-R	48075	0.7029	0.6992	0.1483	0.0945	0.0527	0.0049	0.0004	0.5088	0.5102	-0.2555	-0.3031	-0.2262	-0.0541	-0.0086	-0.7751	0.0236	-9.8992	0.8228	-9.8992	0.7605	A+	A+	A+
MATH	7	709907	0	CCAACS	2	A-R	48020	0.4426	0.3609	0.4397	0.1451	0.0477	0.0062	0.0003	0.4063	-0.2974	0.4072	-0.0777	-0.1328	-0.0441	-0.0095	0.1395	0.023	9.9011	1.1004	7.1711	1.1098	A-	A-	A-
MATH	7	711387	0	CCAACS	2	A-R	47984	0.4968	0.2554	0.1229	0.4932	0.1213	0.0067	0.0005	0.4493	-0.2088	-0.2214	0.4506	-0.175	-0.0493	-0.0176	0.1617	0.023	4.011	1.0394	2.521	1.0376	A+	A+	A+
MATH	7	737106	0	CCAACS	2	A-R	47975	0.4791	0.1354	0.2213	0.4755	0.1603	0.007	0.0005	0.531	-0.2484	-0.2157	0.5312	-0.237	-0.042	-0.0146	0.1944	0.023	-3.349	0.9676	-2.759	0.9598	A-	A-	A-
MATH	7	740995	0	CCAACS	2	A-R	48130	0.6584	0.0855	0.1305	0.1242	0.6556	0.0036	0.0006	0.5228	-0.2363	-0.2817	-0.2573	0.5239	-0.0464	-0.0144	-0.5908	0.0232	-9.8991	0.8595	-9.8992	0.7808	A-	A+	A+
MATH	7	490977	0	CCAACS	1	B-E	48111	0.3657	0.364	0.2311	0.2634	0.1368	0.0042	0.0004	0.5048	0.5059	-0.1634	-0.2105	-0.2266	-0.0574	-0.0113	0.319	0.0231	-3.959	0.9608	-3.5591	0.9484	A-	A+	A+
MATH	7	706368	0	CCAACS	1	B-E	48020	0.4878	0.0765	0.2446	0.1878	0.4846	0.0058	0.0006	0.5102	-0.22	-0.2573	-0.2108	0.5106	-0.0462	-0.0093	-0.4044	0.023	1.061	1.0097	0.291	1.005	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	709904	0	CCAACS	2	B-E	48034	0.5126	0.5095	0.2619	0.1074	0.1151	0.0057	0.0005	0.5514	0.5518	-0.2537	-0.2686	-0.2428	-0.0449	-0.0132	-0.0737	0.0229	-9.8991	0.9066	-9.7391	0.8569	A-	A+	A+
MATH	7	713655	0	CCAACS	2	B-E	47985	0.6	0.5956	0.1977	0.1187	0.0808	0.0068	0.0004	0.5632	0.5642	-0.3089	-0.2697	-0.2264	-0.0566	-0.0143	-0.5908	0.0232	-9.8991	0.8625	-9.8992	0.7898	A+	A+	A+
MATH	7	737107	0	CCAACS	2	B-E	48107	0.5948	0.1686	0.1893	0.592	0.0454	0.0044	0.0002	0.5656	-0.3179	-0.3347	0.5648	-0.122	-0.0273	-0.0139	-0.7032	0.0234	-9.8991	0.8878	-9.8992	0.7816	C-	A-	A-
MATH	7	737108	0	CCAACS	2	B-E	46713	0.2589	0.2503	0.1699	0.3216	0.2248	0.0056	0.028	0.3486	0.3471	-0.032	-0.1935	-0.0964	-0.051	-0.0238	1.2183	0.0254	9.9011	1.1495	9.9013	1.2784	A-	A-	A-
MATH	7	741007	0	CCAACS	2	B-E	48012	0.5059	0.5026	0.1406	0.2184	0.1318	0.0062	0.0004	0.5618	0.5621	-0.227	-0.264	-0.2637	-0.0461	-0.0128	0.0175	0.0229	-9.8991	0.8914	-9.8992	0.8399	A+	A+	A+
MATH	7	741009	0	CCAACS	2	B-E	48105	0.6906	0.1254	0.6873	0.1378	0.0448	0.0044	0.0003	0.4363	-0.2276	0.4373	-0.2397	-0.2025	-0.0394	-0.0146	-0.7506	0.0235	-8.0291	0.9257	-8.1792	0.8364	A+	A-	A+
MATH	7	741011	0	CCAACS	2	B-E	48057	0.671	0.6672	0.166	0.0878	0.0733	0.0056	0.0001	0.4851	0.4864	-0.2008	-0.283	-0.2705	-0.0504	-0.0107	-0.6961	0.0234	-9.8991	0.8676	-9.8992	0.8059	A+	A-	A+
MATH	7	478170	0	CCAACS	2	C-G	47976	0.482	0.1043	0.2559	0.154	0.4784	0.0069	0.0005	0.6143	-0.2965	-0.2418	-0.2942	0.6144	-0.0507	-0.0189	-0.227	0.0229	-9.8992	0.8477	-9.8992	0.8076	A-	A-	A-
MATH	7	567236	0	CCAACS	1	C-G	47969	0.4995	0.1505	0.2465	0.4957	0.0998	0.0071	0.0005	0.5	-0.2555	-0.2765	0.5013	-0.1173	-0.0559	-0.0141	-0.0773	0.0229	0.741	1.0069	-0.409	0.9935	A-	A+	A-
MATH	7	574900	0	CCAACS	1	C-G	47849	0.5133	0.2737	0.1203	0.5082	0.0877	0.0082	0.0018	0.3062	-0.1494	-0.1843	0.3098	-0.0762	-0.0576	-0.0371	-0.2727	0.0229	9.9012	1.2299	9.9014	1.3817	A+	A+	A+
MATH	7	709902	0	CCAACS	1	C-G	48050	0.5455	0.2729	0.1496	0.5423	0.0293	0.0054	0.0005	0.5568	-0.3475	-0.2598	0.5568	-0.1591	-0.0386	-0.014	-0.0891	0.0229	-8.7091	0.9208	-8.0991	0.8794	A-	A-	A-
MATH	7	741020	0	CCAACS	2	C-G	48118	0.3874	0.2984	0.3857	0.2237	0.0877	0.0042	0.0002	0.4996	-0.2592	0.5003	-0.1196	-0.254	-0.0458	-0.0145	0.4822	0.0234	0.391	1.004	2.391	1.0364	A+	A-	A-
MATH	7	745998	0	CCAACS	2	C-G	48086	0.4813	0.1023	0.1978	0.2159	0.4789	0.0048	0.0003	0.4598	-0.1833	-0.2015	-0.2217	0.4603	-0.0382	-0.0146	0.2446	0.0231	1.881	1.0186	0.721	1.0106	A-	A+	A+
MATH	7	303097	0	CCAACS	2	D-S	48124	0.4707	0.1713	0.4687	0.2373	0.1184	0.004	0.0004	0.3288	-0.0683	0.3302	-0.1502	-0.2235	-0.0422	-0.0142	0.2118	0.023	9.9012	1.2139	9.9012	1.24	A-	A+	A+
MATH	7	399256	0	CCAACS	2	D-S	47965	0.3783	0.3755	0.2517	0.2561	0.1092	0.0073	0.0003	0.5347	0.5351	-0.2041	-0.2247	-0.218	-0.0496	-0.0138	0.3563	0.0232	-9.8991	0.8913	-8.7191	0.8765	A+	A+	A-
MATH	7	503040	0	CCAACS	2	D-S	47894	0.4772	0.1424	0.2138	0.4729	0.1617	0.0088	0.0003	0.5083	-0.2969	-0.2188	0.5085	-0.151	-0.048	-0.0162	0.0567	0.0229	-7.1091	0.9338	-6.4191	0.9069	A-	A-	A+
MATH	7	574904	0	CCAACS	2	D-S	47927	0.3715	0.0861	0.3484	0.1886	0.3684	0.0078	0.0006	0.4882	-0.1934	-0.1502	-0.2685	0.4888	-0.0525	-0.0119	0.6274	0.0237	-4.049	0.9569	-3.169	0.9509	A-	A-	A-
MATH	7	657050	0	CCAACS	2	D-S	47685	0.4121	0.2242	0.1706	0.4066	0.1852	0.0131	0.0004	0.3599	-0.0367	-0.2468	0.3634	-0.1579	-0.0775	-0.0124	0.5737	0.0235	9.9012	1.1836	9.9013	1.2584	A-	A-	A-
MATH	7	657051	0	CCAACS	2	D-S	48061	0.6344	0.051	0.6309	0.2783	0.0342	0.0053	0.0003	0.2935	-0.1894	0.2961	-0.1424	-0.1852	-0.0484	-0.0142	-0.796	0.0236	9.9012	1.1653	9.9015	1.5017	A+	A-	A-
MATH	7	713416	0	CCAACS	1	D-S	48103	0.4859	0.4836	0.2534	0.1882	0.0701	0.0044	0.0003	0.5444	0.545	-0.2336	-0.3145	-0.1747	-0.0446	-0.0133	0.1338	0.023	-8.6391	0.9189	-7.6691	0.8907	A-	A-	A-
MATH	7	741022	0	CCAACS	2	D-S	48066	0.2848	0.1604	0.2833	0.2801	0.2707	0.0046	0.0009	0.2987	-0.0891	0.2991	-0.0949	-0.1283	-0.0333	-0.0072	1.0081	0.0247	9.9011	1.1462	9.9014	1.3727	A-	A-	A-
MATH	7	335227	1	CCAACS	2	A-N	10767	0.63	0.0885	0.1107	0.6262	0.1686	0.0058	0.0002	0.257	-0.1857	-0.1797	0.2595	-0.0347	-0.0422	-0.0182	-0.6146	0.0699	6.2612	1.1826	6.7614	1.4009	A+	A-	A-
MATH	7	655095	1	CCAACS	2	A-R	5428	0.4033	0.3998	0.1616	0.2877	0.1423	0.0082	0.0004	0.277	0.2791	-0.1452	-0.1094	-0.0829	-0.0494	-0.0167	0.379	0.071	6.1912	1.2208	5.9813	1.2963	A+	A+	A+
MATH	7	711390	1	CCAACS	2	A-R	5454	0.6322	0.0853	0.1974	0.6298	0.0837	0.0033	0.0005	0.4772	-0.1803	-0.3194	0.4749	-0.1866	0.0023	-0.0116	-0.7274	0.0683	-3.5491	0.9123	-3.6192	0.8232	A-	A-	A+
MATH	7	300463	1	CCAACS	2	B-E	10805	0.3511	0.1469	0.3501	0.3185	0.1816	0.0027	0.0002	0.134	-0.1613	0.1349	-0.0233	0.0136	-0.0297	-0.0081	0.7188	0.073	9.9014	1.3946	9.3415	1.5427	A-	A-	A-
MATH	7	652381	1	CCAACS	2	B-E	5449	0.2889	0.2086	0.3269	0.1722	0.2875	0.0038	0.0009	0.1609	-0.126	0.0819	-0.1543	0.1618	-0.0215	-0.0299	1.0189	0.0773	8.5114	1.3916	8.0516	1.5945	A+	A-	A+
MATH	7	741012	1	CCAACS	2	B-E	5285	0.4057	0.2046	0.3916	0.2296	0.1395	0.0047	0.03	0.3961	-0.1397	0.3884	-0.2021	-0.1347	-0.035	0.005	0.3031	0.0705	4.8212	1.1647	4.1412	1.1941	A-	A-	A-
MATH	7	786914	1	CCAACS	2	C-G	5444	0.6602	0.1697	0.0484	0.1198	0.6564	0.0046	0.0011	0.3612	-0.2964	-0.0547	-0.1413	0.3637	-0.0419	-0.0303	-0.9213	0.0691	-0.769	0.9802	0.321	1.0172	A+	A-	A-
MATH	7	652384	1	CCAACS	2	D-S	5434	0.3544	0.2546	0.2373	0.3518	0.1489	0.0068	0.0007	0.2905	-0.1287	-0.0685	0.2933	-0.1377	-0.0688	-0.0071	0.6094	0.0729	6.0612	1.2339	5.9813	1.3306	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	786980	2	CCAACS	1	A-N	5347	0.5998	0.1946	0.1387	0.5978	0.0656	0.0032	0.0002	0.5291	-0.2701	-0.3021	0.53	-0.1856	-0.0421	-0.0178	-0.5592	0.0693	-4.4591	0.8846	-3.1892	0.8138	A-	A-	A+
MATH	7	416188	2	CCAACS	2	A-R	10640	0.3039	0.1199	0.3017	0.3479	0.2231	0.0067	0.0007	0.1979	-0.199	0.1998	0.0277	-0.0863	-0.049	-0.0121	1.038	0.0843	5.1312	1.2331	5.4514	1.404	A-	A-	A-
MATH	7	741005	2	CCAACS	2	A-R	5334	0.3313	0.2971	0.3294	0.1236	0.2442	0.0052	0.0006	0.311	-0.2746	0.3112	-0.1823	0.0962	-0.0305	0.0038	0.888	0.0732	5.4012	1.2028	5.8313	1.3397	B-	A-	A-
MATH	7	301876	2	CCAACS	2	B-E	10649	0.4796	0.2612	0.4763	0.18	0.0756	0.0066	0.0002	0.3586	0.0054	0.3604	-0.3186	-0.2112	-0.0516	0.0035	0.0652	0.0766	3.2711	1.1064	4.1012	1.2157	A-	A+	A+
MATH	7	786963	2	CCAACS	2	B-E	5339	0.4789	0.4766	0.1834	0.1389	0.1963	0.0045	0.0004	0.5911	0.5916	-0.2555	-0.2477	-0.2706	-0.0475	-0.0147	0.068	0.0687	-6.5692	0.8262	-5.2392	0.7693	A-	A-	A-
MATH	7	652383	2	CCAACS	2	C-G	5333	0.4452	0.4425	0.3575	0.1308	0.0632	0.0048	0.0011	0.342	0.3428	-0.1101	-0.2155	-0.1734	-0.0206	-0.0366	0.1954	0.069	5.3712	1.1632	3.5912	1.1761	A-	A-	A-
MATH	7	780295	2	CCAACS	2	C-G	5331	0.5213	0.1133	0.1761	0.1862	0.518	0.0058	0.0006	0.5269	-0.27	-0.2952	-0.1596	0.5265	-0.0304	-0.0256	-0.1673	0.0685	-4.8491	0.874	-3.8992	0.8117	A-	A-	A-
MATH	7	786925	2	CCAACS	2	D-S	5333	0.5719	0.1845	0.1689	0.5685	0.0721	0.0054	0.0006	0.4872	-0.2006	-0.2994	0.4883	-0.1862	-0.0459	-0.0138	-0.4744	0.069	-1.349	0.9641	-1.9091	0.8897	A-	A-	A-
MATH	7	786983	3	CCAACS	2	A-N	5339	0.1841	0.308	0.1647	0.3399	0.1834	0.0041		0.0982	-0.0917	-0.1565	0.1346	0.0987	-0.0245		2.0253	0.0894	5.4013	1.3146	7.1619	1.8669	A+	A+	A+
MATH	7	709930	3	CCAACS	2	A-R	5337	0.2129	0.2533	0.2119	0.2736	0.2567	0.0043	0.0002	0.2254	0.2297	0.2258	-0.2034	-0.2281	-0.0239	-0.0202	1.7298	0.0838	3.5312	1.1761	6.6116	1.6466	A-	A+	A+
MATH	7	786954	3	CCAACS	2	A-R	5341	0.6373	0.635	0.1281	0.1285	0.1046	0.0034	0.0004	0.4878	0.4872	-0.3063	-0.2816	-0.1192	-0.0206	-0.0134	-0.6397	0.0695	-4.0491	0.8946	-2.3091	0.8594	A+	A+	A-
MATH	7	741010	3	CCAACS	2	B-E	5346	0.7585	0.0576	0.7564	0.1097	0.0735	0.0026	0.0002	0.4764	-0.1742	0.4768	-0.2999	-0.2628	-0.0308	-0.0157	-1.5285	0.0786	-3.3891	0.8735	-4.0093	0.6539	A+	A-	A-
MATH	7	301798	3	CCAACS	2	C-G	10712	0.3674	0.1054	0.3544	0.365	0.1685	0.0062	0.0005	0.154	-0.1367	-0.0534	0.1556	-0.0116	-0.0367	-0.0063	0.6585	0.0802	9.5514	1.4053	9.9016	1.6433	A-	A+	A+
MATH	7	713667	3	CCAACS	2	C-G	5348	0.2665	0.4102	0.2199	0.2658	0.1017	0.0021	0.0004	0.2448	-0.0149	-0.1118	0.2456	-0.1743	-0.0449	-0.0077	1.2706	0.0771	6.1813	1.2694	7.7516	1.5765	A-	A+	A-
MATH	7	786921	3	CCAACS	2	D-S	5272	0.4592	0.0936	0.1393	0.4516	0.2988	0.0162	0.0004	0.413	-0.2311	-0.2118	0.4131	-0.1275	-0.0482	-0.0238	0.0916	0.0686	3.6011	1.1055	2.4511	1.1178	A+	A-	A-
MATH	7	738203	4	CCAACS	2	A-N	5392	0.6753	0.1119	0.6714	0.1389	0.0721	0.0055	0.0002	0.5197	-0.2408	0.5214	-0.306	-0.2275	-0.0593	0.0067	-0.9786	0.0722	-4.6691	0.8606	-4.3093	0.7461	A-	A-	A-
MATH	7	786951	4	CCAACS	1	A-R	5393	0.639	0.6354	0.1221	0.149	0.088	0.0053	0.0002	0.3666	0.3673	-0.1821	-0.1857	-0.1717	-0.0314	-0.009	-0.7339	0.0703	2.1511	1.0635	3.8112	1.2268	A+	A-	A-
MATH	7	786956	4	CCAACS	2	A-R	5404	0.7637	0.095	0.0774	0.761	0.0631	0.003	0.0006	0.469	-0.2469	-0.2758	0.4697	-0.2138	-0.0341	-0.0162	-1.4415	0.078	-5.0292	0.8176	-5.0794	0.6296	A+	A-	A+
MATH	7	300433	4	CCAACS	2	B-E	10644	0.4358	0.3207	0.4323	0.1517	0.0871	0.0075	0.0007	0.3353	0.0399	0.3356	-0.2957	-0.2681	-0.0361	-0.0023	0.3066	0.0783	4.2512	1.1561	3.8412	1.2019	A-	A+	A+
MATH	7	786910	4	CCAACS	2	B-E	5393	0.4636	0.218	0.461	0.2344	0.0811	0.0044	0.0011	0.4409	-0.0638	0.4416	-0.329	-0.1887	-0.0352	-0.017	0.103	0.0681	0.701	1.0194	0.141	1.0052	A-	A-	A+
MATH	7	780296	4	CCAACS	2	C-G	5403	0.2284	0.2275	0.5431	0.1739	0.0518	0.0031	0.0006	-0.1246	-0.1226	0.3183	-0.1664	-0.1852	-0.0421	-0.0279	1.6063	0.0803	9.9016	1.5749	9.9025	2.4885	A-	A+	A+
MATH	7	715814	4	CCAACS	2	D-S	5362	0.3915	0.2229	0.241	0.1377	0.3871	0.01	0.0013	0.368	-0.1613	-0.105	-0.1813	0.369	-0.0514	-0.0021	0.6348	0.07	4.6611	1.1496	5.2813	1.2508	A-	A-	A-
MATH	7	780288	5	CCAACS	2	A-N	5338	0.5873	0.115	0.1147	0.1817	0.5854	0.003	0.0002	0.5525	-0.2037	-0.2713	-0.3077	0.5537	-0.0452	-0.0147	-0.4543	0.0699	-4.1091	0.8876	-3.3692	0.8185	A-	A+	A+
MATH	7	786948	5	CCAACS	2	A-R	5334	0.4799	0.1783	0.1503	0.1894	0.4781	0.0039		0.5604	-0.2534	-0.274	-0.212	0.56	-0.0282		0.1135	0.0693	-4.0391	0.8853	-3.7192	0.8376	A-	A-	A-
MATH	7	314855	5	CCAACS	1	B-E	10616	0.3511	0.2248	0.3488	0.2716	0.1483	0.0064	0.0002	0.1659	-0.0086	0.1678	-0.0764	-0.109	-0.0425	-0.019	0.7598	0.0815	8.7514	1.383	8.6216	1.5919	A+	A+	A-
MATH	7	786908	5	CCAACS	2	B-E	5325	0.7249	0.0691	0.1204	0.7208	0.084	0.0056		0.4721	-0.241	-0.2597	0.4751	-0.2263	-0.0629		-1.2605	0.0762	-4.7792	0.8417	-3.9593	0.6863	A+	A-	A-
MATH	7	786962	5	CCAACS	2	B-E	5321	0.5647	0.5612	0.2521	0.1106	0.0698	0.006	0.0004	0.5947	0.5938	-0.3205	-0.2721	-0.263	-0.0353	-0.0215	-0.4277	0.0698	-7.5492	0.8007	-6.1693	0.6899	A-	A-	A+
MATH	7	786911	5	CCAACS	2	C-G	5306	0.3526	0.1477	0.3464	0.1473	0.3494	0.0088	0.0004	0.4753	-0.2712	-0.0518	-0.2864	0.4747	-0.039	-0.016	0.8489	0.0725	-0.639	0.9777	-1.0191	0.9477	A+	A-	A-
MATH	7	786922	5	CCAACS	2	D-S	5320	0.5195	0.1264	0.5162	0.2446	0.1063	0.0056	0.0009	0.5458	-0.2286	0.5462	-0.2739	-0.2444	-0.0455	-0.0182	-0.1635	0.0693	-4.8591	0.8675	-4.8592	0.7751	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	787154	6	CCAACS	1	A-N	5335	0.839	0.0332	0.8355	0.061	0.0661	0.0039	0.0002	0.3958	-0.1801	0.3994	-0.1896	-0.268	-0.0578	-0.0135	-2.1024	0.0931	-3.3492	0.8166	-2.2793	0.7265	A+	A-	A-
MATH	7	786953	6	CCAACS	2	A-R	5319	0.5134	0.1348	0.1992	0.5098	0.1492	0.0067	0.0004	0.4664	-0.2476	-0.1671	0.4682	-0.2175	-0.0657	0.0023	-0.057	0.0685	-2.1491	0.9412	-1.8391	0.9183	A+	A-	A-
MATH	7	786955	6	CCAACS	2	A-R	5340	0.7337	0.0386	0.0541	0.7314	0.1727	0.0026	0.0006	0.4645	-0.205	-0.2301	0.4641	-0.2981	-0.032	0.0057	-1.2789	0.0766	-2.5991	0.9077	-2.0892	0.83	A+	A-	A-
MATH	7	786959	6	CCAACS	1	B-E	5328	0.5663	0.2173	0.1029	0.1113	0.5632	0.0049	0.0006	0.5629	-0.3113	-0.2373	-0.2426	0.5619	-0.0236	-0.0117	-0.3983	0.0692	-6.7992	0.8219	-4.6592	0.7745	A+	A-	A-
MATH	7	786912	6	CCAACS	2	C-G	5329	0.456	0.1331	0.1202	0.2878	0.4536	0.0041	0.0011	0.4499	-0.2534	-0.2671	-0.1059	0.4513	-0.0464	-0.0248	0.2128	0.0687	0.211	1.0059	-0.069	0.9963	A-	A-	A-
MATH	7	786927	6	CCAACS	2	D-S	5335	0.3704	0.2188	0.3689	0.1973	0.2109	0.0039	0.0002	0.0482	0.1587	0.0498	-0.156	-0.062	-0.0314	-0.0202	0.8221	0.0714	9.9016	1.5746	9.9018	1.8114	A+	A-	A-
MATH	7	780287	7	CCAACS	2	A-N	5314	0.713	0.0685	0.7073	0.1236	0.0926	0.0077	0.0004	0.4926	-0.2452	0.4926	-0.2591	-0.2504	-0.0453	-0.0202	-1.2234	0.0754	-3.5691	0.8818	-3.0792	0.772	A-	A-	A-
MATH	7	303044	7	CCAACS	2	A-R	10623	0.3781	0.0472	0.1714	0.3766	0.4008	0.0038	0.0003	0.3271	-0.1936	-0.2196	0.3286	-0.0654	-0.0518	-0.0144	0.6155	0.0803	4.4812	1.1806	4.3413	1.2508	A-	A+	A+
MATH	7	786950	7	CCAACS	2	A-R	5329	0.6667	0.6632	0.1238	0.0823	0.1254	0.0047	0.0006	0.5171	0.5178	-0.1927	-0.2656	-0.3168	-0.0431	-0.0166	-0.9105	0.0722	-4.4291	0.8698	-3.4492	0.7854	A+	A-	A-
MATH	7	713658	7	CCAACS	2	B-E	5190	0.6459	0.115	0.1109	0.6257	0.1172	0.0054	0.0258	0.4909	-0.1968	-0.2574	0.4848	-0.2557	-0.0423	-0.0356	-0.7943	0.0713	-3.4791	0.8996	-3.5192	0.795	A+	A-	A-
MATH	7	780293	7	CCAACS	2	B-E	5332	0.2162	0.2998	0.2001	0.2802	0.2152	0.0045	0.0002	0.3206	-0.194	-0.2014	0.0886	0.3212	-0.0318	-0.0137	1.7694	0.0829	-0.149	0.9924	3.7313	1.3427	A-	A-	A-
MATH	7	706371	7	CCAACS	2	C-G	5337	0.2739	0.2429	0.2542	0.2729	0.2262	0.0032	0.0006	0.2756	-0.2181	-0.2433	0.276	0.1873	-0.0344	0.0029	1.2315	0.0755	5.3612	1.2145	6.1414	1.423	A+	A-	A+
MATH	7	786913	7	CCAACS	2	C-G	5325	0.2804	0.0719	0.2787	0.4639	0.1796	0.006		0.2061	-0.1621	0.2068	-0.2008	0.1338	-0.0274		1.172	0.0749	7.9113	1.3201	7.5215	1.5121	A-	A-	A-
MATH	7	412668	7	CCAACS	1	D-S	10619	0.4039	0.0999	0.4013	0.1852	0.3072	0.006	0.0005	0.3742	-0.2195	0.3745	-0.0865	-0.1766	-0.0314	-0.0117	0.4682	0.0795	3.1711	1.1208	4.9813	1.2859	A-	A-	A-
MATH	7	655925	8	CCAACS	2	A-N	5287	0.557	0.0887	0.5524	0.1506	0.2	0.0075	0.0008	0.531	-0.2177	0.5316	-0.2983	-0.2275	-0.048	-0.0226	-0.4063	0.0691	-4.2191	0.8872	-3.3192	0.8258	A+	A-	A-
MATH	7	786949	8	CCAACS	2	A-R	5292	0.6491	0.6443	0.1919	0.079	0.0775	0.0056	0.0017	0.4676	0.4723	-0.2464	-0.2122	-0.2416	-0.0719	-0.0453	-0.9757	0.0724	-1.6791	0.9491	-1.7591	0.8712	A+	A-	A-
MATH	7	787158	8	CCAACS	2	A-R	5299	0.3293	0.217	0.1741	0.3273	0.2756	0.0058	0.0002	0.2385	-0.2477	-0.0357	0.2401	0.0148	-0.0441	-0.0211	0.9966	0.0737	6.4012	1.2453	6.9814	1.4383	A+	A+	A-
MATH	7	780294	8	CCAACS	2	B-E	5292	0.4722	0.4688	0.1379	0.2849	0.1011	0.0068	0.0006	0.5364	0.5353	-0.2304	-0.2442	-0.2476	-0.0271	-0.0255	0.101	0.0688	-3.1191	0.9129	-2.8191	0.8744	A-	A-	A+
MATH	7	786915	8	CCAACS	2	C-G	5313	0.4551	0.4536	0.1291	0.2152	0.1988	0.0026	0.0008	0.5584	0.5589	-0.237	-0.3038	-0.1784	-0.0364	-0.031	0.165	0.069	-2.6291	0.9254	-2.2991	0.8977	A-	A-	A-
MATH	7	780297	8	CCAACS	2	D-S	5304	0.483	0.1381	0.2407	0.4806	0.1356	0.0049	0.0002	0.4061	-0.2168	-0.2494	0.4068	-0.0558	-0.0353	-0.0211	-0.1044	0.0687	4.6611	1.1359	2.7111	1.1376	A+	A-	A-
MATH	7	787157	9	CCAACS	2	A-N	5265	0.7352	0.7291	0.1545	0.0759	0.0322	0.0083		0.4113	0.4137	-0.2491	-0.2168	-0.1759	-0.0591		-1.3236	0.0771	-2.0891	0.9255	-2.3492	0.7949	B+	A-	A+
MATH	7	786952	9	CCAACS	2	A-R	5277	0.4588	0.2258	0.2066	0.1055	0.456	0.0051	0.0009	0.4216	-0.1838	-0.1358	-0.2431	0.4233	-0.0524	-0.0187	0.2859	0.0695	0.501	1.0148	0.021	1.0002	A+	A+	A-
MATH	7	741006	9	CCAACS	2	B-E	5267	0.3995	0.1123	0.2822	0.3963	0.2014	0.0073	0.0006	0.1926	-0.1366	-0.12	0.1942	0.0134	-0.0371	-0.0039	0.6292	0.0709	9.9014	1.366	9.9015	1.5425	A+	A+	A+
MATH	7	786960	9	CCAACS	2	B-E	5273	0.6072	0.1064	0.6031	0.0936	0.1901	0.0066	0.0002	0.5024	-0.255	0.5023	-0.2617	-0.2228	-0.0397	-0.0181	-0.5855	0.0703	-2.5391	0.9291	-2.5491	0.8507	A+	A-	A+
MATH	7	786917	9	CCAACS	2	C-G	5277	0.4847	0.2522	0.1383	0.4818	0.1217	0.006		0.4901	-0.2497	-0.1719	0.4909	-0.2255	-0.0493		0.0444	0.0691	-2.6791	0.9245	-3.1191	0.8609	A-	A-	A-
MATH	7	746001	9	CCAACS	2	D-S	5267	0.7234	0.0445	0.1147	0.1153	0.7176	0.0073	0.0006	0.4629	-0.1874	-0.2252	-0.293	0.465	-0.0602	-0.0091	-1.2849	0.0766	-3.4791	0.8808	-2.0592	0.8218	A+	A-	A-
MATH	8	415804	0	CCAACS	1	A-N	47539	0.4903	0.3592	0.4881	0.0365	0.1117	0.0041	0.0003	0.5842	-0.3245	0.5849	-0.144	-0.3372	-0.0496	-0.0167	-0.3688	0.0227	-9.8991	0.8944	-8.0091	0.8747	A+	A-	A-
MATH	8	480708	0	CCAACS	2	A-N	47395	0.3585	0.2455	0.1956	0.1956	0.3559	0.0068	0.0006	0.5043	-0.0948	-0.2712	-0.2245	0.5045	-0.0487	-0.0056	0.3597	0.0233	-9.4691	0.9072	-6.4791	0.9054	A-	A+	A+
MATH	8	654310	0	CCAACS	2	A-N	47480	0.6884	0.0957	0.6845	0.0969	0.1172	0.0052	0.0004	0.5387	-0.2695	0.54	-0.2506	-0.2903	-0.0535	-0.0149	-0.9304	0.0235	-9.8992	0.7923	-9.8993	0.7025	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	747535	0	CCAACS	2	A-N	47535	0.554	0.1563	0.5515	0.1308	0.1569	0.0039	0.0006	0.5667	-0.3017	0.5684	-0.2215	-0.2585	-0.0624	-0.0211	-0.4102	0.0228	-9.8991	0.873	-9.8992	0.8051	A-	A-	A-
MATH	8	269587	0	CCAACS	1	B-E	47535	0.6309	0.1074	0.1487	0.6281	0.1114	0.0042	0.0003	0.4944	-0.204	-0.2937	0.4953	-0.2186	-0.0423	-0.0136	-0.7829	0.0232	-9.0991	0.9189	-8.9292	0.8318	A+	A-	A-
MATH	8	303008	0	CCAACS	1	B-E	47420	0.4601	0.4569	0.2451	0.1462	0.1449	0.0064	0.0005	0.5447	0.5454	-0.1732	-0.3166	-0.2289	-0.0551	-0.0164	-0.0035	0.0228	-9.5391	0.9142	-7.8291	0.8888	A+	A-	A+
MATH	8	412781	0	CCAACS	2	B-E	47495	0.5185	0.2094	0.1581	0.5157	0.1115	0.005	0.0003	0.4685	-0.1494	-0.26	0.4696	-0.2396	-0.0475	-0.0141	-0.0895	0.0228	5.4311	1.0503	2.351	1.0355	A-	A+	A-
MATH	8	413598	0	CCAACS	2	B-E	47371	0.3715	0.3685	0.2208	0.1741	0.2287	0.0076	0.0003	0.374	0.3757	-0.1125	-0.2855	-0.0504	-0.0566	-0.0124	0.4762	0.0235	9.9011	1.119	9.9012	1.1719	A+	A+	A+
MATH	8	479791	0	CCAACS	1	B-E	47540	0.5622	0.0613	0.0493	0.3252	0.5598	0.0038	0.0005	0.3842	-0.2288	-0.2036	-0.1895	0.387	-0.0631	-0.0195	-0.5803	0.0229	9.9011	1.1229	9.9012	1.2106	A+	A+	A+
MATH	8	709953	0	CCAACS	2	B-E	47536	0.5191	0.5168	0.1148	0.2263	0.1376	0.0035	0.001	0.4563	0.458	-0.2962	-0.1366	-0.2131	-0.0488	-0.0328	-0.3319	0.0227	0.651	1.0057	1.401	1.0227	A-	A-	A-
MATH	8	711403	0	CCAACS	2	B-E	47472	0.5609	0.1275	0.1922	0.5576	0.1169	0.0054	0.0004	0.4767	-0.1886	-0.2773	0.4782	-0.1899	-0.0547	-0.0169	-0.2973	0.0227	0.771	1.0068	0.371	1.0058	A+	A+	A+
MATH	8	711407	0	CCAACS	2	B-E	47477	0.5659	0.1123	0.5627	0.2119	0.1075	0.0052	0.0005	0.3908	-0.1341	0.3924	-0.2266	-0.1811	-0.0456	-0.0153	-0.3572	0.0227	8.7611	1.0797	6.4411	1.1083	A-	A+	A+
MATH	8	736756	0	CCAACS	2	B-E	47447	0.407	0.0843	0.1848	0.4045	0.3202	0.006	0.0003	0.4528	-0.1538	-0.126	0.4532	-0.2727	-0.043	-0.0138	0.4195	0.0234	1.741	1.018	3.111	1.0483	A-	A+	A-
MATH	8	736758	0	CCAACS	2	B-E	47581	0.7181	0.0789	0.7156	0.1584	0.0436	0.0032	0.0003	0.5073	-0.25	0.5085	-0.3356	-0.1796	-0.0436	-0.0181	-1.0428	0.0238	-9.8992	0.8103	-9.8993	0.7294	A+	A+	A-
MATH	8	747540	0	CCAACS	2	B-E	47542	0.5789	0.5763	0.2012	0.1491	0.069	0.004	0.0003	0.4923	0.4942	-0.2679	-0.2167	-0.2189	-0.0615	-0.0126	-0.4309	0.0228	-6.9391	0.9397	-6.5391	0.8943	A-	A+	A+
MATH	8	747544	0	CCAACS	2	B-E	47531	0.5314	0.2382	0.1104	0.529	0.1178	0.0041	0.0004	0.5091	-0.2598	-0.2579	0.5097	-0.1863	-0.0394	-0.0176	-0.3743	0.0227	-4.059	0.9644	-5.9791	0.9052	A-	A+	A-
MATH	8	747546	0	CCAACS	2	B-E	47442	0.4695	0.4664	0.1342	0.2659	0.1271	0.0061	0.0003	0.4604	0.461	-0.2691	-0.1267	-0.2364	-0.0423	-0.014	0.1043	0.0229	-0.249	0.9976	-0.479	0.993	A-	A+	A+
MATH	8	399394	0	CCAACS	1	B-F	47470	0.4275	0.2048	0.1471	0.2173	0.425	0.0046	0.0013	0.5075	-0.231	-0.1579	-0.2366	0.5088	-0.0546	-0.032	0.3392	0.0232	-0.089	0.9991	-0.449	0.9932	A+	A-	A-
MATH	8	404826	0	CCAACS	1	B-F	47425	0.5208	0.1255	0.5173	0.1612	0.1893	0.0063	0.0005	0.4656	-0.2228	0.467	-0.2401	-0.1704	-0.054	-0.0121	-0.5092	0.0228	1.291	1.0115	0.341	1.0058	A+	A-	A+
MATH	8	404827	0	CCAACS	2	B-F	47493	0.6143	0.611	0.1218	0.1173	0.1445	0.0049	0.0005	0.472	0.4732	-0.1825	-0.2481	-0.2493	-0.045	-0.017	-0.9578	0.0235	2.851	1.0275	-1.099	0.9757	A+	A+	A+
MATH	8	488716	0	CCAACS	2	B-F	47425	0.358	0.2645	0.3555	0.2026	0.1706	0.0064	0.0004	0.377	-0.1294	0.3778	-0.1819	-0.1247	-0.0433	-0.0141	0.785	0.0243	9.9012	1.1533	9.9013	1.307	A-	A-	A+
MATH	8	495725	0	CCAACS	2	B-F	47368	0.6012	0.2027	0.5964	0.103	0.0899	0.0075	0.0004	0.473	-0.1731	0.4755	-0.309	-0.223	-0.0661	-0.0149	-0.6182	0.0229	-2.289	0.9796	-2.7791	0.9497	A-	A+	A+
MATH	8	574471	0	CCAACS	2	B-F	47514	0.4657	0.2173	0.1762	0.4634	0.1383	0.0047	0.0002	0.4005	-0.2002	-0.2491	0.4017	-0.0564	-0.0464	-0.0157	0.065	0.0229	9.9011	1.1292	9.9012	1.1709	A-	A-	A-
MATH	8	713419	0	CCAACS	2	B-F	47495	0.6969	0.0388	0.0548	0.2078	0.6932	0.0049	0.0004	0.4812	-0.1931	-0.2345	-0.3161	0.4814	-0.0388	-0.019	-1.3619	0.0248	-6.4191	0.9296	-5.1291	0.8639	A+	A-	A+
MATH	8	713671	0	CCAACS	1	B-F	47329	0.3549	0.1459	0.3518	0.3627	0.1308	0.0084	0.0004	0.3193	-0.1418	0.3208	-0.0842	-0.1712	-0.0503	-0.0149	0.3323	0.0232	9.9012	1.1768	9.9012	1.2483	A+	A+	A+
MATH	8	713672	0	CCAACS	1	B-F	47519	0.608	0.2232	0.0854	0.0814	0.6051	0.0038	0.001	0.3744	-0.1428	-0.2275	-0.2091	0.3769	-0.0483	-0.0323	-0.6559	0.023	3.161	1.0286	2.7611	1.0523	A-	A+	A-
MATH	8	713674	0	CCAACS	2	B-F	47439	0.5798	0.1055	0.1661	0.576	0.1459	0.0061	0.0004	0.4607	-0.2014	-0.2033	0.462	-0.2454	-0.0493	-0.0154	-0.5465	0.0229	0.461	1.004	-2.509	0.9561	A-	A+	A+
MATH	8	404815	0	CCAACS	2	C-G	47532	0.3518	0.3502	0.3377	0.1675	0.1401	0.0042	0.0004	0.381	0.382	-0.0169	-0.1788	-0.3004	-0.0456	-0.0111	0.3251	0.0232	3.841	1.0389	5.1911	1.0795	A-	A+	A+
MATH	8	569269	0	CCAACS	1	C-G	47531	0.5437	0.5412	0.1367	0.1728	0.1448	0.0042	0.0003	0.3864	0.3877	-0.1986	-0.1566	-0.1781	-0.0437	-0.0137	-0.5522	0.0229	9.9011	1.121	9.9012	1.2164	A+	A+	A+
MATH	8	618329	0	CCAACS	2	C-G	47422	0.5895	0.1496	0.1545	0.5854	0.1036	0.0065	0.0003	0.4503	-0.1523	-0.2748	0.4519	-0.2116	-0.0522	-0.0156	-0.617	0.0229	-0.899	0.992	0.191	1.0034	A+	A+	A+
MATH	8	713423	0	CCAACS	2	C-G	47422	0.5847	0.5807	0.1754	0.1933	0.0436	0.0066	0.0003	0.4609	0.4616	-0.3221	-0.1575	-0.1928	-0.0427	-0.0141	-0.6943	0.023	2.781	1.0253	1.541	1.0295	A+	A+	A-
MATH	8	715819	0	CCAACS	1	C-G	47458	0.5442	0.1563	0.1899	0.1068	0.5409	0.0058	0.0003	0.6172	-0.3254	-0.2884	-0.2347	0.6171	-0.0454	-0.0143	-0.3581	0.0227	-9.8992	0.8121	-9.8992	0.8044	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	747559	0	CCAACS	2	C-G	47549	0.4323	0.1424	0.4305	0.0719	0.351	0.0039	0.0003	0.3383	-0.2114	0.3394	-0.1523	-0.109	-0.0411	-0.0133	-0.0656	0.0228	9.9012	1.179	9.9012	1.1952	A+	A+	A+
MATH	8	503520	0	CCAACS	2	D-S	47487	0.4898	0.4871	0.14	0.1509	0.2164	0.0047	0.0008	0.445	0.446	-0.2422	-0.2404	-0.1198	-0.0458	-0.0132	-0.1121	0.0227	2.111	1.0192	0.401	1.0059	A-	A+	A-
MATH	8	623657	0	CCAACS	2	D-S	47587	0.5827	0.0741	0.2626	0.0792	0.5807	0.0029	0.0005	0.5684	-0.2741	-0.3188	-0.2441	0.5694	-0.0496	-0.0134	-0.6182	0.0229	-9.8991	0.8784	-9.8992	0.8185	A-	A-	A-
MATH	8	625331	0	CCAACS	2	D-S	47293	0.4964	0.1263	0.1992	0.1734	0.4916	0.0091	0.0004	0.5446	-0.1751	-0.2953	-0.2406	0.545	-0.0523	-0.0153	-0.0254	0.0228	-9.8991	0.9062	-8.9791	0.8727	A-	A+	A-
MATH	8	661387	0	CCAACS	2	D-S	47558	0.7191	0.0927	0.7162	0.1265	0.0606	0.003	0.001	0.4365	-0.226	0.4389	-0.2171	-0.2371	-0.0464	-0.0327	-1.0587	0.0238	-9.8991	0.8967	-8.7692	0.8086	A+	A-	A+
MATH	8	715821	0	CCAACS	1	D-S	47446	0.4908	0.0759	0.3628	0.0672	0.4877	0.0042	0.0021	0.4197	-0.2578	-0.1634	-0.236	0.4217	-0.0489	-0.0361	-0.3888	0.0227	7.2511	1.0656	9.9012	1.193	A+	A-	A-
MATH	8	740992	0	CCAACS	2	D-S	47501	0.4301	0.1925	0.4279	0.1815	0.1929	0.0048	0.0004	0.3268	-0.1391	0.328	-0.2079	-0.0611	-0.0423	-0.0139	0.2725	0.0231	9.9012	1.1932	9.9013	1.2629	A-	A+	A+
MATH	8	740993	0	CCAACS	2	D-S	47488	0.6006	0.5973	0.2076	0.1258	0.0639	0.0047	0.0008	0.5569	0.5581	-0.3275	-0.2614	-0.2048	-0.0488	-0.0281	-0.4361	0.0228	-9.8991	0.8637	-9.8992	0.7986	A-	A-	A-
MATH	8	791457	1	CCAACS	2	A-N	5362	0.4739	0.1386	0.4702	0.1397	0.2437	0.0074	0.0004	0.4566	-0.21	0.457	-0.2292	-0.1678	-0.0462	-0.0071	-0.1928	0.0681	1.741	1.0476	1.1911	1.0541	A-	A+	A+
MATH	8	265474	1	CCAACS	1	B-E	10687	0.5975	0.5954	0.2084	0.1186	0.0741	0.0031	0.0004	0.4216	0.4229	-0.2086	-0.2149	-0.1936	-0.0459	-0.0046	-0.6222	0.0689	-1.199	0.9682	-1.1991	0.9307	A-	A+	A+
MATH	8	651116	1	CCAACS	2	B-E	5360	0.3037	0.2258	0.2058	0.2591	0.3013	0.0074	0.0007	0.2321	-0.1176	-0.0284	-0.0941	0.2342	-0.0626	-0.0078	0.8149	0.0757	5.0212	1.2087	5.9414	1.3901	A+	A+	A+
MATH	8	780306	1	CCAACS	2	B-F	5359	0.4187	0.4152	0.1664	0.2087	0.2013	0.0076	0.0007	0.4494	0.4504	-0.0995	-0.0922	-0.3556	-0.0456	-0.0311	0.159	0.0697	-0.499	0.9847	-0.219	0.9893	A-	A-	A-
MATH	8	791738	1	CCAACS	2	B-F	5348	0.4428	0.1479	0.1584	0.4382	0.2452	0.0096	0.0007	0.3612	-0.2544	-0.2211	0.3645	-0.0057	-0.0717	-0.0123	0.0239	0.0689	0.981	1.0284	1.041	1.0464	A+	A-	A-
MATH	8	265209	1	CCAACS	2	C-G	10667	0.2874	0.1788	0.3221	0.2859	0.2077	0.0039	0.0015	0.3646	-0.1599	-0.0552	0.3659	-0.182	-0.0487	-0.0354	0.9924	0.0762	2.1911	1.087	3.9913	1.2594	A-	A-	A-
MATH	8	780308	1	CCAACS	1	C-G	5354	0.426	0.2272	0.1371	0.4221	0.2043	0.0089	0.0004	0.4597	-0.245	-0.1122	0.4606	-0.2014	-0.0492	-0.0216	0.0503	0.069	0.991	1.029	0.771	1.0343	A-	A-	A+
MATH	8	740991	1	CCAACS	2	D-S	5379	0.4486	0.4465	0.1925	0.2583	0.0981	0.0041	0.0006	0.4468	0.4481	-0.1178	-0.2517	-0.2104	-0.0555	-0.0024	0.1361	0.0695	0.271	1.008	-0.139	0.9931	A-	A-	A+
MATH	8	296701	2	CCAACS	2	A-N	10557	0.4107	0.2968	0.0954	0.4084	0.1938	0.0049	0.0007	0.2668	-0.1617	-0.1885	0.268	0.0009	-0.0354	-0.0149	0.2945	0.0779	5.1912	1.1869	4.7312	1.2487	A+	A+	A+
MATH	8	740955	2	CCAACS	2	A-N	5251	0.5652	0.5605	0.1209	0.1653	0.145	0.0077	0.0006	0.4578	0.4621	-0.2775	-0.1585	-0.2043	-0.0841	-0.0279	-0.4928	0.0683	-0.799	0.9785	-1.0591	0.9497	A+	A-	A-
MATH	8	655990	2	CCAACS	2	B-E	5266	0.358	0.2342	0.2856	0.356	0.1188	0.0055		0.3058	-0.1176	-0.1411	0.3069	-0.0933	-0.0438		0.6209	0.0707	2.9111	1.0938	3.3412	1.1636	A+	A-	A+
MATH	8	791706	2	CCAACS	2	B-E	5261	0.6674	0.1129	0.6631	0.1033	0.1143	0.0059	0.0006	0.5368	-0.2941	0.5377	-0.3043	-0.2019	-0.046	-0.0292	-0.9976	0.0711	-6.0592	0.829	-3.2092	0.8109	A+	A-	A-
MATH	8	314888	2	CCAACS	2	B-F	10470	0.4013	0.1926	0.2488	0.3989	0.1536	0.0057	0.0003	0.2009	-0.0319	-0.1849	0.2025	-0.0095	-0.0398	-0.0137	0.3422	0.0781	8.3213	1.3124	8.1114	1.444	A+	A-	A-
MATH	8	791717	2	CCAACS	2	B-F	5273	0.4988	0.1654	0.4967	0.1671	0.1666	0.0038	0.0004	0.4746	-0.2123	0.4755	-0.2589	-0.1591	-0.0474	-0.004	-0.2036	0.0678	-1.559	0.9591	-1.8891	0.9211	A+	A-	A-
MATH	8	747555	2	CCAACS	1	C-G	5232	0.3093	0.3056	0.1432	0.1688	0.3705	0.0115	0.0004	0.3071	0.3064	-0.2614	-0.2653	0.1082	-0.0211	-0.0129	0.9368	0.0735	2.9311	1.1064	4.1212	1.2428	A-	A-	A-
MATH	8	792094	2	CCAACS	2	D-S	5269	0.4701	0.4678	0.2612	0.1605	0.1056	0.0045	0.0004	0.3212	0.322	0.0033	-0.2504	-0.2208	-0.0296	-0.0185	0.1622	0.0683	6.6412	1.1956	7.5913	1.3425	A-	A-	A-
MATH	8	780300	3	CCAACS	1	A-N	5250	0.7147	0.0512	0.1595	0.7117	0.0734	0.0036	0.0006	0.5652	-0.2315	-0.3748	0.5676	-0.2464	-0.0641	-0.0315	-1.4386	0.0749	-7.0392	0.7762	-4.7794	0.6359	A-	A-	A-
MATH	8	416593	3	CCAACS	2	B-E	10490	0.3085	0.3056	0.3347	0.1709	0.1793	0.0087	0.0008	0.1441	0.1462	0.0691	-0.0951	-0.1548	-0.0496	-0.0056	0.8768	0.0828	5.8813	1.2568	6.5515	1.468	A-	A+	A+
MATH	8	655105	3	CCAACS	2	B-E	5245	0.3211	0.3194	0.1529	0.3596	0.1629	0.0049	0.0002	0.2932	0.2951	-0.0219	-0.1644	-0.1258	-0.0601	-0.0129	0.6661	0.0723	4.9112	1.1761	5.4213	1.3028	A+	A-	A+
MATH	8	791697	3	CCAACS	2	B-E	5241	0.582	0.1728	0.1351	0.5785	0.1077	0.0059		0.3995	-0.146	-0.2305	0.4009	-0.1947	-0.0477		-0.6171	0.0686	1.861	1.0495	1.6311	1.0916	A+	A+	A-
MATH	8	791729	3	CCAACS	2	B-F	5225	0.288	0.3813	0.2855	0.2117	0.1127	0.0085	0.0004	0.255	-0.0378	0.2568	-0.1881	-0.0486	-0.0546	-0.0198	1.1336	0.0775	3.5312	1.1508	5.7314	1.4193	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	655992	3	CCAACS	2	C-G	5227	0.3555	0.3524	0.2111	0.2354	0.1925	0.0082	0.0004	0.3893	0.3912	-0.1105	-0.1392	-0.1944	-0.0649	-0.0125	0.5466	0.0713	4.9212	1.1688	5.4813	1.2909	A+	A-	A-
MATH	8	314828	3	CCAACS	2	D-S	10493	0.4841	0.1836	0.1925	0.4809	0.1362	0.0066	0.0001	0.426	-0.1858	-0.1982	0.4274	-0.1721	-0.0532	-0.0132	-0.1076	0.0766	-0.539	0.9829	-0.469	0.9753	A-	A-	A-
MATH	8	780299	3	CCAACS	2	D-S	5245	0.5804	0.1681	0.5774	0.184	0.0654	0.0046	0.0006	0.4682	-0.2321	0.4701	-0.2405	-0.1931	-0.0615	-0.015	-0.6362	0.0686	-2.3191	0.9397	-1.6291	0.9111	A+	A-	A-
MATH	8	780310	4	CCAACS	2	A-N	5303	0.5378	0.1457	0.1942	0.5361	0.1209	0.0028	0.0004	0.4157	-0.1701	-0.243	0.4165	-0.1514	-0.0363	-0.0157	-0.4027	0.0686	0.681	1.0183	0.271	1.0139	A+	A+	A-
MATH	8	711401	4	CCAACS	2	B-E	5266	0.474	0.4692	0.1641	0.1898	0.1667	0.0088	0.0013	0.4083	0.4107	-0.2095	-0.0462	-0.2752	-0.0682	-0.0078	-0.0569	0.0686	2.3311	1.0662	3.1512	1.159	A+	A-	A-
MATH	8	780302	4	CCAACS	2	B-E	5261	0.2874	0.1481	0.2242	0.3323	0.2842	0.0111		0.3025	-0.1677	-0.1621	-0.0116	0.3029	-0.0381		1.12	0.0766	3.4011	1.1379	4.3013	1.302	A-	A-	A+
MATH	8	791743	4	CCAACS	2	B-F	5292	0.5013	0.0906	0.1697	0.2357	0.4987	0.0036	0.0017	0.476	-0.2157	-0.2703	-0.1677	0.4778	-0.0427	-0.0423	-0.2006	0.0685	-1.709	0.9535	-2.0591	0.8993	A-	A-	A-
MATH	8	792082	4	CCAACS	2	C-G	5282	0.4949	0.1539	0.2523	0.4914	0.0953	0.007	0.0002	0.5141	-0.2093	-0.2829	0.5132	-0.1889	-0.0294	-0.0174	-0.2605	0.0685	-2.6691	0.9284	-2.6791	0.8682	A+	A-	A-
MATH	8	792089	4	CCAACS	2	C-G	5284	0.5361	0.2284	0.5325	0.1395	0.0929	0.0066	0.0002	0.4612	-0.3283	0.4628	-0.1405	-0.1379	-0.0548	0.0008	-0.4215	0.0687	-1.409	0.9619	-1.4491	0.9218	A+	A-	A+
MATH	8	413603	4	CCAACS	2	D-S	10546	0.4202	0.4165	0.172	0.2997	0.1031	0.0084	0.0003	0.4601	0.4615	-0.2385	-0.1185	-0.2555	-0.0595	-0.0044	0.2568	0.0778	-0.229	0.992	-0.459	0.9757	A-	A-	A+
MATH	8	319319	5	CCAACS	1	A-N	10466	0.4079	0.1837	0.4055	0.1888	0.2162	0.0048	0.0009	0.3869	-0.111	0.3873	-0.216	-0.1445	-0.046	-0.0003	0.286	0.0781	1.6411	1.057	1.7411	1.0881	A-	A-	A-
MATH	8	740981	5	CCAACS	2	B-E	5201	0.3882	0.2572	0.3855	0.1947	0.1556	0.0063	0.0008	0.323	-0.0831	0.3253	-0.1737	-0.1321	-0.0625	-0.0152	0.4097	0.0694	5.5612	1.1749	4.7612	1.2202	A+	A+	A-
MATH	8	780301	5	CCAACS	1	B-E	5194	0.4041	0.4007	0.1113	0.2264	0.2532	0.008	0.0004	0.3831	0.3823	-0.1862	-0.1205	-0.1752	-0.0214	-0.0136	0.3026	0.0689	1.7711	1.0518	2.0411	1.0883	A-	A-	A-
MATH	8	655974	5	CCAACS	2	B-F	5194	0.2378	0.1495	0.2768	0.3295	0.2358	0.0082	0.0002	0.1741	-0.1669	-0.017	-0.0037	0.1763	-0.062	-0.0269	1.4578	0.0804	5.8113	1.2774	6.4415	1.5475	A-	A+	A+
MATH	8	747556	5	CCAACS	2	C-G	5213	0.6447	0.6417	0.0892	0.188	0.0764	0.0046	0.0002	0.495	0.4975	-0.2239	-0.2671	-0.2485	-0.0617	-0.0142	-0.9275	0.0706	-4.7191	0.8702	-2.8892	0.8259	A-	A-	A-
MATH	8	792091	5	CCAACS	2	C-G	5209	0.5682	0.1428	0.2272	0.5651	0.0594	0.0055		0.5316	-0.2923	-0.2728	0.5339	-0.1808	-0.0722		-0.5265	0.0684	-5.3191	0.8663	-3.3592	0.8375	A+	A-	A-
MATH	8	792093	5	CCAACS	1	D-S	5217	0.4786	0.0666	0.104	0.4767	0.3486	0.0027	0.0013	0.3643	-0.1325	-0.199	0.3665	-0.1787	-0.0449	-0.0481	-0.0799	0.0678	3.1111	1.0849	3.1111	1.139	A+	A-	A-
MATH	8	791456	6	CCAACS	2	A-N	5280	0.6074	0.1582	0.1682	0.606	0.0654	0.0021	0.0002	0.4702	-0.2791	-0.2524	0.4715	-0.129	-0.0426	-0.02	-0.7943	0.0701	-2.0591	0.9424	-1.2491	0.9263	A+	A-	A-
MATH	8	662576	6	CCAACS	2	B-E	5274	0.1576	0.374	0.2432	0.2224	0.157	0.0032	0.0002	0.2434	-0.0274	-0.1307	-0.0407	0.244	-0.0423	-0.0119	2.0019	0.091	0.031	1.0004	4.5515	1.5426	A-	A+	A+
MATH	8	791702	6	CCAACS	2	B-E	5261	0.5267	0.5236	0.1608	0.161	0.1487	0.0057	0.0002	0.5454	0.5448	-0.2555	-0.286	-0.1988	-0.0289	-0.0165	-0.3483	0.0685	-4.3591	0.8856	-3.8892	0.825	A+	A+	A+
MATH	8	791714	6	CCAACS	1	B-F	5240	0.5536	0.1873	0.1117	0.5482	0.143	0.0087	0.0011	0.4204	-0.1409	-0.2065	0.4257	-0.2356	-0.0899	-0.0301	-0.5114	0.0688	-0.549	0.9847	-1.1291	0.9425	A+	A-	A-
MATH	8	791753	6	CCAACS	2	B-F	5224	0.3392	0.2623	0.3348	0.1206	0.2695	0.0117	0.0011	0.4391	-0.2068	0.4397	-0.145	-0.1431	-0.0468	-0.0239	0.6965	0.0719	-0.759	0.9745	0.921	1.0456	A-	A-	A+
MATH	8	319331	6	CCAACS	2	C-G	10461	0.3351	0.2477	0.3313	0.2147	0.195	0.011	0.0004	0.1698	-0.0177	0.1705	-0.0277	-0.1468	-0.0246	-0.0251	0.6901	0.0812	6.3113	1.2644	5.1613	1.3279	A-	A-	A-
MATH	8	780307	6	CCAACS	2	C-G	5275	0.4883	0.1149	0.1533	0.2419	0.4868	0.0025	0.0008	0.4937	-0.2476	-0.1577	-0.2553	0.4942	-0.0289	-0.0168	-0.1666	0.0684	-2.4591	0.9338	-2.2191	0.903	A-	A-	A-
MATH	8	791460	7	CCAACS	2	A-N	5284	0.6919	0.6875	0.1044	0.1077	0.094	0.0058	0.0006	0.5344	0.5366	-0.2393	-0.2998	-0.2644	-0.0637	-0.0246	-1.2069	0.0736	-7.2992	0.7799	-3.8093	0.7297	A+	A-	A+
MATH	8	655970	7	CCAACS	2	B-E	5280	0.3152	0.3129	0.2031	0.2851	0.1918	0.0066	0.0006	0.3322	0.3335	-0.0987	-0.1749	-0.081	-0.0495	-0.002	0.8956	0.0735	4.8712	1.1818	5.9814	1.3659	A-	A-	A+
MATH	8	713673	7	CCAACS	2	B-F	5295	0.6198	0.1568	0.0933	0.1284	0.6171	0.0034	0.0009	0.4843	-0.1916	-0.2851	-0.2404	0.4855	-0.0404	-0.0218	-0.5976	0.0692	-4.6091	0.878	-3.1792	0.8331	A-	A-	A-
MATH	8	740990	7	CCAACS	2	C-G	5279	0.327	0.1476	0.2285	0.292	0.3246	0.0071	0.0002	0.4464	-0.1939	-0.1806	-0.1321	0.4471	-0.0569	0.0073	0.8307	0.0729	-2.5091	0.9155	-0.509	0.9721	A-	A-	A-
MATH	8	792084	7	CCAACS	2	C-G	5300	0.5191	0.5173	0.1275	0.1587	0.1931	0.0034		0.4277	0.4287	-0.1665	-0.2365	-0.1769	-0.0428		-0.1479	0.0684	0.741	1.02	0.141	1.0057	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	792097	7	CCAACS	2	D-S	5284	0.429	0.2194	0.189	0.1589	0.4263	0.0064		0.4308	-0.1331	-0.2056	-0.2026	0.4318	-0.0485		0.2132	0.0691	0.901	1.0259	0.951	1.0419	B-	A-	A-
MATH	8	791458	8	CCAACS	2	A-N	5261	0.5016	0.0348	0.499	0.35	0.111	0.0049	0.0004	0.5164	-0.1691	0.5176	-0.4229	-0.0689	-0.0559	-0.0276	-0.2553	0.0684	-0.649	0.982	-1.2091	0.943	A+	A-	A-
MATH	8	780304	8	CCAACS	2	B-E	5240	0.4469	0.4428	0.1764	0.2029	0.1687	0.0091	0.0002	0.4594	0.458	-0.2106	-0.2072	-0.1629	-0.0267	-0.0275	0.0901	0.0689	-1.709	0.951	-1.3991	0.9383	A+	A+	A-
MATH	8	791686	8	CCAACS	2	B-E	5237	0.5072	0.2097	0.1583	0.1201	0.5022	0.0095	0.0004	0.4182	-0.0587	-0.2823	-0.2383	0.4185	-0.0466	-0.0179	-0.1675	0.0684	-0.139	0.9959	-0.109	0.9944	A-	A-	A-
MATH	8	791699	8	CCAACS	2	B-E	5266	0.5385	0.2082	0.5362	0.1469	0.1044	0.0038	0.0006	0.4866	-0.1834	0.4879	-0.2954	-0.1983	-0.0479	-0.0286	-0.3657	0.0684	-3.0791	0.9187	-2.8191	0.8665	A-	A+	A-
MATH	8	791734	8	CCAACS	2	B-F	5259	0.3014	0.2793	0.2515	0.2997	0.1639	0.0051	0.0006	0.1908	-0.0555	-0.0625	0.1918	-0.0891	-0.0312	-0.0266	0.9264	0.0745	6.9813	1.278	8.1615	1.5439	A-	A-	A-
MATH	8	792092	8	CCAACS	2	D-S	5261	0.605	0.0654	0.2303	0.0972	0.6018	0.0038	0.0015	0.4189	-0.1857	-0.1923	-0.2511	0.4226	-0.0625	-0.0452	-0.7544	0.0696	-3.2591	0.9127	-2.0791	0.8802	A+	A+	A-
MATH	8	791476	9	CCAACS	1	B-E	5293	0.7083	0.0554	0.0874	0.7046	0.1473	0.0051	0.0002	0.4052	-0.2279	-0.2052	0.4074	-0.2027	-0.0532	-0.0095	-1.2481	0.0736	-2.8191	0.9118	-0.7791	0.9357	A+	A-	A-
MATH	8	791690	9	CCAACS	2	B-E	5283	0.4829	0.224	0.4794	0.1218	0.1676	0.0064	0.0008	0.2696	-0.1924	0.271	-0.1914	0.0288	-0.0411	-0.0025	-0.0542	0.0683	4.0711	1.1143	3.0211	1.1427	A-	A+	A-
MATH	8	791704	9	CCAACS	1	B-E	5290	0.6166	0.1007	0.613	0.1973	0.0831	0.0056	0.0002	0.5421	-0.1723	0.5421	-0.3401	-0.2667	-0.0436	0.0053	-0.8564	0.0701	-5.5991	0.8535	-4.3893	0.7394	A+	A-	A-
MATH	8	655991	9	CCAACS	2	B-F	5296	0.2948	0.1302	0.4176	0.1541	0.2934	0.0047		0.1776	-0.2208	0.1046	-0.1519	0.1796	-0.0615		1.0867	0.076	5.7112	1.2386	6.9415	1.4765	A-	A-	A+
MATH	8	706380	9	CCAACS	1	B-F	5282	0.539	0.1661	0.1524	0.1391	0.535	0.0062	0.0011	0.4968	-0.2351	-0.2086	-0.2356	0.4969	-0.0422	-0.0144	-0.3518	0.0682	-2.3391	0.9399	-2.3491	0.8859	A+	A-	A-
MATH	8	663626	9	CCAACS	2	D-S	5297	0.4891	0.1844	0.4869	0.1637	0.1605	0.0045		0.3639	-0.1324	0.3659	-0.2266	-0.1201	-0.0538		-0.1017	0.0682	4.2711	1.1191	2.9811	1.1427	A-	A-	A-
SCIENCE	5	780648	1	STEELS	2	1	20233	0.6768	0.123	0.6688	0.0809	0.1155	0.0114	0.0004	0.5403	-0.2504	0.5374	-0.2928	-0.2695	-0.0384	-0.0311	-0.9089	0.0597	-4.9391	0.8809	-5.2092	0.7977	A+	A+	A+
SCIENCE	5	785402	1	STEELS	2	1	20377	0.5484	0.1511	0.5457	0.2282	0.0702	0.0044	0.0004	0.4383	-0.1882	0.4392	-0.1924	-0.2635	-0.0386	-0.0341	0.0171	0.0563	-0.539	0.9886	-0.609	0.9834	A-	A+	A+
SCIENCE	5	800300	1	STEELS	2	1	20397	0.4679	0.1182	0.4661	0.0684	0.3434	0.0032	0.0006	0.2701	-0.286	0.2716	-0.2432	0.0444	-0.0345	-0.0341	0.5291	0.05	3.5811	1.0634	3.4611	1.0851	A-	A+	A+
SCIENCE	5	800313	1	STEELS	2	1	20276	0.4742	0.1045	0.1681	0.2482	0.4695	0.0092	0.0005	0.4271	-0.2919	-0.1788	-0.1204	0.4283	-0.0515	-0.0295	0.4916	0.0574	0.131	1.0028	0.591	1.0178	A+	A-	A-
SCIENCE	5	800319	1	STEELS	2	1	20368	0.3536	0.2957	0.1662	0.1811	0.3518	0.0046	0.0006	0.2636	0.0145	-0.206	-0.1378	0.2649	-0.04	-0.0256	1.0751	0.0423	4.2611	1.0799	5.4012	1.1603	A-	A+	A+
SCIENCE	5	800322	1	STEELS	2	1	20383	0.5055	0.16	0.1182	0.5032	0.214	0.004	0.0005	0.4468	-0.2309	-0.2249	0.4475	-0.1545	-0.0386	-0.03	-0.1215	0.0399	0.921	1.0136	0.801	1.0156	A-	A-	A-
SCIENCE	5	800467	1	STEELS	2	1	20321	0.3286	0.1451	0.303	0.2183	0.3262	0.007	0.0005	0.1422	-0.0724	0.012	-0.1058	0.1439	-0.036	-0.0347	0.8754	0.0291	9.9012	1.2202	9.9013	1.3258	A+	A+	A+
SCIENCE	5	800468	1	STEELS	2	1	20273	0.4047	0.4007	0.192	0.216	0.1814	0.0095	0.0004	0.3955	0.3953	-0.1662	-0.1534	-0.1591	-0.0327	-0.0319	0.694	0.0286	2.681	1.0294	5.2511	1.0831	A-	A+	A+
SCIENCE	5	780590	1	STEELS	2	2	20297	0.5995	0.0875	0.0989	0.5943	0.2106	0.0083	0.0004	0.466	-0.2792	-0.29	0.4662	-0.1444	-0.0459	-0.0182	-0.4696	0.0524	-3.2091	0.9308	-3.0391	0.9075	A+	A-	A-
SCIENCE	5	780596	1	STEELS	2	2	20358	0.476	0.0633	0.2719	0.4733	0.1858	0.0052	0.0005	0.1438	-0.1393	0.0256	0.1465	-0.1203	-0.0447	-0.029	0.1071	0.0564	9.9013	1.346	9.9014	1.4133	A-	A+	A+
SCIENCE	5	780597	1	STEELS	2	2	20370	0.7445	0.7407	0.0913	0.0901	0.0728	0.0048	0.0003	0.5468	0.5476	-0.2873	-0.2982	-0.2618	-0.0491	-0.0247	-0.9473	0.0442	-9.8992	0.7875	-9.8993	0.6582	A+	A+	A+
SCIENCE	5	780598	1	STEELS	2	2	20272	0.4333	0.0948	0.1677	0.2986	0.429	0.0093	0.0006	0.4892	-0.3012	-0.219	-0.1448	0.4897	-0.055	-0.0292	0.4587	0.0573	-2.2991	0.9488	-1.9991	0.9412	A+	A+	A-
SCIENCE	5	784956	1	STEELS	2	2	20359	0.5041	0.2316	0.0907	0.1708	0.5012	0.0052	0.0005	0.49	-0.1108	-0.2654	-0.3151	0.4905	-0.0409	-0.0337	0.207	0.0402	-1.039	0.984	-0.589	0.988	A+	A+	A+
SCIENCE	5	784959	1	STEELS	2	2	20385	0.5766	0.5741	0.1068	0.1849	0.1298	0.0041	0.0003	0.4572	0.4568	-0.1847	-0.1907	-0.2761	-0.0246	-0.0257	-0.369	0.0405	-0.429	0.9932	-0.239	0.9945	A-	A+	A-
SCIENCE	5	784961	1	STEELS	2	2	20385	0.3823	0.0439	0.481	0.3806	0.0901	0.0036	0.0008	0.09	-0.2293	0.144	0.0917	-0.2337	-0.0269	-0.0336	0.7204	0.0409	9.9014	1.3819	9.9015	1.4943	A+	A-	A-
SCIENCE	5	784968	1	STEELS	2	2	20356	0.3671	0.1694	0.1963	0.2635	0.3649	0.0056	0.0002	0.3866	-0.2049	-0.2157	-0.0463	0.3873	-0.0415	-0.0271	0.797	0.0592	1.461	1.0372	2.6811	1.0999	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795213	1	STEELS	3	2	20361	0.6405	0.0772	0.0994	0.1808	0.637	0.0053	0.0002	0.5546	-0.2384	-0.2936	-0.2899	0.5548	-0.0449	-0.0275	-0.3538	0.0567	-8.0792	0.8388	-7.3792	0.7955	A+	A-	A+
SCIENCE	5	795316	1	STEELS	2	2	20373	0.4463	0.2695	0.1136	0.4441	0.1678	0.0043	0.0006	0.3176	-0.102	-0.2321	0.3191	-0.0959	-0.0455	-0.0326	0.5463	0.0405	6.5011	1.1062	7.1212	1.1602	A-	A+	A+
SCIENCE	5	795322	1	STEELS	2	2	20363	0.5663	0.5632	0.0947	0.2826	0.0541	0.0047	0.0008	0.2815	0.284	-0.1149	-0.1562	-0.1455	-0.0439	-0.0348	-0.1989	0.0564	9.3812	1.2077	8.4013	1.2536	A+	A+	A+
SCIENCE	5	800536	1	STEELS	2	2	20173	0.5341	0.1399	0.5263	0.2018	0.1174	0.0141	0.0006	0.4909	-0.256	0.4903	-0.2122	-0.1989	-0.0529	-0.0231	-0.1583	0.0508	-2.6691	0.9494	-2.5091	0.9361	A-	A-	A-
SCIENCE	5	800540	1	STEELS	2	2	20312	0.6732	0.6679	0.1175	0.0695	0.1372	0.0075	0.0004	0.481	0.4807	-0.2159	-0.2891	-0.2309	-0.0389	-0.0275	-0.5941	0.0577	-4.4991	0.903	-3.9691	0.8703	A-	A-	A-
SCIENCE	5	780609	1	STEELS	2	3	20372	0.6905	0.085	0.687	0.1138	0.1092	0.0046	0.0004	0.5297	-0.2196	0.5307	-0.2583	-0.3169	-0.0487	-0.0341	-0.6593	0.0424	-9.6592	0.8334	-8.6992	0.7628	A+	A-	A-
SCIENCE	5	795448	1	STEELS	2	3	20348	0.5017	0.1997	0.4986	0.1746	0.121	0.0057	0.0005	0.3329	-0.1526	0.3343	-0.1683	-0.1181	-0.042	-0.0273	0.0387	0.0502	3.3211	1.0619	2.4711	1.0596	A+	A+	A+
SCIENCE	5	795452	1	STEELS	2	3	20182	0.3345	0.2043	0.3297	0.3258	0.1259	0.0138	0.0005	0.304	-0.1375	0.3034	-0.0539	-0.1757	-0.0268	-0.0234	0.8816	0.0598	3.9111	1.1063	5.0512	1.2056	A-	A+	A+
SCIENCE	5	795457	1	STEELS	2	3	20399	0.4209	0.2106	0.1139	0.2525	0.4193	0.0028	0.0009	0.4114	-0.3186	-0.2481	0.0194	0.4124	-0.0378	-0.0383	0.389	0.0403	1.281	1.0198	0.961	1.0197	B-	A-	A-
SCIENCE	5	795460	1	STEELS	2	3	20299	0.5491	0.128	0.5444	0.1383	0.1808	0.0083	0.0003	0.4994	-0.2741	0.4984	-0.2134	-0.2066	-0.0326	-0.0317	-0.0054	0.0563	-0.639	0.9866	-1.139	0.9696	A-	A+	A+
SCIENCE	5	795462	1	STEELS	3	3	20289	0.3555	0.2184	0.1366	0.3522	0.2837	0.0086	0.0004	0.2996	-0.1663	-0.2226	0.3015	0.0153	-0.0544	-0.0347	0.8346	0.0595	2.6511	1.0697	4.0512	1.1573	A+	A+	A+
SCIENCE	5	800371	1	STEELS	2	3	20182	0.6242	0.1189	0.1254	0.6152	0.1262	0.0135	0.0008	0.5578	-0.2955	-0.2672	0.5551	-0.2404	-0.0457	-0.0304	-0.5123	0.0417	-4.6491	0.9213	-4.5191	0.8821	A-	A+	A+
SCIENCE	5	800373	1	STEELS	2	3	20345	0.373	0.0312	0.2235	0.3706	0.3684	0.0053	0.0011	0.3017	-0.1693	-0.1344	0.3033	-0.1176	-0.0421	-0.0415	0.4421	0.0572	4.8611	1.1133	4.0311	1.1237	A+	A-	A-
SCIENCE	5	800374	1	STEELS	2	3	20311	0.5517	0.5473	0.0864	0.1846	0.1736	0.0073	0.0007	0.4813	0.4823	-0.1923	-0.2215	-0.251	-0.0486	-0.0341	-0.1629	0.0406	-2.439	0.9617	-2.7891	0.9386	A+	B-	A-
SCIENCE	5	800445	1	STEELS	2	3	20115	0.4686	0.1115	0.1657	0.2448	0.4604	0.017	0.0005	0.4569	-0.2165	-0.2097	-0.1729	0.4556	-0.0471	-0.0249	0.5176	0.0576	-2.2091	0.9499	-2.0291	0.9386	A+	A-	A+
SCIENCE	5	800446	1	STEELS	2	3	20275	0.3763	0.3726	0.1541	0.3388	0.1247	0.0036	0.0062	0.2294	0.2339	-0.1128	0.0028	-0.1961	-0.0307	-0.0902	0.5327	0.0576	9.1612	1.227	9.0413	1.3063	A-	A+	A-
SCIENCE	5	780632	1	STEELS	2	4	20398	0.5784	0.1529	0.5762	0.1581	0.1091	0.0034	0.0004	0.5386	-0.2627	0.5393	-0.2506	-0.2486	-0.0427	-0.028	-0.3742	0.0568	-5.9691	0.8787	-5.7892	0.8354	A-	A+	A-
SCIENCE	5	785404	1	STEELS	2	4	20291	0.4553	0.195	0.1049	0.4512	0.24	0.0087	0.0002	0.3027	-0.0415	-0.2552	0.3041	-0.1225	-0.0428	-0.0261	0.2771	0.0567	6.2811	1.1418	6.8112	1.2009	A+	A+	A+
SCIENCE	5	800392	1	STEELS	2	4	20370	0.4518	0.4495	0.2842	0.1645	0.0966	0.0048	0.0003	0.4528	0.453	-0.168	-0.2237	-0.2161	-0.0333	-0.0289	0.3304	0.0402	1.191	1.0184	1.951	1.04	A-	A+	A+
SCIENCE	5	800393	1	STEELS	2	4	20348	0.6839	0.0982	0.1074	0.6797	0.1084	0.0058	0.0004	0.5687	-0.2724	-0.3012	0.5693	-0.2785	-0.0524	-0.0343	-0.7431	0.0585	-6.8192	0.8486	-7.1992	0.7536	A+	A+	A+
SCIENCE	5	800398	1	STEELS	2	4	20364	0.6604	0.0617	0.1449	0.1312	0.6568	0.0048	0.0006	0.5581	-0.2039	-0.3061	-0.3089	0.5591	-0.0488	-0.0399	-0.5952	0.0421	-8.7491	0.8516	-8.2592	0.782	A+	A-	A+
SCIENCE	5	785011	1	STEELS	2	5	20361	0.2757	0.1911	0.2751	0.2541	0.2742	0.005	0.0006	0.1748	-0.0874	0.0194	-0.1131	0.1762	-0.0403	-0.0332	1.3884	0.0651	2.7711	1.0951	4.1712	1.2378	A-	A+	A+
SCIENCE	5	785018	1	STEELS	2	5	20203	0.4142	0.4087	0.3483	0.1288	0.1009	0.0128	0.0005	0.3716	0.3713	-0.0567	-0.2679	-0.2006	-0.0431	-0.0234	0.5214	0.0576	1.361	1.0314	1.281	1.0396	A+	A-	A-
SCIENCE	5	785019	1	STEELS	3	5	20372	0.5778	0.5748	0.1347	0.1738	0.1116	0.0044	0.0006	0.4847	0.4858	-0.2533	-0.2453	-0.1811	-0.0437	-0.0339	-0.11	0.0563	-1.049	0.9782	-1.259	0.9658	A+	A+	A+
SCIENCE	5	785148	1	STEELS	2	5	20406	0.5255	0.3849	0.5238	0.048	0.04	0.003	0.0004	0.2494	-0.0488	0.2511	-0.2468	-0.236	-0.0374	-0.033	0.1765	0.0402	9.9012	1.2272	9.9013	1.2899	A-	A+	A-
SCIENCE	5	785191	1	STEELS	3	5	20183	0.5071	0.4999	0.1526	0.1919	0.1413	0.0139	0.0004	0.4924	0.4935	-0.2463	-0.1384	-0.2724	-0.0706	-0.0275	0.2154	0.0402	-3.2991	0.9501	-2.6391	0.9473	A+	A+	A+
SCIENCE	5	795474	1	STEELS	2	5	20362	0.685	0.6812	0.0499	0.0963	0.1671	0.0052	0.0003	0.5043	0.5056	-0.2194	-0.274	-0.2762	-0.0499	-0.0221	-0.8978	0.0439	-6.4991	0.8742	-6.2392	0.7991	A-	A-	A-
SCIENCE	5	795485	1	STEELS	2	5	20369	0.631	0.1044	0.6277	0.1144	0.1483	0.0047	0.0004	0.5507	-0.2625	0.5506	-0.2773	-0.2658	-0.0373	-0.0275	-0.465	0.0415	-5.8391	0.9033	-5.7191	0.8566	A-	A-	A-
SCIENCE	5	800404	1	STEELS	2	5	20010	0.4756	0.2981	0.4648	0.1113	0.1032	0.0223	0.0004	0.391	-0.1085	0.3893	-0.2066	-0.2411	-0.0383	-0.0275	-0.0523	0.0502	0.971	1.0175	0.741	1.0175	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	800410	1	STEELS	2	5	20376	0.3528	0.3511	0.0709	0.3055	0.2677	0.0042	0.0006	0.3593	0.3606	-0.2684	-0.0599	-0.1617	-0.0475	-0.0388	0.8967	0.06	1.581	1.0422	2.0411	1.0803	A+	A+	A-
SCIENCE	8	780579	1	STEELS	2	1	20762	0.6869	0.1388	0.6849	0.1017	0.0718	0.0026	0.0002	0.4617	-0.2246	0.4621	-0.2949	-0.1785	-0.0356	-0.0009	-1.0055	0.0584	-5.3491	0.8795	-4.3592	0.8339	A-	A-	A-
SCIENCE	8	783157	1	STEELS	2	1	20606	0.4424	0.4378	0.1181	0.3125	0.1213	0.0098	0.0005	0.2221	0.2232	-0.1927	0.0454	-0.2024	-0.0347	-0.003	0.669	0.0588	6.7412	1.1852	6.2312	1.2359	A+	A-	A+
SCIENCE	8	783158	1	STEELS	2	1	20736	0.5109	0.1747	0.1515	0.1609	0.5088	0.0038	0.0002	0.4439	-0.151	-0.2327	-0.2137	0.4451	-0.0494	-0.0115	0.0998	0.056	-2.9991	0.937	-3.0191	0.9213	A+	A+	A-
SCIENCE	8	783162	1	STEELS	2	1	20767	0.3727	0.2229	0.1659	0.3717	0.2368	0.0022	0.0004	0.273	-0.0447	-0.2154	0.274	-0.0743	-0.0392	-0.0135	0.5029	0.0577	8.0512	1.2086	8.0113	1.2769	A-	A-	A-
SCIENCE	8	783165	1	STEELS	2	1	20728	0.3044	0.1754	0.303	0.129	0.3881	0.0041	0.0004	0.3166	-0.1717	0.3171	-0.1935	-0.0269	-0.0352	-0.0113	0.9954	0.0616	1.471	1.0443	2.9711	1.1347	A-	A+	A+
SCIENCE	8	784953	1	STEELS	2	1	20701	0.2044	0.2033	0.1416	0.4253	0.2241	0.0054	0.0004	0.049	0.0511	-0.2099	0.2471	-0.1557	-0.0621	-0.0014	1.4988	0.0682	8.0913	1.3413	9.3017	1.6727	A-	A+	A-
SCIENCE	8	784954	1	STEELS	2	1	20764	0.6772	0.1072	0.0996	0.6753	0.1152	0.0024	0.0003	0.5138	-0.277	-0.3079	0.5146	-0.1907	-0.04	-0.0139	-0.9588	0.0581	-5.8991	0.8705	-6.0592	0.7806	A+	A+	A+
SCIENCE	8	801756	1	STEELS	2	1	20731	0.4398	0.2131	0.4379	0.1712	0.1735	0.0038	0.0005	0.3772	-0.114	0.3784	-0.2398	-0.1257	-0.0466	-0.0109	0.2452	0.0564	4.0511	1.0927	3.6211	1.1043	A+	A+	A+
SCIENCE	8	801757	1	STEELS	2	1	20726	0.3865	0.1586	0.2049	0.2472	0.3847	0.0039	0.0006	0.3597	-0.2281	-0.1958	-0.023	0.3608	-0.0475	-0.0095	0.6054	0.0583	-1.579	0.9603	-0.979	0.9667	A+	A+	A+
SCIENCE	8	801758	1	STEELS	3	1	20712	0.4363	0.1111	0.3205	0.1291	0.434	0.0049	0.0003	0.4447	-0.259	-0.0973	-0.2714	0.4451	-0.0353	-0.0178	0.1018	0.0397	-0.939	0.9856	-0.859	0.9824	A-	A-	A-
SCIENCE	8	801759	1	STEELS	2	1	20710	0.4783	0.2962	0.1157	0.4758	0.1069	0.0049	0.0004	0.5051	-0.2067	-0.2392	0.5061	-0.2527	-0.0492	-0.0151	0.0506	0.0558	-1.999	0.9581	-2.0191	0.9475	A-	A+	A+
SCIENCE	8	780603	1	STEELS	2	2	20779	0.7123	0.7108	0.0761	0.141	0.0701	0.0012	0.0008	0.3944	0.3951	-0.1777	-0.2434	-0.18	-0.0222	-0.0215	-0.9954	0.0583	-0.939	0.9781	-1.169	0.9531	A+	A-	A-
SCIENCE	8	780652	1	STEELS	2	2	20722	0.3404	0.1606	0.2076	0.2883	0.3388	0.0044	0.0003	0.2787	-0.1725	-0.059	-0.0934	0.2793	-0.037	-0.0081	0.9931	0.0519	2.4111	1.056	3.4911	1.1251	A-	A+	A+
SCIENCE	8	780654	1	STEELS	2	2	20738	0.4984	0.1999	0.145	0.4964	0.1547	0.0036	0.0004	0.4024	-0.1726	-0.2124	0.4031	-0.1531	-0.0388	-0.0022	-0.1894	0.0556	1.441	1.0293	0.581	1.0151	A+	A+	A+
SCIENCE	8	795512	1	STEELS	2	2	20764	0.3008	0.2499	0.115	0.3324	0.2999	0.0025	0.0002	0.2371	-0.1161	-0.2032	0.0169	0.2377	-0.0338	-0.004	1.3401	0.0551	0.731	1.0205	2.9011	1.1237	A+	A-	A-
SCIENCE	8	795530	1	STEELS	2	2	20737	0.5827	0.2529	0.0854	0.5804	0.0773	0.0037	0.0003	0.4957	-0.2304	-0.2596	0.497	-0.2587	-0.0536	-0.0105	-0.3834	0.0557	-4.1991	0.9179	-4.2091	0.8864	A+	A+	A+
SCIENCE	8	795533	1	STEELS	2	2	20770	0.2705	0.1422	0.2698	0.3841	0.2015	0.002	0.0005	0.2899	-0.158	0.2904	-0.1389	-0.0112	-0.0356	-0.0056	1.0234	0.0619	4.8512	1.1538	7.4014	1.3662	A-	A+	A+
SCIENCE	8	795535	1	STEELS	2	2	20700	0.3298	0.1185	0.3278	0.2794	0.2684	0.0052	0.0006	0.3337	-0.2765	0.3354	0.1038	-0.2475	-0.0649	-0.0127	0.702	0.059	4.5911	1.1255	5.8112	1.2239	A-	A+	A+
SCIENCE	8	795541	1	STEELS	2	2	20755	0.6863	0.1241	0.6842	0.1448	0.0438	0.0028	0.0003	0.1712	0.0011	0.1734	-0.1132	-0.1908	-0.0347	-0.0149	-0.9646	0.0581	7.0312	1.1706	7.7413	1.3351	A+	A+	A+
SCIENCE	8	795544	1	STEELS	2	2	20415	0.5711	0.0932	0.14	0.5599	0.1874	0.0191	0.0004	0.4195	-0.2388	-0.1753	0.4275	-0.1696	-0.1142	-0.0089	-0.4096	0.0557	-1.729	0.9656	-0.399	0.9883	A+	A+	A+
SCIENCE	8	800327	1	STEELS	2	2	20712	0.4157	0.4135	0.0804	0.2124	0.2884	0.0049	0.0003	0.3948	0.3952	-0.2638	-0.1199	-0.1572	-0.0355	-0.0081	0.4981	0.0576	-0.619	0.9847	0.301	1.0092	A-	A-	A-
SCIENCE	8	780626	1	STEELS	2	3	20757	0.5062	0.5047	0.1805	0.1352	0.1766	0.0029	0.0001	0.4808	0.4816	-0.2107	-0.2455	-0.1921	-0.0438	-0.0138	-0.1861	0.0491	-9.0892	0.8415	-8.5892	0.7921	A-	A-	A-
SCIENCE	8	784976	1	STEELS	2	3	20671	0.5553	0.1773	0.5513	0.1109	0.1533	0.0069	0.0003	0.5233	-0.2829	0.5232	-0.27	-0.1765	-0.0449	-0.004	-0.3928	0.0557	-4.2191	0.9174	-4.6791	0.8738	A-	A-	A-
SCIENCE	8	784977	1	STEELS	3	3	20755	0.3011	0.1589	0.3001	0.3028	0.235	0.0028	0.0004	0.1301	-0.1066	0.1312	0.0184	-0.0647	-0.0414	0.0032	0.8592	0.0603	9.3913	1.2878	9.6014	1.434	A+	A+	A+
SCIENCE	8	784980	1	STEELS	2	3	20761	0.5356	0.2478	0.1149	0.5341	0.1003	0.0025	0.0004	0.435	-0.1945	-0.1996	0.4356	-0.2257	-0.0301	-0.0167	-0.3102	0.0556	-1.579	0.9685	-2.5291	0.9324	A-	A+	A+
SCIENCE	8	784984	1	STEELS	3	3	20730	0.5175	0.5152	0.243	0.133	0.1044	0.0038	0.0005	0.4952	0.4956	-0.1759	-0.2677	-0.2578	-0.0377	-0.0093	-0.1192	0.0556	-3.1891	0.936	-2.6691	0.9314	A+	A-	A-
SCIENCE	8	795548	1	STEELS	2	3	20620	0.5817	0.1085	0.5761	0.1518	0.1539	0.0094	0.0002	0.5535	-0.2821	0.5538	-0.2728	-0.2277	-0.0578	-0.0172	-0.4087	0.0557	-8.1292	0.8452	-7.8092	0.7944	A+	A+	A+
SCIENCE	8	795552	1	STEELS	2	3	20746	0.4498	0.4482	0.1376	0.1887	0.2219	0.0034	0.0002	0.3914	0.3922	-0.2562	-0.1473	-0.1122	-0.0392	-0.0131	0.4413	0.0573	-0.289	0.9929	0.031	1.0005	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	P(INV)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Corr(INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	800478	1	STEELS	2	3	20724	0.5437	0.1048	0.2324	0.5412	0.117	0.0041	0.0005	0.4095	-0.2417	-0.1111	0.4109	-0.2505	-0.0472	-0.0116	-0.2862	0.0556	-0.679	0.9863	-0.749	0.9795	A-	A+	A+
SCIENCE	8	800482	1	STEELS	2	3	20771	0.2812	0.2805	0.3396	0.2672	0.1104	0.002	0.0004	0.2965	0.2968	-0.0498	-0.1596	-0.12	-0.0317	-0.0062	1.0186	0.0619	3.1111	1.0965	4.6912	1.2223	A-	A+	A-
SCIENCE	8	804549	1	STEELS	2	3	20709	0.5046	0.1491	0.1797	0.5019	0.164	0.0053	0.0001	0.4099	-0.2161	-0.175	0.4103	-0.157	-0.0389	-0.0071	0.0616	0.0276	1.031	1.0101	0.901	1.011	A+	A+	A+
SCIENCE	8	804552	1	STEELS	2	3	20615	0.3193	0.1893	0.3161	0.3167	0.1679	0.0095	0.0004	0.2292	-0.1515	0.2295	0.0118	-0.134	-0.0285	0.0012	0.8207	0.0293	9.9012	1.1981	9.9013	1.3067	A-	A+	A+
SCIENCE	8	804556	1	STEELS	2	3	20689	0.3582	0.2638	0.1614	0.2126	0.3559	0.0062	0.0001	0.4343	-0.0897	-0.2758	-0.1536	0.4349	-0.0567	0.0122	0.6015	0.0286	-4.269	0.9518	-1.039	0.9838	A-	A-	A-
SCIENCE	8	804558	1	STEELS	3	3	20749	0.5681	0.1666	0.0869	0.1769	0.5661	0.003	0.0004	0.4762	-0.1761	-0.2573	-0.2507	0.4774	-0.0471	-0.0122	-0.255	0.0276	-7.9991	0.9239	-7.6191	0.9053	A+	A+	A+
SCIENCE	8	784998	1	STEELS	2	4	20765	0.6899	0.1071	0.688	0.0889	0.1133	0.0025	0.0001	0.5336	-0.2717	0.5341	-0.2709	-0.2665	-0.0346	-0.0098	-1.0628	0.0424	-8.4891	0.8533	-8.9593	0.7275	A+	A+	A-
SCIENCE	8	785001	1	STEELS	2	4	20751	0.29	0.2745	0.1848	0.2484	0.289	0.003	0.0004	0.1441	0.0285	-0.0788	-0.1074	0.1445	-0.0213	-0.0041	1.19	0.0639	6.1612	1.2151	7.1314	1.3966	A+	A+	A-
SCIENCE	8	795557	1	STEELS	2	4	20490	0.4609	0.3465	0.4536	0.0894	0.0946	0.0154	0.0005	0.3581	-0.0685	0.3545	-0.2557	-0.2374	-0.009	-0.0132	0.0639	0.0559	5.1711	1.1135	5.0211	1.1387	A+	A+	A+
SCIENCE	8	785157	1	STEELS	2	5	20711	0.5446	0.0822	0.1059	0.2649	0.5417	0.0051	0.0002	0.4781	-0.2516	-0.2659	-0.1899	0.4798	-0.058	-0.0154	-0.0826	0.0556	-4.0891	0.918	-4.1091	0.8961	A+	A-	A+
SCIENCE	8	785164	1	STEELS	2	5	20757	0.5559	0.5542	0.1776	0.1673	0.0978	0.0027	0.0003	0.5289	0.5294	-0.2362	-0.2773	-0.2262	-0.0373	-0.0121	-0.3546	0.0557	-5.6691	0.8903	-5.5991	0.8525	A+	A-	A-
SCIENCE	8	785182	1	STEELS	2	5	20768	0.5717	0.0869	0.1228	0.5702	0.2175	0.0022	0.0003	0.3701	-0.172	-0.1216	0.3712	-0.2267	-0.0329	-0.0187	-0.5101	0.0398	0.651	1.0096	0.581	1.0122	A-	A-	A-
SCIENCE	8	785184	1	STEELS	2	5	20752	0.7277	0.1218	0.0482	0.7253	0.1014	0.0029	0.0004	0.4371	-0.2153	-0.2378	0.4384	-0.2375	-0.0424	-0.017	-1.199	0.06	-4.0791	0.8979	-2.6291	0.8834	A+	A-	A-
SCIENCE	8	785186	1	STEELS	2	5	20760	0.5694	0.0855	0.2425	0.5677	0.1012	0.0024	0.0006	0.4097	-0.2155	-0.1607	0.4107	-0.2389	-0.0381	-0.0155	-1.1958	0.0538	-5.5991	0.8648	-4.6492	0.8171	A+	A+	A-
SCIENCE	8	795567	1	STEELS	2	5	20754	0.4865	0.1116	0.4849	0.3501	0.0501	0.003	0.0002	0.4569	-0.2639	0.4574	-0.2045	-0.21	-0.0333	-0.0182	-0.1614	0.0556	-1.529	0.9692	-1.689	0.9559	A-	A-	A-
SCIENCE	8	795570	1	STEELS	2	5	20682	0.4517	0.0724	0.3727	0.0995	0.4487	0.0059	0.0008	0.364	-0.2249	-0.1349	-0.1828	0.3645	-0.0357	-0.0097	0.1066	0.056	2.8411	1.062	2.4211	1.0658	A+	A-	A-
SCIENCE	8	795574	1	STEELS	2	5	20675	0.4784	0.2083	0.1439	0.1658	0.475	0.0069	0.0001	0.5187	-0.1787	-0.2554	-0.25	0.5182	-0.0428	-0.0034	0.1921	0.0562	-3.5791	0.9234	-2.9891	0.9201	A+	A+	A+
SCIENCE	8	795576	1	STEELS	2	5	20749	0.5821	0.5801	0.245	0.1249	0.0464	0.003	0.0004	0.471	0.4718	-0.2455	-0.2338	-0.225	-0.0421	-0.0143	-0.3673	0.0557	-4.4691	0.9127	-4.1091	0.8897	A+	A-	A-
SCIENCE	8	800480	1	STEELS	2	5	20673	0.5059	0.1617	0.1703	0.1586	0.5023	0.0069	0.0002	0.5193	-0.2795	-0.2386	-0.1741	0.5188	-0.0368	-0.0138	-0.0014	0.0393	-6.4891	0.9081	-6.1591	0.8915	A+	A+	A+
SCIENCE	8	800481	1	STEELS	2	5	20481	0.6944	0.097	0.0941	0.6831	0.1095	0.016	0.0003	0.5393	-0.282	-0.2449	0.5337	-0.2817	-0.0401	-0.0192	-0.9003	0.0577	-6.1691	0.8679	-6.1992	0.7837	A-	A+	A+

Multiple-Choice Computer-Based Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Stand1	Standard
Depth	Depth of Knowledge
N	N
PValue	*P*-Value
P(A)	Proportion A
P(B)	Proportion B
P(C)	Proportion C
P(D)	Proportion D
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(A)	Correlation A
Corr(B)	Correlation B
Corr(C)	Correlation C
Corr(D)	Correlation D
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit-Z	Infit Z-Standardized
Infit-MS	Infit Mean Square
Outfit-Z	Outfit Z-Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	710614	0	CCAACS	2	A-C	61891	0.4077	0.2156	0.2519	0.4071	0.124	0.0014	0.3391	-0.1472	-0.1446	0.3399	-0.1272	-0.048	0.957	0.0227	9.9011	1.1099	9.9012	1.176	A+	A+	A+
ELA	3	743367	0	CCAACS	2	A-C	61887	0.4683	0.2692	0.1504	0.4676	0.1113	0.0014	0.5434	-0.2486	-0.3025	0.5439	-0.1632	-0.0439	0.4105	0.0222	-9.8991	0.8959	-9.8991	0.8683	A-	A+	A+
ELA	3	710616	0	CCAACS	1	A-K	61908	0.7271	0.0854	0.7263	0.0728	0.1145	0.0011	0.4911	-0.2473	0.4922	-0.2014	-0.3033	-0.0447	-1.1588	0.0265	0.991	1.0141	-2.1891	0.9439	A+	A-	A+
ELA	3	710617	0	CCAACS	2	A-K	61893	0.6397	0.6388	0.1521	0.0912	0.1165	0.0013	0.4243	0.4254	-0.2615	-0.1944	-0.1648	-0.0433	-0.2929	0.023	-4.629	0.9572	-5.5591	0.9179	A+	A+	A+
ELA	3	743369	0	CCAACS	2	A-K	61912	0.6643	0.1431	0.6636	0.091	0.1013	0.001	0.5722	-0.2933	0.5727	-0.2887	-0.2774	-0.0362	-0.4614	0.0234	-9.8992	0.8104	-9.8993	0.7161	A+	A+	A+
ELA	3	743370	0	CCAACS	2	A-K	61908	0.3878	0.2775	0.1826	0.3874	0.1514	0.0011	0.2631	-0.0701	-0.0354	0.2638	-0.2291	-0.041	1.022	0.0228	9.9011	1.149	9.9012	1.2364	A+	A+	A+
ELA	3	710620	0	CCAACS	1	A-V	61913	0.4486	0.1673	0.1664	0.2171	0.4481	0.001	0.3991	-0.2432	-0.3029	0.0149	0.3997	-0.0428	0.4255	0.0222	4.441	1.0375	3.851	1.0439	A-	A+	A+
ELA	3	710726	0	CCAACS	2	A-V	61901	0.5069	0.2661	0.5063	0.1015	0.1248	0.0012	0.3476	-0.2533	0.3485	-0.1888	-0.0113	-0.0442	0.5021	0.0222	9.9011	1.1006	9.9011	1.1232	A-	A+	A-
ELA	3	743373	0	CCAACS	2	A-V	61919	0.4879	0.1481	0.4875	0.2843	0.0792	0.0009	0.41	-0.237	0.4105	-0.1624	-0.1729	-0.0351	0.3876	0.0222	2.161	1.0181	1.601	1.0181	A-	A-	A-
ELA	3	743375	0	CCAACS	2	A-V	61925	0.6195	0.619	0.1189	0.1311	0.1302	0.0008	0.4711	0.4718	-0.2593	-0.2585	-0.1689	-0.0389	-0.2699	0.0229	-5.029	0.9539	-2.889	0.9573	A-	A+	A-
ELA	3	747166	0	CCAACS	2	B-C	61889	0.3556	0.3062	0.3551	0.2416	0.0956	0.0014	0.2361	-0.1178	0.237	0.0018	-0.1976	-0.0468	1.1842	0.0232	9.9012	1.1628	9.9013	1.2756	A+	A+	A+
ELA	3	747168	0	CCAACS	1	B-C	61894	0.3777	0.2733	0.1693	0.1789	0.3772	0.0013	0.383	-0.1031	-0.1756	-0.1892	0.3836	-0.0439	1.1888	0.0232	3.681	1.0368	7.4811	1.1131	A-	A+	A+
ELA	3	747169	0	CCAACS	2	B-C	61905	0.5967	0.596	0.1924	0.1309	0.0795	0.0011	0.438	0.4389	-0.2556	-0.1714	-0.2045	-0.0448	-0.294	0.023	2.771	1.0262	0.381	1.0056	A-	A+	A+
ELA	3	747246	0	CCAACS	2	B-C	61915	0.5535	0.1341	0.1239	0.553	0.188	0.001	0.4802	-0.264	-0.2592	0.4808	-0.1598	-0.0401	0.3445	0.0222	-9.6191	0.9219	-8.4391	0.9072	A-	A-	A-
ELA	3	747254	0	CCAACS	2	B-C	61902	0.388	0.1237	0.3721	0.1155	0.3875	0.0012	0.3616	-0.2703	-0.0376	-0.2121	0.3622	-0.0453	0.8215	0.0225	4.201	1.0374	4.041	1.0495	A-	A-	A+
ELA	3	747257	0	CCAACS	2	B-C	61904	0.4448	0.1838	0.4443	0.1723	0.1985	0.0012	0.2875	-0.1757	0.2884	-0.1048	-0.0856	-0.0456	0.8383	0.0225	9.9011	1.1317	9.9012	1.1727	A-	A+	A+
ELA	3	747174	0	CCAACS	2	B-K	61905	0.5015	0.2242	0.1197	0.5009	0.154	0.0011	0.48	-0.2486	-0.2465	0.4806	-0.1529	-0.0416	0.2037	0.0222	-5.119	0.9576	-5.2791	0.939	A-	A-	A+
ELA	3	747253	0	CCAACS	2	B-K	61902	0.4897	0.4891	0.2338	0.17	0.1058	0.0012	0.4607	0.4614	-0.2208	-0.1941	-0.2037	-0.0466	0.4229	0.0222	-3.389	0.9719	-3.469	0.9615	A-	A+	A+
ELA	3	747177	0	CCAACS	2	B-V	61901	0.4506	0.45	0.257	0.1393	0.1525	0.0012	0.2688	0.2698	-0.0582	-0.1856	-0.1195	-0.044	0.8508	0.0225	9.9012	1.1545	9.9012	1.2186	A-	A-	A-
ELA	3	747247	0	CCAACS	2	B-V	61895	0.4831	0.1254	0.1312	0.2596	0.4825	0.0013	0.4327	-0.213	-0.2198	-0.1602	0.4334	-0.0441	0.5585	0.0222	1.721	1.0146	1.561	1.0176	A-	A-	A+
ELA	3	662661	0	CCAACS	2	D	61944	0.2583	0.2845	0.2582	0.1301	0.3266	0.0005	0.2858	-0.1779	0.286	-0.1303	-0.0011	-0.0228	1.7865	0.0254	9.0011	1.1209	9.9014	1.3834	A-	A+	A+
ELA	3	714297	0	CCAACS	1	D	61928	0.6729	0.0744	0.6724	0.0788	0.1736	0.0008	0.4718	-0.2905	0.4723	-0.2574	-0.1987	-0.0307	-0.3585	0.0232	-9.8991	0.8807	-9.8992	0.8252	A-	A-	A-
ELA	3	714299	0	CCAACS	1	D	61932	0.3983	0.2273	0.114	0.398	0.26	0.0007	0.3013	-0.1536	-0.0727	0.3017	-0.1355	-0.0277	1.1725	0.0231	9.9012	1.1976	9.9013	1.3022	A+	A-	A-
ELA	3	714809	0	CCAACS	1	D	61949	0.619	0.0563	0.1774	0.6187	0.1471	0.0004	0.4672	-0.1888	-0.2822	0.4674	-0.2125	-0.0201	-0.0463	0.0225	-8.1491	0.9304	-7.7291	0.9017	A+	A-	B-
ELA	3	743407	0	CCAACS	2	D	61950	0.6216	0.6214	0.0442	0.0661	0.2679	0.0004	0.3671	0.3675	-0.2233	-0.2482	-0.1585	-0.0235	0.0744	0.0224	3.521	1.0303	4.5411	1.0572	A-	A+	A-
ELA	3	743412	0	CCAACS	2	D	61943	0.4086	0.1928	0.4083	0.1595	0.2388	0.0005	0.3375	-0.2694	0.3378	-0.1704	0.0076	-0.0246	1.0069	0.0228	9.9011	1.1064	9.9012	1.1746	A+	A-	A+
ELA	3	743414	0	CCAACS	2	D	61933	0.3925	0.208	0.1851	0.214	0.3922	0.0007	0.2989	-0.143	-0.0973	-0.1209	0.2992	-0.026	0.9898	0.0227	9.9011	1.1199	9.9012	1.1777	A-	A+	A+
ELA	3	743477	0	CCAACS	2	D	61948	0.3294	0.3072	0.1693	0.1938	0.3292	0.0005	0.4136	-0.2357	-0.0586	-0.1602	0.4138	-0.02	1.0541	0.0229	-5.299	0.9509	-1.549	0.9791	A-	A-	A+
ELA	3	743485	0	CCAACS	2	D	61958	0.5804	0.5802	0.3091	0.0519	0.0585	0.0003	0.5731	0.5732	-0.4929	-0.1237	-0.1166	-0.0177	0.2399	0.0222	-9.8991	0.8532	-9.8992	0.8239	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	795950	1	CCAACS	2	A-C	18852	0.4656	0.1677	0.465	0.1491	0.217	0.0012	0.3626	-0.2178	0.3631	-0.2204	-0.0494	-0.0262	0.2427	0.0669	0.321	1.0081	-0.319	0.9883	A+	A+	A+
ELA	3	795942	1	CCAACS	2	A-K	18861	0.6248	0.1617	0.0704	0.6244	0.1428	0.0007	0.3085	-0.1029	-0.1917	0.3088	-0.1777	-0.0156	-0.5265	0.0693	1.9211	1.0545	1.8911	1.095	A-	A+	A+
ELA	3	795943	1	CCAACS	2	A-K	18854	0.5992	0.1672	0.1499	0.5986	0.0832	0.0011	0.5489	-0.2429	-0.3095	0.5494	-0.2432	-0.0312	-0.4909	0.0691	-8.8292	0.7749	-7.5293	0.6793	A+	A-	A+
ELA	3	795945	1	CCAACS	3	A-K	18850	0.5238	0.106	0.1597	0.2099	0.5231	0.0013	0.4806	-0.2628	-0.2073	-0.2022	0.4811	-0.0315	-0.072	0.0672	-4.1891	0.8961	-3.7991	0.8603	A+	A-	A-
ELA	3	795948	1	CCAACS	2	A-K	18859	0.4416	0.1864	0.2572	0.1143	0.4413	0.0008	0.469	-0.2388	-0.1443	-0.239	0.4693	-0.0314	0.285	0.067	-3.9791	0.9001	-3.6991	0.875	A+	A-	A-
ELA	3	795939	1	CCAACS	2	A-V	18862	0.4704	0.1349	0.1511	0.4701	0.2432	0.0006	0.189	-0.2399	-0.214	0.1894	0.1507	-0.0229	0.2383	0.0669	7.2012	1.1971	7.0913	1.271	A+	A+	A+
ELA	3	795940	1	CCAACS	2	A-V	18862	0.5878	0.1646	0.5875	0.1328	0.1145	0.0006	0.4441	-0.2802	0.4444	-0.2425	-0.1006	-0.021	-0.3682	0.0683	-3.2991	0.9139	-3.1491	0.8649	A-	A-	A-
ELA	3	795941	1	CCAACS	1	A-V	18860	0.5901	0.5896	0.2287	0.0787	0.1022	0.0007	0.4848	0.4847	-0.24	-0.2413	-0.2388	-0.012	-0.3828	0.0684	-4.5591	0.8823	-3.0191	0.8693	A+	A+	A-
ELA	3	781875	1	CCAACS	1	D	18869	0.6615	0.6613	0.1214	0.1179	0.0991	0.0003	0.4591	0.4593	-0.2471	-0.2122	-0.2274	-0.0181	-0.8314	0.0593	-7.9092	0.8064	-6.2693	0.7168	A+	A+	A-
ELA	3	781876	1	CCAACS	3	D	10795	0.3114	0.392	0.1696	0.1266	0.3113	0.0005	0.4459	-0.2178	-0.1587	-0.1206	0.446	-0.0233	1.5559	0.0565	-1.359	0.9642	2.0511	1.0873	A-	A-	A-
ELA	3	781881	1	CCAACS	2	D	10746	0.9149	0.0327	0.0364	0.9147	0.0159	0.0003	0.3662	-0.2211	-0.2285	0.367	-0.1594	-0.0266	-1.8743	0.0665	-3.9492	0.832	-7.1995	0.5199	A+	A-	A-
ELA	3	780349	2	CCAACS	3	A-C	5427	0.5664	0.254	0.1011	0.5661	0.0783	0.0006	0.4071	-0.1218	-0.2715	0.4069	-0.2487	-0.0013	0.2126	0.0673	-1.689	0.9563	-1.6791	0.9374	A-	A-	A+
ELA	3	780341	2	CCAACS	2	A-K	5427	0.5382	0.5379	0.1068	0.2315	0.1232	0.0006	0.3185	0.319	-0.2961	-0.0757	-0.1061	-0.0339	0.3049	0.0671	1.211	1.0313	0.891	1.0329	A+	A+	A-
ELA	3	780342	2	CCAACS	2	A-K	5428	0.6168	0.1989	0.1068	0.6166	0.0773	0.0004	0.3269	-0.1787	-0.1084	0.3272	-0.2019	-0.0174	-0.0751	0.0684	-0.919	0.9747	-0.349	0.9844	A+	A-	A-
ELA	3	780344	2	CCAACS	3	A-K	5429	0.4281	0.2208	0.428	0.2136	0.1374	0.0002	0.3704	-0.151	0.3705	-0.1719	-0.1451	-0.0244	0.666	0.0673	0.361	1.0091	1.041	1.0381	A+	A-	A+
ELA	3	780345	2	CCAACS	3	A-K	5429	0.4441	0.2289	0.1168	0.2101	0.444	0.0002	0.4449	-0.1759	-0.2412	-0.1706	0.4451	-0.0196	0.7541	0.0675	-3.2591	0.9165	-1.4091	0.9474	A+	A-	A-
ELA	3	780339	2	CCAACS	2	A-V	5428	0.759	0.0873	0.0438	0.1098	0.7587	0.0004	0.5066	-0.2677	-0.2339	-0.2978	0.5066	-0.0094	-0.785	0.0746	-4.3191	0.8524	-4.9593	0.7074	A+	A+	A+
ELA	3	780340	2	CCAACS	2	A-V	5428	0.8289	0.0657	0.0457	0.8285	0.0597	0.0004	0.3468	-0.2912	-0.1857	0.3472	-0.0827	-0.0174	-1.2397	0.0819	-3.4691	0.8505	-2.2692	0.8169	A-	A-	B-
ELA	3	782060	2	CCAACS	2	A-V	5428	0.7585	0.7582	0.1006	0.0632	0.0777	0.0004	0.4176	0.4181	-0.2817	-0.218	-0.1525	-0.0231	-0.7693	0.0744	-3.3191	0.8857	-3.0492	0.8132	A-	A+	A+
ELA	3	781864	2	CCAACS	2	D	5429	0.8963	0.0265	0.0617	0.0155	0.8961	0.0002	0.3398	-0.2013	-0.2203	-0.1478	0.3397	-0.0035	-1.5123	0.0619	-2.8091	0.8996	-3.4492	0.7747	A+	A-	A-
ELA	3	783608	3	CCAACS	2	A-C	5399	0.3725	0.2159	0.3543	0.0572	0.3724	0.0002	0.3733	-0.0274	-0.2321	-0.2493	0.3734	-0.0226	1.17	0.0692	0.161	1.0044	0.631	1.0263	A-	A-	A-
ELA	3	783602	3	CCAACS	2	A-K	5396	0.3011	0.2181	0.1626	0.3176	0.3009	0.0007	0.1956	-0.1602	-0.1919	0.1031	0.196	-0.0332	1.4101	0.0715	1.001	1.0323	1.4211	1.0713	A-	A-	A-
ELA	3	783603	3	CCAACS	2	A-K	5399	0.3854	0.405	0.0763	0.3854	0.1331	0.0002	0.3459	-0.0943	-0.2406	0.346	-0.1709	-0.0114	0.9977	0.068	-2.3191	0.9378	-1.5091	0.9423	A+	A-	A-
ELA	3	783605	3	CCAACS	3	A-K	5397	0.4936	0.4933	0.1626	0.1459	0.1976	0.0006	0.2615	0.262	-0.2401	-0.1754	0.0508	-0.029	0.5831	0.0663	4.8511	1.1243	4.4612	1.1533	A-	A-	A-
ELA	3	783606	3	CCAACS	3	A-K	5397	0.789	0.0687	0.7885	0.0637	0.0785	0.0006	0.4417	-0.2392	0.4421	-0.2171	-0.2472	-0.0226	-0.8694	0.0746	-6.3292	0.788	-5.2593	0.7004	A+	A-	A-
ELA	3	783599	3	CCAACS	2	A-V	5400	0.665	0.1881	0.0765	0.665	0.0704		0.4072	-0.2627	-0.1189	0.4072	-0.2265		-0.2048	0.068	-2.9391	0.923	-2.4891	0.8996	A-	A+	A-
ELA	3	783600	3	CCAACS	2	A-V	5398	0.6443	0.0978	0.0939	0.1639	0.6441	0.0004	0.5027	-0.3036	-0.2138	-0.2368	0.5031	-0.0376	-0.1953	0.0679	-7.1492	0.8206	-6.4192	0.7568	A+	A-	A-
ELA	3	798176	3	CCAACS	2	A-V	5399	0.6892	0.6891	0.1596	0.1194	0.0317	0.0002	0.2964	0.2966	-0.239	-0.075	-0.1442	-0.013	-0.5041	0.0703	2.7511	1.0847	2.6511	1.1385	A+	A-	B-
ELA	3	781867	3	CCAACS	1	D	5398	0.5022	0.2013	0.1624	0.1339	0.502	0.0004	0.3299	-0.1678	-0.1336	-0.141	0.3303	-0.0286	0.5216	0.0472	5.1111	1.0947	5.1111	1.127	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	799630	4	CCAACS	2	A-C	5408	0.5651	0.1737	0.1953	0.0656	0.5648	0.0006	0.4927	-0.2257	-0.2622	-0.2188	0.4932	-0.0376	0.2368	0.0669	-4.3991	0.8916	-4.4591	0.8526	A-	A-	A-
ELA	3	799535	4	CCAACS	2	A-K	5408	0.5869	0.1157	0.205	0.5866	0.0922	0.0006	0.4106	-0.214	-0.1819	0.4109	-0.2075	-0.0172	0.0638	0.0672	-2.8491	0.9278	-2.8591	0.897	A+	A-	A+
ELA	3	799536	4	CCAACS	2	A-K	5410	0.6137	0.6136	0.0893	0.2428	0.0541	0.0002	0.3719	0.3718	-0.2748	-0.1452	-0.1788	0.0013	0.0783	0.0672	0.261	1.0065	-0.259	0.9901	A+	A-	A-
ELA	3	799537	4	CCAACS	2	A-K	5410	0.7048	0.1329	0.0506	0.1116	0.7047	0.0002	0.3969	-0.2321	-0.185	-0.1956	0.3971	-0.0164	-0.5661	0.0713	-2.2591	0.9316	-2.3091	0.8797	A+	A+	A+
ELA	3	799538	4	CCAACS	2	A-K	5411	0.5613	0.1763	0.0878	0.5613	0.1746		0.4577	-0.2344	-0.2706	0.4577	-0.1612		0.1495	0.067	-2.5591	0.9355	-2.5091	0.9125	A+	A+	A-
ELA	3	799628	4	CCAACS	2	A-K	5410	0.6834	0.0915	0.1205	0.6832	0.1046	0.0002	0.4629	-0.156	-0.3209	0.463	-0.2149	-0.0148	-0.3085	0.0691	-5.7392	0.8475	-5.1692	0.7809	A+	A+	A-
ELA	3	799625	4	CCAACS	2	A-V	5409	0.4356	0.209	0.0767	0.4354	0.2785	0.0004	0.271	-0.1802	-0.2015	0.2713	-0.0158	-0.0288	0.9057	0.068	4.4611	1.1291	4.6912	1.184	A-	B+	A-
ELA	3	799626	4	CCAACS	2	A-V	5410	0.6845	0.6843	0.1447	0.1064	0.0643	0.0002	0.3817	0.3818	-0.1848	-0.1815	-0.2294	-0.0148	-0.5252	0.0709	-0.589	0.9819	-0.849	0.9552	A-	A-	A-
ELA	3	781865	4	CCAACS	2	D	5410	0.4292	0.0898	0.4291	0.2731	0.2077	0.0002	0.1566	-0.2533	0.1568	-0.0325	0.0234	-0.018	0.8245	0.0676	7.3212	1.2131	6.7713	1.2625	A+	A-	A-
ELA	3	805427	5	CCAACS	3	A-C	5397	0.6196	0.6194	0.0998	0.1934	0.0871	0.0004	0.4214	0.4218	-0.2905	-0.1001	-0.2755	-0.0267	-0.0144	0.0671	-2.5191	0.9368	-2.3991	0.9124	A+	A-	A-
ELA	3	805420	5	CCAACS	2	A-K	5395	0.3991	0.1276	0.1137	0.3591	0.3988	0.0007	0.3536	-0.273	-0.252	-0.0028	0.354	-0.0338	0.8659	0.0669	0.211	1.0051	1.161	1.0403	A+	A+	A+
ELA	3	805422	5	CCAACS	3	A-K	5396	0.4568	0.2452	0.1741	0.4566	0.1235	0.0006	0.4126	-0.2323	-0.2436	0.413	-0.0376	-0.0434	0.5704	0.0661	-1.389	0.9668	-1.139	0.9635	A+	A-	A-
ELA	3	805423	5	CCAACS	3	A-K	5396	0.7014	0.7011	0.1904	0.0554	0.0526	0.0006	0.4034	0.404	-0.231	-0.2473	-0.1656	-0.0313	-0.455	0.0703	-2.5291	0.9252	-2.1691	0.8958	A+	A-	A-
ELA	3	805424	5	CCAACS	2	A-K	5396	0.6781	0.0924	0.6777	0.1006	0.1287	0.0006	0.4432	-0.2103	0.4438	-0.2494	-0.2112	-0.0323	-0.3275	0.0691	-3.8391	0.894	-3.9292	0.8314	A+	A+	A+
ELA	3	805416	5	CCAACS	2	A-V	5396	0.9077	0.0361	0.0304	0.9072	0.0257	0.0006	0.3949	-0.2491	-0.2137	0.3947	-0.196	-0.0128	-1.7764	0.0956	-3.4592	0.7928	-5.8095	0.4809	A+	A-	B-
ELA	3	805417	5	CCAACS	2	A-V	5395	0.4842	0.4384	0.0378	0.4838	0.0393	0.0007	0.3609	-0.1884	-0.2297	0.3612	-0.2192	-0.025	0.5331	0.066	0.831	1.0199	1.331	1.0427	A+	A+	A+
ELA	3	808582	5	CCAACS	2	A-V	5398	0.5398	0.5397	0.1022	0.1339	0.2239	0.0002	0.1416	0.1419	-0.2768	-0.0978	0.112	-0.0197	0.2964	0.0661	8.1512	1.209	9.2413	1.3343	A-	A+	A-
ELA	3	781863	5	CCAACS	2	D	5397	0.2383	0.1317	0.3371	0.2926	0.2382	0.0004	0.2215	-0.2705	-0.2436	0.2469	0.2215	-0.004	1.8542	0.0545	3.0011	1.0869	4.3412	1.2159	A-	A-	A-
ELA	3	783871	6	CCAACS	2	B-C	5394	0.3606	0.274	0.2232	0.1417	0.3603	0.0007	0.4027	-0.1673	-0.0523	-0.2764	0.4028	-0.0204	1.2682	0.0695	-1.209	0.9643	0.281	1.0113	A-	A-	A-
ELA	3	783872	6	CCAACS	2	B-C	5398	0.4396	0.4396	0.264	0.1117	0.1847		0.1868	0.1868	-0.0907	-0.1484	-0.0154		0.82	0.0668	6.0012	1.1601	5.7412	1.2109	A-	A-	A+
ELA	3	783864	6	CCAACS	2	B-K	5395	0.382	0.1221	0.2469	0.3818	0.2486	0.0006	0.111	-0.1525	-0.0299	0.1114	0.0216	-0.0269	1.1024	0.0682	6.1912	1.1812	6.5013	1.2774	A+	A-	A-
ELA	3	783865	6	CCAACS	2	B-K	5394	0.4097	0.2353	0.1758	0.4094	0.1788	0.0007	0.3522	-0.1761	-0.0869	0.3527	-0.1689	-0.0356	0.9401	0.0673	0.251	1.0064	1.5911	1.0581	A+	A-	A+
ELA	3	783867	6	CCAACS	3	B-K	5396	0.2819	0.2158	0.2818	0.1943	0.3077	0.0004	0.0464	-0.0563	0.0466	-0.0652	0.0614	-0.0189	1.6	0.0729	7.0213	1.2623	8.6715	1.5383	A-	A-	A-
ELA	3	783869	6	CCAACS	1	B-K	5396	0.6025	0.1462	0.0663	0.1849	0.6023	0.0004	0.507	-0.2728	-0.2541	-0.2271	0.5073	-0.0257	0.0383	0.067	-3.5091	0.9135	-2.9091	0.892	A+	A-	A-
ELA	3	783863	6	CCAACS	2	B-V	5395	0.6356	0.0517	0.6352	0.0617	0.2508	0.0006	0.3865	-0.2491	0.3873	-0.2646	-0.1538	-0.039	-0.0991	0.0677	-1.419	0.9629	0.091	1.0031	A-	A-	A-
ELA	3	800668	6	CCAACS	2	B-V	5398	0.6671	0.1215	0.6671	0.098	0.1134		0.4739	-0.1581	0.4739	-0.2928	-0.2668		-0.2132	0.0684	-3.1791	0.9153	-3.3091	0.8596	A-	A-	A-
ELA	3	781870	6	CCAACS	1	D	5394	0.627	0.1638	0.0893	0.6265	0.1197	0.0007	0.4169	-0.273	-0.2436	0.417	-0.0947	-0.0163	0.0919	0.0549	-1.519	0.9682	-1.619	0.9502	A+	A-	A-
ELA	3	799501	7	CCAACS	2	B-C	5346	0.2579	0.2018	0.2529	0.2873	0.2579	0.0002	0.129	-0.1666	-0.1411	0.1588	0.1291	-0.0079	1.6637	0.0742	4.1412	1.1572	5.7214	1.3667	A-	A+	A+
ELA	3	799509	7	CCAACS	2	B-C	5345	0.5951	0.5949	0.0471	0.3069	0.0507	0.0004	0.5215	0.5211	-0.1838	-0.3641	-0.2235	0.0058	0.0974	0.0666	-4.9091	0.8826	-4.5192	0.85	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	799510	7	CCAACS	1	B-C	5344	0.6402	0.1201	0.1305	0.6398	0.109	0.0006	0.4154	-0.1708	-0.1705	0.4158	-0.276	-0.0268	-0.1662	0.0678	-5.8891	0.8509	-5.3592	0.7988	A-	A-	A-
ELA	3	799505	7	CCAACS	1	B-K	5345	0.7749	0.7746	0.1118	0.0604	0.0527	0.0004	0.4039	0.4045	-0.2634	-0.1601	-0.2116	-0.0283	-0.947	0.0761	-3.4391	0.8731	-3.5092	0.7826	A-	A-	A-
ELA	3	799507	7	CCAACS	1	B-K	5346	0.3092	0.2063	0.3967	0.3091	0.0877	0.0002	0.1937	0.0104	-0.0891	0.1937	-0.1774	0.0033	1.4452	0.0715	4.4212	1.1497	7.2414	1.4065	A+	A+	A-
ELA	3	799508	7	CCAACS	1	B-K	5345	0.5609	0.2265	0.129	0.5607	0.0834	0.0004	0.4435	-0.1478	-0.2501	0.4435	-0.2686	-0.0055	0.2066	0.0663	-3.0291	0.9275	-2.9391	0.9044	A-	A-	A-
ELA	3	799502	7	CCAACS	2	B-V	5346	0.5877	0.5876	0.1191	0.211	0.0821	0.0002	0.265	0.2652	-0.1002	-0.1671	-0.108	-0.0208	0.1137	0.0666	2.3611	1.0594	1.5311	1.0536	A-	A+	A-
ELA	3	799503	7	CCAACS	2	B-V	5346	0.806	0.0333	0.0572	0.8059	0.1034	0.0002	0.4073	-0.1687	-0.2222	0.4074	-0.2598	-0.0112	-1.1264	0.0792	-4.1192	0.8341	-4.8793	0.6776	A-	A-	A-
ELA	3	781873	7	CCAACS	1	D	5344	0.2743	0.2742	0.2695	0.1352	0.3206	0.0006	0.0371	0.037	0.003	-0.0034	-0.036	0.0039	1.6793	0.0611	9.3413	1.309	9.9017	1.724	A-	A+	A+
ELA	3	805392	8	CCAACS	2	B-C	5367	0.3676	0.2162	0.0663	0.3673	0.3495	0.0007	0.102	0.015	-0.2066	0.1026	-0.007	-0.0334	1.2872	0.0698	5.8512	1.184	7.6814	1.3844	A+	A-	A-
ELA	3	805394	8	CCAACS	2	B-C	5369	0.5329	0.3379	0.0573	0.0717	0.5327	0.0004	0.3076	-0.0901	-0.1714	-0.2738	0.308	-0.0293	0.476	0.0667	4.1611	1.109	3.6511	1.1288	A+	A-	A-
ELA	3	805396	8	CCAACS	2	B-C	5368	0.4031	0.1383	0.1853	0.4029	0.2729	0.0006	0.3052	-0.2299	-0.141	0.3054	-0.034	-0.0224	0.8629	0.0674	0.211	1.0054	0.291	1.0101	A+	A-	A+
ELA	3	805387	8	CCAACS	2	B-K	5370	0.702	0.0918	0.111	0.0951	0.7019	0.0002	0.4178	-0.1984	-0.1666	-0.2776	0.4178	-0.0054	-0.5905	0.0726	-3.9491	0.8741	-3.8892	0.7917	A+	A-	A+
ELA	3	805389	8	CCAACS	2	B-K	5369	0.618	0.6178	0.1335	0.0747	0.1737	0.0004	0.4388	0.439	-0.2633	-0.2211	-0.1724	-0.019	-0.0986	0.0684	-3.9591	0.8943	-4.2392	0.8305	A+	A-	A-
ELA	3	805398	8	CCAACS	2	B-V	5366	0.6109	0.0741	0.1087	0.6103	0.2059	0.0009	0.4604	-0.2747	-0.254	0.4611	-0.1799	-0.0359	0.001	0.0679	-3.3791	0.9115	-3.1491	0.8787	A-	A-	A-
ELA	3	805400	8	CCAACS	2	B-V	5370	0.5529	0.1249	0.192	0.1301	0.5528	0.0002	0.5115	-0.1946	-0.3365	-0.1701	0.5116	-0.0215	0.218	0.0671	-5.9991	0.8527	-5.7992	0.8041	A-	A-	A-
ELA	3	808628	8	CCAACS	2	B-V	5370	0.7764	0.1352	0.7762	0.0544	0.0341	0.0002	0.4755	-0.3575	0.4758	-0.1957	-0.1731	-0.0215	-0.8471	0.076	-4.8592	0.8275	-5.0693	0.6936	A-	A-	A-
ELA	3	781869	8	CCAACS	1	D	5368	0.5259	0.0579	0.254	0.162	0.5256	0.0006	0.3398	-0.1932	-0.1213	-0.1941	0.3396	-0.0056	0.4172	0.0668	-0.789	0.9799	-0.709	0.9754	A-	A-	A-
ELA	3	800898	9	CCAACS	3	B-C	5345	0.6187	0.1637	0.6186	0.1566	0.061	0.0002	0.4707	-0.2385	0.4708	-0.2419	-0.2188	-0.0118	-0.0454	0.0678	-3.7191	0.9039	-3.4191	0.8689	A-	A-	A+
ELA	3	800903	9	CCAACS	1	B-C	5344	0.3267	0.3266	0.2604	0.344	0.0686	0.0004	0.4266	0.4268	-0.1226	-0.2268	-0.1501	-0.0338	1.4549	0.0721	-1.8791	0.9388	-0.219	0.9874	A-	A-	A-
ELA	3	800904	9	CCAACS	2	B-C	5345	0.6271	0.2211	0.627	0.1048	0.047	0.0002	0.3727	-0.274	0.3724	-0.1563	-0.0884	0.014	-0.1172	0.0681	-1.209	0.9674	-1.6291	0.9333	A+	A-	A+
ELA	3	800900	9	CCAACS	2	B-K	5343	0.3311	0.3638	0.1354	0.1693	0.3309	0.0006	0.3644	-0.2462	-0.1205	-0.0301	0.3645	-0.0232	1.4227	0.0718	-0.739	0.9755	0.211	1.0097	A+	A-	A+
ELA	3	800902	9	CCAACS	2	B-K	5343	0.2311	0.2907	0.1513	0.231	0.3264	0.0006	0.1028	0.1183	-0.2703	0.1028	-0.0006	0.0047	1.9879	0.0794	2.4311	1.1066	7.1416	1.6149	A-	A-	A-
ELA	3	800906	9	CCAACS	3	B-K	5343	0.3537	0.3535	0.1756	0.1768	0.2935	0.0006	0.0673	0.0679	-0.1322	-0.1961	0.2055	-0.039	1.2392	0.0701	9.9014	1.3885	9.9016	1.5706	A-	A+	A+
ELA	3	800897	9	CCAACS	2	B-V	5344	0.8424	0.8421	0.0484	0.0615	0.0475	0.0004	0.4512	0.4514	-0.2348	-0.2796	-0.2192	-0.0178	-1.4036	0.0846	-4.0192	0.8155	-5.4294	0.5796	A+	A-	A-
ELA	3	806926	9	CCAACS	2	B-V	5345	0.7508	0.7507	0.1094	0.0241	0.1156	0.0002	0.4195	0.4199	-0.2114	-0.1789	-0.2747	-0.0279	-0.676	0.0727	-3.6791	0.8826	-2.3891	0.8654	A-	A-	A-
ELA	3	781874	9	CCAACS	1	D	5343	0.7228	0.0782	0.7224	0.0933	0.1055	0.0006	0.366	-0.2207	0.3665	-0.1916	-0.158	-0.0251	-0.487	0.0504	-2.249	0.951	-1.7491	0.9348	A-	A+	A-
ELA	3	781884	9	CCAACS	2	D	5346	0.8401	0.0903	0.0466	0.8401	0.023		0.372	-0.2752	-0.1544	0.372	-0.1664		-1.2944	0.0671	-5.0892	0.821	-4.8593	0.6967	A+	A-	A-
ELA	4	744208	0	CCAACS	2	A-C	58670	0.4532	0.4529	0.2066	0.1077	0.2322	0.0006	0.1652	0.1659	-0.1896	-0.2466	0.1696	-0.0397	0.5301	0.019	9.9013	1.2511	9.9014	1.3626	A-	A+	A+
ELA	4	744014	0	CCAACS	2	A-K	58674	0.5501	0.2672	0.1136	0.5498	0.0689	0.0005	0.5265	-0.2756	-0.3092	0.5268	-0.1635	-0.026	-0.1046	0.0193	-9.8991	0.9238	-9.6391	0.8947	A+	A+	A+
ELA	4	744015	0	CCAACS	2	A-K	58681	0.5477	0.5475	0.1928	0.1982	0.0612	0.0004	0.4378	0.438	-0.2806	-0.1167	-0.2521	-0.0189	0.1628	0.0191	-0.469	0.9966	0.861	1.0087	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	744016	0	CCAACS	2	A-K	58672	0.5931	0.1861	0.1245	0.0961	0.5927	0.0005	0.5884	-0.2693	-0.3004	-0.2873	0.5886	-0.0231	-0.175	0.0194	-9.8992	0.8474	-9.8992	0.7931	A+	A+	A+
ELA	4	744200	0	CCAACS	2	A-K	58669	0.5296	0.0917	0.211	0.5293	0.1673	0.0006	0.4738	-0.2676	-0.1905	0.4743	-0.2164	-0.0397	0.1212	0.0191	-3.209	0.9769	-2.349	0.9761	A-	A+	A+
ELA	4	744203	0	CCAACS	3	A-K	58660	0.4992	0.2275	0.4988	0.1862	0.0867	0.0007	0.3903	-0.1538	0.391	-0.1557	-0.2459	-0.0455	0.1969	0.019	5.781	1.0419	8.3211	1.0858	A-	A-	A+
ELA	4	744206	0	CCAACS	1	A-K	58663	0.5724	0.1101	0.2269	0.572	0.0903	0.0007	0.3839	-0.2252	-0.2185	0.3845	-0.0951	-0.0369	-0.2707	0.0196	8.5511	1.0705	9.4111	1.1213	A+	A+	A+
ELA	4	744020	0	CCAACS	2	A-V	58676	0.3593	0.2468	0.3227	0.0708	0.3592	0.0005	0.3946	-0.1722	-0.0859	-0.2903	0.3948	-0.0253	1.1428	0.0198	5.791	1.0481	9.7811	1.1303	A+	A+	A+
ELA	4	744022	0	CCAACS	2	A-V	58677	0.6766	0.1728	0.6763	0.0715	0.0789	0.0005	0.44	-0.1871	0.4402	-0.2692	-0.2427	-0.0194	-0.3827	0.0199	-7.7991	0.9358	-7.1691	0.9077	A+	A+	A+
ELA	4	744197	0	CCAACS	1	A-V	58660	0.3866	0.2506	0.1332	0.2291	0.3863	0.0007	0.3671	-0.1347	-0.1721	-0.1449	0.3675	-0.0426	1.1074	0.0197	9.9011	1.1202	9.9012	1.2183	A-	A+	A+
ELA	4	711550	0	CCAACS	2	B-C	58672	0.5542	0.2022	0.1353	0.1081	0.5539	0.0005	0.4834	-0.1664	-0.2475	-0.2838	0.4839	-0.0401	0.3812	0.019	-5.649	0.9607	-3.419	0.967	A-	A-	A+
ELA	4	711610	0	CCAACS	3	B-C	58676	0.4678	0.3136	0.1027	0.4676	0.1157	0.0005	0.3606	-0.081	-0.2376	0.361	-0.2179	-0.0334	0.6581	0.0191	9.9011	1.086	9.9011	1.1336	A+	A+	A+
ELA	4	712024	0	CCAACS	2	B-C	58657	0.426	0.2395	0.1643	0.4256	0.1698	0.0008	0.3842	-0.1214	-0.2992	0.3846	-0.0704	-0.0386	0.6232	0.019	3.971	1.0286	6.1911	1.0634	A-	A-	A-
ELA	4	712026	0	CCAACS	2	B-C	58653	0.3285	0.3057	0.2404	0.1249	0.3282	0.0009	0.343	-0.0387	-0.1836	-0.1928	0.3434	-0.0425	0.7561	0.0192	3.321	1.0243	5.4911	1.0586	A-	A-	A+
ELA	4	712028	0	CCAACS	2	B-C	58645	0.4939	0.2722	0.4934	0.1396	0.0937	0.001	0.3946	-0.0529	0.3953	-0.272	-0.2689	-0.0449	0.3446	0.019	2.771	1.0197	5.4711	1.0544	A+	A-	A-
ELA	4	711545	0	CCAACS	2	B-K	58667	0.55	0.1826	0.1067	0.5497	0.1604	0.0006	0.5062	-0.1579	-0.3471	0.5066	-0.2261	-0.037	0.2154	0.019	-9.8991	0.9053	-9.8991	0.892	A+	A+	A+
ELA	4	711548	0	CCAACS	3	B-K	58681	0.3649	0.3648	0.148	0.2856	0.2012	0.0004	0.2965	0.2968	-0.1935	-0.0857	-0.0869	-0.0307	1.2241	0.02	9.9012	1.2024	9.9013	1.3488	A+	A+	A+
ELA	4	712031	0	CCAACS	3	B-K	58657	0.4558	0.4554	0.2603	0.105	0.1785	0.0008	0.3876	0.3882	-0.1054	-0.3064	-0.1358	-0.0404	0.7074	0.0191	8.2011	1.0604	9.9011	1.108	A-	A+	A+
ELA	4	712032	0	CCAACS	2	B-K	58649	0.659	0.1159	0.6584	0.0661	0.1587	0.0009	0.5026	-0.3202	0.5034	-0.2507	-0.1987	-0.0448	-0.4991	0.0201	-9.8991	0.8964	-9.8992	0.827	A+	A+	A+
ELA	4	712033	0	CCAACS	2	B-K	58648	0.4022	0.152	0.323	0.4018	0.1222	0.001	0.3415	-0.1933	-0.0646	0.3421	-0.2037	-0.0464	0.7996	0.0192	9.9011	1.0754	9.9011	1.1482	A-	A+	A+
ELA	4	711544	0	CCAACS	2	B-V	58658	0.6101	0.1896	0.6097	0.1345	0.0654	0.0008	0.465	-0.1786	0.4657	-0.3011	-0.2153	-0.0441	-0.0981	0.0193	-6.8891	0.9483	-5.2491	0.9419	A-	A-	A-
ELA	4	712034	0	CCAACS	2	B-V	58650	0.6193	0.183	0.1285	0.0688	0.6187	0.0009	0.5658	-0.2713	-0.2948	-0.2774	0.5665	-0.044	-0.3626	0.0198	-9.8991	0.899	-9.8992	0.8467	A-	A-	A-
ELA	4	712035	0	CCAACS	2	B-V	58653	0.6406	0.6401	0.1676	0.0662	0.1253	0.0009	0.5078	0.5086	-0.2608	-0.2838	-0.226	-0.044	-0.6272	0.0205	3.961	1.0374	3.091	1.0484	A-	A-	A-
ELA	4	662798	0	CCAACS	3	D	58688	0.7215	0.1329	0.073	0.0726	0.7213	0.0003	0.4128	-0.2296	-0.1972	-0.2143	0.4132	-0.0258	-0.5068	0.0202	-9.8291	0.9156	-9.1491	0.8745	A+	A-	A-
ELA	4	714306	0	CCAACS	2	D	58692	0.2575	0.4335	0.0769	0.232	0.2574	0.0002	0.433	-0.2089	-0.1021	-0.1383	0.433	-0.0147	1.4243	0.0205	-9.7991	0.912	-2.369	0.9643	A-	A-	A-
ELA	4	714803	0	CCAACS	2	D	58689	0.7003	0.7001	0.0636	0.1724	0.0636	0.0003	0.5293	0.5296	-0.2509	-0.3279	-0.2344	-0.0212	-0.3442	0.0198	-9.8992	0.8197	-9.8993	0.7481	A+	A-	A-
ELA	4	714814	0	CCAACS	2	D	58687	0.6022	0.602	0.2043	0.1166	0.0767	0.0003	0.3354	0.3357	-0.0911	-0.2073	-0.228	-0.0234	0.1495	0.0191	9.9011	1.0742	9.9011	1.1104	A-	A-	A-
ELA	4	744145	0	CCAACS	2	D	58696	0.5562	0.5561	0.0567	0.2544	0.1326	0.0001	0.3487	0.3489	-0.217	-0.2146	-0.0869	-0.0151	0.2328	0.019	9.9011	1.0996	9.9011	1.132	A+	A-	A-
ELA	4	744147	0	CCAACS	2	D	58680	0.2764	0.351	0.2763	0.161	0.2113	0.0004	0.3088	-0.1016	0.309	-0.0825	-0.1442	-0.0227	1.0265	0.0195	0.191	1.0015	5.9211	1.0724	A-	A+	A-
ELA	4	744149	0	CCAACS	2	D	58687	0.6217	0.2307	0.0865	0.6215	0.061	0.0003	0.2865	-0.1593	-0.1158	0.2868	-0.1633	-0.0213	-0.0482	0.0193	9.9011	1.0985	9.9011	1.1359	A+	B-	B-
ELA	4	744153	0	CCAACS	2	D	58689	0.814	0.0453	0.0787	0.8138	0.0619	0.0003	0.4567	-0.2133	-0.2836	0.4571	-0.2357	-0.0249	-1.2132	0.0229	-9.8992	0.8001	-9.8993	0.6797	A-	A-	A+
ELA	4	744228	0	CCAACS	2	D	58680	0.4853	0.1902	0.095	0.4851	0.2294	0.0004	0.3175	-0.1816	-0.224	0.3178	-0.051	-0.023	0.6858	0.0191	9.9012	1.1563	9.9012	1.228	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	795913	1	CCAACS	2	A-C	18324	0.2513	0.0943	0.2496	0.4044	0.2511	0.0007	0.2481	-0.2133	0.012	-0.1016	0.2483	-0.0257	1.3329	0.0634	4.0911	1.1288	5.7113	1.3104	A-	A-	A-
ELA	4	795906	1	CCAACS	2	A-K	18323	0.5562	0.5558	0.2012	0.108	0.1342	0.0007	0.4367	0.437	-0.198	-0.2722	-0.1544	-0.0241	-0.3245	0.0583	-1.229	0.9716	-1.329	0.9523	A+	A+	A+
ELA	4	795909	1	CCAACS	3	A-K	18322	0.4783	0.478	0.1363	0.2402	0.1447	0.0008	0.4726	0.4727	-0.2533	-0.2152	-0.1611	-0.0211	0.057	0.0575	-2.059	0.9542	-1.7991	0.9446	A+	A+	A-
ELA	4	795910	1	CCAACS	3	A-K	18318	0.3938	0.1403	0.3934	0.222	0.2433	0.001	0.2907	-0.2564	0.2912	-0.1461	0.0197	-0.0306	0.5151	0.0581	6.8512	1.1692	7.0512	1.2436	A+	A+	A-
ELA	4	795902	1	CCAACS	2	A-V	18330	0.4898	0.4896	0.2058	0.2219	0.0824	0.0003	0.354	0.3541	-0.1333	-0.1575	-0.2089	-0.0123	0.0959	0.0575	2.9111	1.0667	2.4211	1.0766	A-	A-	A-
ELA	4	795903	1	CCAACS	2	A-V	18331	0.4662	0.1505	0.466	0.2795	0.1037	0.0003	0.4231	-0.3084	0.4232	-0.1179	-0.1562	-0.0183	0.1807	0.0575	-0.179	0.9958	0.561	1.017	A-	A-	A-
ELA	4	795904	1	CCAACS	2	A-V	18324	0.6129	0.1237	0.0857	0.1774	0.6125	0.0007	0.515	-0.2807	-0.2038	-0.2643	0.5152	-0.022	-0.6389	0.0599	-5.5391	0.8671	-4.6692	0.8116	A+	A+	A+
ELA	4	802453	1	CCAACS	2	A-V	18325	0.6126	0.1221	0.185	0.6122	0.0801	0.0006	0.4799	-0.2506	-0.2562	0.4804	-0.1911	-0.0271	-0.5913	0.0596	-4.5391	0.8916	-4.3492	0.8281	A-	A+	A+
ELA	4	781971	1	CCAACS	1	D	5019	0.8139	0.1028	0.8137	0.0139	0.0693	0.0002	0.1276	-0.2	0.1281	-0.1527	0.1144	-0.0192	-1.0408	0.0821	0.841	1.0351	2.9212	1.2338	A+	A-	A-
ELA	4	782012	1	CCAACS	1	D	18332	0.4824	0.4823	0.1331	0.2015	0.1828	0.0002	0.3244	0.3246	-0.1493	-0.1226	-0.1606	-0.0179	0.1512	0.0406	6.4511	1.1049	6.0611	1.136	A+	A+	A+
ELA	4	782015	1	CCAACS	2	D	5018	0.4912	0.491	0.3759	0.0643	0.0683	0.0004	0.2532	0.2531	-0.021	-0.2226	-0.2445	-0.0024	0.6492	0.0714	7.0412	1.2033	6.5513	1.2695	A+	A-	A-
ELA	4	795901	2	CCAACS	2	A-C	5041	0.7441	0.0442	0.744	0.0617	0.1499	0.0002	0.5112	-0.2482	0.5114	-0.2927	-0.2843	-0.0179	-0.5706	0.0612	-6.8592	0.8226	-6.2493	0.7435	A+	A+	A-
ELA	4	795895	2	CCAACS	2	A-K	5041	0.6132	0.6131	0.0381	0.3189	0.0298	0.0002	0.4051	0.4054	-0.2284	-0.252	-0.2107	-0.0318	-0.1504	0.0583	-1.009	0.9762	-1.5591	0.9462	A-	A-	A-
ELA	4	795897	2	CCAACS	2	A-K	5041	0.5644	0.2763	0.076	0.5643	0.0833	0.0002	0.3814	-0.1529	-0.2272	0.3816	-0.2184	-0.021	0.1822	0.0572	0.101	1.0021	-0.249	0.9922	A+	A-	A+
ELA	4	795898	2	CCAACS	2	A-K	5038	0.6102	0.2652	0.6097	0.0637	0.0607	0.0008	0.4991	-0.3405	0.4996	-0.1256	-0.2591	-0.0319	-0.092	0.0581	-4.9991	0.8891	-4.0391	0.869	A-	A-	A-
ELA	4	795899	2	CCAACS	2	A-K	5040	0.7405	0.0684	0.0299	0.7402	0.161	0.0004	0.4326	-0.2268	-0.2233	0.4329	-0.256	-0.022	-0.7413	0.0628	-3.3691	0.9029	-3.3292	0.8415	A+	A-	A-
ELA	4	795891	2	CCAACS	2	A-V	5042	0.4905	0.094	0.4905	0.2453	0.1702		0.3944	-0.2865	0.3944	-0.1559	-0.1236		0.4396	0.057	-0.869	0.9816	0.281	1.0079	A-	A-	A-
ELA	4	795892	2	CCAACS	2	A-V	5041	0.6461	0.1257	0.646	0.0522	0.1759	0.0002	0.2202	-0.1536	0.2205	-0.2471	0.0018	-0.0163	-0.1954	0.0586	5.4311	1.1344	6.5313	1.2521	A+	A+	A+
ELA	4	802804	2	CCAACS	2	A-V	5040	0.6149	0.0587	0.0696	0.2566	0.6146	0.0004	0.3701	-0.2415	-0.1889	-0.1718	0.3704	-0.0198	-0.0999	0.0581	-0.189	0.9955	0.831	1.028	A-	A-	A-
ELA	4	782011	2	CCAACS	1	D	5041	0.6562	0.0653	0.6561	0.093	0.1854	0.0002	0.3703	-0.2683	0.3706	-0.2424	-0.1005	-0.021	-0.1557	0.0584	0.551	1.0128	0.601	1.0206	A+	A+	A-
ELA	4	805446	3	CCAACS	2	A-C	5011	0.3979	0.2019	0.1648	0.2352	0.3978	0.0002	0.3787	-0.104	-0.2108	-0.1545	0.3785	0.0144	0.9283	0.0577	1.051	1.0231	3.1911	1.107	A+	A-	A-
ELA	4	805440	3	CCAACS	2	A-K	5012	0.4469	0.4469	0.2638	0.0804	0.2089		0.4999	0.4999	-0.2327	-0.2507	-0.1915		0.6822	0.0569	-5.3491	0.8922	-3.2391	0.9082	A+	A-	A+
ELA	4	805441	3	CCAACS	2	A-K	5011	0.3031	0.2795	0.3031	0.1598	0.2574	0.0002	0.2074	0.0175	0.2076	-0.0652	-0.1808	-0.022	1.4355	0.0611	4.1711	1.117	6.3213	1.3061	A-	A-	A-
ELA	4	805442	3	CCAACS	2	A-K	5012	0.6826	0.6826	0.0854	0.1842	0.0479		0.2498	0.2498	-0.171	-0.1088	-0.1234		-0.4386	0.0601	3.3111	1.0891	4.9712	1.2124	A+	A-	A+
ELA	4	805445	3	CCAACS	2	A-K	5011	0.6957	0.0994	0.6955	0.1	0.1049	0.0002	0.454	-0.1267	0.4543	-0.2964	-0.2672	-0.0235	-0.4433	0.0601	-3.2791	0.916	-2.9691	0.8847	A+	A+	A-
ELA	4	805448	3	CCAACS	2	A-V	5010	0.6309	0.0892	0.1486	0.1311	0.6307	0.0004	0.4576	-0.2189	-0.2161	-0.2405	0.458	-0.0311	-0.078	0.0579	-4.6891	0.8967	-4.2091	0.8695	A+	A+	A+
ELA	4	805550	3	CCAACS	2	A-V	5011	0.4309	0.3184	0.1215	0.4308	0.1291	0.0002	0.3069	-0.0705	-0.2479	0.3071	-0.1128	-0.0281	0.8239	0.0573	1.981	1.0429	3.9011	1.1247	A+	A-	A+
ELA	4	808972	3	CCAACS	2	A-V	5011	0.8691	0.0583	0.0415	0.8689	0.0311	0.0002	0.4283	-0.2539	-0.2325	0.4288	-0.2217	-0.0265	-1.4211	0.0729	-3.8292	0.8431	-4.6893	0.6889	A-	A+	A-
ELA	4	781978	3	CCAACS	2	D	5011	0.3367	0.1423	0.3366	0.2382	0.2827	0.0002	0.0163	-0.128	0.0164	0.0326	0.0516	-0.0129	1.2661	0.0597	9.9013	1.3074	9.9016	1.5507	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	799600	4	CCAACS	2	A-C	5070	0.4637	0.1593	0.2021	0.1747	0.4634	0.0006	0.3693	-0.1851	-0.1401	-0.1574	0.3696	-0.0226	0.7671	0.0574	0.591	1.0125	2.3311	1.0739	A-	A-	A-
ELA	4	799594	4	CCAACS	1	A-K	5073	0.6038	0.222	0.1427	0.6038	0.0315		0.3239	-0.1035	-0.2304	0.3239	-0.1993		-0.0046	0.0576	1.021	1.0228	1.171	1.037	A+	A-	A-
ELA	4	799596	4	CCAACS	3	A-K	5073	0.3984	0.164	0.1577	0.3984	0.2799		0.3256	-0.2557	-0.1382	0.3256	-0.0319		0.9067	0.0579	2.001	1.0453	3.8711	1.1341	A-	A-	A-
ELA	4	799597	4	CCAACS	3	A-K	5071	0.3293	0.137	0.3292	0.0777	0.4557	0.0004	0.0567	-0.052	0.0571	-0.101	0.0375	-0.0285	1.1944	0.0595	9.9013	1.2733	9.9015	1.4877	A+	A+	A+
ELA	4	799599	4	CCAACS	2	A-K	5072	0.2267	0.2267	0.0276	0.0254	0.7201	0.0002	0.0285	0.0286	-0.2274	-0.1891	0.1229	-0.0064	1.841	0.0662	7.9913	1.2996	9.9018	1.8128	A+	A-	A-
ELA	4	799590	4	CCAACS	2	A-V	5073	0.5468	0.5468	0.2348	0.0544	0.164		0.2096	0.2096	-0.0117	-0.1936	-0.1499		0.2813	0.0569	7.2312	1.1597	6.6712	1.2043	A-	A-	A-
ELA	4	799591	4	CCAACS	2	A-V	5071	0.8444	0.0727	0.8441	0.0583	0.0244	0.0004	0.3022	-0.1285	0.3023	-0.1819	-0.2168	-0.0101	-1.54	0.0746	-0.959	0.9566	-1.1091	0.9126	A+	A-	A+
ELA	4	799592	4	CCAACS	2	A-V	5071	0.6945	0.2046	0.6943	0.0416	0.0591	0.0004	0.3796	-0.1837	0.38	-0.2291	-0.2323	-0.0231	-0.4182	0.0598	-1.689	0.9569	-0.739	0.9704	A-	A+	A-
ELA	4	781977	4	CCAACS	2	D	5073	0.6734	0.1392	0.1295	0.6734	0.058		0.4377	-0.1957	-0.2724	0.4377	-0.197		-0.2934	0.0589	-3.4791	0.9171	-3.7091	0.8699	A-	A-	A-
ELA	4	800946	5	CCAACS	2	A-C	5052	0.3929	0.3928	0.183	0.1537	0.2701	0.0004	0.0514	0.0516	-0.0971	-0.1542	0.1536	-0.0126	1.0274	0.0583	9.9013	1.3112	9.9015	1.5011	A-	A-	A-
ELA	4	800950	5	CCAACS	3	A-K	5051	0.6114	0.611	0.0871	0.1878	0.1136	0.0006	0.3098	0.3103	-0.2051	-0.1024	-0.1663	-0.0283	-0.0564	0.0576	1.181	1.0264	2.0411	1.0651	A+	A+	A+
ELA	4	800951	5	CCAACS	3	A-K	5054	0.412	0.412	0.058	0.3192	0.2109		0.183	0.183	-0.2025	-0.0926	0.001		0.8551	0.0575	8.5912	1.1982	7.7813	1.2688	A-	A-	A-
ELA	4	800952	5	CCAACS	2	A-K	5052	0.1203	0.4978	0.1088	0.2727	0.1203	0.0004	-0.016	0.0248	-0.2149	0.1351	-0.0157	-0.0278	2.6865	0.083	4.5813	1.279	9.9023	2.3343	A+	A-	A-
ELA	4	800974	5	CCAACS	2	A-K	5051	0.4759	0.1415	0.4757	0.2297	0.1526	0.0006	0.247	-0.1361	0.2471	-0.0669	-0.1325	-0.0088	0.3762	0.0566	4.6611	1.0989	5.4612	1.1597	A-	A+	A+
ELA	4	800948	5	CCAACS	2	A-V	5052	0.7641	0.0795	0.0392	0.7638	0.1171	0.0004	0.2878	-0.2053	-0.1985	0.2882	-0.0869	-0.0191	-0.7203	0.0623	-1.519	0.956	-0.819	0.9612	A+	A-	A-
ELA	4	800955	5	CCAACS	2	A-V	5051	0.8567	0.0566	0.8562	0.0429	0.0437	0.0006	0.4792	-0.2874	0.4797	-0.2504	-0.2469	-0.0283	-1.3426	0.0708	-5.1192	0.8054	-6.8694	0.5944	A+	A-	A-
ELA	4	806929	5	CCAACS	2	A-V	5054	0.6717	0.0641	0.2202	0.6717	0.0439		0.3118	-0.2251	-0.159	0.3118	-0.1237		-0.4392	0.0598	1.441	1.0373	1.021	1.0401	A-	A-	A-
ELA	4	782017	5	CCAACS	2	D	5054	0.4919	0.0774	0.3091	0.4919	0.1217		0.2619	-0.2577	-0.109	0.2619	-0.0359		0.5676	0.0567	6.5811	1.142	6.4412	1.1945	A-	A+	A+
ELA	4	795995	6	CCAACS	2	B-C	5040	0.6062	0.18	0.1696	0.6062	0.0442		0.3746	-0.2146	-0.1632	0.3746	-0.1914		0.0082	0.0575	-2.3791	0.9484	-2.2191	0.9311	A-	A-	A+
ELA	4	795996	6	CCAACS	2	B-C	5040	0.4762	0.1361	0.0812	0.4762	0.3065		0.2853	-0.2001	-0.1443	0.2853	-0.0747		0.6231	0.057	6.0711	1.1334	5.5712	1.1695	A+	A+	A+
ELA	4	795997	6	CCAACS	2	B-C	5039	0.8958	0.0675	0.0169	0.0198	0.8956	0.0002	0.3974	-0.3184	-0.146	-0.1624	0.3981	-0.0299	-1.6374	0.0771	-4.7392	0.7871	-4.4493	0.6636	A+	A-	A-
ELA	4	795989	6	CCAACS	3	B-K	5038	0.528	0.2042	0.5278	0.2056	0.0621	0.0004	0.3636	-0.2146	0.3641	-0.1794	-0.0914	-0.0347	0.3325	0.0568	0.341	1.0069	0.721	1.0204	A-	A-	A-
ELA	4	795993	6	CCAACS	2	B-K	5039	0.4293	0.4312	0.0782	0.0613	0.4292	0.0002	0.3245	-0.1035	-0.2149	-0.2147	0.3246	-0.013	0.796	0.0574	2.8011	1.0619	3.1011	1.0978	A+	A+	A-
ELA	4	795994	6	CCAACS	2	B-K	5040	0.7788	0.0482	0.7788	0.1185	0.0546		0.4218	-0.2375	0.4218	-0.2312	-0.2179		-0.7793	0.0631	-2.4991	0.9261	-2.3591	0.884	A-	A+	A-
ELA	4	795987	6	CCAACS	2	B-V	5039	0.8192	0.819	0.0315	0.022	0.1272	0.0002	0.2954	0.2961	-0.2383	-0.2099	-0.1232	-0.033	-1.1434	0.0679	0.081	1.0024	3.8513	1.2653	A-	A+	A+
ELA	4	795988	6	CCAACS	2	B-V	5039	0.5283	0.3056	0.5282	0.0498	0.1163	0.0002	0.2543	-0.1599	0.2546	-0.1431	-0.0685	-0.0253	0.2478	0.0569	4.0511	1.0875	3.9211	1.1175	A-	A-	A-
ELA	4	781975	6	CCAACS	2	D	5037	0.3129	0.2264	0.2692	0.1911	0.3127	0.0006	0.1844	-0.0694	-0.0097	-0.1306	0.1849	-0.043	1.3536	0.0606	4.5211	1.125	7.1813	1.3327	A+	A-	A-
ELA	4	782008	6	CCAACS	1	D	5037	0.3943	0.2014	0.1823	0.394	0.2216	0.0006	0.1753	-0.095	-0.0958	0.176	-0.0237	-0.0439	1.0809	0.0417	8.2111	1.1458	9.5813	1.277	A+	A-	A-
ELA	4	795926	7	CCAACS	2	B-C	5035	0.708	0.7078	0.0744	0.0526	0.1648	0.0004	0.4891	0.4893	-0.2649	-0.2409	-0.2666	-0.014	-0.2881	0.0594	-4.9991	0.8804	-4.7592	0.824	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	4	795934	7	CCAACS	2	B-C	5034	0.3619	0.2531	0.2136	0.1709	0.3617	0.0006	0.1519	-0.0617	-0.0206	-0.0987	0.1524	-0.0321	1.0581	0.0583	9.2112	1.2281	8.1613	1.3235	A+	A+	A+
ELA	4	795935	7	CCAACS	2	B-C	5035	0.5823	0.1292	0.2043	0.084	0.5821	0.0004	0.3457	-0.1451	-0.1864	-0.1674	0.346	-0.0194	-0.0185	0.0579	2.071	1.0475	1.5111	1.0518	A+	A-	A+
ELA	4	795936	7	CCAACS	2	B-C	5036	0.587	0.5869	0.0739	0.1209	0.2182	0.0002	0.3093	0.3095	-0.2662	-0.1447	-0.0856	-0.016	0.0465	0.0576	1.341	1.0299	0.511	1.0165	A-	A+	A+
ELA	4	795931	7	CCAACS	2	B-K	5035	0.5074	0.186	0.5072	0.2188	0.0876	0.0004	0.3739	-0.1748	0.3742	-0.1813	-0.1547	-0.0173	0.5157	0.0569	-0.289	0.9937	0.751	1.0222	A-	A+	A+
ELA	4	795933	7	CCAACS	2	B-K	5036	0.581	0.0945	0.5809	0.27	0.0544	0.0002	0.4132	-0.248	0.4133	-0.1655	-0.2549	-0.0069	0.0833	0.0575	0.701	1.0155	1.041	1.0337	A-	A-	A-
ELA	4	795927	7	CCAACS	2	B-V	5036	0.8834	0.8833	0.0347	0.0471	0.0347	0.0002	0.4096	0.4093	-0.2192	-0.2323	-0.2299	0.0007	-1.5918	0.0773	-3.3392	0.8457	-4.7194	0.6435	A-	A-	A-
ELA	4	795928	7	CCAACS	2	B-V	5035	0.7543	0.754	0.0471	0.0953	0.1032	0.0004	0.4986	0.499	-0.2971	-0.2125	-0.2927	-0.0259	-0.7228	0.0632	-3.4191	0.8995	-3.8592	0.8139	A-	A-	A-
ELA	4	781972	7	CCAACS	2	D	5034	0.7426	0.0959	0.0834	0.7421	0.078	0.0006	0.4832	-0.2592	-0.258	0.4843	-0.2351	-0.0479	-0.4812	0.0383	-9.6092	0.8465	-9.5192	0.765	A+	A-	A-
ELA	4	782006	7	CCAACS	1	D	5035	0.3654	0.3653	0.3794	0.0754	0.1795	0.0004	0.1834	0.1836	0.0291	-0.1833	-0.1401	-0.0183	1.2516	0.0424	7.4811	1.1418	9.5313	1.3061	A+	A-	A-
ELA	4	795973	8	CCAACS	2	B-C	5105	0.35	0.2005	0.2474	0.35	0.2019	0.0002	0.2222	-0.166	-0.0183	0.2221	-0.0789	0.0079	1.2129	0.0596	3.2311	1.0827	5.9713	1.253	A-	A-	A-
ELA	4	797524	8	CCAACS	2	B-C	5106	0.4226	0.3709	0.4226	0.0989	0.1075		0.313	-0.086	0.313	-0.2171	-0.1557		0.9658	0.0582	3.7811	1.0888	5.4312	1.1987	A-	A-	A-
ELA	4	795968	8	CCAACS	2	B-K	5106	0.5037	0.0505	0.5037	0.1308	0.3149		0.3458	-0.2212	0.3458	-0.1672	-0.1466		0.4218	0.057	1.081	1.0228	1.511	1.0461	A+	A+	A+
ELA	4	795969	8	CCAACS	2	B-K	5102	0.4628	0.198	0.1733	0.4624	0.1655	0.0008	0.3158	-0.2011	-0.0685	0.3165	-0.1362	-0.0401	0.5619	0.057	4.4411	1.0968	4.4511	1.141	A+	A+	A-
ELA	4	795971	8	CCAACS	2	B-K	5105	0.5142	0.1455	0.1884	0.1518	0.5141	0.0002	0.2638	-0.1681	-0.0581	-0.1383	0.264	-0.0253	0.3875	0.057	5.7011	1.125	4.6811	1.149	A+	A-	A+
ELA	4	795964	8	CCAACS	2	B-V	5105	0.6027	0.6026	0.067	0.0932	0.237	0.0002	0.3794	0.3797	-0.24	-0.2489	-0.1248	-0.0253	0.0357	0.0576	-1.669	0.9632	-1.059	0.9642	A-	A-	A-
ELA	4	795965	8	CCAACS	2	B-V	5106	0.7164	0.1469	0.7164	0.0785	0.0582		0.3843	-0.2877	0.3843	-0.1542	-0.1277		-0.4118	0.06	-0.559	0.9854	-0.579	0.9742	A-	A-	A-
ELA	4	804584	8	CCAACS	2	B-V	5106	0.6438	0.1639	0.1722	0.0202	0.6438		0.3268	-0.1777	-0.165	-0.2022	0.3268		-0.2285	0.0588	2.6511	1.0649	2.6411	1.1059	A+	A-	A-
ELA	4	781974	8	CCAACS	2	D	5105	0.6308	0.1056	0.6306	0.066	0.1976	0.0002	0.35	-0.2135	0.35	-0.0884	-0.2043	0.0018	-0.1124	0.0412	0.451	1.0073	-0.459	0.9885	A+	A-	A-
ELA	4	800962	9	CCAACS	2	B-C	5002	0.3908	0.228	0.3907	0.1906	0.1902	0.0004	0.3038	-0.0684	0.3041	-0.1121	-0.1912	-0.0306	1.1423	0.0591	3.7811	1.0942	6.8613	1.2816	A-	A-	A-
ELA	4	800963	9	CCAACS	2	B-C	5001	0.5477	0.0901	0.1587	0.5474	0.2032	0.0006	0.3785	-0.2188	-0.2534	0.3783	-0.0821	-0.0006	0.3266	0.057	2.261	1.0482	2.6311	1.0813	A-	A-	A-
ELA	4	800964	9	CCAACS	2	B-C	5004	0.8161	0.0446	0.0983	0.041	0.8161		0.4645	-0.2226	-0.3027	-0.2213	0.4645		-1.1939	0.069	-4.1592	0.8495	-5.1393	0.6866	A-	A-	A-
ELA	4	800967	9	CCAACS	2	B-C	5003	0.676	0.1615	0.0813	0.6759	0.0811	0.0002	0.4431	-0.2154	-0.3059	0.4429	-0.163	0.0043	-0.2911	0.0592	-4.5791	0.8915	-3.6791	0.8608	A-	A-	A-
ELA	4	800959	9	CCAACS	2	B-K	5002	0.4288	0.4287	0.1733	0.0835	0.3141	0.0004	0.1277	0.1279	-0.1825	-0.2456	0.1594	-0.0112	0.8472	0.0576	9.9012	1.2426	9.9014	1.3895	A-	A+	A-
ELA	4	800960	9	CCAACS	2	B-K	5003	0.7452	0.0795	0.1187	0.0566	0.745	0.0002	0.4053	-0.2434	-0.1987	-0.2006	0.4056	-0.0232	-0.8304	0.064	-1.509	0.9529	-2.1991	0.8822	A-	A+	A-
ELA	4	800968	9	CCAACS	2	B-V	5004	0.8903	0.8903	0.0436	0.0376	0.0286		0.3823	0.3823	-0.2376	-0.219	-0.1761		-1.9731	0.0857	-1.0191	0.9403	-3.2093	0.6948	A-	A-	A-
ELA	4	807269	9	CCAACS	2	B-V	5002	0.6941	0.1405	0.0991	0.0661	0.6938	0.0004	0.4108	-0.1979	-0.2287	-0.2096	0.4105	0.0017	-0.4135	0.06	-1.099	0.9717	-0.269	0.9879	C-	A-	A-
ELA	4	781979	9	CCAACS	2	D	5003	0.6924	0.0693	0.1437	0.6922	0.0945	0.0002	0.4381	-0.214	-0.2342	0.4383	-0.224	-0.0201	-0.3537	0.0484	-4.0891	0.9191	-4.3291	0.8664	A+	A+	A-
ELA	5	711327	0	CCAACS	3	A-C	65923	0.5737	0.183	0.1404	0.5733	0.1028	0.0006	0.4777	-0.2119	-0.24	0.4781	-0.2319	-0.032	-0.0982	0.0194	-3.599	0.9729	-4.189	0.9522	A+	A+	A+
ELA	5	711328	0	CCAACS	2	A-C	65928	0.3911	0.2482	0.1753	0.185	0.3909	0.0005	0.4315	-0.1134	-0.2154	-0.2037	0.4318	-0.0306	0.3118	0.0191	5.471	1.0395	6.7911	1.0715	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	711553	0	CCAACS	2	A-K	65932	0.4841	0.2112	0.4839	0.1537	0.1508	0.0004	0.4128	-0.1672	0.4131	-0.233	-0.1497	-0.028	0.2517	0.0191	7.1011	1.0516	6.4111	1.0678	A+	A+	A+
ELA	5	711738	0	CCAACS	3	A-K	65935	0.4551	0.2188	0.152	0.1738	0.4549	0.0004	0.5803	-0.2146	-0.3008	-0.2422	0.5804	-0.0255	0.2421	0.0191	-9.8991	0.9153	-9.5991	0.9037	A+	A+	A+
ELA	5	744025	0	CCAACS	2	A-K	65936	0.5388	0.5386	0.2951	0.0793	0.0866	0.0004	0.3801	0.3805	-0.1277	-0.3151	-0.1624	-0.031	0.2213	0.0191	9.9011	1.091	9.9011	1.145	A-	A+	A+
ELA	5	744029	0	CCAACS	2	A-K	65938	0.5504	0.0746	0.2943	0.0806	0.5502	0.0003	0.407	-0.2536	-0.1538	-0.2403	0.4073	-0.0269	0.1481	0.0191	8.8511	1.0654	9.9011	1.1171	A+	A+	A+
ELA	5	744030	0	CCAACS	2	A-K	65940	0.5322	0.1308	0.5321	0.2702	0.0667	0.0003	0.33	-0.1494	0.3303	-0.1145	-0.2532	-0.0234	0.163	0.0191	9.9011	1.1203	9.9012	1.1864	A+	A+	A+
ELA	5	711318	0	CCAACS	1	A-V	65931	0.5953	0.595	0.1526	0.1981	0.0539	0.0004	0.4506	0.451	-0.312	-0.1689	-0.1827	-0.0299	0.0045	0.0192	-0.779	0.9942	-1.559	0.9828	A-	A+	A-
ELA	5	711320	0	CCAACS	2	A-V	65926	0.6009	0.1789	0.1263	0.6006	0.0937	0.0005	0.3739	-0.109	-0.2332	0.3742	-0.2179	-0.0256	-0.3853	0.0198	9.9011	1.1445	9.9012	1.2267	A-	A-	A-
ELA	5	711741	0	CCAACS	2	A-V	65927	0.354	0.3401	0.3538	0.2445	0.0611	0.0005	0.3135	-0.0779	0.3138	-0.1907	-0.1273	-0.0302	1.057	0.0198	9.9011	1.1096	9.9013	1.3047	A+	A+	A+
ELA	5	744033	0	CCAACS	3	A-V	65939	0.6394	0.1492	0.6392	0.0769	0.1344	0.0003	0.372	-0.1757	0.3723	-0.2813	-0.1197	-0.0234	-0.3414	0.0197	8.7011	1.0732	7.2511	1.0984	A+	A+	A+
ELA	5	711530	0	CCAACS	3	B-C	65931	0.4856	0.2109	0.2056	0.4853	0.0978	0.0004	0.4773	-0.1788	-0.2829	0.4775	-0.1712	-0.0248	0.4303	0.0191	-4.389	0.969	-1.399	0.9857	A+	A+	A-
ELA	5	744185	0	CCAACS	1	B-C	65936	0.3778	0.1972	0.3776	0.2193	0.2055	0.0004	0.3724	-0.0787	0.3726	-0.2201	-0.1428	-0.0291	1.101	0.0199	9.2711	1.0791	9.9012	1.2157	A-	A-	A-
ELA	5	744195	0	CCAACS	2	B-C	65933	0.4068	0.4066	0.167	0.1668	0.2591	0.0004	0.3049	0.3052	-0.251	-0.1052	-0.0376	-0.0291	0.7921	0.0193	9.9012	1.1606	9.9013	1.2671	A-	A+	A+
ELA	5	744196	0	CCAACS	2	B-C	65936	0.3333	0.1659	0.287	0.3332	0.2135	0.0004	0.287	-0.1141	-0.112	0.2872	-0.1018	-0.0292	1.0078	0.0197	9.9011	1.0927	9.9012	1.2306	A+	A+	A-
ELA	5	711535	0	CCAACS	2	B-K	65939	0.5522	0.111	0.2377	0.552	0.099	0.0003	0.456	-0.2611	-0.186	0.4562	-0.2186	-0.0216	0.1268	0.0191	-0.679	0.9951	-0.409	0.9956	A-	A-	A-
ELA	5	711536	0	CCAACS	3	B-K	65938	0.5457	0.5455	0.1923	0.1065	0.1554	0.0003	0.2975	0.2977	-0.1813	-0.2177	-0.0258	-0.0174	0.2029	0.0191	9.9012	1.1625	9.9012	1.2318	A-	A+	A+
ELA	5	711540	0	CCAACS	2	B-K	65928	0.5365	0.1276	0.1329	0.2028	0.5362	0.0005	0.5164	-0.2644	-0.2212	-0.2333	0.5165	-0.0214	0.0002	0.0192	-4.959	0.9636	-4.039	0.9558	A-	A-	A-
ELA	5	744189	0	CCAACS	2	B-K	65940	0.7191	0.1372	0.7188	0.0593	0.0843	0.0003	0.5906	-0.345	0.5909	-0.2511	-0.3137	-0.0278	-1.0589	0.022	-9.3991	0.8976	-9.8992	0.78	A+	A-	A-
ELA	5	744192	0	CCAACS	2	B-K	65939	0.5317	0.5315	0.1289	0.2129	0.1264	0.0003	0.3938	0.394	-0.3374	-0.1032	-0.1229	-0.0271	0.2944	0.0191	9.7511	1.0712	9.9011	1.1074	A-	A+	A+
ELA	5	744193	0	CCAACS	2	B-K	65936	0.4873	0.1948	0.1466	0.1711	0.4871	0.0004	0.5226	-0.1803	-0.2437	-0.274	0.5228	-0.026	0.1653	0.0191	-7.4591	0.9471	-6.0091	0.938	A+	A+	A+
ELA	5	711534	0	CCAACS	2	B-V	65945	0.7862	0.0708	0.0501	0.0929	0.786	0.0002	0.5103	-0.2554	-0.2532	-0.3045	0.5106	-0.0187	-1.2172	0.0227	-9.8992	0.8219	-9.8993	0.7176	A-	A-	A-
ELA	5	744186	0	CCAACS	2	B-V	65941	0.6517	0.0873	0.0811	0.6516	0.1798	0.0003	0.4671	-0.2307	-0.2857	0.4674	-0.2062	-0.0241	-0.932	0.0215	9.9012	1.1556	9.9012	1.2349	A-	A+	A+
ELA	5	505539	0	CCAACS	2	D	65941	0.3536	0.2707	0.3535	0.2001	0.1753	0.0003	0.1604	0.0347	0.1606	-0.1676	-0.0651	-0.0217	1.1284	0.0199	9.9013	1.2658	9.9015	1.4748	A-	A+	A+
ELA	5	661444	0	CCAACS	1	D	65946	0.3419	0.2978	0.1897	0.1704	0.3418	0.0002	0.2619	-0.1097	-0.0584	-0.1357	0.262	-0.014	1.1922	0.0201	9.9012	1.1871	9.9014	1.3809	A-	A-	A-
ELA	5	714314	0	CCAACS	1	D	65950	0.504	0.1559	0.504	0.1967	0.1433	0.0002	0.3501	-0.2159	0.3502	-0.0925	-0.1707	-0.0122	0.5745	0.0191	9.9011	1.1067	9.9012	1.1749	A+	A-	A-
ELA	5	714318	0	CCAACS	2	D	65955	0.3997	0.2048	0.285	0.3997	0.1105	0.0001	0.4479	-0.2527	-0.1454	0.448	-0.165	-0.0128	0.9746	0.0196	2.641	1.0211	6.4111	1.0813	A-	A-	A-
ELA	5	716625	0	CCAACS	2	D	65946	0.3555	0.1673	0.3554	0.2373	0.2398	0.0002	0.2515	-0.1561	0.2516	-0.1318	-0.0136	-0.0204	1.2094	0.0201	9.9012	1.2147	9.9014	1.4132	A+	A-	A-
ELA	5	744681	0	CCAACS	2	D	65953	0.69	0.0766	0.6899	0.0777	0.1557	0.0001	0.4624	-0.2263	0.4625	-0.2154	-0.2647	-0.0107	-0.3762	0.0198	-9.8991	0.9037	-9.8991	0.8628	A-	B-	A-
ELA	5	744682	0	CCAACS	2	D	65948	0.5268	0.2637	0.11	0.5267	0.0994	0.0002	0.3726	-0.2081	-0.1413	0.3727	-0.1671	-0.0152	0.6254	0.0192	9.9011	1.1249	9.9012	1.2183	A-	A+	A+
ELA	5	744904	0	CCAACS	2	D	65950	0.6195	0.6194	0.2216	0.1032	0.0557	0.0002	0.3945	0.3947	-0.1932	-0.2042	-0.2141	-0.0167	-0.0335	0.0193	3.681	1.0278	4.3911	1.0502	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	744907	0	CCAACS	2	D	65954	0.4504	0.4503	0.1627	0.2477	0.1393	0.0001	0.2676	0.2677	-0.1942	-0.0193	-0.1532	-0.0104	0.6696	0.0192	9.9012	1.2149	9.9013	1.3347	A-	A-	A-
ELA	5	801007	1	CCAACS	2	A-C	20294	0.5338	0.1779	0.5336	0.1107	0.1774	0.0004	0.3875	-0.0713	0.3877	-0.265	-0.2163	-0.0181	-0.2036	0.058	1.341	1.0309	2.9611	1.1067	A-	A-	A-
ELA	5	801000	1	CCAACS	2	A-K	20296	0.5112	0.3254	0.0947	0.0686	0.5111	0.0003	0.2162	0.0564	-0.2565	-0.2342	0.2164	-0.0176	-0.0198	0.0578	8.5512	1.2073	7.6213	1.274	A+	A+	A+
ELA	5	801001	1	CCAACS	2	A-K	20296	0.6638	0.1112	0.1195	0.1054	0.6635	0.0003	0.517	-0.2822	-0.2496	-0.2422	0.5172	-0.0179	-0.8906	0.0614	-7.0292	0.8216	-6.1993	0.7201	A+	A+	A+
ELA	5	801004	1	CCAACS	2	A-K	20296	0.4865	0.4863	0.1263	0.3025	0.0846	0.0003	0.2785	0.2786	-0.2015	-0.032	-0.2063	-0.0085	0.0447	0.0578	6.6712	1.1594	6.0212	1.2103	A+	A-	A-
ELA	5	801005	1	CCAACS	2	A-K	20294	0.4659	0.1216	0.1527	0.2596	0.4656	0.0004	0.4433	-0.238	-0.3126	-0.0696	0.4435	-0.0233	0.1153	0.0578	-1.079	0.9753	-0.559	0.9814	A+	A-	A-
ELA	5	801006	1	CCAACS	2	A-K	20295	0.3624	0.0848	0.0537	0.3623	0.4988	0.0004	0.3287	-0.2095	-0.2225	0.3288	-0.0983	-0.017	0.6716	0.0592	3.1511	1.08	5.8812	1.2323	A+	A-	A-
ELA	5	801010	1	CCAACS	2	A-V	20293	0.7314	0.7311	0.1301	0.0822	0.0561	0.0005	0.4777	0.4779	-0.2615	-0.262	-0.2241	-0.0179	-1.252	0.0649	-5.7192	0.8305	-5.2593	0.7093	A+	A+	A-
ELA	5	806932	1	CCAACS	2	A-V	20301	0.6538	0.1227	0.1332	0.0902	0.6537	0.0001	0.5505	-0.293	-0.3021	-0.2201	0.5506	-0.01	-0.8258	0.0609	-9.0692	0.7789	-7.8993	0.6645	A-	A-	A-
ELA	5	784908	1	CCAACS	1	D	20297	0.542	0.5418	0.1957	0.1041	0.1581	0.0003	0.3156	0.3159	-0.0649	-0.2394	-0.1594	-0.0231	-0.2013	0.058	4.3211	1.1023	3.2011	1.1159	A+	A-	A-
ELA	5	784910	1	CCAACS	1	D	11450	0.7926	0.0636	0.0562	0.7926	0.0877		0.4199	-0.2357	-0.2414	0.4199	-0.2021		-0.7676	0.0394	-7.7391	0.864	-7.3092	0.7897	A+	B-	A-
ELA	5	784922	1	CCAACS	2	D	11398	0.508	0.377	0.0372	0.5079	0.0778	0.0001	0.3849	-0.1952	-0.188	0.385	-0.2321	-0.0123	0.4762	0.0451	0.791	1.0132	1.971	1.0484	A-	B-	A-
ELA	5	783883	2	CCAACS	3	A-C	5681	0.5999	0.123	0.5998	0.2262	0.0509	0.0002	0.3307	-0.1209	0.3309	-0.1946	-0.1853	-0.0219	-0.0114	0.0578	2.171	1.0496	1.9411	1.0656	A-	A-	A-
ELA	5	783877	2	CCAACS	2	A-K	5680	0.8745	0.8742	0.0225	0.0296	0.0734	0.0004	0.4002	0.4009	-0.1737	-0.2091	-0.2734	-0.025	-1.7027	0.077	-2.4591	0.8868	-3.9593	0.6881	A-	A-	A-
ELA	5	783879	2	CCAACS	3	A-K	5680	0.5241	0.1015	0.5239	0.141	0.2332	0.0004	0.3123	-0.212	0.3125	-0.2043	-0.049	-0.012	0.4263	0.0572	4.2811	1.0943	4.7312	1.152	A+	A+	A+
ELA	5	783881	2	CCAACS	3	A-K	5680	0.6333	0.1419	0.1037	0.6331	0.1211	0.0004	0.3688	-0.2195	-0.2087	0.3692	-0.1144	-0.022	-0.1089	0.0582	-0.579	0.9865	-0.279	0.9897	A+	A+	A-
ELA	5	784393	2	CCAACS	3	A-K	5681	0.7474	0.0331	0.0373	0.7473	0.1822	0.0002	0.3992	-0.1478	-0.2389	0.3994	-0.2634	-0.012	-0.6501	0.0616	-2.9991	0.9175	-2.7391	0.8753	A-	A-	A-
ELA	5	783873	2	CCAACS	2	A-V	5682	0.8502	0.0634	0.8502	0.0213	0.0651		0.3816	-0.1922	0.3816	-0.2096	-0.2396		-1.3368	0.0702	-4.6792	0.8269	-4.2893	0.7212	A-	B-	B-
ELA	5	783875	2	CCAACS	2	A-V	5681	0.8051	0.1082	0.0363	0.805	0.0503	0.0002	0.4359	-0.3105	-0.1426	0.4357	-0.2267	0.0021	-1.0692	0.0662	-5.7092	0.8164	-4.1892	0.7639	A+	A-	A-
ELA	5	800687	2	CCAACS	2	A-V	5681	0.6055	0.6054	0.1788	0.0472	0.1684	0.0002	0.329	0.3292	-0.1173	-0.2006	-0.1954	-0.0247	0.0363	0.0577	2.2411	1.0507	2.2911	1.0765	A-	A-	A-
ELA	5	784920	2	CCAACS	2	D	5682	0.6917	0.0542	0.6917	0.0324	0.2218		0.3412	-0.2583	0.3412	-0.1896	-0.1577		-0.3601	0.0595	1.181	1.0298	0.991	1.0394	A+	A-	A-
ELA	5	799522	3	CCAACS	3	A-C	5703	0.5722	0.1008	0.5722	0.199	0.128		0.3651	-0.2387	0.3651	-0.1862	-0.1031		0.2123	0.0574	0.451	1.0095	0.231	1.0072	A-	A+	A+
ELA	5	799523	3	CCAACS	2	A-C	5702	0.3071	0.3772	0.1743	0.307	0.1413	0.0002	0.2825	0.0782	-0.2077	0.2825	-0.2562	-0.0117	1.4913	0.0624	1.8111	1.0533	6.4213	1.3461	A+	A-	A-
ELA	5	799516	3	CCAACS	2	A-K	5702	0.4663	0.2015	0.4662	0.2094	0.1227	0.0002	0.4786	-0.2564	0.4785	-0.1946	-0.1729	0.0047	0.6498	0.0575	-3.9991	0.9151	-2.0191	0.9351	A+	A-	A-
ELA	5	799518	3	CCAACS	3	A-K	5703	0.6128	0.1531	0.6128	0.0926	0.1415		0.4361	-0.3002	0.4361	-0.2663	-0.0779		-0.0846	0.0583	-3.3591	0.9248	-2.8191	0.8979	A+	A+	A-
ELA	5	799520	3	CCAACS	2	A-K	5700	0.5156	0.1205	0.2367	0.5153	0.127	0.0005	0.3384	-0.1553	-0.258	0.3388	-0.0254	-0.0282	0.3775	0.0573	2.6111	1.0568	2.7611	1.091	A+	A-	A-
ELA	5	799521	3	CCAACS	3	A-K	5701	0.377	0.1587	0.06	0.3768	0.4042	0.0004	0.2632	-0.1804	-0.2517	0.2633	-0.0032	-0.0185	0.9841	0.0587	6.0512	1.1501	6.6913	1.2655	A+	A+	A-
ELA	5	799513	3	CCAACS	2	A-V	5703	0.7314	0.1068	0.7314	0.0577	0.1042		0.2799	-0.1279	0.2799	-0.2303	-0.1012		-0.6447	0.062	1.451	1.0414	1.6411	1.0861	A+	A-	A-
ELA	5	805962	3	CCAACS	2	A-V	5702	0.5182	0.1485	0.1133	0.2199	0.5181	0.0002	0.3623	-0.1171	-0.258	-0.1386	0.3625	-0.0241	0.3293	0.0573	1.701	1.0368	2.0011	1.0659	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	784916	3	CCAACS	2	D	5703	0.7095	0.0109	0.1226	0.7095	0.1571		0.4912	-0.1367	-0.2184	0.4912	-0.3771		-0.3878	0.0599	-5.1791	0.874	-4.4592	0.8153	A+	B-	A-
ELA	5	784924	3	CCAACS	1	D	11365	0.5849	0.0764	0.0443	0.2944	0.5848	0.0002	0.4676	-0.2452	-0.2622	-0.2438	0.4678	-0.0246	0.1201	0.0406	-4.7091	0.93	-3.4991	0.92	A+	B-	A-
ELA	5	799549	4	CCAACS	3	A-C	5767	0.2188	0.2305	0.0504	0.2188	0.4999	0.0003	0.0694	-0.0798	-0.1765	0.0697	0.0882	-0.0335	1.8752	0.067	5.4812	1.2056	9.9019	1.8913	A-	A-	A-
ELA	5	799550	4	CCAACS	3	A-C	5768	0.5147	0.1304	0.5146	0.2819	0.073	0.0002	0.2445	-0.2109	0.2445	0.0004	-0.1973	-0.0061	0.2929	0.0573	5.4711	1.1222	5.6612	1.1876	A+	A-	A+
ELA	5	799543	4	CCAACS	2	A-K	5767	0.4399	0.4398	0.2961	0.1666	0.0972	0.0003	0.1753	0.1754	-0.0498	-0.031	-0.1775	-0.0106	0.8874	0.0583	9.6512	1.237	9.9014	1.4152	A-	A+	A+
ELA	5	799545	4	CCAACS	3	A-K	5768	0.5602	0.2267	0.1281	0.5601	0.0849	0.0002	0.5246	-0.2776	-0.2656	0.5246	-0.1987	-0.0033	0.1596	0.0575	-4.1191	0.9124	-3.4191	0.8935	A+	A-	A+
ELA	5	799546	4	CCAACS	3	A-K	5768	0.5451	0.2285	0.1382	0.0882	0.545	0.0002	0.3685	-0.2455	-0.0739	-0.1936	0.3684	0.0024	0.2012	0.0575	1.801	1.0394	2.3011	1.0746	A+	A+	A+
ELA	5	799547	4	CCAACS	2	A-K	5768	0.7295	0.7294	0.1271	0.1009	0.0425	0.0002	0.4856	0.4858	-0.2747	-0.2624	-0.2237	-0.016	-0.7263	0.0628	-3.3191	0.9041	-4.6492	0.7811	A-	A-	A+
ELA	5	799539	4	CCAACS	2	A-V	5768	0.8809	0.8807	0.0445	0.0314	0.0432	0.0002	0.3989	0.3995	-0.2345	-0.2131	-0.2145	-0.0258	-1.6988	0.0777	-3.9292	0.8209	-4.6794	0.631	A-	B-	A-
ELA	5	799541	4	CCAACS	2	A-V	5767	0.9299	0.0383	0.0177	0.9296	0.014	0.0003	0.3024	-0.1909	-0.1636	0.3034	-0.1606	-0.0266	-2.2664	0.0925	-2.7592	0.8276	-3.9094	0.5868	A-	B-	A-
ELA	5	784918	4	CCAACS	2	D	5767	0.8549	0.0456	0.8546	0.0302	0.0693	0.0003	0.3544	-0.2094	0.3552	-0.2201	-0.1707	-0.0286	-1.4032	0.0719	-2.8891	0.8841	-1.6091	0.8799	B+	A-	A-
ELA	5	799620	5	CCAACS	3	A-C	5708	0.2887	0.2142	0.175	0.3219	0.2886	0.0004	0.2566	-0.0502	-0.1161	-0.1096	0.2568	-0.0257	1.4668	0.0622	3.6611	1.1089	5.1913	1.27	A+	A-	A-
ELA	5	799621	5	CCAACS	3	A-C	5708	0.4275	0.069	0.4287	0.0746	0.4273	0.0004	0.3179	-0.2113	-0.1107	-0.1846	0.3182	-0.0276	0.8193	0.0579	3.1311	1.0718	5.2712	1.1871	A-	A-	A-
ELA	5	799614	5	CCAACS	3	A-K	5708	0.3588	0.4858	0.3587	0.0713	0.0839	0.0004	0.3449	-0.0519	0.345	-0.2194	-0.2985	-0.0178	1.0257	0.0589	2.3511	1.057	4.2812	1.1666	A+	A+	A+
ELA	5	799616	5	CCAACS	3	A-K	5707	0.5675	0.1627	0.5673	0.1627	0.1068	0.0005	0.3762	-0.1725	0.3766	-0.1765	-0.185	-0.0279	0.1911	0.0573	0.501	1.0106	2.3311	1.0755	A+	A+	A-
ELA	5	799618	5	CCAACS	2	A-K	5708	0.2057	0.6012	0.2056	0.1163	0.0765	0.0004	-0.0224	0.3691	-0.0221	-0.3237	-0.254	-0.0276	2.065	0.0699	6.9513	1.2973	9.902	1.9563	A-	A+	A+
ELA	5	799619	5	CCAACS	3	A-K	5706	0.4672	0.0967	0.2646	0.1711	0.4669	0.0007	0.2664	-0.2208	-0.1132	-0.0451	0.2671	-0.0412	0.6092	0.0574	5.5811	1.1248	6.0912	1.2033	A+	A-	A-
ELA	5	799613	5	CCAACS	2	A-V	5710	0.5876	0.1053	0.5876	0.0802	0.227		0.2909	-0.2231	0.2909	-0.1345	-0.0912		0.0385	0.0577	4.3211	1.0985	3.3111	1.1143	A-	A-	A-
ELA	5	806005	5	CCAACS	2	A-V	5710	0.8961	0.8961	0.0214	0.0573	0.0252		0.3701	0.3701	-0.1989	-0.2394	-0.1819		-1.8295	0.0808	-3.8692	0.8102	-4.9794	0.5833	B-	A-	A-
ELA	5	784923	5	CCAACS	1	D	5709	0.9625	0.9623	0.013	0.0173	0.0072	0.0002	0.2794	0.2786	-0.1715	-0.1733	-0.1309	0.0033	-2.4883	0.1005	-1.1591	0.9129	-3.0694	0.6282	A+	A-	A-
ELA	5	805503	6	CCAACS	2	B-C	5662	0.8161	0.075	0.8159	0.0321	0.0766	0.0004	0.3421	-0.2138	0.3424	-0.1935	-0.1577	-0.0178	-1.2324	0.0684	-1.5891	0.9414	-0.519	0.963	A+	A-	A-
ELA	5	805504	6	CCAACS	2	B-C	5663	0.5515	0.1441	0.0641	0.2403	0.5514	0.0002	0.3013	-0.1264	-0.2686	-0.0926	0.3015	-0.0168	0.2088	0.0571	2.6711	1.0566	1.9911	1.0631	A-	A-	A-
ELA	5	805499	6	CCAACS	2	B-K	5663	0.6029	0.2188	0.0627	0.1156	0.6028	0.0002	0.4911	-0.2523	-0.2446	-0.2397	0.491	-0.0014	-0.0901	0.0578	-3.3091	0.9286	-2.8491	0.9035	A+	A+	A+
ELA	5	805501	6	CCAACS	2	B-K	5660	0.7869	0.7864	0.0493	0.0341	0.1296	0.0007	0.4045	0.4057	-0.2018	-0.1447	-0.2838	-0.0399	-1.126	0.0668	-3.3291	0.8868	-4.0392	0.76	A+	A-	A-
ELA	5	805502	6	CCAACS	2	B-K	5663	0.4369	0.2936	0.4368	0.081	0.1884	0.0002	0.2937	-0.0848	0.2937	-0.2316	-0.1121	-0.0014	0.6892	0.0575	3.1111	1.0693	3.5911	1.1194	A-	A-	A-
ELA	5	805494	6	CCAACS	2	B-V	5664	0.727	0.1527	0.727	0.0669	0.0533		0.3631	-0.1584	0.3631	-0.2265	-0.2143		-0.5722	0.0607	-1.269	0.9665	-1.5591	0.9295	A-	B-	A-
ELA	5	805496	6	CCAACS	2	B-V	5662	0.8089	0.0551	0.1054	0.0305	0.8086	0.0004	0.3382	-0.1663	-0.1836	-0.2235	0.3388	-0.0277	-1.3085	0.0696	-2.3691	0.9101	-2.6592	0.8191	A+	A-	A-
ELA	5	810360	6	CCAACS	2	B-V	5661	0.8947	0.0556	0.8942	0.0208	0.0288	0.0005	0.3142	-0.1756	0.3154	-0.1825	-0.1793	-0.0307	-1.7029	0.0772	-2.4391	0.8855	-1.9692	0.8296	A+	A-	A-
ELA	5	784913	6	CCAACS	2	D	5664	0.4495	0.0862	0.1725	0.4495	0.2918		0.2395	-0.2242	-0.218	0.2395	0.0574		0.5608	0.0572	7.2012	1.161	6.9512	1.2313	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	5	786670	7	CCAACS	3	B-C	5664	0.5747	0.5745	0.2536	0.0519	0.1197	0.0004	0.2504	0.2507	-0.0424	-0.2397	-0.1601	-0.0204	0.0988	0.0573	4.0411	1.0894	5.5712	1.1821	A-	A-	A-
ELA	5	786680	7	CCAACS	2	B-C	5665	0.5769	0.0688	0.1274	0.2268	0.5768	0.0002	0.41	-0.22	-0.276	-0.131	0.4097	0.0139	-0.0045	0.0576	-1.699	0.963	-1.5891	0.9497	A+	A+	A+
ELA	5	786681	7	CCAACS	2	B-C	5664	0.3997	0.2577	0.17	0.3996	0.1724	0.0004	0.2452	-0.0334	-0.055	0.2452	-0.2245	-0.0033	1.0279	0.059	7.3312	1.1861	8.9814	1.3811	A+	A-	A-
ELA	5	786673	7	CCAACS	2	B-K	5666	0.246	0.5051	0.246	0.1112	0.1377		0.1826	0.0325	0.1826	-0.1682	-0.122		1.7599	0.066	3.8111	1.135	8.7316	1.615	A-	A-	A-
ELA	5	786674	7	CCAACS	2	B-K	5663	0.2161	0.4954	0.1112	0.1768	0.216	0.0005	0.1147	0.0619	-0.1841	-0.0523	0.1148	-0.016	1.6967	0.0652	6.3112	1.222	8.7216	1.5871	A-	A-	A-
ELA	5	786676	7	CCAACS	3	B-K	5665	0.6655	0.1924	0.6654	0.0942	0.0478	0.0002	0.3598	-0.1534	0.3599	-0.2347	-0.1907	-0.0087	-0.354	0.0591	0.051	1.001	0.571	1.0214	A+	A+	A+
ELA	5	786672	7	CCAACS	2	B-V	5666	0.7005	0.1152	0.0784	0.7005	0.1059		0.3927	-0.2107	-0.2971	0.3927	-0.1064		-0.6322	0.0612	-1.629	0.9552	-0.279	0.9868	A+	A-	B-
ELA	5	801600	7	CCAACS	2	B-V	5666	0.9359	0.9359	0.0228	0.0226	0.0187		0.3047	0.3047	-0.1888	-0.1889	-0.1355		-2.3314	0.0934	-2.5492	0.8369	-3.7994	0.6018	A+	A-	A-
ELA	5	784926	7	CCAACS	2	D	5666	0.9381	0.0203	0.9381	0.0215	0.0201		0.3398	-0.197	0.3398	-0.2071	-0.1713		-2.145	0.0877	-2.4891	0.8556	-4.2994	0.5952	A+	A-	B-
ELA	5	785221	8	CCAACS	3	B-C	5748	0.5188	0.166	0.5188	0.0908	0.2244		0.4355	-0.2985	0.4355	-0.1701	-0.1382		0.4819	0.0568	-3.1191	0.9371	-1.369	0.9606	A-	A+	A-
ELA	5	785231	8	CCAACS	2	B-C	5747	0.6722	0.0802	0.1093	0.6721	0.1383	0.0002	0.5158	-0.2636	-0.3217	0.516	-0.2026	-0.0275	-0.3801	0.0593	-4.2891	0.8967	-4.9192	0.8214	A-	A+	A+
ELA	5	785232	8	CCAACS	2	B-C	5748	0.5271	0.0746	0.1688	0.2295	0.5271		0.3778	-0.2477	-0.177	-0.1361	0.3778		0.2798	0.0568	2.6211	1.055	2.7011	1.0802	A+	A-	A-
ELA	5	785225	8	CCAACS	2	B-K	5748	0.3749	0.1653	0.2086	0.3749	0.2512		0.2515	-0.2857	-0.0108	0.2515	-0.026		1.0636	0.0588	4.2311	1.1039	6.0312	1.2389	A-	A-	A+
ELA	5	785228	8	CCAACS	3	B-K	5748	0.4078	0.2777	0.1862	0.1284	0.4078		0.3234	-0.1348	-0.1251	-0.149	0.3234		0.9031	0.0579	2.5311	1.0575	3.8311	1.1344	A+	A-	A-
ELA	5	785229	8	CCAACS	2	B-K	5747	0.2417	0.1461	0.2416	0.2921	0.3199	0.0002	0.1584	-0.1189	0.1583	-0.1224	0.0639	0.005	1.8536	0.0668	3.5211	1.1294	8.6016	1.6133	A+	A+	A+
ELA	5	785223	8	CCAACS	2	B-V	5748	0.7331	0.0767	0.0231	0.7331	0.167		0.4116	-0.2572	-0.2239	0.4116	-0.2144		-0.6662	0.0616	-1.699	0.9522	-2.2691	0.8983	A-	A-	A-
ELA	5	801605	8	CCAACS	2	B-V	5747	0.916	0.0148	0.9158	0.0536	0.0157	0.0002	0.3331	-0.1823	0.3334	-0.2251	-0.1588	-0.0148	-2.011	0.0853	-1.3891	0.9203	-1.8092	0.8216	A+	A-	A-
ELA	5	784927	8	CCAACS	2	D	5748	0.5931	0.1136	0.2063	0.5931	0.087		0.3862	-0.2122	-0.1613	0.3862	-0.2027		0.0384	0.0573	0.341	1.0072	0.061	1.0016	A-	A-	A-
ELA	5	799531	9	CCAACS	3	B-C	5714	0.2844	0.1914	0.2206	0.3034	0.2843	0.0002	0.2165	-0.2276	-0.0736	0.0491	0.2166	-0.019	1.5334	0.0624	4.9912	1.151	5.6513	1.3024	A-	A+	A+
ELA	5	799532	9	CCAACS	2	B-C	5714	0.6638	0.071	0.6637	0.136	0.1291	0.0002	0.3166	-0.2439	0.3167	-0.1982	-0.0563	-0.012	-0.2698	0.0591	2.5511	1.0638	1.9611	1.075	B-	A-	A-
ELA	5	799603	9	CCAACS	2	B-C	5714	0.0845	0.2891	0.4829	0.1433	0.0845	0.0002	-0.0892	0.0781	0.0816	-0.1461	-0.0891	-0.0148	2.962	0.0897	4.3113	1.2984	9.9032	3.2019	A-	A-	A-
ELA	5	799527	9	CCAACS	2	B-K	5714	0.6666	0.137	0.0982	0.6665	0.0982	0.0002	0.465	-0.2349	-0.2333	0.4652	-0.2316	-0.0176	-0.3211	0.0594	-3.7891	0.9078	-3.3791	0.8742	A-	A-	A-
ELA	5	799528	9	CCAACS	2	B-K	5714	0.6832	0.1661	0.1102	0.6831	0.0404	0.0002	0.3373	-0.1663	-0.1786	0.3376	-0.1981	-0.0176	-0.409	0.06	-0.569	0.9851	1.111	1.0455	A+	A-	A-
ELA	5	799529	9	CCAACS	2	B-K	5715	0.298	0.5631	0.298	0.0887	0.0502		0.0747	0.1613	0.0747	-0.2582	-0.1865		1.3998	0.0611	8.9513	1.2628	9.9016	1.559	A-	A+	A+
ELA	5	799530	9	CCAACS	2	B-K	5713	0.8531	0.0465	0.0336	0.0667	0.8528	0.0003	0.4364	-0.2356	-0.1863	-0.2852	0.4369	-0.0239	-1.327	0.071	-5.6192	0.7886	-5.6594	0.6442	A+	A-	A-
ELA	5	799525	9	CCAACS	2	B-V	5714	0.5408	0.5407	0.1354	0.2271	0.0966	0.0002	0.3281	0.3283	-0.2564	-0.088	-0.131	-0.0204	0.2365	0.0572	2.9611	1.0647	2.4111	1.0738	A-	A+	A+
ELA	6	744628	0	CCAACS	2	A-C	70719	0.6357	0.073	0.1317	0.6355	0.1595	0.0004	0.4208	-0.2048	-0.2644	0.4211	-0.1626	-0.0226	-0.2205	0.0203	8.7211	1.0798	9.9012	1.1884	A+	A-	A+
ELA	6	744630	0	CCAACS	2	A-C	70728	0.4025	0.1412	0.1437	0.3124	0.4024	0.0003	0.4317	-0.2624	-0.2789	-0.0478	0.4318	-0.0233	1.0161	0.0193	2.291	1.017	5.1611	1.0587	A+	A-	A-
ELA	6	744632	0	CCAACS	2	A-C	70725	0.687	0.1011	0.6868	0.1434	0.0685	0.0003	0.4909	-0.306	0.4911	-0.2444	-0.1963	-0.0177	-0.3842	0.0207	-3.669	0.9652	-3.6191	0.9383	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	744893	0	CCAACS	2	A-C	70710	0.6126	0.1344	0.6123	0.1118	0.141	0.0005	0.5142	-0.2762	0.5147	-0.2573	-0.2145	-0.0358	-0.0852	0.0199	-5.139	0.9572	-5.8191	0.9175	A+	A+	A+
ELA	6	744900	0	CCAACS	2	A-C	70712	0.521	0.1695	0.19	0.5208	0.1193	0.0005	0.4929	-0.2283	-0.253	0.4933	-0.1874	-0.0356	0.2778	0.0193	0.481	1.0036	-0.589	0.9928	A+	A-	A-
ELA	6	744902	0	CCAACS	2	A-C	70716	0.5615	0.5612	0.1102	0.1725	0.1557	0.0004	0.4445	0.4449	-0.317	-0.1728	-0.1532	-0.033	0.3338	0.0193	0.621	1.0046	5.1011	1.0613	A-	A-	A+
ELA	6	744633	0	CCAACS	2	A-K	70723	0.6043	0.059	0.6041	0.2939	0.0427	0.0003	0.4647	-0.2607	0.4649	-0.2519	-0.251	-0.0261	0.1733	0.0195	-1.109	0.9914	-2.019	0.9745	A+	A+	A+
ELA	6	744637	0	CCAACS	2	A-K	70724	0.6453	0.6451	0.1194	0.0905	0.1447	0.0003	0.4531	0.4532	-0.1742	-0.2954	-0.2142	-0.0161	-0.1536	0.0201	-0.219	0.9981	3.6611	1.0566	A+	A+	A+
ELA	6	744896	0	CCAACS	2	A-K	70708	0.7091	0.0472	0.7087	0.1135	0.1301	0.0005	0.5238	-0.2151	0.5245	-0.2808	-0.3054	-0.0382	-0.8028	0.0224	0.121	1.0014	-2.3591	0.9482	A+	A-	A-
ELA	6	744897	0	CCAACS	2	A-K	70711	0.3101	0.2691	0.196	0.2245	0.3099	0.0005	0.2289	0.0908	-0.1981	-0.1601	0.2292	-0.0383	1.4313	0.0199	9.9011	1.1376	9.9013	1.3113	A-	A+	A-
ELA	6	744898	0	CCAACS	2	A-K	70710	0.4856	0.1567	0.287	0.4854	0.0704	0.0005	0.3585	-0.1956	-0.086	0.359	-0.2683	-0.0346	0.6025	0.0191	9.9011	1.1005	9.9011	1.1391	A+	A+	A+
ELA	6	744935	0	CCAACS	2	A-V	70713	0.518	0.0859	0.2229	0.173	0.5178	0.0005	0.5162	-0.2363	-0.2109	-0.2732	0.5165	-0.0366	0.5054	0.0192	-6.869	0.9511	-4.6891	0.9487	A-	A+	A+
ELA	6	660305	0	CCAACS	2	B-C	70701	0.4602	0.152	0.0971	0.2903	0.46	0.0006	0.4056	-0.2749	-0.2838	-0.0413	0.406	-0.035	0.7046	0.0191	9.2111	1.0673	9.9011	1.141	A-	A-	A-
ELA	6	660306	0	CCAACS	2	B-C	70693	0.4307	0.0986	0.1532	0.4304	0.3171	0.0007	0.3578	-0.1891	-0.2738	0.3583	-0.046	-0.0371	1.2254	0.0195	9.9011	1.1269	9.9012	1.2342	A-	A-	A+
ELA	6	660307	0	CCAACS	2	B-C	70711	0.5159	0.211	0.1956	0.5157	0.0773	0.0005	0.4205	-0.1377	-0.1899	0.4209	-0.2922	-0.0352	0.4628	0.0192	6.351	1.0468	6.4511	1.0744	A-	A+	A+
ELA	6	660313	0	CCAACS	3	B-C	70703	0.3262	0.326	0.3211	0.1677	0.1845	0.0006	0.2684	0.2688	0.0012	-0.2677	-0.0663	-0.0336	1.3767	0.0198	9.9011	1.1364	9.9013	1.2943	A-	A+	A+
ELA	6	711234	0	CCAACS	2	B-C	70718	0.5715	0.5713	0.1411	0.2041	0.0831	0.0004	0.4818	0.4821	-0.2691	-0.196	-0.2363	-0.0328	0.2842	0.0193	-2.069	0.9845	-2.019	0.9759	A-	A-	A-
ELA	6	711235	0	CCAACS	2	B-C	70721	0.7518	0.0477	0.7515	0.0989	0.1015	0.0004	0.4756	-0.2628	0.4761	-0.2746	-0.2224	-0.0302	-0.6724	0.0218	-9.1691	0.9023	-7.5391	0.852	A-	A-	A-
ELA	6	711315	0	CCAACS	3	B-C	70717	0.5467	0.089	0.141	0.2231	0.5465	0.0004	0.3464	-0.199	-0.2469	-0.0706	0.3469	-0.0355	0.5449	0.0191	9.9011	1.1369	9.9013	1.2819	A-	A+	A+
ELA	6	660311	0	CCAACS	3	B-K	70698	0.3709	0.1731	0.1875	0.268	0.3707	0.0007	0.3202	-0.1612	-0.2119	-0.0231	0.3206	-0.0369	1.1413	0.0194	9.9011	1.1229	9.9012	1.2191	A+	A+	A+
ELA	6	711237	0	CCAACS	2	B-K	70726	0.6841	0.1223	0.1322	0.6839	0.0613	0.0003	0.5173	-0.2566	-0.2853	0.5177	-0.2479	-0.029	-0.1696	0.0201	-9.8991	0.8877	-9.8992	0.8162	A-	A-	A+
ELA	6	711239	0	CCAACS	3	B-K	70713	0.5066	0.2008	0.5064	0.2007	0.0916	0.0005	0.3481	-0.1689	0.3485	-0.1707	-0.1298	-0.0352	0.7307	0.0191	9.9011	1.0978	9.9012	1.1571	A+	A+	A+
ELA	6	711241	0	CCAACS	2	B-K	70713	0.65	0.1812	0.0692	0.0995	0.6497	0.0005	0.507	-0.2117	-0.2844	-0.2927	0.5075	-0.0357	-0.1284	0.02	-9.6191	0.9197	-7.9291	0.886	A+	A-	A+
ELA	6	584211	0	CCAACS	1	D	70728	0.2369	0.4591	0.2368	0.2198	0.0841	0.0003	0.2442	0.0066	0.2443	-0.1627	-0.1421	-0.0235	2.0407	0.0218	9.9012	1.1789	9.9016	1.5874	A+	A-	A-
ELA	6	629746	0	CCAACS	2	D	70730	0.4283	0.3493	0.1026	0.1197	0.4282	0.0002	0.4105	-0.0725	-0.2888	-0.2486	0.4106	-0.0166	0.9627	0.0192	6.7611	1.0504	9.7611	1.1114	A+	A+	A+
ELA	6	716631	0	CCAACS	2	D	70733	0.7475	0.7474	0.1165	0.0865	0.0495	0.0002	0.4523	0.4525	-0.2494	-0.2384	-0.2275	-0.0171	-0.4138	0.0208	-9.8991	0.8634	-9.8992	0.8277	A+	A+	A+
ELA	6	716633	0	CCAACS	2	D	70727	0.5824	0.5822	0.068	0.2354	0.1142	0.0003	0.3448	0.3451	-0.2097	-0.1576	-0.1577	-0.0245	0.2889	0.0193	9.9011	1.1205	9.9011	1.1473	A+	A-	A-
ELA	6	745253	0	CCAACS	2	D	70732	0.4868	0.1514	0.0522	0.3095	0.4867	0.0002	0.3984	-0.1706	-0.2459	-0.1797	0.3986	-0.0208	0.828	0.0191	9.1111	1.067	9.9011	1.1154	A+	A+	A+
ELA	6	745256	0	CCAACS	1	D	70736	0.6919	0.6918	0.1019	0.1254	0.0807	0.0001	0.4521	0.4522	-0.2603	-0.209	-0.2226	-0.0147	-0.289	0.0205	-7.0891	0.9362	-5.8791	0.9063	A-	A+	A-
ELA	6	745258	0	CCAACS	2	D	70735	0.4093	0.141	0.2745	0.1751	0.4092	0.0002	0.4584	-0.2271	-0.143	-0.2168	0.4584	-0.012	1.1268	0.0194	3.111	1.0238	6.0011	1.0711	A+	A-	A+
ELA	6	745385	0	CCAACS	2	D	70731	0.5744	0.0564	0.1146	0.5743	0.2546	0.0002	0.21	-0.1844	-0.2416	0.2103	0.0363	-0.0215	0.4809	0.0192	9.9013	1.2639	9.9014	1.4213	A+	A-	A+
ELA	6	745392	0	CCAACS	2	D	70736	0.4864	0.2094	0.1994	0.4864	0.1047	0.0001	0.3076	-0.2008	-0.1005	0.3077	-0.1037	-0.0164	0.6205	0.0191	9.9012	1.1536	9.9012	1.2472	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	783852	1	CCAACS	2	A-C	21190	0.4976	0.1508	0.2024	0.4976	0.1493	0	0.3592	-0.1966	-0.2353	0.3591	-0.0413	0.0023	0.3207	0.0579	3.4911	1.0806	3.3211	1.121	A+	A+	A-
ELA	6	783859	1	CCAACS	2	A-C	21172	0.4649	0.1187	0.4645	0.1268	0.2891	0.0009	0.3824	-0.2294	0.3829	-0.2837	-0.0473	-0.0292	0.4807	0.0579	-0.429	0.9901	0.161	1.0052	A+	A-	A-
ELA	6	783860	1	CCAACS	2	A-C	21183	0.5512	0.1977	0.551	0.1735	0.0774	0.0004	0.4042	-0.1522	0.4042	-0.2164	-0.2182	-0.0106	0.0225	0.0585	-0.619	0.9856	0.141	1.005	A+	A-	A-
ELA	6	783854	1	CCAACS	3	A-K	21185	0.4866	0.2162	0.1884	0.1087	0.4864	0.0003	0.5324	-0.2801	-0.2206	-0.2063	0.5325	-0.021	0.3183	0.0579	-7.0692	0.8485	-5.6792	0.813	A+	A-	A-
ELA	6	783856	1	CCAACS	2	A-K	21181	0.5592	0.1463	0.0892	0.205	0.559	0.0005	0.4658	-0.2138	-0.2568	-0.2038	0.4659	-0.0137	0.0044	0.0585	-4.3591	0.902	-3.2291	0.8774	A+	A-	A+
ELA	6	784390	1	CCAACS	3	A-K	21184	0.4662	0.2406	0.1674	0.466	0.1256	0.0003	0.4536	-0.1817	-0.2608	0.4537	-0.1539	-0.0122	0.4658	0.0579	-2.229	0.9502	-1.5091	0.9489	A+	A-	A-
ELA	6	783853	1	CCAACS	2	A-V	21183	0.6644	0.046	0.6641	0.2091	0.0804	0.0004	0.4388	-0.2281	0.439	-0.2915	-0.1494	-0.0185	-0.5311	0.0615	-2.1791	0.9422	0.751	1.0393	A+	A-	A-
ELA	6	800945	1	CCAACS	2	A-V	21186	0.497	0.2558	0.4969	0.0929	0.1542	0.0002	0.4731	-0.2734	0.4731	-0.1764	-0.1823	-0.0136	0.3668	0.0579	-1.259	0.9716	1.101	1.0385	A+	A-	A-
ELA	6	783562	1	CCAACS	2	D	21188	0.2454	0.1761	0.2188	0.2453	0.3596	0.0001	0.0784	-0.118	-0.0691	0.0785	0.0832	-0.0162	1.7688	0.0551	8.2012	1.2441	9.9017	1.6608	A-	A-	A-
ELA	6	783566	1	CCAACS	2	D	12392	0.7689	0.7689	0.1837	0.0275	0.0199		0.1995	0.1995	-0.0717	-0.2171	-0.1489		-0.5482	0.0506	4.9411	1.1251	8.7115	1.4558	A+	A+	A+
ELA	6	783567	1	CCAACS	2	D	12408	0.6683	0.1466	0.0971	0.088	0.6682	0.0002	0.4473	-0.2526	-0.2123	-0.206	0.4472	0	0.0224	0.0423	-2.719	0.9527	-1.529	0.9537	A+	A-	A-
ELA	6	805449	2	CCAACS	2	A-C	6242	0.8473	0.8472	0.0277	0.0748	0.0501	0.0002	0.3836	0.3839	-0.1911	-0.2535	-0.1826	-0.0176	-1.1989	0.0747	-3.3091	0.8575	-2.0992	0.8277	A+	A-	A-
ELA	6	805458	2	CCAACS	2	A-C	6242	0.562	0.0413	0.2673	0.1293	0.5619	0.0002	0.3777	-0.1844	-0.2294	-0.1464	0.3778	-0.0051	0.4307	0.0575	0.141	1.0028	0.661	1.0223	A+	A-	A-
ELA	6	805460	2	CCAACS	2	A-C	6243	0.3679	0.1605	0.2941	0.3679	0.1775		0.2556	-0.1444	-0.0859	0.2556	-0.0815		1.3908	0.059	3.7311	1.0927	4.8212	1.1912	A+	A-	A-
ELA	6	805455	2	CCAACS	3	A-K	6243	0.5968	0.1121	0.5968	0.2283	0.0628		0.3462	-0.271	0.3462	-0.0884	-0.1946		0.3039	0.0579	0.081	1.0016	1.271	1.0457	B+	A+	A+
ELA	6	805456	2	CCAACS	2	A-K	6241	0.5411	0.1836	0.1913	0.0839	0.5409	0.0003	0.3617	-0.1113	-0.1778	-0.2417	0.3619	-0.017	0.4336	0.0575	-0.059	0.9986	0.361	1.0117	A+	A-	A-
ELA	6	805457	2	CCAACS	2	A-K	6243	0.7525	0.0769	0.7525	0.1221	0.0485		0.4332	-0.2548	0.4332	-0.2642	-0.1514		-0.5931	0.065	-5.4892	0.831	-5.2393	0.7149	A+	A-	A-
ELA	6	805451	2	CCAACS	2	A-V	6243	0.6955	0.1225	0.1272	0.6955	0.0548		0.4486	-0.283	-0.2271	0.4486	-0.167		-0.1333	0.0604	-3.3391	0.915	-3.4792	0.849	A+	A-	B-
ELA	6	809359	2	CCAACS	2	A-V	6243	0.6438	0.0786	0.6438	0.1666	0.111		0.3677	-0.2341	0.3677	-0.2259	-0.0921		0.0669	0.059	0.851	1.0203	-0.289	0.9878	A+	A+	A-
ELA	6	783573	2	CCAACS	2	D	6243	0.6902	0.0815	0.0591	0.1691	0.6902		0.4217	-0.208	-0.2139	-0.2338	0.4217		-0.0357	0.0445	-1.829	0.9659	-1.8991	0.94	A+	B-	A-
ELA	6	800987	3	CCAACS	2	A-C	6230	0.5836	0.0883	0.5835	0.3038	0.0242	0.0002	0.0562	-0.1909	0.0565	0.1238	-0.1975	-0.0209	0.4187	0.0572	9.9013	1.297	9.9015	1.4919	A+	A-	A-
ELA	6	800997	3	CCAACS	2	A-C	6229	0.5497	0.0576	0.0578	0.5495	0.3348	0.0003	0.2869	-0.1643	-0.1852	0.2872	-0.1293	-0.0207	0.5092	0.057	5.5611	1.1229	5.5812	1.1727	A+	A-	A-
ELA	6	800998	3	CCAACS	2	A-C	6228	0.2449	0.4669	0.1788	0.2447	0.1091	0.0005	-0.0208	0.1681	-0.0895	-0.0204	-0.1289	-0.0282	2.0007	0.0639	8.5413	1.2911	9.9017	1.6627	A-	A-	A-
ELA	6	800990	3	CCAACS	3	A-K	6231	0.5033	0.281	0.1072	0.1085	0.5033		0.3805	-0.225	-0.1324	-0.1549	0.3805		0.7786	0.0568	0.411	1.0086	0.661	1.0185	A-	A-	A-
ELA	6	800994	3	CCAACS	3	A-K	6230	0.7329	0.7328	0.0753	0.0854	0.1064	0.0002	0.4012	0.4015	-0.2426	-0.2787	-0.1152	-0.0195	-0.3407	0.0619	-2.9891	0.9172	-2.7091	0.8769	A+	A+	A+
ELA	6	800995	3	CCAACS	3	A-K	6230	0.551	0.0714	0.1436	0.2338	0.551	0.0002	0.3529	-0.2174	-0.1028	-0.1972	0.353	-0.0056	0.4885	0.0571	2.211	1.0478	2.2411	1.0675	A+	A-	A+
ELA	6	800989	3	CCAACS	2	A-V	6231	0.259	0.0555	0.4823	0.2032	0.259		0.1158	-0.234	0.0066	-0.0011	0.1158		1.9864	0.0637	6.6812	1.2214	9.9017	1.6543	A-	A-	A-
ELA	6	806909	3	CCAACS	2	A-V	6231	0.3876	0.3491	0.3876	0.0812	0.1822		0.2458	-0.067	0.2458	-0.2677	-0.0381		1.2605	0.058	3.8111	1.0892	5.4912	1.1902	A-	A-	A+
ELA	6	783549	3	CCAACS	2	D	6230	0.4698	0.1021	0.4697	0.0892	0.3388	0.0002	0.3496	-0.1659	0.3497	-0.1672	-0.1615	-0.0153	0.989	0.0428	1.011	1.0165	1.721	1.041	A+	C-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	784815	4	CCAACS	3	A-C	6177	0.7743	0.0915	0.0625	0.7742	0.0717	0.0002	0.4004	-0.2499	-0.287	0.4008	-0.0999	-0.0235	-0.6234	0.0655	-3.6491	0.8823	0.221	1.0122	A+	A+	A+
ELA	6	784817	4	CCAACS	3	A-C	6178	0.375	0.375	0.1169	0.2517	0.2564		0.262	0.262	-0.2848	-0.0362	-0.0449		1.3918	0.059	4.9511	1.1225	7.4713	1.3198	A+	A-	A+
ELA	6	784818	4	CCAACS	3	A-C	6178	0.8266	0.0853	0.8266	0.0529	0.0351		0.4232	-0.1903	0.4232	-0.2605	-0.2647		-0.8978	0.0694	-4.0891	0.8505	-3.7692	0.7503	A-	A-	A-
ELA	6	784819	4	CCAACS	3	A-C	6174	0.4553	0.0834	0.3737	0.455	0.0872	0.0006	0.2835	-0.2847	0.0103	0.2832	-0.2387	0.0009	0.891	0.0573	6.6111	1.1477	6.8812	1.2408	A-	A-	A-
ELA	6	784809	4	CCAACS	2	A-K	6178	0.7266	0.0524	0.1444	0.0766	0.7266		0.5385	-0.273	-0.3652	-0.1911	0.5385		-0.2956	0.062	-7.4892	0.8	-6.8093	0.6944	A+	A-	A-
ELA	6	784812	4	CCAACS	2	A-K	6177	0.6369	0.1361	0.6368	0.0966	0.1303	0.0002	0.3738	-0.1748	0.3739	-0.2319	-0.1522	-0.0096	0.1417	0.0588	-0.149	0.9961	1.6011	1.0632	A+	A-	A+
ELA	6	784820	4	CCAACS	2	A-V	6178	0.8849	0.0267	0.0626	0.8849	0.0257		0.3956	-0.2143	-0.2659	0.3956	-0.1722		-1.4766	0.0806	-2.4991	0.8746	-3.3493	0.7012	A+	A-	A-
ELA	6	801848	4	CCAACS	2	A-V	6178	0.7342	0.1036	0.7342	0.0474	0.1148		0.3327	-0.197	0.3327	-0.209	-0.1334		-0.404	0.063	-0.219	0.993	0.651	1.0345	A+	A+	A-
ELA	6	783569	4	CCAACS	2	D	6178	0.6946	0.0779	0.1466	0.0809	0.6946		0.468	-0.206	-0.2633	-0.2465	0.468		-0.077	0.0602	-0.139	0.9961	0.211	1.0087	A+	A-	A-
ELA	6	786687	5	CCAACS	2	A-C	6185	0.5145	0.0857	0.2425	0.5145	0.1573		0.2331	-0.0861	-0.1577	0.2331	-0.0682		0.6816	0.0572	7.1612	1.1588	8.3613	1.2892	A+	A-	A-
ELA	6	786688	5	CCAACS	3	A-C	6185	0.6462	0.6462	0.1635	0.1615	0.0288		0.2323	0.2323	-0.2025	-0.0907	-0.0166		-0.1197	0.0596	6.3612	1.1655	5.4913	1.2613	A-	A+	A+
ELA	6	786689	5	CCAACS	2	A-C	6185	0.6525	0.6525	0.1935	0.0812	0.0728		0.3579	0.3579	-0.1515	-0.2276	-0.1864		0.0375	0.0587	2.2111	1.0523	2.2011	1.0904	A+	A+	A+
ELA	6	786685	5	CCAACS	2	A-K	6185	0.4986	0.1581	0.4986	0.2204	0.1229		0.3701	-0.2883	0.3701	-0.0896	-0.1302		0.7665	0.0572	1.601	1.0344	1.9211	1.0619	A+	A+	A+
ELA	6	786686	5	CCAACS	1	A-K	6185	0.3801	0.1929	0.2003	0.2267	0.3801		0.2926	-0.1764	0.0039	-0.1767	0.2926		1.3943	0.0596	4.0611	1.1064	6.1913	1.2601	A+	A-	A+
ELA	6	786692	5	CCAACS	2	A-V	6184	0.4968	0.4967	0.2918	0.0923	0.119	0.0002	0.4384	0.4385	-0.2087	-0.2699	-0.1425	-0.0078	0.804	0.0573	-1.829	0.9613	-0.179	0.994	A-	A+	A+
ELA	6	786693	5	CCAACS	2	A-V	6183	0.5151	0.2957	0.0621	0.515	0.1269	0.0003	0.2138	-0.0149	-0.2095	0.2141	-0.148	-0.0187	0.6728	0.0572	6.0811	1.1337	5.9712	1.2018	A-	A-	A-
ELA	6	801652	5	CCAACS	2	A-V	6185	0.4061	0.2453	0.4061	0.2034	0.1452		0.2965	-0.0726	0.2965	-0.2212	-0.0719		1.2183	0.0586	2.7011	1.0652	4.2612	1.1594	A-	A-	A-
ELA	6	783554	5	CCAACS	2	D	6183	0.3458	0.234	0.3145	0.1056	0.3457	0.0003	0.3093	-0.1161	-0.0773	-0.2015	0.3094	-0.011	1.4954	0.0511	4.8411	1.1126	7.0813	1.2685	A-	A+	A-
ELA	6	780334	6	CCAACS	3	B-C	6202	0.5448	0.3132	0.1048	0.5447	0.0371	0.0002	0.349	-0.1234	-0.2357	0.3492	-0.2345	-0.0149	0.5005	0.0578	3.2711	1.0739	3.1611	1.1163	A+	A+	A+
ELA	6	780335	6	CCAACS	2	B-C	6202	0.3457	0.153	0.1889	0.3123	0.3456	0.0002	0.2687	-0.1841	-0.0917	-0.0548	0.2688	-0.0203	1.5464	0.0602	4.3811	1.1166	5.1112	1.2341	A+	A-	A-
ELA	6	780336	6	CCAACS	2	B-C	6201	0.6544	0.0796	0.6542	0.1565	0.1093	0.0003	0.3736	-0.185	0.3739	-0.2281	-0.1426	-0.0201	0.0718	0.0595	0.071	1.0016	0.241	1.01	A+	A-	A+
ELA	6	780329	6	CCAACS	2	B-K	6201	0.638	0.6378	0.1523	0.0485	0.1611	0.0003	0.4107	0.4108	-0.2244	-0.1537	-0.2273	-0.0143	0.1135	0.0593	0.781	1.019	1.2811	1.0542	B-	A-	A-
ELA	6	780331	6	CCAACS	3	B-K	6202	0.4786	0.4785	0.1	0.3408	0.0806	0.0002	0.2118	0.212	-0.1856	-0.0034	-0.1776	-0.023	0.9085	0.0576	9.6812	1.2263	9.9014	1.3829	A+	A+	A-
ELA	6	780333	6	CCAACS	2	B-K	6202	0.4042	0.099	0.4042	0.1153	0.3814	0.0002	0.2147	-0.2016	0.2148	-0.1959	0.0362	-0.0162	1.3515	0.059	7.6512	1.1945	7.5013	1.3194	A+	A-	A-
ELA	6	780327	6	CCAACS	2	B-V	6203	0.9315	0.0297	0.9315	0.0229	0.016		0.3373	-0.2058	0.3373	-0.1901	-0.1745		-1.9599	0.0943	-4.0993	0.7463	-5.3896	0.4486	A-	B-	C-
ELA	6	780328	6	CCAACS	2	B-V	6201	0.9469	0.0208	0.0177	0.9466	0.0145	0.0003	0.3325	-0.2138	-0.1936	0.3333	-0.154	-0.0248	-2.253	0.1046	-3.2392	0.7625	-5.1496	0.4063	A-	B-	B-
ELA	6	783555	6	CCAACS	2	D	6202	0.7398	0.7396	0.095	0.1012	0.064	0.0002	0.4916	0.4918	-0.2749	-0.2792	-0.2075	-0.0203	-0.3098	0.0524	-5.7091	0.8692	-5.6792	0.7688	A+	B-	A-
ELA	6	783581	7	CCAACS	3	B-C	6177	0.7222	0.7221	0.0983	0.0835	0.096	0.0002	0.4526	0.4528	-0.2135	-0.2372	-0.2493	-0.0188	-0.3708	0.0623	-2.9691	0.9169	-2.3391	0.8763	A-	A-	A-
ELA	6	783582	7	CCAACS	3	B-C	6178	0.6219	0.1562	0.1154	0.6219	0.1065		0.3576	-0.229	-0.1671	0.3576	-0.1195		0.237	0.0585	1.311	1.0307	1.2711	1.0517	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	6	783584	7	CCAACS	2	B-C	6177	0.668	0.1952	0.0422	0.0945	0.6679	0.0002	0.4767	-0.2371	-0.2674	-0.2617	0.4769	-0.0215	-0.0202	0.0597	-4.0291	0.9019	-3.7092	0.8404	A-	A-	A-
ELA	6	783585	7	CCAACS	2	B-C	6176	0.5358	0.0965	0.1112	0.2564	0.5356	0.0003	0.4304	-0.127	-0.1887	-0.2694	0.4303	-0.0065	0.5766	0.0577	-1.569	0.9654	-1.109	0.9597	B-	A-	A-
ELA	6	783580	7	CCAACS	3	B-K	6177	0.304	0.304	0.1217	0.4008	0.1734	0.0002	0.0714	0.0715	-0.2393	0.1809	-0.1141	-0.008	1.6521	0.0616	9.9013	1.3484	9.9018	1.7531	A+	A-	A-
ELA	6	783664	7	CCAACS	2	B-K	6178	0.4793	0.288	0.18	0.0528	0.4793		0.2525	-0.1281	-0.0825	-0.163	0.2525		0.8434	0.0578	8.3112	1.1962	6.7913	1.2598	A+	A+	A+
ELA	6	783665	7	CCAACS	2	B-V	6178	0.808	0.0337	0.808	0.0612	0.0971		0.3552	-0.182	0.3552	-0.2026	-0.1976		-0.8348	0.0676	-0.369	0.9864	-0.179	0.986	C-	A-	A-
ELA	6	783666	7	CCAACS	2	B-V	6178	0.8255	0.0439	0.1088	0.0219	0.8255		0.4384	-0.2489	-0.2761	-0.2016	0.4384		-0.9387	0.0692	-4.5392	0.8386	-4.8993	0.677	B-	A-	B-
ELA	6	783551	7	CCAACS	2	D	6176	0.4564	0.0813	0.4563	0.3283	0.1339	0.0003	0.3952	-0.1796	0.3954	-0.2092	-0.1445	-0.0228	1.021	0.0434	1.031	1.0176	2.8511	1.078	A+	B-	A-
ELA	6	795974	8	CCAACS	3	B-C	6172	0.513	0.2013	0.5128	0.2094	0.0761	0.0003	0.3473	-0.1746	0.3474	-0.1694	-0.1299	-0.0138	0.6378	0.0572	0.971	1.0205	1.371	1.045	A-	A-	A-
ELA	6	795983	8	CCAACS	2	B-C	6173	0.5382	0.2559	0.5381	0.1124	0.0935	0.0002	0.3573	-0.1541	0.3575	-0.1866	-0.1776	-0.0285	0.5793	0.0573	-0.059	0.9985	0.411	1.0131	A+	A-	A-
ELA	6	795984	8	CCAACS	2	B-C	6173	0.5007	0.2167	0.1547	0.1278	0.5006	0.0002	0.2442	-0.0784	-0.1174	-0.1415	0.2444	-0.0146	0.7075	0.0572	6.8712	1.1531	6.1612	1.2131	A+	A+	A-
ELA	6	795985	8	CCAACS	2	B-C	6173	0.2323	0.2323	0.3113	0.1009	0.3554	0.0002	0.0333	0.0334	-0.105	-0.1167	0.146	-0.0174	2.0945	0.066	8.6613	1.3244	9.9019	1.8712	A-	A+	A-
ELA	6	795979	8	CCAACS	2	B-K	6172	0.4412	0.441	0.1174	0.2854	0.1558	0.0003	0.2815	0.2816	-0.2382	-0.0399	-0.1238	-0.0118	1.1019	0.0579	6.1511	1.1444	7.6113	1.2861	A-	A-	A-
ELA	6	795980	8	CCAACS	3	B-K	6174	0.5272	0.213	0.075	0.5272	0.1848		0.3377	-0.0678	-0.2858	0.3377	-0.169		0.6369	0.0572	0.771	1.0162	1.141	1.0372	A-	A-	A-
ELA	6	803538	8	CCAACS	2	B-V	6173	0.7176	0.7175	0.0262	0.023	0.2331	0.0002	0.4372	0.4374	-0.1513	-0.1883	-0.3412	-0.0174	-0.2692	0.0612	-3.3991	0.9097	-3.8392	0.8219	A-	A-	A-
ELA	6	803539	8	CCAACS	2	B-V	6173	0.9452	0.0236	0.0151	0.9451	0.016	0.0002	0.3134	-0.1953	-0.1663	0.3137	-0.1698	-0.0146	-2.0498	0.0959	-2.4092	0.8386	-4.5995	0.5102	A-	A-	B-
ELA	6	783559	8	CCAACS	2	D	6174	0.6025	0.0996	0.2055	0.6025	0.0923		0.4571	-0.2057	-0.2773	0.4571	-0.1728		0.3362	0.0578	-2.8391	0.9385	-0.689	0.9753	A-	A-	A-
ELA	6	805470	9	CCAACS	2	B-C	6158	0.7061	0.0716	0.0649	0.7055	0.1572	0.0008	0.3498	-0.2543	-0.2013	0.3508	-0.12	-0.0382	-0.1782	0.0607	-0.219	0.9938	0.191	1.0078	A-	A-	A-
ELA	6	805480	9	CCAACS	3	B-C	6161	0.6215	0.0678	0.1769	0.1337	0.6213	0.0003	0.2481	-0.1105	-0.073	-0.1896	0.2483	-0.0144	0.3338	0.0576	5.5311	1.1258	7.2513	1.2591	A+	A-	A-
ELA	6	809652	9	CCAACS	2	B-C	6163	0.7164	0.7164	0.0488	0.2007	0.0341		0.3251	0.3251	-0.2489	-0.1544	-0.1712		-0.285	0.0616	1.8211	1.0522	2.9511	1.1452	C-	A-	A-
ELA	6	805474	9	CCAACS	2	B-K	6163	0.7243	0.1146	0.0484	0.7243	0.1128		0.4173	-0.1959	-0.2232	0.4173	-0.241		-0.2885	0.0617	-3.5591	0.9022	-2.4391	0.8879	A-	A-	A-
ELA	6	805475	9	CCAACS	2	B-K	6160	0.4065	0.398	0.4063	0.068	0.1272	0.0005	0.1837	-0.0151	0.1839	-0.1733	-0.1168	-0.0165	1.3872	0.0585	7.1312	1.1757	7.8513	1.3111	A-	A-	A-
ELA	6	805478	9	CCAACS	2	B-K	6163	0.5111	0.0892	0.1073	0.2924	0.5111		0.3533	-0.1223	-0.2873	-0.1162	0.3533		0.6271	0.0568	0.081	1.0014	0.041	1.0009	A-	A-	A-
ELA	6	805471	9	CCAACS	2	B-V	6162	0.4992	0.3286	0.4991	0.1365	0.0357	0.0002	0.1801	-0.0304	0.1803	-0.2084	-0.0224	-0.0136	0.7713	0.0568	9.9013	1.2671	9.9014	1.403	A-	A-	A-
ELA	6	805472	9	CCAACS	2	B-V	6162	0.889	0.0234	0.0608	0.8889	0.0268	0.0002	0.2729	-0.1956	-0.1218	0.2734	-0.1672	-0.0217	-1.4463	0.0806	-2.8291	0.8571	-1.0091	0.9039	A-	A-	B-
ELA	6	783558	9	CCAACS	2	D	6160	0.4651	0.1438	0.4649	0.2031	0.1877	0.0005	0.2507	-0.0419	0.2507	-0.1496	-0.128	-0.0079	0.9408	0.0485	8.5812	1.1634	8.4312	1.247	A+	A-	A-
ELA	6	783572	9	CCAACS	2	D	6160	0.5359	0.0769	0.2319	0.1551	0.5356	0.0005	0.2372	-0.1622	-0.0198	-0.1837	0.2375	-0.0188	0.6685	0.0425	9.9012	1.2003	9.9013	1.2831	A+	A-	A-
ELA	7	623067	0	CCAACS	2	A-C	72536	0.7161	0.7158	0.0946	0.0887	0.1005	0.0004	0.5365	0.537	-0.291	-0.3012	-0.2352	-0.0351	-0.5086	0.0207	-9.8992	0.8414	-9.8992	0.7582	A+	A+	A+
ELA	7	623072	0	CCAACS	2	A-C	72537	0.4502	0.1489	0.1466	0.2541	0.45	0.0004	0.4327	-0.2205	-0.1082	-0.2252	0.4329	-0.0303	0.4827	0.0191	2.861	1.0209	5.8811	1.0626	A+	A-	A+
ELA	7	744881	0	CCAACS	2	A-C	72537	0.7838	0.1068	0.7835	0.0606	0.0487	0.0004	0.5186	-0.2941	0.5189	-0.2776	-0.2611	-0.0237	-0.8186	0.0218	-9.8992	0.781	-9.8993	0.658	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	623064	0	CCAACS	2	A-K	72533	0.6049	0.1103	0.6046	0.1366	0.148	0.0004	0.4324	-0.1154	0.4329	-0.2472	-0.2528	-0.0372	-0.1079	0.0197	6.1611	1.0507	4.4011	1.0587	A+	A+	A+
ELA	7	623071	0	CCAACS	2	A-K	72528	0.5611	0.5608	0.1	0.261	0.0776	0.0005	0.5397	0.5401	-0.3183	-0.2485	-0.234	-0.0346	0.3821	0.0192	-9.8991	0.9228	-8.3191	0.9142	A-	A+	A+
ELA	7	744885	0	CCAACS	2	A-K	72551	0.5615	0.2193	0.5614	0.1064	0.1126	0.0002	0.3532	-0.0588	0.3534	-0.3272	-0.1577	-0.0206	0.1457	0.0193	9.9011	1.1156	9.9012	1.1964	A+	A+	A-
ELA	7	744886	0	CCAACS	2	A-K	72544	0.5779	0.5777	0.0413	0.0461	0.3346	0.0003	0.3597	0.3599	-0.2463	-0.2597	-0.1567	-0.0186	0.1929	0.0193	9.9011	1.0891	9.9011	1.1434	A+	A-	A-
ELA	7	744889	0	CCAACS	2	A-K	72541	0.4941	0.1024	0.2777	0.4939	0.1256	0.0003	0.4187	-0.255	-0.2015	0.4189	-0.1249	-0.0247	0.5059	0.0191	3.081	1.0225	4.281	1.0451	A+	A+	A-
ELA	7	744890	0	CCAACS	2	A-K	72546	0.5007	0.2693	0.1022	0.1277	0.5006	0.0003	0.4333	-0.0445	-0.3157	-0.3028	0.4334	-0.0192	0.5732	0.0191	2.701	1.0197	5.3911	1.0569	A+	A+	A+
ELA	7	623069	0	CCAACS	1	A-V	72541	0.4765	0.0319	0.2026	0.4763	0.2888	0.0003	0.453	-0.2211	-0.2762	0.4533	-0.1676	-0.0323	1.0279	0.0194	9.7111	1.077	9.9011	1.1491	A-	A-	A-
ELA	7	744882	0	CCAACS	2	A-V	72541	0.5948	0.5946	0.0767	0.2648	0.0636	0.0003	0.352	0.3524	-0.2936	-0.1151	-0.1788	-0.0251	-0.1957	0.0199	9.9012	1.1551	9.9013	1.3048	A+	A+	A+
ELA	7	744618	0	CCAACS	2	B-C	72525	0.3645	0.2953	0.2555	0.0843	0.3643	0.0006	0.3755	-0.0678	-0.1555	-0.2924	0.3758	-0.035	0.8904	0.0193	8.4211	1.0645	9.2611	1.1046	A-	A-	A-
ELA	7	744620	0	CCAACS	2	B-C	72529	0.5836	0.1174	0.1357	0.1631	0.5834	0.0005	0.545	-0.2517	-0.2912	-0.2365	0.5454	-0.0353	-0.274	0.02	1.221	1.0105	-0.009	0.9997	A+	A+	A+
ELA	7	744623	0	CCAACS	2	B-C	72526	0.3786	0.2353	0.1751	0.3784	0.2107	0.0005	0.3249	-0.2309	-0.1763	0.3252	0.0196	-0.0324	1.0704	0.0195	9.9011	1.11	9.9012	1.1972	A-	A-	A+
ELA	7	744625	0	CCAACS	2	B-C	72517	0.7008	0.1131	0.7003	0.0858	0.1002	0.0007	0.5014	-0.2572	0.502	-0.2846	-0.2263	-0.0359	-0.9185	0.0222	9.0711	1.1079	0.501	1.0106	A-	A-	A+
ELA	7	744640	0	CCAACS	2	B-C	72550	0.4801	0.1787	0.2156	0.1255	0.48	0.0002	0.4878	-0.1563	-0.3182	-0.159	0.4879	-0.0243	0.5043	0.0191	-5.059	0.9637	-3.019	0.9689	A+	A-	A+
ELA	7	744642	0	CCAACS	2	B-C	72542	0.6806	0.0922	0.6804	0.1488	0.0783	0.0003	0.5134	-0.2648	0.5137	-0.261	-0.2589	-0.0269	-0.1495	0.0198	-9.8991	0.8709	-9.8992	0.8043	A-	A-	A-
ELA	7	744622	0	CCAACS	2	B-K	72525	0.5989	0.1852	0.5986	0.1377	0.0779	0.0006	0.4894	-0.2307	0.4898	-0.2521	-0.2343	-0.0352	-0.1933	0.0199	4.311	1.0363	1.901	1.0264	A+	A+	A+
ELA	7	744624	0	CCAACS	2	B-K	72519	0.5848	0.5844	0.0757	0.074	0.2652	0.0006	0.3476	0.3483	-0.2084	-0.2564	-0.1097	-0.0387	-0.1906	0.0199	9.9012	1.1837	9.9014	1.4343	A+	A+	A+
ELA	7	744644	0	CCAACS	2	B-K	72548	0.4543	0.1625	0.2322	0.4541	0.1509	0.0002	0.4214	-0.2084	-0.1941	0.4216	-0.1416	-0.0273	0.6403	0.0191	4.311	1.0316	5.5911	1.0591	A-	A-	A-
ELA	7	744645	0	CCAACS	2	B-K	72543	0.3375	0.0557	0.4482	0.3374	0.1585	0.0003	0.1915	-0.2153	0.0555	0.1918	-0.1873	-0.0285	1.3061	0.0199	9.9012	1.228	9.9014	1.4146	A+	A-	A-
ELA	7	744647	0	CCAACS	2	B-K	72552	0.3883	0.2004	0.3882	0.0843	0.3269	0.0002	0.3013	-0.2165	0.3014	-0.2896	0.0437	-0.0211	1.1881	0.0197	9.9011	1.1421	9.9013	1.286	A-	A-	A-
ELA	7	744649	0	CCAACS	2	B-V	72552	0.729	0.7288	0.0988	0.1328	0.0394	0.0002	0.4305	0.4308	-0.2628	-0.2077	-0.2178	-0.0201	-0.4617	0.0205	-7.8291	0.9292	-5.7191	0.9101	C-	A-	A-
ELA	7	663532	0	CCAACS	2	D	72554	0.4085	0.0589	0.2425	0.29	0.4085	0.0002	0.2683	-0.2394	-0.0087	-0.1579	0.2684	-0.0165	1.3488	0.02	9.9013	1.2613	9.9014	1.4179	A+	A+	A+
ELA	7	715024	0	CCAACS	2	D	72553	0.4468	0.3663	0.4467	0.0796	0.1073	0.0002	0.2795	-0.0905	0.2796	-0.2266	-0.1093	-0.0187	1.0171	0.0194	9.9012	1.1762	9.9013	1.2933	A-	A+	A+
ELA	7	715028	0	CCAACS	2	D	72557	0.4726	0.4725	0.3452	0.1062	0.0761	0.0001	0.273	0.2731	-0.1567	-0.0719	-0.1491	-0.0161	0.7534	0.0192	9.9012	1.1957	9.9013	1.2796	A-	A-	A-
ELA	7	715765	0	CCAACS	2	D	72547	0.8044	0.1097	0.0484	0.8042	0.0375	0.0002	0.4194	-0.2154	-0.2703	0.4198	-0.2152	-0.0252	-0.7257	0.0214	-9.8992	0.8017	-9.8993	0.7394	A+	A+	A-
ELA	7	717722	0	CCAACS	2	D	72545	0.3146	0.1347	0.2946	0.256	0.3145	0.0003	0.4099	-0.28	-0.1427	-0.0674	0.41	-0.0189	1.4588	0.0203	2.551	1.023	6.7211	1.1009	A-	A+	A+
ELA	7	745805	0	CCAACS	2	D	72552	0.5582	0.1086	0.0871	0.2459	0.5581	0.0002	0.3744	-0.1573	-0.1716	-0.2052	0.3745	-0.0222	0.3738	0.0192	9.9011	1.0906	9.9011	1.1336	A+	A-	A-
ELA	7	745809	0	CCAACS	2	D	72553	0.5101	0.1556	0.147	0.51	0.1873	0.0002	0.4127	-0.2288	-0.1919	0.4129	-0.1415	-0.0236	0.7097	0.0192	6.451	1.0479	8.7311	1.0941	A-	A-	A-
ELA	7	745811	0	CCAACS	1	D	72552	0.7808	0.0751	0.0704	0.7806	0.0737	0.0002	0.4363	-0.2351	-0.2187	0.4365	-0.2392	-0.0174	-0.5938	0.0209	-9.8992	0.8254	-9.8992	0.7546	A-	A+	A+
ELA	7	745861	0	CCAACS	2	D	72550	0.4002	0.1457	0.4001	0.2733	0.1807	0.0002	0.3793	-0.1145	0.3794	-0.2551	-0.0819	-0.0201	1.2745	0.0199	9.9011	1.1244	9.9013	1.2751	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	800930	1	CCAACS	2	A-C	20361	0.6469	0.1114	0.1503	0.0912	0.6467	0.0003	0.5048	-0.2664	-0.2161	-0.2776	0.5051	-0.0222	-0.5501	0.0608	-7.0192	0.826	-5.8693	0.7447	A+	A+	A+
ELA	7	800931	1	CCAACS	2	A-C	20360	0.5349	0.1078	0.2153	0.1418	0.5347	0.0004	0.5172	-0.2701	-0.1915	-0.2726	0.5174	-0.025	0.0591	0.058	-3.8791	0.9138	-3.6791	0.8766	A+	A+	A+
ELA	7	800932	1	CCAACS	2	A-C	20366	0.7848	0.0667	0.0957	0.7847	0.0528	0.0001	0.4423	-0.2483	-0.2749	0.4424	-0.1739	-0.0115	-1.3264	0.0694	-4.0691	0.8549	-4.6093	0.6909	A+	A-	A-
ELA	7	800924	1	CCAACS	2	A-K	20362	0.7144	0.7142	0.0635	0.1593	0.0627	0.0003	0.3979	0.3982	-0.2383	-0.1899	-0.214	-0.0223	-0.8664	0.0635	-2.1091	0.938	-0.9791	0.9437	A-	A-	A-
ELA	7	800927	1	CCAACS	2	A-K	20361	0.6427	0.6425	0.0821	0.1082	0.1669	0.0003	0.5463	0.5463	-0.2597	-0.3035	-0.2575	-0.0129	-0.5104	0.0605	-8.7692	0.7887	-7.6593	0.6835	A+	A+	A-
ELA	7	800928	1	CCAACS	2	A-K	20362	0.7103	0.1109	0.0998	0.0789	0.7101	0.0003	0.4477	-0.1812	-0.2397	-0.2749	0.448	-0.0231	-0.8787	0.0636	-3.1791	0.9072	-2.4891	0.8612	A-	A+	A-
ELA	7	800922	1	CCAACS	2	A-V	20361	0.7551	0.7549	0.0601	0.0922	0.0925	0.0003	0.4112	0.4115	-0.2285	-0.2203	-0.2023	-0.0195	-1.1036	0.0662	-3.7991	0.8782	-3.3792	0.7917	A-	A-	A-
ELA	7	800923	1	CCAACS	2	A-V	20358	0.3834	0.2811	0.3832	0.1106	0.2245	0.0005	0.2831	0.0068	0.2833	-0.233	-0.1612	-0.0216	0.8212	0.0587	4.8011	1.1195	6.0212	1.2295	A+	A+	A-
ELA	7	786779	1	CCAACS	1	D	13059	0.3983	0.0709	0.3983	0.2201	0.3107		0.1153	-0.1245	0.1153	-0.1493	0.0808		1.1901	0.0419	9.9013	1.3308	9.9016	1.5674	A-	A+	A-
ELA	7	786793	1	CCAACS	2	D	20364	0.467	0.1043	0.1857	0.2428	0.467	0.0002	0.3638	-0.198	-0.2513	-0.0538	0.364	-0.0217	0.3588	0.0488	3.1611	1.0612	3.2211	1.0918	A+	A+	A-
ELA	7	786798	1	CCAACS	2	D	13066	0.6239	0.0976	0.6237	0.1198	0.1586	0.0003	0.4048	-0.1862	0.4047	-0.2523	-0.161	-0.003	0.029	0.0464	-0.269	0.9948	-0.059	0.9979	A-	A-	A-
ELA	7	800909	2	CCAACS	2	A-C	6473	0.3247	0.3593	0.3247	0.1326	0.1834		0.1757	-0.0302	0.1757	-0.0864	-0.0994		1.4661	0.0601	7.9412	1.2199	9.9015	1.5115	A+	A+	A-
ELA	7	800919	2	CCAACS	2	A-C	6472	0.602	0.2693	0.047	0.6019	0.0817	0.0002	0.4819	-0.3217	-0.1659	0.4821	-0.2115	-0.0181	0.0975	0.0578	-4.9591	0.8928	-4.8692	0.8464	A+	A+	A-
ELA	7	800912	2	CCAACS	2	A-K	6472	0.4067	0.1091	0.1804	0.3037	0.4066	0.0002	0.376	-0.2579	-0.1199	-0.1265	0.376	-0.0045	0.9591	0.0573	-0.789	0.9828	1.021	1.0314	A+	A+	A+
ELA	7	800916	2	CCAACS	3	A-K	6470	0.5808	0.1273	0.5806	0.2035	0.0882	0.0005	0.3443	-0.2531	0.3447	-0.0897	-0.173	-0.0266	0.3005	0.0571	1.321	1.0283	3.3511	1.1048	A+	A-	A+
ELA	7	800917	2	CCAACS	2	A-K	6473	0.34	0.1791	0.4103	0.34	0.0706		0.1316	-0.2062	0.1436	0.1316	-0.2105		1.2976	0.0589	7.8212	1.2008	8.3313	1.3383	A-	A-	A-
ELA	7	800918	2	CCAACS	2	A-K	6472	0.5331	0.063	0.533	0.315	0.0888	0.0002	0.4152	-0.2407	0.4153	-0.2435	-0.1246	-0.0154	0.3724	0.057	-2.3991	0.95	-2.4491	0.9288	A+	A-	A-
ELA	7	800910	2	CCAACS	2	A-V	6473	0.6828	0.1285	0.6828	0.1046	0.084		0.4208	-0.2061	0.4208	-0.201	-0.2356		-0.305	0.0602	-2.5191	0.9355	-2.4291	0.9003	A-	A+	A-
ELA	7	806936	2	CCAACS	2	A-V	6473	0.7644	0.7644	0.0341	0.1689	0.0326		0.1921	0.1921	-0.1461	-0.095	-0.1092		-0.7078	0.0643	2.9311	1.0956	5.1613	1.3076	A+	A-	A-
ELA	7	786780	2	CCAACS	2	D	6473	0.5402	0.084	0.5402	0.1004	0.2753		0.3836	-0.1778	0.3836	-0.277	-0.1312		0.4977	0.0426	1.581	1.0253	1.611	1.0368	A+	A-	A+
ELA	7	805491	3	CCAACS	2	A-C	6519	0.5544	0.5544	0.2462	0.1514	0.048		0.3272	0.3272	-0.1317	-0.1779	-0.1969		0.4685	0.0577	4.3211	1.1	4.2911	1.1463	A-	A+	A+
ELA	7	805493	3	CCAACS	2	A-C	6517	0.5539	0.2379	0.1335	0.5538	0.0746	0.0003	0.3524	-0.1059	-0.2266	0.3528	-0.2001	-0.0353	0.3451	0.0579	2.6911	1.0621	2.4311	1.0838	A-	A+	A+
ELA	7	805486	3	CCAACS	2	A-K	6519	0.3407	0.0867	0.3407	0.264	0.3086		0.2859	-0.1928	0.2859	-0.1445	-0.038		1.3505	0.06	3.6711	1.0968	5.4512	1.2396	A+	A+	A+
ELA	7	805487	3	CCAACS	2	A-K	6517	0.7134	0.139	0.0644	0.0831	0.7131	0.0003	0.4953	-0.232	-0.2661	-0.2828	0.4957	-0.0296	-0.4301	0.0619	-3.1691	0.9132	-3.3492	0.8405	A+	A+	A+
ELA	7	805488	3	CCAACS	2	A-K	6517	0.4946	0.1525	0.0916	0.4944	0.2612	0.0003	0.2815	-0.1459	-0.2325	0.2817	-0.0478	-0.02	0.5847	0.0577	5.2311	1.1212	6.1112	1.2097	A+	A+	A+
ELA	7	805490	3	CCAACS	2	A-K	6516	0.6148	0.6145	0.1569	0.1262	0.1019	0.0005	0.4581	0.4585	-0.24	-0.241	-0.1823	-0.0315	0.1338	0.0585	-2.2591	0.9476	-2.4591	0.9125	B-	A+	A+
ELA	7	805482	3	CCAACS	2	A-V	6517	0.77	0.0275	0.1396	0.7697	0.0629	0.0003	0.2526	-0.2106	-0.1108	0.2533	-0.1373	-0.0276	-0.7125	0.0647	1.9911	1.0641	5.6514	1.373	A+	A+	A-
ELA	7	805483	3	CCAACS	2	A-V	6519	0.5355	0.1448	0.1358	0.1839	0.5355		0.372	-0.1957	-0.1571	-0.1622	0.372		0.4685	0.0577	1.311	1.0294	1.311	1.0431	A-	A-	A-
ELA	7	786786	3	CCAACS	2	D	6519	0.6145	0.0905	0.1085	0.1865	0.6145		0.3286	-0.2099	-0.2257	-0.0758	0.3286		0.1913	0.0491	1.761	1.0345	2.7211	1.0808	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	785215	4	CCAACS	2	A-C	6565	0.4108	0.4106	0.2508	0.2008	0.1373	0.0005	0.3181	0.3184	-0.0602	-0.1623	-0.1888	-0.0255	1.1556	0.0585	4.1511	1.1009	4.6012	1.1685	A-	A-	A-
ELA	7	785216	4	CCAACS	2	A-C	6566	0.6209	0.1953	0.6207	0.0795	0.1041	0.0003	0.3979	-0.149	0.3983	-0.2812	-0.1884	-0.0328	0.1695	0.0579	-0.219	0.9948	-0.079	0.997	A+	A-	A-
ELA	7	785217	4	CCAACS	3	A-C	6566	0.2837	0.2836	0.4788	0.1635	0.0737	0.0003	0.1781	0.1783	0.094	-0.1907	-0.2154	-0.0309	1.6753	0.0623	5.3012	1.1609	7.4114	1.3931	A-	A+	A+
ELA	7	785218	4	CCAACS	2	A-C	6568	0.5043	0.5043	0.1459	0.1203	0.2296		0.2377	0.2377	-0.0963	-0.2592	-0.0014		0.6314	0.0572	5.3811	1.1207	5.5512	1.1737	A-	A-	A-
ELA	7	785214	4	CCAACS	2	A-K	6567	0.3979	0.0897	0.1083	0.3978	0.4041	0.0002	0.2478	-0.1774	-0.2594	0.2477	0.0202	0.0115	1.1625	0.0586	7.7712	1.195	9.0314	1.3495	A-	A-	A-
ELA	7	785207	4	CCAACS	2	A-V	6568	0.5164	0.0953	0.5164	0.3121	0.0761		0.3449	-0.1772	0.3449	-0.1949	-0.1131		0.5583	0.0572	2.051	1.0448	1.641	1.0493	A-	A-	A-
ELA	7	785208	4	CCAACS	2	A-V	6567	0.3577	0.3576	0.1978	0.2156	0.2288	0.0002	0.2984	0.2985	-0.1655	-0.1137	-0.0721	-0.0099	1.388	0.0599	2.9111	1.0759	4.2412	1.1774	A-	A-	A-
ELA	7	785210	4	CCAACS	2	A-V	6568	0.7669	0.7669	0.0475	0.1261	0.0595		0.2166	0.2166	-0.1137	-0.1586	-0.0623		-0.819	0.0657	1.351	1.0452	3.4912	1.223	A+	A+	A+
ELA	7	786778	4	CCAACS	1	D	6567	0.4559	0.1736	0.1044	0.266	0.4558	0.0002	0.3355	-0.1548	-0.2407	-0.0783	0.3356	-0.0258	0.9747	0.0435	6.1111	1.1102	7.2212	1.1942	A-	A-	A-
ELA	7	783845	5	CCAACS	3	B-C	6508	0.2459	0.2131	0.2459	0.3092	0.2319		0.3107	-0.019	0.3107	-0.0715	-0.2203		2.0274	0.068	0.291	1.0102	4.6813	1.3309	A-	A-	A-
ELA	7	783846	5	CCAACS	3	B-C	6507	0.7257	0.0324	0.7256	0.1017	0.1401	0.0002	0.4556	-0.2333	0.4557	-0.2968	-0.208	-0.0083	-0.3312	0.0601	-3.8291	0.9049	-3.3991	0.8558	A-	A-	A-
ELA	7	783848	5	CCAACS	3	B-C	6507	0.8728	0.8726	0.0779	0.0306	0.0187	0.0002	0.4106	0.4104	-0.264	-0.2391	-0.1838	0.0011	-1.6395	0.0784	-2.6791	0.8727	-2.9693	0.7411	A+	A-	A-
ELA	7	783849	5	CCAACS	3	B-C	6507	0.763	0.077	0.7629	0.0535	0.1065	0.0002	0.3885	-0.1782	0.3886	-0.2389	-0.2071	-0.0096	-0.6544	0.0628	-1.529	0.9553	-1.5591	0.9169	A+	A-	A-
ELA	7	783840	5	CCAACS	3	B-K	6507	0.4171	0.2131	0.1621	0.2076	0.417	0.0002	0.3338	-0.2031	-0.1182	-0.0928	0.3339	-0.0177	0.9939	0.0585	5.4211	1.132	5.4712	1.2067	A-	A-	A-
ELA	7	783842	5	CCAACS	2	B-K	6507	0.7638	0.0953	0.0698	0.0711	0.7637	0.0002	0.4746	-0.2586	-0.2582	-0.2327	0.4749	-0.0203	-0.6606	0.0629	-3.7391	0.8936	-3.6092	0.8159	A+	A-	A-
ELA	7	783844	5	CCAACS	2	B-K	6507	0.3372	0.3371	0.4625	0.0688	0.1314	0.0002	0.4368	0.4369	-0.1464	-0.2398	-0.215	-0.0177	1.4765	0.0617	-1.479	0.9586	1.2511	1.0578	A+	A+	A-
ELA	7	783851	5	CCAACS	2	B-V	6506	0.184	0.3523	0.4339	0.1839	0.0295	0.0003	-0.0234	0.2957	-0.219	-0.0232	-0.1374	-0.0259	2.3279	0.0729	6.2013	1.2901	9.9023	2.2744	A+	A-	A-
ELA	7	786794	5	CCAACS	2	D	6507	0.5211	0.0513	0.5211	0.3546	0.0728	0.0002	0.3637	-0.2219	0.3637	-0.1698	-0.1981	-0.0003	0.6144	0.0485	4.2311	1.0796	5.9812	1.1685	A-	A-	A-
ELA	7	797513	6	CCAACS	3	B-C	6502	0.5767	0.5767	0.1089	0.062	0.2523	0.0002	0.3037	0.3033	-0.1904	-0.1978	-0.0993	0.0209	0.2782	0.0576	3.5611	1.0803	4.0411	1.1367	B-	A-	A-
ELA	7	797521	6	CCAACS	2	B-C	6502	0.2888	0.2888	0.1029	0.3923	0.2159	0.0002	0.1858	0.1859	-0.2274	0.0134	-0.0523	-0.0136	1.6407	0.0624	6.4912	1.2017	7.9814	1.4338	A+	A-	A-
ELA	7	797522	6	CCAACS	2	B-C	6503	0.5265	0.2742	0.5265	0.0618	0.1375		0.225	-0.04	0.225	-0.1953	-0.1377		0.4326	0.0574	8.6712	1.2003	8.3713	1.2841	A+	A+	A-
ELA	7	797523	6	CCAACS	2	B-C	6503	0.4706	0.0695	0.4706	0.4127	0.0472		0.1618	-0.2121	0.1618	0.0331	-0.2034		0.7409	0.0575	9.9012	1.2467	9.9014	1.3638	A-	A-	A-
ELA	7	797517	6	CCAACS	2	B-K	6502	0.7821	0.0677	0.0464	0.7819	0.1038	0.0002	0.4597	-0.2597	-0.1949	0.4596	-0.2738	-0.0043	-0.9357	0.067	-4.7492	0.8426	-4.8793	0.7152	A+	A-	A-
ELA	7	797518	6	CCAACS	2	B-K	6503	0.5897	0.0394	0.0697	0.3012	0.5897		0.3773	-0.2428	-0.289	-0.1413	0.3773		0.2456	0.0577	1.281	1.0285	1.231	1.0406	A-	A-	A+
ELA	7	797514	6	CCAACS	1	B-V	6502	0.6633	0.1462	0.1038	0.0866	0.6632	0.0002	0.3002	-0.1469	-0.2029	-0.0994	0.3003	-0.0149	-0.1	0.0591	2.3211	1.0567	2.4311	1.0973	A-	A+	A-
ELA	7	804844	6	CCAACS	3	B-V	6502	0.7891	0.0817	0.0949	0.0343	0.789	0.0002	0.3529	-0.1415	-0.2354	-0.1987	0.3532	-0.0149	-0.9457	0.0672	-1.8391	0.9364	-1.4491	0.9074	A+	A-	A-
ELA	7	786777	6	CCAACS	2	D	6503	0.7758	0.0435	0.1441	0.7758	0.0366		0.3459	-0.2105	-0.1844	0.3459	-0.1947		-0.5816	0.0465	-3.1691	0.9335	-1.9091	0.929	A+	C-	B-
ELA	7	786783	6	CCAACS	2	D	6502	0.3064	0.1581	0.1758	0.3063	0.3597	0.0002	0.2274	-0.1575	-0.1899	0.2275	0.052	-0.007	1.6549	0.053	5.0711	1.1322	6.9413	1.3194	A-	A+	A+
ELA	7	783911	7	CCAACS	3	B-C	6534	0.2822	0.3654	0.1207	0.2315	0.2821	0.0003	0.1516	0.0401	-0.1849	-0.0644	0.1517	-0.0116	1.7027	0.0624	6.2212	1.1905	9.0915	1.5117	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	7	783917	7	CCAACS	2	B-C	6535	0.4531	0.1146	0.3755	0.0568	0.453	0.0002	0.3914	-0.3259	-0.1148	-0.1523	0.3915	-0.0202	0.7355	0.0573	0.401	1.0086	0.751	1.0232	A+	A-	A-
ELA	7	783919	7	CCAACS	2	B-C	6535	0.5215	0.3623	0.0863	0.5214	0.0298	0.0002	0.3528	-0.1349	-0.2548	0.3529	-0.2337	-0.0109	0.4717	0.0574	0.271	1.0057	0.171	1.0051	A+	A+	A+
ELA	7	783913	7	CCAACS	2	B-K	6534	0.4448	0.4446	0.0947	0.2428	0.2176	0.0003	0.298	0.2982	-0.181	-0.1797	-0.0431	-0.0201	0.8744	0.0576	3.9811	1.0899	3.8011	1.1261	A-	A+	A+
ELA	7	783915	7	CCAACS	3	B-K	6535	0.5287	0.1948	0.5286	0.1584	0.1181	0.0002	0.326	-0.1224	0.3262	-0.1854	-0.1439	-0.0162	0.4725	0.0574	2.6611	1.0589	2.4411	1.0785	A+	A+	A+
ELA	7	783916	7	CCAACS	2	B-K	6535	0.5005	0.5005	0.1654	0.1576	0.1764	0.0002	0.4029	0.403	-0.2038	-0.1532	-0.1832	-0.0109	0.6496	0.0573	0.771	1.0165	1.071	1.0332	A-	A+	A+
ELA	7	783912	7	CCAACS	2	B-V	6535	0.445	0.4449	0.2459	0.1412	0.1678	0.0002	0.1816	0.1817	-0.0598	-0.1178	-0.0624	-0.0149	0.8496	0.0575	8.7412	1.2038	8.0713	1.2782	A+	A+	A+
ELA	7	801245	7	CCAACS	2	B-V	6536	0.9458	0.9458	0.0153	0.0216	0.0173		0.3467	0.3467	-0.1796	-0.215	-0.1933		-2.3331	0.1026	-2.1992	0.836	-5.3096	0.4145	A+	A-	B-
ELA	7	786791	7	CCAACS	2	D	6535	0.4087	0.2892	0.4087	0.1689	0.1331	0.0002	0.1384	-0.0047	0.1386	-0.0835	-0.1014	-0.0242	1.0261	0.0433	9.9012	1.2039	9.9013	1.3196	A-	A+	A-
ELA	7	786702	8	CCAACS	3	B-C	6531	0.2461	0.4329	0.246	0.2112	0.1096	0.0003	0.0418	0.0802	0.042	-0.0969	-0.0576	-0.0169	1.9036	0.0648	6.4012	1.2206	8.5916	1.56	A+	A-	A-
ELA	7	786703	8	CCAACS	3	B-C	6533	0.3568	0.3629	0.1528	0.3568	0.1275		-0.0298	0.2308	-0.2127	-0.0298	-0.0605		1.4092	0.06	9.9014	1.4312	9.9017	1.6922	A-	A-	A+
ELA	7	786705	8	CCAACS	2	B-C	6531	0.3996	0.186	0.2339	0.3995	0.1803	0.0003	0.3507	-0.13	-0.0996	0.351	-0.2044	-0.0338	1.1316	0.0584	1.431	1.0336	3.8111	1.1394	A-	A-	A-
ELA	7	786697	8	CCAACS	2	B-K	6533	0.536	0.0707	0.536	0.1489	0.2443		0.3634	-0.1874	0.3634	-0.2557	-0.0981		0.4665	0.0572	2.4211	1.0528	2.1811	1.0672	A-	A-	A-
ELA	7	786699	8	CCAACS	3	B-K	6533	0.4249	0.3089	0.111	0.1552	0.4249		0.3118	-0.0656	-0.2494	-0.1256	0.3118		0.9906	0.0579	4.2911	1.0994	5.1612	1.1788	A+	A+	A+
ELA	7	786700	8	CCAACS	3	B-K	6527	0.2611	0.2106	0.4512	0.2608	0.0764	0.0009	0.0149	-0.1738	0.2014	0.0154	-0.1327	-0.0271	1.8147	0.0637	9.4413	1.3204	9.9017	1.6668	A-	A-	A+
ELA	7	786695	8	CCAACS	2	B-V	6533	0.5803	0.0598	0.0672	0.5803	0.2927		0.3799	-0.2026	-0.1947	0.3799	-0.1993		0.2702	0.0576	0.471	1.0103	-0.069	0.9976	A-	A-	A-
ELA	7	786696	8	CCAACS	2	B-V	6532	0.4631	0.0666	0.1287	0.3415	0.463	0.0002	0.1841	-0.2311	-0.1939	0.0652	0.1843	-0.0232	0.8307	0.0574	9.3012	1.2169	8.2213	1.2772	A-	A-	A+
ELA	7	786797	8	CCAACS	2	D	6533	0.6809	0.1668	0.6809	0.0929	0.0594		0.3737	-0.2411	0.3737	-0.186	-0.1283		-0.1195	0.0592	-1.899	0.9537	-1.8591	0.9294	A+	A-	A-
ELA	7	799559	9	CCAACS	2	B-C	6556	0.327	0.327	0.1804	0.3701	0.1223	0.0002	0.1342	0.1344	-0.2234	0.1278	-0.1179	-0.0151	1.5199	0.0611	6.8712	1.1993	9.2915	1.4723	A-	A-	A-
ELA	7	799567	9	CCAACS	2	B-C	6557	0.4784	0.3093	0.1161	0.0962	0.4784		0.3575	-0.0658	-0.2632	-0.2167	0.3575		0.7967	0.0576	1.591	1.0352	2.4711	1.0821	A-	A+	A+
ELA	7	799568	9	CCAACS	2	B-C	6556	0.7793	0.068	0.0924	0.0602	0.7792	0.0002	0.5146	-0.2839	-0.2834	-0.251	0.5148	-0.0205	-0.7244	0.0648	-6.0892	0.817	-6.1193	0.6723	B-	A-	A-
ELA	7	799569	9	CCAACS	2	B-C	6556	0.3612	0.3611	0.1309	0.366	0.1418	0.0002	0.347	0.3471	-0.1928	-0.1363	-0.1027	-0.0164	1.3262	0.0597	0.001	0.9999	2.1111	1.0861	A-	A+	A+
ELA	7	799570	9	CCAACS	3	B-C	6556	0.3987	0.2422	0.3987	0.1036	0.2555	0.0002	0.2786	-0.0891	0.2785	-0.1685	-0.1076	0.0036	1.0875	0.0585	5.8211	1.1423	5.7112	1.2161	A-	A-	A+
ELA	7	799565	9	CCAACS	2	B-K	6556	0.5322	0.5321	0.1301	0.161	0.1766	0.0002	0.4428	0.4429	-0.2282	-0.2469	-0.1396	-0.0205	0.4878	0.0575	-1.939	0.9582	-2.2091	0.9292	A-	A+	A-
ELA	7	799561	9	CCAACS	2	B-V	6557	0.7679	0.0811	0.7679	0.0483	0.1026		0.4947	-0.2546	0.4947	-0.2557	-0.2784		-0.718	0.0647	-5.2292	0.8418	-5.7993	0.6881	A-	A-	A-
ELA	7	806042	9	CCAACS	2	B-V	6557	0.8855	0.0352	0.0621	0.8855	0.0172		0.3607	-0.1929	-0.2378	0.3607	-0.1686		-1.6526	0.0812	-2.4391	0.8763	-3.0793	0.7148	A-	A-	A-
ELA	7	786787	9	CCAACS	2	D	6556	0.1502	0.4706	0.1391	0.2399	0.1502	0.0002	-0.0756	0.2181	0.0168	-0.2047	-0.0754	-0.0245	2.5028	0.0741	8.7314	1.4366	9.9026	2.5953	A-	A+	A+
ELA	8	745574	0	CCAACS	2	A-C	73580	0.3072	0.4167	0.1122	0.1635	0.3071	0.0005	0.3408	-0.0578	-0.2445	-0.1376	0.341	-0.0348	1.3122	0.0204	9.9011	1.146	9.9013	1.2987	A+	A+	A+
ELA	8	745582	0	CCAACS	2	A-C	73584	0.411	0.1665	0.123	0.2992	0.4108	0.0004	0.3173	-0.0842	-0.2922	-0.0616	0.3177	-0.0335	0.5065	0.0194	9.9012	1.1964	9.9014	1.3944	A+	A+	A+
ELA	8	745583	0	CCAACS	2	A-C	73584	0.5612	0.0782	0.5609	0.0878	0.2726	0.0004	0.3282	-0.282	0.3287	-0.2772	-0.0185	-0.0344	-0.1686	0.0199	9.9013	1.2541	9.9015	1.507	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	746409	0	CCAACS	2	A-C	73596	0.6175	0.1512	0.6173	0.1399	0.0913	0.0003	0.3817	-0.2203	0.382	-0.2183	-0.1064	-0.022	-0.1662	0.0199	9.9011	1.0932	9.9012	1.1941	A+	A+	A+
ELA	8	746420	0	CCAACS	2	A-C	73598	0.5731	0.573	0.2838	0.1157	0.0272	0.0003	0.2228	0.2231	-0.0729	-0.1391	-0.201	-0.0203	0.1626	0.0195	9.9013	1.2776	9.9014	1.4484	A-	A+	A-
ELA	8	745577	0	CCAACS	2	A-K	73581	0.5829	0.2072	0.0685	0.5826	0.1412	0.0005	0.487	-0.1616	-0.28	0.4874	-0.2968	-0.035	-0.2123	0.02	1.691	1.0142	-0.189	0.9971	A+	A+	A+
ELA	8	745579	0	CCAACS	2	A-K	73579	0.541	0.2014	0.5407	0.0923	0.1652	0.0005	0.5529	-0.2192	0.5532	-0.2947	-0.2739	-0.0365	-0.0544	0.0197	-3.959	0.9685	-5.8991	0.9199	A-	A+	A+
ELA	8	746413	0	CCAACS	2	A-K	73602	0.4767	0.1956	0.177	0.4766	0.1507	0.0002	0.5089	-0.239	-0.2251	0.509	-0.2048	-0.0178	0.4829	0.0194	-5.309	0.9596	-2.649	0.969	A-	A+	A+
ELA	8	746415	0	CCAACS	2	A-K	73597	0.5681	0.1403	0.1561	0.5679	0.1354	0.0003	0.4658	-0.2343	-0.1031	0.466	-0.3264	-0.022	0.0299	0.0196	0.511	1.0041	1.361	1.0183	A+	A-	A+
ELA	8	746410	0	CCAACS	2	A-V	73601	0.6392	0.0356	0.2593	0.0659	0.6391	0.0002	0.285	-0.2345	-0.0585	-0.2726	0.2852	-0.0196	-0.2656	0.0201	9.9012	1.1902	9.9014	1.4197	A+	A+	A-
ELA	8	710655	0	CCAACS	2	B-C	73597	0.6305	0.0804	0.1612	0.1277	0.6304	0.0003	0.5742	-0.2367	-0.297	-0.3094	0.5743	-0.0235	-0.4342	0.0204	-9.8991	0.8962	-9.8992	0.8266	A-	A-	A-
ELA	8	710656	0	CCAACS	2	B-C	73598	0.6236	0.2341	0.6235	0.0934	0.0488	0.0003	0.378	-0.1532	0.3784	-0.2372	-0.2273	-0.0283	-0.2872	0.0201	9.3011	1.0814	9.9012	1.2394	A+	A+	A+
ELA	8	710657	0	CCAACS	2	B-C	73592	0.6136	0.289	0.047	0.6134	0.0503	0.0003	0.4812	-0.2872	-0.2432	0.4814	-0.2393	-0.0273	0.1609	0.0195	-3.679	0.9716	-3.789	0.9525	A-	A+	A+
ELA	8	710658	0	CCAACS	2	B-C	73591	0.5927	0.0848	0.1809	0.1415	0.5924	0.0004	0.4558	-0.1949	-0.1907	-0.2751	0.4561	-0.029	-0.3061	0.0201	8.0111	1.0702	9.1212	1.1518	A-	A+	A-
ELA	8	743396	0	CCAACS	2	B-C	73573	0.4705	0.4702	0.2861	0.1349	0.1082	0.0006	0.3239	0.3244	0.0292	-0.283	-0.2499	-0.0346	0.5098	0.0194	9.9012	1.1557	9.9013	1.2585	A-	A+	A+
ELA	8	743397	0	CCAACS	2	B-C	73579	0.3908	0.4293	0.3906	0.1116	0.068	0.0005	0.4218	-0.1461	0.4221	-0.2727	-0.1866	-0.0335	0.4393	0.0194	9.9011	1.0807	9.9011	1.1365	A-	A+	A+
ELA	8	743399	0	CCAACS	2	B-C	73581	0.4804	0.1578	0.1903	0.4801	0.1712	0.0005	0.5164	-0.1873	-0.205	0.5167	-0.2884	-0.0339	0.4129	0.0194	-6.9491	0.9475	-5.1491	0.9399	A+	A+	A+
ELA	8	710664	0	CCAACS	2	B-K	73597	0.5806	0.5805	0.2339	0.0796	0.1057	0.0003	0.4858	0.4861	-0.2554	-0.2262	-0.2278	-0.0278	-0.025	0.0197	-0.679	0.9945	-1.329	0.9817	B-	A-	A+
ELA	8	743400	0	CCAACS	2	B-K	73581	0.5851	0.1349	0.1703	0.1096	0.5848	0.0005	0.6061	-0.2282	-0.3548	-0.2776	0.6063	-0.0338	-0.5018	0.0206	-2.509	0.9772	-3.6491	0.9366	A-	A+	A+
ELA	8	743403	0	CCAACS	2	B-K	73578	0.7353	0.7349	0.099	0.0729	0.0927	0.0005	0.5614	0.5619	-0.2614	-0.2678	-0.3433	-0.0339	-0.8898	0.0218	-9.8992	0.8249	-9.8993	0.6726	A-	A+	A+
ELA	8	710665	0	CCAACS	2	B-V	73599	0.7627	0.0361	0.1647	0.7626	0.0364	0.0002	0.3033	-0.2331	-0.1337	0.3038	-0.191	-0.0259	-1.1197	0.0228	8.2911	1.1023	9.9016	1.5645	A-	A+	A+
ELA	8	710715	0	CCAACS	2	B-V	73597	0.715	0.7148	0.1051	0.1106	0.0692	0.0003	0.4733	0.4737	-0.251	-0.2392	-0.2419	-0.0286	-0.8216	0.0216	-1.689	0.9825	-2.049	0.9569	A-	A+	A+
ELA	8	743401	0	CCAACS	2	B-V	73581	0.7688	0.0701	0.7685	0.1036	0.0574	0.0005	0.4437	-0.2853	0.4445	-0.1913	-0.239	-0.034	-0.6086	0.0209	-9.8991	0.8705	-8.6292	0.8461	B-	A-	A-
ELA	8	584100	0	CCAACS	2	D	73609	0.4593	0.1763	0.4593	0.208	0.1563	0.0001	0.3797	-0.0479	0.3797	-0.1669	-0.284	-0.0082	0.9842	0.0198	9.9011	1.1465	9.9013	1.252	A+	A-	A-
ELA	8	663488	0	CCAACS	2	D	73612	0.3178	0.3178	0.2371	0.2732	0.1718	0.0001	0.3065	0.3065	-0.1161	-0.1259	-0.0984	-0.0105	1.2491	0.0203	9.9012	1.1822	9.9014	1.3772	A+	A-	A-
ELA	8	714524	0	CCAACS	2	D	73602	0.4599	0.0971	0.2301	0.2128	0.4598	0.0002	0.3846	-0.1568	-0.2436	-0.1041	0.3848	-0.0154	0.4015	0.0194	9.9011	1.121	9.9012	1.2063	A+	A-	A-
ELA	8	717698	0	CCAACS	2	D	73608	0.8007	0.0663	0.0702	0.8006	0.0628	0.0001	0.5005	-0.2754	-0.2716	0.5007	-0.2554	-0.015	-0.9664	0.0221	-9.8993	0.7471	-9.8994	0.5997	A+	A-	A-
ELA	8	746437	0	CCAACS	2	D	73609	0.7226	0.0596	0.1962	0.7226	0.0215	0.0001	0.4372	-0.2702	-0.2647	0.4373	-0.1829	-0.0147	-0.6802	0.0211	-6.8791	0.9341	-3.9991	0.9235	A+	A+	A+
ELA	8	746438	0	CCAACS	1	D	73606	0.4884	0.4883	0.1236	0.238	0.15	0.0001	0.4824	0.4824	-0.2752	-0.1958	-0.1877	-0.0152	0.3995	0.0194	1.331	1.0103	2.821	1.034	A+	A-	A+
ELA	8	746439	0	CCAACS	1	D	73610	0.2898	0.1702	0.2898	0.0984	0.4416	0.0001	0.4016	-0.2999	0.4016	-0.0806	-0.0913	-0.012	1.8177	0.022	8.7311	1.101	9.9014	1.3553	A-	A-	A-
ELA	8	747122	0	CCAACS	2	D	73609	0.4657	0.1871	0.116	0.2312	0.4657	0.0001	0.3571	-0.1639	-0.1228	-0.1774	0.3571	-0.012	0.8468	0.0196	9.9012	1.1698	9.9013	1.2612	A-	A-	A-
ELA	8	747124	0	CCAACS	2	D	73607	0.439	0.1028	0.1511	0.439	0.307	0.0001	0.2753	-0.0696	-0.2043	0.2753	-0.0916	-0.0042	0.9167	0.0197	9.9013	1.2506	9.9014	1.4196	A+	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	783668	1	CCAACS	2	A-C	20077	0.2526	0.3502	0.1674	0.2525	0.2295	0.0003	0.1435	0.1184	-0.1766	0.1437	-0.1251	-0.0198	1.536	0.0657	8.0013	1.2871	9.9017	1.7026	A-	A-	A-
ELA	8	783678	1	CCAACS	2	A-C	20079	0.6529	0.1243	0.6527	0.1312	0.0916	0.0002	0.529	-0.2753	0.529	-0.2869	-0.2222	-0.0075	-0.734	0.0617	-7.0192	0.8217	-4.7992	0.7656	A+	A+	A-
ELA	8	783679	1	CCAACS	2	A-C	20079	0.5103	0.1857	0.1793	0.5102	0.1246	0.0002	0.3943	-0.1891	-0.1262	0.3944	-0.2271	-0.0152	0.106	0.0586	2.1811	1.0527	3.0711	1.1143	A-	A+	A+
ELA	8	783673	1	CCAACS	3	A-K	20079	0.4943	0.2232	0.1236	0.4942	0.1588	0.0002	0.4605	-0.1791	-0.2096	0.4607	-0.2368	-0.0158	0.1656	0.0586	-1.189	0.9716	-0.849	0.9696	A+	A-	A-
ELA	8	783674	1	CCAACS	2	A-K	20075	0.5884	0.1073	0.1637	0.5882	0.1405	0.0004	0.3953	-0.2289	-0.1198	0.3956	-0.2278	-0.0195	-0.3384	0.0596	1.671	1.0413	5.7613	1.2661	A+	A-	A-
ELA	8	783675	1	CCAACS	2	A-K	20079	0.6507	0.0965	0.6506	0.206	0.0467	0.0002	0.426	-0.0875	0.4261	-0.3491	-0.1703	-0.0155	-0.6474	0.0612	-1.769	0.9538	-1.0791	0.9456	A+	A+	A+
ELA	8	783669	1	CCAACS	2	A-V	20081	0.6383	0.1825	0.0704	0.6382	0.1088	0.0001	0.4834	-0.2689	-0.243	0.4835	-0.2126	-0.011	-0.5971	0.0608	-4.4491	0.8887	-3.4592	0.8392	A-	A-	A-
ELA	8	783670	1	CCAACS	2	A-V	20081	0.615	0.6149	0.1001	0.1666	0.1182	0.0001	0.3182	0.3183	-0.2231	-0.0879	-0.1704	-0.0114	-0.4265	0.0599	7.0012	1.1849	9.4215	1.482	A-	A-	A-
ELA	8	786813	1	CCAACS	2	D	20076	0.4335	0.1259	0.4334	0.2212	0.2191	0.0003	0.1578	-0.1341	0.158	-0.1931	0.1128	-0.0177	0.5368	0.0499	9.9013	1.3344	9.9015	1.4745	A+	A+	A+
ELA	8	786815	1	CCAACS	2	D	13368	0.2326	0.2536	0.3945	0.1193	0.2326	0.0001	0.2655	0.0085	-0.0665	-0.257	0.2656	-0.0136	2.0093	0.0539	3.0611	1.0899	7.8315	1.4725	A+	A-	A-
ELA	8	786822	1	CCAACS	2	D	13417	0.5646	0.0546	0.2123	0.1685	0.5645	0.0001	0.411	-0.271	-0.2479	-0.109	0.4111	-0.0155	0.1606	0.0415	2.251	1.038	2.6411	1.0744	A-	A-	A+
ELA	8	800976	2	CCAACS	2	A-C	6657	0.639	0.2357	0.0703	0.6389	0.055	0.0002	0.3158	-0.1378	-0.2389	0.316	-0.1406	-0.0167	-0.2396	0.06	3.7011	1.0951	4.6312	1.2256	A+	A+	A+
ELA	8	800985	2	CCAACS	3	A-C	6657	0.6739	0.6738	0.102	0.1365	0.0876	0.0002	0.4725	0.4726	-0.2514	-0.2631	-0.1946	-0.0131	-0.402	0.061	0.461	1.0118	-0.969	0.9514	A+	A+	A+
ELA	8	800980	2	CCAACS	2	A-K	6656	0.4618	0.2821	0.208	0.0479	0.4617	0.0003	0.3144	-0.2339	-0.0456	-0.1532	0.3147	-0.0237	0.7477	0.0588	4.0511	1.1005	4.7712	1.1787	A+	A-	A-
ELA	8	800982	2	CCAACS	2	A-K	6656	0.6252	0.059	0.1844	0.625	0.1313	0.0003	0.3286	-0.1965	-0.1159	0.3289	-0.2001	-0.0237	-0.0714	0.0592	2.4211	1.059	3.8312	1.168	A+	A+	A-
ELA	8	800984	2	CCAACS	2	A-K	6658	0.514	0.299	0.0695	0.1175	0.514		0.4081	-0.2278	-0.1714	-0.1742	0.4081		0.3892	0.0583	0.751	1.0174	1.6911	1.0606	A+	A+	A-
ELA	8	800986	2	CCAACS	2	A-K	6656	0.648	0.1262	0.6478	0.129	0.0967	0.0003	0.41	-0.1925	0.4102	-0.2127	-0.2046	-0.0142	-0.2921	0.0603	-2.4291	0.9395	-2.3491	0.893	A+	A+	A-
ELA	8	800977	2	CCAACS	2	A-V	6655	0.5698	0.5695	0.1912	0.1915	0.0473	0.0005	0.1784	0.1789	-0.1544	0.0054	-0.1386	-0.0283	0.1523	0.0586	9.9013	1.2832	9.9015	1.501	A-	A+	A-
ELA	8	807217	2	CCAACS	2	A-V	6656	0.942	0.0144	0.024	0.0195	0.9417	0.0003	0.3426	-0.1676	-0.2159	-0.1952	0.3423	-0.0082	-2.5181	0.1027	-3.6393	0.7418	-5.8897	0.3288	B+	A+	A-
ELA	8	786803	2	CCAACS	2	D	6658	0.5964	0.5964	0.1556	0.1524	0.0955		0.2955	0.2955	-0.0807	-0.1905	-0.1608		0.0023	0.0499	7.4812	1.1581	6.9413	1.2581	A+	A-	A-
ELA	8	805353	3	CCAACS	2	A-C	6663	0.6554	0.6552	0.179	0.0665	0.099	0.0003	0.3472	0.3475	-0.1255	-0.2561	-0.1771	-0.0192	-0.2201	0.06	3.3411	1.0861	3.3212	1.1606	A-	A+	A+
ELA	8	805361	3	CCAACS	2	A-C	6664	0.8165	0.8164	0.039	0.0957	0.0488	0.0002	0.4946	0.4949	-0.2303	-0.3061	-0.2636	-0.0172	-1.2831	0.0709	-4.8792	0.8201	-4.9494	0.6409	A+	A+	A+
ELA	8	805355	3	CCAACS	2	A-K	6665	0.6225	0.0899	0.1232	0.6225	0.1644		0.3321	-0.17	-0.0869	0.3321	-0.2261		-0.1969	0.0599	4.5911	1.119	3.3012	1.1578	A+	A-	A-
ELA	8	805357	3	CCAACS	3	A-K	6662	0.7008	0.1574	0.1038	0.7005	0.0378	0.0005	0.386	-0.1194	-0.2928	0.3864	-0.229	-0.0257	-0.5341	0.0621	0.201	1.0054	2.1511	1.1213	A+	A-	A+
ELA	8	805360	3	CCAACS	2	A-K	6663	0.5365	0.1433	0.1812	0.1388	0.5364	0.0003	0.3171	-0.2105	-0.0765	-0.1582	0.3174	-0.0218	0.3519	0.0583	6.5112	1.1575	6.9513	1.2794	A+	A+	A+
ELA	8	805354	3	CCAACS	2	A-V	6663	0.8549	0.0416	0.8546	0.0573	0.0462	0.0003	0.3831	-0.2391	0.3833	-0.2479	-0.1406	-0.0133	-1.4442	0.0736	-2.8491	0.8829	-1.8192	0.8413	A-	A+	A+
ELA	8	805546	3	CCAACS	2	A-V	6664	0.6843	0.039	0.6842	0.2329	0.0438	0.0002	0.2982	-0.2597	0.2984	-0.1016	-0.2214	-0.0136	-0.3466	0.0607	3.5511	1.0956	4.7313	1.2522	A-	A-	A-
ELA	8	805547	3	CCAACS	2	A-V	6664	0.5761	0.0204	0.2518	0.1517	0.576	0.0002	0.363	-0.1464	-0.2683	-0.1175	0.3631	-0.0136	0.1933	0.0585	3.2711	1.0777	4.1212	1.1667	A+	A-	A-
ELA	8	786811	3	CCAACS	2	D	6663	0.5412	0.179	0.541	0.1758	0.1038	0.0003	0.3767	-0.2323	0.3769	-0.1698	-0.1109	-0.0175	0.3338	0.0435	3.5811	1.0629	4.1211	1.1197	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	784830	4	CCAACS	2	A-C	6649	0.704	0.0752	0.1093	0.7037	0.1114	0.0005	0.5284	-0.239	-0.28	0.5287	-0.2878	-0.0235	-0.4473	0.0615	-4.0291	0.8947	-4.4592	0.7752	A-	A-	A-
ELA	8	784831	4	CCAACS	2	A-C	6652	0.8803	0.0281	0.8803	0.051	0.0406		0.3711	-0.1719	0.3711	-0.2573	-0.1797		-1.6999	0.0795	-4.4492	0.7933	-4.1794	0.6182	A+	A-	A-
ELA	8	784825	4	CCAACS	2	A-K	6650	0.7747	0.0773	0.063	0.0849	0.7745	0.0003	0.4466	-0.2646	-0.2137	-0.2288	0.447	-0.0278	-0.9684	0.0668	-3.8691	0.8738	-3.4392	0.7686	A+	A-	A+
ELA	8	784826	4	CCAACS	2	A-K	6650	0.485	0.4848	0.2308	0.258	0.0262	0.0003	0.2534	0.2536	-0.178	-0.0674	-0.1375	-0.0166	0.6475	0.0583	8.9712	1.2216	8.8714	1.3584	A-	A-	A-
ELA	8	784828	4	CCAACS	2	A-K	6648	0.6218	0.6215	0.1001	0.1228	0.155	0.0006	0.3463	0.3467	-0.2164	-0.2669	-0.0415	-0.0235	0.0188	0.0589	2.5811	1.0621	3.3011	1.1471	A-	A-	A-
ELA	8	784821	4	CCAACS	2	A-V	6652	0.6941	0.6941	0.0855	0.0242	0.1962		0.3244	0.3244	-0.1971	-0.1813	-0.1674		-0.4241	0.0613	2.1511	1.0584	5.4613	1.3225	A+	A-	A-
ELA	8	784823	4	CCAACS	2	A-V	6651	0.8731	0.0284	0.873	0.0493	0.0492	0.0002	0.3115	-0.1688	0.3118	-0.2208	-0.1286	-0.0148	-1.6655	0.0788	-0.819	0.9595	1.7312	1.186	A+	A-	A-
ELA	8	802096	4	CCAACS	2	A-V	6650	0.8653	0.034	0.0322	0.0686	0.865	0.0003	0.2862	-0.1672	-0.1855	-0.137	0.2866	-0.0158	-1.5381	0.0761	-1.019	0.9534	0.8211	1.0793	A-	A-	B-
ELA	8	786807	4	CCAACS	2	D	6651	0.4673	0.0495	0.084	0.3991	0.4672	0.0002	0.2771	-0.2432	-0.2469	-0.0347	0.2772	-0.0087	0.7068	0.0584	8.7612	1.2178	8.3013	1.3342	A+	A-	A-
ELA	8	805461	5	CCAACS	2	A-C	6640	0.6925	0.0622	0.6925	0.0604	0.1849		0.4828	-0.1457	0.4828	-0.2937	-0.303		-0.492	0.0622	-3.4991	0.9044	-1.1591	0.9365	A+	A-	A-
ELA	8	805468	5	CCAACS	2	A-C	6639	0.5394	0.156	0.1893	0.5393	0.1152	0.0002	0.4174	-0.1512	-0.2548	0.4175	-0.1668	-0.0113	0.2063	0.0586	1.491	1.0351	1.201	1.0466	A+	A+	A+
ELA	8	805552	5	CCAACS	2	A-C	6640	0.5916	0.5916	0.1307	0.0718	0.2059		0.4134	0.4134	-0.2562	-0.2233	-0.1463		0.0755	0.059	-0.409	0.9902	-0.079	0.9963	A+	A-	A-
ELA	8	805465	5	CCAACS	3	A-K	6640	0.8923	0.0274	0.8923	0.0569	0.0233		0.3928	-0.209	0.3928	-0.2588	-0.1833		-1.9382	0.086	-1.8991	0.8944	-3.7594	0.602	A+	A+	A-
ELA	8	805551	5	CCAACS	3	A-K	6639	0.5206	0.1318	0.2819	0.0657	0.5205	0.0002	0.3239	-0.1684	-0.0854	-0.268	0.324	-0.0089	0.3265	0.0584	4.3611	1.1038	7.5213	1.3057	A+	A+	A+
ELA	8	805462	5	CCAACS	1	A-V	6639	0.7546	0.1193	0.0544	0.0717	0.7545	0.0002	0.2671	-0.0334	-0.1726	-0.2517	0.2673	-0.0138	-0.7664	0.0649	4.5011	1.1483	6.9515	1.5195	A+	A+	A-
ELA	8	805463	5	CCAACS	2	A-V	6640	0.3785	0.1075	0.3785	0.0813	0.4327		0.1403	-0.2898	0.1403	-0.116	0.1079		1.1401	0.06	9.9013	1.3312	9.9016	1.62	A-	A-	A-
ELA	8	810357	5	CCAACS	2	A-V	6639	0.9102	0.039	0.9101	0.0267	0.0241	0.0002	0.3091	-0.1574	0.3091	-0.1889	-0.1789	-0.0052	-2.0309	0.0885	-2.2391	0.8699	0.8811	1.1119	A+	A-	A-
ELA	8	786824	5	CCAACS	2	D	6637	0.3031	0.303	0.3175	0.2026	0.1765	0.0005	0.242	0.242	-0.0927	-0.1054	-0.0668	-0.0091	1.5962	0.0474	6.5112	1.1547	9.9015	1.4933	A-	A-	A-
ELA	8	783609	6	CCAACS	2	B-C	6706	0.5467	0.0611	0.5466	0.2469	0.1452	0.0001	0.3872	-0.1285	0.3873	-0.0968	-0.3408	-0.016	0.2215	0.0585	2.5511	1.0603	2.5411	1.1021	A+	A-	A-
ELA	8	783618	6	CCAACS	2	B-C	6707	0.4431	0.2487	0.4431	0.2016	0.1066		0.4629	-0.1081	0.4629	-0.2705	-0.2422		0.7527	0.0585	-1.389	0.9676	0.051	1.0014	A-	A-	A-
ELA	8	783619	6	CCAACS	2	B-C	6703	0.6834	0.683	0.1358	0.1021	0.0784	0.0006	0.3608	0.3614	-0.1371	-0.2426	-0.1749	-0.0289	-0.4081	0.0615	0.411	1.0108	0.511	1.0262	A-	A+	A+
ELA	8	783614	6	CCAACS	2	B-K	6707	0.6487	0.0807	0.6487	0.1987	0.0719		0.3584	-0.2277	0.3584	-0.1372	-0.2104		-0.2764	0.0606	0.471	1.012	5.0813	1.2735	A+	A-	A-
ELA	8	783616	6	CCAACS	2	B-K	6707	0.648	0.648	0.1516	0.1138	0.0866		0.472	0.472	-0.2589	-0.2126	-0.2312		-0.3197	0.0608	-3.9391	0.8993	-2.7991	0.8636	A+	A-	A-
ELA	8	783617	6	CCAACS	2	B-K	6706	0.5115	0.1525	0.238	0.098	0.5114	0.0001	0.3785	-0.1718	-0.1408	-0.2268	0.3786	-0.0087	0.411	0.0582	1.531	1.0352	0.811	1.0299	A-	A-	A+
ELA	8	783610	6	CCAACS	2	B-V	6705	0.5652	0.0665	0.5651	0.1779	0.1902	0.0003	0.432	-0.2138	0.4322	-0.2283	-0.187	-0.0157	0.1775	0.0586	1.391	1.0327	2.2311	1.0909	A+	A+	A+
ELA	8	783611	6	CCAACS	2	B-V	6706	0.8112	0.0786	0.0836	0.0265	0.8111	0.0001	0.3611	-0.1678	-0.2246	-0.2109	0.3613	-0.0172	-1.2142	0.0707	-0.509	0.9797	1.7111	1.1458	A+	A-	A-
ELA	8	786808	6	CCAACS	2	D	6707	0.3692	0.3692	0.3323	0.1982	0.1003		0.2827	0.2827	-0.2821	0.0139	-0.0303		1.1773	0.0509	7.0512	1.1612	7.8013	1.2994	A-	A-	A-
ELA	8	795923	7	CCAACS	3	B-C	6737	0.6504	0.0889	0.1249	0.6502	0.1356	0.0003	0.4315	-0.2091	-0.2479	0.4318	-0.187	-0.0233	-0.182	0.0596	-1.819	0.9549	-1.9091	0.9208	A-	A-	A-
ELA	8	795924	7	CCAACS	2	B-C	6733	0.6043	0.1482	0.6038	0.1938	0.0533	0.0009	0.4023	-0.1495	0.4026	-0.2287	-0.2351	-0.02	-0.0754	0.0591	0.831	1.0201	0.761	1.0301	A-	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	8	795925	7	CCAACS	2	B-C	6739	0.9196	0.9196	0.0237	0.0374	0.0193		0.3703	0.3703	-0.2214	-0.2519	-0.1396		-2.2026	0.094	-2.0891	0.8641	-3.0594	0.6444	A-	A-	B-
ELA	8	795917	7	CCAACS	2	B-K	6739	0.6001	0.21	0.6001	0.0729	0.1171		0.2321	-0.0296	0.2321	-0.2716	-0.0966		0.0089	0.0587	5.2511	1.1297	8.3214	1.3529	A-	A-	A-
ELA	8	795920	7	CCAACS	2	B-K	6736	0.485	0.1695	0.4848	0.0913	0.254	0.0004	0.3086	-0.1348	0.309	-0.1673	-0.1264	-0.0296	0.5779	0.0577	6.2811	1.1467	5.2312	1.1809	A+	A+	A+
ELA	8	795922	7	CCAACS	2	B-K	6737	0.6411	0.0467	0.1571	0.1549	0.6409	0.0003	0.3651	-0.1901	-0.0791	-0.2929	0.3654	-0.0233	-0.1164	0.0593	-1.649	0.9599	-0.329	0.9859	A-	A-	A-
ELA	8	795916	7	CCAACS	2	B-V	6739	0.3064	0.1065	0.3122	0.3064	0.2748		0.0136	-0.1095	-0.0237	0.0136	0.0862		1.4469	0.0614	9.9014	1.4238	9.9017	1.7149	A+	A+	A+
ELA	8	805033	7	CCAACS	2	B-V	6739	0.5384	0.2303	0.1368	0.5384	0.0945		0.2978	-0.047	-0.2384	0.2978	-0.1597		0.3446	0.0578	5.5811	1.1305	5.5912	1.2	A-	A-	A-
ELA	8	786806	7	CCAACS	2	D	6739	0.7417	0.0623	0.1054	0.0907	0.7417		0.4845	-0.1812	-0.283	-0.2834	0.4845		-0.4257	0.0458	-6.4291	0.8751	-5.9192	0.79	A+	C-	A-
ELA	8	805428	8	CCAACS	3	B-C	6751	0.437	0.1795	0.1087	0.437	0.2748		0.2039	-0.1749	-0.2431	0.2039	0.0934		0.672	0.0582	9.9013	1.2751	9.9015	1.4635	A+	A+	A+
ELA	8	805435	8	CCAACS	2	B-C	6751	0.8337	0.0764	0.8337	0.0478	0.0421		0.4174	-0.2699	0.4174	-0.2373	-0.1648		-1.3324	0.0714	-3.2891	0.8735	-3.2292	0.7561	A-	A-	A-
ELA	8	805436	8	CCAACS	2	B-C	6749	0.6111	0.2583	0.0909	0.6109	0.0395	0.0003	0.3402	-0.1483	-0.2264	0.3399	-0.1836	0.0027	-0.0228	0.0587	3.2611	1.0782	4.3112	1.1763	A+	A+	A+
ELA	8	805437	8	CCAACS	2	B-C	6751	0.9043	0.9043	0.0342	0.0338	0.0277		0.4193	0.4193	-0.2434	-0.2396	-0.2182		-2.0583	0.0875	-3.4492	0.8072	-5.0295	0.5026	A+	A-	A-
ELA	8	805431	8	CCAACS	2	B-K	6750	0.6751	0.0665	0.0468	0.675	0.2115	0.0001	0.4349	-0.2341	-0.2507	0.435	-0.2262	-0.0085	-0.2722	0.0598	-1.279	0.9682	-1.3291	0.9415	A-	A-	A-
ELA	8	805434	8	CCAACS	3	B-K	6747	0.605	0.1326	0.1397	0.6047	0.1225	0.0006	0.4293	-0.229	-0.2076	0.4297	-0.1821	-0.0292	0.0839	0.0584	0.581	1.0133	0.931	1.0346	A+	A-	A-
ELA	8	805430	8	CCAACS	2	B-V	6750	0.5744	0.1446	0.1917	0.5743	0.0893	0.0001	0.2874	-0.2244	-0.0447	0.2875	-0.1596	-0.0146	0.1014	0.0583	4.5511	1.1081	5.4712	1.2149	A+	A+	A-
ELA	8	810276	8	CCAACS	2	B-V	6749	0.8558	0.0837	0.0333	0.0271	0.8556	0.0003	0.434	-0.2752	-0.2264	-0.2186	0.4344	-0.0207	-1.5021	0.0744	-2.1591	0.9078	-3.4193	0.7206	A-	B-	A-
ELA	8	786812	8	CCAACS	2	D	6750	0.5455	0.1232	0.5454	0.204	0.1272	0.0001	0.3475	-0.1658	0.3477	-0.2019	-0.111	-0.022	0.3018	0.0491	3.0611	1.06	3.4611	1.1105	A+	A-	A-
ELA	8	786823	8	CCAACS	2	D	6751	0.4576	0.1892	0.4576	0.176	0.1773		0.3948	-0.1564	0.3948	-0.1596	-0.1955		0.7705	0.0437	4.1711	1.0755	4.9711	1.1377	A-	A-	A-
ELA	8	783586	9	CCAACS	2	B-C	6719	0.7455	0.7452	0.098	0.0979	0.0585	0.0004	0.5052	0.5057	-0.2808	-0.2814	-0.2244	-0.0281	-0.7269	0.0641	-6.0892	0.8262	-5.2393	0.7053	A-	A-	A-
ELA	8	783594	9	CCAACS	2	B-C	6717	0.5379	0.1889	0.1799	0.093	0.5375	0.0007	0.4454	-0.1659	-0.2105	-0.2609	0.4458	-0.0261	0.2895	0.0585	-1.809	0.9576	-0.509	0.9807	A-	A+	A+
ELA	8	783596	9	CCAACS	2	B-C	6722	0.5366	0.083	0.5366	0.2089	0.1715		0.3802	-0.2072	0.3802	-0.1496	-0.19		0.3334	0.0585	2.2711	1.0543	1.231	1.0458	A+	A+	A+
ELA	8	783597	9	CCAACS	2	B-C	6720	0.5683	0.1404	0.1593	0.5681	0.1318	0.0003	0.4239	-0.1918	-0.2114	0.4242	-0.1941	-0.0267	0.1088	0.0589	1.391	1.0335	1.081	1.0434	A-	A+	A+
ELA	8	783589	9	CCAACS	2	B-K	6721	0.6315	0.1593	0.1638	0.6314	0.0454	0.0001	0.5478	-0.2758	-0.32	0.5479	-0.2152	-0.0134	-0.2386	0.0603	-6.6792	0.8378	-5.5292	0.7599	A-	A-	A-
ELA	8	783591	9	CCAACS	2	B-K	6720	0.5991	0.5989	0.2153	0.1034	0.0821	0.0003	0.4024	0.4027	-0.1516	-0.2458	-0.2178	-0.0241	-0.0482	0.0594	0.911	1.0225	0.151	1.0059	A-	A-	A+
ELA	8	783588	9	CCAACS	2	B-V	6722	0.7242	0.7242	0.1973	0.058	0.0205		0.4832	0.4832	-0.3265	-0.2656	-0.1689		-0.6228	0.0631	-4.1691	0.8833	-4.0392	0.7796	A-	A-	A-
ELA	8	801512	9	CCAACS	2	B-V	6722	0.4699	0.2475	0.4699	0.2239	0.0586		0.3283	-0.2681	0.3283	-0.0534	-0.1101		0.6574	0.0586	6.0412	1.1505	6.5413	1.2526	A+	A-	A-
ELA	8	786805	9	CCAACS	2	D	6722	0.86	0.0799	0.026	0.86	0.0341		0.3699	-0.2277	-0.2201	0.3699	-0.1741		-1.4234	0.0737	-2.0391	0.9157	-0.7991	0.9253	B+	A+	A-
MATH	3	579683	0	CCAACS	2	A-F	62923	0.6077	0.607	0.1675	0.1479	0.0764	0.0011	0.4207	0.4217	-0.246	-0.2082	-0.1455	-0.0452	0.2362	0.0232	3.191	1.0315	0.721	1.0115	A+	A+	A+
MATH	3	657713	0	CCAACS	1	A-F	62956	0.6576	0.6572	0.1754	0.0686	0.0982	0.0006	0.5223	0.5228	-0.2771	-0.2177	-0.2921	-0.0323	-0.1298	0.0237	-8.6791	0.9131	-9.7992	0.8253	A-	A-	A-
MATH	3	657714	0	CCAACS	2	A-F	62932	0.5049	0.3453	0.5044	0.0896	0.0597	0.001	0.3532	-0.2197	0.3539	-0.1851	-0.0776	-0.0385	0.4254	0.0231	9.9012	1.1769	9.9012	1.2048	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	711343	0	CCAACS	1	A-F	62959	0.4489	0.1479	0.1496	0.2533	0.4487	0.0006	0.5165	-0.2243	-0.2637	-0.19	0.5167	-0.0281	0.8453	0.0231	-4.099	0.9603	-2.579	0.9624	A-	A-	A+
MATH	3	737302	0	CCAACS	1	A-F	62960	0.7855	0.0511	0.0313	0.785	0.132	0.0006	0.4707	-0.2246	-0.197	0.4716	-0.3223	-0.036	-0.6908	0.0253	-9.8992	0.8416	-9.8993	0.7431	A+	A-	A-
MATH	3	737304	0	CCAACS	1	A-F	62941	0.4577	0.4573	0.1235	0.1354	0.2829	0.0009	0.6311	0.6313	-0.2228	-0.1648	-0.4079	-0.0377	0.8727	0.0232	-9.8992	0.7978	-9.8992	0.762	A-	A-	A-
MATH	3	737305	0	CCAACS	1	A-F	62943	0.3654	0.3651	0.2078	0.1928	0.2335	0.0008	0.4629	0.4632	-0.2457	-0.1369	-0.1615	-0.0338	1.2745	0.0237	1.501	1.0158	2.791	1.0479	A-	A+	A+
MATH	3	394377	0	CCAACS	1	A-T	62969	0.7201	0.0603	0.0627	0.1568	0.7198	0.0004	0.5321	-0.203	-0.2971	-0.3252	0.5324	-0.0275	-0.8751	0.0261	-2.699	0.9653	-4.1991	0.8832	A-	A-	A-
MATH	3	579686	0	CCAACS	2	A-T	62932	0.4817	0.2047	0.4813	0.1105	0.2026	0.001	0.4475	-0.2203	0.448	-0.2143	-0.1657	-0.0369	0.9075	0.0232	8.0611	1.0817	8.7911	1.1371	A-	A+	A+
MATH	3	657721	0	CCAACS	1	A-T	62949	0.6019	0.1297	0.2242	0.6015	0.0439	0.0007	0.5766	-0.1093	-0.5041	0.5769	-0.1695	-0.0279	-0.0972	0.0236	-9.8991	0.8838	-8.0691	0.8569	B-	A-	A-
MATH	3	737299	0	CCAACS	1	A-T	62959	0.6448	0.6444	0.077	0.1866	0.0914	0.0006	0.5172	0.5176	-0.2813	-0.2083	-0.3155	-0.0293	-0.0099	0.0235	-8.9791	0.9121	-8.0791	0.8627	A+	A-	A-
MATH	3	299934	0	CCAACS	1	B-O	62938	0.5898	0.1368	0.1428	0.1302	0.5893	0.0009	0.5756	-0.3134	-0.2635	-0.2448	0.576	-0.0371	0.2402	0.0232	-9.8991	0.8778	-9.8992	0.8279	A-	A+	A+
MATH	3	314248	0	CCAACS	2	B-O	62961	0.7793	0.0282	0.1556	0.7789	0.0368	0.0005	0.5808	-0.1932	-0.4868	0.5813	-0.1705	-0.031	-1.1457	0.0275	-9.8992	0.8234	-9.8994	0.6494	A-	A+	A-
MATH	3	408681	0	CCAACS	2	B-O	62940	0.619	0.6184	0.1607	0.0911	0.1289	0.0009	0.5085	0.509	-0.2389	-0.2014	-0.3002	-0.0326	-0.1113	0.0237	-2.489	0.9746	-1.979	0.9631	A-	A+	A+
MATH	3	624787	0	CCAACS	1	B-O	62959	0.6093	0.0945	0.1368	0.1592	0.609	0.0006	0.3996	-0.2084	-0.1465	-0.2275	0.4001	-0.0288	-0.0625	0.0236	9.9011	1.1175	7.6911	1.1474	A-	A+	A+
MATH	3	711346	0	CCAACS	1	B-O	62940	0.7177	0.717	0.095	0.0868	0.1003	0.0009	0.4835	0.4843	-0.2416	-0.289	-0.2157	-0.0383	-0.4039	0.0244	-9.8191	0.8956	-7.8092	0.8371	A-	A-	A-
MATH	3	711417	0	CCAACS	1	B-O	62944	0.6889	0.6883	0.1092	0.0959	0.1058	0.0008	0.4119	0.4125	-0.2088	-0.2298	-0.1867	-0.0308	-0.5209	0.0247	5.8211	1.0678	1.831	1.0436	A+	A-	A+
MATH	3	711418	0	CCAACS	1	B-O	62972	0.65	0.106	0.6498	0.1663	0.0776	0.0004	0.5047	-0.3166	0.505	-0.2608	-0.1714	-0.0265	0.0287	0.0234	-8.1191	0.9208	-7.9191	0.8676	A+	A+	A+
MATH	3	711421	0	CCAACS	2	B-O	62940	0.5254	0.2018	0.5249	0.1895	0.0829	0.0009	0.4821	-0.3095	0.4826	-0.1849	-0.1569	-0.0357	0.4276	0.0231	3.101	1.0303	2.801	1.0426	A-	A+	A+
MATH	3	737308	0	CCAACS	2	B-O	62949	0.5782	0.1039	0.1693	0.1483	0.5778	0.0007	0.5534	-0.3464	-0.2819	-0.1722	0.5538	-0.0349	0.2396	0.0232	-9.5791	0.9092	-9.6291	0.854	A-	A+	A+
MATH	3	737315	0	CCAACS	2	B-O	62932	0.444	0.1829	0.4436	0.1967	0.1758	0.001	0.3156	-0.3215	0.3162	-0.0917	0.0127	-0.037	0.8441	0.0231	9.9012	1.2045	9.9013	1.2959	A+	A+	A+
MATH	3	743123	0	CCAACS	2	B-O	62969	0.8003	0.1035	0.7999	0.0597	0.0365	0.0004	0.4741	-0.227	0.4745	-0.2996	-0.2627	-0.0227	-0.7579	0.0256	-9.8992	0.7761	-9.8993	0.7011	A+	A+	A+
MATH	3	617228	0	CCAACS	1	C-G	62935	0.4648	0.1513	0.1432	0.4643	0.2402	0.001	0.3644	-0.2012	-0.1857	0.3649	-0.1025	-0.0345	0.4923	0.023	9.9012	1.1859	9.9012	1.2166	A+	A+	A+
MATH	3	713351	0	CCAACS	2	C-G	62960	0.3893	0.3313	0.1326	0.1464	0.3891	0.0006	0.4011	-0.1594	-0.1769	-0.1697	0.4013	-0.0288	0.9958	0.0233	9.9011	1.104	9.8012	1.1572	A+	A+	A-
MATH	3	738164	0	CCAACS	1	C-G	62949	0.369	0.1254	0.186	0.3687	0.3191	0.0007	0.4047	-0.1978	-0.1564	0.405	-0.1461	-0.0347	1.0556	0.0234	8.0711	1.0836	8.3511	1.1355	A+	A+	A+
MATH	3	316233	0	CCAACS	2	D-M	62924	0.6676	0.6668	0.1057	0.0938	0.1326	0.0011	0.4265	0.4274	-0.1929	-0.2276	-0.2196	-0.0405	-0.0535	0.0236	-4.009	0.9598	-6.2491	0.8903	A+	A+	A+
MATH	3	493237	0	CCAACS	1	D-M	62929	0.3874	0.2733	0.387	0.1406	0.198	0.001	0.5012	-0.2585	0.5014	-0.1656	-0.1765	-0.0346	1.1379	0.0235	-5.5191	0.9445	-1.289	0.9793	A-	A-	A+
MATH	3	493239	0	CCAACS	1	D-M	62947	0.6286	0.1043	0.1055	0.6281	0.1614	0.0008	0.5858	-0.2181	-0.2922	0.5862	-0.3425	-0.0339	-0.161	0.0238	-9.8991	0.8641	-9.8992	0.8195	A-	A-	A-
MATH	3	579656	0	CCAACS	2	D-M	62935	0.407	0.131	0.3046	0.1568	0.4066	0.001	0.3893	-0.2834	-0.0464	-0.2015	0.3898	-0.0382	0.7285	0.0231	9.9011	1.1268	9.9012	1.2214	A-	A+	A+
MATH	3	622961	0	CCAACS	1	D-M	62941	0.3874	0.213	0.2329	0.387	0.1662	0.0009	0.4315	-0.2161	-0.0738	0.4319	-0.2405	-0.0394	1.2492	0.0237	5.2011	1.0554	9.9012	1.1964	A-	A-	A+
MATH	3	622963	0	CCAACS	1	D-M	62954	0.5711	0.1209	0.5708	0.1506	0.1571	0.0007	0.37	-0.1432	0.3706	-0.0923	-0.2827	-0.0345	0.3697	0.0231	9.9012	1.184	9.9013	1.2683	A-	A-	A-
MATH	3	706335	0	CCAACS	2	D-M	62964	0.8051	0.0697	0.0795	0.0456	0.8047	0.0005	0.4925	-0.3355	-0.2066	-0.2565	0.4931	-0.0301	-0.8183	0.0259	-9.8992	0.766	-9.8993	0.6861	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	713360	0	CCAACS	2	D-M	62946	0.4736	0.4732	0.1979	0.2356	0.0926	0.0008	0.6104	0.6106	-0.2051	-0.3825	-0.2068	-0.0328	0.6658	0.023	-9.8992	0.8482	-9.8992	0.8054	A-	A-	A-
MATH	3	713364	0	CCAACS	2	D-M	62949	0.4789	0.1978	0.4785	0.1991	0.1238	0.0007	0.4642	-0.3303	0.4646	-0.0806	-0.2045	-0.0375	0.8411	0.0231	7.1111	1.0714	6.9111	1.1054	A-	A-	A-
MATH	3	713370	0	CCAACS	2	D-M	62939	0.4689	0.265	0.1895	0.0762	0.4685	0.0009	0.331	-0.1763	-0.029	-0.2833	0.3317	-0.0411	0.6785	0.023	9.9012	1.2103	9.9013	1.2874	A+	A-	A+
MATH	3	713617	0	CCAACS	1	D-M	62964	0.5298	0.1806	0.2707	0.5295	0.0187	0.0005	0.5011	-0.4352	-0.1477	0.5013	-0.1227	-0.0252	0.3465	0.0231	0.391	1.0038	-1.299	0.9801	A+	A+	A+
MATH	3	713618	0	CCAACS	2	D-M	62933	0.4371	0.0862	0.2595	0.2166	0.4367	0.001	0.5189	-0.2427	-0.2499	-0.1908	0.5193	-0.0427	0.7984	0.0231	-4.509	0.9565	-1.709	0.9751	A+	A+	A+
MATH	3	738167	0	CCAACS	2	D-M	62948	0.6533	0.1077	0.1388	0.6528	0.0999	0.0007	0.4465	-0.2074	-0.289	0.447	-0.1594	-0.0297	-0.0814	0.0236	0.801	1.0082	-1.349	0.9752	B-	A-	A+
MATH	3	743132	0	CCAACS	1	D-M	62950	0.4975	0.4971	0.1041	0.1411	0.257	0.0007	0.5527	0.553	-0.2402	-0.4572	-0.0987	-0.0309	0.6726	0.023	-8.2691	0.922	-6.5591	0.9073	A-	A-	A-
MATH	3	743136	0	CCAACS	1	D-M	62958	0.8435	0.843	0.0855	0.0453	0.0255	0.0006	0.2785	0.2794	-0.1811	-0.1439	-0.1296	-0.0262	-1.2813	0.0284	-3.9691	0.9391	0.221	1.0075	A+	A+	A+
MATH	3	314118	1	CCAACS	1	A-F	5450	0.704	0.1047	0.0691	0.7035	0.1219	0.0007	0.3677	-0.2439	-0.2525	0.3689	-0.0872	-0.0449	-0.195	0.0665	-0.259	0.9923	-1.0391	0.942	A+	A-	A+
MATH	3	787127	1	CCAACS	1	A-F	19597	0.5352	0.1167	0.1803	0.167	0.5342	0.0018	0.4839	-0.2271	-0.2324	-0.2089	0.4843	-0.0337	-0.0068	0.0694	-0.719	0.9793	-1.4691	0.9278	A-	A-	A+
MATH	3	313556	1	CCAACS	1	A-T	5452	0.8232	0.0768	0.0576	0.8229	0.0424	0.0004	0.5193	-0.2868	-0.3074	0.52	-0.2473	-0.0396	-0.8504	0.0723	-2.5791	0.9119	-2.4792	0.8128	A-	A-	A-
MATH	3	711419	1	CCAACS	2	B-O	19607	0.5181	0.2653	0.5174	0.1017	0.1143	0.0013	0.401	-0.26	0.4018	-0.2118	-0.0646	-0.0396	0.1055	0.0692	-0.049	0.9984	1.8711	1.0917	A-	A-	A+
MATH	3	737084	1	CCAACS	1	B-O	19603	0.6123	0.1489	0.6113	0.1552	0.0831	0.0015	0.5227	-0.2734	0.5232	-0.3038	-0.1681	-0.0342	-0.4118	0.0708	-3.5991	0.8967	-3.1992	0.8173	A+	A+	A+
MATH	3	787068	1	CCAACS	2	C-G	19601	0.2038	0.1872	0.2555	0.3522	0.2034	0.0016	0.1642	-0.0845	-0.083	0.0101	0.165	-0.0509	1.9783	0.0827	4.2512	1.2046	6.5217	1.6618	A+	A+	A+
MATH	3	787078	1	CCAACS	2	D-M	19604	0.4443	0.4436	0.1422	0.2843	0.1284	0.0015	0.5499	0.5505	-0.2042	-0.3179	-0.1707	-0.0444	0.4501	0.0695	-2.2791	0.9334	-1.4791	0.9343	A-	A-	A-
MATH	3	790598	1	CCAACS	1	D-M	19606	0.6649	0.0837	0.1507	0.664	0.1002	0.0014	0.4442	-0.1945	-0.2396	0.4452	-0.2305	-0.0406	-0.6763	0.0726	-0.519	0.9834	0.011	0.9992	A-	A-	A-
MATH	3	787150	2	CCAACS	2	A-F	5406	0.4408	0.4405	0.1203	0.3004	0.1381	0.0007	0.3796	0.3801	-0.2173	-0.1632	-0.1224	-0.0351	1.1024	0.0703	2.3511	1.0732	5.0913	1.2599	A-	A-	A-
MATH	3	780057	2	CCAACS	1	A-T	5405	0.7869	0.0762	0.0832	0.0536	0.7861	0.0009	0.5062	-0.3322	-0.2428	-0.229	0.5072	-0.0403	-0.8102	0.0773	-4.5092	0.8385	-3.4993	0.7362	A-	A-	A-
MATH	3	711416	2	CCAACS	2	B-O	5406	0.7162	0.1183	0.7157	0.1216	0.0436	0.0007	0.4784	-0.2762	0.479	-0.2403	-0.2325	-0.0315	-0.356	0.0725	-1.359	0.9563	-1.2191	0.9232	A-	A+	A+
MATH	3	787070	2	CCAACS	1	C-G	5407	0.398	0.336	0.1702	0.0954	0.3978	0.0006	0.4017	-0.0825	-0.2669	-0.1923	0.4021	-0.0435	1.0918	0.0702	0.731	1.022	0.681	1.0318	A-	A-	A-
MATH	3	780055	2	CCAACS	2	D-M	5406	0.4173	0.1867	0.417	0.3081	0.0874	0.0007	0.367	-0.1826	0.3672	-0.1463	-0.1475	-0.0231	1.0871	0.0702	4.7512	1.1514	4.8812	1.2469	A-	A+	A+
MATH	3	780082	2	CCAACS	2	D-M	5408	0.676	0.1226	0.117	0.6758	0.0843	0.0004	0.5436	-0.2916	-0.3236	0.544	-0.1955	-0.0358	-0.1475	0.071	-5.1592	0.8495	-4.9293	0.7455	A-	A-	A-
MATH	3	743118	3	CCAACS	1	A-F	5422	0.8593	0.052	0.8591	0.0507	0.038	0.0002	0.4528	-0.2825	0.4533	-0.2149	-0.2484	-0.0257	-1.3402	0.0875	-3.8792	0.8189	-3.6194	0.6416	A+	A-	A-
MATH	3	787120	3	CCAACS	1	A-T	5421	0.6888	0.1117	0.1794	0.6885	0.0199	0.0004	0.4877	-0.0222	-0.5225	0.4883	-0.128	-0.0372	-0.1758	0.0719	-2.3891	0.9243	-1.5391	0.9113	A-	A-	A-
MATH	3	787131	3	CCAACS	1	B-O	5421	0.872	0.8717	0.0588	0.0406	0.0286	0.0004	0.4492	0.4501	-0.2964	-0.2725	-0.1581	-0.0364	-1.501	0.0911	-3.3292	0.83	-3.7894	0.5991	A+	A+	A+
MATH	3	787061	3	CCAACS	2	C-G	5417	0.6221	0.6214	0.2524	0.0983	0.0267	0.0011	0.353	0.3544	-0.1931	-0.2013	-0.1632	-0.053	0.0351	0.0706	5.8512	1.1919	4.7913	1.2729	A+	A-	A-
MATH	3	787008	3	CCAACS	2	D-M	5418	0.5449	0.1147	0.1641	0.1759	0.5443	0.0009	0.389	-0.2469	-0.118	-0.1849	0.3898	-0.0438	0.53	0.0691	3.6411	1.1091	2.7111	1.1233	A+	A-	A+
MATH	3	787082	3	CCAACS	2	D-M	5421	0.6067	0.0898	0.6065	0.1433	0.1601	0.0004	0.3529	-0.2797	0.3535	-0.2426	-0.0191	-0.0372	0.2358	0.0697	4.4311	1.1381	2.9912	1.15	A-	A+	A+
MATH	3	787125	4	CCAACS	2	A-F	5418	0.4895	0.0889	0.4891	0.227	0.1942	0.0007	0.4174	-0.1313	0.4179	-0.3875	-0.0208	-0.0363	0.8059	0.0696	0.381	1.011	1.051	1.0471	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	787118	4	CCAACS	1	A-T	5415	0.7712	0.0579	0.0472	0.1234	0.7702	0.0013	0.5125	-0.2166	-0.2893	-0.3109	0.5145	-0.0631	-0.6583	0.0759	-4.9592	0.8322	-4.0893	0.7061	A-	A-	A-
MATH	3	787057	4	CCAACS	2	B-O	5418	0.3869	0.1531	0.1326	0.3866	0.327	0.0007	0.4622	-0.2501	-0.2306	0.4623	-0.1198	-0.0256	1.2717	0.0714	-1.309	0.9584	0.381	1.0189	A+	A-	A-
MATH	3	787128	4	CCAACS	2	B-O	5420	0.7917	0.7914	0.0987	0.0651	0.0444	0.0004	0.4626	0.4631	-0.3159	-0.239	-0.1672	-0.0273	-0.7731	0.0773	-2.5891	0.9057	-2.1092	0.8283	A-	A+	A-
MATH	3	743128	4	CCAACS	2	C-G	5415	0.7806	0.7796	0.0922	0.0612	0.0657	0.0013	0.3746	0.3771	-0.1943	-0.1828	-0.2186	-0.0599	-0.8616	0.0785	0.521	1.0198	2.7613	1.266	A+	A-	A-
MATH	3	787005	4	CCAACS	2	D-M	5415	0.5093	0.1763	0.1577	0.5087	0.156	0.0013	0.5286	-0.2844	-0.3173	0.5294	-0.107	-0.0496	0.6618	0.0694	-2.7891	0.9194	-2.2591	0.9014	A-	A-	A+
MATH	3	787124	5	CCAACS	1	A-F	5434	0.8677	0.8674	0.0831	0.0331	0.016	0.0004	0.348	0.3487	-0.2556	-0.173	-0.1297	-0.0241	-1.4444	0.0891	-0.249	0.9861	-1.1491	0.8699	A+	A-	A-
MATH	3	780056	5	CCAACS	1	A-T	5434	0.6573	0.1102	0.6571	0.2108	0.0215	0.0004	0.4914	-0.0865	0.4917	-0.4374	-0.1893	-0.0224	-0.0635	0.0706	-2.8091	0.9158	-2.6291	0.8652	A+	A-	A-
MATH	3	780086	5	CCAACS	2	B-O	5430	0.4492	0.2143	0.2717	0.0642	0.4487	0.0011	0.4261	-0.2374	-0.1519	-0.1884	0.4265	-0.0295	0.9791	0.0693	0.271	1.0075	0.551	1.024	A-	A+	A+
MATH	3	787059	5	CCAACS	2	B-O	5433	0.7933	0.1126	0.0217	0.7929	0.0723	0.0006	0.4152	-0.2949	-0.1351	0.4158	-0.2124	-0.025	-0.9442	0.0797	-2.7791	0.8898	-3.1193	0.7466	A-	A+	A+
MATH	3	737089	5	CCAACS	2	D-M	5434	0.2236	0.2235	0.0907	0.4777	0.2077	0.0004	0.3811	0.3812	-0.0474	-0.1469	-0.1758	-0.0257	2.2091	0.0807	-0.619	0.9733	3.4913	1.3194	A+	A-	A-
MATH	3	737090	5	CCAACS	2	D-M	5433	0.624	0.0453	0.2182	0.6236	0.1124	0.0006	0.5307	-0.2482	-0.2189	0.531	-0.363	-0.0271	0.1084	0.0697	-4.4591	0.8727	-3.0391	0.8571	A-	A-	A-
MATH	3	780051	6	CCAACS	1	A-F	5442	0.7143	0.1346	0.094	0.0569	0.7139	0.0006	0.4527	-0.2501	-0.2385	-0.213	0.4525	-0.0063	-0.3973	0.0735	-0.289	0.9902	-1.5191	0.8959	A-	A-	A-
MATH	3	787149	6	CCAACS	2	A-T	5442	0.6332	0.6329	0.1767	0.1093	0.0806	0.0006	0.4473	0.4472	-0.2712	-0.2225	-0.1559	-0.0111	0.1635	0.0703	-0.169	0.9946	-1.1791	0.9385	A-	A+	A+
MATH	3	787055	6	CCAACS	2	B-O	5442	0.6997	0.0972	0.6994	0.1016	0.1014	0.0006	0.4946	-0.2563	0.4948	-0.2641	-0.2343	-0.0193	-0.333	0.073	-1.539	0.9504	-0.089	0.9925	A-	A-	A-
MATH	3	787132	6	CCAACS	2	B-O	5441	0.6207	0.195	0.0738	0.6202	0.1102	0.0007	0.5209	-0.37	-0.2808	0.5213	-0.103	-0.026	0.1227	0.0704	-1.7191	0.9486	-2.0691	0.8926	A-	A+	A+
MATH	3	787064	6	CCAACS	2	C-G	5440	0.6377	0.2373	0.0755	0.0492	0.6371	0.0009	0.4916	-0.2651	-0.2764	-0.231	0.4917	-0.0221	0.0091	0.0709	-3.2491	0.9034	-3.0292	0.8379	A+	A+	A-
MATH	3	738170	6	CCAACS	2	D-M	5442	0.5766	0.1348	0.1592	0.5763	0.1291	0.0006	0.4763	-0.2629	-0.2444	0.4765	-0.1661	-0.0234	0.3568	0.0698	-2.7891	0.9186	-2.1791	0.8966	A-	A-	A+
MATH	3	787119	7	CCAACS	2	A-T	5387	0.7247	0.1281	0.1144	0.7239	0.0324	0.0011	0.4095	-0.134	-0.3216	0.4109	-0.1971	-0.0492	-0.437	0.0741	0.621	1.021	-0.219	0.9826	A-	A-	A-
MATH	3	711410	7	CCAACS	2	B-O	5386	0.648	0.6471	0.1207	0.1867	0.0441	0.0013	0.344	0.3455	-0.3123	-0.0817	-0.1445	-0.0496	0.0763	0.0703	2.8911	1.0887	1.7411	1.095	A-	A-	A-
MATH	3	737311	7	CCAACS	1	B-O	5388	0.7422	0.0749	0.1298	0.7415	0.0528	0.0009	0.4698	-0.306	-0.263	0.4707	-0.1608	-0.0386	-0.5735	0.0756	-2.1591	0.9239	-2.3292	0.8299	A+	A+	A+
MATH	3	780081	7	CCAACS	1	C-G	5387	0.5313	0.0464	0.5307	0.0627	0.3592	0.0011	0.2051	-0.1371	0.2064	-0.1373	-0.082	-0.0458	0.4794	0.069	8.4713	1.2618	6.3413	1.3165	A-	A+	A-
MATH	3	787002	7	CCAACS	1	D-M	5389	0.5678	0.5674	0.0458	0.1572	0.2288	0.0007	0.557	0.5574	-0.191	-0.4728	-0.1506	-0.0331	0.444	0.069	-4.3291	0.8809	-3.8592	0.8322	A-	A-	A-
MATH	3	790596	7	CCAACS	2	D-M	5387	0.7119	0.1411	0.0636	0.0831	0.7111	0.0011	0.5442	-0.3391	-0.2021	-0.2822	0.5456	-0.0598	-0.4086	0.0738	-5.1092	0.8358	-4.4893	0.7168	A-	A-	A-
MATH	3	787126	8	CCAACS	1	A-F	5420	0.2526	0.1951	0.2113	0.2524	0.3406	0.0006	0.3584	-0.269	-0.1945	0.3586	0.0659	-0.0435	2.1773	0.0805	2.6111	1.1151	6.3916	1.6165	A-	A+	A+
MATH	3	787121	8	CCAACS	1	A-T	5421	0.6207	0.1875	0.1132	0.6205	0.0784	0.0004	0.514	-0.2636	-0.2958	0.5144	-0.1948	-0.0311	0.073	0.07	-3.8391	0.8897	-3.1892	0.8458	A-	A+	A-
MATH	3	787050	8	CCAACS	2	B-O	5419	0.6261	0.1669	0.6257	0.1134	0.0933	0.0007	0.3716	-0.294	0.3721	-0.2363	0.0178	-0.0257	0.0519	0.0701	2.1311	1.0648	2.4911	1.1323	A-	A+	A+
MATH	3	787072	8	CCAACS	1	C-G	5418	0.7457	0.0988	0.0929	0.0623	0.745	0.0009	0.4382	-0.2363	-0.2599	-0.183	0.4392	-0.0407	-0.6093	0.0752	-1.9791	0.931	-2.0791	0.8521	A+	A-	A-
MATH	3	738168	8	CCAACS	2	D-M	5421	0.6252	0.1259	0.6249	0.1639	0.0848	0.0004	0.4086	-0.1326	0.409	-0.2123	-0.2686	-0.0327	0.0785	0.07	2.4511	1.0745	1.6411	1.0845	A-	A-	A-
MATH	3	790597	8	CCAACS	1	D-M	5422	0.8381	0.8379	0.0573	0.066	0.0385	0.0002	0.2905	0.2911	-0.1562	-0.1641	-0.1551	-0.0267	-1.3548	0.087	0.841	1.0411	3.5815	1.457	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	3	787123	9	CCAACS	1	A-F	5405	0.8128	0.0667	0.812	0.1033	0.017	0.0009	0.4517	-0.2404	0.4526	-0.3095	-0.1668	-0.0361	-1.0024	0.0813	-2.9491	0.8771	-2.4992	0.7873	A+	A-	A-
MATH	3	737297	9	CCAACS	2	A-T	5408	0.7583	0.1353	0.0506	0.0556	0.758	0.0004	0.5538	-0.3655	-0.257	-0.2412	0.5544	-0.0383	-0.676	0.0764	-5.8492	0.7963	-5.9894	0.6136	A-	A-	B-
MATH	3	780053	9	CCAACS	2	B-O	5405	0.3891	0.0789	0.0884	0.3887	0.4431	0.0009	0.1736	-0.2734	-0.2533	0.1744	0.1247	-0.0441	1.2823	0.0702	8.0113	1.2609	8.7815	1.4842	A+	A-	A-
MATH	3	787151	9	CCAACS	2	B-O	5403	0.3418	0.1383	0.3813	0.3414	0.1377	0.0013	0.3222	-0.1496	-0.1192	0.3229	-0.1217	-0.0447	1.5214	0.0719	0.551	1.0173	4.3413	1.2544	A-	A+	A+
MATH	3	787076	9	CCAACS	1	C-G	5407	0.872	0.0808	0.8715	0.0238	0.0233	0.0006	0.3815	-0.3062	0.3832	-0.1806	-0.1071	-0.0462	-1.3299	0.0877	-3.2692	0.8419	-3.6994	0.6447	A+	A-	A-
MATH	3	780054	9	CCAACS	2	D-M	5407	0.3423	0.3421	0.3884	0.1601	0.1089	0.0006	0.2102	0.2107	0.2223	-0.3605	-0.241	-0.0462	1.3923	0.0709	7.7313	1.2588	7.5214	1.4322	A+	A-	A-
MATH	4	313261	0	CCAACS	1	A-F	58971	0.687	0.2209	0.0619	0.6814	0.0276	0.0081	0.318	-0.1468	-0.243	0.3194	-0.1553	-0.0434	-0.6279	0.0241	9.9011	1.1364	9.9013	1.2525	A+	A+	A+
MATH	4	493256	0	CCAACS	2	A-F	59415	0.4813	0.1807	0.481	0.2259	0.1118	0.0007	0.4582	-0.3183	0.4584	-0.1493	-0.138	-0.0257	0.3563	0.0231	-0.709	0.9932	-0.529	0.992	A+	A+	A+
MATH	4	622949	0	CCAACS	1	A-F	58930	0.5147	0.182	0.265	0.034	0.5102	0.0088	0.5869	-0.3914	-0.2637	-0.1142	0.5863	-0.0537	0.1464	0.023	-9.8991	0.8843	-9.4191	0.86	A-	A-	A-
MATH	4	662427	0	CCAACS	2	A-F	59410	0.4201	0.2858	0.1394	0.1543	0.4198	0.0007	0.5686	-0.3706	-0.1659	-0.1522	0.5688	-0.0318	0.4815	0.0231	-9.8991	0.8933	-7.3491	0.8929	A-	A+	A+
MATH	4	662435	0	CCAACS	2	A-F	59403	0.6553	0.6548	0.1548	0.139	0.0505	0.0009	0.4541	0.4547	-0.2629	-0.225	-0.193	-0.0322	-0.5305	0.0239	1.691	1.0176	-2.249	0.9533	A+	A+	A+
MATH	4	706340	0	CCAACS	2	A-F	59421	0.5683	0.2169	0.1006	0.1139	0.568	0.0006	0.4855	-0.2438	-0.2514	-0.2011	0.4858	-0.0284	0.1553	0.023	-0.669	0.9936	-0.689	0.9892	A+	A-	A-
MATH	4	709895	0	CCAACS	2	A-F	59417	0.6081	0.1653	0.1504	0.6078	0.0759	0.0006	0.5134	-0.2916	-0.2728	0.5137	-0.1675	-0.0253	-0.2463	0.0233	-4.179	0.9596	-6.0391	0.8945	A-	A+	A+
MATH	4	709900	0	CCAACS	1	A-F	59433	0.7791	0.7788	0.1753	0.0275	0.0179	0.0004	0.4633	0.4637	-0.3604	-0.2091	-0.1561	-0.0249	-0.8936	0.0249	-9.8992	0.8379	-9.8993	0.7184	A+	A+	A-
MATH	4	736736	0	CCAACS	2	A-F	59427	0.5077	0.1585	0.261	0.5075	0.0726	0.0005	0.5307	-0.2082	-0.3069	0.5309	-0.2084	-0.0236	0.313	0.023	-5.5091	0.9482	-2.989	0.9553	A-	A+	A+
MATH	4	737335	0	CCAACS	1	A-F	59447	0.5935	0.1069	0.1946	0.1049	0.5935	0.0001	0.5531	-0.3481	-0.1648	-0.3222	0.5532	-0.0175	-0.3685	0.0235	-6.7291	0.9342	-4.3991	0.9175	A+	A+	A-
MATH	4	743143	0	CCAACS	2	A-F	59425	0.6718	0.6715	0.1232	0.0828	0.1221	0.0005	0.5659	0.5663	-0.3405	-0.2343	-0.2713	-0.0305	-0.7899	0.0246	-9.2891	0.8999	-9.8992	0.7726	A-	A+	A+
MATH	4	662437	0	CCAACS	1	A-T	59438	0.7592	0.1015	0.759	0.0654	0.0738	0.0003	0.4985	-0.34	0.4987	-0.2452	-0.1901	-0.0174	-1.03	0.0254	-9.8992	0.8135	-9.8993	0.742	A-	A+	A+
MATH	4	662438	0	CCAACS	1	A-T	59435	0.7041	0.7039	0.0766	0.0419	0.1773	0.0003	0.3564	0.3565	-0.2265	-0.2233	-0.1507	-0.0134	-0.7369	0.0244	7.8811	1.0888	9.9013	1.3095	A-	A+	A+
MATH	4	709844	0	CCAACS	1	A-T	59429	0.8255	0.0694	0.0506	0.8251	0.0545	0.0004	0.469	-0.2713	-0.2658	0.4695	-0.223	-0.0262	-1.3889	0.0272	-9.8992	0.7665	-9.8993	0.6596	A-	A-	A+
MATH	4	709883	0	CCAACS	2	A-T	59428	0.6728	0.6726	0.1359	0.1251	0.066	0.0004	0.5256	0.5259	-0.3214	-0.2439	-0.2235	-0.0237	-0.4875	0.0238	-9.8991	0.8691	-9.8992	0.8102	A-	A+	A-
MATH	4	709889	0	CCAACS	2	A-T	59430	0.504	0.2285	0.5038	0.1674	0.0999	0.0004	0.3955	-0.174	0.3957	-0.1907	-0.1776	-0.0184	0.4255	0.0231	9.9011	1.1189	9.9012	1.1603	A-	A+	A+
MATH	4	736734	0	CCAACS	1	A-T	58897	0.7111	0.7044	0.0635	0.1491	0.0736	0.0094	0.5298	0.5295	-0.1812	-0.4016	-0.1868	-0.0582	-0.8937	0.0249	-8.1191	0.9091	-5.5091	0.8646	A+	A-	A-
MATH	4	314170	0	CCAACS	2	B-O	59416	0.4746	0.2962	0.1244	0.1045	0.4743	0.0006	0.5182	-0.2857	-0.1993	-0.2027	0.5184	-0.0243	0.3503	0.0231	-4.039	0.9618	-3.279	0.9511	A+	A+	A+
MATH	4	479194	0	CCAACS	2	B-O	59429	0.4503	0.1011	0.2207	0.2277	0.4501	0.0004	0.4873	-0.2625	-0.2168	-0.1741	0.4874	-0.0206	0.3111	0.023	1.361	1.013	1.431	1.0217	A-	A+	A+
MATH	4	495223	0	CCAACS	2	B-O	59419	0.2792	0.2805	0.3584	0.2791	0.0815	0.0006	0.3526	-0.143	-0.1582	0.3527	-0.0648	-0.0156	1.3014	0.0247	4.131	1.0493	9.9013	1.2984	A-	A+	A+
MATH	4	495235	0	CCAACS	2	B-O	59426	0.8019	0.0651	0.8015	0.075	0.0579	0.0005	0.4541	-0.2144	0.4546	-0.2917	-0.2184	-0.0274	-1.1722	0.026	-9.8992	0.818	-9.8993	0.6994	A+	A+	A+
MATH	4	575720	0	CCAACS	2	B-O	59431	0.5437	0.1107	0.5435	0.1663	0.1791	0.0004	0.4373	-0.175	0.4376	-0.1592	-0.2695	-0.0227	0.3085	0.023	6.8511	1.0669	5.9811	1.0935	A-	A+	A+
MATH	4	706342	0	CCAACS	2	B-O	59420	0.5694	0.2268	0.1076	0.5691	0.096	0.0006	0.4579	-0.1982	-0.2452	0.4583	-0.2284	-0.0284	-0.0029	0.0231	3.831	1.037	1.161	1.019	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	711428	0	CCAACS	1	B-O	59426	0.4713	0.4711	0.0686	0.0607	0.399	0.0005	0.544	0.5442	-0.3018	-0.3179	-0.2426	-0.0283	0.4737	0.0231	-6.7991	0.9354	-5.5891	0.9178	A-	A+	A+
MATH	4	737337	0	CCAACS	2	B-O	59424	0.5332	0.0559	0.0967	0.3139	0.5329	0.0005	0.4405	-0.2648	-0.268	-0.171	0.4408	-0.0242	0.0622	0.0231	5.7411	1.0557	4.6611	1.0763	A-	A+	A+
MATH	4	743148	0	CCAACS	1	B-O	59424	0.702	0.1015	0.1186	0.0777	0.7016	0.0005	0.5188	-0.2658	-0.2638	-0.2667	0.5191	-0.0226	-0.7797	0.0245	-9.7491	0.8956	-9.4192	0.7895	A-	A+	A+
MATH	4	314148	0	CCAACS	2	C-G	59420	0.4158	0.1344	0.2233	0.2262	0.4155	0.0006	0.3066	-0.1329	-0.1434	-0.1088	0.307	-0.0309	0.4059	0.0231	9.9012	1.2146	9.9013	1.2671	A+	A+	A+
MATH	4	408775	0	CCAACS	1	C-G	59418	0.3971	0.3968	0.1179	0.3295	0.1551	0.0006	0.306	0.3064	-0.2151	-0.0476	-0.1584	-0.0319	0.5602	0.0232	9.9012	1.1968	9.9013	1.2968	A-	A+	A-
MATH	4	574169	0	CCAACS	1	C-G	59439	0.6635	0.1794	0.065	0.6633	0.092	0.0003	0.4384	-0.2012	-0.2501	0.4387	-0.2356	-0.0207	-0.5017	0.0238	1.001	1.0103	0.751	1.0155	A+	A-	A+
MATH	4	713378	0	CCAACS	1	C-G	59420	0.3868	0.1872	0.1636	0.3866	0.2621	0.0006	0.2873	-0.1278	-0.0972	0.2876	-0.1221	-0.0247	0.7345	0.0234	9.9013	1.2544	9.9014	1.383	A-	A-	A+
MATH	4	299668	0	CCAACS	1	D-M	59434	0.6018	0.0545	0.2099	0.6016	0.1336	0.0003	0.4971	-0.3129	-0.3698	0.4973	-0.0629	-0.0259	-0.3835	0.0236	-2.139	0.9787	-0.749	0.9854	A-	A+	A+
MATH	4	302228	0	CCAACS	2	D-M	59431	0.7536	0.0607	0.7534	0.1451	0.0404	0.0004	0.5934	-0.2423	0.5938	-0.4313	-0.2319	-0.0259	-1.0941	0.0257	-9.8992	0.7552	-9.8994	0.6165	B-	A-	A-
MATH	4	314172	0	CCAACS	2	D-M	59416	0.453	0.1336	0.4527	0.2142	0.1988	0.0006	0.3977	-0.2134	0.398	-0.1175	-0.1919	-0.0302	0.4393	0.0231	9.9011	1.1048	9.9012	1.1601	A-	A-	A-
MATH	4	497834	0	CCAACS	2	D-M	59430	0.3694	0.3692	0.2802	0.1792	0.171	0.0004	0.4018	0.4019	-0.1762	-0.1358	-0.1658	-0.0159	0.8696	0.0236	5.9911	1.0636	8.9312	1.1547	A-	A-	A-
MATH	4	659938	0	CCAACS	2	D-M	59437	0.6095	0.1439	0.6093	0.105	0.1414	0.0003	0.4745	-0.1416	0.4746	-0.251	-0.3004	-0.0138	-0.0976	0.0232	-3.139	0.97	-4.7691	0.9212	A+	A-	A+
MATH	4	706345	0	CCAACS	1	D-M	59420	0.743	0.7426	0.1276	0.0574	0.0718	0.0006	0.4982	0.4986	-0.317	-0.1981	-0.2536	-0.0267	-0.8025	0.0246	-9.8992	0.8406	-9.8992	0.7545	A+	A-	A-
MATH	4	713628	0	CCAACS	1	D-M	59411	0.5431	0.2803	0.5427	0.1071	0.0692	0.0007	0.4121	-0.1775	0.4125	-0.2193	-0.2255	-0.0262	0.0416	0.0231	9.8711	1.0971	6.9611	1.1161	A-	A-	A-
MATH	4	736741	0	CCAACS	2	D-M	59417	0.5138	0.2315	0.2303	0.5135	0.0241	0.0006	0.5823	-0.3677	-0.282	0.5825	-0.1086	-0.0261	0.308	0.023	-9.8991	0.8922	-8.7391	0.8731	A+	A+	A+
MATH	4	743915	0	CCAACS	2	D-M	59423	0.744	0.1089	0.0741	0.7436	0.0729	0.0005	0.4784	-0.2706	-0.2608	0.4789	-0.2147	-0.0304	-1.0491	0.0255	-8.2091	0.9027	-6.3292	0.8322	A-	A-	A-
MATH	4	743917	0	CCAACS	2	D-M	59416	0.6564	0.0945	0.1465	0.656	0.1024	0.0006	0.5556	-0.3373	-0.3285	0.5561	-0.1601	-0.0316	-0.5248	0.0238	-9.8991	0.8588	-8.6992	0.8288	A+	A-	A-
MATH	4	780277	1	CCAACS	2	A-F	19005	0.3036	0.3033	0.1985	0.3636	0.1336	0.0011	0.351	0.3512	-0.1977	-0.0076	-0.2295	-0.0267	0.8874	0.0729	2.0111	1.0703	3.4212	1.1961	A-	A+	A+
MATH	4	790601	1	CCAACS	1	A-T	19011	0.6014	0.0987	0.6009	0.1206	0.1791	0.0007	0.4166	-0.2552	0.417	-0.1692	-0.1886	-0.0245	-0.6828	0.0703	0.641	1.0184	0.521	1.0298	A-	A-	A-
MATH	4	790607	1	CCAACS	2	A-T	19011	0.4402	0.1824	0.2904	0.4399	0.0865	0.0007	0.4573	-0.1668	-0.2771	0.4576	-0.129	-0.0258	0.1598	0.069	-0.819	0.9761	-0.949	0.9579	A-	A-	A-
MATH	4	657734	1	CCAACS	2	B-O	19004	0.2982	0.2191	0.2979	0.2675	0.2143	0.0011	0.2269	0.108	0.2273	-0.1366	-0.2122	-0.0316	0.9882	0.0738	5.8012	1.2197	5.9814	1.38	A+	A-	A+
MATH	4	302039	1	CCAACS	1	C-G	5014	0.485	0.2383	0.2104	0.4847	0.0658	0.0008	0.3274	-0.1187	-0.1572	0.328	-0.195	-0.0348	0.401	0.0642	5.4011	1.1485	5.1712	1.2186	A+	A+	A+
MATH	4	780284	1	CCAACS	2	C-G	19016	0.3908	0.3906	0.2363	0.2324	0.1403	0.0005	0.3252	0.3254	-0.1411	-0.1954	-0.0457	-0.0189	0.4416	0.07	3.2311	1.1016	3.7112	1.1778	A+	A-	A-
MATH	4	302038	1	CCAACS	1	D-M	5018	0.4454	0.1251	0.0955	0.334	0.4454		0.2476	-0.2377	-0.2303	0.0493	0.2476		0.327	0.0646	7.7112	1.2227	7.6514	1.3497	A+	A-	A-
MATH	4	795632	1	CCAACS	1	D-M	19006	0.5823	0.1144	0.2509	0.0519	0.5818	0.001	0.5703	-0.2945	-0.3306	-0.1964	0.5705	-0.0245	-0.6302	0.07	-7.3592	0.8023	-5.3893	0.722	A-	A+	A+
MATH	4	662432	2	CCAACS	1	A-F	5095	0.598	0.1254	0.2474	0.029	0.5978	0.0004	0.5601	-0.3638	-0.2993	-0.1471	0.5603	-0.0216	0.0003	0.069	-6.0192	0.8396	-5.0492	0.7692	A-	A-	A-
MATH	4	790612	2	CCAACS	2	A-F	5095	0.7708	0.115	0.063	0.7705	0.0512	0.0004	0.4869	-0.2966	-0.281	0.4875	-0.1885	-0.0302	-1.0441	0.0766	-3.2591	0.8844	-3.4393	0.7299	A+	A+	A+
MATH	4	790603	2	CCAACS	1	A-T	5097	0.7569	0.0553	0.7569	0.1148	0.073		0.3915	-0.2508	0.3915	-0.2089	-0.1692		-0.9539	0.0754	-2.2691	0.9214	-1.1091	0.9094	A-	A-	A-
MATH	4	780280	2	CCAACS	2	B-O	5097	0.3618	0.3722	0.1209	0.1452	0.3618		0.5233	-0.2216	-0.2375	-0.19	0.5233		1.2156	0.073	-4.0091	0.8693	-3.0892	0.8353	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	659936	2	CCAACS	2	D-M	5097	0.4509	0.1271	0.1585	0.2635	0.4509		0.2872	-0.0399	-0.1425	-0.1761	0.2872		0.5036	0.0691	6.0112	1.1824	5.0212	1.2422	A+	A+	A+
MATH	4	795638	2	CCAACS	1	D-M	5097	0.4034	0.3114	0.1289	0.4034	0.1564		0.3274	-0.1249	-0.2743	0.3274	-0.0299		0.7739	0.07	5.1612	1.163	4.4212	1.2211	A-	A-	A-
MATH	4	790614	3	CCAACS	2	A-F	5064	0.5563	0.0977	0.2241	0.1218	0.5562	0.0002	0.5052	-0.3044	-0.139	-0.3134	0.5052	-0.0124	0.1182	0.0692	-1.619	0.9544	-0.339	0.9831	A+	A-	A-
MATH	4	743139	3	CCAACS	2	A-T	5063	0.3976	0.0462	0.0985	0.3974	0.4575	0.0004	0.4294	-0.1638	-0.083	0.4296	-0.3023	-0.0254	0.9675	0.0716	1.9411	1.0629	4.1512	1.2305	A-	A-	A+
MATH	4	780276	3	CCAACS	1	A-T	5063	0.7839	0.0837	0.0963	0.0359	0.7836	0.0004	0.435	-0.1018	-0.4047	-0.1676	0.4355	-0.0263	-1.164	0.0781	-2.2991	0.913	0.061	1.0024	A-	A-	A-
MATH	4	790622	3	CCAACS	2	B-O	5063	0.7584	0.7581	0.0898	0.0766	0.075	0.0004	0.3789	0.3791	-0.1523	-0.2506	-0.1969	-0.0124	-0.973	0.0757	0.131	1.0041	-0.389	0.967	A-	A+	A+
MATH	4	790630	3	CCAACS	2	C-G	5065	0.3692	0.2454	0.2344	0.3692	0.151		0.3834	-0.2427	-0.1323	0.3834	-0.0685		0.9148	0.0712	0.941	1.0296	2.7711	1.1463	A+	A-	A-
MATH	4	795631	3	CCAACS	2	D-M	5064	0.4769	0.2661	0.1927	0.4768	0.0642	0.0002	0.4176	-0.3186	-0.1733	0.4177	0.0029	-0.0124	0.5271	0.0696	1.581	1.0465	1.9111	1.0894	A-	A-	A-
MATH	4	780279	4	CCAACS	1	A-F	5046	0.761	0.0681	0.0418	0.129	0.7607	0.0004	0.5099	-0.3038	-0.2221	-0.2873	0.5101	-0.0169	-0.9232	0.0766	-4.5592	0.8389	-4.2393	0.6894	A+	A+	A+
MATH	4	790600	4	CCAACS	2	A-T	5046	0.8038	0.0788	0.0719	0.0454	0.8035	0.0004	0.4953	-0.3019	-0.2527	-0.2392	0.496	-0.0334	-1.179	0.08	-4.2392	0.8345	-3.8793	0.673	A-	A+	A+
MATH	4	790621	4	CCAACS	2	B-O	5047	0.6136	0.1688	0.126	0.6135	0.0915	0.0002	0.5046	-0.3476	-0.203	0.5048	-0.1662	-0.0248	-0.078	0.0701	-3.3391	0.9037	-3.3992	0.8307	A-	A-	A-
MATH	4	790628	4	CCAACS	2	B-O	5047	0.7961	0.796	0.1276	0.0444	0.0319	0.0002	0.3996	0.3991	-0.2333	-0.2431	-0.1883	0.0095	-1.2292	0.0808	-0.459	0.9799	-1.0691	0.8963	A+	A+	A+
MATH	4	780283	4	CCAACS	1	C-G	5044	0.8515	0.8508	0.0602	0.0541	0.0341	0.0008	0.3492	0.3512	-0.2353	-0.1647	-0.1684	-0.0478	-1.403	0.0837	-1.3991	0.937	-1.9392	0.8023	A+	A-	A-
MATH	4	780285	4	CCAACS	2	D-M	5046	0.587	0.0794	0.1422	0.5868	0.1912	0.0004	0.4991	-0.3185	-0.301	0.4995	-0.1373	-0.0334	-0.0653	0.0701	-3.1891	0.908	-3.0392	0.8486	A-	A-	A-
MATH	4	653737	5	CCAACS	2	A-F	5060	0.852	0.0644	0.8515	0.0462	0.0373	0.0006	0.4144	-0.2233	0.415	-0.2423	-0.2177	-0.0251	-1.608	0.0859	-4.1292	0.8114	-3.8594	0.6375	A+	A-	A-
MATH	4	790609	5	CCAACS	2	A-F	5061	0.606	0.6058	0.1167	0.1203	0.1568	0.0004	0.5864	0.5859	-0.3199	-0.2339	-0.2962	0.0095	-0.135	0.0693	-7.2392	0.8085	-6.0493	0.7379	A-	A+	A-
MATH	4	743153	5	CCAACS	2	B-O	5060	0.6953	0.1426	0.6948	0.1138	0.0482	0.0006	0.4384	-0.2083	0.4394	-0.2634	-0.2087	-0.0475	-0.6078	0.0719	-0.769	0.9756	-0.079	0.9939	A+	A-	A-
MATH	4	790620	5	CCAACS	2	B-O	5062	0.8931	0.0298	0.0192	0.0579	0.8929	0.0002	0.4172	-0.1361	-0.1836	-0.345	0.4172	-0.0085	-2.0571	0.0971	-3.7192	0.7838	-3.4994	0.5905	A-	A-	A-
MATH	4	738197	5	CCAACS	2	C-G	5061	0.5619	0.5617	0.1215	0.0737	0.2427	0.0004	0.4331	0.4334	-0.1909	-0.2979	-0.1734	-0.0248	0.0852	0.0687	1.8611	1.0526	0.901	1.0393	A+	A-	A-
MATH	4	795639	5	CCAACS	2	D-M	5061	0.6268	0.0685	0.6265	0.1319	0.1726	0.0004	0.5285	-0.2444	0.5289	-0.2783	-0.2624	-0.0368	-0.3081	0.07	-3.7291	0.8953	-3.6892	0.8201	A+	A-	A+
MATH	4	662434	6	CCAACS	2	A-F	5049	0.6227	0.0507	0.6227	0.2923	0.0343		0.3089	-0.2298	0.3089	-0.1691	-0.1232		-0.2097	0.0704	3.9911	1.1236	1.0611	1.059	A+	A+	A+
MATH	4	790610	6	CCAACS	1	A-F	5046	0.8783	0.0168	0.0586	0.8778	0.0461	0.0006	0.4097	-0.1672	-0.2697	0.4112	-0.2325	-0.0417	-1.7932	0.0909	-4.8392	0.7603	-3.9394	0.5685	A+	A-	A-
MATH	4	737328	6	CCAACS	2	A-T	5048	0.5052	0.1075	0.5051	0.282	0.1052	0.0002	0.3434	-0.2047	0.3436	-0.15	-0.1323	-0.0184	0.3672	0.0694	3.2211	1.0964	3.0711	1.1485	A-	A+	A+
MATH	4	790624	6	CCAACS	2	B-O	5048	0.5109	0.1794	0.1436	0.166	0.5108	0.0002	0.4931	-0.2805	-0.2152	-0.1698	0.4932	-0.0221	0.3173	0.0694	-0.249	0.9924	0.151	1.0061	A+	A+	A+
MATH	4	736793	6	CCAACS	2	C-G	5048	0.5103	0.3096	0.5102	0.0806	0.0994	0.0002	0.5224	-0.3924	0.5225	-0.166	-0.1144	-0.0257	0.4112	0.0695	-2.4891	0.9288	-2.0091	0.9096	A+	B-	B-
MATH	4	780286	6	CCAACS	2	D-M	5047	0.6808	0.6805	0.0275	0.2521	0.0394	0.0004	0.5123	0.5125	-0.1614	-0.3953	-0.2082	-0.0217	-0.3857	0.0713	-5.5292	0.839	-3.7292	0.7886	A+	B-	A-
MATH	4	790617	7	CCAACS	1	A-F	5030	0.5579	0.2642	0.5577	0.1421	0.0358	0.0002	0.4746	-0.2857	0.4748	-0.2041	-0.2059	-0.0247	0.1676	0.069	-1.489	0.9588	-0.859	0.9584	C-	A+	A+
MATH	4	790599	7	CCAACS	2	A-T	5030	0.4038	0.2667	0.1375	0.1918	0.4037	0.0002	0.1603	0.0804	-0.183	-0.1297	0.1604	-0.01	0.7776	0.07	8.1213	1.2596	7.7114	1.4106	A+	A+	A+
MATH	4	743146	7	CCAACS	1	B-O	5031	0.7378	0.0656	0.0839	0.7378	0.1127		0.445	-0.2896	-0.2721	0.445	-0.1536		-0.8659	0.0752	-2.1491	0.9253	-2.0492	0.8427	A+	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	790625	7	CCAACS	2	B-O	5031	0.638	0.2614	0.0563	0.638	0.0443		0.4872	-0.3382	-0.2503	0.4872	-0.1355		-0.2577	0.0703	-3.0291	0.9131	-2.2091	0.878	A+	A+	A+
MATH	4	790631	7	CCAACS	1	C-G	5031	0.4832	0.0992	0.2093	0.2083	0.4832		0.4595	-0.2324	-0.2389	-0.155	0.4595		0.4619	0.0691	-0.589	0.9831	-0.439	0.9792	A+	A-	A+
MATH	4	795634	7	CCAACS	2	D-M	5031	0.5265	0.5265	0.2487	0.1284	0.0964		0.4666	0.4666	-0.3242	-0.1383	-0.1578		0.3315	0.0689	-0.339	0.9902	-0.969	0.9549	A-	A+	A+
MATH	4	790611	8	CCAACS	2	A-F	5039	0.765	0.1303	0.0611	0.7646	0.0434	0.0006	0.4027	-0.2753	-0.2464	0.4029	-0.092	-0.0203	-0.9406	0.0751	-1.5491	0.9469	-0.269	0.9762	A+	A-	A-
MATH	4	790605	8	CCAACS	1	A-T	5041	0.8004	0.1063	0.0363	0.0569	0.8003	0.0002	0.3905	-0.1908	-0.2048	-0.2537	0.391	-0.029	-1.2493	0.079	-0.599	0.9762	-1.2991	0.8763	A-	A+	A+
MATH	4	657732	8	CCAACS	2	B-O	5041	0.3358	0.3358	0.2257	0.0954	0.3429	0.0002	0.4181	0.4182	-0.3928	-0.2334	0.0751	-0.029	1.3165	0.0745	-0.349	0.9871	1.4011	1.0866	A+	A-	A-
MATH	4	743152	8	CCAACS	2	B-O	5040	0.6002	0.1438	0.1751	0.6	0.0807	0.0004	0.4217	-0.2601	-0.2086	0.4222	-0.1307	-0.035	-0.1731	0.0699	1.011	1.0299	0.061	1.0025	A+	A+	A-
MATH	4	790635	8	CCAACS	2	C-G	5040	0.3329	0.3265	0.3328	0.2291	0.1113	0.0004	0.121	-0.0739	0.1214	0.0127	-0.0867	-0.0325	1.2412	0.0738	9.9015	1.4803	9.9019	1.9102	A+	A-	A+
MATH	4	795636	8	CCAACS	2	D-M	5038	0.6098	0.1109	0.069	0.6093	0.21	0.0008	0.2265	-0.2707	-0.1501	0.2275	0.0323	-0.0399	-0.213	0.0701	6.8712	1.2169	4.3113	1.2544	A-	A+	A+
MATH	4	790615	9	CCAACS	1	A-F	5034	0.7563	0.1265	0.7563	0.0447	0.0725		0.5583	-0.3545	0.5583	-0.2507	-0.27		-0.7872	0.074	-6.6492	0.7897	-5.3793	0.6568	A-	A-	A-
MATH	4	790602	9	CCAACS	1	A-T	5034	0.8413	0.0608	0.0578	0.0401	0.8413		0.4537	-0.2497	-0.2517	-0.2414	0.4537		-1.6133	0.0862	-3.7992	0.8258	-3.8694	0.6179	A-	A+	A+
MATH	4	780281	9	CCAACS	1	B-O	5032	0.5809	0.1903	0.5807	0.1315	0.0971	0.0004	0.462	-0.1975	0.4623	-0.2583	-0.2124	-0.0185	0.0744	0.0692	-0.639	0.9816	-1.3491	0.9365	A+	A+	A-
MATH	4	790619	9	CCAACS	2	B-O	5033	0.4121	0.412	0.0385	0.0538	0.4954	0.0002	0.4992	0.4993	-0.2347	-0.3312	-0.2511	-0.0222	0.9205	0.0709	-2.6291	0.92	-1.3491	0.9329	A-	A+	A-
MATH	4	743909	9	CCAACS	1	C-G	5033	0.8228	0.8226	0.0509	0.0552	0.0711	0.0002	0.3582	0.3585	-0.264	-0.1727	-0.1527	-0.0185	-1.3453	0.0813	-0.249	0.9889	-0.239	0.9727	A+	A-	A-
MATH	4	795635	9	CCAACS	2	D-M	5033	0.7234	0.0922	0.0816	0.7233	0.1027	0.0002	0.4927	-0.2059	-0.2976	0.4924	-0.2614	0.0095	-0.7734	0.0738	-4.7092	0.8483	-3.9493	0.74	A+	A-	A+
MATH	5	300474	0	CCAACS	1	A-F	66323	0.6939	0.0941	0.0624	0.1495	0.6936	0.0004	0.4974	-0.1523	-0.2817	-0.3263	0.4977	-0.0258	-0.5304	0.0236	-9.8891	0.9061	-5.3091	0.8946	A+	A-	A+
MATH	5	622928	0	CCAACS	1	A-F	65657	0.6067	0.0969	0.2042	0.6004	0.0881	0.0104	0.4657	-0.2124	-0.3386	0.4676	-0.081	-0.0667	-0.2393	0.023	1.701	1.0157	-0.749	0.9869	A-	A+	A+
MATH	5	662448	0	CCAACS	2	A-F	66328	0.582	0.5818	0.1195	0.1881	0.1103	0.0003	0.5599	0.5601	-0.3531	-0.2345	-0.2227	-0.0196	0.2102	0.0227	-9.8991	0.8809	-9.8992	0.8281	A+	A-	A-
MATH	5	662449	0	CCAACS	2	A-F	66331	0.5707	0.0562	0.2666	0.1065	0.5705	0.0002	0.5616	-0.17	-0.4269	-0.1617	0.5617	-0.0173	0.1531	0.0227	-9.8991	0.8887	-9.8992	0.8382	A+	A-	A+
MATH	5	662453	0	CCAACS	1	A-F	66327	0.4703	0.0919	0.3767	0.4701	0.061	0.0003	0.4379	-0.2563	-0.2119	0.4381	-0.1737	-0.0216	0.2054	0.0227	8.1811	1.0762	5.5111	1.083	A-	A+	A+
MATH	5	662455	0	CCAACS	1	A-F	66322	0.4236	0.1896	0.1062	0.4235	0.2803	0.0004	0.4017	-0.1531	-0.1627	0.4018	-0.1961	-0.0138	0.5805	0.023	9.2711	1.0914	6.5811	1.0968	A-	A+	A+
MATH	5	706349	0	CCAACS	2	A-F	66318	0.3819	0.2336	0.2533	0.3817	0.1309	0.0004	0.3752	-0.1252	-0.2426	0.3754	-0.0692	-0.0257	0.8739	0.0234	9.9011	1.1295	9.9012	1.1916	A-	A+	A+
MATH	5	706410	0	CCAACS	2	A-F	66326	0.4782	0.3287	0.0708	0.1222	0.478	0.0003	0.5007	-0.133	-0.2648	-0.3645	0.5008	-0.0244	0.5756	0.0229	-0.929	0.9911	-0.989	0.9859	A+	A-	A-
MATH	5	711367	0	CCAACS	1	A-F	66317	0.675	0.0971	0.1181	0.1096	0.6747	0.0005	0.5835	-0.2544	-0.3494	-0.2715	0.5838	-0.0275	-0.5207	0.0236	-9.8992	0.8175	-9.8993	0.7198	A-	A-	A-
MATH	5	711369	0	CCAACS	1	A-F	66336	0.8062	0.0652	0.0414	0.8061	0.0871	0.0002	0.3786	-0.2616	-0.2067	0.3789	-0.1553	-0.019	-1.1217	0.0257	-9.8991	0.8712	-6.1992	0.831	A+	A+	A+
MATH	5	711441	0	CCAACS	2	A-F	66321	0.5144	0.1278	0.2204	0.1371	0.5142	0.0004	0.5291	-0.307	-0.2191	-0.2056	0.5292	-0.0232	-0.0003	0.0228	-2.689	0.9759	-3.2791	0.9493	A-	A-	A-
MATH	5	711444	0	CCAACS	1	A-F	66315	0.3989	0.3987	0.1714	0.3202	0.1091	0.0005	0.3326	0.3329	-0.2974	-0.0608	-0.0704	-0.0262	0.913	0.0235	9.9011	1.1206	9.9013	1.2631	A-	A+	A-
MATH	5	713632	0	CCAACS	2	A-F	66320	0.5912	0.2267	0.1199	0.062	0.5909	0.0004	0.6537	-0.4499	-0.2467	-0.2173	0.6538	-0.0258	-0.0045	0.0228	-9.8992	0.7683	-9.8993	0.6984	A-	A-	A-
MATH	5	737321	0	CCAACS	1	A-F	65667	0.322	0.3187	0.14	0.2303	0.3007	0.0102	0.4656	0.4662	-0.1574	-0.0986	-0.25	-0.0644	1.1442	0.0241	-7.5991	0.9174	-1.129	0.9805	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	394398	0	CCAACS	1	A-T	66325	0.8235	0.131	0.0229	0.0226	0.8232	0.0003	0.4702	-0.3837	-0.1729	-0.1602	0.4706	-0.0218	-1.4221	0.0273	-9.8992	0.798	-9.8994	0.6483	B-	A-	A-
MATH	5	659939	0	CCAACS	1	A-T	66327	0.579	0.1562	0.5789	0.1877	0.0769	0.0003	0.5272	-0.3239	0.5274	-0.1965	-0.2465	-0.0225	-0.1344	0.0229	-7.8891	0.9298	-7.0491	0.887	A-	A+	A+
MATH	5	659940	0	CCAACS	1	A-T	66327	0.5881	0.1944	0.5879	0.1802	0.0372	0.0003	0.3054	-0.1536	0.3056	-0.1686	-0.1297	-0.018	-0.0668	0.0228	9.9012	1.1959	9.9012	1.2362	A+	A+	A+
MATH	5	659951	0	CCAACS	1	A-T	66332	0.5906	0.2146	0.1115	0.0831	0.5905	0.0002	0.5086	-0.3176	-0.272	-0.1226	0.5087	-0.0209	0.0615	0.0228	-5.239	0.9534	-3.049	0.9539	A+	A+	A+
MATH	5	709854	0	CCAACS	2	A-T	66324	0.5965	0.1673	0.1469	0.0891	0.5963	0.0003	0.5366	-0.2115	-0.2988	-0.2746	0.5369	-0.0251	-0.2847	0.0231	-8.3791	0.9242	-6.2091	0.8924	A-	A+	A+
MATH	5	709857	0	CCAACS	1	A-T	66324	0.5821	0.1141	0.1289	0.1748	0.5819	0.0003	0.5835	-0.2243	-0.3697	-0.2431	0.5837	-0.0229	-0.201	0.023	-9.8991	0.8809	-9.8992	0.835	A-	A-	A-
MATH	5	711361	0	CCAACS	2	A-T	66329	0.895	0.0256	0.8948	0.0447	0.0346	0.0003	0.4174	-0.1933	0.4177	-0.2599	-0.2384	-0.0189	-2.1004	0.0329	-8.4292	0.8264	-9.8995	0.5164	A-	A-	A-
MATH	5	737318	0	CCAACS	1	A-T	65788	0.6416	0.0943	0.6362	0.1589	0.1022	0.0084	0.5001	-0.1168	0.5009	-0.2785	-0.33	-0.0556	-0.4123	0.0233	-6.2391	0.9417	-2.8391	0.9462	A-	A-	A-
MATH	5	738186	0	CCAACS	2	A-T	66336	0.6606	0.6605	0.0879	0.0752	0.1762	0.0002	0.5814	0.5815	-0.2689	-0.2541	-0.3464	-0.0177	-0.3821	0.0233	-9.8992	0.8216	-9.8993	0.7264	B-	A-	A-
MATH	5	621381	0	CCAACS	1	B-O	66328	0.5587	0.1977	0.1388	0.5585	0.1047	0.0003	0.392	-0.2161	-0.2557	0.3923	-0.065	-0.0262	-0.0267	0.0228	9.9011	1.0992	7.5411	1.1245	A+	A+	A+
MATH	5	706351	0	CCAACS	2	B-O	66322	0.5485	0.2648	0.5483	0.0736	0.1129	0.0004	0.4602	-0.2141	0.4605	-0.2748	-0.1974	-0.0253	0.1259	0.0227	-1.469	0.9867	-1.759	0.9738	A-	A+	A-
MATH	5	737097	0	CCAACS	2	B-O	66317	0.5621	0.2499	0.5619	0.1225	0.0652	0.0005	0.5508	-0.2597	0.551	-0.2777	-0.2809	-0.025	0.1768	0.0227	-9.8991	0.8947	-9.1291	0.871	A+	A-	A-
MATH	5	740960	0	CCAACS	2	B-O	66330	0.5772	0.1055	0.5771	0.2296	0.0875	0.0003	0.3253	-0.3112	0.3256	-0.0579	-0.1435	-0.0208	0.0811	0.0228	9.9012	1.1604	9.9012	1.2164	A+	A+	A+
MATH	5	303009	0	CCAACS	2	C-G	66319	0.4547	0.4545	0.1709	0.2688	0.1053	0.0004	0.3775	0.3777	-0.1688	-0.1676	-0.162	-0.0237	0.5923	0.023	9.9011	1.1227	9.9012	1.171	A-	A-	A-
MATH	5	495261	0	CCAACS	2	C-G	66325	0.4194	0.1683	0.1903	0.4193	0.2219	0.0003	0.3176	-0.1618	-0.2057	0.3178	-0.0367	-0.0168	0.8597	0.0234	9.9012	1.1811	9.9013	1.2986	A-	A+	A+
MATH	5	624820	0	CCAACS	2	C-G	66329	0.5549	0.5547	0.1709	0.1558	0.1183	0.0003	0.5178	0.518	-0.2066	-0.3219	-0.1938	-0.0186	-0.1472	0.0229	-3.769	0.966	-3.1991	0.9472	A+	A-	A-
MATH	5	653732	0	CCAACS	2	C-G	66317	0.4538	0.2521	0.4536	0.1703	0.1236	0.0005	0.3998	-0.1106	0.4	-0.2765	-0.1418	-0.0242	0.5253	0.0229	7.1811	1.0696	6.1511	1.0898	A-	A+	A+
MATH	5	706353	0	CCAACS	2	C-G	66325	0.4503	0.1379	0.3203	0.4501	0.0913	0.0003	0.4026	-0.2422	-0.1622	0.4028	-0.1412	-0.0273	0.4764	0.0228	9.5411	1.0923	9.0811	1.1343	A+	A+	A+
MATH	5	715770	0	CCAACS	1	C-G	66335	0.8301	0.0623	0.8299	0.0529	0.0547	0.0002	0.3693	-0.2199	0.3697	-0.1591	-0.2192	-0.0213	-1.262	0.0264	-9.8992	0.8427	-5.9492	0.8256	A-	A-	A-
MATH	5	740963	0	CCAACS	2	C-G	66320	0.4302	0.2064	0.1162	0.247	0.4301	0.0004	0.4533	-0.2755	-0.1653	-0.1383	0.4534	-0.0189	0.7924	0.0233	8.1611	1.0843	8.5311	1.1327	A-	A+	A+
MATH	5	575709	0	CCAACS	2	D-M	66325	0.4345	0.044	0.1858	0.4344	0.3355	0.0003	0.3583	-0.0403	-0.1916	0.3586	-0.2	-0.0274	0.731	0.0232	9.9012	1.1544	9.9012	1.2178	A-	A+	A-
MATH	5	575711	0	CCAACS	2	D-M	66323	0.4002	0.4145	0.4	0.0914	0.0937	0.0004	0.254	-0.0256	0.2543	-0.2601	-0.1253	-0.0273	0.4566	0.0228	9.9012	1.2302	9.9013	1.3488	A-	A-	A+
MATH	5	653734	0	CCAACS	1	D-M	66333	0.6656	0.6655	0.1679	0.0826	0.0838	0.0002	0.5315	0.5317	-0.367	-0.1961	-0.2144	-0.0197	-0.3769	0.0233	-9.8991	0.8731	-9.8992	0.8078	A-	A-	A-
MATH	5	706354	0	CCAACS	1	D-M	66321	0.5471	0.1683	0.5469	0.2189	0.0655	0.0004	0.4564	-0.261	0.4567	-0.1898	-0.205	-0.0249	0.1704	0.0227	0.961	1.0087	2.031	1.0303	A-	A-	A+
MATH	5	715777	0	CCAACS	1	D-M	66309	0.612	0.6116	0.2012	0.1221	0.0645	0.0006	0.5392	0.5395	-0.3101	-0.248	-0.2311	-0.0268	0.0419	0.0228	-9.8991	0.8886	-9.8992	0.8488	A-	A-	A-
MATH	5	715907	0	CCAACS	2	D-M	66323	0.3523	0.3521	0.201	0.2396	0.2069	0.0004	0.2734	0.2736	-0.0903	-0.1628	-0.0607	-0.0239	0.9278	0.0235	9.9012	1.2159	9.9014	1.3925	A+	A+	A+
MATH	5	300475	1	CCAACS	2	A-F	5673	0.4514	0.1531	0.4513	0.2217	0.1736	0.0004	0.1971	-0.1091	0.1973	-0.1251	-0.0174	-0.0195	0.7307	0.0681	8.7813	1.2828	7.9914	1.3864	A-	A+	A+
MATH	5	786986	1	CCAACS	1	A-F	20826	0.4489	0.103	0.2659	0.1818	0.4485	0.0008	0.6042	-0.2453	-0.3381	-0.1967	0.6044	-0.0287	0.1506	0.0683	-7.3792	0.8068	-6.2692	0.7607	A-	A-	A-
MATH	5	737323	1	CCAACS	2	A-T	20830	0.4796	0.4793	0.2015	0.2099	0.1087	0.0006	0.4305	0.4307	-0.2275	-0.2344	-0.0897	-0.021	0.049	0.0681	-1.399	0.962	-2.0091	0.9172	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	787020	1	CCAACS	1	A-T	20830	0.654	0.6536	0.1106	0.1295	0.1056	0.0006	0.5041	0.5044	-0.2345	-0.2686	-0.2462	-0.0249	-0.8674	0.0706	-4.4491	0.8784	-3.3292	0.8033	A+	A+	A+
MATH	5	786999	1	CCAACS	2	B-O	20830	0.3053	0.3216	0.2034	0.3051	0.1692	0.0006	0.273	-0.099	-0.1238	0.2733	-0.0776	-0.0272	0.9967	0.0737	2.9011	1.1082	4.2212	1.2455	A-	A+	A+
MATH	5	786970	1	CCAACS	1	C-G	20833	0.6818	0.1142	0.6814	0.1373	0.0665	0.0005	0.489	-0.2839	0.4894	-0.2575	-0.1948	-0.023	-0.9799	0.0715	-4.4291	0.8741	-3.9892	0.7536	A-	A-	A-
MATH	5	313328	1	CCAACS	1	D-M	5673	0.5743	0.1142	0.2451	0.5741	0.0663	0.0004	0.3947	-0.2954	-0.1637	0.3949	-0.1232	-0.0145	0.166	0.0663	2.3211	1.0616	1.9711	1.0839	A-	A-	A-
MATH	5	741004	1	CCAACS	2	D-M	20832	0.3858	0.1955	0.3856	0.2493	0.169	0.0005	0.3354	-0.1987	0.3355	-0.0887	-0.1219	-0.02	0.5706	0.0702	2.6411	1.085	3.4812	1.1622	A-	A-	A-
MATH	5	780063	2	CCAACS	1	A-F	5679	0.4943	0.4942	0.2729	0.0445	0.1882	0.0002	0.3366	0.3368	-0.203	-0.2142	-0.0857	-0.0215	0.6171	0.0685	4.4911	1.1305	3.9812	1.1838	A-	A-	A-
MATH	5	786985	2	CCAACS	2	A-F	5677	0.4923	0.1474	0.1697	0.4921	0.1903	0.0005	0.5163	-0.2721	-0.2904	0.5162	-0.1331	-0.0154	0.5775	0.0684	-2.1891	0.9401	-2.2391	0.9046	A-	A-	A-
MATH	5	787010	2	CCAACS	1	A-T	5677	0.7692	0.1065	0.0632	0.0609	0.7688	0.0005	0.4229	-0.2413	-0.2046	-0.2246	0.4234	-0.0242	-0.923	0.0747	-2.8691	0.9032	-1.8491	0.8534	A+	A-	A+
MATH	5	787153	2	CCAACS	2	B-O	5678	0.1867	0.0884	0.615	0.1097	0.1866	0.0004	0.2284	-0.2627	0.1498	-0.2773	0.2286	-0.037	2.2006	0.0866	3.9412	1.2145	8.422	1.9876	A+	A+	A+
MATH	5	786969	2	CCAACS	2	C-G	5679	0.4779	0.1842	0.1345	0.2033	0.4778	0.0002	0.47	-0.2874	-0.2174	-0.1217	0.4702	-0.0215	0.5998	0.0685	-0.769	0.9785	-0.559	0.9751	A-	A-	A-
MATH	5	786978	2	CCAACS	2	D-M	5678	0.5505	0.19	0.5504	0.0775	0.1819	0.0004	0.3477	-0.2835	0.348	-0.2101	-0.0138	-0.022	0.2082	0.0679	3.0611	1.0835	1.8011	1.0841	A-	A-	A-
MATH	5	786987	3	CCAACS	1	A-F	5728	0.621	0.0632	0.1982	0.1174	0.6207	0.0005	0.5414	-0.236	-0.3053	-0.2586	0.5416	-0.0205	-0.1729	0.0694	-5.7692	0.8476	-3.7292	0.8135	A-	A-	A-
MATH	5	780060	3	CCAACS	1	A-T	5730	0.7213	0.7212	0.0539	0.0703	0.1544	0.0002	0.5521	0.5523	-0.2276	-0.3177	-0.3175	-0.0224	-0.5468	0.0715	-6.4492	0.8173	-5.2393	0.6949	A-	A-	A-
MATH	5	787009	3	CCAACS	1	A-T	5728	0.4658	0.4655	0.2438	0.211	0.0792	0.0005	0.5156	0.5158	-0.3053	-0.1739	-0.2027	-0.0225	0.6844	0.0694	-2.3791	0.9311	-1.1891	0.9477	B-	A-	A-
MATH	5	743944	3	CCAACS	2	B-O	5731	0.6102	0.1396	0.6102	0.1078	0.1424		0.385	-0.1524	0.385	-0.2661	-0.1499		-0.0607	0.069	0.091	1.0021	0.001	0.9991	A-	A-	A-
MATH	5	743946	3	CCAACS	2	C-G	5728	0.6559	0.1221	0.0939	0.6556	0.1279	0.0005	0.4084	-0.1837	-0.3218	0.409	-0.1187	-0.0306	-0.3282	0.0701	0.221	1.0061	-0.469	0.9719	A+	A-	A-
MATH	5	743948	3	CCAACS	1	D-M	5729	0.6919	0.1183	0.1047	0.085	0.6917	0.0003	0.4486	-0.1435	-0.3074	-0.2388	0.4484	-0.0026	-0.4255	0.0707	-1.279	0.9629	1.3511	1.083	B-	A-	A-
MATH	5	786984	4	CCAACS	1	A-F	5691	0.6925	0.0532	0.1593	0.0948	0.6921	0.0005	0.4999	-0.2157	-0.2664	-0.2876	0.5005	-0.0379	-0.4833	0.0704	-3.8391	0.893	-3.0092	0.831	A+	A-	A+
MATH	5	786991	4	CCAACS	1	A-F	5689	0.5277	0.2464	0.1421	0.0834	0.5272	0.0009	0.6472	-0.3693	-0.2691	-0.2503	0.6475	-0.0327	0.3931	0.0685	-9.6092	0.753	-7.9493	0.7008	A-	A-	A-
MATH	5	743931	4	CCAACS	2	A-T	5692	0.7368	0.7366	0.1217	0.0801	0.0613	0.0004	0.4294	0.43	-0.1971	-0.2661	-0.2176	-0.0304	-0.7694	0.0727	-3.9891	0.879	-3.8292	0.7541	A-	A-	A-
MATH	5	787018	4	CCAACS	1	A-T	5692	0.8521	0.0746	0.0272	0.046	0.8518	0.0004	0.4505	-0.3038	-0.1992	-0.2272	0.4508	-0.0162	-1.5038	0.0834	-2.2491	0.9	-3.2593	0.6898	A-	A+	A+
MATH	5	786976	4	CCAACS	2	D-M	5691	0.4519	0.1243	0.4517	0.1832	0.2403	0.0005	0.319	-0.1863	0.3194	-0.0753	-0.1585	-0.027	0.7559	0.0698	4.4011	1.1394	4.8212	1.2257	A-	A-	A+
MATH	5	786977	4	CCAACS	2	D-M	5693	0.642	0.1932	0.6419	0.1055	0.0592	0.0002	0.449	-0.2508	0.449	-0.2149	-0.2125	-0.0073	-0.1679	0.0689	-0.899	0.9752	-1.2091	0.94	A-	A-	A-
MATH	5	713389	5	CCAACS	2	A-F	5660	0.6982	0.0957	0.1558	0.698	0.0502	0.0004	0.5253	-0.2808	-0.3408	0.5257	-0.1583	-0.0325	-0.474	0.071	-6.0792	0.8276	-4.7093	0.7465	A+	A-	A-
MATH	5	786993	5	CCAACS	2	A-F	5660	0.5027	0.5025	0.0887	0.3027	0.1058	0.0004	0.4849	0.4851	-0.1713	-0.2667	-0.2304	-0.0249	0.5183	0.0686	-1.539	0.9568	-0.879	0.9637	A+	A+	A+
MATH	5	787014	5	CCAACS	1	A-T	5661	0.5994	0.1077	0.1247	0.5993	0.1681	0.0002	0.5183	-0.1973	-0.2347	0.5184	-0.3076	-0.0229	0.0444	0.0686	-4.6091	0.8773	-3.5992	0.8453	A-	A-	A-
MATH	5	786998	5	CCAACS	2	B-O	5658	0.8047	0.0618	0.8041	0.0897	0.0436	0.0007	0.4772	-0.2614	0.4778	-0.2893	-0.2118	-0.0275	-1.0549	0.0772	-4.7392	0.8315	-4.1593	0.6923	A+	A-	A-
MATH	5	786973	5	CCAACS	2	C-G	5660	0.5933	0.1076	0.5931	0.0768	0.2222	0.0004	0.2319	-0.2786	0.2323	-0.2742	0.1098	-0.0216	0.052	0.0686	7.0612	1.2083	7.3014	1.3663	A-	A-	A-
MATH	5	786975	5	CCAACS	1	D-M	5661	0.7363	0.0818	0.1521	0.7361	0.0298	0.0002	0.4751	-0.2843	-0.2914	0.4754	-0.1568	-0.0241	-0.6955	0.0729	-4.8491	0.851	-4.5693	0.7232	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	5	786989	6	CCAACS	1	A-F	5695	0.4636	0.2163	0.4636	0.1243	0.1958		0.2512	-0.1032	0.2512	-0.2818	0.0257		0.6855	0.0689	8.8713	1.2793	7.7814	1.3621	A+	A+	A+
MATH	5	780058	6	CCAACS	1	A-T	5694	0.6006	0.1673	0.6005	0.1724	0.0595	0.0002	0.4533	-0.3039	0.4534	-0.1642	-0.1961	-0.0132	0.0076	0.0684	-1.9191	0.9486	-2.7691	0.8794	A-	A-	A-
MATH	5	787016	6	CCAACS	2	A-T	5694	0.6869	0.0955	0.1082	0.1094	0.6867	0.0002	0.5488	-0.2516	-0.2971	-0.2821	0.5491	-0.0285	-0.4311	0.0703	-5.1991	0.8561	-4.9093	0.747	A-	A-	A-
MATH	5	786996	6	CCAACS	2	B-O	5694	0.5973	0.0421	0.2627	0.5972	0.0978	0.0002	0.2953	-0.192	-0.0521	0.2953	-0.2805	-0.0025	-0.083	0.0686	6.4412	1.1865	4.1212	1.2053	A+	A+	A+
MATH	5	786972	6	CCAACS	1	C-G	5695	0.7347	0.7347	0.137	0.0697	0.0586		0.4763	0.4763	-0.2337	-0.2694	-0.2612		-0.7546	0.073	-1.299	0.9582	-1.7391	0.8851	A+	A-	A-
MATH	5	790637	6	CCAACS	1	D-M	5694	0.7861	0.1343	0.0453	0.0342	0.786	0.0002	0.512	-0.3759	-0.2246	-0.1923	0.5122	-0.0143	-1.0162	0.0761	-4.3191	0.8508	-4.2293	0.6987	A+	A+	A-
MATH	5	738190	7	CCAACS	2	A-F	5705	0.5209	0.1965	0.1358	0.1467	0.5209		0.4782	-0.207	-0.2694	-0.1818	0.4782		0.3688	0.0682	-3.0291	0.919	-0.989	0.9565	A+	A-	A-
MATH	5	786994	7	CCAACS	1	A-F	5702	0.7122	0.7118	0.0584	0.0633	0.166	0.0005	0.3942	0.3947	-0.2311	-0.2152	-0.1924	-0.0276	-0.5842	0.0711	-0.249	0.9922	-1.5591	0.8988	A-	A+	A+
MATH	5	787012	7	CCAACS	2	A-T	5703	0.408	0.1008	0.1295	0.4079	0.3614	0.0004	0.3023	-0.2138	-0.2988	0.3026	0.0345	-0.0312	0.8888	0.0701	5.6712	1.1843	5.7213	1.2888	A-	A+	A+
MATH	5	780065	7	CCAACS	1	B-O	5705	0.7555	0.0606	0.7555	0.0536	0.1302		0.3998	-0.2686	0.3998	-0.2446	-0.1563		-0.8667	0.0738	-2.1991	0.9286	-1.8791	0.8587	A+	A-	A-
MATH	5	780066	7	CCAACS	1	C-G	5704	0.905	0.9048	0.0361	0.0205	0.0384	0.0002	0.2958	0.2964	-0.2305	-0.1793	-0.0951	-0.0238	-2.1317	0.1004	-0.8691	0.9401	-0.8591	0.8753	A+	A-	A-
MATH	5	737101	7	CCAACS	2	D-M	5704	0.703	0.0824	0.7029	0.1176	0.0969	0.0002	0.3736	-0.2248	0.3739	-0.2948	-0.0466	-0.0238	-0.6038	0.0712	-2.2191	0.935	-1.1591	0.9232	A+	A-	A-
MATH	5	662458	8	CCAACS	2	A-F	5677	0.3673	0.3671	0.2336	0.2796	0.1192	0.0005	0.3372	0.3373	-0.2586	-0.0424	-0.104	-0.0206	1.153	0.0715	3.0211	1.1008	4.0112	1.2151	A+	A-	A-
MATH	5	738184	8	CCAACS	1	A-T	5676	0.663	0.0505	0.1711	0.1151	0.6625	0.0007	0.5527	-0.2527	-0.3009	-0.2886	0.5527	-0.0216	-0.3183	0.0697	-4.5091	0.8765	-3.9192	0.8011	A-	A+	A-
MATH	5	743930	8	CCAACS	1	A-T	5677	0.4561	0.0822	0.3676	0.4558	0.0938	0.0005	0.4434	-0.2245	-0.2039	0.4436	-0.2069	-0.0274	0.6857	0.0688	0.811	1.023	1.041	1.0439	A-	A+	A+
MATH	5	738193	8	CCAACS	2	B-O	5679	0.6364	0.6363	0.1634	0.1537	0.0465	0.0002	0.4948	0.4949	-0.2747	-0.2501	-0.2194	-0.0087	-0.09	0.0687	-4.1491	0.8908	-3.3192	0.8478	A-	A-	A-
MATH	5	786974	8	CCAACS	1	C-G	5679	0.4805	0.1623	0.135	0.222	0.4805	0.0002	0.4451	-0.286	-0.1765	-0.1361	0.4451	-0.0016	0.5985	0.0685	0.921	1.0257	0.121	1.0046	A-	A-	A-
MATH	5	786979	8	CCAACS	2	D-M	5680	0.7141	0.0562	0.7141	0.1095	0.1202		0.4427	-0.1401	0.4427	-0.248	-0.2776		-0.5685	0.0714	-1.599	0.9513	-0.9491	0.9406	A-	A-	A-
MATH	5	740957	9	CCAACS	2	A-F	5655	0.2522	0.167	0.2436	0.3369	0.2521	0.0004	0.3385	-0.2262	-0.1891	0.0403	0.3387	-0.0278	1.7126	0.0778	2.3411	1.0979	3.7513	1.2786	A-	A+	A+
MATH	5	786990	9	CCAACS	1	A-F	5657	0.4078	0.2524	0.4078	0.158	0.1817		0.2827	-0.0679	0.2827	-0.3065	0.0061		0.9313	0.0702	4.0511	1.1299	4.0312	1.1975	A-	A-	A-
MATH	5	787013	9	CCAACS	2	A-T	5656	0.6766	0.6765	0.1168	0.1527	0.0537	0.0002	0.5305	0.5307	-0.2435	-0.3263	-0.2326	-0.0179	-0.2324	0.0692	-6.4892	0.8318	-5.1093	0.7421	B-	A-	A-
MATH	5	786968	9	CCAACS	2	B-O	5656	0.7726	0.099	0.0734	0.7725	0.055	0.0002	0.4786	-0.3223	-0.2802	0.4789	-0.1367	-0.0238	-0.9191	0.075	-5.1692	0.8298	-4.4393	0.6778	A-	A-	A-
MATH	5	780067	9	CCAACS	1	C-G	5656	0.4724	0.1441	0.2646	0.4723	0.1188	0.0002	0.4363	-0.2501	-0.1772	0.4364	-0.1599	-0.0096	0.6511	0.0688	0.581	1.0165	0.831	1.036	A-	A-	A+
MATH	5	780083	9	CCAACS	2	D-M	5656	0.5122	0.1154	0.2766	0.5121	0.0956	0.0002	0.412	-0.2533	-0.1436	0.4121	-0.2058	-0.0238	0.5498	0.0685	0.351	1.0097	0.251	1.0101	A+	A-	A-
MATH	6	404808	0	CCAACS	2	A-N	69732	0.4062	0.406	0.2605	0.2294	0.1038	0.0004	0.4954	0.4956	-0.0549	-0.3357	-0.2548	-0.0243	0.5802	0.023	-2.049	0.9804	-1.109	0.9832	A-	A-	A-
MATH	6	478718	0	CCAACS	1	A-N	69727	0.5657	0.5654	0.2335	0.1383	0.0624	0.0004	0.5105	0.5107	-0.2726	-0.2602	-0.1967	-0.02	0.0804	0.0229	-4.729	0.9574	-4.4891	0.9247	A+	A+	A-
MATH	6	479519	0	CCAACS	1	A-N	69245	0.4672	0.0949	0.4638	0.2255	0.2086	0.0073	0.4459	-0.2116	0.447	-0.2924	-0.0838	-0.0554	0.5498	0.023	4.941	1.0478	4.4911	1.0695	A-	A+	A+
MATH	6	617667	0	CCAACS	1	A-N	69300	0.7787	0.0775	0.077	0.7736	0.0653	0.0066	0.4682	-0.2136	-0.2689	0.4707	-0.2549	-0.0645	-1.0303	0.0258	-9.8992	0.8325	-9.8993	0.6886	A-	A-	A-
MATH	6	652192	0	CCAACS	1	A-N	69731	0.4386	0.2075	0.1524	0.2013	0.4385	0.0004	0.4993	-0.179	-0.2636	-0.1999	0.4994	-0.0196	0.5899	0.023	-0.969	0.9907	-0.619	0.9905	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	743919	0	CCAACS	1	A-N	69179	0.4651	0.1189	0.1659	0.2457	0.4613	0.0083	0.5947	-0.2158	-0.2694	-0.2802	0.5955	-0.0681	0.4961	0.0229	-9.8991	0.8652	-9.8992	0.8346	A+	A+	A-
MATH	6	478716	0	CCAACS	2	A-R	69741	0.5517	0.0493	0.1059	0.5516	0.293	0.0002	0.4452	-0.2017	-0.2786	0.4454	-0.2018	-0.019	0.3094	0.0229	5.8311	1.0547	2.641	1.0422	A-	A+	A+
MATH	6	501160	0	CCAACS	2	A-R	69728	0.5949	0.1591	0.5947	0.1425	0.1033	0.0004	0.3543	-0.1998	0.3547	-0.1701	-0.1349	-0.0263	0.1097	0.0229	9.9011	1.106	4.2711	1.0742	A-	A+	A+
MATH	6	575151	0	CCAACS	1	A-R	69738	0.7879	0.0674	0.7877	0.1014	0.0433	0.0003	0.3577	-0.2134	0.358	-0.2195	-0.1296	-0.0164	-1.164	0.0264	-0.099	0.9986	-0.129	0.9955	A+	A+	A-
MATH	6	654778	0	CCAACS	2	A-R	69738	0.662	0.6618	0.1427	0.1476	0.0476	0.0003	0.5123	0.5125	-0.2849	-0.2822	-0.1992	-0.0186	-0.4072	0.0236	-9.8991	0.8981	-7.2992	0.8477	A-	A+	A-
MATH	6	657500	0	CCAACS	2	A-R	69743	0.7474	0.0996	0.0755	0.7473	0.0773	0.0002	0.4569	-0.2675	-0.2801	0.457	-0.1657	-0.0138	-0.789	0.0247	-9.8991	0.8734	-4.9991	0.8692	A-	A+	A+
MATH	6	711374	0	CCAACS	1	A-R	69742	0.5205	0.1114	0.319	0.5204	0.0491	0.0002	0.5219	-0.35	-0.2259	0.522	-0.2094	-0.0138	0.2513	0.0229	-4.429	0.9599	-0.549	0.991	A-	A+	A+
MATH	6	314874	0	CCAACS	2	B-E	69733	0.6257	0.0538	0.2277	0.6255	0.0926	0.0003	0.3362	-0.1797	-0.1833	0.3365	-0.1556	-0.0202	-0.0011	0.023	9.9011	1.1385	6.4111	1.1186	A-	A+	A+
MATH	6	478721	0	CCAACS	2	B-E	69734	0.2827	0.2249	0.2484	0.2437	0.2826	0.0003	0.4499	-0.2193	-0.2068	-0.0496	0.45	-0.0237	1.3347	0.0245	-2.189	0.9743	2.441	1.0458	A+	A+	A+
MATH	6	496613	0	CCAACS	2	B-E	69734	0.604	0.0596	0.6038	0.0753	0.261	0.0003	0.374	-0.2472	0.3742	-0.2857	-0.1112	-0.0171	0.0752	0.0229	7.7811	1.0727	4.8211	1.0853	A-	A+	A+
MATH	6	496957	0	CCAACS	2	B-E	69729	0.7601	0.7598	0.1304	0.0733	0.0361	0.0004	0.4836	0.484	-0.2718	-0.2978	-0.1988	-0.0262	-1.1198	0.0262	-4.8791	0.9378	-0.219	0.9925	A-	A+	A+
MATH	6	581393	0	CCAACS	1	B-E	69729	0.4846	0.1781	0.2019	0.4844	0.1352	0.0004	0.4288	-0.1624	-0.2818	0.429	-0.1131	-0.0235	0.7079	0.0232	9.9011	1.1102	9.4612	1.1502	A+	A+	A+
MATH	6	582618	0	CCAACS	1	B-E	69728	0.5222	0.0709	0.1863	0.2203	0.522	0.0004	0.4943	-0.2464	-0.2358	-0.2208	0.4945	-0.0224	0.2239	0.0229	-0.419	0.9961	0.641	1.0104	A+	A+	A+
MATH	6	624476	0	CCAACS	2	B-E	69728	0.4559	0.2785	0.4557	0.1233	0.1421	0.0004	0.3916	-0.1479	0.3918	-0.2194	-0.1609	-0.0266	0.9187	0.0235	9.9011	1.1305	9.9012	1.2082	A+	A+	A+
MATH	6	624650	0	CCAACS	2	B-E	69724	0.4121	0.1671	0.4119	0.2571	0.1634	0.0005	0.3988	-0.1788	0.399	-0.2301	-0.0775	-0.0219	0.8328	0.0233	7.4811	1.0778	8.8211	1.142	A-	A+	A+
MATH	6	652197	0	CCAACS	2	B-E	69732	0.3209	0.1831	0.2432	0.2525	0.3208	0.0004	0.4677	-0.2392	-0.2202	-0.0712	0.4678	-0.0237	1.1136	0.0239	-3.809	0.9586	-0.249	0.9957	A+	A+	A+
MATH	6	657503	0	CCAACS	1	B-E	69742	0.5967	0.047	0.305	0.5966	0.0512	0.0002	0.4555	-0.2002	-0.305	0.4557	-0.1839	-0.0176	-0.0104	0.023	0.381	1.0034	-1.799	0.9681	A-	A+	A+
MATH	6	711451	0	CCAACS	2	B-E	69721	0.4443	0.1593	0.2048	0.1913	0.4441	0.0005	0.612	-0.2368	-0.2924	-0.2514	0.6121	-0.0267	0.5636	0.023	-9.8991	0.8505	-9.8992	0.8156	A+	A+	A+
MATH	6	711454	0	CCAACS	2	B-E	69732	0.3875	0.0662	0.3873	0.237	0.3091	0.0004	0.4232	-0.2724	0.4234	-0.2184	-0.0977	-0.024	1.0862	0.0238	7.7611	1.087	9.9012	1.2251	A-	A+	A+
MATH	6	711455	0	CCAACS	2	B-E	69740	0.6554	0.6552	0.1631	0.1063	0.0751	0.0002	0.4276	0.4277	-0.2241	-0.217	-0.2026	-0.0118	-0.1661	0.0232	-1.329	0.9877	-2.309	0.9559	A-	A+	A+
MATH	6	745962	0	CCAACS	1	B-E	69742	0.8079	0.0288	0.1331	0.0301	0.8078	0.0002	0.5119	-0.2247	-0.3899	-0.1843	0.5121	-0.0176	-1.2754	0.0271	-9.8992	0.7651	-9.8994	0.5757	A+	A-	A+
MATH	6	615356	0	CCAACS	2	C-G	69730	0.4706	0.0832	0.1726	0.4704	0.2734	0.0004	0.4877	-0.2027	-0.2438	0.4879	-0.213	-0.0231	0.5762	0.023	-1.799	0.9828	-1.799	0.9729	A+	A-	A-
MATH	6	615365	0	CCAACS	2	C-G	69740	0.6681	0.2579	0.668	0.0344	0.0395	0.0002	0.4646	-0.412	0.4648	-0.1126	-0.0916	-0.018	-0.1602	0.0232	-6.7391	0.9388	-4.1891	0.9213	A-	B-	A-
MATH	6	624651	0	CCAACS	1	C-G	69741	0.5758	0.5756	0.1331	0.108	0.183	0.0002	0.5054	0.5055	-0.2937	-0.1993	-0.2275	-0.0182	0.1288	0.0229	-5.8491	0.9475	-5.1991	0.9148	A+	A-	A+
MATH	6	652198	0	CCAACS	2	C-G	69739	0.5307	0.1718	0.5306	0.1094	0.188	0.0003	0.6078	-0.353	0.6079	-0.2355	-0.2468	-0.0207	0.1852	0.0229	-9.8992	0.8228	-9.8992	0.7551	A-	A-	A-
MATH	6	715779	0	CCAACS	1	C-G	69737	0.6726	0.0696	0.1371	0.6724	0.1205	0.0003	0.4526	-0.2486	-0.3559	0.4528	-0.0815	-0.0185	-0.6177	0.0242	-2.109	0.9782	-0.599	0.985	A+	A+	A+
MATH	6	715781	0	CCAACS	2	C-G	69748	0.93	0.0401	0.017	0.0129	0.9298	0.0001	0.2914	-0.2149	-0.1389	-0.126	0.2917	-0.0127	-2.4307	0.0381	-2.4491	0.9323	-4.9293	0.734	A+	B-	A-
MATH	6	715782	0	CCAACS	1	C-G	69739	0.4308	0.0841	0.4333	0.0517	0.4307	0.0003	0.6307	-0.1797	-0.4843	-0.1004	0.6308	-0.0152	0.6397	0.0231	-9.8992	0.8106	-9.8992	0.766	A+	A-	A-
MATH	6	740947	0	CCAACS	2	C-G	69737	0.5813	0.1612	0.5812	0.156	0.1013	0.0003	0.4108	-0.2305	0.411	-0.2585	-0.0793	-0.0194	-0.0053	0.023	7.0511	1.0658	3.4611	1.0629	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	560221	0	CCAACS	2	D-S	69729	0.7272	0.1201	0.7269	0.0924	0.0601	0.0004	0.5133	-0.3021	0.5136	-0.2691	-0.2198	-0.0214	-0.7796	0.0247	-9.8991	0.8778	-8.5592	0.7847	A-	A-	A-
MATH	6	652199	0	CCAACS	1	D-S	69732	0.5959	0.5957	0.1383	0.2118	0.0538	0.0004	0.4557	0.4559	-0.2281	-0.28	-0.1338	-0.0221	-0.0838	0.0231	1.821	1.0168	2.341	1.044	A+	A-	A-
MATH	6	652200	0	CCAACS	2	D-S	69735	0.4643	0.1969	0.4642	0.2021	0.1365	0.0003	0.3546	-0.1567	0.3548	-0.1601	-0.1456	-0.0218	0.6776	0.0231	9.9012	1.1839	9.9013	1.2564	A+	A-	A-
MATH	6	715785	0	CCAACS	2	D-S	69734	0.6714	0.6711	0.1587	0.1063	0.0635	0.0003	0.4579	0.4582	-0.2245	-0.2547	-0.2226	-0.0213	-0.2827	0.0234	-8.1991	0.9244	-2.6991	0.9454	A+	A-	A+
MATH	6	715786	0	CCAACS	1	D-S	69729	0.6097	0.6095	0.1329	0.0641	0.1931	0.0004	0.5415	0.5417	-0.2306	-0.1978	-0.3473	-0.022	-0.2333	0.0233	-8.4691	0.9226	-7.0191	0.8657	A+	A-	A-
MATH	6	740949	0	CCAACS	2	D-S	69732	0.3371	0.337	0.1896	0.1897	0.2834	0.0004	0.5666	0.5667	-0.0862	-0.2475	-0.3033	-0.0195	1.3407	0.0245	-8.9291	0.8981	-5.9891	0.8927	A-	A-	A-
MATH	6	743926	1	CCAACS	2	A-N	21260	0.6172	0.0957	0.6168	0.132	0.155	0.0005	0.4309	-0.1988	0.4312	-0.2845	-0.1502	-0.0227	-0.5207	0.069	-1.109	0.9708	-1.3091	0.917	A-	A-	A-
MATH	6	654991	1	CCAACS	2	A-R	21255	0.3061	0.2323	0.2149	0.2461	0.3059	0.0008	0.3101	-0.0272	-0.1438	-0.1666	0.3103	-0.0241	1.0669	0.074	4.8912	1.1887	5.6613	1.3488	A-	A+	A-
MATH	6	740943	1	CCAACS	2	B-E	21256	0.383	0.3827	0.2553	0.2012	0.1601	0.0007	0.3385	0.3387	-0.133	-0.2379	-0.0292	-0.0213	0.6724	0.0706	6.2412	1.2099	5.5013	1.2894	A-	A-	A-
MATH	6	790966	1	CCAACS	2	B-E	21259	0.6858	0.0586	0.1292	0.6854	0.1262	0.0006	0.4264	-0.2081	-0.2637	0.4269	-0.1816	-0.0251	-0.9114	0.0717	-3.3291	0.9041	-1.7791	0.8651	A+	A-	A+
MATH	6	401968	1	CCAACS	2	C-G	6089	0.4162	0.0997	0.416	0.2065	0.2775	0.0003	-0.0094	-0.1527	-0.009	0.0185	0.0964	-0.0239	0.9265	0.0719	9.9015	1.5427	9.9018	1.7502	A+	A+	A-
MATH	6	736751	1	CCAACS	2	C-G	21259	0.4652	0.1905	0.465	0.2101	0.1338	0.0006	0.4986	-0.2558	0.4988	-0.22	-0.1711	-0.019	0.2059	0.0684	-1.399	0.9616	-1.3091	0.938	A-	A-	A-
MATH	6	412893	1	CCAACS	2	D-S	6090	0.3097	0.2545	0.1599	0.2758	0.3096	0.0002	0.3337	-0.0155	-0.2129	-0.1557	0.3335	0.0116	1.4694	0.0764	2.1211	1.0825	3.1912	1.2109	A+	A+	A+
MATH	6	791450	1	CCAACS	2	D-S	21258	0.5201	0.1291	0.2409	0.5198	0.1096	0.0006	0.2566	-0.1202	-0.1735	0.257	-0.0426	-0.0237	-0.0559	0.068	6.5612	1.1818	6.1514	1.3506	A+	A-	A+
MATH	6	709862	2	CCAACS	1	A-N	6062	0.7824	0.0386	0.7823	0.1133	0.0656	0.0002	0.4599	-0.1832	0.46	-0.2574	-0.2941	-0.0109	-0.9258	0.0779	-4.7192	0.8309	-3.5993	0.6792	A+	A+	A+
MATH	6	790651	2	CCAACS	2	A-R	6063	0.8826	0.0323	0.0584	0.8826	0.0267		0.404	-0.198	-0.2808	0.404	-0.1812		-1.7557	0.095	-4.8493	0.7358	-4.0495	0.5162	A-	A-	A-
MATH	6	745963	2	CCAACS	1	B-E	6061	0.263	0.2629	0.1407	0.2138	0.3823	0.0003	0.3744	0.3744	-0.1413	-0.143	-0.117	-0.0138	1.9195	0.0791	0.681	1.0282	0.641	1.0461	A-	A-	A-
MATH	6	745966	2	CCAACS	2	B-E	6061	0.7004	0.1301	0.0754	0.7001	0.094	0.0003	0.4642	-0.2386	-0.2703	0.4644	-0.2083	-0.0202	-0.4788	0.0728	-2.0691	0.9358	-2.1592	0.8398	A+	A-	A+
MATH	6	791038	2	CCAACS	2	C-G	6063	0.4869	0.1306	0.208	0.1745	0.4869		0.4482	-0.102	-0.2221	-0.2622	0.4482		0.5954	0.0693	-0.419	0.9877	-0.759	0.9627	A+	A-	A-
MATH	6	791448	2	CCAACS	2	D-S	6062	0.8113	0.8111	0.0452	0.0651	0.0783	0.0002	0.4372	0.437	-0.2379	-0.2339	-0.2378	0.0003	-1.1149	0.0808	-4.2092	0.834	0.011	0.9975	A+	A-	A-
MATH	6	790644	3	CCAACS	1	A-N	6078	0.7568	0.0883	0.064	0.0908	0.7567	0.0002	0.5243	-0.311	-0.2019	-0.3034	0.5244	-0.0118	-0.9428	0.0767	-5.2792	0.8172	-4.0193	0.6841	A-	A-	A-
MATH	6	790654	3	CCAACS	2	A-R	6078	0.6978	0.0819	0.105	0.6976	0.1153	0.0002	0.4714	-0.2	-0.3431	0.4717	-0.1764	-0.0228	-0.4464	0.0715	-1.9091	0.9432	-1.5591	0.8989	B-	A-	A+
MATH	6	736750	3	CCAACS	2	B-E	6078	0.4788	0.4787	0.2755	0.1263	0.1193	0.0002	0.3753	0.3752	-0.1634	-0.1682	-0.1807	0.0023	0.6489	0.0689	2.9511	1.0863	2.9911	1.137	A-	A+	A-
MATH	6	791001	3	CCAACS	2	B-E	6077	0.4943	0.126	0.4942	0.1798	0.1997	0.0003	0.2705	-0.1168	0.2706	-0.1967	-0.052	-0.0083	0.5889	0.0688	7.5112	1.2273	7.3014	1.357	A+	A+	A+
MATH	6	791035	3	CCAACS	1	C-G	6077	0.7696	0.048	0.091	0.7694	0.0913	0.0003	0.3965	-0.2155	-0.2656	0.397	-0.1538	-0.0237	-0.8532	0.0756	-1.9491	0.9322	-0.459	0.9601	A+	A-	A-
MATH	6	791449	3	CCAACS	1	D-S	6076	0.5505	0.0648	0.5503	0.0972	0.2872	0.0005	0.4357	-0.1981	0.4362	-0.1353	-0.2816	-0.0325	0.3927	0.0685	0.941	1.026	1.1811	1.0538	A+	A-	A-
MATH	6	780070	4	CCAACS	2	A-N	6063	0.2624	0.2623	0.1832	0.459	0.0951	0.0005	0.262	0.2622	-0.3625	0.1092	-0.0983	-0.0301	1.8756	0.0797	4.4512	1.2035	5.6015	1.466	A-	A+	A-
MATH	6	790640	4	CCAACS	2	A-N	6064	0.3069	0.2587	0.2062	0.228	0.3068	0.0003	0.4275	-0.3508	-0.1193	0.0115	0.4274	-0.0018	1.5949	0.076	0.091	1.0029	2.1811	1.1407	A-	A-	A-
MATH	6	790655	4	CCAACS	1	A-R	6064	0.6013	0.6011	0.2605	0.0892	0.049	0.0003	0.3761	0.3764	-0.2483	-0.204	-0.0777	-0.0246	0.0851	0.0685	2.9711	1.0815	1.4311	1.0709	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	791011	4	CCAACS	2	B-E	6066	0.3431	0.1258	0.1044	0.4268	0.3431		0.4328	-0.279	-0.2214	-0.0915	0.4328		1.3288	0.0732	1.361	1.0481	3.2412	1.1843	A-	A+	A-
MATH	6	780077	4	CCAACS	2	C-G	6065	0.6331	0.0656	0.1785	0.633	0.1227	0.0002	0.4335	-0.2003	-0.309	0.4337	-0.1246	-0.0196	-0.2128	0.0695	-0.329	0.9907	-0.629	0.9638	A+	A-	A-
MATH	6	791451	4	CCAACS	2	D-S	6065	0.4074	0.2438	0.1197	0.229	0.4074	0.0002	0.1795	0.2062	-0.3142	-0.1775	0.1796	-0.0196	0.9581	0.0703	9.9014	1.3805	9.8115	1.5216	A+	A-	A-
MATH	6	790645	5	CCAACS	2	A-N	6030	0.4519	0.1805	0.4517	0.1354	0.2319	0.0005	0.3793	-0.2022	0.3796	-0.2358	-0.0708	-0.0267	0.7862	0.07	3.8811	1.1223	3.5112	1.1714	A+	A+	A-
MATH	6	790653	5	CCAACS	2	A-R	6033	0.6932	0.0797	0.1291	0.098	0.6932		0.5139	-0.2671	-0.2013	-0.3268	0.5139		-0.438	0.0716	-5.2392	0.8486	-3.6092	0.7738	B-	A-	A-
MATH	6	791019	5	CCAACS	1	B-E	6031	0.7604	0.7602	0.1003	0.0879	0.0514	0.0003	0.5074	0.5078	-0.2806	-0.2912	-0.2247	-0.0275	-0.8203	0.0751	-6.0192	0.8069	-4.0793	0.6936	A+	A+	A+
MATH	6	736752	5	CCAACS	1	C-G	6033	0.5491	0.1419	0.5491	0.2152	0.0938		0.322	-0.1618	0.322	-0.1968	-0.0786		0.2802	0.0691	7.2812	1.2229	6.8214	1.3665	A-	A-	A+
MATH	6	658117	5	CCAACS	2	D-S	6028	0.6226	0.115	0.1793	0.6221	0.0827	0.0008	0.3378	-0.1417	-0.2356	0.3385	-0.0999	-0.0341	-0.1424	0.07	3.0011	1.089	1.6111	1.0943	A+	A+	A+
MATH	6	736753	5	CCAACS	2	D-S	6032	0.4778	0.4777	0.1348	0.2894	0.098	0.0002	0.3317	0.3318	-0.2574	-0.0362	-0.2063	-0.0106	0.6525	0.0695	4.1711	1.1289	5.2713	1.261	A+	A-	A-
MATH	6	657499	6	CCAACS	2	A-N	6040	0.2675	0.3734	0.295	0.0639	0.2675	0.0002	0.2076	0.0671	-0.2256	-0.0873	0.2077	-0.0132	1.7275	0.0775	7.3713	1.3255	8.0716	1.6456	A-	A+	A-
MATH	6	790649	6	CCAACS	1	A-R	6040	0.7265	0.0743	0.7264	0.0891	0.1101	0.0002	0.5216	-0.1685	0.5216	-0.3259	-0.3049	-0.0043	-0.5768	0.0726	-4.5891	0.8628	-3.6293	0.7473	A-	A-	A-
MATH	6	790997	6	CCAACS	1	B-E	6039	0.714	0.099	0.1198	0.7138	0.067	0.0003	0.5046	-0.2557	-0.3189	0.5049	-0.1913	-0.0249	-0.459	0.0716	-4.2591	0.877	-3.1792	0.7889	A+	A-	A-
MATH	6	791031	6	CCAACS	2	B-E	6038	0.5682	0.568	0.1963	0.1632	0.072	0.0005	0.5308	0.5312	-0.2167	-0.3093	-0.24	-0.0311	0.2796	0.0687	-4.4991	0.8809	-2.9291	0.8608	A+	A+	A-
MATH	6	791034	6	CCAACS	2	C-G	6037	0.4322	0.0611	0.2735	0.2329	0.4319	0.0007	0.2813	-0.1388	-0.0231	-0.225	0.2818	-0.0374	0.787	0.0697	7.9013	1.2544	7.1414	1.3684	A-	A-	A-
MATH	6	791447	6	CCAACS	2	D-S	6039	0.8576	0.8573	0.0831	0.0263	0.0329	0.0003	0.4197	0.4203	-0.2849	-0.1942	-0.2063	-0.0256	-1.4408	0.0853	-2.4091	0.8884	-3.1093	0.671	A+	A-	A-
MATH	6	743925	7	CCAACS	2	A-N	6039	0.5455	0.2206	0.1523	0.5455	0.0816		0.2656	-0.0037	-0.211	0.2656	-0.2003		0.221	0.0684	7.1912	1.2077	5.5413	1.2852	A+	A-	A+
MATH	6	790650	7	CCAACS	2	A-R	6037	0.5576	0.1873	0.133	0.122	0.5574	0.0003	0.5152	-0.3	-0.2514	-0.1626	0.5154	-0.02	0.2061	0.0684	-1.519	0.9592	-1.8391	0.9143	B-	A-	A+
MATH	6	663835	7	CCAACS	2	B-E	6038	0.4992	0.1186	0.4991	0.26	0.1222	0.0002	0.4525	-0.2123	0.4526	-0.247	-0.15	-0.0141	0.552	0.0688	0.341	1.0094	0.121	1.0047	A-	A-	A+
MATH	6	780075	7	CCAACS	2	B-E	6037	0.4396	0.4146	0.0846	0.4395	0.0609	0.0003	0.339	-0.1142	-0.2312	0.3393	-0.1979	-0.0239	0.8664	0.07	4.9312	1.16	5.1913	1.2505	A-	A+	A+
MATH	6	745971	7	CCAACS	1	C-G	6036	0.6851	0.0965	0.1268	0.0914	0.6847	0.0005	0.5307	-0.2874	-0.2972	-0.2174	0.5303	0.002	-0.3794	0.0704	-6.9892	0.8152	-5.2893	0.6987	A+	A+	A-
MATH	6	791455	7	CCAACS	2	D-S	6037	0.348	0.3479	0.1831	0.3779	0.0907	0.0003	0.2266	0.2268	-0.3099	0.117	-0.1546	-0.0239	1.3143	0.0732	7.8413	1.3043	7.8315	1.4745	A-	A-	A-
MATH	6	709926	8	CCAACS	1	A-N	6084	0.833	0.8323	0.0711	0.0603	0.0355	0.0008	0.4521	0.453	-0.2576	-0.2718	-0.2019	-0.0353	-1.2484	0.0819	-3.7292	0.8472	-3.0593	0.7075	A-	B-	A-
MATH	6	780069	8	CCAACS	1	A-N	6088	0.6027	0.1329	0.1409	0.1235	0.6026	0.0002	0.5644	-0.2631	-0.2499	-0.3035	0.5646	-0.0149	0.0899	0.0692	-6.8292	0.8199	-3.1692	0.8444	A+	A-	A-
MATH	6	658870	8	CCAACS	2	A-R	6087	0.2955	0.1138	0.4978	0.2955	0.0926	0.0003	0.1832	-0.0348	-0.0329	0.1835	-0.1923	-0.0265	1.6347	0.0759	6.6213	1.2733	9.7317	1.7495	A-	A+	A+
MATH	6	791025	8	CCAACS	2	B-E	6085	0.2238	0.1204	0.5599	0.2237	0.0954	0.0007	0.1751	-0.2544	0.02	0.1755	0.0028	-0.0451	2.0499	0.0815	3.9712	1.1859	8.9819	1.9027	A-	A+	A+
MATH	6	780076	8	CCAACS	1	C-G	6087	0.6111	0.0347	0.6109	0.1046	0.2495	0.0003	0.6016	-0.1892	0.6019	-0.3451	-0.3529	-0.0272	0.0391	0.0693	-7.9192	0.7929	-5.9993	0.7147	A+	A-	A+
MATH	6	780078	8	CCAACS	2	D-S	6085	0.3689	0.0765	0.3437	0.2104	0.3687	0.0007	0.2577	-0.2144	-0.1355	-0.0057	0.2581	-0.032	1.1429	0.0716	6.6812	1.2344	6.5314	1.3603	A+	A-	A-
MATH	6	709860	9	CCAACS	2	A-N	6072	0.497	0.2762	0.4967	0.1313	0.0951	0.0007	0.2944	-0.0212	0.2947	-0.2679	-0.1598	-0.0205	0.5055	0.0682	6.1812	1.1771	4.2412	1.1955	A-	A+	A+
MATH	6	780072	9	CCAACS	2	A-R	6074	0.6849	0.6847	0.0775	0.0726	0.1649	0.0003	0.452	0.452	-0.2319	-0.2805	-0.2023	-0.0098	-0.331	0.0701	-3.5291	0.9033	-2.1891	0.8714	C-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	658873	9	CCAACS	2	B-E	6074	0.4511	0.1284	0.451	0.1122	0.3081	0.0003	0.2577	-0.1835	0.2578	-0.2424	0.0213	-0.0098	0.8099	0.0692	6.9512	1.2162	5.8913	1.281	A+	A+	A+
MATH	6	790978	9	CCAACS	2	B-E	6072	0.4158	0.2284	0.4156	0.1229	0.2324	0.0007	0.361	-0.1392	0.3613	-0.2032	-0.1235	-0.03	0.9594	0.0699	2.2311	1.0691	3.0011	1.1423	A-	A-	A-
MATH	6	791039	9	CCAACS	2	C-G	6073	0.8879	0.8874	0.0393	0.0653	0.0074	0.0005	0.2366	0.2364	-0.1377	-0.1524	-0.1185	-0.0058	-1.9416	0.0981	0.9711	1.0629	2.0213	1.306	A-	B-	A-
MATH	6	791446	9	CCAACS	2	D-S	6073	0.3519	0.3308	0.16	0.3517	0.157	0.0005	0.1654	-0.009	-0.2371	0.1656	0.0342	-0.0168	1.281	0.0723	8.5413	1.3185	9.5316	1.5799	A-	A-	A+
MATH	7	301881	0	CCAACS	2	A-N	69149	0.4427	0.1156	0.4425	0.306	0.1354	0.0005	0.3824	-0.1343	0.3826	-0.1878	-0.1757	-0.0185	0.3901	0.0232	9.9011	1.1301	9.9012	1.1628	A-	A+	A+
MATH	7	615280	0	CCAACS	1	A-N	69137	0.5809	0.136	0.0925	0.1903	0.5805	0.0007	0.5566	-0.2658	-0.2468	-0.284	0.5569	-0.0272	-0.1825	0.0229	-9.8991	0.8722	-9.8992	0.8118	A+	A+	A+
MATH	7	629172	0	CCAACS	1	A-N	69165	0.6076	0.6074	0.2264	0.1127	0.0531	0.0003	0.521	0.5212	-0.2994	-0.2747	-0.1873	-0.0179	-0.5865	0.0232	-6.3191	0.9426	-6.2891	0.883	A-	A+	A+
MATH	7	656443	0	CCAACS	2	A-N	69157	0.505	0.172	0.1288	0.5048	0.194	0.0004	0.2762	-0.1754	-0.2242	0.2765	0.0088	-0.0201	0.1958	0.023	9.9013	1.2598	9.9014	1.3655	A+	A+	A+
MATH	7	709909	0	CCAACS	2	A-N	69169	0.6765	0.1615	0.6764	0.1018	0.06	0.0002	0.4312	-0.294	0.4314	-0.1905	-0.1506	-0.0156	-0.5626	0.0232	-4.989	0.9546	-5.0791	0.9059	A+	A-	A-
MATH	7	711510	0	CCAACS	1	A-N	69164	0.6388	0.1638	0.152	0.0454	0.6386	0.0003	0.561	-0.3157	-0.3072	-0.2026	0.5611	-0.0167	-0.6565	0.0233	-9.8992	0.8475	-9.8992	0.7612	A-	A+	A+
MATH	7	737103	0	CCAACS	2	A-N	68835	0.7326	0.0639	0.0882	0.7289	0.1139	0.0051	0.4301	-0.1976	-0.2234	0.4326	-0.2411	-0.0565	-0.9902	0.0241	-9.8991	0.8963	-6.7292	0.8453	A+	A-	A-
MATH	7	740969	0	CCAACS	2	A-N	68778	0.3404	0.1796	0.2505	0.2257	0.3384	0.0059	0.506	-0.1133	-0.3062	-0.1427	0.5064	-0.0489	1.0062	0.0246	1.171	1.0141	2.061	1.0385	A+	A+	A-
MATH	7	478164	0	CCAACS	2	A-R	69146	0.5041	0.1329	0.1289	0.5038	0.2338	0.0006	0.3617	-0.0842	-0.2171	0.3621	-0.1869	-0.0247	0.0517	0.0229	9.9011	1.1228	9.9012	1.1767	A-	A-	A-
MATH	7	496114	0	CCAACS	2	A-R	69144	0.6073	0.1302	0.607	0.2189	0.0433	0.0006	0.3946	-0.254	0.395	-0.1658	-0.1882	-0.0235	-0.4346	0.023	6.6111	1.0618	2.681	1.0486	A-	A+	A+
MATH	7	560206	0	CCAACS	1	A-R	69171	0.5195	0.1097	0.5193	0.207	0.1637	0.0002	0.5313	-0.1164	0.5313	-0.3535	-0.2315	-0.0136	0.1057	0.0229	-4.449	0.9579	-4.7491	0.9311	A-	A-	A-
MATH	7	617925	0	CCAACS	1	A-R	69163	0.4833	0.4832	0.1521	0.2376	0.1269	0.0003	0.5122	0.5124	-0.1621	-0.3127	-0.1934	-0.0201	-0.1894	0.0229	-0.649	0.994	-0.329	0.9946	A+	A+	A-
MATH	7	632831	0	CCAACS	2	A-R	69176	0.7176	0.7175	0.1521	0.091	0.0392	0.0001	0.4984	0.4986	-0.2693	-0.3061	-0.2037	-0.0131	-0.7751	0.0236	-9.8992	0.8228	-9.8992	0.7605	A+	A+	A+
MATH	7	709907	0	CCAACS	2	A-R	69164	0.4624	0.3569	0.4623	0.1404	0.0402	0.0003	0.3908	-0.2983	0.3909	-0.085	-0.113	-0.0155	0.1395	0.023	9.9011	1.1004	7.1711	1.1098	A-	A-	A-
MATH	7	711387	0	CCAACS	2	A-R	69161	0.5082	0.2473	0.1384	0.5081	0.106	0.0003	0.4503	-0.1988	-0.2589	0.4505	-0.1617	-0.0172	0.1617	0.023	4.011	1.0394	2.521	1.0376	A+	A+	A+
MATH	7	737106	0	CCAACS	2	A-R	69147	0.4999	0.1302	0.225	0.4996	0.1446	0.0005	0.5056	-0.2422	-0.2349	0.5059	-0.2069	-0.0239	0.1944	0.023	-3.349	0.9676	-2.759	0.9598	A-	A-	A-
MATH	7	740995	0	CCAACS	2	A-R	69154	0.6684	0.067	0.114	0.1504	0.6681	0.0004	0.5219	-0.1974	-0.2555	-0.3213	0.5223	-0.0249	-0.5908	0.0232	-9.8991	0.8595	-9.8992	0.7808	A-	A+	A+
MATH	7	490977	0	CCAACS	1	B-E	68826	0.3807	0.3787	0.2352	0.2588	0.1221	0.0052	0.515	0.5159	-0.1848	-0.2401	-0.1918	-0.0546	0.319	0.0231	-3.959	0.9608	-3.5591	0.9484	A-	A+	A+
MATH	7	706368	0	CCAACS	1	B-E	69157	0.4993	0.0668	0.2498	0.1839	0.4991	0.0004	0.5242	-0.2035	-0.293	-0.2172	0.5244	-0.0181	-0.4044	0.023	1.061	1.0097	0.291	1.005	A+	A+	A+
MATH	7	709904	0	CCAACS	2	B-E	69153	0.5308	0.5305	0.2682	0.1079	0.0929	0.0005	0.5546	0.5548	-0.2964	-0.2841	-0.1963	-0.0205	-0.0737	0.0229	-9.8991	0.9066	-9.7391	0.8569	A-	A+	A+
MATH	7	713655	0	CCAACS	2	B-E	69145	0.6338	0.6334	0.2039	0.1085	0.0537	0.0006	0.5431	0.5435	-0.3378	-0.2656	-0.1889	-0.0267	-0.5908	0.0232	-9.8991	0.8625	-9.8992	0.7898	A+	A+	A+
MATH	7	737107	0	CCAACS	2	B-E	69161	0.6352	0.1661	0.1587	0.6349	0.0399	0.0003	0.5405	-0.3219	-0.3206	0.5406	-0.1173	-0.0193	-0.7032	0.0234	-9.8991	0.8878	-9.8992	0.7816	C-	A-	A-
MATH	7	737108	0	CCAACS	2	B-E	69156	0.2763	0.2762	0.188	0.3305	0.2049	0.0004	0.3345	0.3346	-0.074	-0.2056	-0.0583	-0.0227	1.2183	0.0254	9.9011	1.1495	9.9013	1.2784	A-	A-	A-
MATH	7	741007	0	CCAACS	2	B-E	69140	0.5288	0.5285	0.1468	0.2202	0.1039	0.0007	0.5715	0.5718	-0.2519	-0.2913	-0.2454	-0.0263	0.0175	0.0229	-9.8991	0.8914	-9.8992	0.8399	A+	A+	A+
MATH	7	741009	0	CCAACS	2	B-E	69155	0.7104	0.1112	0.7101	0.139	0.0392	0.0004	0.4228	-0.2118	0.4233	-0.255	-0.1893	-0.0245	-0.7506	0.0235	-8.0291	0.9257	-8.1792	0.8364	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	741011	0	CCAACS	2	B-E	69167	0.6835	0.6833	0.1672	0.0859	0.0633	0.0003	0.488	0.4882	-0.2224	-0.2902	-0.2567	-0.0153	-0.6961	0.0234	-9.8991	0.8676	-9.8992	0.8059	A+	A-	A+
MATH	7	478170	0	CCAACS	2	C-G	69161	0.5111	0.0898	0.2429	0.1561	0.5109	0.0003	0.6104	-0.2805	-0.2562	-0.3161	0.6105	-0.0217	-0.227	0.0229	-9.8992	0.8477	-9.8992	0.8076	A-	A-	A-
MATH	7	567236	0	CCAACS	1	C-G	69153	0.5055	0.1448	0.2408	0.5053	0.1086	0.0005	0.4801	-0.2358	-0.2737	0.4804	-0.1275	-0.0228	-0.0773	0.0229	0.741	1.0069	-0.409	0.9935	A-	A+	A-
MATH	7	574900	0	CCAACS	1	C-G	69174	0.4939	0.2838	0.1351	0.4938	0.0871	0.0002	0.3193	-0.1602	-0.19	0.3193	-0.0793	-0.0104	-0.2727	0.0229	9.9012	1.2299	9.9014	1.3817	A+	A+	A+
MATH	7	709902	0	CCAACS	1	C-G	69158	0.5608	0.2697	0.1471	0.5606	0.0222	0.0004	0.5223	-0.3364	-0.2515	0.5225	-0.1391	-0.0227	-0.0891	0.0229	-8.7091	0.9208	-8.0991	0.8794	A-	A-	A-
MATH	7	741020	0	CCAACS	2	C-G	69167	0.4344	0.2637	0.4343	0.2258	0.0759	0.0003	0.4865	-0.2658	0.4866	-0.1438	-0.2405	-0.015	0.4822	0.0234	0.391	1.004	2.391	1.0364	A+	A-	A-
MATH	7	745998	0	CCAACS	2	C-G	69160	0.4408	0.1016	0.2244	0.2329	0.4407	0.0004	0.4888	-0.1788	-0.2282	-0.2203	0.4889	-0.0198	0.2446	0.0231	1.881	1.0186	0.721	1.0106	A-	A+	A+
MATH	7	303097	0	CCAACS	2	D-S	69157	0.4775	0.1814	0.4773	0.2451	0.0958	0.0004	0.3107	-0.0745	0.3109	-0.1641	-0.1889	-0.0203	0.2118	0.023	9.9012	1.2139	9.9012	1.24	A-	A+	A+
MATH	7	399256	0	CCAACS	2	D-S	69148	0.3862	0.386	0.252	0.2593	0.1021	0.0005	0.563	0.5631	-0.2224	-0.2679	-0.1971	-0.0212	0.3563	0.0232	-9.8991	0.8913	-8.7191	0.8765	A+	A+	A-
MATH	7	503040	0	CCAACS	2	D-S	69150	0.5265	0.1349	0.2029	0.5263	0.1354	0.0005	0.537	-0.2971	-0.2937	0.5373	-0.1404	-0.0261	0.0567	0.0229	-7.1091	0.9338	-6.4191	0.9069	A-	A-	A+
MATH	7	574904	0	CCAACS	2	D-S	69138	0.3543	0.0768	0.3772	0.1912	0.3541	0.0007	0.5133	-0.1969	-0.1715	-0.2779	0.5135	-0.0263	0.6274	0.0237	-4.049	0.9569	-3.169	0.9509	A-	A-	A-
MATH	7	657050	0	CCAACS	2	D-S	69148	0.4155	0.2232	0.1614	0.4153	0.1996	0.0005	0.3671	-0.0409	-0.2599	0.3673	-0.1699	-0.0207	0.5737	0.0235	9.9012	1.1836	9.9013	1.2584	A-	A-	A-
MATH	7	657051	0	CCAACS	2	D-S	69165	0.6676	0.0479	0.6674	0.2635	0.0209	0.0003	0.2352	-0.1918	0.2356	-0.1085	-0.1531	-0.0202	-0.796	0.0236	9.9012	1.1653	9.9015	1.5017	A+	A-	A-
MATH	7	713416	0	CCAACS	1	D-S	69155	0.5034	0.5032	0.2523	0.1861	0.058	0.0004	0.5564	0.5566	-0.2603	-0.3281	-0.1584	-0.0236	0.1338	0.023	-8.6391	0.9189	-7.6691	0.8907	A-	A-	A-
MATH	7	741022	0	CCAACS	2	D-S	69151	0.298	0.13	0.2979	0.3131	0.2585	0.0005	0.3039	-0.0119	0.3041	-0.164	-0.1336	-0.0244	1.0081	0.0247	9.9011	1.1462	9.9014	1.3727	A-	A-	A-
MATH	7	335227	1	CCAACS	2	A-N	6163	0.6137	0.0962	0.1331	0.6133	0.1568	0.0006	0.2051	-0.1744	-0.1852	0.206	0.041	-0.0353	-0.6146	0.0699	6.2612	1.1826	6.7614	1.4009	A+	A-	A-
MATH	7	655095	1	CCAACS	2	A-R	19769	0.3724	0.3721	0.1908	0.3043	0.132	0.0009	0.2748	0.2752	-0.1792	-0.09	-0.0604	-0.0262	0.379	0.071	6.1912	1.2208	5.9813	1.2963	A+	A+	A+
MATH	7	711390	1	CCAACS	2	A-R	19767	0.5861	0.1023	0.2265	0.5855	0.0847	0.001	0.465	-0.1801	-0.3016	0.4654	-0.1715	-0.0222	-0.7274	0.0683	-3.5491	0.9123	-3.6192	0.8232	A-	A-	A+
MATH	7	300463	1	CCAACS	2	B-E	6164	0.3856	0.139	0.3854	0.3259	0.1492	0.0005	0.0677	-0.1873	0.0682	0.0217	0.0619	-0.0267	0.7188	0.073	9.9014	1.3946	9.3415	1.5427	A-	A-	A-
MATH	7	652381	1	CCAACS	2	B-E	19772	0.2651	0.1905	0.3164	0.2274	0.2649	0.0008	0.1991	-0.0955	0.0623	-0.1881	0.1994	-0.0227	1.0189	0.0773	8.5114	1.3916	8.0516	1.5945	A+	A-	A+
MATH	7	741012	1	CCAACS	2	B-E	19767	0.3927	0.2165	0.3923	0.2513	0.1389	0.001	0.3196	-0.0894	0.32	-0.1941	-0.0993	-0.0281	0.3031	0.0705	4.8212	1.1647	4.1412	1.1941	A-	A-	A-
MATH	7	786914	1	CCAACS	2	C-G	19771	0.6272	0.2106	0.0658	0.0961	0.6267	0.0008	0.3776	-0.3025	-0.1256	-0.0941	0.378	-0.0223	-0.9213	0.0691	-0.769	0.9802	0.321	1.0172	A+	A-	A-
MATH	7	652384	1	CCAACS	2	D-S	19775	0.333	0.269	0.2544	0.3328	0.1433	0.0006	0.2378	-0.0846	-0.0742	0.2379	-0.1196	-0.0148	0.6094	0.0729	6.0612	1.2339	5.9813	1.3306	A-	A+	A+
MATH	7	786980	2	CCAACS	1	A-N	6182	0.6288	0.1687	0.1432	0.6282	0.059	0.001	0.531	-0.2743	-0.321	0.5318	-0.172	-0.0441	-0.5592	0.0693	-4.4591	0.8846	-3.1892	0.8138	A-	A-	A+
MATH	7	741005	2	CCAACS	2	A-R	6188	0.3531	0.2728	0.3531	0.1214	0.2527		0.3019	-0.2632	0.3019	-0.2104	0.0958		0.888	0.0732	5.4012	1.2028	5.8313	1.3397	B-	A-	A-
MATH	7	786963	2	CCAACS	2	B-E	6184	0.5073	0.5069	0.1789	0.1445	0.169	0.0006	0.6047	0.605	-0.2803	-0.2761	-0.2593	-0.0326	0.068	0.0687	-6.5692	0.8262	-5.2392	0.7693	A-	A-	A-
MATH	7	652383	2	CCAACS	2	C-G	6186	0.4909	0.4908	0.3634	0.1039	0.0415	0.0003	0.36	0.3602	-0.1772	-0.216	-0.1429	-0.0242	0.1954	0.069	5.3712	1.1632	3.5912	1.1761	A-	A-	A-
MATH	7	780295	2	CCAACS	2	C-G	6185	0.5565	0.1008	0.165	0.1774	0.5562	0.0005	0.5331	-0.2727	-0.3186	-0.1676	0.5334	-0.0287	-0.1673	0.0685	-4.8491	0.874	-3.8992	0.8117	A-	A-	A-
MATH	7	786925	2	CCAACS	2	D-S	6187	0.6234	0.1791	0.1464	0.6233	0.0511	0.0002	0.4882	-0.2328	-0.306	0.4883	-0.1771	-0.0155	-0.4744	0.069	-1.349	0.9641	-1.9091	0.8897	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	786983	3	CCAACS	2	A-N	6183	0.1659	0.2834	0.1723	0.378	0.1659	0.0005	0.1249	-0.0633	-0.2132	0.1301	0.1251	-0.0271	2.0253	0.0894	5.4013	1.3146	7.1619	1.8669	A+	A+	A+
MATH	7	709930	3	CCAACS	2	A-R	6184	0.2097	0.2915	0.2097	0.2801	0.2184	0.0003	0.1918	0.2307	0.1919	-0.2297	-0.1922	-0.0221	1.7298	0.0838	3.5312	1.1761	6.6116	1.6466	A-	A+	A+
MATH	7	786954	3	CCAACS	2	A-R	6183	0.6321	0.6317	0.1279	0.1368	0.1031	0.0005	0.4928	0.4932	-0.332	-0.2904	-0.0877	-0.0253	-0.6397	0.0695	-4.0491	0.8946	-2.3091	0.8594	A+	A+	A-
MATH	7	741010	3	CCAACS	2	B-E	6184	0.8102	0.053	0.8099	0.0834	0.0533	0.0003	0.4681	-0.1967	0.4685	-0.2976	-0.2538	-0.0221	-1.5285	0.0786	-3.3891	0.8735	-4.0093	0.6539	A+	A-	A-
MATH	7	713667	3	CCAACS	2	C-G	6182	0.2873	0.4111	0.2079	0.2871	0.0933	0.0006	0.2391	-0.0088	-0.1491	0.2395	-0.1469	-0.0318	1.2706	0.0771	6.1813	1.2694	7.7516	1.5765	A-	A+	A-
MATH	7	786921	3	CCAACS	2	D-S	6182	0.5243	0.0736	0.1296	0.5239	0.2722	0.0006	0.3964	-0.2109	-0.265	0.3969	-0.1199	-0.0297	0.0916	0.0686	3.6011	1.1055	2.4511	1.1178	A+	A-	A-
MATH	7	738203	4	CCAACS	2	A-N	6146	0.7185	0.0955	0.7183	0.1314	0.0545	0.0003	0.4947	-0.2455	0.495	-0.2996	-0.2153	-0.0238	-0.9786	0.0722	-4.6691	0.8606	-4.3093	0.7461	A-	A-	A-
MATH	7	786951	4	CCAACS	1	A-R	6142	0.6672	0.6666	0.1202	0.1376	0.0747	0.001	0.3625	0.3632	-0.1866	-0.202	-0.1523	-0.0312	-0.7339	0.0703	2.1511	1.0635	3.8112	1.2268	A+	A-	A-
MATH	7	786956	4	CCAACS	2	A-R	6144	0.783	0.1002	0.0735	0.7825	0.0431	0.0007	0.484	-0.2936	-0.2747	0.4849	-0.1931	-0.0374	-1.4415	0.078	-5.0292	0.8176	-5.0794	0.6296	A+	A-	A+
MATH	7	786910	4	CCAACS	2	B-E	6144	0.5158	0.209	0.5155	0.2071	0.0678	0.0007	0.4341	-0.0829	0.4346	-0.3379	-0.1814	-0.0379	0.103	0.0681	0.701	1.0194	0.141	1.0052	A-	A-	A+
MATH	7	780296	4	CCAACS	2	C-G	6144	0.2316	0.2315	0.5766	0.1547	0.0366	0.0007	-0.1193	-0.1189	0.276	-0.1546	-0.1585	-0.0224	1.6063	0.0803	9.9016	1.5749	9.9025	2.4885	A-	A+	A+
MATH	7	715814	4	CCAACS	2	D-S	6145	0.3899	0.2191	0.2588	0.1319	0.3897	0.0005	0.3957	-0.1629	-0.1263	-0.2059	0.396	-0.0335	0.6348	0.07	4.6611	1.1496	5.2813	1.2508	A-	A-	A-
MATH	7	780288	5	CCAACS	2	A-N	6146	0.6102	0.1272	0.113	0.1494	0.6098	0.0007	0.5569	-0.2389	-0.2927	-0.2772	0.5573	-0.0318	-0.4543	0.0699	-4.1091	0.8876	-3.3692	0.8185	A-	A+	A+
MATH	7	786948	5	CCAACS	2	A-R	6147	0.4999	0.1574	0.1603	0.1821	0.4997	0.0005	0.5445	-0.2497	-0.2881	-0.1947	0.5447	-0.0269	0.1135	0.0693	-4.0391	0.8853	-3.7192	0.8376	A-	A-	A-
MATH	7	786908	5	CCAACS	2	B-E	6149	0.76	0.0569	0.1272	0.7598	0.0559	0.0002	0.4415	-0.2222	-0.2821	0.4417	-0.1872	-0.0159	-1.2605	0.0762	-4.7792	0.8417	-3.9593	0.6863	A+	A-	A-
MATH	7	786962	5	CCAACS	2	B-E	6146	0.6219	0.6215	0.2237	0.1046	0.0496	0.0007	0.6046	0.6049	-0.3549	-0.3045	-0.2377	-0.0265	-0.4277	0.0698	-7.5492	0.8007	-6.1693	0.6899	A-	A-	A+
MATH	7	786911	5	CCAACS	2	C-G	6147	0.359	0.1504	0.3512	0.139	0.3589	0.0005	0.4874	-0.3135	-0.0436	-0.2902	0.4876	-0.0257	0.8489	0.0725	-0.639	0.9777	-1.0191	0.9477	A+	A-	A-
MATH	7	786922	5	CCAACS	2	D-S	6148	0.5662	0.1135	0.566	0.2343	0.0859	0.0003	0.5412	-0.2406	0.5414	-0.3076	-0.2189	-0.021	-0.1635	0.0693	-4.8591	0.8675	-4.8592	0.7751	A-	A-	A-
MATH	7	787154	6	CCAACS	1	A-N	6186	0.8801	0.0255	0.8799	0.0514	0.043	0.0002	0.3839	-0.1661	0.3843	-0.2197	-0.2464	-0.0183	-2.1024	0.0931	-3.3492	0.8166	-2.2793	0.7265	A+	A-	A-
MATH	7	786953	6	CCAACS	2	A-R	6187	0.5402	0.1366	0.1983	0.5402	0.1249		0.4631	-0.2644	-0.2042	0.4631	-0.1772		-0.057	0.0685	-2.1491	0.9412	-1.8391	0.9183	A+	A-	A-
MATH	7	786955	6	CCAACS	2	A-R	6186	0.7638	0.0444	0.0558	0.7637	0.1359	0.0002	0.4666	-0.2278	-0.2629	0.4667	-0.265	-0.0161	-1.2789	0.0766	-2.5991	0.9077	-2.0892	0.83	A+	A-	A-
MATH	7	786959	6	CCAACS	1	B-E	6187	0.6171	0.1744	0.0965	0.112	0.6171		0.5803	-0.3072	-0.254	-0.287	0.5803		-0.3983	0.0692	-6.7992	0.8219	-4.6592	0.7745	A+	A-	A-
MATH	7	786912	6	CCAACS	2	C-G	6185	0.4915	0.1156	0.1127	0.2801	0.4914	0.0003	0.4791	-0.2513	-0.2878	-0.1512	0.4793	-0.022	0.2128	0.0687	0.211	1.0059	-0.069	0.9963	A-	A-	A-
MATH	7	786927	6	CCAACS	2	D-S	6187	0.3533	0.2083	0.3533	0.2251	0.2132		0.0153	0.2757	0.0153	-0.2015	-0.0857		0.8221	0.0714	9.9016	1.5746	9.9018	1.8114	A+	A-	A-
MATH	7	780287	7	CCAACS	2	A-N	6176	0.7655	0.0635	0.7653	0.1059	0.0651	0.0003	0.4651	-0.2602	0.4655	-0.2537	-0.2244	-0.0233	-1.2234	0.0754	-3.5691	0.8818	-3.0792	0.772	A-	A-	A-
MATH	7	786950	7	CCAACS	2	A-R	6175	0.7043	0.7039	0.151	0.0557	0.0889	0.0005	0.4658	0.4661	-0.2314	-0.2429	-0.2591	-0.0221	-0.9105	0.0722	-4.4291	0.8698	-3.4492	0.7854	A+	A-	A-
MATH	7	713658	7	CCAACS	2	B-E	6173	0.698	0.1033	0.1088	0.6975	0.0897	0.0008	0.4686	-0.2084	-0.2652	0.4691	-0.2405	-0.028	-0.7943	0.0713	-3.4791	0.8996	-3.5192	0.795	A+	A-	A-
MATH	7	780293	7	CCAACS	2	B-E	6177	0.2075	0.2734	0.2009	0.3181	0.2075	0.0002	0.3519	-0.1932	-0.2517	0.0953	0.352	-0.016	1.7694	0.0829	-0.149	0.9924	3.7313	1.3427	A-	A-	A-
MATH	7	706371	7	CCAACS	2	C-G	6176	0.3038	0.2349	0.2504	0.3037	0.2107	0.0003	0.2563	-0.1699	-0.2459	0.2565	0.1495	-0.0195	1.2315	0.0755	5.3612	1.2145	6.1414	1.423	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	7	786913	7	CCAACS	2	C-G	6177	0.3165	0.0748	0.3164	0.4315	0.1771	0.0002	0.198	-0.1689	0.1981	-0.1815	0.111	-0.016	1.172	0.0749	7.9113	1.3201	7.5215	1.5121	A-	A-	A-
MATH	7	655925	8	CCAACS	2	A-N	6173	0.6169	0.0842	0.6167	0.136	0.1628	0.0003	0.4932	-0.2442	0.4935	-0.3236	-0.1645	-0.0275	-0.4063	0.0691	-4.2191	0.8872	-3.3192	0.8258	A+	A-	A-
MATH	7	786949	8	CCAACS	2	A-R	6170	0.735	0.7344	0.1493	0.07	0.0455	0.0008	0.4005	0.4015	-0.2193	-0.2306	-0.1885	-0.0361	-0.9757	0.0724	-1.6791	0.9491	-1.7591	0.8712	A+	A-	A-
MATH	7	787158	8	CCAACS	2	A-R	6174	0.3225	0.2057	0.2003	0.3224	0.2714	0.0002	0.2693	-0.2439	-0.0571	0.2694	-0.0097	-0.0146	0.9966	0.0737	6.4012	1.2453	6.9814	1.4383	A+	A+	A-
MATH	7	780294	8	CCAACS	2	B-E	6173	0.5056	0.5054	0.1409	0.2795	0.0738	0.0003	0.5192	0.5194	-0.2568	-0.2585	-0.2061	-0.0245	0.101	0.0688	-3.1191	0.9129	-2.8191	0.8744	A-	A-	A+
MATH	7	786915	8	CCAACS	2	C-G	6173	0.4957	0.4955	0.1268	0.1942	0.1832	0.0003	0.5205	0.5207	-0.2639	-0.2922	-0.1462	-0.023	0.165	0.069	-2.6291	0.9254	-2.2991	0.8977	A-	A-	A-
MATH	7	780297	8	CCAACS	2	D-S	6173	0.5697	0.086	0.187	0.5696	0.1571	0.0003	0.339	-0.1786	-0.1993	0.3394	-0.1093	-0.0275	-0.1044	0.0687	4.6611	1.1359	2.7111	1.1376	A+	A-	A-
MATH	7	787157	9	CCAACS	2	A-N	6183	0.771	0.7706	0.128	0.0731	0.0278	0.0005	0.416	0.4162	-0.2501	-0.2376	-0.1776	-0.0185	-1.3236	0.0771	-2.0891	0.9255	-2.3492	0.7949	B+	A-	A+
MATH	7	786952	9	CCAACS	2	A-R	6182	0.4523	0.225	0.215	0.1073	0.452	0.0006	0.4463	-0.1589	-0.1838	-0.2585	0.4464	-0.0115	0.2859	0.0695	0.501	1.0148	0.021	1.0002	A+	A+	A-
MATH	7	741006	9	CCAACS	2	B-E	6185	0.3843	0.124	0.2905	0.3843	0.2011	0.0002	0.2039	-0.1555	-0.1669	0.204	0.0698	-0.0156	0.6292	0.0709	9.9014	1.366	9.9015	1.5425	A+	A+	A+
MATH	7	786960	9	CCAACS	2	B-E	6184	0.6381	0.1051	0.6379	0.0721	0.1846	0.0003	0.4823	-0.2815	0.4826	-0.2242	-0.2246	-0.0289	-0.5855	0.0703	-2.5391	0.9291	-2.5491	0.8507	A+	A-	A+
MATH	7	786917	9	CCAACS	2	C-G	6182	0.5165	0.2426	0.1537	0.5162	0.0868	0.0006	0.493	-0.2623	-0.2143	0.4933	-0.1988	-0.0302	0.0444	0.0691	-2.6791	0.9245	-3.1191	0.8609	A-	A-	A-
MATH	7	746001	9	CCAACS	2	D-S	6185	0.7691	0.0317	0.1054	0.0938	0.769	0.0002	0.434	-0.1687	-0.2116	-0.3028	0.4342	-0.0156	-1.2849	0.0766	-3.4791	0.8808	-2.0592	0.8218	A+	A-	A-
MATH	8	415804	0	CCAACS	1	A-N	70119	0.5241	0.355	0.5239	0.0389	0.0818	0.0004	0.5453	-0.3315	0.5455	-0.163	-0.2987	-0.0213	-0.3688	0.0227	-9.8991	0.8944	-8.0091	0.8747	A+	A-	A-
MATH	8	480708	0	CCAACS	2	A-N	70114	0.3407	0.2667	0.2094	0.1829	0.3405	0.0005	0.5175	-0.0712	-0.3019	-0.234	0.5176	-0.0224	0.3597	0.0233	-9.4691	0.9072	-6.4791	0.9054	A-	A+	A+
MATH	8	654310	0	CCAACS	2	A-N	70121	0.7313	0.0888	0.7311	0.0989	0.0809	0.0004	0.5101	-0.2781	0.5104	-0.2699	-0.2429	-0.0204	-0.9304	0.0235	-9.8992	0.7923	-9.8993	0.7025	A+	A-	A+
MATH	8	747535	0	CCAACS	2	A-N	69850	0.5786	0.1552	0.5762	0.1261	0.1382	0.0042	0.5495	-0.3044	0.551	-0.2337	-0.2338	-0.0578	-0.4102	0.0228	-9.8991	0.873	-9.8992	0.8051	A-	A-	A-
MATH	8	269587	0	CCAACS	1	B-E	70114	0.6445	0.1057	0.1616	0.6442	0.088	0.0005	0.4976	-0.2138	-0.3219	0.4979	-0.1894	-0.0222	-0.7829	0.0232	-9.0991	0.9189	-8.9292	0.8318	A+	A-	A-
MATH	8	303008	0	CCAACS	1	B-E	70117	0.4731	0.4728	0.2407	0.1398	0.1462	0.0004	0.5625	0.5627	-0.1685	-0.3433	-0.253	-0.0231	-0.0035	0.0228	-9.5391	0.9142	-7.8291	0.8888	A+	A-	A+
MATH	8	412781	0	CCAACS	2	B-E	70126	0.5509	0.2065	0.1329	0.5507	0.1095	0.0003	0.4061	-0.1076	-0.2422	0.4063	-0.2432	-0.0197	-0.0895	0.0228	5.4311	1.0503	2.351	1.0355	A-	A+	A-
MATH	8	413598	0	CCAACS	2	B-E	70107	0.3682	0.368	0.2402	0.1793	0.2119	0.0006	0.3696	0.3698	-0.1211	-0.2952	-0.0315	-0.0203	0.4762	0.0235	9.9011	1.119	9.9012	1.1719	A+	A+	A+
MATH	8	479791	0	CCAACS	1	B-E	69888	0.5634	0.0603	0.0519	0.3228	0.5613	0.0037	0.3628	-0.2359	-0.23	-0.1515	0.3643	-0.0459	-0.5803	0.0229	9.9011	1.1229	9.9012	1.2106	A+	A+	A+
MATH	8	709953	0	CCAACS	2	B-E	70123	0.5612	0.561	0.1167	0.1981	0.1239	0.0003	0.439	0.4392	-0.3127	-0.1574	-0.1652	-0.0215	-0.3319	0.0227	0.651	1.0057	1.401	1.0227	A-	A-	A-
MATH	8	711403	0	CCAACS	2	B-E	70128	0.5672	0.1276	0.1942	0.567	0.111	0.0003	0.4739	-0.1889	-0.2872	0.474	-0.1847	-0.0145	-0.2973	0.0227	0.771	1.0068	0.371	1.0058	A+	A+	A+
MATH	8	711407	0	CCAACS	2	B-E	70112	0.5672	0.1101	0.567	0.2188	0.1036	0.0005	0.3946	-0.1372	0.3949	-0.246	-0.1657	-0.0238	-0.3572	0.0227	8.7611	1.0797	6.4411	1.1083	A-	A+	A+
MATH	8	736756	0	CCAACS	2	B-E	70118	0.413	0.0946	0.2079	0.4128	0.2842	0.0004	0.4579	-0.1873	-0.1583	0.4581	-0.235	-0.0247	0.4195	0.0234	1.741	1.018	3.111	1.0483	A-	A+	A-
MATH	8	736758	0	CCAACS	2	B-E	70129	0.7052	0.055	0.705	0.185	0.0547	0.0003	0.517	-0.1998	0.5172	-0.3668	-0.209	-0.019	-1.0428	0.0238	-9.8992	0.8103	-9.8993	0.7294	A+	A+	A-
MATH	8	747540	0	CCAACS	2	B-E	69811	0.5941	0.5912	0.1983	0.1436	0.062	0.0048	0.498	0.4994	-0.2834	-0.2233	-0.2093	-0.0541	-0.4309	0.0228	-6.9391	0.9397	-6.5391	0.8943	A-	A+	A+
MATH	8	747544	0	CCAACS	2	B-E	70107	0.586	0.1915	0.0949	0.5857	0.1273	0.0006	0.4629	-0.2172	-0.2359	0.4632	-0.2191	-0.0234	-0.3743	0.0227	-4.059	0.9644	-5.9791	0.9052	A-	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	747546	0	CCAACS	2	B-E	70118	0.477	0.4768	0.1328	0.2844	0.1056	0.0004	0.4884	0.4885	-0.2852	-0.1757	-0.22	-0.0166	0.1043	0.0229	-0.249	0.9976	-0.479	0.993	A-	A+	A+
MATH	8	399394	0	CCAACS	1	B-F	70128	0.4499	0.1768	0.1474	0.2258	0.4498	0.0003	0.5057	-0.2558	-0.1621	-0.2304	0.5058	-0.0161	0.3392	0.0232	-0.089	0.9991	-0.449	0.9932	A+	A-	A-
MATH	8	404826	0	CCAACS	1	B-F	70125	0.5466	0.1263	0.5464	0.1536	0.1734	0.0003	0.4485	-0.226	0.4487	-0.2564	-0.1467	-0.0166	-0.5092	0.0228	1.291	1.0115	0.341	1.0058	A+	A-	A+
MATH	8	404827	0	CCAACS	2	B-F	70106	0.5945	0.5942	0.1284	0.1263	0.1506	0.0006	0.5028	0.5031	-0.192	-0.2815	-0.2479	-0.0271	-0.9578	0.0235	2.851	1.0275	-1.099	0.9757	A+	A+	A+
MATH	8	488716	0	CCAACS	2	B-F	70121	0.3697	0.2559	0.3696	0.2093	0.1648	0.0004	0.373	-0.1283	0.3731	-0.191	-0.1242	-0.0193	0.785	0.0243	9.9012	1.1533	9.9013	1.307	A-	A-	A+
MATH	8	495725	0	CCAACS	2	B-F	70128	0.6219	0.2067	0.6217	0.0955	0.0758	0.0003	0.4589	-0.1819	0.4591	-0.3164	-0.2103	-0.0196	-0.6182	0.0229	-2.289	0.9796	-2.7791	0.9497	A-	A+	A+
MATH	8	574471	0	CCAACS	2	B-F	70107	0.5021	0.1724	0.1731	0.5018	0.1522	0.0006	0.3637	-0.1429	-0.2687	0.364	-0.0717	-0.026	0.065	0.0229	9.9011	1.1292	9.9012	1.1709	A-	A-	A-
MATH	8	713419	0	CCAACS	2	B-F	70132	0.716	0.0385	0.0585	0.1869	0.7158	0.0002	0.488	-0.2017	-0.2576	-0.3095	0.4881	-0.0128	-1.3619	0.0248	-6.4191	0.9296	-5.1291	0.8639	A+	A-	A+
MATH	8	713671	0	CCAACS	1	B-F	70110	0.3785	0.1522	0.3783	0.3729	0.0961	0.0005	0.2977	-0.1476	0.298	-0.098	-0.1479	-0.0236	0.3323	0.0232	9.9012	1.1768	9.9012	1.2483	A+	A+	A+
MATH	8	713672	0	CCAACS	1	B-F	70127	0.6056	0.2294	0.0958	0.0691	0.6054	0.0003	0.4154	-0.1891	-0.2533	-0.1922	0.4157	-0.0227	-0.6559	0.023	3.161	1.0286	2.7611	1.0523	A-	A+	A-
MATH	8	713674	0	CCAACS	2	B-F	70128	0.5847	0.1031	0.1827	0.5845	0.1294	0.0003	0.4393	-0.1855	-0.2247	0.4395	-0.2176	-0.0178	-0.5465	0.0229	0.461	1.004	-2.509	0.9561	A-	A+	A+
MATH	8	404815	0	CCAACS	2	C-G	70121	0.3246	0.3245	0.3871	0.1655	0.1226	0.0004	0.4039	0.4041	-0.022	-0.2198	-0.2938	-0.0218	0.3251	0.0232	3.841	1.0389	5.1911	1.0795	A-	A+	A+
MATH	8	569269	0	CCAACS	1	C-G	70123	0.5358	0.5356	0.147	0.1713	0.1457	0.0003	0.3847	0.3848	-0.2102	-0.1611	-0.1601	-0.0153	-0.5522	0.0229	9.9011	1.121	9.9012	1.2164	A+	A+	A+
MATH	8	618329	0	CCAACS	2	C-G	70119	0.6234	0.1461	0.1497	0.6232	0.0806	0.0004	0.4224	-0.1421	-0.2859	0.4227	-0.1917	-0.0223	-0.617	0.0229	-0.899	0.992	0.191	1.0034	A+	A+	A+
MATH	8	713423	0	CCAACS	2	C-G	70107	0.5722	0.5718	0.1735	0.2191	0.0349	0.0006	0.4651	0.4654	-0.3347	-0.1707	-0.1762	-0.025	-0.6943	0.023	2.781	1.0253	1.541	1.0295	A+	A+	A-
MATH	8	715819	0	CCAACS	1	C-G	70115	0.5698	0.1378	0.1849	0.1073	0.5695	0.0005	0.6111	-0.3136	-0.2909	-0.2621	0.6113	-0.024	-0.3581	0.0227	-9.8992	0.8121	-9.8992	0.8044	A+	A-	A-
MATH	8	747559	0	CCAACS	2	C-G	70111	0.4306	0.1288	0.4303	0.0994	0.3409	0.0005	0.3486	-0.1899	0.3488	-0.2154	-0.0931	-0.0237	-0.0656	0.0228	9.9012	1.179	9.9012	1.1952	A+	A+	A+
MATH	8	503520	0	CCAACS	2	D-S	70111	0.4994	0.4991	0.1456	0.1529	0.2018	0.0005	0.455	0.4553	-0.2755	-0.2461	-0.1032	-0.021	-0.1121	0.0227	2.111	1.0192	0.401	1.0059	A-	A+	A-
MATH	8	623657	0	CCAACS	2	D-S	70125	0.6083	0.0526	0.2322	0.1067	0.6082	0.0003	0.5398	-0.2333	-0.2638	-0.3231	0.5399	-0.0181	-0.6182	0.0229	-9.8991	0.8784	-9.8992	0.8185	A-	A-	A-
MATH	8	625331	0	CCAACS	2	D-S	70105	0.4964	0.1345	0.2031	0.1657	0.4961	0.0006	0.5744	-0.191	-0.3208	-0.2488	0.5746	-0.0226	-0.0254	0.0228	-9.8991	0.9062	-8.9791	0.8727	A-	A+	A-
MATH	8	661387	0	CCAACS	2	D-S	70119	0.6965	0.1293	0.6962	0.1303	0.0439	0.0004	0.473	-0.2966	0.4732	-0.2268	-0.2019	-0.021	-1.0587	0.0238	-9.8991	0.8967	-8.7692	0.8086	A+	A-	A+
MATH	8	715821	0	CCAACS	1	D-S	70113	0.4819	0.0945	0.3704	0.053	0.4817	0.0005	0.4522	-0.3197	-0.176	-0.21	0.4525	-0.0242	-0.3888	0.0227	7.2511	1.0656	9.9012	1.193	A+	A-	A-
MATH	8	740992	0	CCAACS	2	D-S	70101	0.4488	0.1596	0.4485	0.1867	0.2046	0.0007	0.333	-0.1158	0.3333	-0.2444	-0.0683	-0.0216	0.2725	0.0231	9.9012	1.1932	9.9013	1.2629	A-	A+	A+
MATH	8	740993	0	CCAACS	2	D-S	70124	0.5859	0.5857	0.2135	0.1362	0.0643	0.0003	0.5691	0.5693	-0.3289	-0.274	-0.2094	-0.0173	-0.4361	0.0228	-9.8991	0.8637	-9.8992	0.7986	A-	A-	A-
MATH	8	791457	1	CCAACS	2	A-N	19491	0.4602	0.1483	0.4597	0.1477	0.2433	0.0009	0.4223	-0.1729	0.4227	-0.2483	-0.1405	-0.0257	-0.1928	0.0681	1.741	1.0476	1.1911	1.0541	A-	A+	A+
MATH	8	265474	1	CCAACS	1	B-E	6310	0.5895	0.5893	0.2123	0.1372	0.0608	0.0005	0.4886	0.4887	-0.265	-0.2607	-0.1759	-0.0155	-0.6222	0.0689	-1.199	0.9682	-1.1991	0.9307	A-	A+	A+
MATH	8	651116	1	CCAACS	2	B-E	19486	0.2754	0.2338	0.2262	0.2637	0.2751	0.0012	0.2519	-0.1111	-0.0792	-0.0715	0.2523	-0.0292	0.8149	0.0757	5.0212	1.2087	5.9414	1.3901	A+	A+	A+
MATH	8	780306	1	CCAACS	2	B-F	19491	0.3887	0.3884	0.192	0.2147	0.204	0.0009	0.4439	0.4442	-0.1257	-0.0922	-0.3187	-0.0234	0.159	0.0697	-0.499	0.9847	-0.219	0.9893	A-	A-	A-
MATH	8	791738	1	CCAACS	2	B-F	19495	0.415	0.1289	0.1604	0.4147	0.2953	0.0007	0.3281	-0.2128	-0.2101	0.3285	-0.0279	-0.0272	0.0239	0.0689	0.981	1.0284	1.041	1.0464	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	265209	1	CCAACS	2	C-G	6308	0.3015	0.2034	0.3236	0.3013	0.1709	0.0008	0.4019	-0.2454	-0.0782	0.4021	-0.128	-0.0322	0.9924	0.0762	2.1911	1.087	3.9913	1.2594	A-	A-	A-
MATH	8	780308	1	CCAACS	1	C-G	19492	0.4131	0.2358	0.1498	0.4127	0.2008	0.0009	0.4013	-0.1883	-0.1257	0.4015	-0.1804	-0.0215	0.0503	0.069	0.991	1.029	0.771	1.0343	A-	A-	A+
MATH	8	740991	1	CCAACS	2	D-S	19498	0.3854	0.3852	0.1861	0.3027	0.1254	0.0006	0.5114	0.5116	-0.1116	-0.2819	-0.2281	-0.0201	0.1361	0.0695	0.271	1.008	-0.139	0.9931	A-	A-	A+
MATH	8	740955	2	CCAACS	2	A-N	6312	0.6001	0.5997	0.1165	0.1586	0.1244	0.0008	0.4247	0.4255	-0.2734	-0.1605	-0.1848	-0.0395	-0.4928	0.0683	-0.799	0.9785	-1.0591	0.9497	A+	A-	A-
MATH	8	655990	2	CCAACS	2	B-E	6314	0.3754	0.2143	0.3058	0.3752	0.1042	0.0005	0.3306	-0.1512	-0.1458	0.3308	-0.1002	-0.0153	0.6209	0.0707	2.9111	1.0938	3.3412	1.1636	A+	A-	A+
MATH	8	791706	2	CCAACS	2	B-E	6311	0.6902	0.0733	0.6896	0.1007	0.1355	0.0009	0.5175	-0.2443	0.5183	-0.3256	-0.225	-0.0379	-0.9976	0.0711	-6.0592	0.829	-3.2092	0.8109	A+	A-	A-
MATH	8	791717	2	CCAACS	2	B-F	6314	0.5486	0.146	0.5484	0.1684	0.1368	0.0005	0.4552	-0.2023	0.4553	-0.2772	-0.1488	-0.0122	-0.2036	0.0678	-1.559	0.9591	-1.8891	0.9211	A+	A-	A-
MATH	8	747555	2	CCAACS	1	C-G	6313	0.3162	0.316	0.1323	0.1558	0.3953	0.0006	0.314	0.3143	-0.2647	-0.3039	0.1113	-0.0247	0.9368	0.0735	2.9311	1.1064	4.1212	1.2428	A-	A-	A-
MATH	8	792094	2	CCAACS	2	D-S	6311	0.4408	0.4404	0.2894	0.1656	0.1037	0.0009	0.2957	0.2962	0.0367	-0.2597	-0.2173	-0.0287	0.1622	0.0683	6.6412	1.1956	7.5913	1.3425	A-	A-	A-
MATH	8	780300	3	CCAACS	1	A-N	6307	0.7772	0.0384	0.127	0.7772	0.0574		0.5289	-0.2297	-0.3761	0.5289	-0.218		-1.4386	0.0749	-7.0392	0.7762	-4.7794	0.6359	A-	A-	A-
MATH	8	655105	3	CCAACS	2	B-E	6304	0.3807	0.3805	0.1685	0.3314	0.1191	0.0005	0.2726	0.2729	-0.0591	-0.1693	-0.0929	-0.0281	0.6661	0.0723	4.9112	1.1761	5.4213	1.3028	A+	A-	A+
MATH	8	791697	3	CCAACS	2	B-E	6303	0.6168	0.1405	0.1261	0.6165	0.1164	0.0006	0.3219	-0.0716	-0.2227	0.3226	-0.1787	-0.0307	-0.6171	0.0686	1.861	1.0495	1.6311	1.0916	A+	A+	A-
MATH	8	791729	3	CCAACS	2	B-F	6304	0.2663	0.3647	0.2662	0.2454	0.1232	0.0005	0.2379	0.0534	0.2382	-0.2224	-0.1054	-0.0281	1.1336	0.0775	3.5312	1.1508	5.7314	1.4193	A-	A-	A-
MATH	8	655992	3	CCAACS	2	C-G	6306	0.3923	0.3923	0.2282	0.2575	0.1219	0.0002	0.3509	0.351	-0.1356	-0.1492	-0.1498	-0.018	0.5466	0.0713	4.9212	1.1688	5.4813	1.2909	A+	A-	A-
MATH	8	780299	3	CCAACS	2	D-S	6306	0.6243	0.1389	0.6242	0.1861	0.0506	0.0002	0.4604	-0.1992	0.4606	-0.2894	-0.1884	-0.0212	-0.6362	0.0686	-2.3191	0.9397	-1.6291	0.9111	A+	A-	A-
MATH	8	780310	4	CCAACS	2	A-N	6319	0.5813	0.1149	0.1993	0.5811	0.1044	0.0003	0.4197	-0.1778	-0.28	0.4199	-0.1254	-0.0144	-0.4027	0.0686	0.681	1.0183	0.271	1.0139	A+	A+	A-
MATH	8	711401	4	CCAACS	2	B-E	6315	0.5129	0.5124	0.1691	0.1805	0.137	0.0009	0.402	0.4027	-0.2587	-0.0308	-0.2655	-0.0389	-0.0569	0.0686	2.3311	1.0662	3.1512	1.159	A+	A-	A-
MATH	8	780302	4	CCAACS	2	B-E	6319	0.279	0.1457	0.2384	0.3367	0.2789	0.0003	0.3369	-0.1725	-0.1823	-0.0259	0.337	-0.0212	1.12	0.0766	3.4011	1.1379	4.3013	1.302	A-	A-	A+
MATH	8	791743	4	CCAACS	2	B-F	6316	0.5399	0.1283	0.1354	0.196	0.5395	0.0008	0.507	-0.3292	-0.2396	-0.1506	0.5075	-0.0392	-0.2006	0.0685	-1.709	0.9535	-2.0591	0.8993	A-	A-	A-
MATH	8	792082	4	CCAACS	2	C-G	6317	0.5677	0.1372	0.2161	0.5673	0.0788	0.0006	0.4848	-0.1965	-0.3046	0.4853	-0.1728	-0.0364	-0.2605	0.0685	-2.6691	0.9284	-2.6791	0.8682	A+	A-	A-
MATH	8	792089	4	CCAACS	2	C-G	6319	0.5911	0.2034	0.5909	0.1272	0.0782	0.0003	0.4194	-0.3123	0.4195	-0.1393	-0.1265	-0.0107	-0.4215	0.0687	-1.409	0.9619	-1.4491	0.9218	A+	A-	A+
MATH	8	740981	5	CCAACS	2	B-E	6325	0.4188	0.2385	0.4187	0.2224	0.1201	0.0003	0.3001	-0.1102	0.3	-0.1778	-0.0832	-0.0048	0.4097	0.0694	5.5612	1.1749	4.7612	1.2202	A+	A+	A-
MATH	8	780301	5	CCAACS	1	B-E	6326	0.4431	0.443	0.1214	0.2221	0.2134	0.0002	0.3761	0.3762	-0.2158	-0.1288	-0.1528	-0.0227	0.3026	0.0689	1.7711	1.0518	2.0411	1.0883	A-	A-	A-
MATH	8	655974	5	CCAACS	2	B-F	6324	0.2258	0.1424	0.2828	0.3487	0.2257	0.0005	0.1941	-0.155	-0.0085	-0.0474	0.1943	-0.0288	1.4578	0.0804	5.8113	1.2774	6.4415	1.5475	A-	A+	A+
MATH	8	747556	5	CCAACS	2	C-G	6324	0.6804	0.6801	0.0896	0.1746	0.0552	0.0005	0.4694	0.4701	-0.2276	-0.2678	-0.2268	-0.0368	-0.9275	0.0706	-4.7191	0.8702	-2.8892	0.8259	A-	A-	A-
MATH	8	792091	5	CCAACS	2	C-G	6325	0.604	0.1141	0.2162	0.6038	0.0656	0.0003	0.5025	-0.2586	-0.2711	0.5027	-0.2087	-0.0238	-0.5265	0.0684	-5.3191	0.8663	-3.3592	0.8375	A+	A-	A-
MATH	8	792093	5	CCAACS	1	D-S	6325	0.5162	0.0921	0.0884	0.516	0.3031	0.0003	0.39	-0.2408	-0.1806	0.3904	-0.1602	-0.0306	-0.0799	0.0678	3.1111	1.0849	3.1111	1.139	A+	A-	A-
MATH	8	791456	6	CCAACS	2	A-N	6313	0.6555	0.1389	0.1449	0.6554	0.0607	0.0002	0.4393	-0.2424	-0.2896	0.4395	-0.0957	-0.017	-0.7943	0.0701	-2.0591	0.9424	-1.2491	0.9263	A+	A-	A-
MATH	8	662576	6	CCAACS	2	B-E	6309	0.1645	0.3793	0.2271	0.2284	0.1644	0.0008	0.2697	-0.0571	-0.1395	-0.0316	0.2698	-0.0197	2.0019	0.091	0.031	1.0004	4.5515	1.5426	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	8	791702	6	CCAACS	2	B-E	6309	0.5655	0.5651	0.1677	0.1487	0.1177	0.0008	0.509	0.5094	-0.2538	-0.286	-0.171	-0.0284	-0.3483	0.0685	-4.3591	0.8856	-3.8892	0.825	A+	A+	A+
MATH	8	791714	6	CCAACS	1	B-F	6311	0.6037	0.192	0.1055	0.6034	0.0987	0.0005	0.4256	-0.2011	-0.2181	0.4259	-0.2068	-0.0232	-0.5114	0.0688	-0.549	0.9847	-1.1291	0.9425	A+	A-	A-
MATH	8	791753	6	CCAACS	2	B-F	6313	0.3578	0.2895	0.3578	0.1147	0.2379	0.0002	0.4683	-0.2944	0.4683	-0.1699	-0.0861	-0.0159	0.6965	0.0719	-0.759	0.9745	0.921	1.0456	A-	A-	A+
MATH	8	780307	6	CCAACS	2	C-G	6312	0.5303	0.0995	0.1452	0.2249	0.5301	0.0003	0.4895	-0.2316	-0.1882	-0.2598	0.4897	-0.0179	-0.1666	0.0684	-2.4591	0.9338	-2.2191	0.903	A-	A-	A-
MATH	8	791460	7	CCAACS	2	A-N	6364	0.7395	0.7388	0.0975	0.0917	0.0711	0.0009	0.512	0.5129	-0.2673	-0.3067	-0.2192	-0.0385	-1.2069	0.0736	-7.2992	0.7799	-3.8093	0.7297	A+	A-	A+
MATH	8	655970	7	CCAACS	2	B-E	6366	0.3308	0.3306	0.1989	0.2893	0.1805	0.0006	0.238	0.2385	-0.1077	-0.1587	0.0095	-0.0362	0.8956	0.0735	4.8712	1.1818	5.9814	1.3659	A-	A-	A+
MATH	8	713673	7	CCAACS	2	B-F	6365	0.5937	0.1735	0.0818	0.1507	0.5932	0.0008	0.5621	-0.2816	-0.2858	-0.253	0.5626	-0.0311	-0.5976	0.0692	-4.6091	0.878	-3.1792	0.8331	A-	A-	A-
MATH	8	740990	7	CCAACS	2	C-G	6366	0.3413	0.1551	0.2256	0.2776	0.3411	0.0006	0.4921	-0.225	-0.2291	-0.1239	0.4922	-0.0261	0.8307	0.0729	-2.5091	0.9155	-0.509	0.9721	A-	A-	A-
MATH	8	792084	7	CCAACS	2	C-G	6367	0.5161	0.5159	0.1281	0.1593	0.1962	0.0005	0.4656	0.4659	-0.2083	-0.2272	-0.2001	-0.0287	-0.1479	0.0684	0.741	1.02	0.141	1.0057	A-	A-	A-
MATH	8	792097	7	CCAACS	2	D-S	6365	0.4635	0.2058	0.179	0.1513	0.4631	0.0008	0.4663	-0.1407	-0.221	-0.2514	0.4668	-0.0382	0.2132	0.0691	0.901	1.0259	0.951	1.0419	B-	A-	A-
MATH	8	791458	8	CCAACS	2	A-N	6370	0.5502	0.0386	0.5501	0.2929	0.1182	0.0002	0.4753	-0.2	0.4755	-0.3936	-0.0578	-0.0178	-0.2553	0.0684	-0.649	0.982	-1.2091	0.943	A+	A-	A-
MATH	8	780304	8	CCAACS	2	B-E	6364	0.4738	0.4732	0.1639	0.2252	0.1366	0.0011	0.485	0.4855	-0.221	-0.2732	-0.132	-0.0343	0.0901	0.0689	-1.709	0.951	-1.3991	0.9383	A+	A+	A-
MATH	8	791686	8	CCAACS	2	B-E	6369	0.5161	0.2237	0.1482	0.1119	0.5159	0.0003	0.467	-0.1198	-0.3034	-0.2388	0.4673	-0.0297	-0.1675	0.0684	-0.139	0.9959	-0.109	0.9944	A-	A-	A-
MATH	8	791699	8	CCAACS	2	B-E	6366	0.5594	0.1614	0.5589	0.1593	0.1196	0.0008	0.5207	-0.1406	0.5213	-0.362	-0.2265	-0.0384	-0.3657	0.0684	-3.0791	0.9187	-2.8191	0.8665	A-	A+	A-
MATH	8	791734	8	CCAACS	2	B-F	6368	0.3153	0.2679	0.2808	0.3152	0.1356	0.0005	0.1946	-0.0741	-0.0974	0.195	-0.0388	-0.0321	0.9264	0.0745	6.9813	1.278	8.1615	1.5439	A-	A-	A-
MATH	8	792092	8	CCAACS	2	D-S	6368	0.6427	0.0976	0.1825	0.0769	0.6424	0.0005	0.4701	-0.2939	-0.1959	-0.2334	0.4701	-0.0095	-0.7544	0.0696	-3.2591	0.9127	-2.0791	0.8802	A+	A+	A-
MATH	8	791476	9	CCAACS	1	B-E	6309	0.7355	0.0461	0.0871	0.7352	0.1312	0.0003	0.4156	-0.2374	-0.2316	0.4158	-0.2017	-0.0156	-1.2481	0.0736	-2.8191	0.9118	-0.7791	0.9357	A+	A-	A-
MATH	8	791690	9	CCAACS	2	B-E	6305	0.5079	0.1808	0.5074	0.1375	0.1733	0.001	0.2993	-0.1464	0.2999	-0.2272	-0.0381	-0.0284	-0.0542	0.0683	4.0711	1.1143	3.0211	1.1427	A-	A+	A-
MATH	8	791704	9	CCAACS	1	B-E	6309	0.6833	0.0938	0.6831	0.1657	0.057	0.0003	0.5162	-0.2008	0.5164	-0.3401	-0.2369	-0.0172	-0.8564	0.0701	-5.5991	0.8535	-4.3893	0.7394	A+	A-	A-
MATH	8	655991	9	CCAACS	2	B-F	6309	0.2804	0.1185	0.4318	0.1691	0.2803	0.0003	0.2216	-0.2152	0.0887	-0.1967	0.2217	-0.0133	1.0867	0.076	5.7112	1.2386	6.9415	1.4765	A-	A-	A+
MATH	8	706380	9	CCAACS	1	B-F	6307	0.5694	0.1611	0.1547	0.1146	0.569	0.0006	0.5051	-0.2545	-0.2327	-0.2257	0.5054	-0.0275	-0.3518	0.0682	-2.3391	0.9399	-2.3491	0.8859	A+	A-	A-
MATH	8	663626	9	CCAACS	2	D-S	6307	0.5186	0.1703	0.5183	0.1592	0.1515	0.0006	0.3271	-0.1414	0.3275	-0.2447	-0.0568	-0.0253	-0.1017	0.0682	4.2711	1.1191	2.9811	1.1427	A-	A-	A-
SCIENCE	5	780648	1	STEELS	2	1	31594	0.6905	0.1293	0.69	0.0838	0.0962	0.0007	0.4848	-0.2306	0.4852	-0.2906	-0.2232	-0.0257	-0.9089	0.0597	-4.9391	0.8809	-5.2092	0.7977	A+	A+	A+
SCIENCE	5	785402	1	STEELS	2	1	31588	0.5032	0.1398	0.5027	0.2666	0.09	0.0009	0.421	-0.1543	0.4215	-0.1827	-0.2637	-0.0337	0.0171	0.0563	-0.539	0.9886	-0.609	0.9834	A-	A+	A+
SCIENCE	5	800300	1	STEELS	2	1	17816	0.4498	0.0979	0.4496	0.0921	0.3599	0.0004	0.3118	-0.1961	0.3121	-0.3037	-0.0178	-0.0316	0.5291	0.05	3.5811	1.0634	3.4611	1.0851	A-	A+	A+
SCIENCE	5	800313	1	STEELS	2	1	31599	0.4045	0.1201	0.1957	0.2794	0.4043	0.0005	0.4078	-0.2603	-0.1576	-0.117	0.408	-0.0243	0.4916	0.0574	0.131	1.0028	0.591	1.0178	A+	A-	A-
SCIENCE	5	800319	1	STEELS	2	1	41004	0.3122	0.3343	0.1871	0.166	0.3121	0.0005	0.3212	-0.0107	-0.2567	-0.1163	0.3214	-0.0229	1.0751	0.0423	4.2611	1.0799	5.4012	1.1603	A-	A+	A+
SCIENCE	5	800322	1	STEELS	2	1	41037	0.5408	0.136	0.1119	0.5405	0.2111	0.0005	0.4028	-0.1755	-0.2311	0.4031	-0.165	-0.0219	-0.1215	0.0399	0.921	1.0136	0.801	1.0156	A-	A-	A-
SCIENCE	5	800467	1	STEELS	2	1	59876	0.3471	0.1135	0.2951	0.2438	0.3468	0.0008	0.1317	-0.0193	0.017	-0.1484	0.1322	-0.0284	0.8754	0.0291	9.9012	1.2202	9.9013	1.3258	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	800468	1	STEELS	2	1	59885	0.3827	0.3824	0.2332	0.2208	0.1629	0.0007	0.3699	0.3701	-0.1847	-0.167	-0.0864	-0.0237	0.694	0.0286	2.681	1.0294	5.2511	1.0831	A-	A+	A+
SCIENCE	5	780590	1	STEELS	2	2	17817	0.6563	0.0686	0.0902	0.6561	0.1848	0.0003	0.4385	-0.2708	-0.3087	0.4389	-0.1315	-0.031	-0.4696	0.0524	-3.2091	0.9308	-3.0391	0.9075	A+	A-	A-
SCIENCE	5	780596	1	STEELS	2	2	31597	0.4841	0.0604	0.2793	0.4838	0.1759	0.0006	0.1218	-0.0962	0.0163	0.1223	-0.1179	-0.0243	0.1071	0.0564	9.9013	1.346	9.9014	1.4133	A-	A+	A+
SCIENCE	5	780597	1	STEELS	2	2	41003	0.712	0.7116	0.1045	0.1113	0.072	0.0006	0.5775	0.5778	-0.2995	-0.3386	-0.2437	-0.0265	-0.9473	0.0442	-9.8992	0.7875	-9.8993	0.6582	A+	A+	A+
SCIENCE	5	780598	1	STEELS	2	2	31594	0.4113	0.0838	0.2091	0.2955	0.411	0.0007	0.4786	-0.2535	-0.2124	-0.1717	0.4788	-0.0246	0.4587	0.0573	-2.2991	0.9488	-1.9991	0.9412	A+	A+	A-
SCIENCE	5	784956	1	STEELS	2	2	41000	0.4832	0.2561	0.1115	0.1489	0.4829	0.0006	0.4494	-0.0869	-0.2883	-0.2679	0.4497	-0.0273	0.207	0.0402	-1.039	0.984	-0.589	0.988	A+	A+	A+
SCIENCE	5	784959	1	STEELS	2	2	41041	0.5943	0.594	0.1038	0.2052	0.0965	0.0005	0.4243	0.4247	-0.2252	-0.1906	-0.2107	-0.0293	-0.369	0.0405	-0.429	0.9932	-0.239	0.9945	A-	A+	A-
SCIENCE	5	784961	1	STEELS	2	2	41010	0.379	0.0432	0.4975	0.3789	0.08	0.0004	0.0683	-0.228	0.1368	0.0687	-0.2022	-0.0256	0.7204	0.0409	9.9014	1.3819	9.9015	1.4943	A+	A-	A-
SCIENCE	5	784968	1	STEELS	2	2	31598	0.3445	0.175	0.211	0.2691	0.3443	0.0006	0.389	-0.1752	-0.2315	-0.0526	0.3892	-0.0216	0.797	0.0592	1.461	1.0372	2.6811	1.0999	A+	A+	A+
SCIENCE	5	795213	1	STEELS	3	2	31600	0.5806	0.0956	0.1289	0.1948	0.5803	0.0005	0.5519	-0.2242	-0.2898	-0.2748	0.5522	-0.0276	-0.3538	0.0567	-8.0792	0.8388	-7.3792	0.7955	A+	A-	A+
SCIENCE	5	795316	1	STEELS	2	2	41020	0.4135	0.3025	0.1085	0.4134	0.1754	0.0001	0.3101	-0.1222	-0.1911	0.3102	-0.0974	-0.0113	0.5463	0.0405	6.5011	1.1062	7.1212	1.1602	A-	A+	A+
SCIENCE	5	795322	1	STEELS	2	2	31606	0.5483	0.5481	0.0987	0.2906	0.0623	0.0003	0.2346	0.2346	-0.1296	-0.1031	-0.129	-0.0048	-0.1989	0.0564	9.3812	1.2077	8.4013	1.2536	A+	A+	A+
SCIENCE	5	800536	1	STEELS	2	2	17815	0.5942	0.1112	0.594	0.1999	0.0945	0.0004	0.4632	-0.2053	0.4636	-0.2712	-0.1843	-0.0348	-0.1583	0.0508	-2.6691	0.9494	-2.5091	0.9361	A-	A-	A-
SCIENCE	5	800539	1	STEELS	2	2	23223	0.58	0.1702	0.5796	0.1518	0.0977	0.0007	0.4892	-0.292	0.4893	-0.2199	-0.1767	-0.0168	-0.4556	0.0653	-5.0791	0.8847	-4.8792	0.8412	A-	A-	A-
SCIENCE	5	800540	1	STEELS	2	2	31596	0.6296	0.6292	0.1385	0.0923	0.1394	0.0006	0.4774	0.4779	-0.2025	-0.2966	-0.2146	-0.0273	-0.5941	0.0577	-4.4991	0.903	-3.9691	0.8703	A-	A-	A-
SCIENCE	5	780609	1	STEELS	2	3	41006	0.6588	0.0813	0.6585	0.1344	0.1253	0.0005	0.5353	-0.1642	0.5356	-0.3	-0.3209	-0.0245	-0.6593	0.0424	-9.6592	0.8334	-8.6992	0.7628	A+	A-	A-
SCIENCE	5	795448	1	STEELS	2	3	17804	0.5498	0.1943	0.5496	0.1581	0.0977	0.0003	0.3183	-0.1886	0.3187	-0.1349	-0.1153	-0.0264	0.0387	0.0502	3.3211	1.0619	2.4711	1.0596	A+	A+	A+
SCIENCE	5	795452	1	STEELS	2	3	31595	0.3285	0.2182	0.3283	0.3314	0.1215	0.0007	0.2685	-0.071	0.2687	-0.1095	-0.1369	-0.0223	0.8816	0.0598	3.9111	1.1063	5.0512	1.2056	A-	A+	A+
SCIENCE	5	795457	1	STEELS	2	3	41011	0.4455	0.2045	0.1117	0.238	0.4454	0.0004	0.4069	-0.3185	-0.2481	0.0111	0.4071	-0.0217	0.389	0.0403	1.281	1.0198	0.961	1.0197	B-	A-	A-
SCIENCE	5	795460	1	STEELS	2	3	31597	0.5077	0.1382	0.5074	0.1636	0.1902	0.0006	0.4716	-0.2245	0.4719	-0.24	-0.1761	-0.0223	-0.0054	0.0563	-0.639	0.9866	-1.139	0.9696	A-	A+	A+
SCIENCE	5	795462	1	STEELS	3	3	31595	0.3373	0.2297	0.1436	0.3371	0.2889	0.0007	0.2638	-0.1447	-0.2331	0.2641	0.0408	-0.0268	0.8346	0.0595	2.6511	1.0697	4.0512	1.1573	A+	A+	A+
SCIENCE	5	800371	1	STEELS	2	3	40995	0.6304	0.1146	0.142	0.63	0.1126	0.0008	0.504	-0.2625	-0.2912	0.5044	-0.1819	-0.0264	-0.5123	0.0417	-4.6491	0.9213	-4.5191	0.8821	A-	A+	A+
SCIENCE	5	800373	1	STEELS	2	3	31604	0.4145	0.0477	0.2236	0.4144	0.314	0.0004	0.2858	-0.2157	-0.1105	0.2861	-0.1045	-0.0235	0.4421	0.0572	4.8611	1.1133	4.0311	1.1237	A+	A-	A-
SCIENCE	5	800374	1	STEELS	2	3	41007	0.5597	0.5595	0.0854	0.1889	0.1658	0.0005	0.4507	0.451	-0.1765	-0.2233	-0.2331	-0.0226	-0.1629	0.0406	-2.439	0.9617	-2.7891	0.9386	A+	B-	A-
SCIENCE	5	800445	1	STEELS	2	3	31591	0.3994	0.137	0.1965	0.2667	0.3991	0.0008	0.4675	-0.1887	-0.2202	-0.1717	0.4678	-0.0285	0.5176	0.0576	-2.2091	0.9499	-2.0291	0.9386	A+	A-	A+
SCIENCE	5	800446	1	STEELS	2	3	31588	0.3964	0.396	0.1658	0.3092	0.1281	0.0009	0.1727	0.1733	-0.1167	0.0331	-0.1667	-0.0319	0.5327	0.0576	9.1612	1.227	9.0413	1.3063	A-	A+	A-
SCIENCE	5	780632	1	STEELS	2	4	31601	0.5848	0.1825	0.5845	0.1446	0.0879	0.0005	0.503	-0.2823	0.5033	-0.2453	-0.1843	-0.0236	-0.3742	0.0568	-5.9691	0.8787	-5.7892	0.8354	A-	A+	A-
SCIENCE	5	785404	1	STEELS	2	4	31591	0.4486	0.1827	0.1382	0.4483	0.23	0.0008	0.2681	0.005	-0.2754	0.2686	-0.0941	-0.0315	0.2771	0.0567	6.2811	1.1418	6.8112	1.2009	A+	A+	A+
SCIENCE	5	800392	1	STEELS	2	4	41001	0.4577	0.4574	0.2846	0.1697	0.0877	0.0006	0.4196	0.4199	-0.1611	-0.2231	-0.1841	-0.0248	0.3304	0.0402	1.191	1.0184	1.951	1.04	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	800393	1	STEELS	2	4	31593	0.659	0.1105	0.1281	0.6585	0.1021	0.0007	0.5449	-0.2635	-0.2982	0.5452	-0.2496	-0.0253	-0.7431	0.0585	-6.8192	0.8486	-7.1992	0.7536	A+	A+	A+
SCIENCE	5	800398	1	STEELS	2	4	41016	0.6463	0.0778	0.1521	0.1237	0.6462	0.0002	0.552	-0.2229	-0.3042	-0.288	0.5521	-0.0154	-0.5952	0.0421	-8.7491	0.8516	-8.2592	0.782	A+	A-	A+
SCIENCE	5	785011	1	STEELS	2	5	31595	0.2411	0.206	0.3026	0.2498	0.2409	0.0007	0.1913	-0.1011	0.0059	-0.0994	0.1916	-0.027	1.3884	0.0651	2.7711	1.0951	4.1712	1.2378	A-	A+	A+
SCIENCE	5	785018	1	STEELS	2	5	31596	0.3986	0.3983	0.3431	0.1391	0.1189	0.0006	0.3698	0.37	-0.0341	-0.2631	-0.2263	-0.026	0.5214	0.0576	1.361	1.0314	1.281	1.0396	A+	A-	A-
SCIENCE	5	785019	1	STEELS	3	5	31605	0.5296	0.5294	0.1632	0.1885	0.1185	0.0003	0.4518	0.4518	-0.2517	-0.2326	-0.1278	-0.0107	-0.11	0.0563	-1.049	0.9782	-1.259	0.9658	A+	A+	A+
SCIENCE	5	785148	1	STEELS	2	5	41012	0.4894	0.425	0.4892	0.0497	0.0358	0.0003	0.2283	-0.0471	0.2286	-0.2403	-0.2066	-0.0207	0.1765	0.0402	9.9012	1.2272	9.9013	1.2899	A-	A+	A-
SCIENCE	5	785191	1	STEELS	3	5	40997	0.4815	0.4811	0.1676	0.2147	0.1358	0.0007	0.4888	0.4891	-0.2619	-0.1567	-0.238	-0.025	0.2154	0.0402	-3.2991	0.9501	-2.6391	0.9473	A+	A+	A+
SCIENCE	5	795474	1	STEELS	2	5	41011	0.703	0.7027	0.051	0.1011	0.1447	0.0004	0.4862	0.4865	-0.2217	-0.2846	-0.2482	-0.0224	-0.8978	0.0439	-6.4991	0.8742	-6.2392	0.7991	A-	A-	A-
SCIENCE	5	795485	1	STEELS	2	5	40993	0.6211	0.0785	0.6206	0.1443	0.1557	0.0008	0.5263	-0.1618	0.5269	-0.3161	-0.276	-0.0342	-0.465	0.0415	-5.8391	0.9033	-5.7191	0.8566	A-	A-	A-
SCIENCE	5	800404	1	STEELS	2	5	17783	0.56	0.2857	0.5599	0.0927	0.0615	0.0001	0.3551	-0.1476	0.3552	-0.2327	-0.1749	-0.0088	-0.0523	0.0502	0.971	1.0175	0.741	1.0175	A-	A-	A-
SCIENCE	5	800410	1	STEELS	2	5	31600	0.3257	0.3255	0.0773	0.3198	0.2768	0.0005	0.3352	0.3354	-0.2605	-0.0697	-0.1218	-0.0254	0.8967	0.06	1.581	1.0422	2.0411	1.0803	A+	A+	A-
SCIENCE	5	780569	2	STEELS	2	1	9441	0.4855	0.2537	0.1391	0.1214	0.4853	0.0005	0.3946	-0.0105	-0.3087	-0.2603	0.395	-0.0462	0.3276	0.0558	0.791	1.0152	1.891	1.0495	A+	A-	A-
SCIENCE	5	780570	2	STEELS	2	1	9444	0.5155	0.5154	0.1254	0.216	0.143	0.0002	0.2899	0.2901	-0.1551	-0.0871	-0.1642	-0.0188	0.1852	0.0558	4.0511	1.0808	3.6711	1.0978	A+	A+	A+
SCIENCE	5	785400	2	STEELS	2	1	9445	0.3384	0.2304	0.3383	0.2821	0.1491	0.0001	0.1827	0.0094	0.1828	-0.1148	-0.1083	-0.0256	1.0478	0.0583	6.9912	1.1705	9.0314	1.3665	A+	A+	A+
SCIENCE	5	785403	2	STEELS	2	1	9443	0.6098	0.161	0.0778	0.6096	0.1513	0.0003	0.3761	-0.2459	-0.288	0.3765	-0.0434	-0.0323	-0.2693	0.0573	0.341	1.0075	0.801	1.0245	A-	A+	A+
SCIENCE	5	800321	2	STEELS	3	1	9441	0.4559	0.1929	0.1981	0.1529	0.4556	0.0005	0.4999	-0.2481	-0.1617	-0.2393	0.5001	-0.0276	0.4685	0.0559	-5.5191	0.8973	-3.2791	0.9148	A+	A+	A+
SCIENCE	5	800466	2	STEELS	2	1	37764	0.4333	0.239	0.1149	0.433	0.2125	0.0005	0.2164	0.0421	-0.1978	0.2168	-0.1508	-0.0263	0.6074	0.0283	9.9012	1.1788	9.9013	1.2662	A+	A+	A+
SCIENCE	5	800551	2	STEELS	2	1	37768	0.6439	0.1181	0.1141	0.1237	0.6437	0.0004	0.541	-0.2307	-0.2892	-0.2804	0.541	-0.0177	-0.42	0.0293	-9.8992	0.8404	-9.8992	0.7765	A+	A-	A-
SCIENCE	5	784957	2	STEELS	2	2	9444	0.4741	0.2069	0.474	0.187	0.132	0.0002	0.3512	-0.1392	0.3513	-0.1741	-0.1503	-0.0197	0.3813	0.0558	0.911	1.0175	1.631	1.043	A-	A-	A-
SCIENCE	5	784969	2	STEELS	2	2	9443	0.6032	0.2769	0.603	0.0556	0.0642	0.0003	0.3186	-0.0903	0.3191	-0.2539	-0.2319	-0.0428	-0.2367	0.0571	3.3211	1.0749	2.6611	1.082	A+	A+	A+
SCIENCE	5	795216	2	STEELS	2	2	9441	0.272	0.2441	0.2201	0.2719	0.2634	0.0005	0.2262	-0.132	-0.1369	0.2265	0.0309	-0.0404	1.4121	0.0615	3.1511	1.0915	8.4714	1.4474	A-	A+	A+
SCIENCE	5	795323	2	STEELS	2	2	9440	0.6328	0.1452	0.1392	0.0825	0.6324	0.0006	0.5019	-0.2431	-0.2234	-0.2848	0.5024	-0.0357	-0.3837	0.058	-4.0591	0.9073	-4.6591	0.8541	A+	A+	A+
SCIENCE	5	795326	2	STEELS	2	2	9444	0.6958	0.6956	0.1305	0.0806	0.0931	0.0002	0.3004	0.3009	-0.1658	-0.1681	-0.1252	-0.0334	-0.7164	0.0606	1.611	1.0452	0.391	1.0153	A+	A-	A+
SCIENCE	5	795331	2	STEELS	2	2	9444	0.7564	0.0191	0.0972	0.1274	0.7562	0.0002	0.2267	-0.1788	-0.2188	-0.0238	0.2273	-0.0288	-1.0696	0.0647	3.0911	1.1072	4.1712	1.2306	A-	A-	A+
SCIENCE	5	795664	2	STEELS	2	2	9442	0.5227	0.0629	0.1694	0.2449	0.5224	0.0004	0.4618	-0.2576	-0.2181	-0.1995	0.4621	-0.0343	0.1515	0.0559	-1.329	0.9741	-1.039	0.973	A-	A+	A-
SCIENCE	5	800537	2	STEELS	2	2	9444	0.3708	0.3183	0.0572	0.3707	0.2535	0.0002	0.1375	-0.0162	-0.2546	0.1378	0.0014	-0.0343	0.8821	0.0572	9.9013	1.2626	9.9015	1.4756	A+	A+	A+
SCIENCE	5	780608	2	STEELS	2	3	9438	0.3438	0.0802	0.3435	0.51	0.0654	0.0008	0.1541	-0.2684	0.1549	0.0851	-0.1689	-0.0494	1.0208	0.0581	8.4012	1.2043	8.8614	1.3517	A-	A-	A-
SCIENCE	5	780618	2	STEELS	2	3	9443	0.462	0.1757	0.1135	0.2486	0.4619	0.0003	0.349	-0.1552	-0.2145	-0.1076	0.3492	-0.0278	0.4387	0.0558	1.921	1.0371	2.3311	1.0627	A+	A-	A+
SCIENCE	5	795446	2	STEELS	2	3	9441	0.5728	0.1064	0.5725	0.1308	0.1897	0.0005	0.417	-0.2503	0.4174	-0.3129	-0.0584	-0.0381	-0.088	0.0565	-1.389	0.9712	-1.629	0.9549	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795453	2	STEELS	2	3	9443	0.454	0.1354	0.371	0.4538	0.0395	0.0003	0.2485	-0.2029	-0.0364	0.2487	-0.1871	-0.0219	0.477	0.0559	8.0212	1.1626	6.7612	1.1915	A-	A-	A-
SCIENCE	5	795463	2	STEELS	2	3	9446	0.8638	0.0644	0.0276	0.8638	0.0443		0.4588	-0.2847	-0.2325	0.4588	-0.2403		-1.8749	0.0797	-2.5791	0.8691	-4.5193	0.6622	A-	A-	A-
SCIENCE	5	800339	2	STEELS	2	3	18846	0.8447	0.0388	0.8444	0.0517	0.0647	0.0004	0.4126	-0.1549	0.4135	-0.2531	-0.2571	-0.0337	-1.7502	0.0534	-2.9891	0.9023	-4.7692	0.7617	A+	B-	A-
SCIENCE	5	800343	2	STEELS	2	3	9442	0.3046	0.6129	0.0446	0.0377	0.3045	0.0004	0.1731	0.0245	-0.2229	-0.238	0.1732	-0.0162	1.2285	0.0597	5.0211	1.133	5.7113	1.2531	A+	A+	A+
SCIENCE	5	800361	2	STEELS	3	3	9444	0.6725	0.0664	0.172	0.6723	0.089	0.0002	0.4515	-0.2598	-0.2216	0.4518	-0.2224	-0.0279	-0.5905	0.0595	-2.1191	0.9456	-2.3691	0.9131	A-	A-	A-
SCIENCE	5	800369	2	STEELS	2	3	9440	0.6707	0.0451	0.6702	0.1253	0.1587	0.0006	0.4726	-0.2689	0.4731	-0.3158	-0.1668	-0.0426	-0.5793	0.0594	-4.0591	0.8983	-4.5692	0.8385	A-	A-	A-
SCIENCE	5	800443	2	STEELS	3	3	9444	0.5855	0.0931	0.1638	0.5853	0.1576	0.0002	0.4192	-0.1402	-0.2353	0.4195	-0.2151	-0.0334	-0.1502	0.0567	-0.289	0.9936	-0.329	0.9903	A+	A+	A+
SCIENCE	5	800444	2	STEELS	3	3	9444	0.5742	0.1107	0.0918	0.5741	0.2232	0.0002	0.373	-0.1645	-0.2638	0.3733	-0.1353	-0.0343	-0.0957	0.0565	2.241	1.0475	2.4511	1.07	A-	A+	A+
SCIENCE	5	780633	2	STEELS	2	4	9440	0.7675	0.0798	0.0814	0.767	0.0711	0.0006	0.4705	-0.282	-0.2783	0.4714	-0.1777	-0.0426	-1.1381	0.0656	-2.9891	0.8987	-3.8692	0.8043	A-	A-	A+
SCIENCE	5	780634	2	STEELS	3	4	9442	0.439	0.2115	0.1607	0.1885	0.4388	0.0004	0.3827	-0.1508	-0.1207	-0.2136	0.383	-0.0298	0.549	0.056	0.361	1.0069	0.881	1.0241	A+	A+	A+
SCIENCE	5	780635	2	STEELS	2	4	9444	0.5346	0.5345	0.1173	0.1544	0.1936	0.0002	0.4243	0.4245	-0.2385	-0.2414	-0.1199	-0.0279	0.0941	0.056	0.431	1.0084	0.371	1.0095	A-	A+	A-
SCIENCE	5	800388	2	STEELS	2	4	9442	0.5571	0.5568	0.0718	0.2794	0.0916	0.0004	0.3954	0.3959	-0.2867	-0.1275	-0.224	-0.0421	-0.0125	0.0562	-0.549	0.9887	0.081	1.0019	A-	A+	A+
SCIENCE	5	785152	2	STEELS	2	5	9444	0.8529	0.0563	0.0382	0.8527	0.0525	0.0002	0.394	-0.259	-0.2311	0.3945	-0.159	-0.0215	-1.7748	0.0773	-1.0191	0.9493	-0.6391	0.948	A-	A-	A-
SCIENCE	5	795482	2	STEELS	2	5	9444	0.6335	0.1048	0.6334	0.1285	0.1331	0.0002	0.4569	-0.2841	0.4572	-0.2362	-0.1582	-0.0353	-0.3885	0.058	-3.6091	0.917	-3.6591	0.8839	A+	A+	A+
SCIENCE	5	795484	2	STEELS	2	5	9442	0.1956	0.4656	0.1955	0.0905	0.2479	0.0004	0.0896	0.1506	0.0898	-0.2648	-0.0794	-0.0246	1.9005	0.0682	3.0911	1.1221	8.7317	1.6632	A-	A+	A-
SCIENCE	5	795487	2	STEELS	2	5	9442	0.4843	0.4841	0.1692	0.2676	0.0787	0.0004	0.5093	0.5093	-0.2385	-0.2195	-0.2503	-0.0272	0.3331	0.0558	-7.6791	0.8596	-6.5992	0.8383	A+	A+	A-
SCIENCE	5	795489	2	STEELS	3	5	9445	0.5013	0.0835	0.2092	0.2059	0.5013	0.0001	0.4327	-0.305	-0.226	-0.0985	0.4328	-0.023	0.2519	0.0558	-2.229	0.9576	-2.0491	0.9479	A+	A-	A+
SCIENCE	5	795498	2	STEELS	2	5	9443	0.9212	0.9209	0.0106	0.0408	0.0274	0.0003	0.4073	0.4077	-0.1682	-0.2851	-0.2209	-0.0204	-2.5344	0.0997	-0.9791	0.925	-4.1894	0.5671	A+	B-	B-
SCIENCE	5	795667	2	STEELS	3	5	9443	0.8884	0.0345	0.8881	0.0452	0.0319	0.0003	0.4818	-0.2402	0.4815	-0.2972	-0.262	-0.0099	-2.1212	0.0862	-2.5191	0.8539	-5.5395	0.5492	A+	A-	A-
SCIENCE	5	800403	2	STEELS	2	5	9443	0.5995	0.0832	0.5993	0.2253	0.0919	0.0003	0.3928	-0.1477	0.393	-0.2098	-0.2205	-0.0271	-0.2186	0.057	0.941	1.0205	0.451	1.0131	A-	A+	A-
SCIENCE	5	780571	3	STEELS	2	1	9408	0.6656	0.0638	0.2223	0.0484	0.6656		0.4386	-0.2499	-0.23	-0.2342	0.4386		-0.6615	0.059	-2.8791	0.9298	-2.2791	0.9172	A-	A-	A-
SCIENCE	5	785678	3	STEELS	2	1	9406	0.5523	0.1759	0.147	0.1247	0.5522	0.0002	0.4842	-0.1904	-0.2268	-0.2656	0.4844	-0.0202	-0.1003	0.0561	-4.4191	0.9136	-3.5991	0.9066	A+	A-	A-
SCIENCE	5	800311	3	STEELS	2	1	9404	0.4956	0.0858	0.2264	0.4954	0.192	0.0004	0.2822	-0.1699	-0.1598	0.2826	-0.0668	-0.0273	0.1689	0.0557	4.6211	1.0923	4.3811	1.114	A-	A+	A+
SCIENCE	5	800312	3	STEELS	2	1	9406	0.3905	0.3904	0.1792	0.2504	0.1797	0.0002	0.2608	0.2609	-0.1623	-0.0561	-0.1054	-0.0167	0.6738	0.0568	5.5911	1.1228	5.5112	1.1708	A-	A+	A+
SCIENCE	5	800317	3	STEELS	3	1	9403	0.6288	0.6285	0.1083	0.1687	0.094	0.0005	0.5531	0.5535	-0.2658	-0.3008	-0.2454	-0.0256	-0.472	0.0577	-7.3692	0.841	-7.1892	0.7821	A+	A-	A+
SCIENCE	5	800324	3	STEELS	2	1	9406	0.5055	0.1276	0.2645	0.5054	0.1024	0.0002	0.3072	-0.1123	-0.1174	0.3074	-0.2116	-0.0228	0.1216	0.0558	4.8511	1.0972	4.6011	1.1203	A+	A+	A+
SCIENCE	5	780588	3	STEELS	2	2	18888	0.4588	0.1585	0.163	0.4587	0.2196	0.0003	0.3361	-0.15	-0.1319	0.3363	-0.1537	-0.0268	0.3817	0.0395	4.6611	1.0663	5.2311	1.0983	A-	A-	A-
SCIENCE	5	780593	3	STEELS	2	2	9406	0.4309	0.2082	0.247	0.1137	0.4308	0.0002	0.3201	-0.1024	-0.1881	-0.1123	0.3203	-0.015	0.4768	0.0561	6.4811	1.1352	5.8312	1.1635	A+	A+	A+
SCIENCE	5	784962	3	STEELS	2	2	9406	0.4864	0.3028	0.086	0.4863	0.1247	0.0002	0.3541	-0.1225	-0.2609	0.3542	-0.1434	-0.0167	0.2121	0.0557	2.111	1.0413	1.931	1.049	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795202	3	STEELS	2	2	9405	0.8003	0.0655	0.085	0.8001	0.0491	0.0003	0.485	-0.2734	-0.2968	0.4855	-0.2003	-0.0251	-1.4585	0.0688	-4.8492	0.8224	-4.7493	0.729	A-	A-	A-
SCIENCE	5	795205	3	STEELS	2	2	9405	0.4069	0.0845	0.4068	0.3063	0.2021	0.0003	0.3686	-0.1853	0.3688	-0.1538	-0.1453	-0.0194	0.5933	0.0565	0.801	1.0164	1.581	1.0448	A-	A-	A-
SCIENCE	5	795207	3	STEELS	2	2	9404	0.8345	0.0436	0.8342	0.0687	0.0531	0.0004	0.4097	-0.2383	0.4101	-0.2483	-0.1811	-0.0224	-1.7129	0.0736	-2.8091	0.8777	-3.8693	0.7404	A+	A-	A-
SCIENCE	5	795318	3	STEELS	2	2	9408	0.8034	0.8034	0.091	0.0572	0.0485		0.3869	0.3869	-0.2088	-0.2329	-0.1846		-1.4817	0.0692	-1.199	0.9531	-1.8791	0.8834	A-	A+	A+
SCIENCE	5	795332	3	STEELS	2	2	9406	0.6862	0.0608	0.686	0.1862	0.0668	0.0002	0.4504	-0.2117	0.4506	-0.2394	-0.2605	-0.0245	-0.7695	0.0599	-1.879	0.9511	-2.0891	0.918	A-	A-	A-
SCIENCE	5	780613	3	STEELS	2	3	9404	0.5701	0.5698	0.1882	0.1012	0.1403	0.0004	0.5196	0.5199	-0.2655	-0.2905	-0.1884	-0.0279	-0.1848	0.0564	-6.3191	0.8755	-6.1592	0.8385	A-	A-	A+
SCIENCE	5	782214	3	STEELS	2	3	9404	0.4205	0.1729	0.2429	0.4203	0.1635	0.0004	0.2803	-0.0953	-0.0803	0.2805	-0.1827	-0.0181	0.5276	0.0563	6.3611	1.1341	6.9512	1.2017	A+	A+	A-
SCIENCE	5	782217	3	STEELS	2	3	9403	0.4945	0.4943	0.1376	0.1376	0.2299	0.0005	0.4962	0.4964	-0.339	-0.2584	-0.0996	-0.0201	0.1743	0.0557	-4.1591	0.9212	-3.7391	0.9087	A-	A+	A+
SCIENCE	5	795334	3	STEELS	2	3	9405	0.6344	0.1239	0.6342	0.1089	0.1325	0.0003	0.5044	-0.2223	0.5046	-0.2887	-0.2342	-0.0251	-0.5008	0.0579	-4.8391	0.892	-5.1792	0.8364	A-	A+	A+
SCIENCE	5	795451	3	STEELS	2	3	9406	0.6361	0.6359	0.1714	0.0874	0.105	0.0002	0.3849	0.3851	-0.1819	-0.2579	-0.1424	-0.0193	-0.5094	0.0579	0.461	1.0105	0.521	1.0174	A-	A+	A+
SCIENCE	5	795461	3	STEELS	2	3	9405	0.391	0.0449	0.3617	0.2023	0.3908	0.0003	0.2859	-0.2554	-0.0399	-0.167	0.2862	-0.0286	0.6718	0.0568	3.9411	1.0854	4.6011	1.1411	A+	A+	A+
SCIENCE	5	795464	3	STEELS	2	3	9407	0.4614	0.1062	0.3208	0.4613	0.1116	0.0001	0.3088	-0.1631	-0.1196	0.3088	-0.1517	-0.0124	0.3306	0.0558	2.131	1.0422	2.1011	1.0542	A+	A+	A+
SCIENCE	5	800337	3	STEELS	2	3	9404	0.556	0.1972	0.1018	0.5558	0.1448	0.0004	0.3044	-0.0175	-0.2676	0.3048	-0.1792	-0.0242	-0.1176	0.0562	4.2311	1.0878	3.4911	1.0965	A+	A+	A-
SCIENCE	5	800367	3	STEELS	3	3	9406	0.4793	0.4792	0.2039	0.2132	0.1035	0.0002	0.4302	0.4304	-0.124	-0.2509	-0.2037	-0.015	0.2459	0.0558	-2.179	0.9581	-2.3691	0.9413	A+	A+	A+
SCIENCE	5	800370	3	STEELS	2	3	9407	0.6402	0.6401	0.0775	0.1363	0.146	0.0001	0.4879	0.488	-0.2717	-0.2809	-0.1842	-0.0174	-0.5304	0.0581	-4.7791	0.8919	-4.5191	0.8536	A+	A-	A-
SCIENCE	5	785680	3	STEELS	3	4	9406	0.5085	0.1736	0.168	0.1498	0.5084	0.0002	0.458	-0.278	-0.1733	-0.1642	0.4581	-0.0228	0.1075	0.0558	-2.059	0.9604	-1.569	0.9606	A-	A+	A-
SCIENCE	5	800377	3	STEELS	3	4	9407	0.3812	0.0622	0.2412	0.3812	0.3154	0.0001	0.2109	-0.2569	-0.1279	0.211	0.031	-0.0112	0.7198	0.057	5.6211	1.1256	6.2612	1.2012	A+	A+	A+
SCIENCE	5	800378	3	STEELS	2	4	9405	0.3936	0.1289	0.1064	0.3709	0.3935	0.0003	0.3508	-0.2144	-0.2385	-0.0531	0.3509	-0.0222	0.6586	0.0567	2.5311	1.0541	3.0711	1.0921	A+	A-	A-
SCIENCE	5	800386	3	STEELS	2	4	9403	0.2935	0.2484	0.3067	0.151	0.2934	0.0005	0.2238	-0.1116	0.0356	-0.195	0.2239	-0.0135	1.1814	0.0603	2.8211	1.0769	3.8412	1.1651	A+	A+	A+
SCIENCE	5	785149	3	STEELS	3	5	9404	0.4707	0.1688	0.2413	0.119	0.4705	0.0004	0.5259	-0.1734	-0.2323	-0.3024	0.526	-0.0131	0.2872	0.0558	-5.9791	0.8879	-5.0091	0.8783	A-	A+	A+
SCIENCE	5	785416	3	STEELS	3	5	9403	0.3169	0.2315	0.3168	0.0945	0.3567	0.0005	0.1851	-0.1095	0.1855	-0.2411	0.0654	-0.0388	1.0529	0.0592	5.0511	1.1314	8.0713	1.3343	A-	A+	A-
SCIENCE	5	785669	3	STEELS	3	5	9405	0.5694	0.1283	0.1755	0.5692	0.1267	0.0003	0.4233	-0.1878	-0.2297	0.4236	-0.1776	-0.0272	-0.1817	0.0564	-1.679	0.9657	-1.819	0.9502	A+	A-	A-
SCIENCE	5	795475	3	STEELS	2	5	9407	0.537	0.1518	0.205	0.537	0.1061	0.0001	0.3955	-0.2	-0.2034	0.3956	-0.1404	-0.0174	-0.028	0.056	1.001	1.0198	0.561	1.0144	A+	A+	A+
SCIENCE	5	795499	3	STEELS	2	5	9407	0.6934	0.1353	0.0463	0.1249	0.6933	0.0001	0.451	-0.1545	-0.2245	-0.3261	0.4512	-0.0174	-0.8092	0.0603	-2.5091	0.9338	-1.8691	0.9247	A-	A-	A+
SCIENCE	5	795500	3	STEELS	2	5	9407	0.6561	0.0669	0.1342	0.1428	0.656	0.0001	0.4918	-0.2443	-0.227	-0.2719	0.4919	-0.0174	-0.6119	0.0586	-4.7491	0.8886	-4.7592	0.8381	A-	A-	A-
SCIENCE	5	795668	3	STEELS	3	5	9404	0.6624	0.6621	0.132	0.1604	0.0451	0.0004	0.5007	0.501	-0.2886	-0.2606	-0.2081	-0.023	-0.6432	0.0589	-3.7191	0.9107	-4.1291	0.8553	A+	A-	A-
SCIENCE	5	800407	3	STEELS	2	5	9405	0.4012	0.1793	0.401	0.0907	0.3287	0.0003	0.317	-0.2127	0.3171	-0.2069	-0.0301	-0.0144	0.6214	0.0566	4.0711	1.087	5.0812	1.1521	A+	A+	A+
SCIENCE	5	800408	3	STEELS	2	5	9405	0.5116	0.1033	0.0851	0.5115	0.2997	0.0003	0.2963	-0.3036	-0.2887	0.2965	0.0548	-0.0187	0.0929	0.0558	5.4811	1.1106	5.2311	1.138	A+	A+	A-
SCIENCE	5	800413	3	STEELS	3	5	9402	0.5072	0.5069	0.1893	0.164	0.1391	0.0006	0.4316	0.432	-0.1999	-0.2478	-0.1302	-0.0355	0.1145	0.0558	-0.399	0.9921	0.321	1.008	A+	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	780572	4	STEELS	2	1	9481	0.5189	0.1933	0.1645	0.5187	0.1231	0.0004	0.4198	-0.1872	-0.2201	0.42	-0.164	-0.0223	0.1365	0.0559	-1.319	0.9739	-1.189	0.969	A-	A-	A+
SCIENCE	5	785676	4	STEELS	2	1	9480	0.7086	0.0738	0.1556	0.0618	0.7083	0.0005	0.5193	-0.2659	-0.2973	-0.2419	0.5198	-0.0307	-0.8089	0.0612	-5.9392	0.8417	-6.0192	0.7546	A+	A-	A-
SCIENCE	5	785679	4	STEELS	2	1	9481	0.5656	0.2212	0.5653	0.1145	0.0986	0.0004	0.3191	-0.1067	0.3195	-0.2361	-0.1284	-0.0326	-0.0843	0.0564	2.5711	1.054	2.5511	1.0734	A-	A+	A-
SCIENCE	5	795199	4	STEELS	3	1	9484	0.5222	0.1208	0.1755	0.1813	0.5222	0.0001	0.4992	-0.2533	-0.2467	-0.1889	0.4992	-0.0163	0.1201	0.056	-6.0891	0.8838	-5.5891	0.8607	A-	A+	A+
SCIENCE	5	800302	4	STEELS	2	1	9483	0.433	0.4329	0.377	0.0382	0.1517	0.0002	0.2774	0.2776	-0.1935	-0.1336	-0.0497	-0.0239	0.5428	0.0562	6.2911	1.132	6.2812	1.1775	A-	A-	A+
SCIENCE	5	800309	4	STEELS	2	1	9479	0.3939	0.2152	0.2809	0.3937	0.1096	0.0006	0.2537	-0.0618	-0.1127	0.2542	-0.1508	-0.0404	0.7333	0.0568	6.7211	1.1488	6.4312	1.1992	A-	A+	A+
SCIENCE	5	800318	4	STEELS	2	1	9480	0.3294	0.1917	0.3293	0.283	0.1956	0.0005	0.1988	-0.1156	0.1992	-0.0617	-0.0495	-0.0289	1.0611	0.0586	6.4812	1.1644	7.3313	1.2845	A+	A+	A+
SCIENCE	5	780589	4	STEELS	2	2	9480	0.5735	0.1278	0.5732	0.2603	0.0382	0.0005	0.3482	-0.2706	0.3486	-0.0917	-0.2154	-0.0261	-0.1221	0.0566	3.4211	1.0731	3.2811	1.0971	A+	A+	A+
SCIENCE	5	780594	4	STEELS	2	2	9485	0.3459	0.3459	0.2397	0.2172	0.1972		0.341	0.341	-0.3023	-0.0198	-0.0628		0.974	0.058	1.091	1.0253	2.5811	1.0892	A-	A+	A+
SCIENCE	5	780599	4	STEELS	2	2	9483	0.6982	0.698	0.0946	0.0897	0.1174	0.0002	0.5001	0.5004	-0.2726	-0.2773	-0.2182	-0.0312	-0.7527	0.0607	-3.7191	0.9015	-4.4192	0.8215	A-	A-	A-
SCIENCE	5	784958	4	STEELS	2	2	9481	0.425	0.1799	0.2552	0.4248	0.1397	0.0004	0.3864	-0.1106	-0.2521	0.3866	-0.1098	-0.0313	0.5819	0.0563	-0.239	0.995	0.771	1.0209	A+	A+	A+
SCIENCE	5	784963	4	STEELS	2	2	9483	0.5656	0.1356	0.2274	0.5655	0.0713	0.0002	0.3233	-0.2216	-0.1293	0.3235	-0.1166	-0.0221	-0.0853	0.0564	3.0011	1.0632	2.9611	1.0858	A-	A+	A-
SCIENCE	5	795208	4	STEELS	2	2	9480	0.7253	0.1091	0.7249	0.1043	0.0611	0.0005	0.4862	-0.2897	0.4868	-0.2511	-0.2066	-0.0364	-0.9026	0.0623	-4.9591	0.86	-4.9792	0.7811	A+	A+	A-
SCIENCE	5	795327	4	STEELS	2	2	9480	0.5104	0.1204	0.5102	0.0712	0.2977	0.0005	0.3367	-0.1146	0.337	-0.2931	-0.1208	-0.0255	0.1767	0.0559	4.0111	1.0811	3.2111	1.0852	B+	A-	A-
SCIENCE	5	795333	4	STEELS	2	2	9483	0.4426	0.1112	0.1828	0.2633	0.4425	0.0002	0.3858	-0.1763	-0.129	-0.1954	0.386	-0.0267	0.4969	0.0561	0.871	1.0174	1.221	1.0322	A-	A-	A-
SCIENCE	5	780612	4	STEELS	2	3	9480	0.5213	0.0812	0.521	0.2521	0.1452	0.0005	0.4928	-0.1713	0.493	-0.2708	-0.2308	-0.0255	0.1256	0.056	-4.6791	0.9097	-4.5491	0.8857	A-	A-	A-
SCIENCE	5	780616	4	STEELS	3	3	9482	0.328	0.3279	0.1955	0.3189	0.1574	0.0003	0.2529	0.253	-0.1208	-0.0708	-0.1033	-0.0126	1.0684	0.0587	4.0411	1.1007	5.0312	1.1907	A-	A-	A-
SCIENCE	5	780617	4	STEELS	2	3	9482	0.473	0.4323	0.4729	0.0598	0.0348	0.0003	0.17	0.0242	0.1703	-0.2572	-0.1943	-0.0245	0.3527	0.0559	9.9012	1.217	9.9013	1.2806	A+	A+	A+
SCIENCE	5	782213	4	STEELS	2	3	9480	0.5343	0.534	0.1577	0.1806	0.1271	0.0005	0.4647	0.465	-0.2002	-0.256	-0.1797	-0.0289	0.0643	0.0561	-2.9391	0.9421	-2.4191	0.9368	A+	A+	A+
SCIENCE	5	782216	4	STEELS	2	3	9484	0.3547	0.2651	0.3547	0.2267	0.1535	0.0001	0.1877	-0.0849	0.1878	-0.1244	-0.0004	-0.0176	0.9289	0.0578	7.3212	1.1756	8.9513	1.3221	A-	A-	A+
SCIENCE	5	795445	4	STEELS	3	3	9484	0.639	0.1734	0.1122	0.6389	0.0754	0.0001	0.3788	-0.1564	-0.2246	0.3789	-0.1961	-0.0137	-0.4437	0.0582	0.591	1.0137	0.391	1.0134	A-	A-	A-
SCIENCE	5	795458	4	STEELS	2	3	9480	0.6796	0.6793	0.137	0.1346	0.0486	0.0005	0.5043	0.5047	-0.2973	-0.2652	-0.196	-0.0301	-0.652	0.0598	-4.5591	0.8861	-5.0992	0.8086	A+	A+	A+
SCIENCE	5	800335	4	STEELS	2	3	9480	0.4455	0.1012	0.2796	0.1734	0.4452	0.0005	0.5037	-0.2472	-0.2473	-0.17	0.5038	-0.022	0.4838	0.056	-4.7691	0.9078	-4.5491	0.8848	A+	A-	A+
SCIENCE	5	800355	4	STEELS	2	3	9485	0.5806	0.0642	0.1443	0.5806	0.2109		0.4096	-0.2573	-0.1898	0.4096	-0.1774		-0.1575	0.0567	-0.439	0.9906	-0.969	0.9714	A-	A-	A-
SCIENCE	5	800357	4	STEELS	2	3	18914	0.2557	0.2337	0.2556	0.2202	0.2903	0.0002	0.2862	-0.024	0.2863	-0.1709	-0.0962	-0.0162	1.4661	0.0443	1.711	1.0367	6.3812	1.2335	A-	A-	A-
SCIENCE	5	800364	4	STEELS	2	3	9482	0.515	0.1013	0.175	0.5148	0.2085	0.0003	0.3939	-0.1881	-0.1767	0.3941	-0.1789	-0.0223	0.1548	0.0559	0.401	1.0079	-0.179	0.9951	A-	A-	A+
SCIENCE	5	800375	4	STEELS	2	4	9481	0.3316	0.1709	0.1309	0.3663	0.3315	0.0004	0.3134	-0.2142	-0.2529	0.0393	0.3136	-0.0306	1.0494	0.0585	2.1111	1.0514	4.0111	1.1482	A-	A+	A+
SCIENCE	5	800379	4	STEELS	2	4	9477	0.6028	0.6023	0.1239	0.1883	0.0847	0.0008	0.401	0.4015	-0.1905	-0.1949	-0.2039	-0.0279	-0.2626	0.0572	0.471	1.0103	0.081	1.0022	A-	A+	A+
SCIENCE	5	800390	4	STEELS	3	4	9485	0.4597	0.2209	0.1444	0.175	0.4597		0.5044	-0.1488	-0.2843	-0.2361	0.5044		0.4151	0.0559	-6.4091	0.8784	-5.4691	0.8648	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	785008	4	STEELS	1	5	9484	0.4796	0.1541	0.0804	0.2857	0.4796	0.0001	0.2583	-0.2664	-0.2165	0.0579	0.2585	-0.0201	0.3208	0.0559	7.8412	1.162	6.9812	1.1893	A+	A-	A+
SCIENCE	5	785017	4	STEELS	2	5	9483	0.1213	0.4691	0.1491	0.2604	0.1212	0.0002	0.0242	0.2283	-0.1405	-0.1626	0.0244	-0.0312	2.5055	0.0813	3.2912	1.1909	9.8021	2.1419	A+	A+	A+
SCIENCE	5	785020	4	STEELS	3	5	9484	0.1655	0.1627	0.4426	0.1655	0.2291	0.0001	0.0381	-0.1591	0.1653	0.0381	-0.0894	0.0017	2.1011	0.0721	2.3411	1.104	7.2816	1.5992	A-	A+	A+
SCIENCE	5	785150	4	STEELS	3	5	9479	0.4805	0.1515	0.1867	0.1809	0.4802	0.0006	0.4577	-0.1656	-0.1905	-0.2453	0.458	-0.0304	0.3178	0.0559	-2.419	0.9531	-1.269	0.9677	A+	A+	A-
SCIENCE	5	785415	4	STEELS	2	5	9478	0.3884	0.3881	0.1159	0.1997	0.2956	0.0007	0.3601	0.3603	-0.1922	-0.1705	-0.0993	-0.0222	0.7609	0.0569	0.801	1.017	0.731	1.0213	A-	A+	A+
SCIENCE	5	785671	4	STEELS	2	5	9482	0.627	0.121	0.1486	0.6268	0.1033	0.0003	0.5261	-0.2517	-0.2837	0.5265	-0.2333	-0.0349	-0.3831	0.0578	-5.3691	0.8816	-4.6791	0.8508	A-	A-	A-
SCIENCE	5	795473	4	STEELS	2	5	9484	0.8615	0.8614	0.0466	0.0388	0.0531	0.0001	0.4523	0.4527	-0.2415	-0.2431	-0.26	-0.024	-1.8576	0.0789	-2.3191	0.8838	-5.1494	0.6191	A-	A-	A-
SCIENCE	5	795477	4	STEELS	2	5	9480	0.9562	0.0116	0.0169	0.9557	0.0153	0.0005	0.2833	-0.1588	-0.1855	0.2844	-0.1385	-0.0272	-3.1727	0.1293	-0.7291	0.9175	-3.5695	0.4961	A+	C-	A-
SCIENCE	5	795486	4	STEELS	2	5	9480	0.7962	0.1357	0.0311	0.7958	0.0369	0.0005	0.3878	-0.2608	-0.175	0.3885	-0.1924	-0.0289	-1.3438	0.0684	-1.3191	0.9499	-1.9691	0.8796	A-	A-	A-
SCIENCE	5	795494	4	STEELS	2	5	9484	0.7307	0.0905	0.7306	0.1125	0.0663	0.0001	0.4641	-0.2617	0.4643	-0.2623	-0.1923	-0.0176	-0.9354	0.0626	-3.9891	0.884	-4.1992	0.8092	A+	A+	A+
SCIENCE	5	780577	5	STEELS	3	1	9428	0.422	0.1459	0.1147	0.3171	0.4218	0.0005	0.3752	-0.1963	-0.2678	-0.0647	0.3754	-0.0296	0.5901	0.0566	1.901	1.0396	2.6211	1.0767	A+	A+	A+
SCIENCE	5	800303	5	STEELS	3	1	9431	0.404	0.1373	0.0973	0.3613	0.4039	0.0002	0.2969	-0.2038	-0.2695	0.0097	0.2971	-0.0266	0.6759	0.0569	3.1611	1.0679	2.9111	1.0892	A+	A+	A+
SCIENCE	5	800310	5	STEELS	3	1	9430	0.4024	0.4023	0.4129	0.1352	0.0493	0.0003	0.2988	0.299	-0.068	-0.1985	-0.207	-0.0254	0.6835	0.0569	3.7911	1.0819	4.3311	1.1352	A+	A+	A+
SCIENCE	5	800320	5	STEELS	2	1	9426	0.4789	0.1494	0.135	0.2364	0.4785	0.0007	0.4592	-0.2352	-0.2493	-0.1404	0.4596	-0.0361	0.3231	0.056	-3.5191	0.9312	-2.8191	0.9278	A+	A+	A+
SCIENCE	5	780591	5	STEELS	2	2	9421	0.5447	0.2167	0.0904	0.544	0.1476	0.0013	0.3825	-0.0363	-0.2518	0.3834	-0.2884	-0.0431	0.0172	0.0562	0.291	1.0058	0.081	1.0019	A+	A+	A+
SCIENCE	5	784960	5	STEELS	3	2	9430	0.3525	0.065	0.3306	0.3524	0.2517	0.0003	0.2402	-0.2413	-0.0696	0.2404	-0.0511	-0.0262	0.9297	0.0582	4.0911	1.0971	5.4612	1.202	A-	A-	A-
SCIENCE	5	784966	5	STEELS	2	2	9430	0.2488	0.3631	0.1868	0.2487	0.2011	0.0003	0.0555	0.0491	-0.0956	0.0558	-0.0244	-0.0383	1.4979	0.0634	7.1612	1.2387	9.9016	1.6273	A-	A-	A-
SCIENCE	5	785406	5	STEELS	2	2	9431	0.4997	0.4996	0.1285	0.2485	0.1232	0.0002	0.367	0.3672	-0.293	-0.1087	-0.1163	-0.0227	0.2248	0.056	1.321	1.0264	0.981	1.0254	A-	A+	A+
SCIENCE	5	785407	5	STEELS	2	2	9428	0.1	0.1	0.0975	0.6703	0.1317	0.0005	-0.1336	-0.1333	-0.2603	0.2965	-0.0636	-0.0302	2.7011	0.0884	2.4012	1.1594	9.9026	2.5752	A-	A+	A-
SCIENCE	5	795203	5	STEELS	2	2	9428	0.4054	0.0741	0.4052	0.4992	0.021	0.0005	0.1187	-0.3069	0.1192	0.0675	-0.0787	-0.0259	0.6697	0.0568	9.9012	1.2492	9.9014	1.3644	A+	A+	A+
SCIENCE	5	795210	5	STEELS	3	2	9432	0.8765	0.8764	0.05	0.0423	0.0312	0.0001	0.4169	0.417	-0.2718	-0.2201	-0.1933	-0.009	-1.9951	0.0807	-1.4291	0.9246	-3.0993	0.7466	A-	A-	A-
SCIENCE	5	795211	5	STEELS	2	2	9430	0.7754	0.1258	0.7752	0.0651	0.0336	0.0003	0.4843	-0.2825	0.4848	-0.2811	-0.2153	-0.031	-1.2007	0.0654	-5.4792	0.8246	-5.7393	0.715	A+	A-	A-
SCIENCE	5	795317	5	STEELS	2	2	9430	0.7524	0.0647	0.0535	0.7521	0.1293	0.0003	0.4687	-0.2671	-0.2899	0.4693	-0.2117	-0.0358	-1.057	0.0635	-3.7491	0.886	-3.2692	0.8439	A+	A+	A-
SCIENCE	5	795321	5	STEELS	2	2	18873	0.331	0.3309	0.0994	0.2836	0.2858	0.0002	0.3948	0.3948	-0.2427	-0.2147	-0.036	-0.0094	1.0423	0.0417	-1.069	0.9816	2.5111	1.0683	A-	A+	A-
SCIENCE	5	795324	5	STEELS	2	2	9431	0.7062	0.0255	0.1293	0.1389	0.706	0.0002	0.4551	-0.2101	-0.248	-0.2626	0.4551	-0.0108	-0.7911	0.0607	-3.5391	0.9055	-3.9592	0.8416	A+	A+	A+
SCIENCE	5	795330	5	STEELS	2	2	9432	0.6916	0.6915	0.1812	0.069	0.0582	0.0001	0.4675	0.4676	-0.236	-0.266	-0.2454	-0.0216	-0.7122	0.06	-5.5991	0.8586	-4.8892	0.8164	A+	B-	A-
SCIENCE	5	782218	5	STEELS	2	3	9425	0.6406	0.1016	0.6401	0.166	0.0915	0.0008	0.4986	-0.2083	0.4995	-0.2979	-0.2241	-0.0464	-0.4459	0.058	-4.7591	0.8916	-5.3592	0.8302	A+	A-	A-
SCIENCE	5	782221	5	STEELS	3	3	9426	0.3997	0.1935	0.2001	0.2062	0.3994	0.0007	0.3793	-0.1612	-0.152	-0.1496	0.3797	-0.0356	0.6974	0.0569	-1.209	0.9745	-0.599	0.9817	A+	A+	A+
SCIENCE	5	795447	5	STEELS	2	3	9431	0.7213	0.0942	0.0867	0.7212	0.0976	0.0002	0.5269	-0.2709	-0.3315	0.5272	-0.2142	-0.0256	-0.8757	0.0615	-6.0992	0.8347	-6.3693	0.7414	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795455	5	STEELS	2	3	9430	0.7826	0.0585	0.0953	0.7824	0.0635	0.0003	0.5226	-0.2857	-0.3123	0.523	-0.2321	-0.0254	-1.2477	0.0661	-3.6591	0.8772	-4.6092	0.7594	A+	A-	A-
SCIENCE	5	800336	5	STEELS	2	3	9427	0.7213	0.1962	0.7209	0.0559	0.0264	0.0006	0.4703	-0.2865	0.471	-0.2892	-0.1883	-0.0353	-0.874	0.0615	-3.0091	0.916	-3.5091	0.8509	A-	A-	A-
SCIENCE	5	800341	5	STEELS	2	3	9427	0.4496	0.0867	0.1886	0.2748	0.4493	0.0006	0.364	-0.1935	-0.2258	-0.0845	0.3643	-0.0279	0.4602	0.0562	1.301	1.0263	2.3911	1.066	A+	A+	A-
SCIENCE	5	800347	5	STEELS	3	3	9431	0.7066	0.061	0.1797	0.7065	0.0527	0.0002	0.3558	-0.2792	-0.124	0.3561	-0.2122	-0.0247	-0.7935	0.0607	0.471	1.0127	2.0311	1.0876	A+	A+	A+
SCIENCE	5	800349	5	STEELS	2	3	9429	0.4513	0.1029	0.2259	0.2197	0.4511	0.0004	0.4941	-0.2735	-0.1941	-0.1952	0.4943	-0.0426	0.4517	0.0562	-4.9191	0.9039	-3.8391	0.8995	A+	A-	A-
SCIENCE	5	800376	5	STEELS	2	4	9432	0.6866	0.0959	0.6865	0.1566	0.0609	0.0001	0.4205	-0.1648	0.4207	-0.2951	-0.1639	-0.0216	-0.6856	0.0598	-1.329	0.9653	-1.7791	0.9313	A+	A+	A-
SCIENCE	5	800385	5	STEELS	3	4	9427	0.43	0.4298	0.1435	0.2201	0.206	0.0006	0.4262	0.4264	-0.2169	-0.2076	-0.1197	-0.0233	0.5523	0.0564	-3.8391	0.9234	-2.6291	0.9276	A-	A+	A+
SCIENCE	5	800389	5	STEELS	3	4	9427	0.6993	0.0658	0.6988	0.0928	0.1419	0.0006	0.4131	-0.2857	0.4135	-0.2533	-0.1284	-0.0222	-0.7517	0.0603	-0.219	0.9939	0.151	1.0058	A-	A-	A-
SCIENCE	5	800394	5	STEELS	3	4	9431	0.2705	0.2452	0.2704	0.2723	0.2118	0.0002	0.1409	-0.0053	0.1411	-0.0648	-0.0763	-0.0237	1.3696	0.0619	5.2112	1.1575	7.1314	1.3696	A+	A+	A+
SCIENCE	5	785012	5	STEELS	3	5	9427	0.6092	0.1233	0.0638	0.6088	0.2034	0.0006	0.3733	-0.1714	-0.2373	0.3739	-0.1672	-0.0324	-0.2915	0.0572	0.041	1.0006	-0.039	0.9984	A-	A+	A+
SCIENCE	5	785147	5	STEELS	2	5	9432	0.7289	0.0374	0.1313	0.1023	0.7288	0.0001	0.3323	-0.247	-0.1968	-0.1133	0.3323	-0.0062	-0.9193	0.062	1.501	1.0444	2.8311	1.1347	A+	A-	A+
SCIENCE	5	785151	5	STEELS	2	5	9430	0.7832	0.0527	0.0461	0.1179	0.783	0.0003	0.4795	-0.2424	-0.283	-0.26	0.4799	-0.027	-1.2518	0.0661	-3.9191	0.8686	-3.8392	0.7959	A+	A-	A+
SCIENCE	5	785190	5	STEELS	2	5	9433	0.7766	0.1177	0.0439	0.7766	0.0618		0.466	-0.2464	-0.257	0.466	-0.2577		-1.2103	0.0655	-4.5991	0.8505	-4.9993	0.7464	A+	A-	A-
SCIENCE	5	785681	5	STEELS	2	5	9431	0.4074	0.1291	0.1841	0.4073	0.2792	0.0002	0.1997	-0.0905	-0.1165	0.1999	-0.0498	-0.0247	0.6596	0.0568	9.2912	1.2076	9.8013	1.319	A+	A+	A+
SCIENCE	5	785683	5	STEELS	3	5	9429	0.4384	0.1964	0.1518	0.4382	0.2131	0.0004	0.201	-0.0428	-0.1389	0.2012	-0.0799	-0.0125	0.5121	0.0563	8.9712	1.1934	8.2112	1.2444	A-	A+	A+
SCIENCE	5	795478	5	STEELS	2	5	9432	0.6216	0.0991	0.6215	0.0821	0.1972	0.0001	0.4837	-0.2392	0.4838	-0.2899	-0.2097	-0.016	-0.3538	0.0575	-3.9891	0.9117	-4.2491	0.8708	A+	A-	A-
SCIENCE	5	795480	5	STEELS	3	5	9427	0.3322	0.1495	0.3039	0.332	0.2139	0.0006	0.2564	-0.1183	-0.1738	0.2567	0.0047	-0.0284	1.0339	0.0589	4.9411	1.1241	6.0712	1.2431	A-	A+	A-
SCIENCE	5	800399	5	STEELS	2	5	9432	0.8578	0.0251	0.0211	0.8577	0.0959	0.0001	0.3143	-0.1742	-0.1945	0.3147	-0.185	-0.0216	-1.8193	0.0765	-0.999	0.9519	-1.2091	0.9039	A-	B-	A-
SCIENCE	5	800405	5	STEELS	2	5	9431	0.5118	0.5117	0.367	0.0787	0.0424	0.0002	0.2102	0.2102	-0.0145	-0.2157	-0.1983	-0.0009	0.1684	0.056	9.3012	1.1984	8.3712	1.2336	A+	A+	A+
SCIENCE	5	780574	6	STEELS	2	1	9443	0.7422	0.0881	0.112	0.7422	0.0576		0.5051	-0.2864	-0.3211	0.5051	-0.1649		-1.0345	0.0631	-4.9191	0.8559	-5.6093	0.75	A+	A-	A+
SCIENCE	5	780576	6	STEELS	2	1	9439	0.2645	0.2359	0.25	0.2644	0.2492	0.0004	0.0382	-0.1395	-0.0434	0.0385	0.1425	-0.0291	1.4168	0.0627	8.3713	1.2712	9.9016	1.5859	A-	A+	A+
SCIENCE	5	800301	6	STEELS	3	1	9441	0.7158	0.0751	0.1393	0.7157	0.0698	0.0002	0.4946	-0.2676	-0.2633	0.4948	-0.2404	-0.0175	-0.8789	0.0614	-1.9091	0.9464	-3.2291	0.864	A+	A-	A-
SCIENCE	5	800307	6	STEELS	2	1	9440	0.6738	0.0841	0.1275	0.6736	0.1145	0.0003	0.4971	-0.2558	-0.2929	0.4974	-0.2016	-0.0183	-0.6476	0.0593	-3.5791	0.9115	-4.2692	0.8471	A+	A-	A+
SCIENCE	5	800316	6	STEELS	2	1	9434	0.4305	0.1503	0.1564	0.2623	0.4301	0.001	0.4428	-0.2559	-0.2705	-0.0655	0.443	-0.0247	0.5462	0.0565	-2.419	0.9505	-1.749	0.9509	A+	A-	A+
SCIENCE	5	780595	6	STEELS	2	2	9440	0.2601	0.0932	0.26	0.2054	0.4411	0.0003	0.2455	-0.2206	0.2456	-0.2033	0.0781	-0.0133	1.4434	0.063	0.331	1.0098	4.4412	1.2364	A+	A-	A-
SCIENCE	5	784965	6	STEELS	2	2	9438	0.6828	0.0805	0.1301	0.6824	0.1064	0.0005	0.3327	-0.1829	-0.1481	0.3335	-0.1779	-0.0341	-0.6947	0.0597	0.421	1.0108	1.5411	1.0604	A+	A+	A+
SCIENCE	5	784967	6	STEELS	2	2	9441	0.8479	0.8477	0.048	0.0641	0.04	0.0002	0.489	0.4893	-0.2389	-0.3021	-0.2575	-0.021	-1.7779	0.0752	-4.6792	0.7963	-6.2094	0.5905	A+	A-	A-
SCIENCE	5	785405	6	STEELS	2	2	9441	0.7874	0.7872	0.052	0.0661	0.0945	0.0002	0.5292	0.5294	-0.2709	-0.3043	-0.2758	-0.0175	-1.321	0.0669	-4.9792	0.8308	-5.6693	0.7024	A+	A-	A-
SCIENCE	5	785408	6	STEELS	2	2	9442	0.4169	0.1348	0.3561	0.0921	0.4168	0.0001	0.4286	-0.1432	-0.1535	-0.3069	0.4286	-0.0142	0.6107	0.0567	-2.009	0.9582	-0.989	0.9711	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795206	6	STEELS	2	2	9437	0.4549	0.4546	0.1103	0.1365	0.2979	0.0006	0.4674	0.4676	-0.2315	-0.2629	-0.1516	-0.0289	0.4277	0.0562	-4.0091	0.9205	-3.5891	0.9058	A+	A-	A-
SCIENCE	5	795209	6	STEELS	2	2	9437	0.3768	0.2254	0.137	0.3766	0.2604	0.0006	0.0721	0.0206	-0.1368	0.0727	0.009	-0.0289	0.81	0.0576	9.9013	1.3353	9.9015	1.4592	A+	A+	A+
SCIENCE	5	795215	6	STEELS	2	2	9440	0.6432	0.1782	0.1329	0.0455	0.643	0.0003	0.4436	-0.178	-0.2572	-0.2727	0.4438	-0.0204	-0.4878	0.0582	-1.839	0.9568	-2.2291	0.9259	A-	A+	A+
SCIENCE	5	795319	6	STEELS	2	2	9442	0.6037	0.0774	0.6036	0.2949	0.0239	0.0001	0.3712	-0.1862	0.3713	-0.2418	-0.1404	-0.0142	-0.2893	0.0572	3.0511	1.0689	1.8811	1.0575	A-	A+	A+
SCIENCE	5	795320	6	STEELS	3	2	9441	0.3808	0.0499	0.3807	0.1398	0.4294	0.0002	0.197	-0.2182	0.1972	-0.1616	0.0162	-0.0123	0.7893	0.0575	9.2812	1.2202	9.9014	1.3873	A-	A+	A-
SCIENCE	5	780611	6	STEELS	3	3	9443	0.6708	0.1432	0.0795	0.6708	0.1065		0.4877	-0.2169	-0.2624	0.4877	-0.2664		-0.6324	0.0592	-4.3391	0.8941	-5.3292	0.8137	A-	A-	A-
SCIENCE	5	782219	6	STEELS	2	3	9438	0.5828	0.1239	0.1013	0.1918	0.5824	0.0005	0.3877	-0.0762	-0.2013	-0.2669	0.388	-0.0181	-0.1853	0.0568	0.391	1.0083	1.451	1.0416	A+	A-	A+
SCIENCE	5	782222	6	STEELS	2	3	9441	0.4415	0.2491	0.1917	0.1177	0.4414	0.0002	0.4581	-0.1534	-0.2128	-0.2399	0.458	-0.0018	0.4914	0.0564	-3.3291	0.9332	-2.4191	0.9342	A+	A+	A-
SCIENCE	5	795449	6	STEELS	2	3	9440	0.5382	0.2437	0.1296	0.5381	0.0883	0.0003	0.4195	-0.2671	-0.1982	0.4197	-0.0974	-0.0183	0.0291	0.0562	-1.559	0.9683	-2.0591	0.9463	A-	A+	A+
SCIENCE	5	795450	6	STEELS	2	3	9441	0.3317	0.2771	0.2275	0.1635	0.3317	0.0002	0.2964	-0.0974	-0.0356	-0.2184	0.2965	-0.0201	1.0414	0.0591	2.3211	1.0578	4.2812	1.1713	A+	A+	A+
SCIENCE	5	800338	6	STEELS	2	3	9442	0.6398	0.1214	0.1298	0.6397	0.109	0.0001	0.4796	-0.1963	-0.2641	0.4797	-0.2479	-0.0155	-0.4709	0.0581	-2.8391	0.9342	-3.8491	0.8759	A-	A-	A-
SCIENCE	5	800340	6	STEELS	2	3	9437	0.5196	0.2568	0.5192	0.1336	0.0897	0.0006	0.3459	-0.0678	0.346	-0.2684	-0.1806	-0.0122	0.1193	0.0561	3.5511	1.0734	3.8911	1.1045	A-	A-	A+
SCIENCE	5	800344	6	STEELS	2	3	9440	0.5745	0.5743	0.218	0.1265	0.0808	0.0003	0.5387	0.5387	-0.2181	-0.314	-0.2628	-0.0154	-0.1455	0.0566	-5.2491	0.8925	-5.1991	0.8606	A-	A-	A-
SCIENCE	5	800345	6	STEELS	2	3	9441	0.4516	0.4516	0.1093	0.2582	0.1808	0.0002	0.2404	0.2404	-0.204	-0.1411	0.0152	-0.0097	0.4425	0.0563	8.3012	1.1786	8.1512	1.2378	A-	A+	A+
SCIENCE	5	800359	6	STEELS	2	3	18906	0.2624	0.2623	0.268	0.2144	0.2552	0.0002	0.1395	0.1397	-0.1093	-0.009	-0.0209	-0.0169	1.4807	0.0442	6.8712	1.151	9.9015	1.4635	A+	A-	A+
SCIENCE	5	800368	6	STEELS	2	3	9439	0.3341	0.1567	0.334	0.1489	0.3599	0.0004	0.0927	-0.2142	0.0929	-0.2139	0.2304	-0.0174	1.0291	0.059	9.9013	1.2649	9.9014	1.4317	A-	A+	A-
SCIENCE	5	800383	6	STEELS	2	4	9442	0.5365	0.1581	0.5365	0.1462	0.1591	0.0001	0.3723	-0.1956	0.3724	-0.2339	-0.0861	-0.0155	0.0367	0.0562	1.631	1.0335	1.371	1.0365	A-	A+	A-
SCIENCE	5	800384	6	STEELS	3	4	9438	0.2117	0.2116	0.2559	0.2493	0.2827	0.0005	-0.0961	-0.0957	-0.0227	0.0653	0.0475	-0.0296	1.7517	0.0672	8.7614	1.3518	9.902	2.0194	A-	A+	A+
SCIENCE	5	780636	6	STEELS	2	5	9439	0.5405	0.2508	0.0795	0.129	0.5403	0.0004	0.4065	-0.043	-0.31	-0.2973	0.4068	-0.0285	0.0184	0.0562	-2.239	0.9547	-1.659	0.9565	A+	A+	A+
SCIENCE	5	785010	6	STEELS	2	5	9441	0.6472	0.0821	0.1788	0.647	0.0919	0.0002	0.4816	-0.2336	-0.256	0.4817	-0.2347	-0.0132	-0.5084	0.0583	-3.6891	0.914	-3.7791	0.8751	A+	A-	A-
SCIENCE	5	785013	6	STEELS	3	5	9438	0.6981	0.0671	0.0777	0.6978	0.1568	0.0005	0.4309	-0.2602	-0.2894	0.4312	-0.1511	-0.0203	-0.7785	0.0604	-1.869	0.9501	-2.1991	0.9117	A-	A-	A-
SCIENCE	5	785016	6	STEELS	2	5	9441	0.5635	0.2003	0.5634	0.146	0.0901	0.0002	0.3782	-0.2185	0.3784	-0.158	-0.1542	-0.021	-0.0927	0.0565	0.481	1.0098	-0.169	0.995	A-	A-	A+
SCIENCE	5	785684	6	STEELS	2	5	9442	0.4291	0.2894	0.2158	0.4291	0.0656	0.0001	0.3701	-0.0577	-0.2346	0.3702	-0.2443	-0.0068	0.5509	0.0565	1.781	1.0372	1.731	1.0495	A-	A+	A+
SCIENCE	5	785685	6	STEELS	2	5	9439	0.6338	0.0762	0.0665	0.6335	0.2233	0.0004	0.5016	-0.1946	-0.2219	0.5018	-0.3227	-0.0199	-0.439	0.0579	-3.3891	0.9228	-4.3391	0.8636	A+	A+	A-
SCIENCE	5	795488	6	STEELS	2	5	9443	0.779	0.1513	0.779	0.0447	0.025		0.4493	-0.2942	0.4493	-0.2599	-0.1747		-1.2657	0.0661	-1.5591	0.9461	-2.3091	0.8741	A+	A-	A-
SCIENCE	5	800406	6	STEELS	2	5	9440	0.7055	0.0802	0.0882	0.126	0.7053	0.0003	0.596	-0.2945	-0.318	-0.3052	0.5961	-0.0168	-0.8202	0.0608	-7.4092	0.809	-7.5093	0.7145	A+	A-	A-
SCIENCE	5	800411	6	STEELS	3	5	9440	0.4869	0.4867	0.0873	0.1225	0.3032	0.0003	0.291	0.2912	-0.2969	-0.2889	0.0725	-0.0183	0.2742	0.0561	6.3111	1.1323	7.1712	1.1987	A-	A+	A+
SCIENCE	5	800414	6	STEELS	2	5	9439	0.6826	0.6823	0.0847	0.1204	0.1121	0.0004	0.559	0.5591	-0.2859	-0.3202	-0.2414	-0.0137	-0.6942	0.0597	-5.4791	0.864	-6.1292	0.7796	A+	A-	A+
SCIENCE	5	780575	7	STEELS	2	1	9463	0.3304	0.1272	0.2604	0.3303	0.2817	0.0004	0.0959	-0.215	0.0186	0.0963	0.0417	-0.0275	1.1534	0.0588	9.9013	1.2664	9.9015	1.4848	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	795200	7	STEELS	2	1	9467	0.5129	0.1559	0.2562	0.075	0.5129		0.2233	-0.0744	-0.0893	-0.1734	0.2233		0.2601	0.0561	9.1012	1.1926	8.2012	1.2343	A-	A-	A+
SCIENCE	5	800308	7	STEELS	2	1	9462	0.7934	0.0674	0.0796	0.0595	0.793	0.0005	0.5642	-0.316	-0.2775	-0.3122	0.5644	-0.0227	-1.2593	0.0683	-5.4892	0.8045	-6.2893	0.6598	A+	A+	A+
SCIENCE	5	800314	7	STEELS	2	1	9465	0.6253	0.0911	0.1445	0.1391	0.6251	0.0002	0.4824	-0.2533	-0.2397	-0.2205	0.4823	-0.0005	-0.2863	0.0579	-2.9691	0.9314	-2.5791	0.9173	A-	A-	A-
SCIENCE	5	780592	7	STEELS	2	2	9466	0.7151	0.0842	0.715	0.1259	0.0748	0.0001	0.5329	-0.2437	0.5329	-0.3235	-0.2491	-0.0037	-0.7684	0.0619	-4.1891	0.8809	-5.2792	0.7809	A-	A-	A+
SCIENCE	5	780600	7	STEELS	2	2	9464	0.5587	0.2641	0.0981	0.0789	0.5586	0.0003	0.3802	-0.054	-0.3025	-0.277	0.3805	-0.0265	0.0418	0.0565	0.361	1.0074	0.051	1.0012	A+	A+	A-
SCIENCE	5	784964	7	STEELS	2	2	9464	0.7298	0.0583	0.1049	0.1069	0.7296	0.0003	0.5346	-0.2471	-0.2942	-0.2884	0.535	-0.0265	-0.8535	0.0628	-5.4392	0.841	-4.7892	0.7888	A+	A-	A+
SCIENCE	5	795204	7	STEELS	2	2	9465	0.7159	0.0645	0.0771	0.7157	0.1424	0.0002	0.4187	-0.195	-0.2079	0.419	-0.2439	-0.027	-0.7726	0.0619	-0.449	0.9866	-1.8691	0.9177	A-	A+	A-
SCIENCE	5	795212	7	STEELS	2	2	9465	0.4936	0.1471	0.4935	0.3005	0.0586	0.0002	0.2079	-0.1153	0.2082	-0.0449	-0.1801	-0.0232	0.3525	0.056	9.2212	1.1931	8.7713	1.2518	A-	A+	A+
SCIENCE	5	795214	7	STEELS	2	2	9467	0.7864	0.7864	0.082	0.0575	0.0742		0.5249	0.5249	-0.3048	-0.3034	-0.2325		-1.214	0.0676	-3.9291	0.8603	-5.4993	0.7053	A+	A-	A-
SCIENCE	5	795325	7	STEELS	2	2	9467	0.7665	0.0446	0.0508	0.7665	0.1382		0.3493	-0.1639	-0.2546	0.3493	-0.1682		-1.0811	0.0657	2.5311	1.0899	2.3611	1.134	A-	A+	A+
SCIENCE	5	795328	7	STEELS	2	2	9463	0.8977	0.8973	0.0334	0.0312	0.0377	0.0004	0.4577	0.458	-0.2758	-0.2975	-0.1961	-0.0215	-2.1833	0.0892	-2.8492	0.829	-5.0594	0.5536	A+	A-	A+
SCIENCE	5	795665	7	STEELS	2	2	9463	0.5662	0.0754	0.566	0.2694	0.0888	0.0004	0.3622	-0.2478	0.3627	-0.0994	-0.2443	-0.0362	0.0059	0.0566	1.631	1.0348	1.7811	1.0509	A-	A-	A-
SCIENCE	5	804569	7	STEELS	2	2	9462	0.4555	0.2746	0.1262	0.1433	0.4553	0.0005	0.4187	-0.0921	-0.2596	-0.23	0.4189	-0.0286	0.5345	0.0561	-1.539	0.9698	-1.059	0.9709	A+	A-	A-
SCIENCE	5	804572	7	STEELS	2	2	9465	0.5223	0.1949	0.1108	0.1719	0.5222	0.0002	0.4806	-0.163	-0.3019	-0.2134	0.4807	-0.0166	0.2159	0.0561	-5.5291	0.8927	-4.9991	0.872	A+	A-	A-
SCIENCE	5	780607	7	STEELS	3	3	9464	0.7081	0.1158	0.1043	0.7078	0.0718	0.0003	0.4467	-0.2328	-0.2626	0.447	-0.1865	-0.0234	-0.7273	0.0614	-2.1491	0.9388	-2.5691	0.8912	A+	A-	A-
SCIENCE	5	780610	7	STEELS	3	3	18872	0.7476	0.0548	0.0966	0.101	0.7474	0.0003	0.5749	-0.2349	-0.292	-0.3645	0.5751	-0.0208	-0.9143	0.0454	-9.8992	0.7856	-9.8993	0.6674	A-	A-	A+
SCIENCE	5	780615	7	STEELS	2	3	9463	0.7057	0.7054	0.0762	0.1467	0.0713	0.0004	0.4934	0.4935	-0.3099	-0.2514	-0.2079	-0.0141	-0.7137	0.0613	-4.4491	0.877	-4.6192	0.8124	A-	A+	A+
SCIENCE	5	795456	7	STEELS	2	3	9466	0.3019	0.0937	0.3019	0.3332	0.2712	0.0001	0.2536	-0.1076	0.2536	-0.0565	-0.1309	-0.0251	1.3057	0.06	2.1411	1.0559	2.8411	1.1249	A-	A+	A+
SCIENCE	5	795459	7	STEELS	2	3	9465	0.8497	0.8495	0.0265	0.0658	0.058	0.0002	0.4345	0.4346	-0.2122	-0.2688	-0.2331	-0.01	-1.6991	0.0766	-1.8191	0.9137	-2.5292	0.8086	A-	A-	A-
SCIENCE	5	795472	7	STEELS	2	3	9465	0.2532	0.2615	0.2256	0.2594	0.2532	0.0002	0.2625	-0.0291	-0.1357	-0.1011	0.2627	-0.027	1.5846	0.0629	1.9711	1.0605	5.8313	1.3264	A-	A+	A+
SCIENCE	5	800351	7	STEELS	2	3	9466	0.51	0.0598	0.3229	0.51	0.1072	0.0001	0.3248	-0.2025	-0.0881	0.325	-0.2361	-0.0184	0.2742	0.0561	4.5211	1.0926	4.4611	1.123	A-	A-	A-
SCIENCE	5	800366	7	STEELS	3	3	9463	0.7281	0.7278	0.0768	0.1072	0.0878	0.0004	0.5666	0.5666	-0.2996	-0.3404	-0.2364	-0.0101	-0.8428	0.0627	-5.8492	0.8306	-6.5393	0.7218	A-	A-	A-
SCIENCE	5	800372	7	STEELS	2	3	9465	0.5894	0.5893	0.0648	0.2707	0.075	0.0002	0.4501	0.4501	-0.1715	-0.2712	-0.2223	-0.0119	-0.1078	0.057	-1.139	0.9749	-1.649	0.9513	C-	A-	A-
SCIENCE	5	800381	7	STEELS	2	4	9466	0.658	0.0898	0.658	0.1597	0.0924	0.0001	0.507	-0.2845	0.5071	-0.2729	-0.2043	-0.0104	-0.4556	0.0591	-4.5091	0.8893	-5.2092	0.8213	A+	A+	A-
SCIENCE	5	800391	7	STEELS	3	4	9466	0.6118	0.1221	0.6117	0.1764	0.0897	0.0001	0.4079	-0.2033	0.4078	-0.2325	-0.1527	0.003	-0.2188	0.0576	1.071	1.0247	1.101	1.0349	A-	A-	A+
SCIENCE	5	800396	7	STEELS	2	4	9465	0.3103	0.0943	0.2892	0.3102	0.306	0.0002	0.0732	-0.1706	0.0319	0.0734	0.004	-0.027	1.2603	0.0596	9.9013	1.3185	9.9017	1.6636	A+	A-	A-
SCIENCE	5	785009	7	STEELS	2	5	9467	0.7268	0.1944	0.0564	0.7268	0.0224		0.386	-0.1863	-0.3058	0.386	-0.1872		-0.8372	0.0626	-0.269	0.9915	-0.939	0.9558	A-	A-	A+
SCIENCE	5	785014	7	STEELS	2	5	9466	0.4786	0.1684	0.4785	0.2808	0.0723	0.0001	0.2705	-0.1687	0.2706	-0.0731	-0.1504	-0.0264	0.4238	0.056	5.6111	1.1142	5.2811	1.1481	A+	A+	A+
SCIENCE	5	785015	7	STEELS	3	5	9464	0.3206	0.1359	0.132	0.4112	0.3205	0.0003	0.2275	-0.1725	-0.3029	0.1137	0.2277	-0.0296	1.2053	0.0592	4.9611	1.126	5.5512	1.2365	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	785412	7	STEELS	2	5	9464	0.149	0.1357	0.3665	0.3485	0.1489	0.0003	0.0625	-0.2231	0.0871	0.0265	0.0627	-0.0288	2.3238	0.0754	3.7612	1.1889	8.3718	1.8304	A+	A+	A+
SCIENCE	5	785414	7	STEELS	2	5	9462	0.7113	0.0656	0.1225	0.7109	0.1005	0.0005	0.5394	-0.2686	-0.3135	0.5394	-0.2491	-0.0155	-0.7448	0.0616	-6.0992	0.8319	-6.4593	0.7403	A+	A+	A+
SCIENCE	5	795483	7	STEELS	2	5	9465	0.8352	0.1055	0.0279	0.0314	0.835	0.0002	0.4104	-0.2822	-0.2243	-0.1637	0.4106	-0.0157	-1.5765	0.074	0.641	1.0287	-0.089	0.9914	A+	A-	B-
SCIENCE	5	795493	7	STEELS	2	5	9465	0.691	0.6908	0.077	0.0504	0.1816	0.0002	0.4272	0.4272	-0.2483	-0.3076	-0.1656	-0.0062	-0.6323	0.0605	-0.059	0.998	0.311	1.0121	A+	A-	A-
SCIENCE	5	795495	7	STEELS	2	5	9465	0.8665	0.0228	0.0945	0.8663	0.0162	0.0002	0.3678	-0.2329	-0.2426	0.3685	-0.1525	-0.0317	-1.8532	0.0802	-0.239	0.9864	-1.2291	0.8941	A+	A+	A+
SCIENCE	5	800400	7	STEELS	2	5	9465	0.7535	0.099	0.0569	0.7534	0.0905	0.0002	0.4456	-0.2213	-0.2873	0.4457	-0.2066	-0.0128	-0.998	0.0645	-1.049	0.9651	-2.0091	0.8981	A+	A-	A-
SCIENCE	5	800412	7	STEELS	2	5	9464	0.8577	0.0562	0.8574	0.0635	0.0226	0.0003	0.4235	-0.3137	0.4237	-0.1836	-0.2076	-0.0165	-1.77	0.0782	-3.5392	0.8313	-2.4992	0.8034	A-	A-	A-
SCIENCE	5	800453	7	STEELS	2	5	9463	0.4445	0.2682	0.156	0.4443	0.1311	0.0004	0.3587	-0.0895	-0.2498	0.3589	-0.141	-0.0208	0.587	0.0562	2.4811	1.0498	3.2811	1.0944	A-	A+	A+
SCIENCE	5	800454	7	STEELS	2	5	9462	0.3037	0.1056	0.3036	0.2404	0.3498	0.0005	0.1669	-0.0308	0.1673	-0.1727	0.0153	-0.0412	1.2964	0.0599	4.6311	1.1233	7.8414	1.3678	A+	A+	A+
SCIENCE	5	739394	8	STEELS	2	1	9406	0.5677	0.0498	0.1338	0.5675	0.2485	0.0004	0.4433	-0.2838	-0.2552	0.4437	-0.1629	-0.0394	0.12	0.0574	-1.349	0.9697	-1.529	0.9532	A+	A+	A+
SCIENCE	5	741106	8	STEELS	2	1	9406	0.6474	0.1348	0.1001	0.6471	0.1176	0.0004	0.4673	-0.1993	-0.3148	0.4678	-0.1872	-0.0336	-0.2896	0.0593	-3.4591	0.9148	-3.4791	0.8735	A+	A+	A+
SCIENCE	5	743526	8	STEELS	2	1	9410	0.7798	0.0819	0.1064	0.7798	0.0319		0.4709	-0.28	-0.2989	0.4709	-0.1488		-1.0782	0.0673	-1.7491	0.9383	-1.8991	0.8857	A+	A+	A+
SCIENCE	5	737133	8	STEELS	2	2	9410	0.7341	0.1307	0.0427	0.0925	0.7341		0.4493	-0.2597	-0.2584	-0.2027	0.4493		-0.7835	0.0635	-1.7091	0.9474	-2.4391	0.8786	A+	A+	A+
SCIENCE	5	737134	8	STEELS	2	2	9407	0.7038	0.7036	0.0716	0.1232	0.1013	0.0003	0.503	0.5033	-0.2481	-0.2837	-0.2392	-0.0266	-0.6024	0.0617	-4.1691	0.885	-3.3891	0.8515	A-	A-	A-
SCIENCE	5	739419	8	STEELS	2	2	9406	0.4775	0.173	0.1899	0.4773	0.1594	0.0004	0.3098	-0.0762	-0.1399	0.31	-0.1933	-0.0181	0.5655	0.0569	3.1311	1.0687	3.2111	1.097	A+	A-	A+
SCIENCE	5	741115	8	STEELS	2	2	9410	0.5979	0.1328	0.0859	0.1834	0.5979		0.4098	-0.1693	-0.2768	-0.1703	0.4098		-0.0334	0.0579	1.591	1.0374	1.6711	1.0556	A-	A+	A+
SCIENCE	5	741121	8	STEELS	2	2	9408	0.7279	0.0689	0.0948	0.7277	0.1084	0.0002	0.4973	-0.2703	-0.3439	0.4976	-0.167	-0.0274	-0.7446	0.0631	-2.7791	0.9173	-3.3292	0.8409	A-	A+	A+
SCIENCE	5	804571	8	STEELS	2	2	9407	0.53	0.5299	0.2032	0.1206	0.146	0.0003	0.3695	0.3698	-0.0763	-0.2747	-0.1812	-0.024	0.3067	0.057	2.3211	1.0513	2.0011	1.0596	A-	A+	A+
SCIENCE	5	804573	8	STEELS	2	2	9407	0.249	0.235	0.2489	0.4146	0.1013	0.0003	0.0903	-0.1885	0.0906	0.1421	-0.0949	-0.0359	1.7857	0.0644	7.3413	1.2506	9.9018	1.8036	A-	A-	A-
SCIENCE	5	737138	8	STEELS	2	3	9407	0.6374	0.1214	0.0621	0.6372	0.1791	0.0003	0.3897	-0.24	-0.2031	0.3902	-0.1555	-0.0346	-0.2371	0.0589	2.1211	1.0533	0.631	1.023	A-	A-	A-
SCIENCE	5	737163	8	STEELS	2	3	9409	0.7457	0.0427	0.7456	0.0681	0.1435	0.0001	0.4936	-0.2004	0.4938	-0.3297	-0.2604	-0.0142	-0.8544	0.0643	-3.1491	0.9019	-3.1992	0.8361	A+	A-	A-
SCIENCE	5	739399	8	STEELS	2	3	9408	0.6545	0.1019	0.6544	0.1594	0.0841	0.0002	0.4932	-0.172	0.4932	-0.277	-0.2919	-0.0087	-0.3287	0.0595	-2.5191	0.9365	-2.0091	0.9237	A-	A-	A-
SCIENCE	5	739400	8	STEELS	2	3	9407	0.3811	0.0828	0.4228	0.1131	0.381	0.0003	0.2302	-0.2073	0.0853	-0.3046	0.2304	-0.0233	1.0468	0.0582	8.2412	1.2027	7.6613	1.298	A-	A+	A+
SCIENCE	5	743569	8	STEELS	3	4	9408	0.5238	0.1363	0.5237	0.2389	0.1009	0.0002	0.2784	-0.1916	0.2787	-0.1277	-0.0619	-0.0242	0.3371	0.0569	6.7312	1.1533	6.7712	1.2108	A+	A+	A+
SCIENCE	5	739441	8	STEELS	2	5	9408	0.6302	0.0813	0.1803	0.6301	0.1081	0.0002	0.5232	-0.2518	-0.3072	0.5233	-0.2108	-0.0193	-0.1997	0.0587	-3.1991	0.9234	-3.5891	0.8762	A+	A+	A+
SCIENCE	5	739445	8	STEELS	2	5	9408	0.7347	0.7345	0.0826	0.1308	0.0519	0.0002	0.5694	0.5696	-0.2966	-0.339	-0.2492	-0.0226	-0.786	0.0636	-6.3692	0.8145	-6.7093	0.6912	A-	A+	A+
SCIENCE	5	739450	8	STEELS	3	5	9405	0.7159	0.0556	0.0555	0.7155	0.1729	0.0005	0.3624	-0.2147	-0.2553	0.3628	-0.1469	-0.0226	-0.6718	0.0624	2.1711	1.0652	2.8511	1.1423	A+	A+	A+
SCIENCE	5	739452	8	STEELS	2	5	9406	0.7617	0.044	0.075	0.1191	0.7614	0.0004	0.5724	-0.2851	-0.3355	-0.2984	0.5727	-0.0279	-0.9555	0.0656	-4.5891	0.8528	-5.3293	0.7234	A-	A+	A+
SCIENCE	5	743579	8	STEELS	3	5	9408	0.5182	0.1049	0.1911	0.5181	0.1858	0.0002	0.4868	-0.2911	-0.2438	0.487	-0.1489	-0.0274	0.3649	0.0569	-2.9091	0.9382	-2.3691	0.9323	A-	A+	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	785410	8	STEELS	2	5	9407	0.6662	0.666	0.0949	0.0618	0.1769	0.0003	0.4091	0.4095	-0.3375	-0.271	-0.0746	-0.0273	-0.3915	0.06	-1.089	0.9715	-1.5291	0.9392	A+	A+	A-
SCIENCE	5	785413	8	STEELS	2	5	9407	0.3884	0.2215	0.085	0.3049	0.3883	0.0003	0.3679	-0.1003	-0.2411	-0.1523	0.368	-0.0187	1.0093	0.058	-0.409	0.9905	1.9811	1.0702	A+	A+	A+
SCIENCE	5	800451	8	STEELS	2	5	9403	0.3551	0.3548	0.1279	0.3997	0.1168	0.0007	0.4298	0.43	-0.2164	-0.1003	-0.2598	-0.0316	1.1828	0.059	-1.569	0.9625	1.031	1.0398	A-	A+	A-
SCIENCE	5	800452	8	STEELS	3	5	9406	0.6945	0.0592	0.1366	0.6942	0.1097	0.0004	0.4859	-0.2637	-0.2083	0.4863	-0.2871	-0.0284	-0.5483	0.0612	-1.8091	0.9498	-2.6491	0.886	A-	A+	A-
SCIENCE	8	780579	1	STEELS	2	1	28328	0.6772	0.1471	0.6771	0.107	0.0687	0.0001	0.4656	-0.2389	0.4658	-0.297	-0.1629	-0.0165	-1.0055	0.0584	-5.3491	0.8795	-4.3592	0.8339	A-	A-	A-
SCIENCE	8	783157	1	STEELS	2	1	28309	0.3379	0.3376	0.1379	0.3604	0.1633	0.0008	0.2571	0.2575	-0.1797	0.0599	-0.2373	-0.0306	0.669	0.0588	6.7412	1.1852	6.2312	1.2359	A+	A-	A+
SCIENCE	8	783158	1	STEELS	2	1	28319	0.4508	0.1861	0.1963	0.1666	0.4506	0.0005	0.4705	-0.159	-0.2529	-0.1918	0.4706	-0.0165	0.0998	0.056	-2.9991	0.937	-3.0191	0.9213	A+	A+	A-
SCIENCE	8	783162	1	STEELS	2	1	28314	0.3696	0.2226	0.2112	0.3693	0.1962	0.0006	0.2401	-0.0316	-0.2471	0.2404	-0.0035	-0.0266	0.5029	0.0577	8.0512	1.2086	8.0113	1.2769	A-	A-	A-
SCIENCE	8	783165	1	STEELS	2	1	28319	0.2794	0.1458	0.2793	0.1506	0.4238	0.0005	0.3017	-0.107	0.3018	-0.1943	-0.0562	-0.0179	0.9954	0.0616	1.471	1.0443	2.9711	1.1347	A-	A+	A+
SCIENCE	8	784953	1	STEELS	2	1	28315	0.2017	0.2015	0.1474	0.4237	0.2267	0.0006	0.0509	0.0512	-0.2077	0.2426	-0.1579	-0.0256	1.4988	0.0682	8.0913	1.3413	9.3017	1.6727	A-	A+	A-
SCIENCE	8	784954	1	STEELS	2	1	28323	0.6684	0.1271	0.125	0.6682	0.0794	0.0003	0.5101	-0.2977	-0.3289	0.5104	-0.1184	-0.021	-0.9588	0.0581	-5.8991	0.8705	-6.0592	0.7806	A+	A+	A+
SCIENCE	8	801756	1	STEELS	2	1	28313	0.421	0.2561	0.4207	0.1702	0.1523	0.0007	0.3433	-0.1279	0.3438	-0.214	-0.0908	-0.0317	0.2452	0.0564	4.0511	1.0927	3.6211	1.1043	A+	A+	A+
SCIENCE	8	801757	1	STEELS	2	1	28317	0.3498	0.1822	0.2457	0.222	0.3496	0.0005	0.4438	-0.2639	-0.1806	-0.0757	0.444	-0.0263	0.6054	0.0583	-1.579	0.9603	-0.979	0.9667	A+	A+	A+
SCIENCE	8	801758	1	STEELS	3	1	38075	0.462	0.0717	0.3201	0.1458	0.4616	0.0008	0.4274	-0.1898	-0.1101	-0.3177	0.4277	-0.029	0.1018	0.0397	-0.939	0.9856	-0.859	0.9824	A-	A-	A-
SCIENCE	8	801759	1	STEELS	2	1	28315	0.4611	0.288	0.1415	0.4608	0.1091	0.0006	0.455	-0.1358	-0.2667	0.4552	-0.2307	-0.0242	0.0506	0.0558	-1.999	0.9581	-2.0191	0.9475	A-	A+	A+
SCIENCE	8	780603	1	STEELS	2	2	28324	0.6754	0.6752	0.0748	0.1814	0.0684	0.0003	0.3757	0.376	-0.1303	-0.2712	-0.1463	-0.0227	-0.9954	0.0583	-0.939	0.9781	-1.169	0.9531	A+	A-	A-
SCIENCE	8	780652	1	STEELS	2	2	18519	0.3205	0.1518	0.2095	0.3179	0.3203	0.0004	0.314	-0.1615	-0.0495	-0.1461	0.3142	-0.0218	0.9931	0.0519	2.4111	1.056	3.4911	1.1251	A-	A+	A+
SCIENCE	8	780654	1	STEELS	2	2	28322	0.5112	0.2007	0.1593	0.511	0.1287	0.0004	0.3861	-0.1707	-0.2349	0.3863	-0.1147	-0.0198	-0.1894	0.0556	1.441	1.0293	0.581	1.0151	A+	A+	A+
SCIENCE	8	795512	1	STEELS	2	2	18433	0.2478	0.2562	0.1491	0.3465	0.2476	0.0005	0.2628	-0.0828	-0.2421	0.0198	0.2629	-0.0237	1.3401	0.0551	0.731	1.0205	2.9011	1.1237	A+	A-	A-
SCIENCE	8	795530	1	STEELS	2	2	28317	0.552	0.2642	0.1199	0.5517	0.0636	0.0005	0.4749	-0.191	-0.3064	0.4752	-0.2131	-0.0237	-0.3834	0.0557	-4.1991	0.9179	-4.2091	0.8864	A+	A+	A+
SCIENCE	8	795533	1	STEELS	2	2	28315	0.2747	0.1449	0.2745	0.3982	0.1818	0.0006	0.2093	-0.1557	0.2096	-0.1014	0.0301	-0.0297	1.0234	0.0619	4.8512	1.1538	7.4014	1.3662	A-	A+	A+
SCIENCE	8	795535	1	STEELS	2	2	28317	0.3316	0.1306	0.3315	0.2787	0.2587	0.0005	0.3377	-0.3016	0.3379	0.0706	-0.2022	-0.0234	0.702	0.059	4.5911	1.1255	5.8112	1.2239	A-	A+	A+
SCIENCE	8	795541	1	STEELS	2	2	28321	0.6696	0.1402	0.6693	0.1482	0.0419	0.0004	0.1848	-0.0258	0.1853	-0.1191	-0.1771	-0.0191	-0.9646	0.0581	7.0312	1.1706	7.7413	1.3351	A+	A+	A+
SCIENCE	8	795544	1	STEELS	2	2	28302	0.5578	0.1011	0.1662	0.5572	0.1745	0.0011	0.3886	-0.2321	-0.194	0.3894	-0.1319	-0.0363	-0.4096	0.0557	-1.729	0.9656	-0.399	0.9883	A+	A+	A+
SCIENCE	8	800327	1	STEELS	2	2	28319	0.3704	0.3703	0.1042	0.2417	0.2834	0.0005	0.447	0.4471	-0.2672	-0.1387	-0.1654	-0.0165	0.4981	0.0576	-0.619	0.9847	0.301	1.0092	A-	A-	A-
SCIENCE	8	780626	1	STEELS	2	3	18524	0.5571	0.557	0.1506	0.137	0.1552	0.0002	0.5365	0.5365	-0.2154	-0.2857	-0.2516	-0.0094	-0.1861	0.0491	-9.0892	0.8415	-8.5892	0.7921	A-	A-	A-
SCIENCE	8	784976	1	STEELS	2	3	28306	0.5542	0.1596	0.5537	0.1262	0.1595	0.0009	0.4796	-0.2414	0.4801	-0.2691	-0.1636	-0.0329	-0.3928	0.0557	-4.2191	0.9174	-4.6791	0.8738	A-	A-	A-
SCIENCE	8	784977	1	STEELS	3	3	28316	0.3031	0.1398	0.3029	0.3217	0.235	0.0006	0.0844	-0.0958	0.0846	0.0253	-0.0404	-0.0152	0.8592	0.0603	9.3913	1.2878	9.6014	1.434	A+	A+	A+
SCIENCE	8	784980	1	STEELS	2	3	28321	0.5366	0.2608	0.1212	0.5364	0.0812	0.0004	0.4178	-0.1747	-0.2448	0.4181	-0.1885	-0.0201	-0.3102	0.0556	-1.579	0.9685	-2.5291	0.9324	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	784984	1	STEELS	3	3	28320	0.4965	0.4963	0.2499	0.1599	0.0935	0.0004	0.4875	0.4877	-0.1739	-0.2823	-0.2219	-0.0218	-0.1192	0.0556	-3.1891	0.936	-2.6691	0.9314	A+	A-	A-
SCIENCE	8	795548	1	STEELS	2	3	28311	0.5574	0.0893	0.557	0.184	0.1689	0.0007	0.5393	-0.2286	0.5396	-0.3003	-0.229	-0.0241	-0.4087	0.0557	-8.1292	0.8452	-7.8092	0.7944	A+	A+	A+
SCIENCE	8	795552	1	STEELS	2	3	28309	0.3817	0.3814	0.1456	0.25	0.2222	0.0008	0.428	0.4284	-0.243	-0.188	-0.0965	-0.0295	0.4413	0.0573	-0.289	0.9929	0.031	1.0005	A-	A+	A+
SCIENCE	8	800478	1	STEELS	2	3	28314	0.5317	0.1181	0.2469	0.5313	0.103	0.0006	0.4143	-0.2772	-0.1223	0.4148	-0.2104	-0.0336	-0.2862	0.0556	-0.679	0.9863	-0.749	0.9795	A-	A+	A+
SCIENCE	8	800482	1	STEELS	2	3	28312	0.2755	0.2753	0.2926	0.298	0.1333	0.0007	0.2949	0.2952	-0.0369	-0.1473	-0.1381	-0.0289	1.0186	0.0619	3.1111	1.0965	4.6912	1.2223	A-	A+	A-
SCIENCE	8	804549	1	STEELS	2	3	57549	0.472	0.159	0.1815	0.4717	0.1872	0.0005	0.3884	-0.2368	-0.1928	0.3887	-0.0835	-0.0232	0.0616	0.0276	1.031	1.0101	0.901	1.011	A+	A+	A+
SCIENCE	8	804552	1	STEELS	2	3	57557	0.3198	0.2396	0.3197	0.2515	0.1889	0.0004	0.1902	-0.0575	0.1904	-0.0787	-0.0757	-0.0232	0.8207	0.0293	9.9012	1.1981	9.9013	1.3067	A-	A+	A+
SCIENCE	8	804556	1	STEELS	2	3	57549	0.3616	0.256	0.1673	0.2148	0.3614	0.0005	0.4312	-0.0778	-0.2731	-0.1722	0.4313	-0.0253	0.6015	0.0286	-4.269	0.9518	-1.039	0.9838	A-	A-	A-
SCIENCE	8	804558	1	STEELS	3	3	57542	0.539	0.1949	0.0864	0.1793	0.5387	0.0007	0.4625	-0.1514	-0.2347	-0.2718	0.4627	-0.0194	-0.255	0.0276	-7.9991	0.9239	-7.6191	0.9053	A+	A+	A+
SCIENCE	8	784998	1	STEELS	2	4	38087	0.6966	0.1006	0.6963	0.1071	0.0956	0.0004	0.5191	-0.2577	0.5195	-0.289	-0.243	-0.0251	-1.0628	0.0424	-8.4891	0.8533	-8.9593	0.7275	A+	A+	A-
SCIENCE	8	785001	1	STEELS	2	4	28314	0.2475	0.2679	0.1948	0.2893	0.2474	0.0006	0.159	0.0701	-0.1069	-0.1251	0.1593	-0.0288	1.19	0.0639	6.1612	1.2151	7.1314	1.3966	A+	A+	A-
SCIENCE	8	795557	1	STEELS	2	4	28323	0.4581	0.3228	0.458	0.1149	0.104	0.0003	0.3465	-0.0175	0.3467	-0.2891	-0.236	-0.0193	0.0639	0.0559	5.1711	1.1135	5.0211	1.1387	A+	A+	A+
SCIENCE	8	785157	1	STEELS	2	5	28303	0.4891	0.0888	0.1257	0.2958	0.4886	0.001	0.465	-0.2487	-0.2622	-0.162	0.4654	-0.0312	-0.0826	0.0556	-4.0891	0.918	-4.1091	0.8961	A+	A-	A+
SCIENCE	8	785164	1	STEELS	2	5	28318	0.5459	0.5457	0.1977	0.1713	0.0849	0.0005	0.5181	0.5183	-0.2609	-0.2643	-0.1943	-0.0187	-0.3546	0.0557	-5.6691	0.8903	-5.5991	0.8525	A+	A-	A-
SCIENCE	8	785182	1	STEELS	2	5	38123	0.5867	0.0851	0.1241	0.5864	0.204	0.0004	0.3768	-0.1747	-0.1603	0.3771	-0.2076	-0.0225	-0.5101	0.0398	0.651	1.0096	0.581	1.0122	A-	A-	A-
SCIENCE	8	785184	1	STEELS	2	5	28315	0.7134	0.1407	0.0509	0.713	0.0948	0.0006	0.4106	-0.2069	-0.2384	0.4112	-0.2081	-0.0302	-1.199	0.06	-4.0791	0.8979	-2.6291	0.8834	A+	A-	A-
SCIENCE	8	785186	1	STEELS	2	5	18445	0.7429	0.0813	0.1205	0.7426	0.0552	0.0004	0.4876	-0.2843	-0.2737	0.488	-0.2015	-0.0281	-1.1958	0.0538	-5.5991	0.8648	-4.6492	0.8171	A+	A+	A-
SCIENCE	8	795567	1	STEELS	2	5	28322	0.5053	0.128	0.5052	0.3202	0.0463	0.0004	0.4352	-0.2814	0.4354	-0.1788	-0.1897	-0.0208	-0.1614	0.0556	-1.529	0.9692	-1.689	0.9559	A-	A-	A-
SCIENCE	8	795570	1	STEELS	2	5	28326	0.4493	0.0539	0.3861	0.1106	0.4492	0.0002	0.3554	-0.1676	-0.1487	-0.2116	0.3555	-0.0164	0.1066	0.056	2.8411	1.062	2.4211	1.0658	A+	A-	A-
SCIENCE	8	795574	1	STEELS	2	5	28312	0.4319	0.2162	0.1627	0.1888	0.4316	0.0007	0.4865	-0.1111	-0.2588	-0.2534	0.4868	-0.0264	0.1921	0.0562	-3.5791	0.9234	-2.9891	0.9201	A+	A+	A+
SCIENCE	8	795576	1	STEELS	2	5	28311	0.5488	0.5484	0.2508	0.1555	0.0446	0.0007	0.4767	0.477	-0.235	-0.2547	-0.2059	-0.0271	-0.3673	0.0557	-4.4691	0.9127	-4.1091	0.8897	A+	A-	A-
SCIENCE	8	800480	1	STEELS	2	5	38107	0.4805	0.1352	0.2052	0.1787	0.4801	0.0008	0.4875	-0.24	-0.2342	-0.1728	0.4878	-0.0309	-0.0014	0.0393	-6.4891	0.9081	-6.1591	0.8915	A+	A+	A+
SCIENCE	8	800481	1	STEELS	2	5	28318	0.6572	0.0858	0.1208	0.6569	0.136	0.0005	0.5337	-0.2254	-0.2597	0.534	-0.3069	-0.0243	-0.9003	0.0577	-6.1691	0.8679	-6.1992	0.7837	A-	A+	A+
SCIENCE	8	783159	2	STEELS	2	1	9799	0.561	0.161	0.0935	0.1842	0.5606	0.0006	0.5568	-0.2142	-0.28	-0.2976	0.5572	-0.0368	-0.2679	0.0558	-7.7792	0.8461	-7.2392	0.8177	A+	A+	A+
SCIENCE	8	783161	2	STEELS	2	1	9800	0.4358	0.1508	0.1611	0.2519	0.4356	0.0005	0.3788	-0.2456	-0.2006	-0.059	0.3791	-0.0298	0.3289	0.056	1.101	1.023	1.051	1.0287	A+	A-	A+
SCIENCE	8	783163	2	STEELS	2	1	9795	0.3374	0.3371	0.2223	0.2131	0.2265	0.001	0.4192	0.4195	-0.1754	-0.1653	-0.135	-0.0372	0.823	0.0584	-0.739	0.9818	0.861	1.0311	A-	A+	A+
SCIENCE	8	783166	2	STEELS	2	1	9799	0.5118	0.5115	0.1948	0.1713	0.1218	0.0006	0.4673	0.4678	-0.1864	-0.247	-0.2016	-0.0419	-0.0335	0.0555	-2.8491	0.9428	-2.0691	0.9482	A+	A+	A+
SCIENCE	8	784944	2	STEELS	2	1	9804	0.658	0.0956	0.1332	0.6579	0.1132	0.0001	0.3881	-0.0937	-0.2173	0.3882	-0.2609	-0.0124	-0.7497	0.0579	0.931	1.022	1.8711	1.0667	A+	A+	A+
SCIENCE	8	784949	2	STEELS	2	1	9799	0.6783	0.0398	0.2085	0.0732	0.6779	0.0006	0.4565	-0.2202	-0.2241	-0.3017	0.4572	-0.0391	-0.8544	0.0586	-3.5191	0.9148	-3.4391	0.8755	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	784955	2	STEELS	3	1	19526	0.4525	0.4524	0.1465	0.3084	0.0925	0.0003	0.4107	0.4108	-0.2385	-0.123	-0.2177	-0.0144	0.2174	0.0393	-2.499	0.9644	-2.509	0.9547	A-	A+	A+
SCIENCE	8	801751	2	STEELS	2	1	9798	0.6226	0.1489	0.1481	0.6221	0.0802	0.0007	0.4467	-0.2069	-0.1884	0.4473	-0.2776	-0.0337	-0.5681	0.0569	-1.959	0.9565	-2.5391	0.9222	A+	A+	A-
SCIENCE	8	801753	2	STEELS	2	1	9798	0.5905	0.5901	0.0954	0.1429	0.1709	0.0007	0.5873	0.5875	-0.2712	-0.3034	-0.2717	-0.0299	-0.4104	0.0562	-8.9392	0.82	-8.2692	0.7811	A+	A-	A-
SCIENCE	8	801754	2	STEELS	2	1	9799	0.3338	0.368	0.1589	0.1389	0.3336	0.0006	0.3986	-0.0526	-0.2355	-0.2184	0.3989	-0.0419	0.8414	0.0585	-0.209	0.9948	0.521	1.0187	A+	A-	A+
SCIENCE	8	801755	2	STEELS	2	1	19567	0.4645	0.4643	0.2123	0.1803	0.1426	0.0005	0.3878	0.3882	-0.219	-0.1895	-0.087	-0.0365	0.2214	0.0397	3.3611	1.0515	4.0411	1.0835	A+	A+	A-
SCIENCE	8	780651	2	STEELS	2	2	9803	0.4501	0.0559	0.45	0.2938	0.2001	0.0002	0.4598	-0.1366	0.4599	-0.354	-0.0897	-0.0191	0.2596	0.0558	-1.549	0.968	-0.369	0.9899	A-	A-	A-
SCIENCE	8	795505	2	STEELS	2	2	9799	0.6807	0.111	0.1249	0.0832	0.6803	0.0006	0.4704	-0.2233	-0.2353	-0.2563	0.4711	-0.0382	-0.8668	0.0587	-3.6191	0.9121	-3.0491	0.8882	A+	A-	A-
SCIENCE	8	795506	2	STEELS	2	2	9798	0.4767	0.0821	0.1467	0.4764	0.2941	0.0007	0.3404	-0.2534	-0.2316	0.341	-0.0391	-0.0354	0.1333	0.0556	2.5011	1.0519	2.1711	1.0565	A-	A+	A+
SCIENCE	8	795519	2	STEELS	2	2	9799	0.6848	0.0853	0.1328	0.6843	0.097	0.0006	0.509	-0.2545	-0.2953	0.5094	-0.2191	-0.0254	-0.8886	0.0589	-3.9091	0.9045	-4.8092	0.8252	A+	A+	A+
SCIENCE	8	795537	2	STEELS	2	2	9802	0.4614	0.4613	0.1982	0.1004	0.2399	0.0003	0.3812	0.3814	-0.2151	-0.2328	-0.0797	-0.0215	0.2053	0.0557	2.121	1.0442	1.9511	1.0515	A-	A-	A-
SCIENCE	8	795539	2	STEELS	2	2	9800	0.5555	0.0848	0.5552	0.272	0.0875	0.0005	0.4432	-0.2567	0.4436	-0.2257	-0.1689	-0.0348	-0.2421	0.0558	0.511	1.0105	-0.439	0.9882	A-	A+	A-
SCIENCE	8	795543	2	STEELS	2	2	9800	0.1815	0.184	0.1814	0.5973	0.0367	0.0005	0.0161	-0.2449	0.0163	0.248	-0.1743	-0.0102	1.7827	0.0703	5.0012	1.218	9.9018	1.8324	A-	A+	A+
SCIENCE	8	795546	2	STEELS	2	2	9795	0.3776	0.1908	0.195	0.3773	0.2359	0.001	0.1775	-0.1661	-0.1773	0.1782	0.1185	-0.0365	0.6162	0.0571	8.4212	1.2021	7.9413	1.2742	A+	A+	A-
SCIENCE	8	780622	2	STEELS	3	3	9800	0.6204	0.1812	0.6201	0.1174	0.0808	0.0005	0.4867	-0.2187	0.487	-0.3158	-0.1829	-0.0283	-0.558	0.0568	-2.8291	0.9379	-3.2891	0.9008	A-	A+	A+
SCIENCE	8	784982	2	STEELS	2	3	9802	0.4348	0.4347	0.1766	0.2616	0.1268	0.0003	0.3825	0.3827	-0.0756	-0.2601	-0.1388	-0.0215	0.3334	0.056	1.821	1.0386	1.491	1.0409	A-	A-	A-
SCIENCE	8	784983	2	STEELS	3	3	9805	0.5912	0.5912	0.1878	0.1195	0.1015		0.4968	0.4968	-0.2922	-0.2575	-0.1543		-0.4159	0.0562	-5.0291	0.8956	-5.2191	0.8573	A-	A-	A-
SCIENCE	8	784988	2	STEELS	2	3	9801	0.4647	0.4646	0.207	0.2043	0.1237	0.0004	0.4803	0.4805	-0.1965	-0.2131	-0.2231	-0.0332	0.1898	0.0557	-5.4591	0.8917	-5.2891	0.8684	A-	A+	A-
SCIENCE	8	795554	2	STEELS	3	3	9799	0.4273	0.3143	0.1276	0.427	0.1304	0.0006	0.2527	0.0688	-0.24	0.2532	-0.2263	-0.0364	0.3704	0.0561	6.1011	1.1344	6.8012	1.2008	A+	A+	A+
SCIENCE	8	800476	2	STEELS	2	3	9799	0.2099	0.3116	0.3307	0.1473	0.2098	0.0006	0.2003	0.1033	-0.0968	-0.2345	0.2006	-0.0368	1.5776	0.0668	2.4111	1.0892	5.0513	1.3314	A+	A+	A+
SCIENCE	8	800479	2	STEELS	2	3	9799	0.5563	0.1268	0.1297	0.5559	0.1869	0.0006	0.5149	-0.2717	-0.3062	0.5153	-0.1586	-0.0373	-0.2455	0.0558	-4.0591	0.9178	-4.2391	0.8911	A-	A-	A+
SCIENCE	8	802395	2	STEELS	2	3	9792	0.5054	0.2875	0.5047	0.1058	0.1007	0.0013	0.45	-0.2054	0.4507	-0.2343	-0.1952	-0.0439	-0.0016	0.0555	-0.149	0.9967	-0.179	0.9952	A+	A-	A-
SCIENCE	8	784991	2	STEELS	2	4	9795	0.4146	0.4142	0.1662	0.1369	0.2817	0.001	0.3691	0.3698	-0.2921	-0.2013	-0.0063	-0.0432	0.433	0.0563	2.3811	1.0517	3.4111	1.1007	A-	A+	A-
SCIENCE	8	784995	2	STEELS	2	4	9803	0.4698	0.0926	0.223	0.4697	0.2145	0.0002	0.2207	-0.0763	-0.1775	0.2208	-0.0343	-0.0057	0.1654	0.0556	8.8712	1.1932	8.5212	1.2364	A-	A+	A+
SCIENCE	8	795559	2	STEELS	2	4	9798	0.677	0.1433	0.0583	0.1212	0.6765	0.0007	0.4055	-0.2014	-0.2781	-0.1636	0.406	-0.0299	-0.8468	0.0586	-1.699	0.9583	-0.949	0.9643	A-	A-	A-
SCIENCE	8	785173	2	STEELS	2	5	9800	0.3496	0.3073	0.2301	0.1127	0.3494	0.0005	0.1862	-0.0181	-0.1036	-0.1151	0.1865	-0.0233	0.7585	0.0579	6.7812	1.1697	6.9513	1.2618	A-	A-	A-
SCIENCE	8	785177	2	STEELS	2	5	9799	0.8183	0.083	0.0468	0.8178	0.0517	0.0006	0.4107	-0.2805	-0.2372	0.412	-0.1376	-0.0419	-1.7127	0.0691	-2.2591	0.9138	-2.2791	0.8559	A-	A-	A-
SCIENCE	8	785183	2	STEELS	3	5	9796	0.5407	0.0564	0.1878	0.2147	0.5402	0.0009	0.4405	-0.229	-0.1765	-0.2358	0.4412	-0.0447	-0.1704	0.0556	-0.459	0.9904	0.091	1.002	A+	A-	A-
SCIENCE	8	785185	2	STEELS	2	5	9802	0.2988	0.2987	0.3046	0.3276	0.0687	0.0003	0.0975	0.0978	0.008	0.0229	-0.2321	-0.0254	1.0308	0.0601	8.1012	1.2329	8.6714	1.4073	A+	A+	A-
SCIENCE	8	795566	2	STEELS	2	5	9802	0.6327	0.0836	0.6325	0.1927	0.0909	0.0003	0.4558	-0.2316	0.4558	-0.2215	-0.237	-0.0112	-0.6202	0.0571	-4.5091	0.9007	-4.3591	0.8653	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	795578	2	STEELS	2	5	9797	0.5281	0.1341	0.1498	0.1876	0.5277	0.0008	0.4824	-0.2254	-0.197	-0.2383	0.4827	-0.0288	-0.1106	0.0556	-3.8691	0.9226	-3.6391	0.9093	A-	A+	A-
SCIENCE	8	795582	2	STEELS	3	5	9796	0.4054	0.405	0.1646	0.3681	0.0614	0.0009	0.2303	0.2309	-0.324	0.0933	-0.1546	-0.0347	0.4781	0.0565	8.2512	1.1894	7.7112	1.2434	A+	A+	A-
SCIENCE	8	800477	2	STEELS	3	5	9800	0.5298	0.2216	0.5295	0.1488	0.0995	0.0005	0.4696	-0.2154	0.4701	-0.2317	-0.2065	-0.0393	-0.1194	0.0556	-3.5691	0.9284	-3.6091	0.9098	A-	A-	A-
SCIENCE	8	780578	3	STEELS	2	1	9724	0.6689	0.6687	0.1046	0.1585	0.068	0.0002	0.5014	0.5015	-0.2962	-0.2742	-0.1792	-0.0106	-0.8531	0.0579	-5.6791	0.8729	-5.5492	0.8102	A-	A-	A+
SCIENCE	8	780580	3	STEELS	2	1	9723	0.5326	0.1273	0.2553	0.5324	0.0847	0.0003	0.4301	-0.2513	-0.1824	0.4304	-0.1829	-0.03	-0.1892	0.0551	-2.019	0.9614	-2.1291	0.947	A-	A-	A+
SCIENCE	8	784942	3	STEELS	2	1	9720	0.7841	0.0601	0.0981	0.7836	0.0576	0.0006	0.4576	-0.2289	-0.2595	0.4583	-0.242	-0.0294	-1.5123	0.0651	-2.3491	0.9216	-4.1492	0.7815	A+	A+	A+
SCIENCE	8	784945	3	STEELS	2	1	9724	0.3958	0.3957	0.3238	0.1594	0.1209	0.0002	0.2275	0.2276	-0.1139	-0.1775	0.0222	-0.0206	0.4598	0.0563	7.2612	1.1652	7.1312	1.2162	A-	A-	A-
SCIENCE	8	784946	3	STEELS	2	1	9721	0.5136	0.0727	0.2136	0.1999	0.5134	0.0005	0.4765	-0.2451	-0.1739	-0.2567	0.4769	-0.0341	-0.0999	0.0551	-3.9291	0.9263	-3.5791	0.9139	A+	A+	A+
SCIENCE	8	784947	3	STEELS	2	1	9723	0.5316	0.1889	0.5315	0.1738	0.1056	0.0003	0.4975	-0.1926	0.4975	-0.2604	-0.2413	-0.0015	-0.1849	0.0551	-5.8591	0.8912	-5.5691	0.866	A-	A+	A+
SCIENCE	8	806565	3	STEELS	3	1	9723	0.5826	0.5825	0.1249	0.1191	0.1732	0.0003	0.4709	0.4712	-0.2672	-0.2582	-0.1584	-0.0286	-0.4263	0.0556	-4.5691	0.9116	-3.9591	0.8935	A+	A-	A-
SCIENCE	8	806571	3	STEELS	2	1	9719	0.4696	0.4693	0.1121	0.3105	0.1074	0.0007	0.45	0.4504	-0.2666	-0.1571	-0.2166	-0.0341	0.1073	0.0552	-1.469	0.9713	-1.719	0.9577	A+	A-	A-
SCIENCE	8	806572	3	STEELS	2	1	9719	0.4243	0.14	0.309	0.1263	0.424	0.0007	0.273	-0.1612	0.0076	-0.2462	0.2735	-0.0359	0.3225	0.0558	4.7811	1.1017	4.4911	1.1234	A+	A+	A+
SCIENCE	8	795504	3	STEELS	2	2	9723	0.7036	0.7034	0.1065	0.0784	0.1114	0.0003	0.4641	0.4645	-0.2063	-0.2512	-0.2558	-0.03	-1.0368	0.0594	-2.8191	0.9292	-2.8191	0.8872	A+	A-	A+
SCIENCE	8	795507	3	STEELS	2	2	9724	0.4791	0.1495	0.479	0.201	0.1703	0.0002	0.3377	-0.0763	0.3379	-0.1539	-0.2116	-0.0272	0.0613	0.0552	2.081	1.0409	1.741	1.0431	A+	A+	A+
SCIENCE	8	795515	3	STEELS	2	2	9726	0.6762	0.05	0.6762	0.1286	0.1452		0.4592	-0.1892	0.4592	-0.2824	-0.2245		-0.8922	0.0582	-3.2991	0.9234	-4.1691	0.8512	A-	A-	A-
SCIENCE	8	795518	3	STEELS	2	2	9722	0.3838	0.0676	0.4808	0.0677	0.3836	0.0004	0.2691	-0.1923	-0.0422	-0.2441	0.2692	-0.0121	0.5197	0.0566	2.7911	1.0628	2.1911	1.0654	A-	A+	A+
SCIENCE	8	795521	3	STEELS	2	2	9720	0.334	0.1562	0.2017	0.3077	0.3337	0.0006	0.4782	-0.273	-0.1596	-0.1334	0.4784	-0.0352	0.7738	0.0582	-3.3591	0.9188	-1.9791	0.9326	B-	A-	A-
SCIENCE	8	795540	3	STEELS	2	2	9721	0.4346	0.1005	0.4344	0.2653	0.1994	0.0005	0.2056	-0.1736	0.2061	-0.0882	-0.0256	-0.0357	0.2727	0.0556	7.3112	1.156	7.3012	1.2014	A+	A+	A+
SCIENCE	8	795545	3	STEELS	2	2	9723	0.2907	0.236	0.2906	0.2515	0.2217	0.0003	0.1763	-0.1303	0.1764	-0.0596	0.0031	-0.0096	1.0082	0.0603	7.5812	1.2261	9.4914	1.4374	A-	A+	A+
SCIENCE	8	800541	3	STEELS	3	2	9717	0.5372	0.137	0.5367	0.1677	0.1577	0.0009	0.4433	-0.1383	0.4439	-0.3111	-0.1547	-0.0402	-0.2096	0.0552	-1.869	0.9642	-1.929	0.9516	A+	A+	A+
SCIENCE	8	800544	3	STEELS	2	2	9722	0.4574	0.0844	0.2437	0.2143	0.4572	0.0004	0.444	-0.2243	-0.1536	-0.2252	0.4443	-0.0303	0.1641	0.0553	-2.189	0.957	-1.409	0.9648	A+	A+	A+
SCIENCE	8	800546	3	STEELS	3	2	9719	0.2815	0.2813	0.3945	0.2048	0.1187	0.0007	0.1056	0.1061	0.1757	-0.2048	-0.1548	-0.0323	1.0608	0.0608	6.9812	1.2132	7.6614	1.3583	A-	A+	A+
SCIENCE	8	800549	3	STEELS	2	2	9720	0.3372	0.1319	0.1304	0.4001	0.337	0.0006	0.2681	-0.2404	-0.2531	0.0824	0.2684	-0.0251	0.7565	0.0581	3.6211	1.0913	4.3112	1.1545	A-	A+	A+
SCIENCE	8	780621	3	STEELS	2	3	9724	0.2638	0.4128	0.2637	0.2287	0.0946	0.0002	0.19	0.0408	0.1901	-0.1868	-0.0859	-0.0198	1.1634	0.062	5.9112	1.1894	7.9914	1.4059	A-	A-	A-
SCIENCE	8	780628	3	STEELS	2	3	9723	0.5206	0.1073	0.2483	0.1236	0.5205	0.0003	0.4282	-0.2345	-0.1067	-0.2882	0.4284	-0.0279	-0.1332	0.0551	-1.289	0.9752	-1.019	0.9747	A-	A+	A+
SCIENCE	8	784985	3	STEELS	2	3	9724	0.4367	0.2392	0.1178	0.4366	0.2063	0.0002	0.2396	-0.1306	-0.219	0.2398	0.0192	-0.0272	0.2624	0.0556	5.7811	1.1218	5.8612	1.1589	A-	A-	A-
SCIENCE	8	795553	3	STEELS	3	3	9723	0.4367	0.1634	0.1971	0.4366	0.2027	0.0003	0.4098	-0.2365	-0.1982	0.4098	-0.0915	-0.0096	0.2624	0.0556	-1.109	0.9775	-0.539	0.9859	A-	A-	A-
SCIENCE	8	795555	3	STEELS	3	3	9724	0.3232	0.4109	0.1585	0.3232	0.1072	0.0002	0.2031	-0.0413	-0.0897	0.2032	-0.1345	-0.0239	0.8298	0.0587	5.7112	1.1522	6.9813	1.2725	A-	A+	A+
SCIENCE	8	802396	3	STEELS	2	3	9725	0.5606	0.5606	0.1921	0.1938	0.0535	0.0001	0.3997	0.3998	-0.1714	-0.2259	-0.1844	-0.0169	-0.3221	0.0554	-0.779	0.9847	-0.579	0.9844	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	806568	3	STEELS	2	4	9723	0.3859	0.1972	0.1746	0.3858	0.2421	0.0003	0.3689	-0.1599	-0.2356	0.3691	-0.0612	-0.0225	0.509	0.0566	0.741	1.0162	1.571	1.0464	A-	A+	A+
SCIENCE	8	785155	3	STEELS	2	5	9723	0.7277	0.0609	0.1392	0.0722	0.7274	0.0003	0.3492	-0.1532	-0.1757	-0.2233	0.3497	-0.0279	-1.1708	0.0607	-2.3291	0.9367	0.361	1.0157	A+	A-	A-
SCIENCE	8	785180	3	STEELS	2	5	19470	0.7033	0.1042	0.0962	0.7032	0.0962	0.0002	0.5305	-0.2013	-0.285	0.5306	-0.3278	-0.0147	-1.0092	0.0423	-8.3791	0.8523	-9.4393	0.7388	A+	A-	A-
SCIENCE	8	795569	3	STEELS	2	5	9723	0.6485	0.0676	0.1145	0.1693	0.6483	0.0003	0.5393	-0.2172	-0.2391	-0.3373	0.5396	-0.0266	-0.7486	0.0572	-7.1592	0.8488	-7.3992	0.7685	A+	A+	A-
SCIENCE	8	795577	3	STEELS	2	5	9724	0.7252	0.0705	0.081	0.7251	0.1232	0.0002	0.4344	-0.2281	-0.2474	0.4347	-0.2063	-0.0247	-1.1573	0.0606	-3.5891	0.9043	-4.5092	0.81	A+	A-	A-
SCIENCE	8	795587	3	STEELS	2	5	9724	0.4674	0.4673	0.1674	0.1609	0.2042	0.0002	0.4869	0.487	-0.2402	-0.2646	-0.1383	-0.0239	0.1165	0.0552	-6.2591	0.8818	-5.7691	0.8634	A-	A+	A-
SCIENCE	8	795588	3	STEELS	2	5	9723	0.2805	0.2965	0.2524	0.1704	0.2804	0.0003	0.2757	0.0374	-0.0689	-0.2944	0.2758	-0.0205	1.0661	0.0609	3.6011	1.1066	5.1812	1.235	A+	A+	A+
SCIENCE	8	800415	3	STEELS	2	5	9723	0.4614	0.4612	0.2483	0.1707	0.1195	0.0003	0.5007	0.5009	-0.2457	-0.2547	-0.1454	-0.0313	0.1452	0.0553	-5.6491	0.8925	-5.2991	0.8734	A-	A-	A-
SCIENCE	8	804574	3	STEELS	2	5	9720	0.3399	0.148	0.0805	0.4312	0.3397	0.0006	0.2363	-0.0915	-0.1763	-0.0621	0.2367	-0.0352	0.7426	0.058	4.6611	1.1177	5.7712	1.2084	A+	A-	A-
SCIENCE	8	804576	3	STEELS	2	5	19470	0.5303	0.5301	0.1666	0.2265	0.0766	0.0002	0.3926	0.3928	-0.1906	-0.1804	-0.1849	-0.0255	-0.1401	0.0393	2.681	1.0388	2.9811	1.0567	A-	A+	A+
SCIENCE	8	804577	3	STEELS	2	5	9723	0.4758	0.1216	0.2986	0.1038	0.4756	0.0003	0.4347	-0.2419	-0.1244	-0.2647	0.4349	-0.0259	0.0772	0.0552	-1.809	0.9649	-1.879	0.9542	A+	A-	A+
SCIENCE	8	804583	3	STEELS	2	5	19470	0.3505	0.0836	0.3505	0.3398	0.2259	0.0002	0.1638	-0.2516	0.164	-0.0151	-0.0026	-0.0255	0.7368	0.041	9.9012	1.2137	9.9013	1.326	A+	A+	A+
SCIENCE	8	784950	4	STEELS	2	1	9744	0.5473	0.1115	0.5471	0.2209	0.1201	0.0004	0.3822	-0.1463	0.3826	-0.2465	-0.128	-0.0263	-0.1825	0.0561	1.551	1.0333	1.241	1.0352	A+	A-	A-
SCIENCE	8	784952	4	STEELS	2	1	9746	0.7376	0.0989	0.7375	0.0944	0.069	0.0002	0.4675	-0.2812	0.4678	-0.3101	-0.1218	-0.0248	-1.1793	0.0624	-2.9191	0.9156	-3.2892	0.8418	A-	A+	A-
SCIENCE	8	806566	4	STEELS	2	1	9748	0.6535	0.0746	0.1719	0.1	0.6535		0.5201	-0.2578	-0.2489	-0.2861	0.5201		-0.7136	0.0583	-4.7691	0.8887	-5.1092	0.8199	A+	A+	A+
SCIENCE	8	806569	4	STEELS	3	1	9743	0.5548	0.144	0.1744	0.5545	0.1266	0.0005	0.4417	-0.2733	-0.1374	0.4421	-0.2134	-0.0299	-0.2184	0.0562	-2.139	0.9546	-1.9591	0.9447	A-	A+	A+
SCIENCE	8	806570	4	STEELS	3	1	9747	0.6018	0.6018	0.1722	0.145	0.0809	0.0001	0.5249	0.5249	-0.2887	-0.2657	-0.1992	-0.0054	-0.4507	0.0569	-4.2091	0.9085	-4.4891	0.8629	A+	A+	A+
SCIENCE	8	780604	4	STEELS	2	2	9747	0.5034	0.2234	0.5034	0.1304	0.1427	0.0001	0.4402	-0.1794	0.4403	-0.2831	-0.1429	-0.0109	0.0286	0.0559	-1.589	0.9666	-1.319	0.9644	A-	A+	A+
SCIENCE	8	780656	4	STEELS	2	2	9741	0.4135	0.1141	0.4132	0.107	0.365	0.0007	0.175	0.0221	0.1757	-0.1475	-0.0974	-0.039	0.4676	0.0567	9.9012	1.2371	9.3413	1.3042	A-	A-	A-
SCIENCE	8	795513	4	STEELS	2	2	9742	0.306	0.3611	0.3058	0.2113	0.1212	0.0006	0.243	0.0695	0.2433	-0.2276	-0.1585	-0.0349	1.0287	0.0599	3.9211	1.108	5.5512	1.2476	A-	A+	A+
SCIENCE	8	795514	4	STEELS	2	2	9746	0.5988	0.1045	0.1399	0.1566	0.5987	0.0002	0.5942	-0.2799	-0.2681	-0.3096	0.5941	-0.0007	-0.4354	0.0569	-8.5692	0.8208	-7.3892	0.7832	A+	A+	A+
SCIENCE	8	795517	4	STEELS	2	2	9739	0.2606	0.2512	0.1763	0.3111	0.2604	0.0009	0.0604	0.0566	-0.0961	-0.0297	0.0609	-0.0303	1.2932	0.0625	8.3413	1.2721	9.9017	1.7362	A-	A+	A+
SCIENCE	8	795520	4	STEELS	2	2	9744	0.6489	0.085	0.0845	0.6486	0.1814	0.0004	0.4629	-0.2834	-0.3034	0.4631	-0.1487	-0.0164	-0.6886	0.0582	-2.2191	0.9475	-3.0191	0.8922	A-	A-	A-
SCIENCE	8	795542	4	STEELS	2	2	9741	0.5694	0.569	0.1962	0.145	0.089	0.0007	0.5161	0.5164	-0.2247	-0.3118	-0.1961	-0.0315	-0.2893	0.0564	-6.0491	0.8743	-5.6292	0.8426	A+	A-	A-
SCIENCE	8	800326	4	STEELS	2	2	9743	0.6347	0.6344	0.0823	0.1466	0.1362	0.0005	0.4131	0.4135	-0.1635	-0.2228	-0.218	-0.0259	-0.6151	0.0577	1.191	1.0279	0.871	1.0304	A-	A-	A-
SCIENCE	8	800542	4	STEELS	2	2	9742	0.5847	0.1306	0.1087	0.1757	0.5843	0.0006	0.5264	-0.2464	-0.2189	-0.2827	0.5268	-0.034	-0.3644	0.0566	-4.9591	0.8949	-5.3892	0.8438	A-	A-	A-
SCIENCE	8	800543	4	STEELS	2	2	9740	0.4338	0.1229	0.2847	0.4334	0.1582	0.0008	0.3834	-0.0251	-0.198	0.3834	-0.2523	-0.0126	0.3679	0.0564	2.241	1.0493	2.9711	1.0869	A+	A+	A+
SCIENCE	8	800545	4	STEELS	2	2	9742	0.4	0.0598	0.1779	0.3619	0.3998	0.0006	0.3489	-0.1603	-0.0234	-0.2571	0.349	-0.0187	0.5347	0.0569	2.3711	1.0541	3.1911	1.1011	A-	A-	A+
SCIENCE	8	800547	4	STEELS	2	2	9743	0.301	0.3009	0.1794	0.2975	0.2217	0.0005	0.1408	0.1411	-0.1913	0.0495	-0.0322	-0.0259	1.0563	0.0602	8.3112	1.2411	9.4615	1.4536	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	780625	4	STEELS	2	3	9747	0.4109	0.146	0.0539	0.3892	0.4109	0.0001	0.2647	-0.1869	-0.2447	-0.0183	0.2648	-0.0098	0.4794	0.0567	6.1211	1.1421	5.7512	1.1817	A-	A+	A+
SCIENCE	8	780630	4	STEELS	2	3	9745	0.4625	0.4624	0.1144	0.2292	0.1938	0.0003	0.4959	0.4959	-0.2389	-0.2032	-0.2164	-0.0126	0.2268	0.0561	-4.2491	0.9118	-2.9391	0.9212	A-	A-	A-
SCIENCE	8	784973	4	STEELS	2	3	9745	0.3189	0.1796	0.2995	0.2017	0.3188	0.0003	0.229	0.0095	-0.108	-0.1509	0.2292	-0.0234	0.9567	0.0594	8.1412	1.2255	8.3114	1.3655	A+	A+	A-
SCIENCE	8	784975	4	STEELS	3	3	9743	0.4118	0.1316	0.4116	0.2291	0.2272	0.0005	0.3697	-0.0811	0.3697	-0.2209	-0.1466	-0.0111	0.4758	0.0567	1.001	1.0222	0.851	1.0252	A+	A+	A+
SCIENCE	8	802389	4	STEELS	3	3	9744	0.2776	0.1132	0.1367	0.2775	0.4722	0.0004	0.1222	-0.2369	-0.2648	0.1226	0.224	-0.0324	1.1908	0.0614	8.2813	1.2563	9.4115	1.4981	A-	A-	A+
SCIENCE	8	802398	4	STEELS	2	3	9744	0.9146	0.0331	0.9142	0.032	0.0202	0.0004	0.3802	-0.233	0.3811	-0.2241	-0.1776	-0.0279	-2.653	0.0938	-1.8691	0.8733	-5.1595	0.4977	A+	A-	A-
SCIENCE	8	804551	4	STEELS	2	3	39033	0.5744	0.1388	0.5742	0.2133	0.0734	0.0004	0.4205	-0.2997	0.4208	-0.1149	-0.2181	-0.0256	-0.3139	0.0282	-0.359	0.9962	-1.679	0.9741	A-	A+	A+
SCIENCE	8	804553	4	STEELS	2	3	39026	0.3784	0.2176	0.2352	0.1684	0.3782	0.0006	0.2887	-0.088	-0.0815	-0.1835	0.289	-0.0245	0.6446	0.0288	9.3911	1.1148	9.2012	1.1598	A+	A+	A+
SCIENCE	8	804554	4	STEELS	3	3	39028	0.4729	0.1703	0.1915	0.4726	0.165	0.0005	0.4147	-0.2249	-0.223	0.4149	-0.0925	-0.0209	0.1771	0.028	1.591	1.0169	1.331	1.0186	A+	A+	A+
SCIENCE	8	804557	4	STEELS	2	3	39024	0.543	0.1782	0.1268	0.5427	0.1517	0.0006	0.4622	-0.1734	-0.2304	0.4625	-0.2415	-0.0296	-0.1609	0.028	-3.139	0.9675	-3.9191	0.9437	A+	A+	A+
SCIENCE	8	784994	4	STEELS	2	4	9746	0.6033	0.1653	0.081	0.1503	0.6032	0.0002	0.5249	-0.2828	-0.266	-0.2209	0.5251	-0.0209	-0.4578	0.057	-5.9491	0.8724	-5.8092	0.8244	A-	A-	A-
SCIENCE	8	784997	4	STEELS	2	4	19545	0.413	0.4129	0.1655	0.1332	0.2882	0.0002	0.3533	0.3534	-0.2214	-0.255	-0.0106	-0.0202	0.4797	0.0401	3.5011	1.0562	4.3111	1.0953	A-	A-	A-
SCIENCE	8	785005	4	STEELS	3	4	9741	0.5971	0.0713	0.5966	0.1388	0.1926	0.0007	0.4974	-0.2812	0.4977	-0.2467	-0.2176	-0.0273	-0.4252	0.0568	-4.2991	0.9073	-4.3891	0.8675	A+	A-	A-
SCIENCE	8	802399	4	STEELS	2	4	9744	0.3524	0.2435	0.3523	0.2075	0.1962	0.0004	0.3478	-0.0929	0.348	-0.2203	-0.0922	-0.0208	0.7777	0.0581	2.0411	1.05	4.7012	1.1746	A-	A+	A+
SCIENCE	8	806567	4	STEELS	2	4	9745	0.5785	0.1419	0.1178	0.1618	0.5783	0.0003	0.5955	-0.2628	-0.3175	-0.271	0.5957	-0.0196	-0.3346	0.0565	-8.4392	0.8266	-7.8192	0.7821	A+	A+	A+
SCIENCE	8	785160	4	STEELS	3	5	9741	0.2703	0.2701	0.1618	0.2051	0.3623	0.0007	0.1418	0.1422	-0.2292	-0.1562	0.1774	-0.034	1.2345	0.0619	6.6012	1.2056	9.5815	1.5247	A+	A+	A-
SCIENCE	8	785165	4	STEELS	2	5	9743	0.5327	0.1841	0.5324	0.1889	0.0941	0.0005	0.4104	-0.1445	0.4106	-0.2098	-0.2271	-0.019	-0.1115	0.056	0.371	1.0076	0.051	1.0011	A+	A+	A+
SCIENCE	8	785172	4	STEELS	2	5	9748	0.6015	0.0651	0.1226	0.6015	0.2108		0.3885	-0.2493	-0.2011	0.3885	-0.1538		-0.4492	0.0569	2.3611	1.0536	2.4011	1.0782	A+	A-	A-
SCIENCE	8	785175	4	STEELS	3	5	9744	0.4851	0.1178	0.1353	0.2616	0.4849	0.0004	0.4927	-0.1873	-0.2487	-0.2281	0.493	-0.0329	0.1176	0.056	-3.0591	0.9363	-3.1491	0.9168	A-	A+	A+
SCIENCE	8	795580	4	STEELS	2	5	9746	0.5108	0.5107	0.213	0.143	0.1332	0.0002	0.3761	0.3763	-0.2419	-0.231	-0.0234	-0.017	-0.0066	0.0559	3.7411	1.081	3.5111	1.0982	A-	A-	A+
SCIENCE	8	802403	4	STEELS	3	5	9740	0.5393	0.1731	0.1089	0.1783	0.5389	0.0008	0.4914	-0.2413	-0.2715	-0.1784	0.4918	-0.036	-0.1428	0.0561	-4.6791	0.9034	-4.4691	0.8799	A+	A+	A+
SCIENCE	8	802404	4	STEELS	2	5	9748	0.4886	0.4886	0.0994	0.2976	0.1144		0.3376	0.3376	-0.2768	-0.165	-0.0329		0.0998	0.0559	3.9711	1.0864	3.7311	1.1039	A-	A+	A+
SCIENCE	8	804579	4	STEELS	2	5	9748	0.6974	0.1089	0.6974	0.1224	0.0713		0.5224	-0.2903	0.5224	-0.2643	-0.2445		-0.9493	0.0601	-5.8391	0.8526	-5.1992	0.789	A+	A+	A+
SCIENCE	8	804581	4	STEELS	3	5	9746	0.6095	0.1106	0.1799	0.0999	0.6094	0.0002	0.4503	-0.2211	-0.1616	-0.2938	0.4505	-0.0194	-0.4886	0.0571	-1.669	0.9625	-0.099	0.9965	B+	A+	A-
SCIENCE	8	780582	5	STEELS	2	1	9801	0.7122	0.0613	0.129	0.7122	0.0975		0.4076	-0.2466	-0.2942	0.4076	-0.0902		-1.0196	0.0609	-2.0691	0.9441	-2.2591	0.8929	A-	A+	A+
SCIENCE	8	784951	5	STEELS	2	1	9799	0.5207	0.1257	0.1345	0.2191	0.5206	0.0002	0.5217	-0.245	-0.2554	-0.2226	0.5218	-0.0188	-0.0372	0.0561	-6.0691	0.877	-5.5292	0.8471	A+	A+	A+
SCIENCE	8	795502	5	STEELS	3	1	9796	0.5777	0.5774	0.1226	0.1975	0.1019	0.0005	0.5152	0.5152	-0.262	-0.2256	-0.2588	-0.0169	-0.3147	0.0566	-5.0991	0.8934	-4.1491	0.8721	A+	A-	A-
SCIENCE	8	804539	5	STEELS	2	1	9799	0.5642	0.5641	0.1386	0.2416	0.0555	0.0002	0.3091	0.3093	-0.2742	-0.0448	-0.171	-0.0218	-0.2495	0.0564	4.5011	1.0996	4.9812	1.1633	A+	A+	A+
SCIENCE	8	804545	5	STEELS	2	1	9800	0.5391	0.1944	0.1115	0.539	0.155	0.0001	0.3948	-0.056	-0.2756	0.3949	-0.2425	-0.0181	-0.1269	0.0562	2.5011	1.0538	2.6711	1.0815	A+	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	804546	5	STEELS	2	1	9796	0.4949	0.1771	0.161	0.1667	0.4946	0.0005	0.571	-0.2202	-0.2985	-0.2449	0.5712	-0.0256	0.0886	0.0561	-5.6991	0.884	-5.3391	0.8544	A+	A+	A+
SCIENCE	8	804547	5	STEELS	2	1	9794	0.3546	0.3544	0.3229	0.1701	0.1519	0.0007	0.2158	0.216	0.0705	-0.2495	-0.1173	-0.0175	0.7907	0.0584	7.9112	1.208	8.4213	1.3346	A-	A+	A+
SCIENCE	8	780602	5	STEELS	3	2	9799	0.6758	0.1813	0.6756	0.0962	0.0466	0.0002	0.4056	-0.1714	0.4059	-0.2599	-0.2231	-0.0188	-0.8176	0.0592	0.001	0.9999	2.5611	1.1132	A-	A-	A-
SCIENCE	8	795536	5	STEELS	2	2	9800	0.7083	0.0554	0.109	0.1273	0.7082	0.0001	0.4916	-0.2112	-0.2427	-0.2984	0.4917	-0.0127	-0.997	0.0607	-2.8691	0.9239	-2.5591	0.8813	A+	A+	A-
SCIENCE	8	800328	5	STEELS	2	2	9800	0.6297	0.0685	0.0976	0.6296	0.2042	0.0001	0.3878	-0.1806	-0.1654	0.3878	-0.2294	-0.0106	-0.5766	0.0577	-0.369	0.9912	0.471	1.017	A-	A-	A-
SCIENCE	8	800329	5	STEELS	2	2	9798	0.3962	0.2172	0.1471	0.2393	0.3961	0.0003	0.3764	0.0066	-0.2288	-0.2472	0.3766	-0.0252	0.5749	0.0572	0.711	1.0162	1.291	1.0416	A-	A+	A+
SCIENCE	8	800330	5	STEELS	2	2	9796	0.5861	0.0388	0.0919	0.283	0.5858	0.0005	0.3666	-0.143	-0.1509	-0.242	0.3669	-0.0222	-0.356	0.0567	3.0711	1.0683	2.7611	1.093	A+	A-	A-
SCIENCE	8	800333	5	STEELS	2	2	9799	0.3855	0.3855	0.1623	0.3827	0.0693	0.0002	0.3404	0.3406	-0.2528	-0.0967	-0.0994	-0.0203	0.629	0.0575	4.0811	1.0984	4.9312	1.1713	A+	A+	A+
SCIENCE	8	804559	5	STEELS	2	2	19506	0.4784	0.4781	0.1694	0.1425	0.2094	0.0006	0.4162	0.4165	-0.2812	-0.2433	-0.0414	-0.0274	0.1259	0.039	-0.989	0.9864	-0.079	0.9984	A-	A+	A+
SCIENCE	8	804562	5	STEELS	2	2	9796	0.6578	0.0855	0.1357	0.1208	0.6575	0.0005	0.5274	-0.2404	-0.248	-0.3004	0.5274	-0.0092	-0.721	0.0585	-6.5092	0.8503	-6.3692	0.7635	A-	A-	A-
SCIENCE	8	804566	5	STEELS	2	2	9801	0.4838	0.4838	0.0761	0.2385	0.2015		0.5458	0.5458	-0.1759	-0.3319	-0.211		0.1412	0.0561	-7.4892	0.8491	-6.6692	0.8208	A-	A-	A-
SCIENCE	8	804568	5	STEELS	2	2	9795	0.4358	0.2221	0.4356	0.217	0.1247	0.0006	0.3798	-0.0965	0.3802	-0.2323	-0.1568	-0.0339	0.3774	0.0565	0.031	1.0006	0.101	1.0026	A+	A-	A-
SCIENCE	8	780620	5	STEELS	2	3	9797	0.4784	0.1954	0.1574	0.4782	0.1686	0.0004	0.3085	-0.1416	-0.1763	0.3087	-0.0894	-0.0201	0.1684	0.0561	6.0611	1.1344	5.9512	1.1799	A+	A+	A+
SCIENCE	8	780623	5	STEELS	2	3	9800	0.4124	0.1428	0.4124	0.3681	0.0765	0.0001	0.3485	-0.1681	0.3486	-0.1293	-0.1891	-0.0149	0.4927	0.0569	2.5511	1.0584	3.9811	1.1282	A-	A+	A+
SCIENCE	8	780631	5	STEELS	2	3	9798	0.5579	0.1609	0.5577	0.1627	0.1184	0.0003	0.4606	-0.2445	0.4609	-0.2186	-0.1792	-0.027	-0.218	0.0563	-2.7391	0.9425	-2.8591	0.9143	A+	A-	A-
SCIENCE	8	802388	5	STEELS	2	3	9800	0.171	0.171	0.2528	0.271	0.3051	0.0001	-0.0618	-0.0618	-0.079	0.032	0.0944	-0.0095	1.9494	0.0722	6.7313	1.3155	9.902	2.0483	A+	A-	A+
SCIENCE	8	802392	5	STEELS	3	3	9793	0.2359	0.2357	0.2788	0.2609	0.2238	0.0008	0.2296	0.2299	0.058	-0.219	-0.0636	-0.0326	1.4802	0.0649	3.0111	1.1036	4.7513	1.2855	A-	A-	A+
SCIENCE	8	784999	5	STEELS	2	4	19507	0.4399	0.4396	0.2019	0.2298	0.128	0.0006	0.4622	0.4625	-0.1963	-0.2442	-0.1415	-0.0298	0.309	0.0393	-4.4291	0.9383	-3.9591	0.9274	A-	A-	A+
SCIENCE	8	795558	5	STEELS	2	4	9800	0.7495	0.0609	0.0968	0.7494	0.0927	0.0001	0.5185	-0.2474	-0.2859	0.5186	-0.2787	-0.0181	-1.2394	0.0632	-6.7792	0.8061	-6.8393	0.6651	A+	A-	A-
SCIENCE	8	795563	5	STEELS	3	4	9799	0.7308	0.0958	0.1171	0.0562	0.7306	0.0002	0.4999	-0.298	-0.2421	-0.2431	0.5001	-0.0188	-1.1265	0.062	-4.0391	0.8875	-3.2192	0.8407	A+	A-	A+
SCIENCE	8	783168	5	STEELS	2	5	9800	0.6872	0.6872	0.0775	0.0964	0.1388	0.0001	0.5052	0.5053	-0.2402	-0.2739	-0.2577	-0.0127	-0.8802	0.0597	-4.6891	0.8837	-3.8892	0.8355	A+	A+	A-
SCIENCE	8	783169	5	STEELS	3	5	9795	0.4185	0.2177	0.1658	0.4182	0.1976	0.0006	0.2534	-0.0636	-0.2618	0.2536	-0.0027	-0.0172	0.4636	0.0568	8.3212	1.1976	8.2713	1.275	A+	A+	A+
SCIENCE	8	783170	5	STEELS	2	5	9799	0.3998	0.1716	0.148	0.2804	0.3998	0.0002	0.3732	-0.1828	-0.2605	-0.0472	0.3733	-0.018	0.5564	0.0571	2.6211	1.061	2.5811	1.0841	A+	A-	A+
SCIENCE	8	783172	5	STEELS	2	5	9797	0.5272	0.1596	0.527	0.1723	0.1407	0.0004	0.3735	-0.222	0.3739	-0.1824	-0.103	-0.0325	-0.0684	0.0561	2.8511	1.0613	2.4511	1.0734	A+	A+	A+
SCIENCE	8	785161	5	STEELS	2	5	9800	0.4451	0.0979	0.4451	0.3561	0.1008	0.0001	0.3297	-0.1971	0.3297	-0.1194	-0.1596	-0.0084	0.3306	0.0564	4.1711	1.0933	4.0611	1.1237	A+	A+	A+
SCIENCE	8	785163	5	STEELS	2	5	9798	0.6355	0.6353	0.0768	0.1756	0.1119	0.0003	0.5366	0.5369	-0.2928	-0.3027	-0.2057	-0.0233	-0.6059	0.0578	-5.7891	0.871	-5.5392	0.805	A+	A+	A-
SCIENCE	8	785176	5	STEELS	2	5	9799	0.5523	0.1198	0.1745	0.1534	0.5522	0.0002	0.532	-0.2408	-0.2264	-0.2782	0.5322	-0.0188	-0.1911	0.0563	-5.4091	0.889	-4.2991	0.8742	A+	A-	A-
SCIENCE	8	785179	5	STEELS	2	5	9800	0.4389	0.1236	0.3313	0.1062	0.4388	0.0001	0.4434	-0.2628	-0.1138	-0.2595	0.4433	0.0023	0.3613	0.0565	-2.5791	0.9444	-2.9191	0.9159	A+	A-	A-
SCIENCE	8	785187	5	STEELS	2	5	9798	0.3578	0.2547	0.2238	0.1636	0.3577	0.0003	0.3688	-0.0195	-0.1767	-0.2556	0.3688	-0.0065	0.773	0.0583	2.3611	1.0587	3.2911	1.1216	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	795571	5	STEELS	3	5	9800	0.7108	0.1099	0.7107	0.1228	0.0564	0.0001	0.4434	-0.2745	0.4435	-0.2276	-0.1752	-0.0095	-1.0114	0.0608	-2.0891	0.9438	-2.3591	0.8892	A-	A-	A-
SCIENCE	8	795583	5	STEELS	3	5	9799	0.6303	0.0564	0.047	0.2662	0.6301	0.0002	0.4375	-0.2511	-0.2673	-0.2185	0.4376	-0.0097	-0.5792	0.0577	-0.789	0.9817	0.261	1.0091	A+	A+	A+
SCIENCE	8	800416	5	STEELS	2	5	19525	0.7122	0.1032	0.0795	0.712	0.1051	0.0002	0.447	-0.2049	-0.3151	0.4472	-0.1785	-0.0126	-1.0335	0.0427	-4.9391	0.9089	-3.4991	0.8888	A+	A+	A-
SCIENCE	8	743539	6	STEELS	3	1	19437	0.6763	0.1282	0.117	0.6761	0.0783	0.0004	0.486	-0.2562	-0.2842	0.4865	-0.1862	-0.0303	-0.8532	0.0409	-7.1491	0.8856	-6.8492	0.8333	A+	A-	A-
SCIENCE	8	780649	6	STEELS	2	1	9719	0.6421	0.1164	0.18	0.6416	0.0612	0.0009	0.4352	-0.1863	-0.2728	0.4357	-0.1819	-0.0279	-0.6789	0.0571	-3.6691	0.9214	-2.4691	0.9171	A+	A-	A-
SCIENCE	8	780650	6	STEELS	3	1	9719	0.6144	0.0804	0.1405	0.1644	0.6138	0.0009	0.4813	-0.2453	-0.1918	-0.2705	0.482	-0.0354	-0.5419	0.0564	-5.1691	0.8956	-4.5591	0.8628	A+	A+	A+
SCIENCE	8	784943	6	STEELS	2	1	9725	0.3611	0.1551	0.2011	0.361	0.2825	0.0003	0.3039	-0.1907	-0.112	0.304	-0.0708	-0.0109	0.6665	0.0574	2.5311	1.0605	2.7711	1.0904	A-	A-	A+
SCIENCE	8	804540	6	STEELS	2	1	9724	0.4812	0.1313	0.306	0.481	0.0813	0.0004	0.3526	-0.2802	-0.0531	0.3528	-0.2078	-0.0171	0.0868	0.0553	4.0711	1.0827	3.8311	1.0995	A-	A-	A+
SCIENCE	8	804541	6	STEELS	2	1	9724	0.4048	0.1424	0.4046	0.1183	0.3343	0.0004	0.3189	-0.2182	0.3192	-0.2644	0.0118	-0.0271	0.4504	0.0563	3.9411	1.0877	4.2811	1.1247	A-	A+	A-
SCIENCE	8	804542	6	STEELS	2	1	9723	0.2344	0.21	0.2343	0.2725	0.2827	0.0005	-0.0579	-0.0105	-0.0574	-0.0352	0.1002	-0.039	1.3769	0.0642	9.9014	1.3684	9.9018	1.7927	A-	A+	A+
SCIENCE	8	780605	6	STEELS	2	2	9728	0.6275	0.0916	0.0159	0.265	0.6275		0.2166	-0.1444	-0.1248	-0.1075	0.2166		-0.609	0.0567	6.1511	1.1372	5.5212	1.1923	B-	A-	A+
SCIENCE	8	780606	6	STEELS	2	2	9723	0.6384	0.6381	0.0992	0.1308	0.1315	0.0005	0.4745	0.4747	-0.2835	-0.2862	-0.1374	-0.0206	-0.6615	0.057	-5.0991	0.8926	-4.2991	0.8606	A+	A-	A+
SCIENCE	8	795509	6	STEELS	3	2	9723	0.5206	0.1648	0.1031	0.2112	0.5204	0.0005	0.4558	-0.2109	-0.2567	-0.1737	0.4561	-0.0317	-0.0977	0.0553	-3.9091	0.9255	-3.0091	0.9245	A+	A-	A-
SCIENCE	8	795510	6	STEELS	2	2	9724	0.2782	0.1812	0.2781	0.2373	0.303	0.0004	0.1588	-0.0094	0.1589	-0.1671	0.0081	-0.0106	1.112	0.061	5.4212	1.1652	6.8913	1.323	A-	A+	A+
SCIENCE	8	795522	6	STEELS	2	2	9724	0.483	0.2221	0.4828	0.1836	0.111	0.0004	0.4013	-0.1065	0.4015	-0.26	-0.1757	-0.0254	0.078	0.0553	-0.009	0.9997	-0.469	0.988	A-	A+	A+
SCIENCE	8	795538	6	STEELS	2	2	9725	0.5489	0.2375	0.5487	0.124	0.0895	0.0003	0.4254	-0.2199	0.4256	-0.2151	-0.1646	-0.0198	-0.2309	0.0554	-0.659	0.987	-1.249	0.9667	A-	A-	A-
SCIENCE	8	800331	6	STEELS	2	2	9723	0.279	0.2789	0.1295	0.1285	0.4626	0.0005	0.0245	0.0249	-0.2768	-0.278	0.352	-0.0317	1.1073	0.061	9.9014	1.3981	9.9016	1.6234	A-	A-	A+
SCIENCE	8	800334	6	STEELS	2	2	9725	0.4848	0.2888	0.0996	0.1266	0.4847	0.0003	0.4729	-0.2217	-0.2217	-0.2078	0.4731	-0.0286	0.0694	0.0553	-4.1491	0.92	-3.9491	0.9034	A+	A-	A-
SCIENCE	8	804560	6	STEELS	2	2	9726	0.6218	0.1112	0.1226	0.6217	0.1442	0.0002	0.4547	-0.2202	-0.2693	0.4548	-0.1787	-0.0159	-0.5807	0.0566	-1.449	0.9694	-1.349	0.9566	A-	A+	A-
SCIENCE	8	804561	6	STEELS	2	2	19436	0.3465	0.1757	0.3464	0.2459	0.2316	0.0005	0.2788	-0.1528	0.279	-0.1764	0.0046	-0.0276	0.727	0.0406	3.2911	1.0555	5.1211	1.12	A-	A+	A-
SCIENCE	8	804563	6	STEELS	2	2	9724	0.3352	0.1678	0.2596	0.2373	0.335	0.0004	0.3165	-0.1001	-0.0952	-0.1643	0.3167	-0.0212	0.8003	0.0583	1.881	1.0473	3.8211	1.1376	A+	A+	A-
SCIENCE	8	804567	6	STEELS	2	2	9724	0.5606	0.5603	0.0953	0.2139	0.13	0.0004	0.5257	0.5259	-0.2374	-0.2937	-0.2092	-0.0265	-0.2857	0.0555	-7.0191	0.8677	-6.6592	0.8282	A+	A-	A-
SCIENCE	8	780624	6	STEELS	2	3	9726	0.6877	0.113	0.0732	0.6876	0.126	0.0002	0.4703	-0.2105	-0.2702	0.4705	-0.2435	-0.0184	-0.9158	0.0588	-1.909	0.9538	-1.6791	0.9332	A-	A-	A-
SCIENCE	8	784972	6	STEELS	2	3	9728	0.6174	0.1266	0.1134	0.1426	0.6174		0.5374	-0.2195	-0.2984	-0.2676	0.5374		-0.5595	0.0565	-7.6592	0.8472	-6.4892	0.807	A+	A+	A+
SCIENCE	8	784990	6	STEELS	2	3	9724	0.4228	0.1812	0.4226	0.2226	0.1732	0.0004	0.3786	-0.1906	0.3789	-0.1437	-0.141	-0.0307	0.3634	0.0559	-0.519	0.9889	0.361	1.0094	A+	A+	A+
SCIENCE	8	802391	6	STEELS	2	3	9725	0.4523	0.4522	0.1611	0.1856	0.2008	0.0003	0.304	0.3042	-0.2028	-0.188	-0.0086	-0.0204	0.2223	0.0555	2.8911	1.0597	2.6611	1.0698	A-	A-	A-
SCIENCE	8	802393	6	STEELS	2	3	9721	0.4624	0.1272	0.1797	0.2304	0.4621	0.0007	0.497	-0.1837	-0.2122	-0.2484	0.4972	-0.0228	0.1757	0.0554	-6.2691	0.8789	-5.5391	0.8651	A-	A-	A-
SCIENCE	8	810256	6	STEELS	2	3	9727	0.6788	0.1078	0.6788	0.0716	0.1417	0.0001	0.3603	-0.1751	0.3604	-0.2351	-0.1527	-0.0118	-0.8692	0.0584	-1.269	0.9697	-1.3091	0.9492	A-	A-	A-
SCIENCE	8	784993	6	STEELS	2	4	9726	0.3072	0.1494	0.1822	0.3072	0.3611	0.0002	0.2393	-0.1241	-0.1695	0.2394	-0.0011	-0.0184	0.9491	0.0595	5.5012	1.1541	7.1413	1.2982	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	784996	6	STEELS	2	4	9725	0.623	0.045	0.1451	0.1867	0.6228	0.0003	0.4425	-0.226	-0.2198	-0.2307	0.4427	-0.0218	-0.5862	0.0566	-1.019	0.9783	-1.439	0.9537	A+	A-	A-
SCIENCE	8	785006	6	STEELS	2	4	9724	0.4652	0.465	0.1265	0.2246	0.1834	0.0004	0.4685	0.4686	-0.2269	-0.2664	-0.1207	-0.0201	0.1617	0.0554	-2.8091	0.9445	-2.3191	0.942	A+	A+	A+
SCIENCE	8	795564	6	STEELS	2	4	9723	0.4889	0.1049	0.2781	0.1279	0.4887	0.0005	0.4414	-0.2699	-0.0879	-0.2941	0.4417	-0.0216	0.0506	0.0553	-4.0691	0.9217	-3.3491	0.9177	A+	A-	A+
SCIENCE	8	804548	6	STEELS	2	4	9723	0.6498	0.6495	0.1478	0.1233	0.0789	0.0005	0.5337	0.5341	-0.3089	-0.2987	-0.1716	-0.0317	-0.7187	0.0573	-5.9791	0.872	-6.0992	0.7994	A+	A-	A-
SCIENCE	8	783171	6	STEELS	3	5	9720	0.6659	0.1239	0.6654	0.1071	0.1028	0.0008	0.5114	-0.2233	0.5116	-0.2922	-0.2532	-0.0205	-0.7999	0.0579	-6.5591	0.8554	-6.0192	0.7917	A+	A+	A+
SCIENCE	8	783173	6	STEELS	2	5	9724	0.2274	0.2273	0.3394	0.1822	0.2507	0.0004	0.1587	0.1589	-0.0149	-0.2418	0.0794	-0.0318	1.422	0.0648	3.6811	1.1305	5.2613	1.3004	A-	A+	A+
SCIENCE	8	783175	6	STEELS	3	5	9724	0.4863	0.1444	0.1759	0.4861	0.1932	0.0004	0.4333	-0.2765	-0.1454	0.4336	-0.1611	-0.0283	0.0627	0.0553	-3.6391	0.9298	-3.4691	0.9149	A+	A+	A+
SCIENCE	8	783177	6	STEELS	3	5	9723	0.3488	0.1443	0.3088	0.1978	0.3486	0.0005	0.2712	-0.1528	0.0043	-0.1938	0.2714	-0.0195	0.7299	0.0578	5.3011	1.1334	5.5612	1.1952	A+	A+	A+
SCIENCE	8	785159	6	STEELS	2	5	9725	0.6122	0.1793	0.612	0.1215	0.0869	0.0003	0.4484	-0.1644	0.4487	-0.276	-0.2308	-0.0238	-0.5334	0.0564	-2.4891	0.9488	-2.4091	0.926	A+	A-	A-
SCIENCE	8	785181	6	STEELS	2	5	9726	0.6417	0.1079	0.1439	0.6416	0.1064	0.0002	0.3481	-0.2041	-0.1055	0.3482	-0.2156	-0.0092	-0.6789	0.0571	1.361	1.03	2.1111	1.074	A+	A+	A+
SCIENCE	8	795568	6	STEELS	2	5	9728	0.4207	0.4207	0.1458	0.2104	0.2231		0.3646	0.3646	-0.2013	-0.188	-0.0776		0.3723	0.056	1.511	1.0321	1.691	1.0463	A-	A-	A-
SCIENCE	8	795575	6	STEELS	2	5	9726	0.4284	0.1773	0.1563	0.4284	0.2379	0.0002	0.2858	-0.1682	-0.25	0.286	0.0323	-0.0184	0.3359	0.0558	4.7011	1.1014	5.0711	1.1413	A+	A-	A-
SCIENCE	8	795584	6	STEELS	2	5	9722	0.3847	0.0869	0.2435	0.3845	0.2845	0.0006	0.1748	-0.2097	-0.1511	0.175	0.0871	-0.0217	0.5492	0.0567	7.5212	1.1785	7.0512	1.2232	A+	A+	A-
SCIENCE	8	743593	7	STEELS	2	1	9712	0.5429	0.1273	0.1242	0.2053	0.5427	0.0005	0.4045	-0.1639	-0.1212	-0.2635	0.4049	-0.0299	-0.2115	0.0544	-1.269	0.9778	-1.799	0.9595	A+	A+	A+
SCIENCE	8	743594	7	STEELS	2	1	9714	0.7401	0.0682	0.7398	0.0559	0.1357	0.0003	0.3492	-0.0895	0.3496	-0.2272	-0.2285	-0.0194	-1.1961	0.061	-0.569	0.9834	-0.699	0.9691	A-	A+	A+
SCIENCE	8	748538	7	STEELS	2	1	9710	0.5341	0.1063	0.1872	0.5337	0.1721	0.0007	0.4376	-0.2675	-0.2111	0.4379	-0.1401	-0.0285	-0.1703	0.0543	-2.209	0.9619	-2.3791	0.9475	A+	A+	A+
SCIENCE	8	748540	7	STEELS	3	1	9709	0.5022	0.1379	0.1741	0.1853	0.5018	0.0008	0.4955	-0.1661	-0.2119	-0.2813	0.4959	-0.0365	-0.0239	0.0543	-5.0791	0.9147	-4.6391	0.9021	A+	A-	A-
SCIENCE	8	780583	7	STEELS	2	1	9717	0.8336	0.1031	0.8336	0.0303	0.033		0.3732	-0.2735	0.3732	-0.1846	-0.1355		-1.8138	0.0709	-3.6192	0.85	-4.9893	0.7049	A+	A-	A-
SCIENCE	8	743596	7	STEELS	2	2	9714	0.4221	0.1676	0.1286	0.4219	0.2815	0.0003	0.2547	-0.2215	-0.245	0.255	0.0872	-0.0209	0.3456	0.0549	5.9911	1.117	5.4111	1.1354	A+	A+	A+
SCIENCE	8	780601	7	STEELS	2	2	9717	0.5576	0.5576	0.3333	0.0783	0.0308		0.3027	0.3027	-0.1917	-0.1753	-0.0744		-0.2803	0.0545	1.931	1.0345	1.631	1.0386	A-	A-	A-
SCIENCE	8	780653	7	STEELS	2	2	9714	0.4122	0.2049	0.0988	0.4121	0.2839	0.0003	0.2482	-0.1475	-0.1814	0.2485	-0.0181	-0.0269	0.3923	0.0551	5.4411	1.108	5.7611	1.1485	A-	A+	A+
SCIENCE	8	780655	7	STEELS	2	2	9714	0.4049	0.4048	0.1028	0.4174	0.0747	0.0003	0.4077	0.4078	-0.2154	-0.1578	-0.2153	-0.0194	0.427	0.0553	-1.249	0.9757	-0.009	0.9995	A-	A-	A-
SCIENCE	8	795508	7	STEELS	2	2	9711	0.4732	0.1822	0.4729	0.1598	0.1845	0.0006	0.3369	-0.1185	0.3372	-0.2419	-0.086	-0.0243	0.1088	0.0543	1.041	1.0182	1.471	1.0324	A+	A-	A+
SCIENCE	8	795532	7	STEELS	2	2	9711	0.3919	0.3917	0.1365	0.2157	0.2555	0.0006	0.3084	0.3086	-0.2888	-0.0787	-0.0425	-0.0243	0.4896	0.0556	3.2411	1.0664	4.5511	1.1236	A-	A-	A-
SCIENCE	8	800332	7	STEELS	2	2	9714	0.4888	0.1684	0.4886	0.2052	0.1375	0.0003	0.4577	-0.1344	0.4579	-0.2894	-0.1779	-0.0239	0.0365	0.0543	-3.8991	0.9337	-3.5291	0.9249	A-	A+	A-
SCIENCE	8	804564	7	STEELS	2	2	9711	0.3007	0.1872	0.3678	0.3005	0.1439	0.0006	0.2003	-0.0428	0.0559	0.2006	-0.2893	-0.028	0.9525	0.059	4.5511	1.1239	6.4113	1.2517	A-	A+	A-
SCIENCE	8	804565	7	STEELS	2	2	9711	0.4062	0.406	0.1513	0.2269	0.2152	0.0006	0.2252	0.2256	-0.2412	-0.1339	0.0789	-0.028	0.4211	0.0552	5.0211	1.1007	5.4711	1.1433	A-	A+	A+
SCIENCE	8	743599	7	STEELS	2	3	9714	0.2214	0.2214	0.3012	0.3002	0.1769	0.0003	0.1202	0.1203	-0.1079	0.0094	-0.012	-0.0089	1.4196	0.0648	3.9111	1.1431	6.9614	1.3938	A-	A+	A+
SCIENCE	8	748542	7	STEELS	2	3	9708	0.2265	0.1935	0.4194	0.2263	0.1599	0.0009	0.1132	-0.2264	0.0672	0.1137	0.0271	-0.0415	1.3877	0.0643	5.5012	1.2011	8.8015	1.5009	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	784974	7	STEELS	2	3	9713	0.647	0.1653	0.0797	0.6467	0.108	0.0004	0.4168	-0.217	-0.2384	0.4174	-0.1729	-0.0333	-0.7039	0.0564	-2.4391	0.9487	-2.7491	0.9176	A+	A-	A+
SCIENCE	8	784979	7	STEELS	2	3	9708	0.4234	0.2258	0.1958	0.423	0.1545	0.0009	0.2627	0.0222	-0.1426	0.2631	-0.2267	-0.0237	0.3407	0.0549	5.1411	1.0996	5.2811	1.1317	A-	A-	A-
SCIENCE	8	784986	7	STEELS	2	3	9712	0.3769	0.3767	0.3222	0.1613	0.1393	0.0005	0.2309	0.2313	-0.0462	-0.1942	-0.053	-0.0317	0.5624	0.0559	3.9511	1.0845	4.4411	1.1267	A-	A+	A+
SCIENCE	8	784987	7	STEELS	2	3	9712	0.574	0.1405	0.1932	0.5737	0.0921	0.0005	0.4122	-0.2286	-0.2089	0.4125	-0.1433	-0.0294	-0.3553	0.0547	-3.2291	0.9424	-2.9191	0.9304	A+	A-	A-
SCIENCE	8	795523	7	STEELS	2	3	9715	0.2132	0.3239	0.3072	0.1556	0.2131	0.0002	0.2245	0.0337	-0.0474	-0.236	0.2246	-0.0226	1.474	0.0656	2.4711	1.092	3.5612	1.1973	A-	A-	A+
SCIENCE	8	802390	7	STEELS	3	3	9710	0.2609	0.4472	0.2607	0.1691	0.1224	0.0007	0.1109	0.1762	0.1112	-0.2554	-0.1223	-0.0231	1.1768	0.0614	5.0112	1.1583	5.9713	1.277	A+	A+	A+
SCIENCE	8	802397	7	STEELS	2	3	9711	0.4173	0.417	0.1202	0.38	0.0822	0.0006	0.4186	0.4189	-0.2219	-0.1592	-0.2048	-0.0339	0.3689	0.055	-3.9591	0.9265	-2.9891	0.9289	A-	A-	A+
SCIENCE	8	785003	7	STEELS	2	4	9716	0.7	0.0651	0.1928	0.6999	0.0421	0.0001	0.3985	-0.1787	-0.2488	0.3987	-0.2008	-0.0134	-0.9758	0.0586	-1.299	0.9675	-2.2991	0.9157	A-	A+	A-
SCIENCE	8	785007	7	STEELS	2	4	9717	0.6507	0.0939	0.0993	0.6507	0.1561		0.37	-0.1669	-0.2338	0.37	-0.1593		-0.7238	0.0566	-0.469	0.9898	-0.889	0.9723	A+	A+	A-
SCIENCE	8	795556	7	STEELS	2	4	9711	0.5908	0.1381	0.0949	0.176	0.5904	0.0006	0.4603	-0.0961	-0.2834	-0.2876	0.4609	-0.036	-0.4333	0.055	-5.4991	0.9006	-5.2391	0.8721	A+	A+	A+
SCIENCE	8	802400	7	STEELS	3	4	9711	0.422	0.4217	0.133	0.1765	0.2682	0.0006	0.3513	0.3515	-0.3004	-0.2681	0.0703	-0.0206	0.3466	0.0549	0.681	1.0127	0.811	1.0193	A-	A-	A-
SCIENCE	8	737148	7	STEELS	2	5	19479	0.7286	0.0619	0.7282	0.083	0.1264	0.0005	0.435	-0.1914	0.4356	-0.2669	-0.2208	-0.0293	-1.1195	0.0431	-5.4791	0.8956	-3.9391	0.8707	A+	A+	A-
SCIENCE	8	741087	7	STEELS	2	5	9715	0.3611	0.1971	0.1034	0.361	0.3383	0.0002	0.1968	0.0101	-0.269	0.1969	-0.0349	-0.0106	0.6394	0.0564	4.6611	1.1046	5.0712	1.1539	A-	A+	A+
SCIENCE	8	743586	7	STEELS	2	5	9716	0.4153	0.1687	0.4153	0.2219	0.1941	0.0001	0.3022	-0.1794	0.3023	-0.0686	-0.1344	-0.0095	0.3771	0.0551	1.261	1.0241	1.331	1.0327	A+	A+	A+
SCIENCE	8	748544	7	STEELS	2	5	9713	0.7776	0.0922	0.7773	0.0766	0.0535	0.0004	0.4851	-0.3001	0.4857	-0.249	-0.215	-0.0339	-1.4215	0.064	-4.1191	0.8671	-6.0793	0.7196	B+	A-	A+
SCIENCE	8	785158	7	STEELS	2	5	9710	0.3797	0.2942	0.3794	0.0897	0.2359	0.0007	0.3221	-0.0872	0.3224	-0.2641	-0.0954	-0.0271	0.5489	0.0559	1.601	1.0335	2.2611	1.0625	A-	A+	A+
SCIENCE	8	785166	7	STEELS	2	5	9715	0.8356	0.0617	0.0698	0.8354	0.0328	0.0002	0.458	-0.2517	-0.2828	0.4585	-0.2074	-0.0291	-1.8282	0.0712	-3.1291	0.868	-5.6593	0.6684	A+	A-	A-
SCIENCE	8	785174	7	STEELS	2	5	9716	0.4296	0.0971	0.3506	0.1226	0.4296	0.0001	0.4788	-0.2521	-0.2016	-0.2014	0.4788	-0.0108	0.3098	0.0548	-5.8891	0.8945	-5.9091	0.867	A-	A+	A+
SCIENCE	8	785178	7	STEELS	2	5	9710	0.7245	0.0584	0.724	0.1233	0.0937	0.0007	0.4968	-0.2104	0.4969	-0.303	-0.2496	-0.0167	-1.1065	0.06	-4.4291	0.8832	-5.5592	0.7878	A+	A-	A-
SCIENCE	8	737158	8	STEELS	2	1	9769	0.3181	0.3181	0.1988	0.3562	0.1266	0.0003	0.3447	0.3447	-0.1407	-0.0085	-0.3011	-0.0114	1.0187	0.0606	1.8811	1.0531	2.5811	1.1141	A+	A+	A+
SCIENCE	8	743531	8	STEELS	2	1	9772	0.5499	0.1332	0.5499	0.2044	0.1125		0.3373	-0.1973	0.3373	-0.1491	-0.1286		-0.1697	0.0565	3.9011	1.0863	2.9411	1.0975	A+	A-	A+
SCIENCE	8	743532	8	STEELS	2	1	9770	0.6754	0.1397	0.1012	0.0836	0.6753	0.0002	0.4392	-0.1543	-0.2551	-0.2715	0.4393	-0.0115	-0.8106	0.0591	-2.6991	0.9347	1.6611	1.0761	A+	A+	A+
SCIENCE	8	743534	8	STEELS	2	1	9771	0.5411	0.541	0.1358	0.1725	0.1505	0.0001	0.4351	0.4352	-0.2598	-0.2015	-0.1441	-0.0179	-0.1257	0.0565	-0.269	0.994	-0.029	0.9988	A+	A+	A-
SCIENCE	8	743536	8	STEELS	2	1	9768	0.7363	0.736	0.0624	0.1621	0.0391	0.0004	0.3789	0.3794	-0.225	-0.2102	-0.1795	-0.0266	-1.1543	0.0621	-0.239	0.9928	-1.8291	0.9007	A-	B-	A-
SCIENCE	8	743595	8	STEELS	2	1	9765	0.59	0.0831	0.5895	0.1842	0.1424	0.0007	0.5344	-0.1759	0.5348	-0.3633	-0.2085	-0.0314	-0.3665	0.0569	-5.2391	0.8892	-4.6392	0.8454	A+	A+	A-
SCIENCE	8	748539	8	STEELS	2	1	9766	0.2082	0.3032	0.2679	0.2202	0.208	0.0006	0.2463	0.1407	-0.1783	-0.205	0.2465	-0.0338	1.7171	0.0688	3.6811	1.1477	5.6014	1.4123	A+	A+	A+
SCIENCE	8	801752	8	STEELS	2	1	9766	0.4868	0.1609	0.4865	0.2227	0.1293	0.0006	0.4538	-0.1651	0.4542	-0.2397	-0.196	-0.0347	0.1429	0.0565	-0.569	0.9875	-1.109	0.9663	A+	A+	A+
SCIENCE	8	737160	8	STEELS	2	2	9767	0.5041	0.1025	0.5039	0.195	0.198	0.0005	0.4045	-0.2738	0.4048	-0.2317	-0.0676	-0.0272	0.0572	0.0564	1.101	1.0239	0.791	1.0241	A+	A+	A+
SCIENCE	8	743548	8	STEELS	2	2	9771	0.6958	0.6958	0.1531	0.1105	0.0405	0.0001	0.4562	0.4564	-0.2239	-0.2674	-0.2299	-0.0179	-0.9229	0.06	-2.8791	0.9273	-2.6291	0.8777	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	PValue	P(A)	P(B)	P(C)	P(D)	P(OMIT)	PtBis	Corr(A)	Corr(B)	Corr(C)	Corr(D)	Corr (OMIT)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	743550	8	STEELS	2	2	9764	0.5927	0.1406	0.1528	0.5922	0.1136	0.0008	0.4429	-0.2291	-0.233	0.4436	-0.1686	-0.0365	-0.3799	0.057	1.381	1.0304	0.101	1.003	A-	A-	A-
SCIENCE	8	743551	8	STEELS	2	2	9769	0.3814	0.3094	0.1667	0.1423	0.3813	0.0003	0.4893	-0.0775	-0.2558	-0.3041	0.4894	-0.0173	0.6747	0.0582	-4.2391	0.8992	-3.0791	0.8948	A+	A+	A+
SCIENCE	8	743553	8	STEELS	2	2	9765	0.5118	0.5115	0.1747	0.1585	0.1546	0.0007	0.4701	0.4703	-0.2054	-0.2435	-0.1871	-0.0185	0.0199	0.0564	-1.349	0.9711	-1.209	0.9629	A+	A+	A+
SCIENCE	8	743597	8	STEELS	3	2	9767	0.5306	0.1802	0.5303	0.1775	0.1114	0.0005	0.4646	-0.189	0.4649	-0.2842	-0.1596	-0.0244	-0.0728	0.0564	-1.019	0.9781	-1.349	0.9578	A-	A-	A+
SCIENCE	8	743600	8	STEELS	2	2	9767	0.3462	0.1307	0.3168	0.206	0.346	0.0005	0.3876	-0.2354	-0.0986	-0.1451	0.3878	-0.0258	0.8633	0.0594	1.841	1.0489	2.1411	1.0855	A+	A+	A-
SCIENCE	8	749422	8	STEELS	2	2	9768	0.3701	0.174	0.3699	0.1942	0.2615	0.0004	0.2492	-0.1489	0.2494	-0.2586	0.0881	-0.0157	0.7345	0.0585	7.5512	1.2011	7.4313	1.2957	A+	A+	A+
SCIENCE	8	737141	8	STEELS	2	3	9771	0.6963	0.0642	0.6963	0.132	0.1074	0.0001	0.5534	-0.2513	0.5535	-0.3029	-0.2915	-0.0169	-0.9256	0.06	-7.0492	0.8284	-4.6592	0.7904	A-	B-	A-
SCIENCE	8	741074	8	STEELS	2	3	9770	0.4327	0.0983	0.2377	0.2312	0.4326	0.0002	0.3636	-0.1978	-0.1685	-0.117	0.3637	-0.0159	0.4115	0.0571	4.0211	1.0944	4.0711	1.1348	A-	A+	A+
SCIENCE	8	741078	8	STEELS	2	3	9770	0.6179	0.1135	0.091	0.6178	0.1775	0.0002	0.5513	-0.2605	-0.286	0.5514	-0.2693	-0.0107	-0.5092	0.0574	-5.7991	0.8746	-5.3792	0.8098	A-	A-	A+
SCIENCE	8	741080	8	STEELS	2	3	9769	0.4568	0.1782	0.1677	0.4566	0.1972	0.0003	0.3003	-0.1282	-0.174	0.3004	-0.0889	-0.0108	0.291	0.0567	6.4612	1.1507	5.9312	1.1944	A-	A+	A+
SCIENCE	8	741083	8	STEELS	2	3	9767	0.3941	0.3939	0.2736	0.1198	0.2121	0.0005	0.2703	0.2706	-0.1341	-0.2262	0.0038	-0.0239	0.6091	0.0579	6.8812	1.1747	6.6112	1.2438	A-	A-	A+
SCIENCE	8	743555	8	STEELS	2	3	9767	0.4929	0.2113	0.1984	0.4926	0.0971	0.0005	0.4039	-0.2417	-0.1096	0.4041	-0.1996	-0.0244	0.1126	0.0564	2.3511	1.0518	2.2311	1.0694	A-	A+	A+
SCIENCE	8	743559	8	STEELS	3	3	9770	0.4817	0.2194	0.4816	0.1546	0.1442	0.0002	0.4018	-0.2023	0.4018	-0.1521	-0.1762	-0.0093	0.1671	0.0565	0.191	1.004	-0.279	0.9913	A-	A+	A+
SCIENCE	8	743566	8	STEELS	2	3	9769	0.693	0.6928	0.1182	0.0991	0.0896	0.0003	0.5249	0.5253	-0.2905	-0.275	-0.2307	-0.0275	-0.9064	0.0598	-7.4892	0.8199	-6.5993	0.7157	A-	A-	A-
SCIENCE	8	743598	8	STEELS	2	3	9766	0.3811	0.3809	0.2052	0.2077	0.2056	0.0006	0.3809	0.3811	-0.235	-0.2221	0.0015	-0.0275	0.6768	0.0582	1.371	1.0339	2.8011	1.1021	A+	A-	A+
SCIENCE	8	748541	8	STEELS	2	3	9767	0.4565	0.1992	0.2299	0.4563	0.114	0.0005	0.3075	-0.1919	-0.2012	0.3079	0.0275	-0.0355	0.2925	0.0567	6.2611	1.1458	6.1812	1.2029	A+	A+	A+
SCIENCE	8	801760	8	STEELS	2	4	9764	0.436	0.1709	0.2198	0.1728	0.4356	0.0008	0.3854	-0.188	-0.0812	-0.2269	0.386	-0.0416	0.396	0.057	1.601	1.0366	2.0411	1.0656	A+	A+	A+
SCIENCE	8	741084	8	STEELS	2	5	9771	0.4823	0.4823	0.2525	0.1526	0.1126	0.0001	0.3038	0.3039	-0.1072	-0.2308	-0.07	-0.0128	0.1636	0.0565	5.5211	1.1252	4.6611	1.1488	A-	A+	A-
SCIENCE	8	741089	8	STEELS	2	5	9766	0.5566	0.0872	0.1066	0.2493	0.5563	0.0006	0.4502	-0.2413	-0.308	-0.1387	0.4506	-0.03	-0.201	0.0566	-2.009	0.9571	-0.609	0.9798	A+	A-	A+
SCIENCE	8	741092	8	STEELS	2	5	9770	0.6659	0.0603	0.238	0.6658	0.0357	0.0002	0.4415	-0.1774	-0.2998	0.4415	-0.206	-0.0093	-0.7594	0.0588	-1.789	0.9571	-2.0391	0.9128	A+	A-	A-
SCIENCE	8	743582	8	STEELS	2	5	9772	0.5312	0.5312	0.3566	0.0563	0.0559		0.3098	0.3098	-0.1528	-0.22	-0.1338		-0.0773	0.0564	6.8112	1.1533	5.5312	1.1836	A-	A-	A-
SCIENCE	8	743587	8	STEELS	2	5	9768	0.6888	0.0502	0.0705	0.6885	0.1903	0.0004	0.4811	-0.2506	-0.2767	0.4815	-0.2467	-0.0261	-0.8826	0.0596	-3.8591	0.9048	-4.1992	0.814	A-	A-	A-
SCIENCE	8	743591	8	STEELS	2	5	9769	0.7713	0.0394	0.105	0.0842	0.7711	0.0003	0.485	-0.2074	-0.2759	-0.2829	0.4855	-0.0263	-1.3724	0.0646	-3.9391	0.8783	-3.8292	0.7744	A+	A-	A-
SCIENCE	8	743592	8	STEELS	3	5	9768	0.3565	0.113	0.1396	0.3563	0.3907	0.0004	0.2889	-0.2438	-0.2481	0.289	0.0513	-0.0152	0.8073	0.059	4.3811	1.1168	4.4312	1.1768	A-	A-	A+
SCIENCE	8	748545	8	STEELS	2	5	9767	0.5981	0.5978	0.1791	0.1231	0.0995	0.0005	0.5425	0.543	-0.2833	-0.2981	-0.1966	-0.036	-0.4081	0.0571	-4.0091	0.9139	-3.9391	0.8651	A+	A+	A+
SCIENCE	8	748546	8	STEELS	3	5	9766	0.4894	0.1287	0.2025	0.1791	0.4891	0.0006	0.5405	-0.2142	-0.2541	-0.2492	0.5408	-0.0381	0.1303	0.0565	-7.1691	0.8518	-6.4592	0.8152	A+	A+	A+

Evidence-Based Selected-Response Paper/Pencil Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(0)	Proportion 0 Points
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(OMIT)	Proportion Omits
PtBis	Point Biserial
Corr(0)	Correlation 0 Points
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(OMIT)	Correlation Omits
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	3	710676	0	CCAACS	1	A-K	56818	1.1921	0.1736	0.4485	0.3628		0.015	0.6064	-0.4792	-0.0976	0.5101		-0.125	-0.207	0.0307	-4.089	0.9501	-2.169	0.9719	A-	A-	A+
ELA	3	743420	0	CCAACS	2	A-K	57158	1.3525	0.1838	0.2739	0.5332		0.0091	0.6511	-0.4541	-0.317	0.6519		-0.084	-0.3359	0.029	-9.8991	0.86	-8.8692	0.8456	A+	A+	A+
ELA	3	747172	0	CCAACS	3	B-K	57331	1.8482	0.0959	0.2424	0.3724	0.2832	0.0061	0.6544	-0.3527	-0.3932	0.0865	0.5241	-0.0719	-0.2043	0.0394	-2.219	0.9704	-0.489	0.9932	A-	A-	A-
ELA	3	747251	0	CCAACS	3	B-K	57289	1.613	0.1132	0.3264	0.3853	0.1683	0.0068	0.5978	-0.3255	-0.3479	0.2298	0.4277	-0.0684	0.4339	0.0313	1.731	1.0224	1.501	1.0196	A-	A+	A+
ELA	3	795944	1	CCAACS	2	A-K	6433	0.9911	0.3519	0.3014	0.343		0.0037	0.4598	-0.3106	-0.1832	0.4923		-0.0222	0.3124	0.073	4.6312	1.1769	4.6112	1.2088	A+	A-	A-
ELA	3	795949	1	CCAACS	2	A-K	6427	1.3856	0.2075	0.3969	0.1905	0.2004	0.0046	0.4427	-0.2074	-0.1898	-0.0363	0.4787	-0.0056	0.612	0.0771	8.3114	1.3713	7.4914	1.3547	A+	A-	A-
ELA	3	780343	2	CCAACS	2	A-K	6396	0.9536	0.3929	0.2565	0.3466		0.004	0.5429	-0.3986	-0.1652	0.5672		-0.0486	0.4744	0.0741	0.771	1.0278	0.651	1.0315	A+	A-	A-
ELA	3	780348	2	CCAACS	2	A-K	6390	1.6089	0.0958	0.3377	0.4214	0.1401	0.005	0.4233	-0.2592	-0.2478	0.2286	0.2425	-0.0516	0.3484	0.1073	4.4112	1.1855	4.3212	1.1814	A+	A-	A-
ELA	3	783604	3	CCAACS	2	A-K	6373	0.9124	0.3615	0.3593	0.2744		0.0048	0.4745	-0.3548	-0.0628	0.4577		-0.0522	0.6083	0.0716	3.1811	1.1162	3.5811	1.1477	A+	A-	A-
ELA	3	783667	3	CCAACS	2	A-K	6372	1.6709	0.1307	0.3043	0.3217	0.2383	0.005	0.4952	-0.2587	-0.258	0.0364	0.4459	-0.0147	0.2325	0.0956	2.3211	1.0914	2.0711	1.083	A+	A-	A-
ELA	3	799604	4	CCAACS	3	A-K	6378	1.7543	0.1212	0.3098	0.2597	0.3071	0.0022	0.5442	-0.2152	-0.3858	0.0338	0.5103	-0.034	0.0392	0.099	1.231	1.048	0.641	1.0265	A+	A-	A-
ELA	3	799629	4	CCAACS	2	A-K	6350	0.9063	0.3678	0.3509	0.2747		0.0066	0.3743	-0.2601	-0.0905	0.3833		-0.0306	0.6685	0.0717	7.8913	1.3157	6.9513	1.321	A+	A-	A-
ELA	3	805421	5	CCAACS	2	A-K	6355	1.0022	0.3505	0.2903	0.3527		0.0064	0.544	-0.4001	-0.1531	0.5518		-0.0412	0.438	0.0732	0.301	1.0101	0.521	1.0214	A+	A-	A-
ELA	3	805426	5	CCAACS	3	A-K	6356	1.4976	0.1313	0.3707	0.3576	0.1341	0.0063	0.3841	-0.2327	-0.1894	0.1765	0.2578	-0.0299	0.5852	0.0942	6.4013	1.2705	6.5413	1.2759	A+	A-	A-
ELA	3	783866	6	CCAACS	2	B-K	6356	0.8265	0.3901	0.3855	0.2177		0.0067	0.3247	-0.2128	-0.0706	0.3424		-0.0388	0.8791	0.07	4.2912	1.1615	4.5712	1.1923	A-	A-	A-
ELA	3	783870	6	CCAACS	2	B-K	6348	1.3789	0.2011	0.3565	0.2919	0.1425	0.008	0.3922	-0.2328	-0.1399	0.0946	0.3424	-0.027	0.6645	0.1174	6.1414	1.3742	5.9614	1.3726	A+	A-	A-
ELA	3	799504	7	CCAACS	2	B-K	6358	0.8655	0.4575	0.2147	0.3236		0.0042	0.4201	-0.2681	-0.2359	0.4964		-0.0275	0.7116	0.1019	4.2812	1.2373	3.0012	1.2366	A+	A+	A+
ELA	3	799506	7	CCAACS	2	B-K	6367	1.033	0.2318	0.5425	0.181	0.0418	0.0028	0.179	-0.0944	-0.0334	0.0535	0.1886	-0.0351	1.4255	0.0764	6.6413	1.3074	6.6413	1.3012	A+	A-	A-
ELA	3	805381	8	CCAACS	2	B-K	6370	0.546	0.5257	0.3934	0.0746		0.0064	0.0251	0.013	-0.046	0.0771		-0.0537	1.7274	0.068	9.9016	1.5557	9.9018	1.7773	A-	A-	A-
ELA	3	805383	8	CCAACS	2	B-K	6392	1.7445	0.0914	0.3198	0.338	0.2479	0.003	0.5241	-0.2833	-0.2762	0.0428	0.4491	-0.0682	0.1185	0.1102	1.001	1.0389	1.2911	1.0513	A-	A+	A-
ELA	3	800901	9	CCAACS	3	B-K	6387	1.8304	0.0969	0.2871	0.2992	0.3121	0.0047	0.5941	-0.3348	-0.3238	0.0264	0.5083	-0.0304	-0.0757	0.1086	-2.1091	0.9195	-1.6491	0.933	A-	A-	A-
ELA	3	800905	9	CCAACS	2	B-K	6388	0.7281	0.4169	0.4324	0.1462		0.0045	0.3557	-0.3263	0.1597	0.2434		-0.0633	1.1873	0.0987	4.5213	1.2615	5.9214	1.38	A+	A-	A+
ELA	4	744017	0	CCAACS	2	A-K	56194	1.3818	0.2035	0.3716	0.259	0.1625	0.0034	0.4261	-0.1603	-0.2754	0.1069	0.4171	-0.0526	0.5616	0.024	9.9015	1.47	9.9015	1.544	A-	A+	A+
ELA	4	744202	0	CCAACS	2	A-K	56126	1.6172	0.1533	0.2908	0.3348	0.2165	0.0046	0.6147	-0.333	-0.343	0.1619	0.499	-0.0908	0.1458	0.0271	5.2811	1.0595	7.5911	1.0908	A-	A-	A-
ELA	4	744207	0	CCAACS	2	A-K	56084	0.917	0.3534	0.3703	0.2709		0.0054	0.443	-0.3566	0.0049	0.3936		-0.0933	0.5733	0.0207	9.9012	1.2202	9.9013	1.2954	A+	A+	A+
ELA	4	711551	0	CCAACS	2	B-C	56253	1.6638	0.1314	0.2637	0.4113	0.1912	0.0024	0.5193	-0.2789	-0.3027	0.1448	0.4056	-0.0643	0.3965	0.0267	9.9012	1.2027	9.9012	1.2181	A-	A-	A+
ELA	4	711547	0	CCAACS	3	B-K	56216	1.3325	0.1562	0.3531	0.4877		0.003	0.5394	-0.3986	-0.2102	0.4986		-0.0735	-0.3014	0.0254	-2.459	0.9739	1.301	1.0166	A-	A+	A+
ELA	4	712029	0	CCAACS	3	B-K	55966	0.8806	0.345	0.4212	0.2264		0.0075	0.502	-0.3791	-0.004	0.4559		-0.1	0.4973	0.0212	9.9011	1.1295	9.9012	1.157	A+	A+	A+
ELA	4	795908	1	CCAACS	2	A-K	6274	1.2308	0.2142	0.339	0.4444		0.0024	0.5257	-0.4119	-0.1424	0.4824		-0.0684	-0.0978	0.0671	0.321	1.0096	0.891	1.032	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	4	795912	1	CCAACS	3	A-K	6271	1.3146	0.2083	0.3376	0.3805	0.0708	0.0029	0.4062	-0.2679	-0.1753	0.286	0.2128	-0.0318	0.9315	0.0688	7.5613	1.272	7.6513	1.28	A-	A-	A-
ELA	4	795893	2	CCAACS	2	A-K	6232	1.1508	0.2344	0.4396	0.2651	0.06	0.001	0.318	-0.1791	-0.1171	0.1726	0.2464	-0.0212	1.0991	0.0674	9.1913	1.3451	9.9014	1.4167	A+	A-	A-
ELA	4	795896	2	CCAACS	2	A-K	6216	0.9287	0.3155	0.4365	0.2445		0.0035	0.3883	-0.335	0.0522	0.3083		-0.0459	0.4952	0.064	6.4612	1.2106	8.6913	1.3069	A+	A+	A+
ELA	4	805438	3	CCAACS	3	A-K	6266	1.2461	0.1591	0.4341	0.4046		0.0022	0.4441	-0.4266	-0.002	0.3237		-0.0396	-0.3243	0.0819	2.4511	1.0797	3.1911	1.1113	A+	A-	A-
ELA	4	805443	3	CCAACS	3	A-K	6245	1.0272	0.2685	0.4476	0.2611	0.0172	0.0056	0.1643	-0.0852	-0.0847	0.172	0.051	-0.0314	1.5377	0.067	9.9016	1.5825	9.9016	1.6417	A-	A-	A-
ELA	4	799593	4	CCAACS	3	A-K	6242	0.9856	0.3202	0.3708	0.3058		0.0032	0.3829	-0.244	-0.1483	0.4087		-0.0505	0.3676	0.0638	8.2413	1.2684	9.9014	1.4056	A+	A-	A+
ELA	4	799598	4	CCAACS	2	A-K	6254	1.8561	0.0907	0.251	0.3683	0.2887	0.0013	0.6206	-0.3328	-0.3963	0.1033	0.4833	-0.0394	-0.2153	0.1005	-3.0891	0.8989	-3.3291	0.8883	A+	A-	A-
ELA	4	800949	5	CCAACS	3	A-K	6231	1.2173	0.2643	0.3597	0.2691	0.1062	0.0006	0.2069	-0.1023	-0.0753	0.0243	0.2299	-0.0143	0.9266	0.0657	9.9016	1.6488	9.9018	1.7669	A-	A-	A+
ELA	4	800953	5	CCAACS	3	A-K	6223	1.1453	0.1952	0.4627	0.3402		0.0019	0.4206	-0.3551	-0.034	0.339		-0.0671	0.0151	0.0715	3.0911	1.0979	4.0011	1.1348	A-	A+	A+
ELA	4	795991	6	CCAACS	3	B-K	6239	1.7419	0.1106	0.3002	0.3238	0.2637	0.0018	0.5992	-0.3086	-0.3633	0.0987	0.4973	-0.0479	-0.0621	0.1256	-0.129	0.9932	-0.109	0.9939	A-	A-	A-
ELA	4	795992	6	CCAACS	3	B-K	6207	1.2534	0.2592	0.223	0.5109		0.0069	0.4561	-0.2995	-0.2771	0.5031		-0.0595	-0.1699	0.07	6.3312	1.2208	5.1313	1.2826	A+	A+	A-
ELA	4	795929	7	CCAACS	2	B-K	6284	0.694	0.5801	0.1434	0.2747		0.0017	0.3707	-0.2431	-0.2302	0.4536		-0.043	0.9564	0.0888	5.7913	1.2906	6.1016	1.6328	A-	A-	A-
ELA	4	795932	7	CCAACS	2	B-K	6290	1.8021	0.1786	0.2137	0.234	0.373	0.0008	0.3701	-0.1211	-0.3105	-0.0491	0.4037	-0.0275	0.0644	0.0777	9.9017	1.6648	9.902	1.9759	A-	A-	A-
ELA	4	795966	8	CCAACS	2	B-K	6264	1.4435	0.2495	0.2764	0.2511	0.2203	0.0027	0.4644	-0.2031	-0.3279	0.1287	0.4368	-0.0451	0.5141	0.0693	7.2913	1.2621	8.1813	1.3479	A+	A-	A-
ELA	4	795970	8	CCAACS	2	B-K	6273	1.0695	0.2867	0.3558	0.3562		0.0013	0.5179	-0.4211	-0.0644	0.4655		-0.0465	0.2988	0.0652	-0.089	0.9971	0.721	1.0255	A+	A-	A-
ELA	4	800958	9	CCAACS	2	B-K	6245	0.7452	0.4608	0.3308	0.2065		0.0019	0.263	-0.1301	-0.1539	0.3427		-0.0326	0.9571	0.0598	9.9014	1.3731	9.9015	1.5447	A-	A-	A-
ELA	4	800961	9	CCAACS	2	B-K	6247	2.0575	0.1179	0.1723	0.2426	0.4656	0.0016	0.5895	-0.2555	-0.4027	-0.1553	0.6061	-0.0311	-0.3739	0.0918	1.261	1.0463	1.7111	1.0879	A-	A-	A-
ELA	5	744024	0	CCAACS	3	A-C	52582	1.0718	0.2553	0.4148	0.3269		0.003	0.4634	-0.4247	0.0457	0.354		-0.0615	0.0767	0.0228	9.9012	1.205	9.9013	1.2544	A+	A+	A+
ELA	5	711324	0	CCAACS	3	A-K	52481	0.9443	0.3673	0.3158	0.3119		0.0049	0.521	-0.3963	-0.0815	0.5072		-0.0858	0.3507	0.0211	9.9011	1.1302	9.9012	1.2197	A+	A+	A+
ELA	5	744027	0	CCAACS	3	A-K	52649	1.759	0.0698	0.3064	0.4167	0.2054	0.0017	0.6013	-0.3142	-0.3986	0.1965	0.4191	-0.0561	-0.0342	0.0331	1.531	1.0173	2.611	1.0296	A+	A+	A+
ELA	5	711532	0	CCAACS	3	B-C	52506	1.6923	0.1237	0.2896	0.3516	0.2307	0.0044	0.5928	-0.3301	-0.3124	0.0991	0.4908	-0.0558	0.0873	0.0285	9.9012	1.1645	9.9012	1.1974	A-	A-	A+
ELA	5	711533	0	CCAACS	3	B-K	52646	1.0749	0.3362	0.2509	0.411		0.0018	0.5457	-0.3877	-0.2322	0.5815		-0.0536	0.2028	0.0216	9.9012	1.1617	9.9013	1.2705	A-	A+	A+
ELA	5	744191	0	CCAACS	3	B-K	52590	1.5784	0.1646	0.2745	0.3748	0.1832	0.0028	0.5986	-0.3855	-0.2881	0.2336	0.4191	-0.0694	0.2578	0.0268	9.9011	1.1418	9.9012	1.1834	A-	A+	A+
ELA	5	801002	1	CCAACS	2	A-K	5887	1.1298	0.3175	0.2339	0.4471		0.0015	0.4023	-0.2882	-0.1831	0.429		-0.0422	0.1789	0.0634	7.4913	1.2596	8.4714	1.4249	A+	A+	A+
ELA	5	801003	1	CCAACS	2	A-K	5892	1.7576	0.165	0.2507	0.2451	0.3385	0.0007	0.5436	-0.2314	-0.3742	-0.0232	0.5465	-0.0217	-0.0918	0.0748	6.6712	1.2431	5.8513	1.2498	A-	A-	A-
ELA	5	783878	2	CCAACS	3	A-K	5854	0.9913	0.375	0.2565	0.3663		0.0022	0.3364	-0.1926	-0.228	0.4061		-0.0609	0.3425	0.0636	9.9014	1.3994	9.9016	1.63	A-	A+	A+
ELA	5	783882	2	CCAACS	3	A-K	5859	1.4697	0.1469	0.3429	0.4016	0.1072	0.0014	0.4434	-0.2744	-0.1954	0.1894	0.3164	-0.0228	0.4524	0.0835	5.6312	1.2029	6.2212	1.2268	A+	A-	A+
ELA	5	799517	3	CCAACS	3	A-K	5816	0.626	0.6025	0.1663	0.2293		0.0019	0.2048	-0.0702	-0.2635	0.3208		-0.054	1.0513	0.063	9.9016	1.5994	9.9026	2.5835	A+	A-	A-
ELA	5	799519	3	CCAACS	3	A-K	5812	1.4358	0.2389	0.2948	0.2538	0.2099	0.0026	0.4867	-0.2408	-0.3005	0.1557	0.4297	-0.0603	0.391	0.1047	6.8614	1.3838	8.0215	1.5389	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	5	799544	4	CCAACS	2	A-K	5859	0.7979	0.3629	0.4741	0.1612		0.0019	0.4096	-0.3571	0.1227	0.3051		-0.0396	0.9102	0.0612	4.8312	1.1619	6.6512	1.2356	A-	A-	A-
ELA	5	799548	4	CCAACS	2	A-K	5869	1.9163	0.0564	0.206	0.5024	0.2351	0.0002	0.6084	-0.2831	-0.4132	0.0726	0.463	-0.0188	-0.4744	0.1244	-3.8191	0.8677	-3.8791	0.8665	A+	A-	A-
ELA	5	799615	5	CCAACS	3	A-K	5862	1.4241	0.2644	0.2483	0.2832	0.2023	0.0019	0.3158	-0.083	-0.2916	0.0487	0.3541	-0.0375	0.4575	0.0706	9.9016	1.5967	9.9018	1.826	A+	A-	A-
ELA	5	799617	5	CCAACS	3	A-K	5866	0.4223	0.6545	0.2668	0.0775		0.0012	0.0995	-0.0471	-0.0378	0.1493		-0.0227	1.8581	0.0614	9.7614	1.4344	9.9022	2.1651	A-	A+	A+
ELA	5	805497	6	CCAACS	3	B-K	5853	1.3415	0.1545	0.4689	0.2557	0.12	0.0009	0.2615	-0.1727	-0.0394	-0.0054	0.2615	-0.0184	0.5991	0.0768	9.9016	1.5551	9.9016	1.6316	B+	A+	A+
ELA	5	805500	6	CCAACS	3	B-K	5827	1.0127	0.3073	0.3675	0.3199		0.0053	0.4053	-0.3129	-0.058	0.376		-0.0415	0.2541	0.0941	5.4413	1.2649	6.5014	1.3819	A-	A-	A+
ELA	5	786675	7	CCAACS	3	B-K	5859	1.2202	0.2686	0.2415	0.4884		0.0015	0.5512	-0.3699	-0.3135	0.5995		-0.0401	-0.2129	0.07	0.861	1.0279	1.5811	1.0822	A+	A-	A-
ELA	5	786677	7	CCAACS	3	B-K	5853	1.837	0.0777	0.2549	0.417	0.2478	0.0026	0.5408	-0.2873	-0.3286	0.0841	0.4198	-0.0508	-0.2918	0.1068	-0.599	0.9793	-0.609	0.9786	A+	A-	A-
ELA	5	785227	8	CCAACS	3	B-K	5815	1.5611	0.1041	0.3341	0.4545	0.1046	0.0026	0.4392	-0.2479	-0.3044	0.3231	0.1991	-0.0504	0.279	0.0928	2.6211	1.0932	2.4211	1.0867	A-	A-	A-
ELA	5	785230	8	CCAACS	3	B-K	5826	1.0141	0.3326	0.3201	0.3467		0.0007	0.4328	-0.3506	-0.0548	0.4021		-0.0229	0.2853	0.064	4.2611	1.1327	4.5612	1.1777	A-	A-	A-
ELA	5	799533	9	CCAACS	3	B-C	5818	1.3726	0.1258	0.4695	0.3018	0.0972	0.0056	0.312	-0.2785	-0.0113	0.0783	0.2173	-0.0311	0.5405	0.0855	8.0013	1.2996	8.8913	1.3372	A-	A-	A-
ELA	5	799526	9	CCAACS	2	B-K	5847	1.0884	0.3025	0.3059	0.3909		0.0007	0.5008	-0.3733	-0.1528	0.4978		-0.0385	0.149	0.0666	4.2111	1.1347	5.5712	1.2301	B-	A-	A-
ELA	6	744638	0	CCAACS	3	A-K	47550	1.7383	0.0956	0.295	0.3819	0.225	0.0024	0.6305	-0.3536	-0.3375	0.0985	0.5081	-0.0447	0.1441	0.0333	2.001	1.0226	2.991	1.0352	A+	A-	A-
ELA	6	744895	0	CCAACS	3	A-K	47509	0.9528	0.3463	0.3511	0.2993		0.0033	0.4149	-0.3256	-0.0357	0.3852		-0.0781	0.7251	0.0213	9.9014	1.4115	9.9016	1.5737	A+	A+	A+
ELA	6	660308	0	CCAACS	3	B-C	47446	0.7345	0.4822	0.2953	0.2179		0.0046	0.3865	-0.2713	-0.0615	0.4082		-0.0719	1.3092	0.02	9.9014	1.3876	9.9016	1.6178	B-	A-	A+
ELA	6	711232	0	CCAACS	3	B-C	47604	1.6921	0.0725	0.3558	0.3772	0.1932	0.0013	0.5427	-0.241	-0.3626	0.1426	0.4266	-0.0405	0.3463	0.0339	9.9012	1.18	9.9012	1.1978	A+	A-	A+
ELA	6	660312	0	CCAACS	2	B-K	47499	1.4646	0.1455	0.3604	0.3726	0.118	0.0035	0.6117	-0.3696	-0.3149	0.3367	0.3804	-0.0674	0.5223	0.0287	1.051	1.0117	2.861	1.0327	A-	A-	A-
ELA	6	711240	0	CCAACS	3	B-K	47591	0.9131	0.4116	0.2621	0.3248		0.0016	0.6024	-0.4629	-0.1266	0.6094		-0.0489	0.9128	0.0206	0.931	1.0095	4.9811	1.0741	A-	A+	A-
ELA	6	784435	1	CCAACS	3	A-C	5321	1.1605	0.2875	0.2633	0.4478		0.0013	0.4816	-0.3452	-0.2077	0.5012		-0.0417	0.2709	0.0655	4.1611	1.136	4.6512	1.2121	A+	A-	A-
ELA	6	783858	1	CCAACS	3	A-K	5325	1.9489	0.0925	0.217	0.339	0.351	0.0006	0.6249	-0.3202	-0.3914	-0.0061	0.5392	-0.0125	-0.2161	0.0988	-1.7791	0.9402	-1.4391	0.9461	A+	A-	A-
ELA	6	805452	2	CCAACS	3	A-K	5329	1.9521	0.1433	0.1795	0.2585	0.4183	0.0004	0.5669	-0.3062	-0.3288	-0.0877	0.5512	-0.0017	0.0392	0.0882	5.2912	1.201	5.2913	1.2839	A+	B-	B-
ELA	6	805454	2	CCAACS	3	A-K	5322	0.7726	0.4965	0.2322	0.2696		0.0017	0.2793	-0.1318	-0.2409	0.3818		-0.0432	1.1362	0.0616	9.9015	1.4775	9.9018	1.8278	A+	A+	A+
ELA	6	800992	3	CCAACS	3	A-K	5307	1.7899	0.113	0.2416	0.3872	0.2576	0.0006	0.5849	-0.2663	-0.4064	0.0913	0.4898	-0.0182	0.2514	0.0907	1.6111	1.055	1.8711	1.067	A-	A-	A-
ELA	6	800993	3	CCAACS	3	A-K	5300	0.4581	0.6601	0.2188	0.1192		0.0019	0.1229	-0.0454	-0.0925	0.1928		-0.0627	1.9746	0.0619	9.6014	1.4129	9.9022	2.1602	B+	A+	A+
ELA	6	784810	4	CCAACS	3	A-K	5282	1.8898	0.0679	0.1801	0.5453	0.2058	0.0009	0.5047	-0.2793	-0.3123	0.0925	0.3577	-0.0129	-0.0725	0.1231	0.391	1.0144	1.071	1.0406	A+	A-	A-
ELA	6	784814	4	CCAACS	3	A-K	5279	1.1029	0.3804	0.135	0.4831		0.0015	0.4141	-0.3178	-0.2093	0.4558		-0.0515	0.4926	0.066	9.9014	1.3809	9.9018	1.8035	A-	A-	A-
ELA	6	786683	5	CCAACS	3	A-K	5239	2.0296	0.0897	0.1689	0.3633	0.3778	0.0004	0.6	-0.3125	-0.3541	-0.0766	0.5346	-0.023	-0.1683	0.0998	-1.019	0.9631	-1.5091	0.9367	A+	A+	A-
ELA	6	786684	5	CCAACS	3	A-K	5231	0.8352	0.4129	0.3368	0.2484		0.0019	0.4228	-0.3451	0.0127	0.384		-0.0469	0.9851	0.0959	2.5511	1.1313	3.3212	1.2147	A-	A+	A+
ELA	6	780330	6	CCAACS	2	B-K	5276	1.9718	0.0909	0.1687	0.417	0.3222	0.0013	0.5869	-0.3167	-0.3508	-0.009	0.4881	-0.0344	-0.114	0.1071	-0.749	0.9724	0.241	1.009	A-	B-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	6	780332	6	CCAACS	3	B-K	5262	0.8641	0.4219	0.2875	0.2866		0.004	0.3635	-0.2254	-0.1645	0.4185		-0.0553	0.9395	0.0988	6.3613	1.3475	7.2016	1.5762	A-	A-	A-
ELA	6	783577	7	CCAACS	3	B-K	5278	1.0968	0.2919	0.3186	0.3887		0.0008	0.5352	-0.3731	-0.2108	0.5511		-0.0284	0.3537	0.0678	0.291	1.009	0.211	1.0088	A-	A-	A-
ELA	6	783579	7	CCAACS	3	B-K	5269	1.3308	0.1619	0.4491	0.2813	0.1053	0.0025	0.3678	-0.232	-0.1203	0.1243	0.2894	0.012	0.8847	0.0792	9.9014	1.4086	9.9015	1.455	A-	A-	A-
ELA	6	795977	8	CCAACS	3	B-K	5276	0.9115	0.1726	0.7405	0.0843		0.0026	0.2653	-0.3481	0.3031	0.0014		-0.0332	0.9717	0.077	1.9211	1.0821	1.4511	1.0658	A-	A-	A-
ELA	6	795981	8	CCAACS	3	B-K	5287	1.7721	0.1011	0.2913	0.3412	0.2658	0.0006	0.4721	-0.2517	-0.252	0.0146	0.4161	-0.0134	0.0687	0.1007	4.7612	1.1682	6.8613	1.2702	A-	A-	A-
ELA	6	805473	9	CCAACS	3	B-K	5309	0.9181	0.4168	0.2473	0.335		0.0009	0.2812	-0.1974	-0.1093	0.3076		-0.0217	0.7858	0.0983	9.0015	1.4923	9.7918	1.8156	A-	A-	A-
ELA	6	805477	9	CCAACS	3	B-K	5305	1.6927	0.1677	0.2574	0.2872	0.286	0.0017	0.4748	-0.2373	-0.2683	0.0017	0.4575	-0.0381	0.3924	0.0812	8.8013	1.3219	9.8914	1.4241	A+	A-	A-
ELA	7	744891	0	CCAACS	3	A-C	45463	1.7693	0.1487	0.1642	0.4531	0.2314	0.0026	0.4829	-0.2071	-0.3104	-0.0264	0.4832	-0.0388	0.169	0.029	9.9014	1.3798	9.9015	1.5353	A+	A+	A+
ELA	7	623066	0	CCAACS	3	A-K	45418	1.0613	0.2084	0.5184	0.2696		0.0036	0.5178	-0.4711	0.0651	0.3694		-0.085	0.4451	0.0231	4.7811	1.0515	6.9711	1.0763	A+	A+	A+
ELA	7	623070	0	CCAACS	2	A-K	45455	1.6597	0.1238	0.2732	0.419	0.1813	0.0028	0.6235	-0.3377	-0.3732	0.2113	0.4602	-0.0772	0.2872	0.0295	3.891	1.0447	4.161	1.0484	A+	A+	A+
ELA	7	744617	0	CCAACS	2	B-C	45428	0.7723	0.4759	0.2719	0.2489		0.0034	0.421	-0.3141	-0.0554	0.4303		-0.0787	0.9054	0.0205	9.9013	1.2998	9.9015	1.5138	A-	A+	A+
ELA	7	744648	0	CCAACS	3	B-K	45513	1.0541	0.3333	0.2778	0.3874		0.0015	0.5115	-0.3868	-0.1469	0.5137		-0.0544	0.6239	0.021	9.9013	1.2615	9.9013	1.3393	A-	A+	A+
ELA	7	744715	0	CCAACS	3	B-K	45422	1.7726	0.0974	0.254	0.4229	0.2222	0.0035	0.6735	-0.3262	-0.431	0.1333	0.5368	-0.0789	-0.2066	0.0366	4.5911	1.0551	5.3611	1.0656	A+	A-	A-
ELA	7	800925	1	CCAACS	2	A-K	5141	1.5279	0.268	0.1765	0.3139	0.2408	0.0008	0.361	-0.1005	-0.3276	-0.0484	0.4493	-0.0086	0.4238	0.0703	9.9017	1.7432	9.902	1.9968	A-	A-	A-
ELA	7	800926	1	CCAACS	3	A-K	5136	1.3065	0.1743	0.3436	0.4803		0.0017	0.5567	-0.3963	-0.2411	0.5331		-0.0363	-0.1667	0.0708	-2.8591	0.9113	-1.009	0.9585	A-	A+	A+
ELA	7	800914	2	CCAACS	3	A-K	5068	0.7245	0.4311	0.4364	0.1081	0.0239	0.0006	0.0535	-0.0536	0.0586	-0.0525	0.0966	-0.0389	1.9435	0.0588	9.9017	1.7431	9.9021	2.0724	A-	A-	A-
ELA	7	800915	2	CCAACS	3	A-K	5058	0.9448	0.2915	0.4695	0.2364		0.0026	0.4588	-0.3853	0.043	0.3676		-0.0506	0.6112	0.0651	0.661	1.02	1.061	1.0336	A-	A-	A-
ELA	7	805485	3	CCAACS	3	A-K	5038	1.5064	0.1326	0.3577	0.3787	0.1299	0.0012	0.4704	-0.2457	-0.2767	0.2134	0.3383	-0.0376	0.512	0.128	3.2012	1.1784	3.1112	1.1734	A-	A-	A-
ELA	7	805489	3	CCAACS	3	A-K	5030	1.1348	0.2437	0.3755	0.3781		0.0028	0.5117	-0.4018	-0.1007	0.4629		-0.0607	0.2439	0.069	1.7711	1.0561	2.6711	1.1028	A+	A+	A+
ELA	7	785211	4	CCAACS	3	A-K	5084	1.2396	0.1525	0.5353	0.2312	0.0804	0.0006	0.28	-0.2004	-0.0296	0.0524	0.2414	-0.0388	0.9046	0.0789	7.7013	1.3037	7.9513	1.3252	A+	A-	A-
ELA	7	785213	4	CCAACS	3	A-K	5082	0.9288	0.3055	0.4592	0.2343		0.001	0.4192	-0.2894	-0.0767	0.4077		-0.0382	0.7302	0.0635	4.5811	1.1475	5.4712	1.187	A+	A-	A-
ELA	7	783841	5	CCAACS	3	B-K	5068	1.4341	0.1921	0.1814	0.6259		0.0006	0.5362	-0.3905	-0.3031	0.5615		-0.0438	-0.4424	0.1192	-0.369	0.978	-0.289	0.9659	A-	A-	A-
ELA	7	783843	5	CCAACS	3	B-K	5067	1.7827	0.0706	0.3281	0.3483	0.2522	0.0008	0.61	-0.298	-0.374	0.064	0.5116	-0.0249	-0.2132	0.114	-2.2791	0.9257	-2.0791	0.9281	A-	A-	A-
ELA	7	797515	6	CCAACS	2	B-K	5040	0.7359	0.3664	0.5304	0.1025		0.0006	0.4055	-0.37	0.2039	0.2553		-0.0393	1.388	0.0605	5.6412	1.196	6.3412	1.2221	A-	A-	A-
ELA	7	797519	6	CCAACS	3	B-K	5029	1.3766	0.1682	0.4111	0.2923	0.1257	0.0028	0.4379	-0.2065	-0.2633	0.2117	0.3369	-0.0227	0.6871	0.1178	3.3012	1.1871	3.1912	1.1813	A+	A-	A-
ELA	7	783914	7	CCAACS	3	B-K	5041	0.4971	0.6076	0.2847	0.1057		0.002	0.1683	-0.0269	-0.1917	0.3269		-0.019	1.8166	0.0609	9.4614	1.3901	9.9019	1.8573	A-	A-	A-
ELA	7	784394	7	CCAACS	3	B-K	5048	1.8905	0.0703	0.2722	0.3536	0.3033	0.0006	0.6037	-0.2824	-0.3725	-0.0113	0.5313	-0.0345	-0.2792	0.1179	-2.1391	0.9285	-1.9391	0.9304	A-	A-	A-
ELA	7	786698	8	CCAACS	3	B-K	5033	1.454	0.1592	0.3518	0.3635	0.1247	0.0008	0.445	-0.1997	-0.301	0.2203	0.3375	-0.0226	0.6538	0.0793	6.5112	1.2328	6.7812	1.2446	A-	A-	A-
ELA	7	786701	8	CCAACS	3	B-K	5030	1.1873	0.2561	0.2994	0.4431		0.0014	0.5242	-0.3962	-0.1723	0.5111		-0.0543	0.1287	0.0696	1.8811	1.06	1.131	1.0454	A-	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	7	799563	9	CCAACS	2	B-K	5029	1.377	0.3022	0.2321	0.2509	0.214	0.0008	0.488	-0.2207	-0.3337	0.0865	0.5003	-0.0161	0.7995	0.0676	8.4113	1.312	9.9015	1.478	B-	A-	A+
ELA	7	799564	9	CCAACS	3	B-K	5023	0.6868	0.4268	0.457	0.1142		0.002	0.1585	-0.1061	0.0044	0.1642		-0.0435	1.4351	0.0595	9.9014	1.3977	9.9015	1.5061	A-	A-	A-
ELA	8	745578	0	CCAACS	3	A-K	44908	0.976	0.3342	0.3529	0.3103		0.0026	0.609	-0.4939	-0.0384	0.5499		-0.0594	0.4316	0.0217	3.691	1.0391	5.0611	1.0644	A+	A+	A+
ELA	8	745580	0	CCAACS	3	A-K	44932	1.7054	0.1335	0.2163	0.4587	0.1894	0.0021	0.6648	-0.3532	-0.4078	0.1749	0.5198	-0.06	-0.0669	0.032	5.9311	1.071	6.5311	1.0806	A-	A+	A+
ELA	8	746416	0	CCAACS	3	A-K	44900	0.9397	0.3855	0.2864	0.3254		0.0028	0.5648	-0.446	-0.0823	0.5481		-0.0471	0.5891	0.0212	9.9012	1.1872	9.9013	1.3457	A+	A-	A+
ELA	8	746418	0	CCAACS	3	A-K	44952	1.686	0.259	0.1622	0.2103	0.3668	0.0017	0.6106	-0.3662	-0.32	-0.0473	0.6209	-0.0381	0.0397	0.0256	9.9015	1.5326	9.9017	1.7345	A-	A-	A-
ELA	8	710689	0	CCAACS	3	B-K	44958	1.2166	0.3182	0.308	0.2101	0.1622	0.0015	0.471	-0.2458	-0.1855	0.0458	0.4981	-0.0546	0.8474	0.0223	9.9017	1.6749	9.9018	1.8415	A-	A+	A+
ELA	8	743425	0	CCAACS	3	B-K	44871	0.8056	0.4295	0.3314	0.2357		0.0035	0.4833	-0.371	-0.0212	0.4648		-0.0623	0.8038	0.0207	9.9013	1.2525	9.9014	1.4264	A+	A+	A+
ELA	8	783672	1	CCAACS	3	A-K	5034	0.6875	0.5768	0.1578	0.2646		0.0008	0.2841	-0.1528	-0.2539	0.3833		-0.0368	0.9173	0.0639	9.9017	1.7342	9.9025	2.4977	B-	A-	A-
ELA	8	783676	1	CCAACS	3	A-K	5036	2.0538	0.0578	0.1491	0.4744	0.3184	0.0004	0.6266	-0.3017	-0.4445	0.0116	0.4795	-0.0241	-0.5241	0.1003	-4.8892	0.8362	-3.7891	0.8643	A+	A-	A-
ELA	8	800978	2	CCAACS	3	A-K	4990	1.6124	0.1145	0.3102	0.4219	0.1521	0.0012	0.4984	-0.2743	-0.2544	0.1237	0.4027	-0.0205	0.1977	0.0915	5.2212	1.188	6.4212	1.2355	A+	A+	A-
ELA	8	800983	2	CCAACS	3	A-K	4984	0.797	0.2652	0.6697	0.0627		0.0024	0.1832	-0.2721	0.3074	-0.093		-0.0391	1.3386	0.1036	2.6212	1.1545	2.0711	1.1295	A+	A+	A+
ELA	8	805356	3	CCAACS	3	A-K	4994	2.2415	0.0494	0.0856	0.4384	0.4258	0.0008	0.5831	-0.2717	-0.3226	-0.2264	0.5306	-0.0307	-0.9182	0.1315	-3.1891	0.8739	-2.4791	0.8862	A+	A-	A+
ELA	8	805358	3	CCAACS	3	A-K	4995	1.5059	0.1321	0.2297	0.6377		0.0006	0.4343	-0.302	-0.2532	0.4352		-0.0198	-0.8283	0.0883	0.341	1.0129	3.1412	1.2485	A-	A-	A-
ELA	8	784824	4	CCAACS	3	A-K	4997	1.1103	0.2396	0.5041	0.1618	0.094	0.0004	0.3364	-0.1781	-0.0639	-0.0041	0.3765	-0.0188	1.0036	0.0699	9.9014	1.4396	9.9015	1.5175	A+	A-	A-
ELA	8	784827	4	CCAACS	3	A-K	4982	0.9008	0.3469	0.4017	0.248		0.0034	0.2991	-0.2055	-0.0628	0.3016		-0.028	0.5584	0.0646	9.9015	1.5245	9.9017	1.7401	A-	A-	A-
ELA	8	805464	5	CCAACS	3	A-K	4964	1.2937	0.2666	0.1722	0.56		0.0012	0.5947	-0.4932	-0.1951	0.5912		-0.0499	-0.3125	0.075	-1.329	0.9521	-1.3091	0.9023	A-	A+	A+
ELA	8	805466	5	CCAACS	3	A-K	4968	2.1242	0.0728	0.1243	0.4082	0.3942	0.0004	0.6335	-0.3401	-0.3875	-0.0882	0.532	-0.0173	-0.5556	0.1136	-2.8691	0.8939	-2.6491	0.8906	A+	A-	A+
ELA	8	783613	6	CCAACS	2	B-K	5004	1.9371	0.0867	0.2153	0.3716	0.3257	0.0008	0.682	-0.2853	-0.4606	-0.0425	0.6208	-0.029	-0.3454	0.1608	-2.6491	0.8595	-2.7692	0.8389	A+	A-	A-
ELA	8	783615	6	CCAACS	3	B-K	4992	1.1795	0.2089	0.4002	0.3878		0.0032	0.4575	-0.376	-0.0732	0.3911		-0.0324	-0.0551	0.075	3.1411	1.1038	2.8611	1.1139	A+	A+	A+
ELA	8	795918	7	CCAACS	3	B-K	4981	0.521	0.5942	0.2895	0.1155		0.0008	0.1701	-0.0471	-0.1545	0.2947		-0.0362	1.6229	0.0607	9.9015	1.4873	9.9018	1.7906	A-	A-	A-
ELA	8	795919	7	CCAACS	3	B-K	4980	1.746	0.1689	0.2108	0.3244	0.2949	0.001	0.5642	-0.2839	-0.3361	-0.0028	0.5386	-0.0246	0.0174	0.0859	3.7311	1.1342	3.3611	1.1345	A-	A-	A-
ELA	8	805548	8	CCAACS	3	B-K	5028	0.7154	0.5587	0.1659	0.2744		0.001	0.4754	-0.3576	-0.1514	0.5254		-0.0173	0.9451	0.102	4.4213	1.2711	7.872	2.0186	A-	A-	A-
ELA	8	805549	8	CCAACS	3	B-K	5026	1.5826	0.1448	0.2857	0.4095	0.1586	0.0014	0.5154	-0.2478	-0.3425	0.1974	0.3981	-0.015	0.1542	0.0877	5.9812	1.2165	7.9313	1.2999	A-	A+	A+
ELA	8	783595	9	CCAACS	3	B-C	4999	1.7153	0.1266	0.2534	0.3978	0.222	0.0002	0.5061	-0.2553	-0.2918	0.0569	0.442	0.0208	0.105	0.089	6.1712	1.2251	7.8713	1.3052	A-	A-	A-
ELA	8	783593	9	CCAACS	2	B-K	4994	0.964	0.3528	0.3292	0.3168		0.0012	0.4132	-0.2912	-0.1213	0.4256		-0.0535	0.4527	0.0651	9.9014	1.372	9.9017	1.6677	A-	A-	A-

Evidence-Based Selected-Response Computer-Based Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(0)	Proportion 0 Points
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(OMIT)	Proportion Omits
PtBis	Point Biserial
Corr(0)	Correlation 0 Points
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(OMIT)	Correlation Omits
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	3	710676	0	CCAACS	1	A-K	61942	1.1284	0.1947	0.4817	0.323		0.0005	0.6127	-0.4834	-0.0998	0.5178		-0.0365	-0.207	0.0307	-4.089	0.9501	-2.169	0.9719	A-	A-	A+
ELA	3	743420	0	CCAACS	2	A-K	61959	1.3051	0.2027	0.2892	0.5078		0.0003	0.6326	-0.4387	-0.3172	0.6413		-0.026	-0.3359	0.029	-9.8991	0.86	-8.8692	0.8456	A+	A+	A+
ELA	3	747172	0	CCAACS	3	B-K	61940	1.7196	0.0977	0.2781	0.4302	0.1934	0.0006	0.6201	-0.3277	-0.3967	0.2018	0.4457	-0.0371	-0.2043	0.0394	-2.219	0.9704	-0.489	0.9932	A-	A-	A-
ELA	3	747251	0	CCAACS	3	B-K	61947	1.4519	0.1456	0.3725	0.3656	0.1159	0.0005	0.5631	-0.3136	-0.3121	0.2923	0.3796	-0.0348	0.4339	0.0313	1.731	1.0224	1.501	1.0196	A-	A+	A+
ELA	3	795944	1	CCAACS	2	A-K	18869	0.9034	0.3729	0.3504	0.2764		0.0003	0.426	-0.2655	-0.1755	0.4748		-0.0117	0.3124	0.073	4.6312	1.1769	4.6112	1.2088	A+	A-	A-
ELA	3	795949	1	CCAACS	2	A-K	18871	1.1092	0.3094	0.3914	0.1793	0.1196	0.0002	0.3874	-0.1492	-0.1893	0.0348	0.4565	-0.0128	0.612	0.0771	8.3114	1.3713	7.4914	1.3547	A+	A-	A-
ELA	3	780343	2	CCAACS	2	A-K	5430	1.0256	0.3497	0.275	0.3753			0.5029	-0.3525	-0.2055	0.5367			0.4744	0.0741	0.771	1.0278	0.651	1.0315	A+	A-	A-
ELA	3	780348	2	CCAACS	2	A-K	5430	1.5352	0.1103	0.3516	0.4308	0.1074		0.3724	-0.2561	-0.1941	0.2383	0.1773		0.3484	0.1073	4.4112	1.1855	4.3212	1.1814	A+	A-	A-
ELA	3	783604	3	CCAACS	2	A-K	5399	0.955	0.3243	0.3963	0.2793		0.0002	0.422	-0.3098	-0.0758	0.4062		-0.013	0.6083	0.0716	3.1811	1.1162	3.5811	1.1477	A+	A-	A-
ELA	3	783667	3	CCAACS	2	A-K	5397	1.6005	0.1383	0.2939	0.3959	0.1713	0.0006	0.4458	-0.222	-0.2753	0.1421	0.3545	-0.0428	0.2325	0.0956	2.3211	1.0914	2.0711	1.083	A+	A-	A-
ELA	3	799604	4	CCAACS	3	A-K	5409	1.7269	0.1209	0.2863	0.3375	0.255	0.0004	0.4835	-0.177	-0.3707	0.0794	0.4317	-0.022	0.0392	0.099	1.231	1.048	0.641	1.0265	A+	A-	A-
ELA	3	799629	4	CCAACS	2	A-K	5411	0.9102	0.3796	0.3306	0.2898			0.3591	-0.2704	-0.0629	0.3545			0.6685	0.0717	7.8913	1.3157	6.9513	1.321	A+	A-	A-
ELA	3	805421	5	CCAACS	2	A-K	5399	1.0256	0.3208	0.3328	0.3464			0.4901	-0.356	-0.1437	0.4916			0.438	0.0732	0.301	1.0101	0.521	1.0214	A+	A-	A-
ELA	3	805426	5	CCAACS	3	A-K	5398	1.3994	0.1573	0.378	0.3725	0.0921	0.0002	0.3013	-0.1842	-0.1274	0.1372	0.2172	-0.0197	0.5852	0.0942	6.4013	1.2705	6.5413	1.2759	A+	A-	A-
ELA	3	783866	6	CCAACS	2	B-K	5397	0.8453	0.379	0.3964	0.2243		0.0002	0.3309	-0.2146	-0.0885	0.354		-0.0166	0.8791	0.07	4.2912	1.1615	4.5712	1.1923	A-	A-	A-
ELA	3	799506	7	CCAACS	2	B-K	5347	0.986	0.2673	0.5093	0.1938	0.0297		0.2119	-0.1552	0.0063	0.0971	0.1599		1.4255	0.0764	6.6413	1.3074	6.6413	1.3012	A+	A-	A-
ELA	3	805381	8	CCAACS	2	B-K	5370	0.598	0.4906	0.4206	0.0886		0.0002	0.0089	0.0294	-0.0709	0.0718		-0.0054	1.7274	0.068	9.9016	1.5557	9.9018	1.7773	A-	A-	A-
ELA	3	805383	8	CCAACS	2	B-K	5370	1.6272	0.1033	0.3333	0.396	0.1672	0.0002	0.4694	-0.2758	-0.2381	0.1291	0.3567	-0.0054	0.1185	0.1102	1.001	1.0389	1.2911	1.0513	A-	A+	A-
ELA	3	800901	9	CCAACS	3	B-K	5346	1.7952	0.0922	0.2755	0.3771	0.2551		0.5389	-0.3144	-0.293	0.0735	0.4272		-0.0757	0.1086	-2.1091	0.9195	-1.6491	0.933	A-	A-	A-
ELA	4	744017	0	CCAACS	2	A-K	58697	1.3269	0.2337	0.3477	0.2764	0.1421	0.0001	0.4544	-0.2332	-0.2282	0.1472	0.4058	-0.0147	0.5616	0.024	9.9015	1.47	9.9015	1.544	A-	A+	A+
ELA	4	744202	0	CCAACS	2	A-K	58679	1.5504	0.1724	0.2949	0.3419	0.1903	0.0004	0.6447	-0.3865	-0.3333	0.2269	0.4868	-0.0361	0.1458	0.0271	5.2811	1.0595	7.5911	1.0908	A-	A-	A-
ELA	4	744207	0	CCAACS	2	A-K	58678	0.844	0.3768	0.4019	0.2209		0.0004	0.4261	-0.3372	0.011	0.3829		-0.0378	0.5733	0.0207	9.9012	1.2202	9.9013	1.2954	A+	A+	A+
ELA	4	711551	0	CCAACS	2	B-C	58687	1.6415	0.1238	0.2795	0.4277	0.1687	0.0003	0.5261	-0.2797	-0.3162	0.1742	0.3961	-0.0309	0.3965	0.0267	9.9012	1.2027	9.9012	1.2181	A-	A-	A+
ELA	4	711547	0	CCAACS	3	B-K	58688	1.2714	0.1661	0.3962	0.4374		0.0003	0.5665	-0.4031	-0.2285	0.5287		-0.0297	-0.3014	0.0254	-2.459	0.9739	1.301	1.0166	A-	A+	A+
ELA	4	712029	0	CCAACS	3	B-K	58666	0.8403	0.3587	0.4416	0.1991		0.0006	0.4815	-0.3665	0.0036	0.4383		-0.0398	0.4973	0.0212	9.9011	1.1295	9.9012	1.157	A+	A+	A+
ELA	4	795908	1	CCAACS	2	A-K	18331	1.0214	0.2934	0.3916	0.3147		0.0003	0.5071	-0.377	-0.1055	0.4813		-0.0203	-0.0978	0.0671	0.321	1.0096	0.891	1.032	A+	A-	A-
ELA	4	795912	1	CCAACS	3	A-K	18330	1.0906	0.2624	0.4151	0.2914	0.0308	0.0003	0.3716	-0.2264	-0.1523	0.3207	0.1695	-0.0173	0.9315	0.0688	7.5613	1.272	7.6513	1.28	A-	A-	A-
ELA	4	795893	2	CCAACS	2	A-K	5042	1.1228	0.2652	0.409	0.2638	0.0621		0.3658	-0.2158	-0.1457	0.249	0.237		1.0991	0.0674	9.1913	1.3451	9.9014	1.4167	A+	A-	A-
ELA	4	795896	2	CCAACS	2	A-K	5042	1.0139	0.265	0.4562	0.2789			0.3806	-0.3239	0.0106	0.307			0.4952	0.064	6.4612	1.2106	8.6913	1.3069	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	4	805438	3	CCAACS	3	A-K	5012	1.3138	0.1055	0.4751	0.4194			0.3854	-0.3741	-0.0437	0.2771			-0.3243	0.0819	2.4511	1.0797	3.1911	1.1113	A+	A-	A-
ELA	4	805443	3	CCAACS	3	A-K	5012	1.1241	0.2229	0.4495	0.3083	0.0194		0.1241	-0.0475	-0.0958	0.1278	0.0611		1.5377	0.067	9.9016	1.5825	9.9016	1.6417	A-	A-	A-
ELA	4	799593	4	CCAACS	3	A-K	5073	1.0483	0.3081	0.3355	0.3564			0.37	-0.2484	-0.1519	0.3892			0.3676	0.0638	8.2413	1.2684	9.9014	1.4056	A+	A-	A+
ELA	4	799598	4	CCAACS	2	A-K	5073	1.8654	0.0688	0.2529	0.4224	0.2559		0.5629	-0.2777	-0.3886	0.1136	0.4196		-0.2153	0.1005	-3.0891	0.8989	-3.3291	0.8883	A+	A-	A-
ELA	4	800949	5	CCAACS	3	A-K	5053	1.1409	0.3015	0.3387	0.2766	0.0829	0.0002	0.147	-0.0299	-0.1307	0.0584	0.1792	0.0057	0.9266	0.0657	9.9016	1.6488	9.9018	1.7669	A-	A-	A+
ELA	4	800953	5	CCAACS	3	A-K	5054	1.1664	0.1911	0.4513	0.3575			0.4316	-0.3621	-0.0538	0.3529			0.0151	0.0715	3.0911	1.0979	4.0011	1.1348	A-	A+	A+
ELA	4	795992	6	CCAACS	3	B-K	5040	1.3649	0.2155	0.2042	0.5804			0.392	-0.2392	-0.3036	0.4473			-0.1699	0.07	6.3312	1.2208	5.1313	1.2826	A+	A+	A-
ELA	4	795932	7	CCAACS	2	B-K	5037	1.7437	0.2152	0.193	0.2247	0.3671		0.3149	-0.0852	-0.2977	-0.0637	0.3715		0.0644	0.0777	9.9017	1.6648	9.902	1.9759	A-	A-	A-
ELA	4	795966	8	CCAACS	2	B-K	5106	1.4559	0.2673	0.2354	0.2712	0.226		0.4438	-0.2118	-0.3026	0.1007	0.424		0.5141	0.0693	7.2913	1.2621	8.1813	1.3479	A+	A-	A-
ELA	4	795970	8	CCAACS	2	B-K	5106	1.0511	0.2846	0.3797	0.3357			0.4913	-0.4027	-0.0467	0.4328			0.2988	0.0652	-0.089	0.9971	0.721	1.0255	A+	A-	A-
ELA	4	800958	9	CCAACS	2	B-K	5003	0.7815	0.4512	0.3157	0.2328		0.0002	0.2728	-0.1743	-0.0945	0.3095		-0.011	0.9571	0.0598	9.9014	1.3731	9.9015	1.5447	A-	A-	A-
ELA	4	800961	9	CCAACS	2	B-K	5004	2.1045	0.1181	0.1491	0.243	0.4898		0.557	-0.2631	-0.3898	-0.121	0.5514		-0.3739	0.0918	1.261	1.0463	1.7111	1.0879	A-	A-	A-
ELA	5	744024	0	CCAACS	3	A-C	65951	1.0325	0.2836	0.4002	0.3161		0.0001	0.5049	-0.4557	0.0417	0.3983		-0.0196	0.0767	0.0228	9.9012	1.205	9.9013	1.2544	A+	A+	A+
ELA	5	711324	0	CCAACS	3	A-K	65941	0.9041	0.3893	0.3171	0.2934		0.0003	0.5487	-0.4277	-0.0701	0.5306		-0.0237	0.3507	0.0211	9.9011	1.1302	9.9012	1.2197	A+	A+	A+
ELA	5	744027	0	CCAACS	3	A-K	65955	1.6612	0.0963	0.3235	0.403	0.1772	0.0001	0.6071	-0.3644	-0.3461	0.2314	0.4087	-0.0167	-0.0342	0.0331	1.531	1.0173	2.611	1.0296	A+	A+	A+
ELA	5	711532	0	CCAACS	3	B-C	65950	1.5942	0.1399	0.3232	0.3396	0.1972	0.0002	0.5834	-0.3261	-0.2997	0.1306	0.4815	-0.0134	0.0873	0.0285	9.9012	1.1645	9.9012	1.1974	A-	A-	A+
ELA	5	711533	0	CCAACS	3	B-K	65952	1.1063	0.3115	0.2705	0.4178		0.0001	0.5245	-0.3499	-0.2708	0.5726		-0.0114	0.2028	0.0216	9.9012	1.1617	9.9013	1.2705	A-	A+	A+
ELA	5	744191	0	CCAACS	3	B-K	65949	1.4986	0.1734	0.3147	0.3517	0.1601	0.0002	0.5879	-0.3712	-0.2875	0.2641	0.4041	-0.0199	0.2578	0.0268	9.9011	1.1418	9.9012	1.1834	A-	A+	A+
ELA	5	801002	1	CCAACS	2	A-K	20303	0.8697	0.4358	0.2587	0.3055			0.4191	-0.294	-0.1486	0.4578			0.1789	0.0634	7.4913	1.2596	8.4714	1.4249	A+	A+	A+
ELA	5	801003	1	CCAACS	2	A-K	20300	1.4985	0.211	0.3243	0.2197	0.2449	0.0001	0.5139	-0.1806	-0.3602	0.011	0.5531	-0.0065	-0.0918	0.0748	6.6712	1.2431	5.8513	1.2498	A-	A-	A-
ELA	5	783878	2	CCAACS	3	A-K	5682	1.0392	0.3555	0.2497	0.3948			0.2854	-0.1366	-0.2684	0.3715			0.3425	0.0636	9.9014	1.3994	9.9016	1.63	A-	A+	A+
ELA	5	783882	2	CCAACS	3	A-K	5681	1.5247	0.119	0.3423	0.4335	0.1051	0.0002	0.3902	-0.2379	-0.1859	0.1653	0.2723	-0.012	0.4524	0.0835	5.6312	1.2029	6.2212	1.2268	A+	A-	A+
ELA	5	799517	3	CCAACS	3	A-K	5703	0.6923	0.5744	0.1589	0.2667			0.1875	-0.059	-0.2834	0.3002			1.0513	0.063	9.9016	1.5994	9.9026	2.5835	A+	A-	A-
ELA	5	799544	4	CCAACS	2	A-K	5769	0.8183	0.3397	0.5022	0.1581			0.3949	-0.3354	0.0968	0.3026			0.9102	0.0612	4.8312	1.1619	6.6512	1.2356	A-	A-	A-
ELA	5	799548	4	CCAACS	2	A-K	5769	2.0184	0.0433	0.1688	0.514	0.2739		0.5612	-0.2554	-0.3823	0.0041	0.4332		-0.4744	0.1244	-3.8191	0.8677	-3.8791	0.8665	A+	A-	A-
ELA	5	799615	5	CCAACS	3	A-K	5709	1.5159	0.2331	0.2331	0.3184	0.2152	0.0002	0.2858	-0.0562	-0.2978	0.038	0.3219	-0.023	0.4575	0.0706	9.9016	1.5967	9.9018	1.826	A+	A-	A-
ELA	5	799617	5	CCAACS	3	A-K	5708	0.4108	0.6658	0.2569	0.0769		0.0004	0.162	-0.0993	-0.0167	0.2053		-0.0306	1.8581	0.0614	9.7614	1.4344	9.9022	2.1651	A-	A+	A+
ELA	5	805497	6	CCAACS	3	B-K	5663	1.2825	0.1714	0.4804	0.2421	0.1059	0.0002	0.1998	-0.1355	-0.018	-0.0048	0.2029	-0.0252	0.5991	0.0768	9.9016	1.5551	9.9016	1.6316	B+	A+	A+
ELA	5	786675	7	CCAACS	3	B-K	5666	1.344	0.2347	0.1866	0.5787			0.5335	-0.3847	-0.3048	0.5706			-0.2129	0.07	0.861	1.0279	1.5811	1.0822	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	5	786677	7	CCAACS	3	B-K	5666	1.8927	0.0625	0.2331	0.4536	0.2508		0.5268	-0.2766	-0.3268	0.059	0.4053		-0.2918	0.1068	-0.599	0.9793	-0.609	0.9786	A+	A-	A-
ELA	5	785227	8	CCAACS	3	B-K	5748	1.6434	0.1004	0.281	0.4936	0.1251		0.4352	-0.2565	-0.3091	0.3003	0.1991		0.279	0.0928	2.6211	1.0932	2.4211	1.0867	A-	A-	A-
ELA	5	785230	8	CCAACS	3	B-K	5748	1.0685	0.3055	0.3205	0.374			0.4442	-0.3656	-0.0602	0.4061			0.2853	0.064	4.2611	1.1327	4.5612	1.1777	A-	A-	A-
ELA	5	799533	9	CCAACS	3	B-C	5715	1.4152	0.1178	0.4514	0.3286	0.1022		0.3273	-0.275	-0.0616	0.1207	0.2066		0.5405	0.0855	8.0013	1.2996	8.8913	1.3372	A-	A-	A-
ELA	5	799526	9	CCAACS	2	B-K	5715	1.1396	0.2686	0.3232	0.4082			0.4873	-0.346	-0.189	0.4918			0.149	0.0666	4.2111	1.1347	5.5712	1.2301	B-	A-	A-
ELA	6	744638	0	CCAACS	3	A-K	70743	1.679	0.1129	0.3102	0.3617	0.2151	0	0.6428	-0.3839	-0.3324	0.1481	0.4969	-0.0074	0.1441	0.0333	2.001	1.0226	2.991	1.0352	A+	A-	A-
ELA	6	744895	0	CCAACS	3	A-K	70723	0.9681	0.3242	0.3832	0.2923		0.0003	0.3612	-0.2502	-0.0996	0.3651		-0.032	0.7251	0.0213	9.9014	1.4115	9.9016	1.5737	A+	A+	A+
ELA	6	660308	0	CCAACS	3	B-C	70712	0.6966	0.4881	0.3265	0.1849		0.0005	0.3475	-0.2272	-0.0784	0.3889		-0.0302	1.3092	0.02	9.9014	1.3876	9.9016	1.6178	B-	A-	A+
ELA	6	711232	0	CCAACS	3	B-C	70731	1.6973	0.0675	0.3491	0.4018	0.1814	0.0002	0.5107	-0.2287	-0.338	0.1328	0.3991	-0.0278	0.3463	0.0339	9.9012	1.18	9.9012	1.1978	A+	A-	A+
ELA	6	660312	0	CCAACS	2	B-K	70716	1.4558	0.1534	0.3569	0.3694	0.1198	0.0004	0.6126	-0.3936	-0.2922	0.333	0.3748	-0.029	0.5223	0.0287	1.051	1.0117	2.861	1.0327	A-	A-	A-
ELA	6	711240	0	CCAACS	3	B-K	70733	0.9224	0.4179	0.2416	0.3403		0.0002	0.6438	-0.5109	-0.1258	0.6462		-0.0269	0.9128	0.0206	0.931	1.0095	4.9811	1.0741	A-	A+	A-
ELA	6	784435	1	CCAACS	3	A-C	21188	1.0083	0.3427	0.3062	0.351		0.0001	0.4925	-0.3344	-0.2006	0.5267		-0.0166	0.2709	0.0655	4.1611	1.136	4.6512	1.2121	A+	A-	A-
ELA	6	783858	1	CCAACS	3	A-K	21189	1.7956	0.0942	0.2926	0.3363	0.2768	0.0001	0.6047	-0.2407	-0.4123	0.0236	0.5517	-0.0096	-0.2161	0.0988	-1.7791	0.9402	-1.4391	0.9461	A+	A-	A-
ELA	6	805452	2	CCAACS	3	A-K	6243	1.9766	0.1418	0.1872	0.2236	0.4474		0.5191	-0.2732	-0.311	-0.0972	0.517		0.0392	0.0882	5.2912	1.201	5.2913	1.2839	A+	B-	B-
ELA	6	805454	2	CCAACS	3	A-K	6243	0.7826	0.5219	0.1736	0.3045			0.293	-0.1811	-0.205	0.3653			1.1362	0.0616	9.9015	1.4775	9.9018	1.8278	A+	A+	A+
ELA	6	800992	3	CCAACS	3	A-K	6231	1.8507	0.1099	0.2061	0.4073	0.2767		0.5558	-0.2682	-0.3835	0.0705	0.4569		0.2514	0.0907	1.6111	1.055	1.8711	1.067	A-	A-	A-
ELA	6	800993	3	CCAACS	3	A-K	6231	0.4486	0.6623	0.2268	0.1109			0.1204	-0.0482	-0.0881	0.1901			1.9746	0.0619	9.6014	1.4129	9.9022	2.1602	B+	A+	A+
ELA	6	784810	4	CCAACS	3	A-K	6178	2.0138	0.0408	0.1499	0.5641	0.2452		0.4858	-0.2383	-0.3361	0.0372	0.3456		-0.0725	0.1231	0.391	1.0144	1.071	1.0406	A+	A-	A-
ELA	6	784814	4	CCAACS	3	A-K	6178	1.1293	0.3621	0.1465	0.4914			0.3645	-0.2688	-0.2123	0.4085			0.4926	0.066	9.9014	1.3809	9.9018	1.8035	A-	A-	A-
ELA	6	786683	5	CCAACS	3	A-K	6185	2.1227	0.0829	0.1366	0.3552	0.4252		0.5529	-0.2908	-0.3213	-0.119	0.5006		-0.1683	0.0998	-1.019	0.9631	-1.5091	0.9367	A+	A+	A-
ELA	6	780330	6	CCAACS	2	B-K	6203	2.0861	0.0701	0.1432	0.4172	0.3695		0.5422	-0.2695	-0.348	-0.0616	0.458		-0.114	0.1071	-0.749	0.9724	0.241	1.009	A-	B-	A-
ELA	6	783577	7	CCAACS	3	B-K	6178	1.2129	0.253	0.2812	0.4658			0.5346	-0.4127	-0.1778	0.5199			0.3537	0.0678	0.291	1.009	0.211	1.0088	A-	A-	A-
ELA	6	783579	7	CCAACS	3	B-K	6178	1.4064	0.1381	0.4438	0.2917	0.1264		0.3542	-0.2196	-0.1217	0.0822	0.2975		0.8847	0.0792	9.9014	1.4086	9.9015	1.455	A-	A-	A-
ELA	6	795977	8	CCAACS	3	B-K	6174	0.9733	0.1291	0.7685	0.1024			0.2329	-0.3141	0.2341	0.0217			0.9717	0.077	1.9211	1.0821	1.4511	1.0658	A-	A-	A-
ELA	6	795981	8	CCAACS	3	B-K	6174	1.9158	0.0675	0.2532	0.3753	0.304		0.4305	-0.1729	-0.2705	-0.0506	0.4033		0.0687	0.1007	4.7612	1.1682	6.8613	1.2702	A-	A-	A-
ELA	6	805477	9	CCAACS	3	B-K	6163	1.7498	0.1605	0.2343	0.3002	0.305		0.4406	-0.2135	-0.263	-0.0177	0.4298		0.3924	0.0812	8.8013	1.3219	9.8914	1.4241	A+	A-	A-
ELA	7	744891	0	CCAACS	3	A-C	72559	1.7967	0.1382	0.1564	0.4758	0.2295	0.0001	0.4654	-0.1613	-0.3431	-0.0489	0.4871	-0.0134	0.169	0.029	9.9014	1.3798	9.9015	1.5353	A+	A+	A+
ELA	7	623066	0	CCAACS	3	A-K	72545	1.0155	0.2297	0.5249	0.2451		0.0003	0.5397	-0.4975	0.095	0.3774		-0.0293	0.4451	0.0231	4.7811	1.0515	6.9711	1.0763	A+	A+	A+
ELA	7	623070	0	CCAACS	2	A-K	72546	1.6682	0.1012	0.2976	0.4327	0.1683	0.0003	0.5681	-0.2878	-0.3683	0.2071	0.4092	-0.0289	0.2872	0.0295	3.891	1.0447	4.161	1.0484	A+	A+	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	7	744617	0	CCAACS	2	B-C	72537	0.7507	0.4692	0.3103	0.2201		0.0004	0.4074	-0.2984	-0.0515	0.4185		-0.0326	0.9054	0.0205	9.9013	1.2998	9.9015	1.5138	A-	A+	A+
ELA	7	744648	0	CCAACS	3	B-K	72559	1.0091	0.3318	0.3271	0.341		0.0001	0.4882	-0.3568	-0.1369	0.4902		-0.0173	0.6239	0.021	9.9013	1.2615	9.9013	1.3393	A-	A+	A+
ELA	7	744715	0	CCAACS	3	B-K	72538	1.8443	0.0904	0.2284	0.4274	0.2534	0.0004	0.6388	-0.3174	-0.4102	0.0814	0.5139	-0.0305	-0.2066	0.0366	4.5911	1.0551	5.3611	1.0656	A+	A-	A-
ELA	7	800925	1	CCAACS	2	A-K	20368	1.4046	0.2769	0.2416	0.2817	0.1999		0.3545	-0.0568	-0.3672	0.007	0.4486		0.4238	0.0703	9.9017	1.7432	9.902	1.9968	A-	A-	A-
ELA	7	800926	1	CCAACS	3	A-K	20366	1.166	0.2474	0.339	0.4134		0.0001	0.5691	-0.4134	-0.2026	0.5573		-0.0151	-0.1667	0.0708	-2.8591	0.9113	-1.009	0.9585	A-	A+	A+
ELA	7	800914	2	CCAACS	3	A-K	6471	0.7387	0.4477	0.4017	0.1142	0.0362	0.0003	0.0392	-0.0212	0.0265	-0.0783	0.1221	-0.0179	1.9435	0.0588	9.9017	1.7431	9.9021	2.0724	A-	A-	A-
ELA	7	800915	2	CCAACS	3	A-K	6473	1.0159	0.2541	0.4758	0.27			0.4667	-0.3693	-0.0325	0.3987			0.6112	0.0651	0.661	1.02	1.061	1.0336	A-	A-	A-
ELA	7	805489	3	CCAACS	3	A-K	6518	1.1562	0.2364	0.3709	0.3925		0.0002	0.5059	-0.3895	-0.1287	0.4666		-0.0141	0.2439	0.069	1.7711	1.0561	2.6711	1.1028	A+	A+	A+
ELA	7	785211	4	CCAACS	3	A-K	6568	1.2783	0.1346	0.5542	0.2095	0.1017		0.285	-0.2244	0.0001	-0.0104	0.2672		0.9046	0.0789	7.7013	1.3037	7.9513	1.3252	A+	A-	A-
ELA	7	785213	4	CCAACS	3	A-K	6568	0.9632	0.2951	0.4467	0.2582			0.4155	-0.2891	-0.0905	0.404			0.7302	0.0635	4.5811	1.1475	5.4712	1.187	A+	A-	A-
ELA	7	783843	5	CCAACS	3	B-K	6508	1.9487	0.0413	0.2786	0.3702	0.3099		0.5537	-0.2447	-0.3548	-0.0325	0.4832		-0.2132	0.114	-2.2791	0.9257	-2.0791	0.9281	A-	A-	A-
ELA	7	797515	6	CCAACS	2	B-K	6503	0.7713	0.3246	0.5794	0.096			0.3583	-0.3012	0.131	0.2594			1.388	0.0605	5.6412	1.196	6.3412	1.2221	A-	A-	A-
ELA	7	783914	7	CCAACS	3	B-K	6535	0.4742	0.6409	0.2437	0.1152		0.0002	0.1503	-0.0242	-0.1878	0.2894		-0.0162	1.8166	0.0609	9.4614	1.3901	9.9019	1.8573	A-	A-	A-
ELA	7	784394	7	CCAACS	3	B-K	6536	2.0067	0.0473	0.2306	0.3903	0.3319		0.5572	-0.2452	-0.3489	-0.0678	0.4928		-0.2792	0.1179	-2.1391	0.9285	-1.9391	0.9304	A-	A-	A-
ELA	7	786698	8	CCAACS	3	B-K	6532	1.5246	0.148	0.3169	0.3974	0.1376	0.0002	0.4203	-0.1871	-0.2825	0.1675	0.3373	-0.0232	0.6538	0.0793	6.5112	1.2328	6.7812	1.2446	A-	A-	A-
ELA	7	786701	8	CCAACS	3	B-K	6533	1.2342	0.2151	0.3357	0.4493			0.4517	-0.3419	-0.1518	0.4265			0.1287	0.0696	1.8811	1.06	1.131	1.0454	A-	A+	A+
ELA	7	799563	9	CCAACS	2	B-K	6557	1.3441	0.321	0.2158	0.2612	0.2019		0.4623	-0.2263	-0.304	0.104	0.4609		0.7995	0.0676	8.4113	1.312	9.9015	1.478	B-	A-	A+
ELA	7	799564	9	CCAACS	3	B-K	6557	0.7197	0.3967	0.487	0.1164			0.2226	-0.1444	-0.0108	0.2371			1.4351	0.0595	9.9014	1.3977	9.9015	1.5061	A-	A-	A-
ELA	8	745578	0	CCAACS	3	A-K	73590	0.9299	0.3598	0.3502	0.2897		0.0004	0.6414	-0.5075	-0.0563	0.5975		-0.0314	0.4316	0.0217	3.691	1.0391	5.0611	1.0644	A+	A+	A+
ELA	8	745580	0	CCAACS	3	A-K	73590	1.7328	0.1209	0.226	0.452	0.2007	0.0004	0.654	-0.3203	-0.4333	0.1563	0.5205	-0.0318	-0.0669	0.032	5.9311	1.071	6.5311	1.0806	A-	A+	A+
ELA	8	746416	0	CCAACS	3	A-K	73608	0.9957	0.3413	0.3215	0.3371		0.0001	0.5386	-0.3984	-0.1406	0.5388		-0.0138	0.5891	0.0212	9.9012	1.1872	9.9013	1.3457	A+	A-	A+
ELA	8	746418	0	CCAACS	3	A-K	73611	1.7969	0.2155	0.1806	0.1951	0.4087	0.0001	0.5646	-0.2834	-0.3661	-0.0984	0.6031	-0.0168	0.0397	0.0256	9.9015	1.5326	9.9017	1.7345	A-	A-	A-
ELA	8	710689	0	CCAACS	3	B-K	73605	1.2038	0.3074	0.343	0.1877	0.1617	0.0002	0.4387	-0.1985	-0.2023	0.0187	0.4905	-0.0252	0.8474	0.0223	9.9017	1.6749	9.9018	1.8415	A-	A+	A+
ELA	8	743425	0	CCAACS	3	B-K	73581	0.7528	0.4514	0.3437	0.2044		0.0005	0.4699	-0.3505	-0.0264	0.4652		-0.0292	0.8038	0.0207	9.9013	1.2525	9.9014	1.4264	A+	A+	A+
ELA	8	783672	1	CCAACS	3	A-K	20083	0.6546	0.564	0.2174	0.2186			0.2609	-0.1012	-0.2718	0.3927			0.9173	0.0639	9.9017	1.7342	9.9025	2.4977	B-	A-	A-
ELA	8	783676	1	CCAACS	3	A-K	20081	1.9044	0.0966	0.1953	0.4149	0.293	0.0001	0.6234	-0.3228	-0.4213	0.0818	0.4882	-0.011	-0.5241	0.1003	-4.8892	0.8362	-3.7891	0.8643	A+	A-	A-
ELA	8	800978	2	CCAACS	3	A-K	6658	1.6855	0.102	0.2939	0.4207	0.1834		0.489	-0.2735	-0.246	0.0787	0.4032		0.1977	0.0915	5.2212	1.188	6.4212	1.2355	A+	A+	A-
ELA	8	805356	3	CCAACS	3	A-K	6664	2.3849	0.0405	0.0741	0.3452	0.54	0.0002	0.5422	-0.2526	-0.3458	-0.208	0.4806	-0.0172	-0.9182	0.1315	-3.1891	0.8739	-2.4791	0.8862	A+	A-	A+
ELA	8	805358	3	CCAACS	3	A-K	6665	1.5812	0.1167	0.1853	0.698			0.4202	-0.3011	-0.2492	0.4214			-0.8283	0.0883	0.341	1.0129	3.1412	1.2485	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	8	784824	4	CCAACS	3	A-K	6651	1.1776	0.2046	0.5283	0.1518	0.1152	0.0002	0.3498	-0.1873	-0.0791	-0.0117	0.3739	-0.0087	1.0036	0.0699	9.9014	1.4396	9.9015	1.5175	A+	A-	A-
ELA	8	784827	4	CCAACS	3	A-K	6650	1.0241	0.2769	0.4218	0.301		0.0003	0.2918	-0.182	-0.1185	0.3056		-0.0132	0.5584	0.0646	9.9015	1.5245	9.9017	1.7401	A-	A-	A-
ELA	8	805464	5	CCAACS	3	A-K	6640	1.4303	0.206	0.1577	0.6363			0.5714	-0.4679	-0.2327	0.5696			-0.3125	0.075	-1.329	0.9521	-1.3091	0.9023	A-	A+	A+
ELA	8	805466	5	CCAACS	3	A-K	6639	2.1432	0.0697	0.1226	0.4023	0.4053	0.0002	0.6167	-0.3175	-0.395	-0.0917	0.5206	-0.0175	-0.5556	0.1136	-2.8691	0.8939	-2.6491	0.8906	A+	A-	A+
ELA	8	783615	6	CCAACS	3	B-K	6707	1.219	0.1767	0.4276	0.3957			0.4567	-0.365	-0.1058	0.3917			-0.0551	0.075	3.1411	1.1038	2.8611	1.1139	A+	A+	A+
ELA	8	795918	7	CCAACS	3	B-K	6739	0.5422	0.589	0.2799	0.1312			0.1871	-0.0909	-0.0986	0.2636			1.6229	0.0607	9.9015	1.4873	9.9018	1.7906	A-	A-	A-
ELA	8	795919	7	CCAACS	3	B-K	6737	1.8526	0.1264	0.2005	0.3668	0.306	0.0003	0.5448	-0.2548	-0.3587	-0.0006	0.4969	-0.0233	0.0174	0.0859	3.7311	1.1342	3.3611	1.1345	A-	A-	A-
ELA	8	805549	8	CCAACS	3	B-K	6751	1.775	0.1055	0.2511	0.4065	0.237		0.4768	-0.2185	-0.3393	0.109	0.3779		0.1542	0.0877	5.9812	1.2165	7.9313	1.2999	A-	A+	A+
ELA	8	783595	9	CCAACS	3	B-C	6722	1.7371	0.1223	0.2453	0.4054	0.227		0.5199	-0.2971	-0.301	0.122	0.3985		0.105	0.089	6.1712	1.2251	7.8713	1.3052	A-	A-	A-
ELA	8	783593	9	CCAACS	2	B-K	6722	1.0311	0.3261	0.3167	0.3572			0.3869	-0.268	-0.147	0.4049			0.4527	0.0651	9.9014	1.372	9.9017	1.6677	A-	A-	A-

Open-Ended Paper/Pencil Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(0)	Proportion 0 Points
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(4)	Proportion 4 Points
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(0)	Correlation 0 Points
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(4)	Correlation 4 Points
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	713654	0	CCAACS	3	A-K	54805	1.3849	0.1022	0.4371	0.3537	0.0571		0.03	0.0199	0.5888	-0.3801	-0.1703	0.4139	0.267		-0.1959	-0.192	1.0255	0.027	-9.8992	0.8033	-9.8992	0.8092	A+	A-	A+
ELA	3	749245	0	CCAACS	3	B-K	55517	1.3029	0.2269	0.3238	0.3051	0.1067		0.0156	0.022	0.7028	-0.5122	-0.1092	0.4253	0.3818		-0.1552	-0.1969	0.9826	0.0257	-9.8991	0.8509	-9.8992	0.8347	A+	A+	A+
ELA	3	802452	1	CCAACS	3	A-K	527	1.4421	0.1782	0.3127	0.3327	0.1345		0.0255	0.0164	0.6939	-0.4727	-0.1628	0.3285	0.4497		-0.2015	-0.1591	0.6913	0.0774	-7.3493	0.7405	-7.3793	0.7286	B+	A-	A+
ELA	3	782073	2	CCAACS	3	A-K	533	1.2908	0.14	0.4818	0.2727	0.0745		0.0127	0.0182	0.6304	-0.4426	-0.1213	0.3902	0.3192		-0.1697	-0.1829	0.8748	0.0912	-4.6292	0.8227	-4.7492	0.8187	B+	NA	A-
ELA	3	798626	3	CCAACS	3	A-K	531	1.403	0.0982	0.4473	0.3527	0.0673		0.0218	0.0127	0.6119	-0.3717	-0.2442	0.4136	0.3089		-0.1877	-0.1387	0.7463	0.102	-3.1591	0.8765	-3.1491	0.877	B+	A-	A-
ELA	3	805739	4	CCAACS	3	A-K	534	1.5337	0.0764	0.4164	0.3618	0.1164		0.0127	0.0164	0.6194	-0.2891	-0.3781	0.3513	0.3916		-0.0962	-0.1609	0.4122	0.1081	-4.9892	0.8129	-4.9292	0.8152	A+	A+	A-
ELA	3	808616	5	CCAACS	3	A-K	538	1.5762	0.0782	0.3491	0.46	0.0909		0.0164	0.0055	0.6314	-0.3602	-0.3421	0.3748	0.3498		-0.16	-0.0993	0.5207	0.1091	-5.4192	0.797	-5.3692	0.799	B+	A-	A-
ELA	3	800669	6	CCAACS	3	B-K	536	1.5243	0.0618	0.4073	0.4382	0.0673		0.0164	0.0091	0.5627	-0.3056	-0.313	0.3897	0.2777		-0.1879	-0.123	0.5914	0.1175	-2.9891	0.882	-2.9291	0.8843	A+	NA	A+
ELA	3	805832	7	CCAACS	3	B-C	535	1.4897	0.1055	0.3764	0.4	0.0909		0.02	0.0073	0.6404	-0.3744	-0.3106	0.3983	0.3547		-0.149	-0.1268	0.8029	0.0938	-5.0792	0.8104	-5.0692	0.8115	A+	A-	A-
ELA	3	808631	8	CCAACS	3	B-C	528	1.0625	0.2745	0.4036	0.2291	0.0527		0.0236	0.0164	0.6132	-0.4499	0.0357	0.4158	0.2757		-0.1914	-0.1893	1.5414	0.0733	-3.2291	0.8744	-3.5891	0.8599	B+	NA	A-
ELA	3	806928	9	CCAACS	3	B-C	531	1.6083	0.0782	0.3564	0.3964	0.1345		0.02	0.0145	0.5856	-0.287	-0.322	0.2901	0.3911		-0.1652	-0.1752	0.3016	0.1061	-4.6292	0.8282	-4.5692	0.8301	A+	NA	A-
MATH	3	715919	0	CCAACS	3	A-T	54446	1.4835	0.2331	0.2763	0.251	0.1594	0.0429	0.0281	0.0092	0.7959	-0.5907	-0.1644	0.2791	0.4499	0.31	-0.0718	-0.1404	1.1779	0.0292	-9.8992	0.7836	-9.8992	0.7779	A+	A-	A-
MATH	3	743720	0	CCAACS	3	B-O	55610	1.9386	0.1931	0.2117	0.204	0.2112	0.1632	0.0091	0.0077	0.8272	-0.5836	-0.2778	0.0656	0.3655	0.5138	-0.1107	-0.1278	0.5876	0.0307	-9.8993	0.7409	-9.8992	0.777	A+	A+	A+
MATH	3	652779	0	CCAACS	3	C-G	55411	2.1434	0.1082	0.2047	0.2527	0.2668	0.1474	0.012	0.0082	0.726	-0.4316	-0.3341	-0.0273	0.3336	0.4468	-0.1213	-0.1323	0.4522	0.0346	-0.739	0.9899	1.541	1.0217	B+	A-	A-
MATH	3	780390	1	CCAACS	2	C-G	531	1.4105	0.2727	0.3327	0.1418	0.1273	0.0909	0.0218	0.0127	0.7427	-0.5452	-0.1133	0.2157	0.3866	0.4017	-0.0337	-0.1649	1.3459	0.0756	-2.0591	0.9079	-2.5791	0.8769	A+	A-	A-
MATH	3	780269	2	CCAACS	3	A-T	530	2	0.1727	0.2364	0.1655	0.1964	0.1927	0.0273	0.0091	0.7647	-0.5096	-0.2619	0.0245	0.299	0.5146	-0.0834	-0.1412	0.4773	0.0945	-3.6691	0.8515	-3.0991	0.8567	A-	A-	A+
MATH	3	784879	3	CCAACS	3	D-M	527	1.8861	0.2164	0.2455	0.1164	0.1909	0.1891	0.0327	0.0091	0.7554	-0.5439	-0.2386	0.1302	0.3269	0.47	-0.0856	-0.1307	0.8407	0.0869	-2.3391	0.9022	-2.9291	0.8607	A+	NA	A+
MATH	3	779962	4	CCAACS	3	D-M	532	1.812	0.2364	0.2545	0.1327	0.1418	0.2018	0.02	0.0127	0.7365	-0.5111	-0.1808	0.0101	0.2366	0.5642	-0.0036	-0.1425	0.9144	0.0846	0.731	1.0314	0.571	1.0278	A-	A-	A-
MATH	3	737272	5	CCAACS	3	B-O	532	1.468	0.2655	0.3236	0.1255	0.1655	0.0873	0.0273	0.0055	0.686	-0.5308	-0.0777	0.1821	0.3208	0.3864	-0.0634	-0.1017	1.1847	0.083	1.4711	1.0634	0.501	1.0227	A+	NA	B-
MATH	3	782067	6	CCAACS	3	B-O	537	1.7952	0.2073	0.1818	0.22	0.3382	0.0291	0.0182	0.0055	0.7517	-0.534	-0.256	0.1002	0.5716	0.2033	-0.1651	-0.1196	1.3426	0.0892	-5.3792	0.7875	-4.6292	0.7879	A+	A+	A-
MATH	3	780270	7	CCAACS	3	C-G	542	2.2288	0.0364	0.2382	0.2891	0.3073	0.1145	0.0091	0.0055	0.6763	-0.2781	-0.3941	-0.1032	0.3086	0.452	-0.1086	-0.1262	0.3377	0.1489	-1.7491	0.9296	-1.8091	0.9269	A+	A+	A+
MATH	3	779961	8	CCAACS	3	A-T	526	1.5817	0.2	0.2691	0.2564	0.1927	0.0382	0.0236	0.02	0.7181	-0.5143	-0.1838	0.2588	0.4059	0.2716	-0.047	-0.2197	1.4485	0.0873	-2.9991	0.8826	-3.3591	0.8643	A+	NA	A-
MATH	3	711592	9	CCAACS	3	A-F	537	1.2142	0.2309	0.5273	0.0655	0.0836	0.0691	0.0164	0.0073	0.6414	-0.4448	-0.0134	0.1968	0.3224	0.3627	-0.1829	-0.1484	1.6233	0.0785	-3.6492	0.8291	-3.5392	0.8303	A-	NA	A-
MATH	4	737273	0	CCAACS	3	A-T	54901	1.8632	0.224	0.2127	0.1983	0.1811	0.1722	0.0074	0.0042	0.7831	-0.5864	-0.2094	0.0883	0.2855	0.5272	-0.0926	-0.0938	0.4524	0.0288	-1.709	0.9758	0.321	1.0053	A+	A-	A-
MATH	4	628162	0	CCAACS	3	B-O	54933	1.7182	0.2047	0.2504	0.2238	0.2391	0.071	0.0073	0.0037	0.798	-0.5827	-0.2385	0.1338	0.4582	0.389	-0.0878	-0.0855	0.5803	0.0305	-9.8992	0.8382	-9.8992	0.8452	A+	A+	A-
MATH	4	737280	0	CCAACS	3	C-G	53851	1.5488	0.2494	0.2698	0.2267	0.116	0.1076	0.0226	0.0079	0.7478	-0.5588	-0.1502	0.2089	0.3215	0.4376	-0.0449	-0.123	0.6297	0.0285	-0.899	0.9872	-0.009	0.9998	A+	A-	A-
MATH	4	782070	1	CCAACS	3	B-O	526	1.5875	0.0964	0.4982	0.1418	0.1436	0.0764	0.0364	0.0073	0.7166	-0.3631	-0.3624	0.1998	0.3799	0.405	-0.0582	-0.1328	0.748	0.0844	-2.6391	0.8844	-2.9891	0.865	A+	A+	A-
MATH	4	785328	2	CCAACS	2	A-T	533	1.8255	0.1673	0.28	0.1182	0.3618	0.0418	0.0291	0.0018	0.6528	-0.4659	-0.2268	0.062	0.4221	0.294	-0.0266	-0.0354	0.7509	0.0909	2.0111	1.0865	2.7311	1.1372	A-	A-	A+
MATH	4	782069	3	CCAACS	3	A-F	527	1.7837	0.2291	0.2618	0.0927	0.2364	0.1382	0.0255	0.0164	0.742	-0.5369	-0.1685	0.0786	0.3574	0.4571	-0.0911	-0.1444	0.6301	0.0843	-3.2291	0.866	-2.4991	0.881	A+	NA	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	780391	4	CCAACS	3	A-T	540	2.1574	0.06	0.2055	0.3345	0.2836	0.0982	0.0182		0.6818	-0.31	-0.4272	-0.0412	0.3675	0.3756	-0.088		0.0733	0.134	-1.129	0.9539	-0.769	0.9682	A+	NA	B-
MATH	4	737274	5	CCAACS	3	D-M	530	0.9264	0.4436	0.2873	0.1145	0.0964	0.0218	0.0273	0.0091	0.7128	-0.5679	0.0829	0.3666	0.4086	0.2201	-0.0708	-0.1403	1.5249	0.0742	-2.8791	0.8724	-3.3092	0.8406	A+	NA	A-
MATH	4	780271	6	CCAACS	3	B-O	528	1.6458	0.1891	0.28	0.2473	0.1691	0.0745	0.02	0.02	0.7829	-0.509	-0.2448	0.1928	0.4003	0.4172	-0.0411	-0.1991	0.8572	0.0912	-5.8892	0.7776	-6.1292	0.7664	A+	NA	A-
MATH	4	780272	7	CCAACS	3	D-M	531	1.4633	0.1909	0.4	0.1873	0.1109	0.0764	0.0273	0.0073	0.7538	-0.5264	-0.1641	0.2126	0.4002	0.3919	-0.1055	-0.0975	0.8414	0.094	-5.6792	0.7633	-5.7092	0.7504	A-	NA	NA
MATH	4	784881	8	CCAACS	2	C-G	532	1.4323	0.2818	0.2727	0.1855	0.1673	0.06	0.0236	0.0091	0.732	-0.5532	-0.1031	0.2268	0.4335	0.3102	-0.1062	-0.1336	1.0216	0.0811	-2.1791	0.9098	-2.4691	0.8908	C+	NA	C-
MATH	4	784880	9	CCAACS	3	A-F	539	1.3135	0.3618	0.2582	0.1236	0.1636	0.0727	0.0182	0.0018	0.7203	-0.5731	-0.05	0.2047	0.4296	0.3444	-0.1163	-0.0694	1.0315	0.0791	-2.5391	0.892	-2.3991	0.8804	A+	A-	A+
MATH	5	738845	0	CCAACS	3	A-T	51392	1.8077	0.1655	0.2877	0.2191	0.2031	0.1128	0.0077	0.0042	0.777	-0.4815	-0.3407	0.106	0.399	0.4534	-0.103	-0.0869	0.5825	0.031	-6.4191	0.9155	-6.1491	0.9168	A+	A-	A-
MATH	5	577938	0	CCAACS	2	B-O	50977	2.108	0.1639	0.1914	0.1972	0.23	0.1975	0.0143	0.0056	0.749	-0.4621	-0.282	-0.0688	0.2663	0.5536	-0.1326	-0.0976	0.1464	0.0316	1.141	1.0158	6.1711	1.0983	B+	A+	A+
MATH	5	737282	0	CCAACS	3	D-M	50332	1.3619	0.2128	0.404	0.22	0.0496	0.0813	0.0257	0.0067	0.7603	-0.4943	-0.207	0.3387	0.2686	0.4589	-0.0733	-0.1053	0.9899	0.0276	-9.8992	0.8117	-9.8992	0.8168	A+	A-	A-
MATH	5	784882	1	CCAACS	3	A-T	487	2.0246	0.1293	0.2424	0.2465	0.2061	0.1596	0.0141	0.002	0.7157	-0.4084	-0.3485	-0.0273	0.3231	0.4684	-0.0128	-0.057	0.1571	0.0879	-4.9292	0.811	-3.7992	0.8422	A+	A-	A-
MATH	5	780273	2	CCAACS	3	A-F	484	1.4339	0.1737	0.3919	0.2667	0.1051	0.0404	0.0141	0.0081	0.5683	-0.3755	-0.124	0.1754	0.2686	0.3319	-0.0907	-0.1313	1.2301	0.0848	1.6211	1.0683	1.4111	1.0588	A+	A-	A+
MATH	5	782072	3	CCAACS	3	D-M	486	1.784	0.2889	0.1879	0.1657	0.1253	0.2141	0.0182		0.7398	-0.5545	-0.1785	0.0745	0.2249	0.5516	-0.0554		0.5325	0.0824	-0.609	0.9725	-0.819	0.9529	A+	NA	NA
MATH	5	780394	4	CCAACS	3	C-G	480	1.7021	0.1939	0.2606	0.2364	0.198	0.0808	0.0263	0.004	0.6415	-0.4369	-0.2018	0.1044	0.3002	0.3871	-0.0215	-0.0738	0.7531	0.0846	3.4011	1.1457	2.6511	1.1162	A+	A-	A-
MATH	5	785331	5	CCAACS	3	B-O	489	1.3783	0.0364	0.6545	0.1939	0.0929	0.0101	0.0121		0.6086	-0.2438	-0.4427	0.35	0.351	0.2077	-0.0449		1.0231	0.1483	-1.9691	0.9092	-2.0991	0.8907	A+	NA	A-
MATH	5	779965	6	CCAACS	3	A-F	485	0.9485	0.402	0.3838	0.0808	0.0687	0.0444	0.0162	0.004	0.6769	-0.5705	0.167	0.2271	0.345	0.3196	-0.0876	-0.0858	1.7457	0.0716	-2.0391	0.9018	-2.7491	0.8677	A-	A-	A-
MATH	5	780393	7	CCAACS	3	B-O	486	1.5967	0.2283	0.3192	0.1778	0.1333	0.1232	0.0162	0.002	0.7002	-0.4511	-0.2329	0.1472	0.3201	0.4535	-0.1045	-0.0679	0.71	0.085	0.051	1.0016	-0.409	0.9811	A+	A-	A+
MATH	5	738846	8	CCAACS	3	D-M	478	1.4477	0.3131	0.2606	0.1818	0.0667	0.1434	0.0283	0.0061	0.7593	-0.581	-0.0522	0.1955	0.2494	0.53	-0.1383	-0.1044	0.7853	0.0792	-4.3892	0.8189	-5.0092	0.7618	A-	NA	A+
MATH	5	737276	9	CCAACS	3	C-G	487	1.423	0.1657	0.4626	0.1798	0.1253	0.0505	0.0141	0.002	0.7298	-0.4143	-0.3025	0.2695	0.3893	0.3842	-0.0721	-0.0698	0.9852	0.0913	-4.5592	0.8185	-4.3992	0.8209	A+	A-	NA
MATH	6	760060	0	CCAACS	3	A-N	47154	1.8427	0.1755	0.2389	0.2423	0.2099	0.113	0.0118	0.0085	0.7451	-0.4755	-0.2896	0.0654	0.3975	0.4295	-0.1086	-0.1062	0.6855	0.0291	-4.3591	0.9415	-3.169	0.9547	A+	A+	A+
MATH	6	738930	0	CCAACS	3	A-R	47627	1.6404	0.2836	0.2252	0.1391	0.2465	0.095	0.0084	0.0021	0.799	-0.6213	-0.1389	0.0802	0.424	0.4715	-0.0889	-0.0557	0.8003	0.0276	-9.1891	0.8757	-7.5991	0.884	A-	A+	A+
MATH	6	480016	0	CCAACS	3	D-S	46725	1.1815	0.2892	0.3952	0.151	0.0916	0.0437	0.0214	0.0079	0.7696	-0.5334	-0.0816	0.2953	0.4199	0.3762	-0.0855	-0.1091	1.3604	0.0259	-9.8992	0.7757	-9.8993	0.7485	A-	A-	A-
MATH	6	738732	1	CCAACS	3	A-R	423	1.6501	0.2159	0.3159	0.0591	0.3295	0.0409	0.0341	0.0045	0.7427	-0.4925	-0.2146	0.068	0.5676	0.2945	-0.1779	-0.0968	1.0416	0.0768	-4.5092	0.8114	-4.5792	0.7681	A-	A-	A-
MATH	6	799632	2	CCAACS	3	B-E	428	1.7734	0.2295	0.2295	0.1932	0.1727	0.1477	0.0205	0.0068	0.7491	-0.49	-0.2367	0.0723	0.2958	0.5325	-0.1078	-0.1021	0.7419	0.0855	-3.0391	0.8764	-3.5292	0.8371	A+	NA	NA
MATH	6	800681	3	CCAACS	3	A-N	431	1.1439	0.3955	0.3045	0.1	0.1023	0.0773	0.0136	0.0068	0.715	-0.5507	0.0225	0.1997	0.3797	0.4048	-0.1192	-0.1256	1.3679	0.0746	-1.6191	0.9241	-2.5791	0.8667	A-	A-	A-
MATH	6	737284	4	CCAACS	3	D-S	427	1.4754	0.2591	0.3023	0.1818	0.1432	0.0841	0.0227	0.0068	0.786	-0.5133	-0.1847	0.1661	0.419	0.4663	-0.1472	-0.1044	0.9281	0.0825	-7.3793	0.7221	-7.3493	0.7112	A+	A-	A-
MATH	6	782559	5	CCAACS	3	B-E	430	1.8767	0.2705	0.1159	0.2341	0.1773	0.1795	0.0159	0.0068	0.7666	-0.5517	-0.1686	-0.0205	0.3023	0.5514	-0.0818	-0.1106	0.3185	0.0908	-3.0791	0.8739	-1.7991	0.9106	A+	NA	A-
MATH	6	785332	6	CCAACS	3	A-R	427	1.8759	0.1727	0.2545	0.1705	0.2659	0.1068	0.0205	0.0091	0.7191	-0.4211	-0.2456	-0.0325	0.3432	0.5066	-0.1208	-0.1331	0.4446	0.0942	-0.209	0.9908	-0.499	0.977	A+	A+	NA
MATH	6	707092	7	CCAACS	3	C-G	416	1.4327	0.2841	0.2886	0.1341	0.1568	0.0818	0.0364	0.0182	0.7989	-0.5253	-0.1239	0.1434	0.4648	0.452	-0.1668	-0.1307	1.1859	0.0773	-4.7692	0.8031	-5.4492	0.7661	A+	A-	A+
MATH	6	785333	8	CCAACS	3	C-G	430	1.3302	0.2227	0.4841	0.0545	0.1568	0.0591	0.0159	0.0068	0.6863	-0.4555	-0.112	0.0786	0.4472	0.3574	-0.0801	-0.1122	1.2413	0.0841	0.031	1.0005	-0.319	0.9828	A+	NA	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	782062	9	CCAACS	3	D-S	433	1.3718	0.1841	0.375	0.3568	0.0114	0.0568	0.0114	0.0045	0.6998	-0.4731	-0.2183	0.418	0.1543	0.3852	-0.1001	-0.0919	1.1491	0.0911	-2.3091	0.9008	-2.4991	0.8895	A-	A-	NA
MATH	7	658146	0	CCAACS	3	A-R	47376	1.4357	0.3034	0.2563	0.1825	0.1657	0.0722	0.0132	0.0066	0.8211	-0.5936	-0.1816	0.2292	0.4636	0.4285	-0.1093	-0.0884	0.5631	0.027	-9.8992	0.8113	-9.8992	0.8111	A+	A+	A+
MATH	7	560139	0	CCAACS	2	B-E	46609	1.0725	0.3596	0.3288	0.1542	0.09	0.0318	0.0267	0.009	0.818	-0.6196	0.0087	0.3634	0.4534	0.3361	-0.1083	-0.0978	1.3864	0.025	-9.8993	0.718	-9.8993	0.6927	A-	A-	A-
MATH	7	745400	0	CCAACS	3	C-G	47395	1.2125	0.3603	0.3067	0.1321	0.1078	0.0737	0.0132	0.0062	0.7935	-0.5715	-0.0981	0.2682	0.4101	0.4583	-0.1031	-0.0807	0.9215	0.0251	-9.8992	0.837	-9.8992	0.799	A+	A-	A-
MATH	7	785335	1	CCAACS	3	D-S	423	1.26	0.4182	0.2023	0.0977	0.1591	0.0841	0.0295	0.0091	0.794	-0.6197	0.0021	0.1068	0.4956	0.4371	-0.1206	-0.0953	0.914	0.0753	-4.6692	0.7789	-4.4993	0.7321	A+	A-	A-
MATH	7	800683	2	CCAACS	3	A-N	428	1.4369	0.2727	0.3205	0.1568	0.1273	0.0955	0.0227	0.0045	0.7652	-0.5347	-0.1558	0.1962	0.3296	0.4898	-0.0697	-0.0586	0.6358	0.0792	-1.4691	0.936	-2.1391	0.9014	A-	A-	NA
MATH	7	782064	3	CCAACS	3	B-E	418	0.9976	0.45	0.2659	0.0795	0.0955	0.0591	0.0295	0.0205	0.6957	-0.5588	0.1489	0.2505	0.3111	0.4045	-0.1441	-0.127	1.1688	0.0736	-0.089	0.9947	0.041	1.0009	A+	A-	A-
MATH	7	799633	4	CCAACS	3	A-R	422	1.7062	0.2477	0.2114	0.2568	0.0614	0.1818	0.0318	0.0091	0.7996	-0.5524	-0.2229	0.1854	0.2117	0.5923	-0.1384	-0.0684	0.2077	0.0854	-3.9292	0.845	-2.5291	0.8808	A+	A-	A-
MATH	7	785334	5	CCAACS	3	B-E	428	1.2336	0.4364	0.1818	0.1364	0.1273	0.0909	0.0182	0.0091	0.8221	-0.6641	0.0125	0.1773	0.4571	0.4763	-0.1228	-0.0963	0.984	0.0788	-7.0893	0.7034	-6.8494	0.6424	A+	A-	A-
MATH	7	799634	6	CCAACS	3	C-G	425	0.7953	0.4932	0.3318	0.05	0.0273	0.0636	0.025	0.0091	0.6908	-0.5864	0.2654	0.2261	0.2266	0.4338	-0.0986	-0.0889	1.442	0.0722	-3.0292	0.8444	-4.0192	0.7808	A+	NA	A-
MATH	7	782561	7	CCAACS	3	D-S	431	2.0557	0.1091	0.3068	0.2409	0.0659	0.2568	0.0114	0.0091	0.7944	-0.3354	-0.414	-0.0874	0.1567	0.7165	-0.0814	-0.11	-0.1436	0.1053	-3.8292	0.8444	-2.1791	0.883	A+	A-	B-
MATH	7	782063	8	CCAACS	3	A-R	428	1.514	0.2909	0.2955	0.1364	0.0955	0.1545	0.0182	0.0091	0.7666	-0.5347	-0.1169	0.1026	0.258	0.5871	-0.1287	-0.1035	0.4683	0.08	-3.0191	0.8714	-3.5492	0.8273	A-	A-	A-
MATH	7	780397	9	CCAACS	3	C-G	420	1.5357	0.2636	0.2364	0.2182	0.1523	0.0841	0.0318	0.0136	0.7572	-0.5416	-0.0898	0.1428	0.3657	0.4618	-0.1631	-0.113	0.7008	0.0814	-3.3191	0.8675	-3.6892	0.8457	A+	A-	A-
MATH	8	759415	0	CCAACS	2	A-N	45325	1.5513	0.1311	0.4273	0.1861	0.1458	0.0589	0.0279	0.0228	0.7283	-0.3521	-0.3094	0.2001	0.4028	0.4243	-0.1537	-0.152	0.6032	0.027	-6.8691	0.9038	-6.6591	0.9038	A+	A+	A+
MATH	8	494645	0	CCAACS	2	B-E	45622	1.3412	0.3241	0.2685	0.1629	0.1127	0.0873	0.0334	0.0111	0.794	-0.5447	-0.1224	0.248	0.3614	0.496	-0.138	-0.1131	0.4479	0.0259	-9.8992	0.8427	-9.8992	0.8354	A+	A-	A-
MATH	8	743719	0	CCAACS	3	C-G	46500	1.6218	0.223	0.3107	0.1585	0.1747	0.1069	0.0167	0.0095	0.803	-0.5183	-0.2562	0.147	0.4089	0.4914	-0.1282	-0.1036	0.3326	0.0275	-9.8992	0.7795	-9.8992	0.7873	A-	A-	A-
MATH	8	713934	1	CCAACS	3	B-F	410	1.1415	0.3705	0.2886	0.1114	0.0932	0.0682	0.0386	0.0295	0.802	-0.5713	0.0598	0.2378	0.3929	0.4741	-0.1845	-0.1425	1.0792	0.0727	-6.8993	0.6881	-7.3094	0.6218	A+	A-	A+
MATH	8	785336	2	CCAACS	3	B-E	419	2.1074	0.1727	0.1682	0.1659	0.275	0.1705	0.0295	0.0182	0.713	-0.4092	-0.2366	-0.1145	0.3454	0.4989	-0.2065	-0.1578	-0.0621	0.0902	-2.8891	0.884	-2.2191	0.9016	A+	A-	A-
MATH	8	737635	3	CCAACS	3	A-N	419	1.9117	0.1273	0.2841	0.2182	0.1909	0.1318	0.0386	0.0091	0.7774	-0.4073	-0.3558	0.071	0.329	0.5308	-0.1662	-0.1051	0.1572	0.0881	-5.2092	0.7997	-5.6692	0.7732	A+	A+	NA
MATH	8	782562	4	CCAACS	3	B-E	415	1.4506	0.3136	0.1886	0.1955	0.1932	0.0523	0.0295	0.0273	0.7734	-0.5558	-0.0586	0.146	0.4886	0.3836	-0.1667	-0.1667	0.7638	0.0798	-6.2192	0.7612	-6.1093	0.7388	A+	A-	A-
MATH	8	655438	5	CCAACS	3	D-S	419	1.1504	0.2182	0.5227	0.1091	0.0545	0.0477	0.0318	0.0159	0.6886	-0.3788	-0.1379	0.3047	0.3756	0.3762	-0.109	-0.1279	1.0759	0.0751	-2.3891	0.8876	-3.4292	0.8452	A+	A-	NA
MATH	8	799636	6	CCAACS	3	D-S	428	1.7407	0.0977	0.3409	0.2932	0.1977	0.0432	0.0273		0.7168	-0.3312	-0.4391	0.1798	0.4886	0.2738	-0.157		0.4527	0.1035	-4.0492	0.8423	-4.2192	0.835	A+	A-	NA
MATH	8	780400	7	CCAACS	3	B-F	404	1.4827	0.1909	0.3477	0.1909	0.1227	0.0659	0.0545	0.0273	0.7483	-0.4556	-0.1448	0.2532	0.4449	0.3466	-0.2221	-0.203	0.8395	0.0777	-5.7492	0.7706	-6.3593	0.7396	A+	A-	A-
MATH	8	782066	8	CCAACS	3	C-G	407	0.9779	0.3909	0.2932	0.1409	0.0705	0.0295	0.0477	0.0273	0.7072	-0.4962	0.0768	0.3201	0.3838	0.3106	-0.1813	-0.1007	1.3436	0.073	-1.9391	0.9103	-2.7491	0.8608	A+	A-	A-
MATH	8	737636	9	CCAACS	3	C-G	422	1.3957	0.3318	0.275	0.1	0.1455	0.1068	0.0341	0.0068	0.8275	-0.5986	-0.1106	0.208	0.4369	0.4859	-0.1476	-0.103	0.5481	0.0772	-6.8193	0.7265	-6.4093	0.717	A+	A-	A-

Open-Ended Computer-Based Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(0)	Proportion 0 Points
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(4)	Proportion 4 Points
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(0)	Correlation 0 Points
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(4)	Correlation 4 Points
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
ELA	3	713654	0	CCAACS	3	A-K	59971	1.148	0.1488	0.5664	0.213	0.0395		0.008	0.0244	0.5692	-0.4114	-0.0325	0.378	0.2437		-0.1062	-0.1964	1.0255	0.027	-9.8992	0.8033	-9.8992	0.8092	A+	A-	A+
ELA	3	749245	0	CCAACS	3	B-K	59936	1.1255	0.2733	0.3838	0.2252	0.0847		0.0056	0.0273	0.6808	-0.5249	0.0075	0.4048	0.3617		-0.088	-0.2026	0.9826	0.0257	-9.8991	0.8509	-9.8992	0.8347	A+	A+	A+
ELA	3	802452	1	CCAACS	3	A-K	516	1.2035	0.2878	0.2769	0.2714	0.1038		0.0055	0.0546	0.663	-0.4485	-0.0484	0.3763	0.4165		-0.0938	-0.2761	0.6913	0.0774	-7.3493	0.7405	-7.3793	0.7286	B+	A-	A+
ELA	3	782073	2	CCAACS	3	A-K	542	1.3229	0.1273	0.4891	0.2927	0.0764		0.0018	0.0127	0.5974	-0.4066	-0.1599	0.3355	0.3382		-0.0762	-0.2123	0.8748	0.0912	-4.6292	0.8227	-4.7492	0.8187	B+	NA	A-
ELA	3	798626	3	CCAACS	3	A-K	538	1.3978	0.0691	0.4982	0.3636	0.0473		0.0036	0.0182	0.4606	-0.225	-0.2565	0.336	0.2338		-0.0791	-0.1586	0.7463	0.102	-3.1591	0.8765	-3.1491	0.877	B+	A-	A-
ELA	3	805739	4	CCAACS	3	A-K	540	1.5315	0.0709	0.4273	0.3745	0.1091		0.0036	0.0145	0.6357	-0.3445	-0.3647	0.3723	0.3664		-0.0786	-0.1742	0.4122	0.1081	-4.9892	0.8129	-4.9292	0.8152	A+	A+	A-
ELA	3	808616	5	CCAACS	3	A-K	540	1.4778	0.0745	0.4436	0.3836	0.08		0.0073	0.0109	0.5874	-0.3481	-0.3074	0.3727	0.3106		-0.1105	-0.1152	0.5207	0.1091	-5.4192	0.797	-5.3692	0.799	B+	A-	A-
ELA	3	800669	6	CCAACS	3	B-K	540	1.4778	0.0527	0.4709	0.3945	0.0636		0.0055	0.0127	0.5325	-0.2893	-0.3168	0.3634	0.2664		-0.0521	-0.143	0.5914	0.1175	-2.9891	0.882	-2.9291	0.8843	A+	NA	A+
ELA	3	805832	7	CCAACS	3	B-C	535	1.2598	0.1239	0.5137	0.2969	0.0401		0.0055	0.02	0.5775	-0.3742	-0.1484	0.3757	0.2996		-0.0502	-0.2086	0.8029	0.0938	-5.0792	0.8104	-5.0692	0.8115	A+	A-	A-
ELA	3	808631	8	CCAACS	3	B-C	540	0.9463	0.3127	0.4436	0.1909	0.0345		0.0018	0.0164	0.5518	-0.4041	0.0105	0.4066	0.2307		-0.066	-0.1339	1.5414	0.0733	-3.2291	0.8744	-3.5891	0.8599	B+	NA	A-
ELA	3	806928	9	CCAACS	3	B-C	542	1.572	0.0818	0.4182	0.3255	0.16		0.0018	0.0127	0.637	-0.3209	-0.3643	0.2585	0.4589		-0.0806	-0.1629	0.3016	0.1061	-4.6292	0.8282	-4.5692	0.8301	A+	NA	A-
MATH	3	715919	0	CCAACS	3	A-T	61820	1.5075	0.1867	0.3345	0.2694	0.1569	0.0338	0.0031	0.0156	0.7699	-0.5489	-0.216	0.2957	0.4443	0.2741	-0.0725	-0.1817	1.1779	0.0292	-9.8992	0.7836	-9.8992	0.7779	A+	A-	A-
MATH	3	743720	0	CCAACS	3	B-O	61289	1.8906	0.1983	0.2159	0.2027	0.2059	0.1501	0.0027	0.0244	0.8213	-0.5848	-0.2347	0.1036	0.3749	0.4907	-0.0717	-0.2273	0.5876	0.0307	-9.8993	0.7409	-9.8992	0.777	A+	A+	A+
MATH	3	652779	0	CCAACS	3	C-G	61637	2.0934	0.1225	0.2027	0.2564	0.2545	0.1423	0.0025	0.019	0.7271	-0.4594	-0.2974	-0.0011	0.3411	0.4367	-0.0726	-0.1968	0.4522	0.0346	-0.739	0.9899	1.541	1.0217	B+	A-	A-
MATH	3	780390	1	CCAACS	2	C-G	516	1.1182	0.36	0.3036	0.1327	0.0873	0.0545	0.0073	0.0545	0.7079	-0.512	0.0666	0.3041	0.3273	0.3707	-0.1062	-0.2447	1.3459	0.0756	-2.0591	0.9079	-2.5791	0.8769	A+	A-	A-
MATH	3	780269	2	CCAACS	3	A-T	544	2.2592	0.1309	0.2109	0.1709	0.2236	0.2527	0.0018	0.0091	0.7716	-0.519	-0.3235	-0.003	0.2018	0.5584	-0.0659	-0.1664	0.4773	0.0945	-3.6691	0.8515	-3.0991	0.8567	A-	A-	A+
MATH	3	784879	3	CCAACS	3	D-M	542	1.8745	0.2109	0.2327	0.1836	0.1855	0.1727	0.0018	0.0127	0.7496	-0.5704	-0.2245	0.1689	0.259	0.4814	-0.0323	-0.1704	0.8407	0.0869	-2.3391	0.9022	-2.9291	0.8607	A+	NA	A+
MATH	3	779962	4	CCAACS	3	D-M	533	1.7805	0.2	0.2782	0.1527	0.2109	0.1273	0.0036	0.0273	0.6937	-0.4246	-0.2073	0.0682	0.3517	0.4343	-0.0746	-0.2794	0.9144	0.0846	0.731	1.0314	0.571	1.0278	A-	A-	A-
MATH	3	737272	5	CCAACS	3	B-O	540	1.6981	0.1836	0.3382	0.1418	0.2273	0.0909	0.0018	0.0164	0.6479	-0.5087	-0.1185	0.1235	0.3616	0.3117	-0.0687	-0.2229	1.1847	0.083	1.4711	1.0634	0.501	1.0227	A+	NA	B-
MATH	3	782067	6	CCAACS	3	B-O	534	1.8015	0.1967	0.1967	0.2113	0.3388	0.0291	0.0018	0.0255	0.7701	-0.5881	-0.2132	0.1544	0.5271	0.2284	-0.0692	-0.1868	1.3426	0.0892	-5.3792	0.7875	-4.6292	0.7879	A+	A+	A-
MATH	3	780270	7	CCAACS	3	C-G	547	2.2834	0.0436	0.2036	0.2764	0.3691	0.1018		0.0055	0.6459	-0.3001	-0.3962	-0.0848	0.3189	0.3801		-0.137	0.3377	0.1489	-1.7491	0.9296	-1.8091	0.9269	A+	A+	A+
MATH	3	779961	8	CCAACS	3	A-T	541	1.6728	0.1782	0.2418	0.3073	0.2364	0.02	0.0018	0.0145	0.7093	-0.5673	-0.2007	0.2493	0.4415	0.1462	-0.0421	-0.1524	1.4485	0.0873	-2.9991	0.8826	-3.3591	0.8643	A+	NA	A-
MATH	3	711592	9	CCAACS	3	A-F	546	1.1648	0.2527	0.5091	0.0945	0.0873	0.0491	0.0018	0.0055	0.6259	-0.4763	-0.0047	0.2108	0.3227	0.3155	-0.0775	-0.1125	1.6233	0.0785	-3.6492	0.8291	-3.5392	0.8303	A-	NA	A-
MATH	4	737273	0	CCAACS	3	A-T	58590	1.8403	0.2389	0.1889	0.2268	0.1523	0.1785	0.0023	0.0122	0.7772	-0.6094	-0.1543	0.1126	0.2584	0.5244	-0.0611	-0.16	0.4524	0.0288	-1.709	0.9758	0.321	1.0053	A+	A-	A-
MATH	4	628162	0	CCAACS	3	B-O	58025	1.6645	0.2315	0.2306	0.2177	0.226	0.0701	0.0037	0.0203	0.7952	-0.5948	-0.1678	0.1618	0.4501	0.3837	-0.069	-0.1929	0.5803	0.0305	-9.8992	0.8382	-9.8992	0.8452	A+	A+	A-
MATH	4	737280	0	CCAACS	3	C-G	57624	1.5889	0.2534	0.2521	0.2228	0.1211	0.1197	0.0044	0.0264	0.7524	-0.5551	-0.1219	0.2003	0.3174	0.4552	-0.076	-0.2199	0.6297	0.0285	-0.899	0.9872	-0.009	0.9998	A+	A-	A-
MATH	4	782070	1	CCAACS	3	B-O	527	1.3529	0.2164	0.4418	0.1127	0.12	0.0673	0.0055	0.0364	0.7214	-0.4701	-0.1071	0.2044	0.4088	0.3851	-0.0751	-0.2226	0.748	0.0844	-2.6391	0.8844	-2.9891	0.865	A+	A+	A-
MATH	4	785328	2	CCAACS	2	A-T	544	1.9136	0.1636	0.2745	0.1073	0.3709	0.0727	0.0018	0.0091	0.6904	-0.5338	-0.1956	0.0512	0.4129	0.3338	-0.0629	-0.1528	0.7509	0.0909	2.0111	1.0865	2.7311	1.1372	A-	A-	A+
MATH	4	782069	3	CCAACS	3	A-F	535	1.7963	0.2127	0.2618	0.1491	0.2091	0.14	0.0073	0.02	0.7788	-0.5698	-0.1765	0.112	0.3513	0.4774	-0.1084	-0.2029	0.6301	0.0843	-3.2291	0.866	-2.4991	0.881	A+	NA	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	4	780391	4	CCAACS	3	A-T	542	2.3727	0.0436	0.1673	0.3036	0.32	0.1509	0.0036	0.0109	0.6528	-0.3762	-0.38	-0.0462	0.2815	0.3647	-0.0466	-0.1846	0.0733	0.134	-1.129	0.9539	-0.769	0.9682	A+	NA	B-
MATH	4	737274	5	CCAACS	3	D-M	549	1.2787	0.3073	0.36	0.1473	0.1127	0.0709	0.0018		0.6808	-0.563	-0.0728	0.3173	0.336	0.3091	-0.0786		1.5249	0.0742	-2.8791	0.8724	-3.3092	0.8406	A+	NA	A-
MATH	4	780271	6	CCAACS	3	B-O	535	1.8542	0.1091	0.3	0.2545	0.2418	0.0673	0.0073	0.02	0.7307	-0.3919	-0.3292	0.0751	0.4862	0.3219	-0.1551	-0.2525	0.8572	0.0912	-5.8892	0.7776	-6.1292	0.7664	A+	NA	A-
MATH	4	780272	7	CCAACS	3	D-M	547	1.6856	0.0691	0.5236	0.1691	0.1164	0.1164		0.0055	0.7261	-0.3751	-0.4317	0.1646	0.3285	0.4736		-0.1102	0.8414	0.094	-5.6792	0.7633	-5.7092	0.7504	A-	NA	NA
MATH	4	784881	8	CCAACS	2	C-G	546	1.5842	0.2527	0.26	0.2182	0.1709	0.0909	0.0018	0.0055	0.7368	-0.5472	-0.1846	0.1681	0.3901	0.3923	-0.0621	-0.1037	1.0216	0.0811	-2.1791	0.9098	-2.4691	0.8908	C+	NA	C-
MATH	4	784880	9	CCAACS	3	A-F	545	1.6037	0.2764	0.2655	0.1364	0.2	0.1127		0.0091	0.7399	-0.5913	-0.115	0.1379	0.3931	0.4002		-0.167	1.0315	0.0791	-2.5391	0.892	-2.3991	0.8804	A+	A-	A+
MATH	5	738845	0	CCAACS	3	A-T	65163	1.8383	0.1538	0.2801	0.2284	0.2109	0.109	0.0024	0.0154	0.7599	-0.4696	-0.3254	0.1065	0.3914	0.434	-0.0614	-0.1714	0.5825	0.031	-6.4191	0.9155	-6.1491	0.9168	A+	A-	A-
MATH	5	577938	0	CCAACS	2	B-O	65021	1.9701	0.1909	0.2145	0.1884	0.2053	0.1808	0.0033	0.0167	0.7572	-0.5035	-0.2516	0.0142	0.2886	0.5318	-0.069	-0.1691	0.1464	0.0316	1.141	1.0158	6.1711	1.0983	B+	A+	A+
MATH	5	737282	0	CCAACS	3	D-M	65726	1.3999	0.2007	0.4117	0.2425	0.053	0.0827	0.0019	0.0075	0.7547	-0.504	-0.232	0.3388	0.2689	0.4481	-0.0533	-0.1228	0.9899	0.0276	-9.8992	0.8117	-9.8992	0.8168	A+	A-	A-
MATH	5	784882	1	CCAACS	3	A-T	588	1.8384	0.2	0.238	0.195	0.1967	0.1421	0.0017	0.0264	0.7839	-0.4789	-0.2801	0.0083	0.3654	0.5398	0.0131	-0.1665	0.1571	0.0879	-4.9292	0.811	-3.7992	0.8422	A+	A-	A-
MATH	5	780273	2	CCAACS	3	A-F	596	1.4346	0.1917	0.3537	0.2992	0.1008	0.0397	0.0066	0.0083	0.6071	-0.4159	-0.1556	0.2408	0.3184	0.2731	-0.1245	-0.1239	1.2301	0.0848	1.6211	1.0683	1.4111	1.0588	A+	A-	A+
MATH	5	782072	3	CCAACS	3	D-M	592	1.9054	0.2562	0.195	0.1405	0.1587	0.2281	0.0017	0.0198	0.7372	-0.5193	-0.2334	0.0723	0.2309	0.5495	-0.0563	-0.1339	0.5325	0.0824	-0.609	0.9725	-0.819	0.9529	A+	NA	NA
MATH	5	780394	4	CCAACS	3	C-G	590	1.7169	0.1917	0.2777	0.2347	0.157	0.114	0.0033	0.0215	0.647	-0.4557	-0.1945	0.1572	0.3215	0.3538	-0.0557	-0.1817	0.7531	0.0846	3.4011	1.1457	2.6511	1.1162	A+	A-	A-
MATH	5	785331	5	CCAACS	3	B-O	604	1.5993	0.0447	0.5215	0.2566	0.144	0.0331			0.6315	-0.3247	-0.4321	0.2398	0.3869	0.2366			1.0231	0.1483	-1.9691	0.9092	-2.0991	0.8907	A+	NA	A-
MATH	5	779965	6	CCAACS	3	A-F	598	0.9448	0.395	0.3851	0.1091	0.0661	0.0331		0.0116	0.6575	-0.5289	0.0814	0.3362	0.3243	0.27		-0.1379	1.7457	0.0716	-2.0391	0.9018	-2.7491	0.8677	A-	A-	A-
MATH	5	780393	7	CCAACS	3	B-O	600	1.7183	0.1636	0.3339	0.2281	0.1504	0.1157	0.0017	0.0066	0.6758	-0.3897	-0.2916	0.0895	0.2966	0.4595	-0.0533	-0.0827	0.71	0.085	0.051	1.0016	-0.409	0.9811	A+	A-	A+
MATH	5	738846	8	CCAACS	3	D-M	599	1.7212	0.2595	0.2314	0.1983	0.1273	0.1736	0.0017	0.0083	0.7617	-0.6095	-0.1158	0.1147	0.2805	0.5087	-0.0714	-0.1435	0.7853	0.0792	-4.3892	0.8189	-5.0092	0.7618	A-	NA	A+
MATH	5	737276	9	CCAACS	3	C-G	604	1.6921	0.1372	0.3669	0.2215	0.2116	0.0612		0.0017	0.7206	-0.4507	-0.3496	0.1678	0.4391	0.3215		-0.0622	0.9852	0.0913	-4.5592	0.8185	-4.3992	0.8209	A+	A-	NA
MATH	6	760060	0	CCAACS	3	A-N	67502	1.814	0.1906	0.2364	0.2236	0.1969	0.1203	0.0046	0.0277	0.7652	-0.4931	-0.2617	0.0898	0.3957	0.4512	-0.0701	-0.1946	0.6855	0.0291	-4.3591	0.9415	-3.169	0.9547	A+	A+	A+
MATH	6	738930	0	CCAACS	3	A-R	69158	1.588	0.2886	0.2294	0.1581	0.2325	0.0828	0.0018	0.0068	0.7996	-0.6285	-0.1318	0.121	0.4356	0.4453	-0.0506	-0.104	0.8003	0.0276	-9.1891	0.8757	-7.5991	0.884	A-	A+	A+
MATH	6	480016	0	CCAACS	3	D-S	68329	1.2568	0.2939	0.3543	0.1715	0.1054	0.0544	0.0034	0.017	0.7805	-0.5638	-0.0852	0.277	0.4166	0.3944	-0.0624	-0.1591	1.3604	0.0259	-9.8992	0.7757	-9.8993	0.7485	A-	A-	A-
MATH	6	738732	1	CCAACS	3	A-R	634	1.3943	0.3167	0.2894	0.0515	0.2652	0.0379	0.0061	0.0333	0.7604	-0.5095	-0.1554	0.13	0.5893	0.3062	-0.0841	-0.1855	1.0416	0.0768	-4.5092	0.8114	-4.5792	0.7681	A-	A-	A-
MATH	6	799632	2	CCAACS	3	B-E	650	1.9431	0.2182	0.1803	0.2197	0.1727	0.1939	0.003	0.0121	0.755	-0.4916	-0.2861	0.0424	0.2488	0.5557	-0.0964	-0.119	0.7419	0.0855	-3.0391	0.8764	-3.5292	0.8371	A+	NA	NA
MATH	6	800681	3	CCAACS	3	A-N	645	1.3256	0.3333	0.3197	0.0955	0.1303	0.0985	0.003	0.0197	0.7181	-0.5001	-0.1009	0.1956	0.3767	0.4325	-0.0585	-0.195	1.3679	0.0746	-1.6191	0.9241	-2.5791	0.8667	A-	A-	A-
MATH	6	737284	4	CCAACS	3	D-S	651	1.7481	0.1879	0.2773	0.2227	0.1924	0.1061	0.0015	0.0121	0.7821	-0.4547	-0.3656	0.1472	0.4035	0.4609	-0.0681	-0.1673	0.9281	0.0825	-7.3793	0.7221	-7.3493	0.7112	A+	A-	A-
MATH	6	782559	5	CCAACS	3	B-E	644	2.3525	0.1379	0.1545	0.1894	0.2136	0.2803	0.0106	0.0136	0.7291	-0.4342	-0.2859	-0.1434	0.1997	0.573	-0.1346	-0.1401	0.3185	0.0908	-3.0791	0.8739	-1.7991	0.9106	A+	NA	A-
MATH	6	785332	6	CCAACS	3	A-R	643	2.2519	0.1152	0.2091	0.1636	0.2879	0.1985	0.0091	0.0167	0.66	-0.3865	-0.2542	-0.1287	0.2431	0.4845	-0.0587	-0.1827	0.4446	0.0942	-0.209	0.9908	-0.499	0.977	A+	A+	NA
MATH	6	707092	7	CCAACS	3	C-G	642	1.4486	0.2337	0.3657	0.1684	0.1168	0.0895	0.0061	0.0197	0.7501	-0.5055	-0.1455	0.1658	0.3622	0.4617	-0.0534	-0.1585	1.1859	0.0773	-4.7692	0.8031	-5.4492	0.7661	A+	A-	A+
MATH	6	785333	8	CCAACS	3	C-G	656	1.4893	0.1621	0.5136	0.0591	0.1879	0.0712	0.0015	0.0045	0.6695	-0.3956	-0.2727	0.15	0.44	0.3341	-0.0726	-0.1221	1.2413	0.0841	0.031	1.0005	-0.319	0.9828	A+	NA	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
MATH	6	782062	9	CCAACS	3	D-S	654	1.5428	0.1242	0.3742	0.3955	0.0242	0.0727	0.003	0.0061	0.6452	-0.4125	-0.2698	0.3009	0.1713	0.3877	-0.0276	-0.0774	1.1491	0.0911	-2.3091	0.9008	-2.4991	0.8895	A-	A-	NA
MATH	7	658146	0	CCAACS	3	A-R	67894	1.4544	0.2953	0.2643	0.1829	0.1579	0.0808	0.0036	0.015	0.8189	-0.5996	-0.1663	0.2239	0.4354	0.447	-0.0622	-0.136	0.5631	0.027	-9.8992	0.8113	-9.8992	0.8111	A+	A+	A+
MATH	7	560139	0	CCAACS	2	B-E	67301	1.0141	0.4048	0.3008	0.1497	0.0836	0.0339	0.0066	0.0207	0.8074	-0.6451	0.0746	0.3638	0.4303	0.3373	-0.0747	-0.151	1.3864	0.025	-9.8993	0.718	-9.8993	0.6927	A-	A-	A-
MATH	7	745400	0	CCAACS	3	C-G	67133	1.2515	0.3576	0.2888	0.1292	0.1115	0.0831	0.0061	0.0235	0.7885	-0.5692	-0.072	0.2385	0.3938	0.4736	-0.072	-0.1561	0.9215	0.0251	-9.8992	0.837	-9.8992	0.799	A+	A-	A-
MATH	7	785335	1	CCAACS	3	D-S	615	1.0374	0.45	0.2348	0.0652	0.1258	0.0561	0.0136	0.0545	0.8019	-0.5682	0.0338	0.195	0.5279	0.4126	-0.0985	-0.1687	0.914	0.0753	-4.6692	0.7789	-4.4993	0.7321	A+	A-	A-
MATH	7	800683	2	CCAACS	3	A-N	631	1.6355	0.1864	0.347	0.1773	0.1197	0.1258	0.0061	0.0379	0.7347	-0.4562	-0.2518	0.1967	0.3454	0.4534	-0.0745	-0.1795	0.6358	0.0792	-1.4691	0.936	-2.1391	0.9014	A-	A-	NA
MATH	7	782064	3	CCAACS	3	B-E	627	1.2153	0.3652	0.2909	0.1106	0.0909	0.0924	0.0091	0.0409	0.7289	-0.5572	0.0389	0.264	0.2465	0.4854	-0.0806	-0.182	1.1688	0.0736	-0.089	0.9947	0.041	1.0009	A+	A-	A-
MATH	7	799633	4	CCAACS	3	A-R	642	1.9704	0.1455	0.2379	0.303	0.0727	0.2136	0.003	0.0242	0.713	-0.4538	-0.2687	0.099	0.1838	0.5303	-0.069	-0.2104	0.2077	0.0854	-3.9292	0.845	-2.5291	0.8808	A+	A-	A-
MATH	7	785334	5	CCAACS	3	B-E	641	1.4009	0.3809	0.176	0.1669	0.1426	0.1062	0.0121	0.0152	0.8175	-0.6621	-0.0412	0.2	0.3636	0.5136	-0.0656	-0.1279	0.984	0.0788	-7.0893	0.7034	-6.8494	0.6424	A+	A-	A-
MATH	7	799634	6	CCAACS	3	C-G	652	0.9908	0.4485	0.3258	0.0621	0.0773	0.0742	0.003	0.0091	0.7136	-0.6069	0.1448	0.1852	0.3238	0.4382	-0.0493	-0.099	1.442	0.0722	-3.0292	0.8444	-4.0192	0.7808	A+	NA	A-
MATH	7	782561	7	CCAACS	3	D-S	638	2.1897	0.0636	0.2727	0.297	0.0833	0.25	0.0061	0.0273	0.7203	-0.283	-0.3686	-0.1107	0.1864	0.6185	-0.0877	-0.1759	-0.1436	0.1053	-3.8292	0.8444	-2.1791	0.883	A+	A-	B-
MATH	7	782063	8	CCAACS	3	A-R	647	1.7156	0.2242	0.2788	0.1939	0.1182	0.1652	0.003	0.0167	0.7719	-0.5361	-0.1949	0.114	0.2406	0.5679	-0.0318	-0.1632	0.4683	0.08	-3.0191	0.8714	-3.5492	0.8273	A-	A-	A-
MATH	7	780397	9	CCAACS	3	C-G	629	1.7599	0.1985	0.2258	0.2333	0.197	0.0985	0.0121	0.0348	0.7419	-0.4856	-0.1654	0.0282	0.4011	0.4565	-0.0873	-0.1914	0.7008	0.0814	-3.3191	0.8675	-3.6892	0.8457	A+	A-	A-
MATH	8	759415	0	CCAACS	2	A-N	65108	1.5935	0.1384	0.3841	0.1926	0.1425	0.0706	0.0122	0.0597	0.7319	-0.3694	-0.2517	0.1972	0.3824	0.4366	-0.1067	-0.2599	0.6032	0.027	-6.8691	0.9038	-6.6591	0.9038	A+	A+	A+
MATH	8	494645	0	CCAACS	2	B-E	67009	1.448	0.303	0.2503	0.1697	0.1358	0.0966	0.0103	0.0344	0.7852	-0.5369	-0.1251	0.2146	0.3705	0.4841	-0.1078	-0.2121	0.4479	0.0259	-9.8992	0.8427	-9.8992	0.8354	A+	A-	A-
MATH	8	743719	0	CCAACS	3	C-G	69400	1.6261	0.18	0.3656	0.179	0.1737	0.091	0.0034	0.0072	0.7933	-0.4933	-0.3225	0.1748	0.4273	0.4477	-0.0685	-0.1043	0.3326	0.0275	-9.8992	0.7795	-9.8992	0.7873	A-	A-	A-
MATH	8	713934	1	CCAACS	3	B-F	588	0.9099	0.4439	0.2394	0.097	0.0652	0.0455	0.0121	0.097	0.7817	-0.4769	0.1233	0.2965	0.3945	0.4445	-0.0748	-0.2878	1.0792	0.0727	-6.8993	0.6881	-7.3094	0.6218	A+	A-	A+
MATH	8	785336	2	CCAACS	3	B-E	634	2.1814	0.1533	0.1442	0.2003	0.3035	0.1608	0.0167	0.0212	0.6865	-0.4552	-0.2148	-0.0618	0.3003	0.4495	-0.1383	-0.1481	-0.0621	0.0902	-2.8891	0.884	-2.2191	0.9016	A+	A-	A-
MATH	8	737635	3	CCAACS	3	A-N	634	1.7839	0.1515	0.3	0.2227	0.1773	0.1091	0.0076	0.0318	0.7472	-0.4382	-0.2788	0.1108	0.323	0.4953	-0.0591	-0.193	0.1572	0.0881	-5.2092	0.7997	-5.6692	0.7732	A+	A+	NA
MATH	8	782562	4	CCAACS	3	B-E	637	1.6279	0.2364	0.2197	0.2258	0.2333	0.05	0.0061	0.0288	0.7686	-0.569	-0.1158	0.1288	0.4764	0.3527	-0.0968	-0.2092	0.7638	0.0798	-6.2192	0.7612	-6.1093	0.7388	A+	A-	A-
MATH	8	655438	5	CCAACS	3	D-S	631	1.187	0.2485	0.4545	0.1348	0.0621	0.0561	0.0121	0.0318	0.667	-0.3962	-0.0854	0.3156	0.3424	0.3416	-0.1097	-0.2465	1.0759	0.0751	-2.3891	0.8876	-3.4292	0.8452	A+	A-	NA
MATH	8	799636	6	CCAACS	3	D-S	649	1.7257	0.0864	0.3894	0.2682	0.1864	0.053	0.0091	0.0076	0.7088	-0.3302	-0.404	0.1218	0.4676	0.3322	-0.1114	-0.117	0.4527	0.1035	-4.0492	0.8423	-4.2192	0.835	A+	A-	NA
MATH	8	780400	7	CCAACS	3	B-F	620	1.4177	0.2318	0.3515	0.1485	0.147	0.0606	0.0121	0.0485	0.7697	-0.4728	-0.1573	0.2814	0.4434	0.3688	-0.1087	-0.2724	0.8395	0.0777	-5.7492	0.7706	-6.3593	0.7396	A+	A-	A-
MATH	8	782066	8	CCAACS	3	C-G	612	1.0817	0.3682	0.2939	0.1318	0.0879	0.0455	0.0227	0.05	0.6763	-0.4215	-0.0067	0.312	0.3701	0.3303	-0.1286	-0.246	1.3436	0.073	-1.9391	0.9103	-2.7491	0.8608	A+	A-	A-
MATH	8	737636	9	CCAACS	3	C-G	646	1.5913	0.2261	0.3187	0.1866	0.1275	0.1214	0.0076	0.0121	0.7836	-0.4874	-0.2597	0.1624	0.3304	0.5346	-0.0999	-0.1326	0.5481	0.0772	-6.8193	0.7265	-6.4093	0.717	A+	A-	A-
SCIENCE	5	785673	1	STEELS	3	1	1456	1.3977	0.2528	0.2502	0.2812	0.1769		0.0073	0.0317	0.8243	-0.5905	-0.1326	0.2889	0.61		-0.1078	-0.2253	0.2576	0.0659	-7.1392	0.7823	-7.0292	0.767	A+	A+	A-
SCIENCE	5	800422	1	STEELS	2	2	1433	0.9895	0.402	0.2436	0.2086	0.0917		0.0079	0.0462	0.7917	-0.6234	0.127	0.4489	0.4543		-0.0962	-0.2567	0.8747	0.061	-5.5292	0.8166	-6.4493	0.7436	A+	A-	A-
SCIENCE	5	782210	1	STEELS	2	3	1474	0.6418	0.5452	0.2746	0.0931	0.0531		0.0072	0.0269	0.5838	-0.4645	0.2812	0.2871	0.3232		-0.1212	-0.2464	1.3879	0.0593	4.5512	1.1996	5.5613	1.3231	A-	A+	A+
SCIENCE	5	800433	1	STEELS	2	5	1443	0.9106	0.3888	0.2766	0.2706	0.0165		0.0079	0.0396	0.7796	-0.6152	0.1255	0.6048	0.2463		-0.1099	-0.2386	1.4946	0.0603	-7.0192	0.7871	-6.7392	0.76	A-	A-	A+

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	785674	2	STEELS	3	1	1489	1.3694	0.3259	0.212	0.1968	0.2456		0.0066	0.0132	0.7843	-0.6126	-0.082	0.2245	0.6123		-0.1376	-0.1849	0.4713	0.0648	-5.1392	0.8392	-4.6392	0.8131	A-	A+	A-
SCIENCE	5	800420	2	STEELS	2	2	1493	1.2237	0.2224	0.367	0.3492	0.0469		0.002	0.0125	0.6382	-0.5058	-0.0496	0.4383	0.2566		-0.0878	-0.2251	0.9774	0.0682	-0.149	0.9948	-0.589	0.98	A+	A-	A+
SCIENCE	5	800425	2	STEELS	2	3	1492	1.1012	0.3485	0.2805	0.2634	0.0924		0.002	0.0132	0.6649	-0.5531	0.0396	0.3937	0.3484		-0.0645	-0.2249	0.9553	0.0619	4.5212	1.1545	3.6011	1.1425	A-	A-	A-
SCIENCE	5	800474	2	STEELS	2	5	1496	2.4332	0.0634	0.0838	0.202	0.6383		0.0026	0.0099	0.6852	-0.4657	-0.3012	-0.1732	0.6094		-0.1081	-0.2101	-0.9429	0.1133	-3.3891	0.8558	-2.4792	0.8456	A+	A-	A-
SCIENCE	5	785672	3	STEELS	3	1	1491	1.729	0.136	0.2026	0.4376	0.2079		0.002	0.0139	0.7285	-0.5244	-0.235	0.2261	0.4817		-0.0986	-0.2483	-0.0314	0.0809	-0.709	0.9761	-0.489	0.9828	A+	A+	A+
SCIENCE	5	781858	3	STEELS	2	2	1481	1.6813	0.1901	0.204	0.3109	0.2726		0.0033	0.0191	0.7898	-0.5984	-0.1778	0.2167	0.5585		-0.0777	-0.2784	0.0269	0.0729	-4.4891	0.8603	-4.1291	0.8558	A-	A+	A-
SCIENCE	5	800473	3	STEELS	2	5	1513	1.9412	0.0535	0.1248	0.6475	0.1729		0.0007	0.0007	0.6507	-0.4637	-0.3387	0.1631	0.3739		-0.0605	-0.0605	-0.4592	0.1213	-3.4291	0.8631	-3.7692	0.8451	A-	B-	A-
SCIENCE	5	800471	4	STEELS	3	2	1484	1.6193	0.2271	0.2033	0.2647	0.2845		0.0046	0.0158	0.7856	-0.62	-0.152	0.2182	0.5744		-0.1172	-0.2126	0.1859	0.07	-5.1392	0.8403	-4.3092	0.8421	A-	A-	A-
SCIENCE	5	783180	4	STEELS	3	3	1490	1.7356	0.1875	0.198	0.2851	0.3129		0.0046	0.0119	0.7743	-0.5993	-0.1886	0.1359	0.5927		-0.1202	-0.175	0.0253	0.0742	-5.1392	0.8393	-4.3492	0.8418	A+	A+	A+
SCIENCE	5	782212	4	STEELS	3	5	1494	1.9016	0.1624	0.1663	0.2634	0.3941		0.004	0.0099	0.7666	-0.5542	-0.2806	0.0584	0.6278		-0.1112	-0.1683	-0.189	0.0786	-2.8291	0.9057	-2.7991	0.884	A+	A-	A-
SCIENCE	5	737290	5	STEELS	2	3	1511	1.6559	0.2046	0.2165	0.2937	0.2825		0.0013	0.0013	0.7692	-0.5937	-0.2431	0.1893	0.5732		-0.067	-0.0612	0.0332	0.074	-7.0292	0.7847	-6.9592	0.7632	A-	A-	A-
SCIENCE	5	800427	5	STEELS	2	3	1490	1.5577	0.2007	0.2436	0.3294	0.2099		0.002	0.0145	0.7487	-0.5386	-0.2351	0.2959	0.5071		-0.0774	-0.2132	0.2108	0.0722	-4.6191	0.8563	-3.9091	0.8696	A-	A+	A+
SCIENCE	5	800449	5	STEELS	2	4	1486	1.6689	0.1624	0.2383	0.3419	0.2383		0.0033	0.0158	0.7549	-0.5284	-0.2453	0.2056	0.5502		-0.0914	-0.2187	0.0498	0.0765	-7.4392	0.7749	-7.4992	0.7613	A-	A-	A-
SCIENCE	5	800431	5	STEELS	2	5	1491	1.9504	0.0831	0.2131	0.3569	0.3305			0.0165	0.7229	-0.4168	-0.3559	0.0388	0.5847			-0.2577	-0.3784	0.0961	-2.3291	0.9224	-1.9491	0.9305	A+	A+	A+
SCIENCE	5	782209	6	STEELS	3	2	1476	1.3957	0.229	0.2851	0.3056	0.1545		0.0053	0.0205	0.6736	-0.5097	-0.0869	0.3128	0.4215		-0.1218	-0.2416	0.4451	0.0681	-2.1891	0.9302	-2.4791	0.9165	A-	A+	A-
SCIENCE	5	800441	6	STEELS	3	3	1514	2.1737	0.0673	0.1768	0.2698	0.4848		0.0007	0.0007	0.7094	-0.4763	-0.376	-0.0523	0.5785		-0.0619	-0.0619	-0.7483	0.1123	0.561	1.0202	0.931	1.0427	A-	B-	A-
SCIENCE	5	800448	6	STEELS	3	4	1495	1.7371	0.2013	0.1881	0.266	0.3314		0.0026	0.0106	0.7294	-0.6003	-0.1486	0.1636	0.5342		-0.1032	-0.1922	-0.0591	0.0741	-0.529	0.9818	-0.839	0.9661	A+	A-	A-
SCIENCE	5	738694	6	STEELS	3	5	1472	1.8736	0.13	0.1518	0.4007	0.2891		0.0026	0.0257	0.6759	-0.4644	-0.2389	0.1442	0.4878		-0.1032	-0.2815	-0.1845	0.0817	-0.349	0.9875	-0.349	0.9866	A+	A-	A-
SCIENCE	5	737151	7	STEELS	2	3	1487	1.4001	0.2026	0.3386	0.2851	0.1551		0.0007	0.0178	0.6636	-0.4291	-0.1995	0.2973	0.4596		-0.0499	-0.245	0.5219	0.0708	-0.549	0.9818	-0.919	0.9691	A+	A-	A+
SCIENCE	5	800426	7	STEELS	3	3	1492	1.4665	0.2554	0.237	0.27	0.2224		0.0013	0.0139	0.752	-0.5657	-0.1749	0.2724	0.5406		-0.0283	-0.202	0.4364	0.0686	-5.0092	0.8461	-4.9892	0.8239	A-	A-	A-
SCIENCE	5	800432	7	STEELS	2	5	1499	2.054	0.134	0.1419	0.2502	0.4634		0.0007	0.0099	0.7311	-0.5312	-0.2721	-0.0333	0.6212		-0.0243	-0.1897	-0.347	0.0871	-3.5691	0.8732	-3.3292	0.8488	A+	A-	A-
SCIENCE	5	747960	8	STEELS	2	1	1486	2.5303	0.0429	0.0686	0.1947	0.6746		0.0053	0.0139	0.5767	-0.3888	-0.2466	-0.1651	0.519		-0.149	-0.2213	-1.0198	0.1227	0.181	1.0079	2.7812	1.2133	A+	A-	A+
SCIENCE	5	783178	8	STEELS	2	2	1502	1.5379	0.1934	0.2686	0.332	0.1974		0.0007	0.0079	0.6856	-0.5337	-0.164	0.2601	0.4497		-0.0561	-0.1869	0.4384	0.0747	2.6711	1.0902	2.2311	1.0787	A+	A-	A-
SCIENCE	5	785675	8	STEELS	3	4	1486	0.8311	0.4983	0.2429	0.1465	0.0931		0.002	0.0172	0.6638	-0.5376	0.1494	0.3315	0.4214		-0.0973	-0.2359	1.4521	0.0612	-2.5791	0.9065	-1.9291	0.9011	A-	B-	B-
SCIENCE	8	800439	1	STEELS	2	2	1432	0.662	0.5155	0.2387	0.1361	0.0335		0.0123	0.0639	0.6397	-0.4071	0.2259	0.4313	0.2919		-0.1403	-0.3185	1.4044	0.0601	2.4411	1.0993	2.1011	1.1121	A+	A+	A+
SCIENCE	8	783644	1	STEELS	2	3	1508	1.5285	0.1542	0.2858	0.3974	0.1355		0.0045	0.0226	0.7276	-0.4836	-0.2512	0.3616	0.4491		-0.1073	-0.2379	-0.0212	0.0726	-2.9291	0.9098	-2.8991	0.9088	A-	A-	A-
SCIENCE	8	783647	1	STEELS	2	4	1474	1.536	0.1948	0.2548	0.2981	0.2032		0.0058	0.0432	0.7571	-0.5043	-0.1659	0.2741	0.5437		-0.1105	-0.3133	-0.0571	0.0672	-2.0591	0.9351	-1.319	0.9549	A+	A+	A+
SCIENCE	8	800450	1	STEELS	3	5	1437	1.3069	0.2852	0.2471	0.22	0.1748		0.0103	0.0626	0.8018	-0.5589	0.0019	0.32	0.5629		-0.1308	-0.337	0.2621	0.0621	-7.3092	0.7717	-7.1893	0.745	A-	A+	A-
SCIENCE	8	800437	2	STEELS	2	1	1475	0.5044	0.5942	0.2606	0.071	0.0258		0.0103	0.0381	0.6291	-0.4643	0.3727	0.3469	0.2678		-0.1347	-0.2795	1.6799	0.0595	-1.6591	0.9256	-3.5892	0.8085	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(0)	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit-Z	Infit-MS	Outfit-Z	Outfit-MS	M/F	W/B	W/H
SCIENCE	8	783642	2	STEELS	2	2	1452	1.6329	0.1929	0.2097	0.2826	0.2516		0.0135	0.0497	0.771	-0.5143	-0.1588	0.2469	0.5692		-0.169	-0.3271	-0.0104	0.0687	-3.4391	0.8908	-2.7491	0.9012	A+	A+	A+
SCIENCE	8	800429	2	STEELS	2	3	1474	1.483	0.1858	0.2916	0.3019	0.1716		0.011	0.0381	0.7136	-0.4947	-0.1143	0.304	0.474		-0.159	-0.2997	0.1569	0.0685	0.711	1.0226	0.691	1.0229	A-	A+	A+
SCIENCE	8	783648	2	STEELS	2	5	1441	1.4004	0.2523	0.2368	0.2568	0.1839		0.0174	0.0529	0.7743	-0.5138	-0.0811	0.329	0.539		-0.181	-0.3181	0.3	0.0644	-3.3591	0.8932	-3.2291	0.883	A+	A-	A-
SCIENCE	8	783167	3	STEELS	3	1	1498	1.1789	0.2987	0.2994	0.2652	0.1032		0.0084	0.0252	0.6957	-0.5074	-0.0114	0.3768	0.417		-0.15	-0.2686	0.5445	0.0615	1.011	1.0328	0.441	1.0149	A+	A+	A+
SCIENCE	8	800423	3	STEELS	2	2	1497	2.018	0.0981	0.1523	0.3497	0.3658		0.009	0.0252	0.713	-0.4608	-0.2791	0.0483	0.5638		-0.1589	-0.2699	-0.6119	0.0837	-2.1891	0.9281	-2.0591	0.9217	A+	A+	A+
SCIENCE	8	783643	3	STEELS	3	3	1518	1.251	0.3658	0.2142	0.1871	0.2123		0.0052	0.0155	0.7492	-0.5995	-0.0122	0.2565	0.5617		-0.1282	-0.2164	0.2938	0.0618	-1.199	0.9599	-0.999	0.9573	A-	A-	A-
SCIENCE	8	800475	3	STEELS	3	5	1459	1.2769	0.2645	0.2658	0.2968	0.1142		0.0129	0.0458	0.7125	-0.5278	0.0361	0.3676	0.4141		-0.1592	-0.3102	0.4647	0.0624	-1.009	0.9677	-1.089	0.9625	A-	A+	A+
SCIENCE	8	800418	4	STEELS	2	1	1487	1.9563	0.0671	0.2219	0.3561	0.3142		0.0077	0.0329	0.72	-0.4009	-0.3346	0.1	0.5619		-0.151	-0.3147	-0.5279	0.0903	-3.7691	0.8794	-3.3391	0.8858	A+	A+	A+
SCIENCE	8	800438	4	STEELS	3	2	1446	1.2828	0.2639	0.2794	0.2516	0.1381		0.0161	0.051	0.7521	-0.5072	-0.0157	0.3703	0.478		-0.1704	-0.3342	0.535	0.0635	-3.8191	0.8782	-4.4592	0.8446	A-	A-	A-
SCIENCE	8	801742	4	STEELS	3	3	1482	1.8509	0.1484	0.2181	0.2174	0.3723		0.011	0.0329	0.7795	-0.4816	-0.2809	0.1067	0.653		-0.1664	-0.3092	-0.3242	0.0749	-3.3891	0.8887	-2.4991	0.8969	A+	A+	A+
SCIENCE	8	800434	4	STEELS	2	5	1463	0.9508	0.4374	0.2232	0.1755	0.1077		0.0103	0.0458	0.7567	-0.552	0.151	0.3935	0.4641		-0.1445	-0.3251	0.9348	0.061	-2.9091	0.8987	-2.9491	0.8617	A-	A-	A-
SCIENCE	8	800472	5	STEELS	3	2	1459	0.4071	0.6671	0.1884	0.0626	0.0232		0.0123	0.0465	0.6538	-0.4421	0.3488	0.3843	0.3123		-0.1094	-0.2666	2.0164	0.0649	-2.3791	0.8834	-4.5593	0.6995	A+	A+	A-
SCIENCE	8	783645	5	STEELS	3	3	1503	1.4125	0.2387	0.269	0.2852	0.1768		0.0045	0.0258	0.7484	-0.5335	-0.1352	0.2709	0.5452		-0.096	-0.2303	0.2918	0.0668	3.2111	1.1079	2.9211	1.1063	A-	A-	A+
SCIENCE	8	800430	5	STEELS	2	4	1466	0.4768	0.5935	0.2639	0.0781	0.0103		0.0123	0.0419	0.5681	-0.3998	0.317	0.3591	0.2049		-0.1141	-0.2388	2.2193	0.0604	1.2911	1.0555	0.251	1.0129	A-	A-	A+
SCIENCE	8	781859	5	STEELS	3	5	1480	1.4162	0.2239	0.2865	0.2677	0.1768		0.011	0.0342	0.765	-0.5141	-0.152	0.3002	0.552		-0.1352	-0.2553	0.3036	0.0665	-2.2791	0.927	-2.2491	0.9219	A+	A+	A+
SCIENCE	8	800424	6	STEELS	2	2	1497	1.5351	0.0774	0.4271	0.3284	0.1329		0.0065	0.0277	0.698	-0.3588	-0.337	0.3212	0.4775		-0.1029	-0.2564	-0.0254	0.0856	-3.3791	0.8916	-3.4191	0.8896	A+	A-	A-
SCIENCE	8	783646	6	STEELS	2	3	1477	1.0494	0.3877	0.2548	0.1858	0.1245		0.0077	0.0394	0.7748	-0.5389	0.0352	0.3454	0.5485		-0.1128	-0.2999	0.6973	0.0599	-2.4091	0.918	-2.6591	0.891	A-	A+	A+
SCIENCE	8	809159	6	STEELS	3	4	1485	1.5306	0.1871	0.2871	0.2723	0.2116		0.0026	0.0394	0.7609	-0.4493	-0.2367	0.2244	0.6021		-0.0786	-0.3059	0.0495	0.0681	-4.0791	0.8748	-4.6992	0.8468	A+	A+	A+
SCIENCE	8	800435	6	STEELS	2	5	1468	0.6669	0.4555	0.3735	0.0961	0.0219		0.0084	0.0445	0.6916	-0.4847	0.3201	0.404	0.2989		-0.1276	-0.3136	1.6068	0.0568	-3.5591	0.8679	-4.6092	0.8239	A-	B-	A-
SCIENCE	8	800470	7	STEELS	3	1	1471	1.6105	0.189	0.229	0.2935	0.2374		0.0116	0.0394	0.7125	-0.4922	-0.1254	0.2525	0.4992		-0.1449	-0.3418	-0.0281	0.0671	-3.5191	0.8954	-2.9091	0.9036	A+	A-	A+
SCIENCE	8	800440	7	STEELS	3	2	1461	1.8118	0.1755	0.1194	0.3548	0.2929		0.011	0.0465	0.6661	-0.465	-0.1433	0.2114	0.4705		-0.13	-0.3724	-0.1853	0.0696	-0.369	0.9878	0.591	1.0218	A+	B+	A+
SCIENCE	8	800428	7	STEELS	2	3	1505	1.2565	0.3471	0.211	0.2297	0.1832		0.0052	0.0239	0.7122	-0.5572	0.0012	0.2863	0.4979		-0.1212	-0.2596	0.3373	0.0605	-5.4792	0.8368	-5.3592	0.8069	A-	B-	A-
SCIENCE	8	800436	7	STEELS	2	5	1493	1.8359	0.231	0.1181	0.1923	0.4219		0.0084	0.0284	0.6931	-0.5307	-0.1052	0.0744	0.5875		-0.1295	-0.3011	-0.2841	0.0681	3.3711	1.1123	6.7114	1.3549	A+	A+	A-
SCIENCE	8	737293	8	STEELS	3	1	1488	1.8253	0.1129	0.2574	0.2742	0.3155		0.0077	0.0323	0.777	-0.4916	-0.2873	0.1546	0.6007		-0.1568	-0.3011	-0.3495	0.0794	-3.0991	0.9006	-1.7191	0.9346	A+	A-	A-
SCIENCE	8	740609	8	STEELS	3	2	1468	1.2016	0.2452	0.3877	0.1923	0.1219		0.0097	0.0432	0.6886	-0.4433	0.0041	0.2874	0.479		-0.1713	-0.3172	0.609	0.0634	3.0011	1.1055	3.0811	1.1145	A-	A+	A+
SCIENCE	8	738695	8	STEELS	2	5	1484	1.1597	0.2252	0.4219	0.2426	0.0677		0.0065	0.0361	0.6878	-0.4756	-0.0037	0.4246	0.3484		-0.1431	-0.3087	0.8091	0.0646	0.341	1.0111	-0.089	0.9965	A-	A-	A-
SCIENCE	8	738929	8	STEELS	3	5	1485	1.6862	0.2342	0.1735	0.209	0.3413		0.0077	0.0342	0.8005	-0.5941	-0.1167	0.1446	0.6444		-0.1522	-0.3038	-0.1024	0.0691	-2.4291	0.918	-1.8191	0.916	A+	A+	A-

Text-Dependent Analysis Paper/Pencil Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PublD	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(4)	Proportion 4 Points
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(4)	Correlation 4 Points
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	4	745947	0	CCAACS	3	E	49724	2.0141	0.21	0.4699	0.1813	0.0206	0.0118	0.1063	0.5856	-0.327	0.1741	0.4294	0.1954	-0.1279	-0.4316	0.7598	0.0153	-9.8995	0.5165	-9.8995	0.5169	A+	A-	A-
ELA	4	802454	1	CCAACS	3	E	680	2.0926	0.1787	0.4973	0.1987	0.032	0.016	0.0773	0.6084	-0.367	0.0306	0.469	0.2133	-0.0721	-0.3382	0.7076	0.0428	-9.8994	0.6095	-9.8994	0.6122	B+	A-	A-
ELA	4	802807	2	CCAACS	3	E	677	2.0561	0.2187	0.4453	0.208	0.0307	0.02	0.0773	0.5622	-0.3578	0.1348	0.4161	0.186	-0.1497	-0.3709	0.6486	0.0557	-9.8994	0.6231	-9.8994	0.6227	A+	A-	A-
ELA	4	808973	3	CCAACS	3	E	660	2.0045	0.2427	0.428	0.172	0.0373	0.012	0.108	0.5879	-0.3397	0.1767	0.4199	0.2265	-0.0899	-0.4299	0.7588	0.0483	-9.8994	0.6192	-9.8994	0.6219	A+	B-	B-
ELA	4	805801	4	CCAACS	3	E	695	1.9669	0.2507	0.4787	0.1747	0.0227	0.012	0.0613	0.5766	-0.3569	0.1108	0.4297	0.2086	-0.1446	-0.3297	0.6032	0.0621	-9.8994	0.6194	-9.8994	0.6072	A+	A+	A-
ELA	4	806931	5	CCAACS	3	E	689	1.9898	0.2493	0.4627	0.1733	0.0333	0.012	0.0693	0.5631	-0.3605	0.139	0.3892	0.228	-0.1355	-0.342	0.5874	0.058	-9.8994	0.6324	-9.8994	0.6319	B+	C-	C-
ELA	4	804588	6	CCAACS	3	E	681	1.9971	0.244	0.4467	0.1933	0.024	0.0227	0.0693	0.541	-0.3322	0.0928	0.4074	0.2003	-0.1207	-0.3033	0.7749	0.0521	-9.8993	0.6684	-9.8993	0.6719	A+	A-	B-
ELA	4	803509	7	CCAACS	3	E	685	1.9985	0.2387	0.4733	0.1653	0.036	0.0093	0.0773	0.5242	-0.3111	0.128	0.3579	0.2319	-0.104	-0.3648	0.6808	0.0545	-9.8993	0.668	-9.8993	0.6688	A+	A-	A-
ELA	4	804585	8	CCAACS	3	E	682	1.9575	0.272	0.432	0.1773	0.028	0.008	0.0827	0.5817	-0.3866	0.1989	0.3828	0.2229	-0.1077	-0.3629	0.7117	0.0524	-9.8994	0.6037	-9.8994	0.6055	B+	A-	A-
ELA	4	807270	9	CCAACS	3	E	683	1.9854	0.2733	0.4173	0.18	0.04	0.0213	0.068	0.5852	-0.3441	0.1155	0.4012	0.2715	-0.1619	-0.3478	0.6727	0.0546	-9.8994	0.6204	-9.8994	0.6229	B+	B-	A+
ELA	5	714542	0	CCAACS	3	E	46675	2.0373	0.2028	0.462	0.2044	0.0157	0.0106	0.1044	0.5982	-0.3459	0.149	0.45	0.1835	-0.1135	-0.418	0.6236	0.0175	-9.8993	0.6583	-9.8993	0.6594	A+	A-	A-
ELA	5	806933	1	CCAACS	3	E	606	2.0165	0.2385	0.4281	0.2089	0.0222	0.0119	0.0904	0.6307	-0.3931	0.124	0.4798	0.1979	-0.1039	-0.3724	0.7678	0.0434	-9.8995	0.5345	-9.8995	0.5425	A+	A-	A-
ELA	5	800689	2	CCAACS	3	E	590	1.8983	0.2785	0.4252	0.1511	0.0193	0.0133	0.1126	0.6214	-0.3657	0.2633	0.4242	0.1965	-0.0962	-0.4245	0.8018	0.0504	-9.8994	0.5849	-9.8994	0.5909	A+	C-	B-
ELA	5	805991	3	CCAACS	3	E	626	2.0256	0.2252	0.4785	0.1985	0.0252	0.003	0.0696	0.6549	-0.4256	0.1068	0.4582	0.2476	-0.0685	-0.367	0.5692	0.0595	-9.8994	0.5903	-9.8994	0.5882	A+	B-	A-
ELA	5	806035	4	CCAACS	3	E	594	1.9091	0.2163	0.5363	0.1185	0.0089	0.0163	0.1037	0.6151	-0.3545	0.2953	0.4124	0.1576	-0.1438	-0.4303	1.0456	0.0532	-9.8994	0.5799	-9.8994	0.5747	A+	C-	B-
ELA	5	806007	5	CCAACS	3	E	608	2.0707	0.1896	0.4785	0.2119	0.0207	0.0148	0.0844	0.6475	-0.3977	0.092	0.4806	0.223	-0.1309	-0.3684	0.5346	0.0564	-9.8995	0.5456	-9.8995	0.549	A+	B-	B-
ELA	5	810363	6	CCAACS	3	E	619	1.958	0.1985	0.5644	0.1481	0.0059	0.0089	0.0741	0.524	-0.3179	0.1715	0.3942	0.1218	-0.1182	-0.3684	0.6974	0.0641	-9.6293	0.6624	-9.5993	0.651	B+	A-	A-
ELA	5	801602	7	CCAACS	3	E	608	1.9737	0.2059	0.523	0.1615	0.0104	0.0089	0.0904	0.5152	-0.296	0.1528	0.398	0.1368	-0.0997	-0.3751	0.6979	0.0552	-9.8994	0.6244	-9.8994	0.6314	B+	B-	B-
ELA	5	801607	8	CCAACS	3	E	631	1.8177	0.283	0.5422	0.1067	0.003	0.0104	0.0548	0.5213	-0.3736	0.2719	0.3465	0.0654	-0.1117	-0.2916	1.2878	0.0578	-9.8994	0.6459	-9.8994	0.6431	A+	A-	A-
ELA	5	806037	9	CCAACS	3	E	598	1.9482	0.2178	0.5096	0.1452	0.0133	0.0089	0.1052	0.5745	-0.3351	0.2197	0.4009	0.184	-0.1395	-0.3936	0.8552	0.0528	-9.8994	0.6017	-9.8994	0.5963	A+	C-	B-
ELA	6	747068	0	CCAACS	3	E	44388	2.1523	0.1498	0.5265	0.2181	0.0368	0.0092	0.0596	0.617	-0.3862	0.0086	0.43	0.2603	-0.1133	-0.3473	0.9718	0.0198	-9.8993	0.6783	-9.8993	0.699	A+	A-	A-
ELA	6	800969	1	CCAACS	3	E	568	2.2535	0.0983	0.56	0.2383	0.05	0.0133	0.04	0.5609	-0.3297	-0.1214	0.39	0.2676	-0.1593	-0.2438	0.7003	0.0566	-9.8994	0.6097	-9.8994	0.5942	B+	C-	B-
ELA	6	809361	2	CCAACS	3	E	578	2.2509	0.15	0.455	0.325	0.0333	0.0083	0.0283	0.6333	-0.4266	-0.1327	0.4832	0.2349	-0.1277	-0.2319	0.466	0.0877	-9.8994	0.6183	-9.8994	0.6222	A+	B-	B-
ELA	6	806924	3	CCAACS	3	E	557	2.2226	0.1683	0.4133	0.3183	0.0283	0.0117	0.06	0.6259	-0.3657	-0.121	0.5097	0.2249	-0.0935	-0.2874	0.7656	0.0682	-9.8994	0.6088	-9.8994	0.614	A+	B-	B-
ELA	6	801849	4	CCAACS	3	E	565	2.2106	0.1583	0.4483	0.3133	0.0217	0.015	0.0433	0.6137	-0.4027	-0.0512	0.4701	0.2223	-0.1205	-0.3108	0.694	0.0754	-9.8994	0.602	-9.8994	0.6089	A+	A-	B-
ELA	6	801660	5	CCAACS	3	E	544	2.1893	0.155	0.4533	0.27	0.0283	0.01	0.0833	0.6705	-0.417	-0.0346	0.5052	0.2421	-0.068	-0.324	0.8642	0.0547	-9.8994	0.5548	-9.8994	0.5538	A+	B-	B-
ELA	6	782194	6	CCAACS	3	E	542	2.3192	0.0917	0.4733	0.2967	0.0417	0.0117	0.085	0.5537	-0.2907	-0.088	0.4347	0.235	-0.1099	-0.3798	0.6978	0.0606	-9.8994	0.6148	-9.8994	0.6098	A+	C-	C-
ELA	6	801026	7	CCAACS	3	E	529	2.1758	0.11	0.53	0.2183	0.0233	0.0167	0.1017	0.5646	-0.3162	0.0291	0.4186	0.2313	-0.1186	-0.3581	0.8717	0.0538	-9.8994	0.6348	-9.8994	0.6272	A+	C-	B-
ELA	6	803667	8	CCAACS	3	E	549	2.1985	0.1633	0.43	0.2983	0.0233	0.0117	0.0733	0.6122	-0.3344	-0.0548	0.4968	0.2283	-0.1457	-0.3659	0.7649	0.0617	-9.8994	0.5975	-9.8994	0.6033	A+	C-	C-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	6	809653	9	CCAACS	3	E	547	2.1353	0.1317	0.5517	0.2017	0.0267	0.0083	0.08	0.5449	-0.3344	0.0746	0.392	0.2017	-0.1114	-0.3822	0.8464	0.0619	-9.8994	0.6157	-9.8994	0.5949	A+	C-	C-
ELA	7	747381	0	CCAACS	3	E	41776	2.0992	0.2201	0.4249	0.2319	0.0396	0.0138	0.0697	0.6625	-0.4266	0.076	0.4647	0.2669	-0.1406	-0.3636	0.6789	0.0194	-9.8994	0.6201	-9.8994	0.6208	A+	A-	A-
ELA	7	807119	1	CCAACS	3	E	556	2.1727	0.1817	0.4517	0.245	0.0483	0.02	0.0533	0.647	-0.4027	-0.039	0.4559	0.2971	-0.1756	-0.2696	0.5217	0.0498	-9.8994	0.5527	-9.8994	0.5576	A+	A-	B-
ELA	7	806937	2	CCAACS	3	E	573	2.1396	0.1983	0.4817	0.2183	0.0567	0.0117	0.0333	0.6521	-0.4324	-0.056	0.4434	0.3122	-0.0711	-0.2639	0.3497	0.0739	-9.8994	0.5815	-9.8994	0.5808	A+	A-	A-
ELA	7	810265	3	CCAACS	3	E	545	2.0422	0.28	0.36	0.2183	0.05	0.0133	0.0783	0.6609	-0.4407	0.0804	0.4648	0.2861	-0.107	-0.3081	0.5417	0.0546	-9.8994	0.5806	-9.8994	0.5838	A+	A-	B-
ELA	7	801670	4	CCAACS	3	E	550	2.0964	0.19	0.4883	0.1983	0.04	0.0133	0.07	0.6364	-0.4511	0.1215	0.4102	0.2586	-0.0797	-0.3483	0.6084	0.0563	-9.8994	0.5774	-9.8994	0.5732	A+	B-	A-
ELA	7	801042	5	CCAACS	3	E	552	2.2047	0.1767	0.4467	0.2283	0.0683	0.015	0.065	0.6358	-0.4101	0.0241	0.3943	0.3245	-0.1493	-0.3439	0.4298	0.0609	-9.8994	0.5746	-9.8994	0.5732	A+	A-	A-
ELA	7	804846	6	CCAACS	3	E	548	2.2007	0.185	0.425	0.2383	0.065	0.0183	0.0683	0.6713	-0.3627	-0.0852	0.4368	0.3894	-0.1489	-0.3137	0.4018	0.0603	-9.8994	0.5693	-9.8994	0.5709	A+	B-	B-
ELA	7	801247	7	CCAACS	3	E	541	2.1534	0.1983	0.4117	0.2467	0.045	0.0083	0.09	0.6016	-0.3476	0.0271	0.464	0.235	-0.1123	-0.3956	0.5233	0.0564	-9.8994	0.5929	-9.8994	0.5958	A+	B-	B-
ELA	7	801766	8	CCAACS	3	E	536	2.0616	0.2533	0.395	0.1817	0.0633	0.02	0.0867	0.6439	-0.3909	0.1342	0.3959	0.3281	-0.1291	-0.3912	0.6555	0.0517	-9.8994	0.594	-9.8994	0.5945	A+	A-	A-
ELA	7	806050	9	CCAACS	3	E	556	2.1169	0.2267	0.4133	0.2383	0.0483	0.01	0.0633	0.6826	-0.4642	0.0915	0.4208	0.3278	-0.1313	-0.3581	0.5865	0.0569	-9.8994	0.5806	-9.8994	0.587	A+	C-	C-
ELA	8	748887	0	CCAACS	3	E	40016	2.2868	0.1768	0.3561	0.2799	0.0759	0.0177	0.0936	0.6902	-0.3844	-0.0455	0.4544	0.3692	-0.1388	-0.395	0.6357	0.0172	-9.8992	0.7732	-9.8992	0.7835	B+	A-	A-
ELA	8	801303	1	CCAACS	3	E	564	2.422	0.1083	0.385	0.3883	0.0583	0.0183	0.0417	0.6398	-0.3536	-0.2224	0.4743	0.2997	-0.1642	-0.3066	0.4058	0.0522	-9.8995	0.5385	-9.8994	0.5536	B+	A-	A-
ELA	8	807218	2	CCAACS	3	E	586	2.3276	0.1267	0.4383	0.3767	0.035	0.0067	0.0167	0.6651	-0.4234	-0.2491	0.5024	0.2752	-0.1197	-0.155	0.3999	0.0662	-9.8994	0.5676	-9.8994	0.5701	B+	A-	A-
ELA	8	810327	3	CCAACS	3	E	569	2.4921	0.0817	0.385	0.415	0.0667	0.01	0.0417	0.6954	-0.337	-0.3753	0.505	0.3461	-0.0867	-0.2584	0.1295	0.0726	-9.8994	0.5707	-9.8994	0.5741	B+	A-	B-
ELA	8	802099	4	CCAACS	3	E	567	2.4727	0.0817	0.3983	0.4017	0.0633	0.0167	0.0383	0.631	-0.3294	-0.2617	0.4283	0.3379	-0.1536	-0.2826	0.1673	0.069	-9.8994	0.6133	-9.8994	0.6143	B+	A-	A-
ELA	8	810358	5	CCAACS	3	E	572	2.5332	0.075	0.375	0.4233	0.08	0.015	0.0317	0.6464	-0.3347	-0.3314	0.4341	0.3392	-0.1485	-0.2276	0.1472	0.0668	-9.8994	0.61	-9.8994	0.6209	B+	A-	A-
ELA	8	801446	6	CCAACS	3	E	569	2.29	0.125	0.4683	0.31	0.045	0.0183	0.0333	0.6262	-0.371	-0.1714	0.45	0.2999	-0.1431	-0.2388	0.44	0.0656	-9.8994	0.6251	-9.8994	0.6296	A+	B-	A-
ELA	8	805041	7	CCAACS	3	E	544	2.3713	0.0967	0.42	0.3467	0.0433	0.0183	0.075	0.6322	-0.3364	-0.1487	0.464	0.3038	-0.1753	-0.3279	0.4601	0.0589	-9.8994	0.5776	-9.8994	0.5827	B+	B-	A-
ELA	8	810277	8	CCAACS	3	E	543	2.3333	0.1233	0.4117	0.315	0.055	0.0167	0.0783	0.622	-0.3046	-0.1716	0.4619	0.3184	-0.1367	-0.3165	0.3661	0.0556	-9.8994	0.6079	-9.8994	0.6196	A+	B-	B-
ELA	8	801522	9	CCAACS	3	E	563	2.421	0.1183	0.39	0.3467	0.0833	0.0183	0.0433	0.6284	-0.3543	-0.2242	0.4424	0.3195	-0.1435	-0.274	0.2287	0.0654	-9.8994	0.6035	-9.8994	0.6159	A+	B-	B-

Text-Dependent Analysis Computer-Based Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PublD	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(1)	Proportion 1 Point
P(2)	Proportion 2 Points
P(3)	Proportion 3 Points
P(4)	Proportion 4 Points
P(OMIT)	Proportion Omits
P(INV)	Proportion Invalid Responses
PtBis	Point Biserial
Corr(1)	Correlation 1 Point
Corr(2)	Correlation 2 Points
Corr(3)	Correlation 3 Points
Corr(4)	Correlation 4 Points
Corr(OMIT)	Correlation Omits
Corr(INV)	Correlation Invalid Responses
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	4	745947	0	CCAACS	3	E	51936	1.9854	0.2258	0.4712	0.1627	0.0251	0.0048	0.1105	0.6027	-0.3491	0.2083	0.4129	0.2198	-0.0794	-0.4443	0.7598	0.0153	-9.8995	0.5165	-9.8995	0.5169	A+	A-	A-
ELA	4	802454	1	CCAACS	3	E	624	1.8862	0.2907	0.3787	0.1293	0.0333	0.0093	0.1587	0.6139	-0.3439	0.247	0.3912	0.2824	-0.1003	-0.3722	0.7076	0.0428	-9.8994	0.6095	-9.8994	0.6122	B+	A-	A-
ELA	4	802807	2	CCAACS	3	E	720	2.0542	0.212	0.5187	0.1947	0.0347	0.0027	0.0373	0.5998	-0.4169	0.0431	0.3869	0.2738	-0.0448	-0.2749	0.6486	0.0557	-9.8994	0.6231	-9.8994	0.6227	A+	A-	A-
ELA	4	808973	3	CCAACS	3	E	693	2.075	0.2133	0.4627	0.2133	0.0347	0.004	0.072	0.4982	-0.2888	0.0576	0.381	0.1959	-0.029	-0.3888	0.7588	0.0483	-9.8994	0.6192	-9.8994	0.6219	A+	B-	B-
ELA	4	805801	4	CCAACS	3	E	726	2.0386	0.172	0.6213	0.14	0.0347	0.0013	0.0307	0.5502	-0.3533	0.0048	0.3986	0.2259	-0.0514	-0.2712	0.6032	0.0621	-9.8994	0.6194	-9.8994	0.6072	A+	A+	A-
ELA	4	806931	5	CCAACS	3	E	719	2.0306	0.24	0.4867	0.1947	0.0373	0.0053	0.036	0.5456	-0.3656	0.0199	0.4074	0.2156	-0.119	-0.2542	0.5874	0.058	-9.8994	0.6324	-9.8994	0.6319	B+	C-	C-
ELA	4	804588	6	CCAACS	3	E	699	2.0815	0.1947	0.496	0.212	0.0293	0.008	0.06	0.5186	-0.3267	0.0529	0.3969	0.1747	-0.131	-0.3247	0.7749	0.0521	-9.8993	0.6684	-9.8993	0.6719	A+	A-	B-
ELA	4	803509	7	CCAACS	3	E	708	2.024	0.26	0.4507	0.184	0.0493	0.004	0.052	0.5261	-0.3672	0.1112	0.3494	0.2242	-0.1026	-0.323	0.6808	0.0545	-9.8993	0.668	-9.8993	0.6688	A+	A-	A-
ELA	4	804585	8	CCAACS	3	E	701	2.0414	0.2547	0.4387	0.1893	0.052	0.004	0.0613	0.6293	-0.423	0.1108	0.3946	0.2952	-0.0828	-0.3568	0.7117	0.0524	-9.8994	0.6037	-9.8994	0.6055	B+	A-	A-
ELA	4	807270	9	CCAACS	3	E	711	1.9972	0.276	0.4387	0.1933	0.04	0.0053	0.0467	0.5888	-0.4253	0.1408	0.3415	0.2873	-0.0622	-0.3146	0.6727	0.0546	-9.8994	0.6204	-9.8994	0.6229	B+	B-	A+
ELA	5	714542	0	CCAACS	3	E	59850	2.0712	0.242	0.4044	0.2152	0.0458	0.0027	0.09	0.6411	-0.4033	0.1069	0.4349	0.2832	-0.0567	-0.4008	0.6236	0.0175	-9.8993	0.6583	-9.8993	0.6594	A+	A-	A-
ELA	5	806933	1	CCAACS	3	E	705	1.9518	0.2727	0.3673	0.1976	0.017	0.0073	0.1382	0.7081	-0.4106	0.1663	0.5579	0.2044	-0.0948	-0.3993	0.7678	0.0434	-9.8995	0.5345	-9.8995	0.5425	A+	A-	A-
ELA	5	800689	2	CCAACS	3	E	778	2.0411	0.2497	0.4352	0.2279	0.0303	0.0024	0.0545	0.5917	-0.4024	0.0632	0.4156	0.2394	-0.0503	-0.3086	0.8018	0.0504	-9.8994	0.5849	-9.8994	0.5909	A+	C-	B-
ELA	5	805991	3	CCAACS	3	E	783	2.1379	0.1798	0.5091	0.2139	0.0486		0.0486	0.5813	-0.3854	0.0161	0.3766	0.2714		-0.3387	0.5692	0.0595	-9.8994	0.5903	-9.8994	0.5882	A+	B-	A-
ELA	5	806035	4	CCAACS	3	E	787	1.9746	0.217	0.5564	0.1685	0.0121	0.0012	0.0448	0.5992	-0.4182	0.1139	0.4439	0.1413	-0.0432	-0.3108	1.0456	0.0532	-9.8994	0.5799	-9.8994	0.5747	A+	C-	B-
ELA	5	806007	5	CCAACS	3	E	788	2.2754	0.1297	0.4848	0.2885	0.0521	0.0024	0.0424	0.6308	-0.3818	-0.143	0.4288	0.3129	-0.0396	-0.3083	0.5346	0.0564	-9.8995	0.5456	-9.8995	0.549	A+	B-	B-
ELA	5	810363	6	CCAACS	3	E	806	2.103	0.1455	0.6133	0.1903	0.0279		0.023	0.5261	-0.3653	-0.0481	0.3901	0.1832		-0.2072	0.6974	0.0641	-9.6293	0.6624	-9.5993	0.651	B+	A-	A-
ELA	5	801602	7	CCAACS	3	E	784	2.1033	0.2036	0.4764	0.2388	0.0315	0.0012	0.0485	0.5736	-0.3896	0.0145	0.4378	0.1881	-0.0522	-0.317	0.6979	0.0552	-9.8994	0.6244	-9.8994	0.6314	B+	B-	B-
ELA	5	801607	8	CCAACS	3	E	776	1.893	0.2242	0.5964	0.1164	0.0036	0.0036	0.0558	0.5982	-0.4554	0.2688	0.3743	0.1015	0.0022	-0.2973	1.2878	0.0578	-9.8994	0.6459	-9.8994	0.6431	A+	A-	A-
ELA	5	806037	9	CCAACS	3	E	783	2.0294	0.2097	0.5285	0.1842	0.0267	0.0012	0.0497	0.5613	-0.3858	0.0874	0.3733	0.2298	-0.0587	-0.305	0.8552	0.0528	-9.8994	0.6017	-9.8994	0.5963	A+	C-	B-
ELA	6	747068	0	CCAACS	3	E	66978	2.153	0.1839	0.4935	0.21	0.0593	0.0033	0.05	0.6472	-0.4396	0.0058	0.4082	0.3153	-0.0694	-0.3185	0.9718	0.0198	-9.8993	0.6783	-9.8993	0.699	A+	A-	A-
ELA	6	800969	1	CCAACS	3	E	833	1.9736	0.2022	0.5733	0.1222	0.0278	0.0022	0.0722	0.6264	-0.4025	0.1103	0.4104	0.2869	-0.05	-0.2786	0.7003	0.0566	-9.8994	0.6097	-9.8994	0.5942	B+	C-	B-
ELA	6	809361	2	CCAACS	3	E	885	2.3672	0.1378	0.3933	0.4056	0.0467	0.0011	0.0156	0.6264	-0.477	-0.1531	0.4083	0.2782	-0.0487	-0.148	0.466	0.0877	-9.8994	0.6183	-9.8994	0.6222	A+	B-	B-
ELA	6	806924	3	CCAACS	3	E	878	2.2745	0.1444	0.4456	0.3589	0.0267	0.0022	0.0222	0.5933	-0.4088	-0.1621	0.484	0.1701	-0.0594	-0.2206	0.7656	0.0682	-9.8994	0.6088	-9.8994	0.614	A+	B-	B-
ELA	6	801849	4	CCAACS	3	E	881	2.3462	0.0944	0.4778	0.38	0.0267	0.0011	0.02	0.579	-0.3792	-0.1999	0.4428	0.2087	-0.0619	-0.2553	0.694	0.0754	-9.8994	0.602	-9.8994	0.6089	A+	A-	B-
ELA	6	801660	5	CCAACS	3	E	845	2.1988	0.1322	0.53	0.2344	0.0422	0.0033	0.0578	0.6576	-0.4021	-0.0659	0.4457	0.306	-0.0824	-0.328	0.8642	0.0547	-9.8994	0.5548	-9.8994	0.5538	A+	B-	B-
ELA	6	782194	6	CCAACS	3	E	864	2.3229	0.0922	0.5233	0.2867	0.0578	0.0033	0.0367	0.5753	-0.3355	-0.1623	0.3718	0.3059	-0.1122	-0.292	0.6978	0.0606	-9.8994	0.6148	-9.8994	0.6098	A+	C-	C-
ELA	6	801026	7	CCAACS	3	E	849	2.1979	0.12	0.5722	0.1956	0.0556	0.0022	0.0544	0.5815	-0.3771	-0.0417	0.3825	0.2749	-0.0392	-0.3069	0.8717	0.0538	-9.8994	0.6348	-9.8994	0.6272	A+	C-	B-
ELA	6	803667	8	CCAACS	3	E	866	2.2783	0.1433	0.45	0.3267	0.0422	0.0033	0.0344	0.6044	-0.4037	-0.125	0.4152	0.2779	0.0244	-0.2651	0.7649	0.0617	-9.8994	0.5975	-9.8994	0.6033	A+	C-	C-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(1)	P(2)	P(3)	P(4)	P(OMIT)	P(INV)	PtBis	Corr(1)	Corr(2)	Corr(3)	Corr(4)	Corr (OMIT)	Corr (INV)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	6	809653	9	CCAACS	3	E	869	2.1554	0.1311	0.5978	0.1922	0.0444	0.0022	0.0322	0.5618	-0.3814	-0.0314	0.3701	0.2499	-0.0783	-0.2801	0.8464	0.0619	-9.8994	0.6157	-9.8994	0.5949	A+	C-	C-
ELA	7	747381	0	CCAACS	3	E	67588	2.0834	0.2291	0.4456	0.2065	0.0501	0.0049	0.0637	0.6699	-0.4598	0.0921	0.4294	0.2997	-0.0829	-0.352	0.6789	0.0194	-9.8994	0.6201	-9.8994	0.6208	A+	A-	A-
ELA	7	807119	1	CCAACS	3	E	808	2.1337	0.2089	0.4178	0.2133	0.0578	0.0089	0.0933	0.6558	-0.3964	0.0465	0.4224	0.3427	-0.105	-0.3608	0.5217	0.0498	-9.8994	0.5527	-9.8994	0.5576	A+	A-	B-
ELA	7	806937	2	CCAACS	3	E	874	2.23	0.1978	0.4356	0.2544	0.0833	0.0022	0.0267	0.6354	-0.4624	-0.0456	0.357	0.3466	-0.0784	-0.2534	0.3497	0.0739	-9.8994	0.5815	-9.8994	0.5808	A+	A-	A-
ELA	7	810265	3	CCAACS	3	E	845	2.3278	0.14	0.4511	0.2478	0.1	0.0044	0.0567	0.6484	-0.3753	-0.1213	0.3922	0.3705	-0.0775	-0.3666	0.5417	0.0546	-9.8994	0.5806	-9.8994	0.5838	A+	A-	B-
ELA	7	801670	4	CCAACS	3	E	850	2.2353	0.1633	0.4667	0.2433	0.0711	0.0033	0.0522	0.6264	-0.4159	-0.0534	0.3925	0.3248	-0.0403	-0.3111	0.6084	0.0563	-9.8994	0.5774	-9.8994	0.5732	A+	B-	A-
ELA	7	801042	5	CCAACS	3	E	864	2.1632	0.2022	0.4633	0.23	0.0644		0.04	0.6409	-0.43	-0.0404	0.3802	0.3575		-0.2804	0.4298	0.0609	-9.8994	0.5746	-9.8994	0.5732	A+	A-	A-
ELA	7	804846	6	CCAACS	3	E	864	2.3449	0.1502	0.4182	0.3037	0.089	0.0033	0.0356	0.6406	-0.395	-0.1613	0.3658	0.3827	-0.1002	-0.2737	0.4018	0.0603	-9.8994	0.5693	-9.8994	0.5709	A+	B-	B-
ELA	7	801247	7	CCAACS	3	E	857	2.2905	0.1822	0.4133	0.2544	0.1022	0.0056	0.0422	0.6156	-0.4323	-0.0364	0.3393	0.3494	-0.1351	-0.2924	0.5233	0.0564	-9.8994	0.5929	-9.8994	0.5958	A+	B-	B-
ELA	7	801766	8	CCAACS	3	E	840	2.1429	0.2244	0.4311	0.1978	0.08	0.0022	0.0644	0.6172	-0.4084	0.0242	0.3776	0.329	-0.0874	-0.3142	0.6555	0.0517	-9.8994	0.594	-9.8994	0.5945	A+	A-	A-
ELA	7	806050	9	CCAACS	3	E	846	2.227	0.2089	0.3867	0.2667	0.0778	0.0056	0.0544	0.6299	-0.4344	-0.0059	0.351	0.3623	-0.059	-0.3016	0.5865	0.0569	-9.8994	0.5806	-9.8994	0.587	A+	C-	C-
ELA	8	748887	0	CCAACS	3	E	65980	2.2758	0.187	0.366	0.2524	0.0909	0.0073	0.0965	0.6991	-0.4139	-0.026	0.4212	0.3966	-0.0851	-0.3922	0.6357	0.0172	-9.8992	0.7732	-9.8992	0.7835	B+	A-	A-
ELA	8	801303	1	CCAACS	3	E	813	2.0812	0.2433	0.3756	0.2522	0.0322	0.0056	0.0911	0.6927	-0.4345	0.0345	0.5244	0.2715	-0.0199	-0.3631	0.4058	0.0522	-9.8995	0.5385	-9.8994	0.5536	B+	A-	A-
ELA	8	807218	2	CCAACS	3	E	843	2.3072	0.1479	0.3993	0.3448	0.0456	0.0044	0.0578	0.6921	-0.4198	-0.1819	0.5424	0.2756	-0.0504	-0.3163	0.3999	0.0662	-9.8994	0.5676	-9.8994	0.5701	B+	A-	A-
ELA	8	810327	3	CCAACS	3	E	870	2.5011	0.0711	0.3833	0.4689	0.0433	0.0022	0.0311	0.6612	-0.3595	-0.3512	0.4967	0.2907	-0.0507	-0.2392	0.1295	0.0726	-9.8994	0.5707	-9.8994	0.5741	B+	A-	B-
ELA	8	802099	4	CCAACS	3	E	866	2.4365	0.0722	0.4778	0.3322	0.08	0.0078	0.03	0.6102	-0.3025	-0.2838	0.3688	0.3691	-0.1193	-0.2539	0.1673	0.069	-9.8994	0.6133	-9.8994	0.6143	B+	A-	A-
ELA	8	810358	5	CCAACS	3	E	856	2.493	0.0944	0.3744	0.4011	0.0811	0.0056	0.0433	0.61	-0.3394	-0.2497	0.3916	0.3358	-0.0717	-0.2858	0.1472	0.0668	-9.8994	0.61	-9.8994	0.6209	B+	A-	A-
ELA	8	801446	6	CCAACS	3	E	858	2.345	0.11	0.4478	0.3522	0.0433	0.0022	0.0444	0.6098	-0.3934	-0.1642	0.4545	0.2413	-0.066	-0.2832	0.44	0.0656	-9.8994	0.6251	-9.8994	0.6296	A+	B-	A-
ELA	8	805041	7	CCAACS	3	E	859	2.3993	0.0822	0.4567	0.3678	0.0478	0.0044	0.0411	0.6137	-0.342	-0.2451	0.4532	0.2795	-0.1011	-0.2789	0.4601	0.0589	-9.8994	0.5776	-9.8994	0.5827	B+	B-	A-
ELA	8	810277	8	CCAACS	3	E	844	2.4562	0.09	0.3978	0.3822	0.0678	0.0022	0.06	0.5957	-0.3368	-0.1973	0.41	0.3029	-0.0051	-0.346	0.3661	0.0556	-9.8994	0.6079	-9.8994	0.6196	A+	B-	B-
ELA	8	801522	9	CCAACS	3	E	863	2.4426	0.1044	0.3811	0.4178	0.0556	0.0056	0.0356	0.6514	-0.4072	-0.2422	0.4619	0.2983	-0.0995	-0.2515	0.2287	0.0654	-9.8994	0.6035	-9.8994	0.6159	A+	B-	B-

Technology-Enhanced Computer-Based Item Statistics

Column Heading	Definition
Content	Content Area
Grade	Grade
PubID	Item ID
Form	Form Number
Stand Set	Standard Set
Depth	Depth of Knowledge
Stand1	Standard
N	N
Mean	Mean Score
P(0)	Proportion 0 Points
P(1)	Proportion 1 Point
P(OMIT)	Proportion Omits
PtBis	Point Biserial
Corr(0)	Correlation 0 Points
Corr(2)	Correlation 1 Point
Corr(OMIT)	Correlation Omits
Final	IRT Difficulty Estimate
Final Err	IRT Difficulty Error
Infit	Infit Standardized
Infit-MS	Infit Mean Square
Outfit	Outfit Standardized
Outfit-MS	Outfit Mean Square
M/F	Male/Female DIF Code
W/B	White/Black DIF Code
W/H	White/Hispanic DIF Code

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	3	801556	1	CCAACS	2	D	18860	0.3103	0.6893	0.3102	0.0006	0.2195	-0.2185	0.2198	-0.0227	1.0067	0.0759	4.3411	1.1486	5.9013	1.2998	A+	A-	A-
ELA	3	801566	1	CCAACS	2	D	13460	0.8007	0.1991	0.8	0.0009	0.3427	-0.3421	0.3437	-0.0295	-1.6916	0.1344	-1.6291	0.8855	-2.0593	0.7474	A+	B-	B-
ELA	3	801557	2	CCAACS	2	D	10823	0.7831	0.2168	0.7827	0.0005	0.4178	-0.4172	0.4186	-0.0347	-0.9861	0.0783	-2.2591	0.9084	-2.0791	0.8535	A+	C-	A-
ELA	3	801562	2	CCAACS	2	D	5412	0.2659	0.7317	0.265	0.0033	0.4436	-0.4327	0.4445	-0.0775	1.7031	0.1045	-2.9291	0.8592	-3.2092	0.754	A+	A-	A-
ELA	3	801558	3	CCAACS	2	D	10711	0.3339	0.6639	0.3327	0.0033	0.3368	-0.3276	0.3386	-0.0831	1.3001	0.0698	1.581	1.0479	0.881	1.0383	A-	A-	A-
ELA	3	801563	3	CCAACS	2	D	5399	0.0909	0.9089	0.0909	0.0002	0.1978	-0.1971	0.1978	-0.0114	3.1335	0.1569	-0.389	0.9506	1.5513	1.3076	A-	A+	A+
ELA	3	801561	4	CCAACS	2	D	10772	0.5299	0.4685	0.528	0.0035	0.2456	-0.2397	0.2494	-0.0831	0.3585	0.0657	2.6411	1.0628	2.5511	1.0794	A+	A-	A-
ELA	3	801565	4	CCAACS	2	D	5406	0.7418	0.258	0.7411	0.0009	0.3214	-0.3201	0.3232	-0.0503	-0.7354	0.104	-1.4591	0.9292	-1.3891	0.8865	A-	A-	B-
ELA	3	810678	6	CCAACS	2	B-K	5397	1.4617	0.2871	0.2666	0.0002	0.4614	-0.3811	-0.0143	-0.0246	0.5183	0.1097	3.8912	1.2318	4.4414	1.3544	A+	A-	A-
ELA	3	810681	7	CCAACS	2	B-K	5338	0.4213	0.7496	0.0769	0.0017	0.2902	-0.1984	-0.1733	-0.0593	1.5758	0.117	2.2012	1.1613	2.9215	1.5333	A+	A+	A+
ELA	3	801560	8	CCAACS	2	D	10699	0.7531	0.2465	0.7518	0.0017	0.2626	-0.2606	0.2658	-0.0608	-0.7858	0.0744	-2.1891	0.923	-0.9291	0.9415	A-	B-	A-
ELA	3	801564	8	CCAACS	2	D	5370	0.5667	0.4333	0.5666	0.0002	0.3457	-0.3453	0.3459	-0.0215	0.1897	0.0938	0.881	1.0301	0.651	1.0304	A+	A+	A+
ELA	3	810682	9	CCAACS	3	B-C	5339	1.307	0.171	0.3502	0.0013	0.5063	-0.3688	-0.2044	-0.0495	-0.1966	0.1227	-0.759	0.9603	-1.3991	0.9102	A-	B-	A-
ELA	4	802407	1	CCAACS	2	D	13309	0.4399	0.5598	0.4397	0.0005	0.1908	-0.19	0.1911	-0.0236	0.0751	0.0969	5.1612	1.2145	6.2413	1.3487	A+	A+	A+
ELA	4	802416	1	CCAACS	2	D	13255	0.4542	0.5433	0.4521	0.0046	0.232	-0.226	0.235	-0.0643	0.0151	0.0966	4.8012	1.1945	4.4412	1.2379	A-	A-	A-
ELA	4	802408	2	CCAACS	2	D	10146	0.6935	0.3065	0.6933	0.0002	0.2356	-0.2353	0.236	-0.0254	-0.4516	0.0604	2.3911	1.064	3.1011	1.146	A+	A-	A+
ELA	4	802415	2	CCAACS	2	D	10044	0.2755	0.7244	0.2754	0.0002	0.2474	-0.2466	0.2475	-0.0251	1.6078	0.0622	2.5211	1.0754	5.7613	1.2915	A-	A+	A-
ELA	4	802412	3	CCAACS	2	D	15093	0.6234	0.3763	0.6229	0.0009	0.2715	-0.2703	0.2724	-0.0357	-0.1	0.0473	2.091	1.0392	2.4611	1.0672	B+	B-	B-
ELA	4	802414	3	CCAACS	2	D	10112	0.5089	0.4908	0.5086	0.0006	0.2973	-0.2962	0.2978	-0.034	0.4574	0.0565	3.4211	1.07	2.6711	1.0791	A+	A+	A+
ELA	4	802410	4	CCAACS	2	D	5071	0.9483	0.0516	0.948	0.0004	0.2882	-0.288	0.2892	-0.0253	-2.7545	0.1658	-0.8191	0.8866	-2.4095	0.5441	A+	B-	B-
ELA	4	802413	4	CCAACS	2	D	10075	0.2084	0.7888	0.2077	0.0035	0.1954	-0.1825	0.1972	-0.0937	2.0192	0.0672	2.1711	1.0797	4.4513	1.2923	A-	A-	A-
ELA	4	802411	5	CCAACS	2	D	5048	0.5398	0.4596	0.5392	0.0012	0.2869	-0.2844	0.2883	-0.0563	0.2837	0.0799	0.711	1.0203	0.871	1.0332	A-	A-	A-
ELA	4	810683	6	CCAACS	3	B-K	5038	1.7039	0.2187	0.1411	0.0004	0.4636	-0.2641	-0.2809	-0.0163	0.3	0.1046	3.3112	1.1655	4.9313	1.3019	A-	A-	A-
ELA	4	810680	7	CCAACS	2	B-V	5024	1.5621	0.0872	0.2625	0.0026	0.5359	-0.3484	-0.3355	-0.0823	-0.8529	0.1388	-2.4891	0.8687	-1.3491	0.8951	A-	A-	A-
ELA	4	802409	9	CCAACS	2	D	5002	0.5844	0.4155	0.5841	0.0004	0.2565	-0.2559	0.257	-0.0296	0.0682	0.0809	3.2111	1.1	2.5611	1.1244	A+	A-	A-
ELA	5	805554	1	CCAACS	2	D	14562	0.3428	0.657	0.3427	0.0003	0.4585	-0.4577	0.4586	-0.0225	0.5509	0.0974	-1.2991	0.9419	0.121	1.0061	A-	A-	A-
ELA	5	805563	1	CCAACS	2	D	14483	0.7108	0.2875	0.7067	0.0058	0.4254	-0.4199	0.4298	-0.0741	-1.2758	0.0978	-4.2992	0.8338	-3.1692	0.7536	A-	A-	A-
ELA	5	805557	2	CCAACS	2	D	11451	0.7878	0.2122	0.7878		0.4111	-0.4111	0.4111		-1.0694	0.0645	-3.9991	0.8666	-3.5992	0.793	A-	C-	C-
ELA	5	805558	2	CCAACS	2	D	11306	0.8059	0.1926	0.7999	0.0075	0.4061	-0.4014	0.4064	-0.0501	-1.1379	0.0658	-4.7892	0.8344	-4.5893	0.7247	A+	C-	B-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	5	810685	3	CCAACS	3	A-K	5703	1.232	0.5118	0.0252		0.477	-0.4056	-0.1387		0.8072	0.0938	9.9016	1.5913	9.9028	2.8263	A-	A-	A-
ELA	5	805556	3	CCAACS	2	D	11464	0.6219	0.3779	0.6214	0.0007	0.2083	-0.2071	0.2095	-0.0457	-0.1225	0.0557	6.6712	1.1546	7.4913	1.2806	A-	A-	A-
ELA	5	805559	5	CCAACS	2	D	11366	0.8032	0.1966	0.8025	0.0009	0.4476	-0.4467	0.4486	-0.0363	-1.1743	0.0662	-4.3692	0.8463	-5.4293	0.6803	B+	B-	B-
ELA	5	810686	6	CCAACS	2	B-C	5663	1.6301	0.0733	0.2233	0.0002	0.4676	-0.2999	-0.316	-0.0252	-1.1386	0.1477	-0.579	0.9655	-0.6891	0.9345	A+	A-	A-
ELA	5	805560	7	CCAACS	2	D	11393	0.246	0.7526	0.2456	0.0018	0.2648	-0.2587	0.2657	-0.0631	1.7846	0.0621	1.8811	1.0606	3.3912	1.1919	A-	A-	A-
ELA	5	805561	8	CCAACS	2	D	11461	0.503	0.4969	0.5029	0.0002	0.2678	-0.2676	0.2678	-0.0078	0.4658	0.0541	6.2311	1.1271	5.8812	1.172	A-	A-	A-
ELA	5	805562	9	CCAACS	2	D	5714	0.2832	0.7167	0.2831	0.0002	0.3641	-0.3631	0.3642	-0.0343	1.5856	0.0833	-0.149	0.9939	1.3711	1.0868	A+	A-	A-
ELA	6	805564	1	CCAACS	1	D	21219	0.9497	0.0503	0.9493	0.0004	0.2475	-0.2473	0.2487	-0.0257	-3.0055	0.1267	-3.8994	0.6375	-4.8397	0.3361	A+	A-	A-
ELA	6	805716	1	CCAACS	2	D	14981	0.0886	0.9112	0.0886	0.0002	0.3633	-0.3623	0.3634	-0.0139	2.909	0.155	-0.389	0.9517	-1.5693	0.7082	A+	A-	A-
ELA	6	805568	2	CCAACS	1	D	12303	0.9277	0.0716	0.9189	0.0095	0.2444	-0.2411	0.247	-0.0542	-1.9966	0.0907	-0.479	0.9661	-1.1291	0.8648	A+	C-	A-
ELA	6	805565	3	CCAACS	1	D	12396	0.5682	0.4311	0.5673	0.0016	0.3148	-0.3117	0.3166	-0.0622	0.4535	0.0522	2.6011	1.0511	3.0611	1.0918	A+	A-	A-
ELA	6	805569	3	CCAACS	1	D	6231	0.7124	0.2876	0.7124		0.2158	-0.2158	0.2158		-0.2633	0.0798	2.2111	1.083	3.0012	1.1868	A+	A+	A+
ELA	6	805572	4	CCAACS	2	D	6174	0.5053	0.4943	0.505	0.0006	0.3236	-0.3222	0.3242	-0.04	0.7704	0.0734	2.7511	1.0751	3.1611	1.1303	A+	A-	A-
ELA	6	810688	5	CCAACS	3	A-C	6185	1.3838	0.1521	0.3119		0.38	-0.2397	-0.2315		-0.1304	0.1014	3.7312	1.1673	2.3712	1.1511	A+	A+	A+
ELA	6	810687	6	CCAACS	2	B-C	6192	1.5299	0.0779	0.3136	0.0018	0.5534	-0.2938	-0.4149	-0.0616	-0.6091	0.1326	-2.5491	0.8824	-3.3892	0.7858	A-	A-	A-
ELA	6	805566	6	CCAACS	1	D	12380	0.7607	0.2392	0.7607	0.0001	0.3111	-0.311	0.3113	-0.0191	-0.587	0.0599	-0.979	0.9701	0.9411	1.0551	A+	A-	A-
ELA	6	805570	7	CCAACS	1	D	6164	0.8142	0.1853	0.8124	0.0023	0.2383	-0.2355	0.2444	-0.082	-0.9472	0.0911	0.551	1.0275	1.1411	1.1142	A+	C-	B-
ELA	6	805567	8	CCAACS	1	D	12336	0.4937	0.5063	0.4936	0.0001	0.1243	-0.1241	0.1244	-0.0201	0.8046	0.0517	9.9013	1.2739	9.9014	1.4084	A-	A+	A+
ELA	6	805571	8	CCAACS	2	D	6159	0.4554	0.5432	0.4543	0.0024	0.1877	-0.183	0.19	-0.0703	0.9732	0.0735	6.7112	1.1905	6.8413	1.2918	A+	A+	A+
ELA	6	810689	9	CCAACS	2	B-C	6163	0.9727	0.417	0.1933		0.259	-0.1755	-0.1505		0.8385	0.0804	9.9015	1.4671	9.8817	1.7401	A-	A-	A-
ELA	7	801023	1	CCAACS	2	D	13758	0.3018	0.6952	0.3005	0.0043	0.3973	-0.3874	0.3989	-0.07	1.076	0.0994	1.051	1.0496	1.1611	1.0841	A+	A-	A-
ELA	7	801044	1	CCAACS	1	D	20285	0.2766	0.7233	0.2765	0.0002	-0.063	0.0636	-0.0628	-0.023	1.4029	0.0618	9.9014	1.3706	9.9017	1.6592	A+	A+	A+
ELA	7	801170	2	CCAACS	2	D	13015	0.8701	0.1298	0.8691	0.0012	0.3133	-0.3121	0.3165	-0.0558	-1.5448	0.0729	-2.2391	0.8975	-1.7591	0.8522	A+	A-	A-
ELA	7	810692	3	CCAACS	2	A-C	6507	2.0014	0.0707	0.2054	0.0018	0.3326	-0.1437	-0.2501	-0.0689	-0.1631	0.1391	8.5814	1.4408	8.6215	1.496	A-	A-	A-
ELA	7	801082	3	CCAACS	1	D	13067	0.4091	0.59	0.4085	0.0015	0.0757	-0.0723	0.0777	-0.0674	1.0899	0.0529	9.9013	1.3483	9.9015	1.4988	A+	A-	A+
ELA	7	801167	4	CCAACS	2	D	6556	0.7253	0.2742	0.724	0.0018	0.411	-0.4085	0.4129	-0.0553	-0.4804	0.0807	-0.949	0.9645	-1.8291	0.8831	A+	A-	A+
ELA	7	810690	5	CCAACS	2	B-C	6495	1.2727	0.071	0.5839	0.002	0.4561	-0.2757	-0.2469	-0.0615	-0.3192	0.1282	0.521	1.0224	0.551	1.0244	A-	A-	A-
ELA	7	801105	5	CCAACS	2	D	13007	0.483	0.5155	0.4817	0.0028	0.4209	-0.4146	0.4227	-0.0756	0.7246	0.0522	-0.159	0.9968	-0.019	0.9991	A+	A-	A-
ELA	7	810691	6	CCAACS	2	B-K	6503	2.1409	0.0975	0.0887		0.522	-0.3057	-0.309		-0.2299	0.1286	0.471	1.023	0.451	1.0245	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
ELA	7	801028	6	CCAACS	2	D	13012	0.4107	0.5882	0.4099	0.0018	0.1793	-0.1756	0.181	-0.06	1.0806	0.0526	9.1912	1.1981	8.8413	1.2797	A-	A+	A+
ELA	7	801012	7	CCAACS	2	D	6521	0.4827	0.5161	0.4816	0.0023	0.2937	-0.2882	0.2961	-0.0824	0.7129	0.0737	2.5111	1.0705	2.7911	1.114	A+	A-	A-
ELA	7	801166	8	CCAACS	2	D	6532	0.7566	0.2434	0.7565	0.0002	0.3531	-0.353	0.353	-0.0007	-0.6684	0.0831	0.551	1.0223	0.8811	1.0612	A-	A-	A-
ELA	7	801024	9	CCAACS	2	D	6557	0.8569	0.1431	0.8569		0.2457	-0.2457	0.2457		-1.439	0.0995	-0.389	0.9751	0.131	1.0107	A+	A+	A-
ELA	8	801595	1	CCAACS	2	D	19962	0.3938	0.6047	0.3928	0.0025	0.4558	-0.4506	0.4569	-0.0566	0.6734	0.0595	-1.089	0.9727	-0.099	0.9957	A+	A-	A-
ELA	8	802224	1	CCAACS	2	D	13369	0.8605	0.1395	0.8603	0.0002	0.285	-0.2849	0.2853	-0.0133	-2.1882	0.1204	-0.9091	0.9336	0.281	1.0359	A+	A-	A-
ELA	8	810694	2	CCAACS	3	A-K	6657	1.5516	0.105	0.2384	0.0002	0.537	-0.3237	-0.3862	-0.0167	-0.8639	0.1156	-2.8091	0.8683	-3.1593	0.7468	A+	A-	A+
ELA	8	801599	2	CCAACS	2	D	13322	0.8526	0.1473	0.8526	0.0001	0.2051	-0.205	0.2052	-0.0094	-1.5781	0.0698	2.3011	1.0987	4.4415	1.4504	A+	A-	A-
ELA	8	801651	3	CCAACS	2	D	6663	0.2392	0.7605	0.2392	0.0003	0.2787	-0.2772	0.2788	-0.0363	1.9668	0.0868	3.1812	1.1509	4.3414	1.4035	B+	A+	A+
ELA	8	801604	4	CCAACS	2	D	13401	0.639	0.361	0.6389	0.0001	0.2633	-0.2629	0.2635	-0.0257	-0.1786	0.0544	5.2011	1.1213	4.1912	1.1765	A-	B-	A-
ELA	8	801671	4	CCAACS	2	D	6618	0.8699	0.1294	0.8655	0.0051	0.3891	-0.3856	0.394	-0.0701	-1.665	0.1026	-1.7191	0.8912	-2.8693	0.6608	A+	A+	A+
ELA	8	801633	5	CCAACS	2	D	13236	0.5513	0.4445	0.5461	0.0094	0.4581	-0.4384	0.466	-0.1464	0.2877	0.0532	-3.8491	0.9217	-3.4491	0.8895	A+	B-	A-
ELA	8	810693	6	CCAACS	2	B-K	6703	1.8915	0.231	0.0432	0.0006	0.6321	-0.4998	-0.1641	-0.0332	0.0617	0.1056	-0.339	0.9823	-0.269	0.9799	A-	A+	A+
ELA	8	801601	6	CCAACS	2	D	13429	0.6826	0.317	0.6817	0.0013	0.4348	-0.4327	0.4364	-0.055	-0.414	0.0563	-2.5191	0.9376	0.321	1.0143	A+	B-	B-
ELA	8	801661	7	CCAACS	2	D	6725	0.3408	0.6578	0.3401	0.0021	0.049	-0.0444	0.0511	-0.0692	1.3175	0.0773	9.9014	1.4	9.9016	1.6202	A+	A-	A-
ELA	8	810695	8	CCAACS	2	B-V	6742	1.4991	0.0607	0.3788	0.0013	0.3255	-0.1771	-0.2316	-0.0545	-0.9796	0.1464	2.9011	1.1371	5.9814	1.3821	A-	A-	A-
ELA	8	802181	9	CCAACS	2	D	6716	0.5429	0.4567	0.5424	0.0009	0.4347	-0.4327	0.4355	-0.0487	0.2869	0.0752	-0.049	0.9982	0.191	1.0084	A+	A-	A+
MATH	3	800625	1	CCAACS	1	A-F	19164	0.6897	0.3038	0.6754	0.0208	0.526	-0.4992	0.5416	-0.1682	-0.7588	0.0809	-5.0892	0.8222	-3.5693	0.7308	A+	A-	A-
MATH	3	800623	1	CCAACS	1	A-T	19551	0.4762	0.5224	0.475	0.0026	0.5415	-0.5366	0.5426	-0.0577	0.2976	0.0746	-3.1891	0.902	-3.4092	0.8454	A-	A-	A-
MATH	3	800627	2	CCAACS	2	B-O	10824	0.6155	0.3842	0.615	0.0008	0.4726	-0.471	0.4734	-0.0436	0.1197	0.0701	-0.629	0.981	-1.1791	0.9408	A-	A+	A+
MATH	3	800631	2	CCAACS	2	D-M	10807	0.3335	0.6649	0.3327	0.0024	0.4859	-0.478	0.4867	-0.076	1.6068	0.0723	-2.9691	0.9057	-4.1592	0.7863	A-	A-	A-
MATH	3	800628	3	CCAACS	2	B-O	10811	0.4519	0.5478	0.4517	0.0005	0.6411	-0.6399	0.6413	-0.0312	0.9994	0.0687	-9.8993	0.7354	-9.2993	0.6559	A-	A-	A-
MATH	3	800630	4	CCAACS	1	C-G	10771	0.626	0.3707	0.6205	0.0088	0.5033	-0.489	0.5094	-0.1173	0.1041	0.0707	-3.7091	0.8906	-2.9492	0.8435	A+	A-	A-
MATH	3	800633	4	CCAACS	2	D-M	10839	0.8773	0.1224	0.875	0.0026	0.3322	-0.3299	0.3372	-0.067	-1.6418	0.0964	-2.4291	0.8591	-0.8291	0.8802	A+	B-	A-
MATH	3	800624	5	CCAACS	1	A-T	10824	0.7945	0.2051	0.7929	0.002	0.3539	-0.3511	0.3581	-0.0749	-0.9345	0.0812	-2.2991	0.9027	-0.7491	0.9338	A-	A-	A-
MATH	3	800629	5	CCAACS	1	C-G	10842	0.4164	0.5833	0.4163	0.0004	0.5031	-0.5019	0.5033	-0.035	1.1617	0.0689	-3.1691	0.9126	-3.3491	0.8631	A+	A-	A-
MATH	4	800652	1	CCAACS	2	C-G	18920	0.4331	0.5624	0.4297	0.0079	0.4579	-0.4432	0.4617	-0.0988	0.1996	0.0753	-2.2891	0.9269	-2.1091	0.9015	A+	A+	A+
MATH	4	800656	1	CCAACS	2	D-M	18950	0.3753	0.6214	0.3734	0.0052	0.5356	-0.528	0.5357	-0.042	0.5036	0.0765	-3.7491	0.8764	-3.7392	0.8167	A-	A-	A-
MATH	4	800651	2	CCAACS	2	B-O	10153	0.4277	0.5718	0.4273	0.0009	0.5659	-0.5638	0.5662	-0.0377	0.8105	0.0699	-4.7191	0.8657	-5.1892	0.7756	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
MATH	4	800653	2	CCAACS	2	C-G	10063	0.5931	0.4042	0.5891	0.0067	0.507	-0.4934	0.5122	-0.1206	-0.0193	0.0695	-2.3491	0.9337	-1.7191	0.913	A+	A-	A+
MATH	4	800655	3	CCAACS	2	D-M	10103	0.9205	0.0794	0.9196	0.001	0.2952	-0.2946	0.2972	-0.0365	-2.4677	0.1168	-0.5891	0.9485	0.141	1.0146	A-	C-	A-
MATH	4	800649	4	CCAACS	2	A-F	10076	0.8279	0.172	0.8277	0.0003	0.4706	-0.4701	0.4712	-0.0314	-1.4912	0.0882	-4.0192	0.8055	-3.2493	0.6634	A+	A-	A-
MATH	4	800646	5	CCAACS	2	A-T	10094	0.8255	0.1743	0.8246	0.0011	0.4302	-0.4286	0.4323	-0.0544	-1.4879	0.0858	-2.0491	0.9035	0.391	1.0396	A-	A-	A-
MATH	4	800648	6	CCAACS	2	A-F	10079	0.6733	0.3266	0.673	0.0004	0.6517	-0.6509	0.652	-0.03	-0.4771	0.0727	-8.5993	0.7453	-6.5194	0.6234	A-	B-	A-
MATH	4	800647	6	CCAACS	2	A-T	10079	0.6374	0.3626	0.6373	0.0001	0.4546	-0.4544	0.4547	-0.0183	-0.2819	0.071	-0.639	0.9803	-0.419	0.9742	A+	A+	A+
MATH	5	800638	1	CCAACS	2	A-F	20823	0.5127	0.4856	0.5108	0.0036	0.3542	-0.3486	0.3569	-0.0691	-0.1413	0.0705	4.2211	1.1239	3.4312	1.1826	A-	A+	A+
MATH	5	800643	1	CCAACS	2	D-M	20795	0.2937	0.7053	0.2933	0.0014	0.5114	-0.5073	0.5117	-0.0442	1.0394	0.0748	-1.9691	0.931	-2.2891	0.8775	A-	A+	A+
MATH	5	800635	2	CCAACS	2	A-T	11380	0.5112	0.4885	0.511	0.0004	0.6263	-0.6252	0.6264	-0.0294	0.4342	0.0648	-9.1292	0.7849	-7.2893	0.7225	A-	A-	A-
MATH	5	800640	2	CCAACS	2	B-O	11366	0.4186	0.581	0.4183	0.0007	0.5138	-0.5124	0.5141	-0.0291	0.9218	0.0666	-2.7291	0.9238	-3.7192	0.8447	A+	A-	A-
MATH	5	800636	3	CCAACS	2	A-F	11432	0.7524	0.2476	0.7521	0.0003	0.3945	-0.3941	0.395	-0.026	-0.8874	0.0721	-0.989	0.9663	0.131	1.0086	A+	A+	A+
MATH	5	800641	4	CCAACS	2	C-G	11344	0.3806	0.6177	0.3796	0.0026	0.6079	-0.5995	0.6086	-0.078	1.1394	0.0675	-6.5492	0.8156	-6.5393	0.727	A+	A-	A-
MATH	5	800634	5	CCAACS	2	A-T	11313	0.5906	0.4092	0.5902	0.0005	0.4459	-0.4447	0.4465	-0.0408	0.0452	0.0659	-0.599	0.9838	-0.859	0.959	A+	A+	A+
MATH	5	800644	5	CCAACS	2	D-M	11351	0.8587	0.1412	0.8582	0.0005	0.3304	-0.3299	0.3316	-0.0343	-1.6649	0.0872	-0.009	0.9983	-0.8291	0.9023	A-	C-	B-
MATH	5	800637	6	CCAACS	2	A-F	11375	0.377	0.623	0.377		0.3688	-0.3688	0.3688		1.1438	0.0672	2.7511	1.0835	3.2412	1.1522	A+	A-	A-
MATH	6	802112	1	CCAACS	2	C-G	21128	0.4025	0.5943	0.4003	0.0054	0.5332	-0.5227	0.5351	-0.0751	0.5424	0.069	-4.1191	0.8823	-3.6592	0.8314	A-	A-	A-
MATH	6	802115	1	CCAACS	2	D-S	21245	0.3612	0.6384	0.3609	0.0007	0.5008	-0.4992	0.501	-0.0292	0.7643	0.0699	0.351	1.0106	1.011	1.0479	A+	A-	A-
MATH	6	802106	2	CCAACS	2	A-N	12111	0.7449	0.2545	0.7432	0.0023	0.4361	-0.4328	0.4393	-0.0707	-0.7649	0.0694	-1.9091	0.9379	0.111	1.0066	A-	C-	C-
MATH	6	802114	3	CCAACS	2	D-S	12109	0.7592	0.2406	0.7585	0.0009	0.4265	-0.4253	0.4279	-0.0442	-0.8601	0.0704	-2.9191	0.903	0.6811	1.0547	A+	A-	A-
MATH	6	802107	4	CCAACS	2	A-R	12061	0.2566	0.7411	0.2558	0.0031	0.4747	-0.465	0.4754	-0.0664	1.9259	0.0718	-1.7091	0.937	-3.4492	0.7873	A-	A-	A-
MATH	6	802109	4	CCAACS	1	B-E	12152	0.5388	0.461	0.5387	0.0002	0.3264	-0.326	0.3267	-0.0233	0.3495	0.0626	5.7712	1.152	5.1012	1.2342	A+	A-	A-
MATH	6	802105	5	CCAACS	2	A-N	12071	0.5843	0.4156	0.5841	0.0002	0.3654	-0.365	0.3657	-0.0218	0.1265	0.0634	4.5011	1.1214	2.6811	1.1349	A+	A+	A+
MATH	6	802108	7	CCAACS	2	A-R	12114	0.6156	0.384	0.6149	0.0012	0.5571	-0.5548	0.558	-0.0509	-0.0472	0.0633	-6.6492	0.8418	-4.6292	0.7779	A-	A-	A-
MATH	6	802111	7	CCAACS	2	B-E	12113	0.4625	0.5374	0.4624	0.0002	0.3245	-0.3243	0.3245	-0.0069	0.7376	0.0624	5.0111	1.1323	5.0112	1.2052	A-	A-	A+
MATH	7	802117	1	CCAACS	2	A-N	19786	0.5651	0.4344	0.5645	0.0011	0.3247	-0.3235	0.3255	-0.0326	-0.6078	0.0684	4.7911	1.1331	7.5715	1.4749	A+	A-	A-
MATH	7	802124	1	CCAACS	2	C-G	19533	0.0967	0.8909	0.0953	0.0138	0.2579	-0.2047	0.2601	-0.1077	2.5411	0.1057	-0.7191	0.9488	1.4812	1.2141	A-	A-	A-
MATH	7	802119	2	CCAACS	2	A-R	12325	0.3523	0.647	0.3519	0.0011	0.5457	-0.5432	0.546	-0.0361	0.9408	0.0665	-3.5591	0.8907	-3.5492	0.8407	A-	A-	A-
MATH	7	802125	2	CCAACS	2	D-S	12372	0.6248	0.3751	0.6246	0.0002	0.3044	-0.3042	0.3046	-0.0146	-0.4964	0.0638	5.0911	1.1355	3.9112	1.2294	A-	A+	A-
MATH	7	802123	3	CCAACS	2	C-G	12318	0.5486	0.4508	0.5479	0.0013	0.3191	-0.3171	0.3204	-0.0471	-0.1114	0.0623	4.5611	1.117	3.8112	1.1765	A+	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
MATH	7	802121	4	CCAACS	2	B-E	12328	0.5736	0.4262	0.5733	0.0005	0.3904	-0.3896	0.3908	-0.0284	-0.2461	0.0626	3.4711	1.0883	2.2211	1.0998	A-	A-	A-
MATH	7	802120	5	CCAACS	2	B-E	12282	0.399	0.5989	0.3976	0.0035	0.2608	-0.2558	0.2623	-0.0507	0.6864	0.0645	7.9112	1.2474	7.4714	1.3542	A+	A-	A-
MATH	7	802118	7	CCAACS	2	A-R	12273	0.5453	0.4513	0.5413	0.0074	0.6481	-0.6342	0.6512	-0.1039	-0.0751	0.0626	-9.8993	0.7215	-9.4393	0.6554	A-	A-	A-
MATH	7	802126	7	CCAACS	2	D-S	12329	0.4927	0.5064	0.4917	0.0019	0.4984	-0.4948	0.4994	-0.0512	0.1865	0.0625	-2.6891	0.9322	-2.6391	0.9004	A+	A-	A-
MATH	8	802129	1	CCAACS	2	B-E	19500	0.2792	0.7202	0.2789	0.0009	0.2483	-0.2465	0.2487	-0.0298	0.7942	0.0742	5.1012	1.2014	6.2014	1.3902	A-	A-	A+
MATH	8	802134	1	CCAACS	2	C-G	19292	0.3396	0.6531	0.3359	0.011	0.606	-0.5801	0.6085	-0.1082	0.4529	0.071	-2.9191	0.9069	-4.0792	0.8163	A-	A-	A-
MATH	8	802132	2	CCAACS	2	B-F	12619	0.362	0.6376	0.3617	0.0007	0.2724	-0.2708	0.2729	-0.0345	0.7237	0.0651	6.5812	1.2071	6.8513	1.332	A+	A-	A-
MATH	8	802133	2	CCAACS	2	B-F	12590	0.6002	0.3981	0.5976	0.0043	0.6265	-0.6183	0.6289	-0.0875	-0.4991	0.0624	-9.8992	0.7675	-6.9993	0.708	A-	B-	A-
MATH	8	802131	3	CCAACS	2	B-E	12669	0.4393	0.5603	0.4391	0.0006	0.6068	-0.6053	0.6071	-0.0334	0.3026	0.0635	-8.7192	0.7808	-7.6293	0.7197	A-	A-	A-
MATH	8	802137	3	CCAACS	2	D-S	12584	0.6184	0.3805	0.6166	0.0029	0.5737	-0.5689	0.5756	-0.0681	-0.6337	0.063	-8.0192	0.8143	-5.2392	0.7589	A+	A-	A-
MATH	8	802136	4	CCAACS	2	D-S	12687	0.6339	0.366	0.6337	0.0003	0.3779	-0.3775	0.3782	-0.0217	-0.6873	0.0639	0.221	1.0054	1.4211	1.0808	A-	A-	A+
MATH	8	802128	5	CCAACS	2	A-N	12676	0.7713	0.2283	0.77	0.0017	0.5073	-0.5053	0.509	-0.0511	-1.5038	0.0713	-7.8493	0.7461	-5.4794	0.6036	A+	B-	A-
MATH	8	802135	6	CCAACS	2	C-G	12621	0.1638	0.832	0.1629	0.005	0.5126	-0.4916	0.5128	-0.0791	2.065	0.0832	-4.4792	0.7897	-3.9293	0.6667	A-	A-	A-
SCIENCE	5	806713	1	STEELS	2	1	42063	0.7611	0.2386	0.7602	0.0013	0.3955	-0.3937	0.3975	-0.0543	-1.2368	0.0401	-3.5391	0.9274	-0.549	0.9795	A+	A-	A+
SCIENCE	5	807212	1	STEELS	2	2	42097	0.1932	0.8064	0.1931	0.0005	0.3996	-0.3983	0.3997	-0.0196	1.8279	0.0408	0.131	1.0026	-0.599	0.9767	A+	A+	A+
SCIENCE	5	807166	1	STEELS	2	3	32627	0.5499	0.4498	0.5496	0.0007	0.5029	-0.5016	0.5033	-0.0341	-0.1689	0.0435	-5.0491	0.9162	-5.2491	0.8781	A-	A-	A-
SCIENCE	5	795666	1	STEELS	2	5	32702	0.7473	0.2526	0.7468	0.0007	0.3694	-0.3686	0.3703	-0.0328	-1.2462	0.0487	-4.5591	0.8934	-4.7092	0.8163	A+	A+	A+
SCIENCE	5	807213	2	STEELS	2	2	9442	0.7113	0.2886	0.711	0.0004	0.526	-0.5249	0.5266	-0.0408	-0.8019	0.0615	-6.5392	0.8214	-6.3593	0.7482	A-	A-	A+
SCIENCE	5	807189	2	STEELS	2	3	9446	0.0634	0.9366	0.0634		0.2941	-0.2941	0.2941		3.2905	0.1082	-1.0491	0.9086	-2.6693	0.6658	A-	A+	A+
SCIENCE	5	806820	2	STEELS	2	4	9445	0.4921	0.5078	0.4921	0.0001	0.4458	-0.4453	0.4458	-0.0256	0.2955	0.0558	-0.979	0.9812	-1.039	0.9731	A+	A+	A+
SCIENCE	5	807214	2	STEELS	3	5	18895	0.6497	0.3499	0.6491	0.001	0.465	-0.4631	0.466	-0.049	-0.4393	0.0415	-5.9691	0.8992	-4.6891	0.8879	A+	A-	A-
SCIENCE	5	810247	3	STEELS	2	2	9407	0.1911	0.8088	0.1911	0.0001	0.4102	-0.4097	0.4103	-0.0198	1.8272	0.0688	-2.0391	0.9222	-2.7592	0.8359	A-	A-	A-
SCIENCE	5	810251	3	STEELS	3	3	9404	0.3958	0.604	0.3956	0.0004	0.3946	-0.3938	0.3947	-0.0199	0.6481	0.0567	-0.799	0.9833	0.691	1.02	A-	A-	A-
SCIENCE	5	810253	3	STEELS	3	4	9406	0.6387	0.3612	0.6386	0.0002	0.5468	-0.5467	0.5468	-0.0045	-0.5229	0.058	-7.6892	0.8308	-7.4092	0.769	A+	A+	A+
SCIENCE	5	810224	3	STEELS	3	5	18813	0.4611	0.5388	0.4609	0.0003	0.3474	-0.3467	0.3476	-0.0268	0.487	0.0399	4.0711	1.0609	2.181	1.0436	A-	A+	A+
SCIENCE	5	806715	4	STEELS	2	1	9478	0.4222	0.5773	0.4219	0.0007	0.3988	-0.3968	0.3993	-0.0441	0.5956	0.0563	0.311	1.0062	-0.219	0.9937	B+	A-	A-
SCIENCE	5	810249	4	STEELS	3	2	9483	0.2942	0.7056	0.2941	0.0002	0.4167	-0.4161	0.4167	-0.0176	1.2519	0.0602	-0.339	0.9908	-1.6691	0.9334	A-	A-	A-
SCIENCE	5	807186	4	STEELS	2	3	9477	0.4393	0.5603	0.4389	0.0008	0.5093	-0.5068	0.5098	-0.0497	0.514	0.0561	-4.3191	0.9158	-3.6991	0.9048	A+	A-	A-
SCIENCE	5	806714	5	STEELS	2	1	9428	0.6471	0.3527	0.6468	0.0005	0.4004	-0.3994	0.401	-0.0377	-0.4796	0.0583	-1.229	0.9706	-1.5991	0.9459	A-	A-	A-

Content	Grade	PubID	Form	Stand Set	Depth	Stand1	N	Mean	P(0)	P(1)	P(OMIT)	PtBis	Corr(0)	Corr(1)	Corr (OMIT)	Final	Final Err	Infit	Infit-MS	Outfit	Outfit-MS	M/F	W/B	W/H
SCIENCE	5	806716	5	STEELS	2	2	9430	0.8181	0.1818	0.8179	0.0003	0.4408	-0.4402	0.4416	-0.0358	-1.4955	0.07	-2.5091	0.9024	-3.1492	0.8039	A+	A+	A+
SCIENCE	5	807167	5	STEELS	2	3	9425	0.3659	0.6335	0.3656	0.0008	0.4946	-0.4912	0.4949	-0.0577	0.8632	0.0578	-5.2791	0.8859	-5.3492	0.8317	B-	B-	A-
SCIENCE	5	810245	5	STEELS	2	5	9427	0.0523	0.9471	0.0523	0.0006	0.0591	-0.0545	0.0593	-0.0393	3.4413	0.1172	-0.5391	0.9458	2.3814	1.4078	A+	A-	A-
SCIENCE	5	806712	6	STEELS	2	1	9440	0.5632	0.4366	0.5631	0.0003	0.4191	-0.4185	0.4194	-0.0254	-0.0911	0.0565	-0.989	0.9792	-1.499	0.9592	A-	A+	A-
SCIENCE	5	810250	6	STEELS	2	2	9441	0.4948	0.5051	0.4947	0.0002	0.5528	-0.5523	0.5529	-0.0219	0.2364	0.0561	-7.6891	0.8529	-6.9292	0.8302	A+	A+	A+
SCIENCE	5	806719	6	STEELS	2	3	9428	0.6981	0.3014	0.697	0.0016	0.469	-0.4664	0.4709	-0.0606	-0.7744	0.0604	-5.2691	0.8642	-4.3592	0.831	A+	A-	A-
SCIENCE	5	810246	6	STEELS	2	5	9439	0.3035	0.6962	0.3034	0.0004	0.4413	-0.44	0.4415	-0.0303	1.1941	0.0604	-3.8491	0.9011	-4.4692	0.8228	A+	A-	A-
SCIENCE	5	810252	7	STEELS	2	3	9447	0.4931	0.5059	0.492	0.0021	0.47	-0.4642	0.4714	-0.0789	0.3595	0.056	-2.6391	0.9488	-1.699	0.9551	A+	A-	A-
SCIENCE	8	806584	1	STEELS	2	3	29341	0.4045	0.5942	0.4035	0.0022	0.41	-0.4056	0.4111	-0.0536	0.3219	0.0437	0.741	1.0129	1.001	1.0229	A-	B-	A-
SCIENCE	8	806585	1	STEELS	2	3	39163	0.6314	0.3684	0.6311	0.0005	0.3408	-0.3401	0.3413	-0.0278	-0.7397	0.0351	4.3611	1.0617	4.7111	1.111	B-	A-	A-
SCIENCE	8	815852	1	STEELS	3	4	29313	0.482	0.5169	0.4809	0.0022	0.5977	-0.5934	0.5986	-0.054	-0.0521	0.0432	-9.8992	0.8321	-9.6192	0.7988	A+	A-	A-
SCIENCE	8	800417	1	STEELS	3	5	29282	0.2772	0.7197	0.276	0.0043	0.4479	-0.4364	0.4491	-0.0734	1.0102	0.0472	-0.869	0.9805	-1.129	0.962	A+	A+	A+
SCIENCE	8	806480	2	STEELS	2	1	9796	0.5279	0.4717	0.5274	0.0009	0.4463	-0.4445	0.447	-0.0421	-0.1092	0.0556	-2.4691	0.95	-2.5691	0.9353	A-	A+	A+
SCIENCE	8	806081	2	STEELS	2	2	19515	0.495	0.5049	0.4948	0.0004	0.1495	-0.149	0.1498	-0.0208	0.0268	0.0388	9.9012	1.2201	9.9013	1.2602	A-	A-	A+
SCIENCE	8	806532	2	STEELS	2	5	19569	0.511	0.4888	0.5108	0.0004	0.5843	-0.5834	0.5845	-0.0281	-0.0039	0.0396	-9.8992	0.8157	-9.8992	0.7762	A+	A+	A-
SCIENCE	8	806481	3	STEELS	2	1	19493	0.525	0.4749	0.5249	0.0003	0.4296	-0.4292	0.4297	-0.0183	-0.1012	0.0394	-1.399	0.9799	-1.819	0.9638	A-	A-	A+
SCIENCE	8	806101	3	STEELS	2	2	19523	0.6954	0.3046	0.6952	0.0002	0.3518	-0.3515	0.3521	-0.0235	-0.9592	0.0421	0.391	1.0069	-0.519	0.9838	A-	A+	A-
SCIENCE	8	806094	3	STEELS	2	3	9718	0.4468	0.5527	0.4464	0.0008	0.4995	-0.4978	0.4999	-0.0358	0.2153	0.0554	-5.7191	0.8896	-5.3191	0.8705	A-	A-	A-
SCIENCE	8	806534	3	STEELS	2	5	9701	0.4022	0.5962	0.4012	0.0026	0.3311	-0.3261	0.3326	-0.0599	0.4331	0.0562	2.001	1.0433	1.361	1.0383	A+	A-	A-
SCIENCE	8	800325	4	STEELS	2	1	9740	0.698	0.3017	0.6975	0.0008	0.5067	-0.5058	0.507	-0.0251	-0.9498	0.0601	-6.7692	0.8306	-6.2893	0.7493	A+	A-	A-
SCIENCE	8	806117	4	STEELS	2	2	19419	0.4889	0.5096	0.4875	0.0029	0.4501	-0.4451	0.4514	-0.0579	0.0805	0.0393	-2.689	0.9614	-3.3691	0.9389	A+	A-	A-
SCIENCE	8	806582	4	STEELS	2	3	9746	0.7735	0.2264	0.7734	0.0002	0.4854	-0.4851	0.4858	-0.0264	-1.4024	0.0651	-5.2392	0.835	-4.2792	0.7694	A-	B-	A-
SCIENCE	8	806483	4	STEELS	2	5	9742	0.5305	0.4692	0.5302	0.0006	0.479	-0.4775	0.4795	-0.0408	-0.1006	0.056	-3.5091	0.9271	-3.3991	0.9086	A-	A+	A+
SCIENCE	8	806479	5	STEELS	2	4	9790	0.58	0.4195	0.5793	0.0011	0.4281	-0.4262	0.4291	-0.0449	-0.3243	0.0566	-0.839	0.9817	-1.059	0.9658	A-	B-	A-
SCIENCE	8	806482	6	STEELS	2	1	19434	0.7436	0.2562	0.7432	0.0006	0.3729	-0.3722	0.3737	-0.0329	-1.2206	0.0435	-2.109	0.9567	-3.7591	0.8797	A-	A-	A-
SCIENCE	8	806099	6	STEELS	2	3	9705	0.5412	0.4578	0.5399	0.0024	0.3432	-0.3399	0.3447	-0.0505	-0.1893	0.0554	2.241	1.0444	2.7311	1.0735	A-	A-	A-
SCIENCE	8	785162	6	STEELS	2	5	19428	0.3878	0.6117	0.3875	0.0009	0.4286	-0.4269	0.4288	-0.029	0.5221	0.0397	-4.8491	0.9286	-4.7691	0.9084	A-	A-	A-
SCIENCE	8	806587	7	STEELS	2	3	9708	0.2876	0.7117	0.2873	0.0009	0.2376	-0.235	0.2381	-0.0419	1.0247	0.0597	3.2411	1.0913	4.1412	1.1671	A-	A-	A-

APPENDIX G: 2025 SECTION LAYOUT PLANS

ENGLISH LANGUAGE ARTS SECTION LAYOUT FOR GRADES 4, 5, 6, 7, AND 8

English Language Arts Core	
Core/common standalone MC/TE items	9
Core/common passage-based MC/TE items	23
3 core 2 pt EBSR/TE items	6
3 core 3 pt EBSR/TE items	9
1 core 4 pt TDA	16 (weighted x 4)
Total	63 points

The estimated testing time for English language arts is approximately 225–246 minutes (including placeholder items and embedded field-test items). [Timing assumes 30 min per TDA; 3 to 5 min per multi-point EBSR/TE; 1½ to 2 min per 1-point MC/TE, and 7 min per reading passage set.]

Section	Content	Number of MC/TE/ EBSR	MC/EBSR Item Breakdown	Number of TDA	TDA Item Breakdown	Estimated Number of Passages	Section Time (in minutes)
1	Conventions of Standard English (Writing) and Reading	21–24 MC/ TE, 4–5 EBSR/TE	4–5 core MC/TE language items, 0–1 (PU) MC/ TE language item, 1 FT MC/TE language item, 15–18 core MC/TE reading items, 2–3 2pt EBSR/TE reading items, 2–3 3pt EBSR/ TE reading items	0	N/A	3	67–78
2	Reading and Text-Dependent Analysis (Reading/ Writing)	14 MC/TE, 2 EBSR/TE	8 FT MC/TE reading items, 2 EBSR/TE FT reading items	1	1–field-test TDA	1	70
3	Conventions of Standard English (Writing), Reading and Text-Dependent Analysis (Reading/ Writing)	11–14 MC/ TE	6–placeholder items, 10–field-test items	1	1–field-test TDA	2	70–80

Note: There were nine forms per grade.

English Language Arts Test/Answer Booklet Section Layout for Grade 3

English Language Arts Core	
Core/common standalone MC/TE items	9
Core/common passage-based MC/TE items	20
2 core 2 pt EBSR/TE items	4
2 core 3 pt EBSR/TE items	6
2 core 3 pt SA items	6
Total	45 points

The estimated testing time for reading is approximately 134–166 minutes (including psychometric use items and embedded field-test items). [Timing assumes 5 to 10 min per SA, 3 to 5 min per multi-point EBSR/TE, 1½ to 2 min per 1-point MC/TE, and 7 min per reading passage set.]

Section	Content	Number of MC/TE/ EBSR	MC/TE/EBSR Item Breakdown	Number of SA	SA Item Breakdown	Estimated Number of Passages	Section Time (in min)
1	Conventions of Standard English (Writing) and Reading	14–18 MC/TE 1–3 EBSR/TE	4–5 core MC/TE language items, 0–1 (PU) MC/TE language item, 1 FT MC/TE language item, 8–12 core MC/TE reading items, 0–2 2pt EBSR/TE reading items, 0–2 3pt EBSR/TE reading items	1	1 core	2	43–59
2	Reading	14 MC/TE, 2 EBSR/TE	8 MC/TE FT reading items, 2 EBSR/TE FT reading items	1	1 field-test	1	35
3	Conventions of Standard English (Writing) and Reading	14–18 MC/ TE, 1–3 EBSR/TE	4–5 core MC/TE language items, 0–1 (PU) MC/TE language item, 1 FT MC/TE language item, 8–12 core MC/TE reading items, 0–2 2pt EBSR/TE reading items, 0–2 3pt EBSR/TE reading items	1	1 core	2	43–59

Note: There were nine forms per grade.

MATHEMATICS SECTION LAYOUT FOR GRADES 3, 4, 5, 6, 7, AND 8

Mathematics Core	
Core/common MC/TE items	40
3 core 4 pt OE items	12
Total	52 points

The estimated testing time for mathematics is approximately 156 minutes. [Timing assumes 5 to 10 min per OE and 1½ to 2 min per MC/TE.]

Section	Content	Number of MC/TE	MC/TE Item Breakdown	Number of OE	OE Item Breakdown	Section Time (in minutes)
1	Mathematics	24	20–common (core) items (includes 3 non–calc in Grades 4–8), 1 psychometric use/placeholder, 3–embedded field-test items	2	2–common (core) items	78
2	Mathematics	24	20–common (core) items, 1–psychometric use/placeholder, 3–embedded field-test items	2	2–common (core) item, 1–embedded field-test item	78

Notes. 1) There were nine forms per grade. 2) The ruler items in Grade 3 and the protractor items in Grade 4 may fall in Section 1, 2, or 3. 3) Calculators are not allowed on the Grade 3 test. In Grades 4–8, a portion of section 1 is considered "non-calc."

SCIENCE SECTION LAYOUT

The 2025 PSSA science assessment was a stand-alone field test event. Details regarding PSSA Science are reported separately in Appendix U.

General Information

- Timing Key: MC/TE = 1 to 1½ min; 3 pt OE = 5 min; Scenario stimulus = 3 min
- There were 6 stand-alone field test forms per grade in 2025. The plan is to have 18 forms in 2026 and 12 forms in 2027 and moving forward.
- The assessment has two sections. Items within the four reporting categories are distributed within both sections. Items were approximately evenly distributed between the sections. Grade 5, sections 1 and 2, both contained 25 items, for a total of 50 items. Grade 8, sections 1 and 2, both contained 26 items, for a total of 52 items.
- Within a section, non-scenario MC/TE items *most likely* will precede scenario-based MC/TE items which will precede OE items.

APPENDIX H: MEAN SCALED SCORES BY FORM

The tables provide the mode (All, paper, or CBT), form number (Form), the number of students (N), the minimum scaled score (Min), the maximum scaled score (Max), the median scaled score (Med), the mean scaled score (Mean), and the standard deviation (STD) of the scaled score. A value of 00 for form represents all forms. PSSA Science was a stand-alone field test in 2025. No student scores were reported.

Mathematics Grade 3 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	118833	600	1532	1009	1014.17	124.58
All	01	20854	600	1532	950	972.09	121.94
All	01S	5406	694	1532	1034	1034.82	120.53
All	02	11547	600	1532	1017	1021.52	123.65
All	03	11576	651	1532	1017	1022.08	123.74
All	04	11533	694	1532	1017	1021.46	122.65
All	05	11606	694	1532	1017	1022.52	122.58
All	06	11608	600	1532	1017	1023.05	123.27
All	07	11573	651	1532	1017	1023.38	123.54
All	08	11567	651	1532	1017	1022.58	124.90
All	09	11563	651	1532	1017	1022.99	123.05
Paper	00	56403	600	1532	1009	1011.05	126.32
Paper	01	6799	600	1532	992	998.77	126.52
Paper	02	6197	600	1532	1009	1012.12	127.69
Paper	03	6196	651	1532	1009	1012.01	126.14
Paper	04	6160	694	1532	1009	1010.26	124.24
Paper	05	6214	694	1532	1009	1013.13	126.02
Paper	06	6214	600	1532	1009	1013.96	126.27
Paper	07	6232	651	1532	1009	1012.80	125.71
Paper	08	6195	651	1532	1009	1013.90	127.93
Paper	09	6196	651	1532	1009	1013.70	125.49
CBT	00	62430	600	1532	1009	1016.99	122.93
CBT	01	14055	600	1532	941	959.19	117.51
CBT	01S	5406	694	1532	1034	1034.82	120.53
CBT	02	5350	726	1532	1026	1032.40	117.86
CBT	03	5380	651	1532	1034	1033.68	119.89
CBT	04	5373	752	1532	1026	1034.29	119.51
CBT	05	5392	694	1532	1026	1033.33	117.57
CBT	06	5394	651	1532	1034	1033.53	118.86
CBT	07	5341	726	1532	1034	1035.72	119.77
CBT	08	5372	651	1532	1026	1032.60	120.54
CBT	09	5367	694	1532	1026	1033.70	119.27

Mathematics Grade 4 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	114325	600	1516	1001	1007.50	126.39
All	01	20562	600	1516	942	964.97	121.98
All	01S	4974	686	1516	1026	1029.47	120.64
All	02	11111	686	1516	1009	1015.81	124.73
All	03	11088	643	1516	1009	1016.10	124.26
All	04	11132	643	1516	1009	1017.47	125.38
All	05	11081	686	1516	1009	1015.54	126.58
All	06	11119	643	1516	1009	1015.17	126.39
All	07	11103	600	1516	1009	1015.34	124.48
All	08	11080	643	1516	1009	1016.03	126.73
All	09	11075	686	1516	1009	1017.53	126.60
Paper	00	55501	600	1516	993	1003.09	126.80
Paper	01	6745	600	1516	984	992.38	126.90
Paper	02	6069	686	1516	993	1003.38	125.16
Paper	03	6071	643	1516	993	1004.48	125.12
Paper	04	6128	643	1516	993	1006.50	126.83
Paper	05	6072	686	1516	993	1004.46	127.10
Paper	06	6122	643	1516	993	1003.43	128.49
Paper	07	6116	600	1516	993	1003.21	125.00
Paper	08	6090	643	1516	993	1004.74	127.92
Paper	09	6088	686	1516	1001	1006.34	127.93
CBT	00	58824	643	1516	1001	1011.67	125.87
CBT	01	13817	643	1516	934	951.59	117.20
CBT	01S	4974	686	1516	1026	1029.47	120.64
CBT	02	5042	686	1516	1026	1030.76	122.55
CBT	03	5017	718	1516	1026	1030.15	121.74
CBT	04	5004	686	1516	1026	1030.90	122.23
CBT	05	5009	718	1516	1017	1028.96	124.63
CBT	06	4997	686	1516	1026	1029.55	122.24
CBT	07	4987	643	1516	1026	1030.20	122.21
CBT	08	4990	686	1516	1026	1029.82	123.88
CBT	09	4987	718	1516	1026	1031.19	123.59

Mathematics Grade 5 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117903	600	1507	980	995.52	121.04
All	01	21540	639	1507	929	952.35	115.04
All	01S	5611	682	1507	1005	1016.40	117.72
All	02	11315	714	1507	997	1005.38	122.15
All	03	11388	639	1507	997	1005.70	121.39
All	04	11335	682	1507	988	1004.19	119.91
All	05	11306	714	1507	997	1005.07	118.80
All	06	11340	682	1507	988	1003.74	120.62
All	07	11364	682	1507	988	1003.88	119.85
All	08	11355	600	1507	988	1004.29	119.57
All	09	11349	639	1507	997	1003.54	120.53
Paper	00	52164	600	1507	971	989.95	120.75
Paper	01	6535	682	1507	955	978.79	122.32
Paper	02	5686	714	1507	980	993.21	123.67
Paper	03	5719	639	1507	980	994.28	121.54
Paper	04	5682	682	1507	971	991.18	119.78
Paper	05	5691	714	1507	980	991.22	117.65
Paper	06	5681	682	1507	971	990.69	121.02
Paper	07	5704	682	1507	980	991.17	119.48
Paper	08	5723	600	1507	971	989.68	118.98
Paper	09	5743	682	1507	971	990.98	121.25
CBT	00	65739	639	1507	988	999.94	121.08
CBT	01	15005	639	1507	920	940.83	109.75
CBT	01S	5611	682	1507	1005	1016.40	117.72
CBT	02	5629	714	1507	1005	1017.66	119.35
CBT	03	5669	714	1507	1005	1017.23	120.14
CBT	04	5653	682	1507	1005	1017.26	118.61
CBT	05	5615	714	1507	1005	1019.11	118.30
CBT	06	5659	714	1507	1005	1016.85	118.79
CBT	07	5660	714	1507	1005	1016.70	118.85
CBT	08	5632	714	1507	1005	1019.13	118.32
CBT	09	5606	639	1507	1005	1016.40	118.41

Mathematics Grade 6 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117473	600	1506	951	972.76	128.55
All	01	21094	600	1506	898	928.75	120.69
All	01S	6043	686	1506	976	992.65	125.29
All	02	11304	653	1506	967	981.69	127.43
All	03	11308	653	1506	967	982.64	131.05
All	04	11312	609	1506	967	980.88	126.17
All	05	11280	653	1506	967	980.47	128.29
All	06	11303	653	1506	967	982.89	128.38
All	07	11249	600	1506	967	981.93	127.28
All	08	11300	609	1506	967	981.38	129.31
All	09	11280	609	1506	967	981.81	128.97
Paper	00	48358	600	1506	951	965.63	127.46
Paper	01	6083	600	1506	925	949.94	125.25
Paper	02	5291	653	1506	951	968.50	128.09
Paper	03	5279	653	1506	951	967.11	129.94
Paper	04	5295	609	1506	951	968.22	124.86
Paper	05	5299	653	1506	951	966.30	126.62
Paper	06	5317	653	1506	951	968.01	126.20
Paper	07	5263	600	1506	951	969.81	128.04
Paper	08	5269	609	1506	951	967.01	127.17
Paper	09	5262	609	1506	951	968.13	129.90
CBT	00	69115	609	1506	959	977.76	129.07
CBT	01	15011	609	1506	889	920.16	117.71
CBT	01S	6043	686	1506	976	992.65	125.29
CBT	02	6013	653	1506	976	993.30	125.70
CBT	03	6029	686	1506	976	996.24	130.52
CBT	04	6017	653	1506	976	992.02	126.27
CBT	05	5981	653	1506	976	993.02	128.46
CBT	06	5986	686	1506	984	996.10	128.85
CBT	07	5986	686	1506	976	992.59	125.64
CBT	08	6031	653	1506	976	993.94	129.85
CBT	09	6018	686	1506	976	993.77	126.95

Mathematics Grade 7 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117043	600	1526	940	961.43	125.11
All	01	19592	600	1526	885	923.59	120.14
All	01S	6113	600	1526	957	976.61	123.25
All	02	11433	677	1526	949	967.06	125.33
All	03	11446	600	1526	949	967.32	124.60
All	04	11457	634	1526	949	968.43	124.70
All	05	11387	634	1526	949	969.63	125.04
All	06	11428	634	1526	949	971.08	125.72
All	07	11413	634	1526	949	969.33	123.38
All	08	11387	600	1526	949	967.54	125.51
All	09	11387	634	1526	949	967.83	123.92
Paper	00	48505	600	1526	932	956.70	125.85
Paper	01	6142	600	1526	914	942.89	127.36
Paper	02	5304	677	1526	932	956.28	124.35
Paper	03	5305	600	1526	932	957.26	124.58
Paper	04	5358	634	1526	940	959.51	125.44
Paper	05	5294	634	1526	940	959.50	125.82
Paper	06	5284	634	1526	940	960.36	127.40
Paper	07	5284	634	1526	940	960.61	124.48
Paper	08	5268	600	1526	932	957.44	127.06
Paper	09	5266	634	1526	940	958.61	124.77
CBT	00	68538	600	1526	949	964.78	124.47
CBT	01	13450	634	1526	885	914.78	115.63
CBT	01S	6113	600	1526	957	976.61	123.25
CBT	02	6129	709	1526	957	976.38	125.43
CBT	03	6141	709	1526	957	976.01	123.95
CBT	04	6099	634	1526	957	976.26	123.51
CBT	05	6093	677	1526	957	978.43	123.68
CBT	06	6144	677	1526	966	980.30	123.52
CBT	07	6129	677	1526	966	976.84	121.93
CBT	08	6119	709	1526	957	976.23	123.51
CBT	09	6121	677	1526	957	975.77	122.63

Mathematics Grade 8 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117469	600	1462	925	943.13	122.55
All	01	19126	604	1462	874	907.04	116.28
All	01S	6259	647	1462	942	955.72	120.06
All	02	11503	604	1462	934	951.20	121.89
All	03	11488	647	1462	934	948.02	122.83
All	04	11522	679	1462	934	949.82	124.12
All	05	11440	604	1462	934	950.84	123.33
All	06	11493	604	1462	934	947.25	120.15
All	07	11579	679	1462	942	952.73	122.51
All	08	11544	600	1462	934	947.48	123.45
All	09	11515	604	1462	934	950.86	122.83
Paper	00	47961	600	1462	917	938.93	123.71
Paper	01	6099	604	1462	900	924.10	120.03
Paper	02	5230	647	1462	925	942.85	124.14
Paper	03	5225	679	1462	917	940.71	125.63
Paper	04	5262	679	1462	917	940.54	125.14
Paper	05	5170	604	1462	917	941.68	124.87
Paper	06	5228	604	1462	917	938.89	119.99
Paper	07	5265	679	1462	925	943.41	122.14
Paper	08	5227	600	1462	917	939.12	125.84
Paper	09	5255	647	1462	917	941.53	124.78
CBT	00	69508	604	1462	925	946.03	121.66
CBT	01	13027	647	1462	874	899.05	113.60
CBT	01S	6259	647	1462	942	955.72	120.06
CBT	02	6273	604	1462	942	958.15	119.53
CBT	03	6263	647	1462	942	954.11	120.10
CBT	04	6260	679	1462	942	957.62	122.71
CBT	05	6270	647	1462	942	958.39	121.52
CBT	06	6265	647	1462	942	954.23	119.84
CBT	07	6314	679	1462	950	960.51	122.28
CBT	08	6317	647	1462	942	954.39	121.01
CBT	09	6260	604	1462	942	958.69	120.62

ELA Grade 3 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	118530	600	1536	996	1001.28	104.82
All	01	19743	600	1413	943	967.41	103.03
All	01S	5357	711	1413	1017	1013.40	98.97
All	02	11740	600	1536	1006	1005.64	104.11
All	03	11700	667	1536	1006	1006.34	103.79
All	04	11691	667	1536	1006	1007.02	103.02
All	05	11670	667	1536	1006	1008.12	104.21
All	06	11694	667	1536	1006	1009.37	104.36
All	07	11611	667	1413	1006	1006.72	105.12
All	08	11672	600	1413	1006	1009.95	103.78
All	09	11652	667	1536	1006	1008.81	104.53
Paper	00	57068	600	1536	1006	1005.05	108.22
Paper	01	6392	600	1413	1006	1004.65	107.55
Paper	02	6359	600	1536	996	1001.95	109.03
Paper	03	6342	667	1536	996	1002.94	106.78
Paper	04	6321	667	1536	1006	1003.81	106.42
Paper	05	6322	667	1413	1006	1005.14	108.27
Paper	06	6333	667	1536	1006	1007.04	108.85
Paper	07	6308	667	1413	1006	1005.99	110.00
Paper	08	6347	600	1413	1006	1008.08	108.49
Paper	09	6344	667	1413	1006	1005.82	108.38
CBT	00	61462	600	1536	996	997.79	101.44
CBT	01	13351	600	1413	932	949.58	95.79
CBT	01S	5357	711	1413	1017	1013.40	98.97
CBT	02	5381	744	1413	1006	1010.01	97.78
CBT	03	5358	667	1536	1006	1010.36	99.98
CBT	04	5370	667	1413	1006	1010.81	98.72
CBT	05	5348	711	1536	1006	1011.63	99.08
CBT	06	5361	711	1536	1006	1012.12	98.73
CBT	07	5303	667	1413	1006	1007.60	98.99
CBT	08	5325	711	1413	1006	1012.19	97.83
CBT	09	5308	711	1536	1006	1012.39	99.61

ELA Grade 4 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	113952	600	1581	993	991.13	99.95
All	01	19397	600	1384	940	955.08	102.42
All	01S	4975	701	1457	1008	1006.09	93.64
All	02	11150	600	1339	1000	997.23	97.39
All	03	11194	670	1384	1000	997.54	97.82
All	04	11226	600	1384	1000	995.73	96.36
All	05	11190	600	1384	1000	996.57	98.01
All	06	11186	628	1581	1000	998.89	98.34
All	07	11214	600	1457	1000	999.39	98.33
All	08	11268	628	1457	1000	1000.31	99.12
All	09	11152	628	1581	1000	999.16	98.67
Paper	00	55811	600	1581	993	992.48	101.18
Paper	01	6232	600	1384	993	992.26	102.77
Paper	02	6168	600	1339	993	989.87	100.83
Paper	03	6227	670	1339	993	990.93	99.67
Paper	04	6197	600	1339	993	990.23	98.94
Paper	05	6177	600	1384	993	990.61	101.60
Paper	06	6178	628	1457	993	993.90	101.59
Paper	07	6224	600	1457	993	994.34	101.22
Paper	08	6211	628	1384	993	994.07	102.00
Paper	09	6197	628	1581	1000	996.12	101.75
CBT	00	58141	600	1581	993	989.83	98.74
CBT	01	13165	670	1384	917	937.49	97.42
CBT	01S	4975	701	1457	1008	1006.09	93.64
CBT	02	4982	746	1339	1008	1006.34	92.15
CBT	03	4967	701	1384	1008	1005.84	94.78
CBT	04	5029	600	1384	1008	1002.51	92.63
CBT	05	5013	746	1384	1008	1003.92	92.86
CBT	06	5008	701	1581	1008	1005.05	93.80
CBT	07	4990	701	1339	1008	1005.69	94.23
CBT	08	5057	701	1457	1008	1007.98	94.91
CBT	09	4955	725	1457	1000	1002.95	94.54

ELA Grade 5 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117617	612	1580	991	990.01	104.39
All	01	20265	655	1457	938	952.22	105.84
All	01S	5676	712	1457	1006	1008.77	99.23
All	02	11439	612	1580	999	996.91	103.21
All	03	11437	655	1580	999	999.04	104.06
All	04	11533	655	1457	999	996.88	101.04
All	05	11491	655	1457	999	998.43	102.23
All	06	11421	687	1580	991	994.89	102.02
All	07	11432	612	1580	991	995.04	102.23
All	08	11464	655	1457	999	997.36	102.01
All	09	11459	612	1457	999	999.07	103.09
Paper	00	52208	612	1580	991	987.90	102.72
Paper	01	5825	655	1383	991	987.93	103.13
Paper	02	5804	612	1580	983	986.66	104.61
Paper	03	5780	655	1580	991	990.35	103.49
Paper	04	5813	655	1457	991	988.34	101.92
Paper	05	5823	687	1457	991	988.54	101.65
Paper	06	5792	687	1383	983	986.27	100.66
Paper	07	5808	612	1580	983	985.84	102.97
Paper	08	5770	655	1457	983	987.93	102.33
Paper	09	5793	612	1383	991	989.27	103.61
CBT	00	65409	655	1580	991	991.70	105.68
CBT	01	14440	655	1457	922	937.81	103.49
CBT	01S	5676	712	1457	1006	1008.77	99.23
CBT	02	5635	712	1580	1006	1007.48	100.66
CBT	03	5657	712	1580	1006	1007.93	103.89
CBT	04	5720	687	1457	999	1005.57	99.39
CBT	05	5668	655	1457	1006	1008.60	101.83
CBT	06	5629	712	1580	999	1003.77	102.66
CBT	07	5624	712	1580	999	1004.55	100.58
CBT	08	5694	687	1457	1006	1006.92	100.78
CBT	09	5666	655	1457	1006	1009.09	101.57

ELA Grade 6 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117329	600	1647	1004	1005.92	107.54
All	01	20088	658	1647	956	967.26	108.83
All	01S	6168	689	1647	1020	1022.06	103.89
All	02	11466	689	1518	1012	1012.24	105.07
All	03	11434	600	1647	1012	1015.50	104.82
All	04	11377	658	1518	1012	1013.61	104.72
All	05	11337	658	1518	1012	1011.48	105.86
All	06	11383	658	1518	1012	1015.20	106.68
All	07	11360	658	1518	1012	1012.97	106.90
All	08	11355	615	1518	1012	1011.13	104.04
All	09	11361	689	1647	1012	1014.73	106.61
Paper	00	47184	600	1647	1004	1004.70	107.17
Paper	01	5275	689	1647	1004	1004.34	107.38
Paper	02	5285	689	1518	1004	1003.43	107.59
Paper	03	5252	600	1438	1004	1006.75	106.71
Paper	04	5242	658	1518	1004	1004.17	106.09
Paper	05	5187	658	1518	1004	1003.62	107.21
Paper	06	5218	658	1518	1004	1007.46	108.26
Paper	07	5233	689	1438	1004	1003.92	107.92
Paper	08	5234	615	1518	1004	1003.13	106.15
Paper	09	5258	689	1518	1004	1005.49	107.10
CBT	00	70145	658	1647	1004	1006.75	107.78
CBT	01	14813	658	1647	940	954.05	106.26
CBT	01S	6168	689	1647	1020	1022.06	103.89
CBT	02	6181	734	1438	1012	1019.78	102.27
CBT	03	6182	713	1647	1020	1022.93	102.60
CBT	04	6135	713	1518	1020	1021.68	102.85
CBT	05	6150	713	1438	1012	1018.11	104.26
CBT	06	6165	734	1518	1020	1021.76	104.88
CBT	07	6127	658	1518	1020	1020.69	105.41
CBT	08	6121	713	1518	1012	1017.97	101.70
CBT	09	6103	689	1647	1020	1022.70	105.53

ELA Grade 7 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	116989	600	1584	997	1001.49	107.02
All	01	18725	605	1584	957	966.98	107.63
All	01S	6502	726	1387	1013	1013.56	102.87
All	02	11428	680	1461	1005	1007.28	104.11
All	03	11453	600	1584	1005	1007.42	105.20
All	04	11534	680	1461	1005	1009.66	105.47
All	05	11456	605	1584	1005	1006.91	105.49
All	06	11452	648	1461	1005	1006.83	107.19
All	07	11484	605	1461	1005	1006.51	105.92
All	08	11470	680	1461	1013	1009.43	107.08
All	09	11485	600	1584	1005	1007.38	105.92
Paper	00	45046	600	1584	997	999.67	109.39
Paper	01	5079	680	1584	997	996.93	108.43
Paper	02	5007	680	1461	997	1000.18	108.85
Paper	03	4991	600	1584	997	998.67	109.79
Paper	04	5011	680	1461	1005	1003.53	108.95
Paper	05	5010	605	1584	997	998.58	108.05
Paper	06	4987	680	1387	997	998.58	111.40
Paper	07	4997	605	1461	997	998.77	108.61
Paper	08	4986	680	1387	997	1001.71	110.50
Paper	09	4978	600	1461	997	1000.12	109.73
CBT	00	71943	605	1584	997	1002.63	105.49
CBT	01	13646	605	1584	941	955.83	105.17
CBT	01S	6502	726	1387	1013	1013.56	102.87
CBT	02	6421	680	1387	1013	1012.82	99.91
CBT	03	6462	705	1461	1013	1014.17	101.00
CBT	04	6523	705	1387	1013	1014.36	102.47
CBT	05	6446	680	1461	1013	1013.39	103.00
CBT	06	6465	648	1461	1013	1013.19	103.38
CBT	07	6487	705	1461	1013	1012.48	103.41
CBT	08	6484	705	1461	1013	1015.36	103.98
CBT	09	6507	726	1584	1013	1012.94	102.56

ELA Grade 8 Scaled Score Summary Statistics

Mode	Form	N	Min	Max	Median	Mean	STD
All	00	117561	600	1589	996	1005.32	117.17
All	01	18197	664	1589	951	970.87	118.99
All	01S	6665	719	1589	1011	1016.93	115.41
All	02	11550	694	1589	1004	1009.42	116.79
All	03	11573	621	1589	1011	1012.10	115.84
All	04	11564	694	1589	1004	1013.24	116.25
All	05	11506	664	1589	1004	1012.34	115.71
All	06	11600	694	1589	1004	1011.79	116.30
All	07	11625	621	1589	1004	1010.72	114.46
All	08	11667	664	1589	1004	1009.51	114.80
All	09	11614	600	1589	1004	1010.89	115.67
Paper	00	44542	600	1589	996	1005.20	118.79
Paper	01	4979	694	1589	996	1004.86	120.66
Paper	02	4952	694	1589	996	1004.21	119.47
Paper	03	4949	621	1589	1004	1005.33	118.49
Paper	04	4953	694	1589	1004	1008.06	118.45
Paper	05	4912	664	1589	996	1004.90	118.40
Paper	06	4955	694	1589	996	1005.07	119.37
Paper	07	4930	694	1589	1004	1004.84	116.88
Paper	08	4961	664	1589	996	1003.06	117.44
Paper	09	4951	600	1589	996	1006.50	119.85
CBT	00	73019	621	1589	996	1005.39	116.16
CBT	01	13218	664	1589	936	958.07	115.80
CBT	01S	6665	719	1589	1011	1016.93	115.41
CBT	02	6598	694	1589	1004	1013.33	114.58
CBT	03	6624	694	1465	1011	1017.16	113.56
CBT	04	6611	694	1589	1011	1017.12	114.43
CBT	05	6594	739	1589	1011	1017.88	113.35
CBT	06	6645	694	1589	1011	1016.80	113.70
CBT	07	6695	621	1589	1011	1015.04	112.45
CBT	08	6706	694	1589	1004	1014.28	112.56
CBT	09	6663	719	1589	1004	1014.15	112.36

Science Grade 5 Scaled Score Summary Statistics

Note. Science was a stand-alone field test in 2025. No student scores were reported.

Science Grade 8 Scaled Score Summary Statistics

Note. Science was a stand-alone field test in 2025. No student scores were reported.

APPENDIX I: DEMOGRAPHIC CHARACTERISTICS OF STUDENTS

Demographic Characteristics of Students Taking the 2025 PSSA: Mathematics

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Female (Number)	27,845	30,692	58,537	27,576	28,935	56,511	25,581	32,215	57,796	23,703	33,721	57,424	23,533	33,373	56,906	23,655	33,643	57,298
Female (Percent)	49.3	49.1	49.2	49.6	49.2	49.4	49	49	49	48.9	48.7	48.8	48.4	48.6	48.6	49.2	48.3	48.7
Male (Number)	28,615	31,794	60,409	27,969	29,925	57,894	26,643	33,572	60,215	24,720	35,461	60,181	25,065	35,229	60,294	24,411	35,943	60,354
Male (Percent)	50.7	50.9	50.8	50.4	50.8	50.6	51	51	51	51.1	51.3	51.2	51.6	51.4	51.4	50.8	51.7	51.3
American Indian/Alaskan Native (not Hispanic) (Number)	115	143	258	113	107	220	79	121	200	76	110	186	73	117	190	81	129	210
American Indian/Alaskan Native (not Hispanic) (Percent)	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
Asian (not Hispanic) (Number)	2,448	3,327	5,775	2,573	3,145	5,718	2,284	3,708	5,992	2,175	4,044	6,219	2,320	3,746	6,066	2,219	3,612	5,831
Asian (not Hispanic) (Percent)	4.3	5.3	4.9	4.6	5.3	5	4.4	5.6	5.1	4.5	5.8	5.3	4.8	5.5	5.2	4.6	5.2	5
Black or African American (not Hispanic) (Number)	9,095	7,069	16,164	8,803	6,608	15,411	8,922	7,410	16,332	8,914	7,526	16,440	9,145	7,069	16,214	9,205	7,586	16,791
Black or African American (not Hispanic) (Percent)	16.1	11.3	13.6	15.8	11.2	13.5	17.1	11.3	13.8	18.4	10.9	14	18.8	10.3	13.8	19.2	10.9	14.3
Hispanic (any race) (Number)	9,278	9,219	18,497	9,035	8,278	17,313	8,653	8,834	17,487	8,437	9,057	17,494	8,453	9,108	17,561	8,195	9,134	17,329
Hispanic (any race) (Percent)	16.4	14.8	15.6	16.3	14.1	15.1	16.6	13.4	14.8	17.4	13.1	14.9	17.4	13.3	15	17	13.1	14.7
Multi-Racial (not Hispanic) (Number)	3,479	3,888	7,367	3,158	3,405	6,563	2,934	3,567	6,501	2,545	3,882	6,427	2,428	3,601	6,029	2,398	3,511	5,909
Multi-Racial (not Hispanic) (Percent)	6.2	6.2	6.2	5.7	5.8	5.7	5.6	5.4	5.5	5.3	5.6	5.5	5	5.2	5.1	5	5	5
White (not Hispanic) (Number)	31,991	38,795	70,786	31,816	37,273	69,089	29,313	42,095	71,408	26,221	44,510	70,731	26,141	44,893	71,034	25,926	45,557	71,483
White (not Hispanic) (Percent)	56.7	62.1	59.5	57.3	63.3	60.4	56.1	64	60.5	54.1	64.3	60.1	53.8	65.4	60.6	53.9	65.5	60.8
Native Hawaiian or Other Pacific Islander (not Hispanic) (Number)	54	45	99	47	44	91	39	52	91	55	53	108	38	68	106	42	57	99
Native Hawaiian or Other Pacific Islander (not Hispanic) (Percent)	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
IEP (not gifted) (Number)	11,523	13,038	24,561	11,515	12,951	24,466	10,732	14,454	25,186	9,317	14,595	23,912	9,182	13,677	22,859	8,816	13,613	22,429
IEP (not gifted) (Percent)	20.4	20.9	20.6	20.7	22	21.4	20.5	22	21.3	19.2	21.1	20.3	18.9	19.9	19.5	18.3	19.6	19.1

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Student exited IEP in last 2 years (Number)	764	908	1,672	845	804	1,649	755	952	1,707	637	928	1,565	555	816	1,371	548	890	1,438
Student exited IEP in last 2 years (Percent)	1.4	1.5	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.3	1.1	1.2	1.2	1.1	1.3	1.2
Title I (Number)	34,086	34,739	68,825	32,939	31,360	64,299	30,113	31,904	62,017	24,409	25,198	49,607	21,524	21,781	43,305	21,144	20,672	41,816
Title I (Percent)	60.4	55.6	57.9	59.3	53.3	56.2	57.7	48.5	52.6	50.4	36.4	42.2	44.3	31.7	36.9	44	29.7	35.5
Title III served (Number)	4,547	4,005	8,552	4,214	3,409	7,623	3,403	2,774	6,177	2,950	2,578	5,528	3,201	2,552	5,753	3,160	2,444	5,604
Title III served (Percent)	8.1	6.4	7.2	7.6	5.8	6.7	6.5	4.2	5.2	6.1	3.7	4.7	6.6	3.7	4.9	6.6	3.5	4.8
Title III not served (Number)	6,316	7,758	14,074	5,330	8,207	13,537	5,343	8,484	13,827	5,115	9,083	14,198	4,925	9,025	13,950	4,922	9,531	14,453
Title III not served (Percent)	11.2	12.4	11.8	9.6	13.9	11.8	10.2	12.9	11.7	10.6	13.1	12.1	10.1	13.2	11.9	10.2	13.7	12.3
Migrant student (Number)	179	100	279	177	117	294	163	79	242	183	87	270	158	106	264	143	67	210
Migrant student (Percent)	.3	.2	.2	.3	.2	.3	.3	.1	.2	.4	.1	.2	.3	.2	.2	.3	.1	.2
EL enrolled first year (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EL enrolled first year (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EL enrolled not first year (Number)	4,815	4,327	9,142	4,456	3,694	8,150	3,587	2,959	6,546	3,120	2,744	5,864	3,351	2,683	6,034	3,344	2,600	5,944
EL enrolled not first year (Percent)	8.5	6.9	7.7	8	6.3	7.1	6.9	4.5	5.5	6.4	4	5	6.9	3.9	5.1	7	3.7	5.1
Exited ESL/bilingual program and in first year of monitoring (Number)	141	215	356	292	294	586	647	823	1,470	493	685	1,178	144	184	328	197	240	437
Exited ESL/bilingual program and in first year of monitoring (Percent)	.2	.3	.3	.5	.5	.5	1.2	1.3	1.2	1	1	1	.3	.3	.3	.4	.3	.4
Exited ESL/bilingual program and in 2nd year of monitoring (Number)	57	87	144	120	154	274	218	278	496	548	782	1,330	410	558	968	119	177	296
Exited ESL/bilingual program and in 2nd year of monitoring (Percent)	.1	.1	.1	.2	.3	.2	.4	.4	.4	1.1	1.1	1.1	.8	.8	.8	.2	.3	.3
Former EL no longer monitored (Number)	0	3	3	6	10	16	29	71	100	66	130	196	203	280	483	318	476	794
Former EL no longer monitored (Percent)	0	0	0	0	0	0	.1	.1	.1	.1	.2	.2	.4	.4	.4	.7	.7	.7
LIFE first year (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFE first year (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFE not first year (Number)	13	11	24	20	15	35	29	20	49	32	28	60	38	26	64	35	33	68
LIFE not first year (Percent)	0	0	0	0	0	0	.1	0	0	.1	0	.1	.1	0	.1	.1	0	.1

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Former EL exited and in 3rd year of monitoring (Number)	41	80	121	60	61	121	96	139	235	175	233	408	431	641	1,072	472	547	1,019
Former EL exited and in 3rd year of monitoring (Percent)	.1	.1	.1	.1	.1	.1	.2	.2	.2	.4	.3	.3	.9	.9	.9	1	.8	.9
Former EL exited and in 4th year of monitoring (Number)	5	7	12	30	49	79	28	64	92	73	108	181	109	180	289	229	382	611
Former EL exited and in 4th year of monitoring (Percent)	0	0	0	.1	.1	.1	.1	.1	.1	.2	.2	.2	.2	.3	.2	.5	.5	.5
Economically disadvantaged (Number)	29,960	29,235	59,195	28,510	26,760	55,270	27,682	29,468	57,150	25,373	31,320	56,693	24,810	30,697	55,507	23,995	30,723	54,718
Economically disadvantaged (Percent)	53.1	46.8	49.8	51.3	45.5	48.3	53	44.8	48.4	52.4	45.3	48.2	51.1	44.7	47.4	49.9	44.2	46.5
Historically Underperforming Subgroup (Number)	35,200	35,683	70,883	33,760	33,062	66,822	32,197	36,062	68,259	29,305	37,613	66,918	28,766	36,678	65,444	28,058	36,566	64,624
Historically Underperforming Subgroup (Percent)	62.3	57.1	59.6	60.8	56.2	58.4	61.7	54.8	57.8	60.5	54.4	56.9	59.2	53.5	55.8	58.4	52.5	54.9
Enrollment in school of residence after Oct 1 (Number)	1,042	980	2,022	931	932	1,863	947	955	1,902	892	1,100	1,992	892	1,125	2,017	929	1,164	2,093
Enrollment in school of residence after Oct 1 (Percent)	1.8	1.6	1.7	1.7	1.6	1.6	1.8	1.5	1.6	1.8	1.6	1.7	1.8	1.6	1.7	1.9	1.7	1.8
Enrollment in district of residence after Oct 1 (Number)	668	697	1,365	602	692	1,294	631	691	1,322	570	790	1,360	563	846	1,409	585	900	1,485
Enrollment in district of residence after Oct 1 (Percent)	1.2	1.1	1.1	1.1	1.2	1.1	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.3
Enrollment as PA resident after Oct 1 (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment as PA resident after Oct 1 (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment in school of residence after previous Oct 1 but on/before current Oct 1 (Number)	14,231	9,171	23,402	13,492	9,014	22,506	15,590	15,021	30,611	19,773	25,991	45,764	17,395	17,296	34,691	10,238	8,356	18,594
Enrollment in school of residence after previous Oct 1 but on/before current Oct 1 (Percent)	25.2	14.7	19.7	24.3	15.3	19.7	29.9	22.8	25.9	40.8	37.6	38.9	35.8	25.2	29.6	21.3	12	15.8

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Enrollment in district of residence after previous Oct 1 but on/before current Oct 1 (Number)	4,644	4,987	9,631	4,229	4,276	8,505	4,185	4,607	8,792	4,662	5,397	10,059	4,578	4,745	9,323	3,781	4,371	8,152
Enrollment in district of residence after previous Oct 1 but on/before current Oct 1 (Percent)	8.2	8	8.1	7.6	7.3	7.4	8	7	7.5	9.6	7.8	8.6	9.4	6.9	8	7.9	6.3	6.9
Court/agency placed (Number)	12	0	12	5	2	7	8	1	9	9	4	13	15	13	28	57	26	83
Court/agency placed (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.1	0	.1
Military family (Number)	400	403	803	392	345	737	379	421	800	292	429	721	316	477	793	296	425	721
Military family (Percent)	.7	.6	.7	.7	.6	.6	.7	.6	.7	.6	.6	.6	.7	.7	.7	.6	.6	.6
Homeless (Number)	735	790	1,525	654	686	1,340	610	747	1,357	521	778	1,299	492	807	1,299	465	809	1,274
Homeless (Percent)	1.3	1.3	1.3	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1	1.2	1.1	1	1.2	1.1
Foster (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foster (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Students with scores used in state summaries (Number)	56,460	62,486	118,946	55,545	58,860	114,405	52,224	65,787	118,011	48,423	69,182	117,605	48,598	68,602	117,200	48,066	69,586	117,652

Demographic Characteristics of Students Taking the 2025 PSSA: English Language Arts

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Female (Number)	28,220	30,276	58,496	27,765	28,686	56,451	25,618	32,110	57,728	23,171	34,271	57,442	21,929	35,030	56,959	21,982	35,441	57,423
Female (Percent)	49.3	49.1	49.2	49.6	49.2	49.4	49	49	49	49	48.7	48.8	48.5	48.6	48.6	49.2	48.4	48.7
Male (Number)	28,965	31,364	60,329	28,174	29,585	57,759	26,697	33,425	60,122	24,113	36,044	60,157	23,257	37,072	60,329	22,699	37,756	60,455
Male (Percent)	50.7	50.9	50.8	50.4	50.8	50.6	51	51	51	51	51.3	51.2	51.5	51.4	51.4	50.8	51.6	51.3
American Indian/Alaskan Native (not Hispanic) (Number)	116	142	258	110	109	219	84	114	198	72	115	187	70	123	193	76	136	212
American Indian/Alaskan Native (not Hispanic) (Percent)	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
Asian (not Hispanic) (Number)	2,510	3,251	5,761	2,563	3,134	5,697	2,307	3,672	5,979	2,162	4,047	6,209	2,112	3,942	6,054	2,011	3,811	5,822
Asian (not Hispanic) (Percent)	4.4	5.3	4.8	4.6	5.4	5	4.4	5.6	5.1	4.6	5.8	5.3	4.7	5.5	5.2	4.5	5.2	4.9
Black or African American (not Hispanic) (Number)	9,368	6,781	16,149	9,057	6,335	15,392	9,134	7,162	16,296	8,937	7,513	16,450	8,852	7,369	16,221	8,915	7,921	16,836
Black or African American (not Hispanic) (Percent)	16.4	11	13.6	16.2	10.9	13.5	17.5	10.9	13.8	18.9	10.7	14	19.6	10.2	13.8	20	10.8	14.3
Hispanic (any race) (Number)	9,199	9,260	18,459	8,981	8,295	17,276	8,496	8,947	17,443	8,121	9,350	17,471	7,880	9,702	17,582	7,533	9,840	17,373
Hispanic (any race) (Percent)	16.1	15	15.5	16.1	14.2	15.1	16.2	13.7	14.8	17.2	13.3	14.9	17.4	13.5	15	16.9	13.4	14.7
Multi-Racial (not Hispanic) (Number)	3,534	3,828	7,362	3,202	3,351	6,553	2,930	3,578	6,508	2,488	3,950	6,438	2,275	3,771	6,046	2,269	3,666	5,935
Multi-Racial (not Hispanic) (Percent)	6.2	6.2	6.2	5.7	5.8	5.7	5.6	5.5	5.5	5.3	5.6	5.5	5	5.2	5.2	5.1	5	5
White (not Hispanic) (Number)	32,403	38,334	70,737	31,978	37,005	68,983	29,324	42,011	71,335	25,449	45,286	70,735	23,961	47,123	71,084	23,835	47,765	71,600
White (not Hispanic) (Percent)	56.7	62.2	59.5	57.2	63.5	60.4	56.1	64.1	60.5	53.8	64.4	60.1	53	65.4	60.6	53.3	65.3	60.7
Native Hawaiian or Other Pacific Islander (not Hispanic) (Number)	55	44	99	48	42	90	40	51	91	55	54	109	36	72	108	42	58	100
Native Hawaiian or Other Pacific Islander (not Hispanic) (Percent)	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
IEP (not gifted) (Number)	11,658	12,896	24,554	11,665	12,795	24,460	10,812	14,375	25,187	9,181	14,785	23,966	8,660	14,284	22,944	8,360	14,176	22,536
IEP (not gifted) (Percent)	20.4	20.9	20.7	20.9	22	21.4	20.7	21.9	21.4	19.4	21	20.4	19.2	19.8	19.6	18.7	19.4	19.1
Student exited IEP in last 2 years (Number)	775	897	1,672	842	800	1,642	747	953	1,700	617	950	1,567	523	847	1,370	513	921	1,434
Student exited IEP in last 2 years (Percent)	1.4	1.5	1.4	1.5	1.4	1.4	1.4	1.5	1.4	1.3	1.4	1.3	1.2	1.2	1.2	1.1	1.3	1.2

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Title I (Number)	34,761	33,965	68,726	33,614	30,559	64,173	30,700	31,205	61,905	24,428	25,189	49,617	20,937	22,399	43,336	20,538	21,380	41,918
Title I (Percent)	60.8	55.1	57.8	60.1	52.4	56.2	58.7	47.6	52.5	51.7	35.8	42.2	46.3	31.1	36.9	46	29.2	35.6
Title III served (Number)	4,545	3,970	8,515	4,159	3,423	7,582	3,259	2,893	6,152	2,721	2,764	5,485	2,752	2,970	5,722	2,722	2,861	5,583
Title III served (Percent)	7.9	6.4	7.2	7.4	5.9	6.6	6.2	4.4	5.2	5.8	3.9	4.7	6.1	4.1	4.9	6.1	3.9	4.7
Title III not served (Number)	6,543	7,520	14,063	5,701	7,835	13,536	5,591	8,222	13,813	4,681	9,518	14,199	4,263	9,716	13,979	4,173	10,297	14,470
Title III not served (Percent)	11.4	12.2	11.8	10.2	13.4	11.9	10.7	12.5	11.7	9.9	13.5	12.1	9.4	13.5	11.9	9.3	14.1	12.3
Migrant student (Number)	163	113	276	133	157	290	126	115	241	136	132	268	114	143	257	92	116	208
Migrant student (Percent)	.3	.2	.2	.2	.3	.3	.2	.2	.2	.3	.2	.2	.3	.2	.2	.2	.2	.2
EL enrolled first year (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EL enrolled first year (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EL enrolled not first year (Number)	4,790	4,308	9,098	4,366	3,738	8,104	3,421	3,091	6,512	2,880	2,937	5,817	2,894	3,108	6,002	2,882	3,039	5,921
EL enrolled not first year (Percent)	8.4	7	7.7	7.8	6.4	7.1	6.5	4.7	5.5	6.1	4.2	4.9	6.4	4.3	5.1	6.5	4.2	5
Exited ESL/bilingual program and in first year of monitoring (Number)	146	210	356	294	294	588	658	814	1,472	487	693	1,180	138	192	330	189	249	438
Exited ESL/bilingual program and in first year of monitoring (Percent)	.3	.3	.3	.5	.5	.5	1.3	1.2	1.2	1	1	1	.3	.3	.3	.4	.3	.4
Exited ESL/bilingual program and in 2nd year of monitoring (Number)	59	85	144	119	153	272	218	278	496	548	782	1,330	390	579	969	114	181	295
Exited ESL/bilingual program and in 2nd year of monitoring (Percent)	.1	.1	.1	.2	.3	.2	.4	.4	.4	1.2	1.1	1.1	.9	.8	.8	.3	.2	.3
Former EL no longer monitored (Number)	0	3	3	6	10	16	29	71	100	64	132	196	183	300	483	300	493	793
Former EL no longer monitored (Percent)	0	0	0	0	0	0	.1	.1	.1	.1	.2	.2	.4	.4	.4	.7	.7	.7
LIFE first year (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFE first year (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIFE not first year (Number)	12	12	24	17	18	35	26	23	49	21	39	60	27	38	65	25	42	67
LIFE not first year (Percent)	0	0	0	0	0	0	0	0	0	0	.1	.1	.1	.1	.1	.1	.1	.1
Former EL exited and in 3rd year of monitoring (Number)	42	79	121	59	62	121	99	135	234	172	237	409	411	659	1,070	449	570	1,019
Former EL exited and in 3rd year of monitoring (Percent)	.1	.1	.1	.1	.1	.1	.2	.2	.2	.4	.3	.3	.9	.9	.9	1	.8	.9

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Former EL exited and in 4th year of monitoring (Number)	4	8	12	28	51	79	26	66	92	69	112	181	102	187	289	215	396	611
Former EL exited and in 4th year of monitoring (Percent)	0	0	0	.1	.1	.1	0	.1	.1	.1	.2	.2	.2	.3	.2	.5	.5	.5
Economically disadvantaged (Number)	30,546	28,571	59,117	28,925	26,250	55,175	28,006	29,067	57,073	25,019	31,696	56,715	23,676	31,910	55,586	22,898	31,961	54,859
Economically disadvantaged (Percent)	53.4	46.4	49.8	51.7	45	48.3	53.5	44.4	48.4	52.9	45.1	48.2	52.4	44.3	47.4	51.2	43.7	46.5
Historically Underperforming Subgroup (Number)	35,759	35,030	70,789	34,148	32,562	66,710	32,423	35,751	68,174	28,774	38,156	66,930	27,176	38,354	65,530	26,547	38,255	64,802
Historically Underperforming Subgroup (Percent)	62.5	56.8	59.6	61	55.9	58.4	62	54.6	57.8	60.9	54.3	56.9	60.1	53.2	55.9	59.4	52.3	55
Enrollment in school of residence after Oct 1 (Number)	1,039	957	1,996	916	932	1,848	915	959	1,874	858	1,123	1,981	833	1,181	2,014	876	1,227	2,103
Enrollment in school of residence after Oct 1 (Percent)	1.8	1.6	1.7	1.6	1.6	1.6	1.7	1.5	1.6	1.8	1.6	1.7	1.8	1.6	1.7	2	1.7	1.8
Enrollment in district of residence after Oct 1 (Number)	660	683	1,343	579	702	1,281	596	700	1,296	539	812	1,351	521	888	1,409	539	947	1,486
Enrollment in district of residence after Oct 1 (Percent)	1.2	1.1	1.1	1	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.2	1.2	1.2	1.2	1.3	1.3
Enrollment as PA resident after Oct 1 (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment as PA resident after Oct 1 (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enrollment in school of residence after previous Oct 1 but on/before current Oct 1 (Number)	14,200	9,167	23,367	13,770	8,681	22,451	15,631	14,915	30,546	19,323	26,423	45,746	15,533	19,135	34,668	9,887	8,745	18,632
Enrollment in school of residence after previous Oct 1 but on/before current Oct 1 (Percent)	24.8	14.9	19.7	24.6	14.9	19.7	29.9	22.8	25.9	40.9	37.6	38.9	34.4	26.5	29.6	22.1	11.9	15.8
Enrollment in district of residence after previous Oct 1 but on/before current Oct 1 (Number)	4,623	4,988	9,611	4,147	4,323	8,470	4,023	4,757	8,780	4,404	5,603	10,007	4,168	5,134	9,302	3,411	4,728	8,139

Demographic or Educational Characteristic	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Enrollment in district of residence after previous Oct 1 but on/before current Oct 1 (Percent)	8.1	8.1	8.1	7.4	7.4	7.4	7.7	7.3	7.5	9.3	8	8.5	9.2	7.1	7.9	7.6	6.5	6.9
Court/agency placed (Number)	15	0	15	6	2	8	8	2	10	7	4	11	15	14	29	61	26	87
Court/agency placed (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.1	0	.1
Military family (Number)	411	394	805	397	338	735	380	420	800	290	431	721	304	491	795	294	428	722
Military family (Percent)	.7	.6	.7	.7	.6	.6	.7	.6	.7	.6	.6	.6	.7	.7	.7	.7	.6	.6
Homeless (Number)	728	791	1,519	643	700	1,343	603	762	1,365	499	808	1,307	458	844	1,302	428	851	1,279
Homeless (Percent)	1.3	1.3	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1	1.2	1.1	1	1.2	1.1
Foster (Number)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foster (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Students with scores used in state summaries (Number)	57,185	61,640	118,825	55,939	58,271	114,210	52,315	65,535	117,850	47,284	70,315	117,599	45,186	72,102	117,288	44,681	73,197	117,878

APPENDIX J: INCIDENCE OF ACCOMMODATIONS RECEIVED

Incidence of Presentation Accommodations Received on the 2025 PSSA: Mathematics

Type of Presentation Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Braille format (Number)	5	N/A	5	4	N/A	4	7	N/A	7	3	N/A	3	6	N/A	6	8	N/A	8
Braille format (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Large print format (Number)	46	N/A	46	53	N/A	53	56	N/A	56	39	N/A	39	43	N/A	43	44	N/A	44
Large print format (Percent)	.1	N/A	0	.1	N/A	0	.1	N/A	0	.1	N/A	0	.1	N/A	0	.1	N/A	0
Assistive Technology Device (Number)	4	N/A	4	3	N/A	3	7	N/A	7	2	N/A	2	5	N/A	5	4	N/A	4
Assistive Technology Device (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Some test items/questions read aloud (Number)	4,200	2,582	6,782	3,937	2,644	6,581	2,955	2,540	5,495	1,341	2,541	3,882	1,105	2,604	3,709	858	2,481	3,339
Some test items/questions read aloud (Percent)	7.4	4.1	5.7	7.1	4.5	5.8	5.7	3.9	4.7	2.8	3.7	3.3	2.3	3.8	3.2	1.8	3.6	2.8
All test items/questions read aloud (Number)	2,924	2,944	5,868	2,871	2,989	5,860	1,974	3,217	5,191	952	3,040	3,992	575	2,224	2,799	462	1,959	2,421
All test items/questions read aloud (Percent)	5.2	4.7	4.9	5.2	5.1	5.1	3.8	4.9	4.4	2	4.4	3.4	1.2	3.2	2.4	1	2.8	2.1
Test items/questions signed (Number)	13	18	31	2	7	9	4	8	12	5	3	8	5	4	9	2	25	27
Test items/questions signed (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Test items/questions interpreted for EL student (Number)	131	62	193	104	60	164	113	62	175	31	21	52	38	24	62	35	24	59
Test items/questions interpreted for EL student (Percent)	.2	.1	.2	.2	.1	.1	.2	.1	.1	.1	0	0	.1	0	.1	.1	0	.1
Amplification device (Number)	18	67	85	14	76	90	19	66	85	4	73	77	7	47	54	7	50	57
Amplification device (Percent)	0	.1	.1	0	.1	.1	0	.1	.1	0	.1	.1	0	.1	0	0	.1	0
Magnification device (Number)	10	15	25	6	18	24	8	18	26	2	15	17	5	25	30	4	27	31
Magnification device (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Color overlay (Number)	2	N/A	2	2	N/A	2	5	N/A	5	3	N/A	3	3	N/A	3	1	N/A	1
Color overlay (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	96	485	581	88	632	720	105	541	646	67	559	626	92	442	534	73	419	492
Other (per Accommodations Guidelines) (Percent)	.2	.8	.5	.2	1.1	.6	.2	.8	.5	.1	.8	.5	.2	.6	.5	.2	.6	.4
Spanish version (Number)	477	N/A	477	532	N/A	532	657	N/A	657	740	N/A	740	755	N/A	755	759	N/A	759
Spanish version (Percent)	.8	N/A	.4	1	N/A	.5	1.3	N/A	.6	1.5	N/A	.6	1.6	N/A	.6	1.6	N/A	.6
Audio (Number)	N/A	8,644	8,644	N/A	8,812	8,812	N/A	9,358	9,358	N/A	8,816	8,816	N/A	7,209	7,209	N/A	6,634	6,634

Type of Presentation Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Audio (Percent)	N/A	13.8	7.3	N/A	15	7.7	N/A	14.2	7.9	N/A	12.7	7.5	N/A	10.5	6.2	N/A	9.5	5.6
Video sign language (Number)	N/A	22	22	N/A	15	15	N/A	16	16	N/A	20	20	N/A	16	16	N/A	21	21
Video sign language (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Color Preferences (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Color Preferences (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Reverse Contrast (Number)	N/A	9	9	N/A	6	6	N/A	4	4	N/A	4	4	N/A	2	2	N/A	6	6
Reverse Contrast (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Refreshable Braille (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	2	2	N/A	0	0	N/A	0	0
Refreshable Braille (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0

Incidence of Presentation Accommodations Received on the 2025 PSSA: English Language Arts

Type of Presentation Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Braille format (Number)	12	N/A	12	147	N/A	147	85	N/A	85	57	N/A	57	44	N/A	44	35	N/A	35
Braille format (Percent)	0	N/A	0	.3	N/A	.1	.2	N/A	.1	.1	N/A	0	.1	N/A	0	.1	N/A	0
Large print format (Number)	59	N/A	59	205	N/A	205	139	N/A	139	102	N/A	102	85	N/A	85	79	N/A	79
Large print format (Percent)	.1	N/A	0	.4	N/A	.2	.3	N/A	.1	.2	N/A	.1	.2	N/A	.1	.2	N/A	.1
Assistive Technology Device (Number)	10	N/A	10	137	N/A	137	79	N/A	79	52	N/A	52	41	N/A	41	28	N/A	28
Assistive Technology Device (Percent)	0	N/A	0	.2	N/A	.1	.2	N/A	.1	.1	N/A	0	.1	N/A	0	.1	N/A	0
Some conventions questions/text-dependent analysis prompts read aloud (Number)	2,354	1,079	3,433	2,967	1,844	4,811	2,429	1,883	4,312	1,201	1,872	3,073	895	1,913	2,808	741	1,919	2,660
Some conventions questions/text-dependent analysis prompts read aloud (Percent)	4.1	1.8	2.9	5.3	3.2	4.2	4.6	2.9	3.7	2.5	2.7	2.6	2	2.7	2.4	1.7	2.6	2.3
All conventions questions/text-dependent analysis prompts read aloud (Number)	2,313	1,625	3,938	2,429	2,347	4,776	1,729	2,487	4,216	825	2,486	3,311	457	1,900	2,357	396	1,553	1,949
All conventions questions/text-dependent analysis prompts read aloud (Percent)	4	2.6	3.3	4.3	4	4.2	3.3	3.8	3.6	1.7	3.5	2.8	1	2.6	2	.9	2.1	1.7
All test items/questions read aloud (Number)	254	N/A	254	288	N/A	288	197	N/A	197	112	N/A	112	119	N/A	119	77	N/A	77
All test items/questions read aloud (Percent)	.4	N/A	.2	.5	N/A	.3	.4	N/A	.2	.2	N/A	.1	.3	N/A	.1	.2	N/A	.1
Conventions questions/text-dependent analysis prompts signed (Number)	0	57	57	94	66	160	58	94	152	38	50	88	26	74	100	23	79	102
Conventions questions/text-dependent analysis prompts signed (Percent)	0	.1	0	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Conventions questions/text-dependent analysis prompts interpreted for EL student (Number)	0	68	68	120	113	233	86	102	188	48	68	116	48	70	118	32	64	96
Conventions questions/text-dependent analysis prompts interpreted for EL student (Percent)	0	.1	.1	.2	.2	.2	.2	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1
Amplification device (Number)	44	72	116	119	82	201	79	68	147	42	74	116	36	49	85	27	52	79
Amplification device (Percent)	.1	.1	.1	.2	.1	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Magnification device (Number)	10	14	24	90	17	107	64	19	83	33	16	49	35	26	61	17	28	45
Magnification device (Percent)	0	0	0	.2	0	.1	.1	0	.1	.1	0	0	.1	0	.1	0	0	0
Color overlay (Number)	25	N/A	25	93	N/A	93	77	N/A	77	32	N/A	32	27	N/A	27	16	N/A	16
Color overlay (Percent)	0	N/A	0	.2	N/A	.1	.1	N/A	.1	.1	N/A	0	.1	N/A	0	0	N/A	0
Other (per Accommodations Guidelines) (Number)	110	465	575	197	582	779	248	499	747	110	581	691	95	471	566	87	445	532

Type of Presentation Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Other (per Accommodations Guidelines) (Percent)	.2	.8	.5	.4	1	.7	.5	.8	.6	.2	.8	.6	.2	.7	.5	.2	.6	.5
Audio (Number)	N/A	7,922	7,922	N/A	8,192	8,192	N/A	8,747	8,747	N/A	8,526	8,526	N/A	7,035	7,035	N/A	6,460	6,460
Audio (Percent)	N/A	12.9	6.7	N/A	14.1	7.2	N/A	13.3	7.4	N/A	12.1	7.3	N/A	9.8	6	N/A	8.8	5.5
Color Preferences (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Color Preferences (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Reverse Contrast (Number)	N/A	11	11	N/A	7	7	N/A	4	4	N/A	4	4	N/A	2	2	N/A	7	7
Reverse Contrast (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Refreshable Braille (Number)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	1	1	N/A	0	0	N/A	0	0
Refreshable Braille (Percent)	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0
Full Audio (Number)	N/A	135	135	N/A	101	101	N/A	92	92	N/A	114	114	N/A	76	76	N/A	80	80
Full Audio (Percent)	N/A	.2	.1	N/A	.2	.1	N/A	.1	.1	N/A	.2	.1	N/A	.1	.1	N/A	.1	.1

Incidence of Response Accommodations Received on the 2025 PSSA: Mathematics

Type of Response Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Test Administrator marked multiple-choice responses at student's direction (Number)	56	15	71	55	5	60	53	9	62	33	12	45	21	8	29	23	5	28
Test Administrator marked multiple-choice responses at student's direction (Percent)	.1	0	.1	.1	0	.1	.1	0	.1	.1	0	0	0	0	0	0	0	0
Test Administrator scribed open-ended responses at student's direction (Number)	102	77	179	118	60	178	85	75	160	55	66	121	29	53	82	29	41	70
Test Administrator scribed open-ended responses at student's direction (Percent)	.2	.1	.2	.2	.1	.2	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Test Administrator transcribed student responses (Number)	79	54	133	87	32	119	104	36	140	74	31	105	63	24	87	60	32	92
Test Administrator transcribed student responses (Percent)	.1	.1	.1	.2	.1	.1	.2	.1	.1	.2	0	.1	.1	0	.1	.1	0	.1
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Number)	5	4	9	5	2	7	3	3	6	2	3	5	2	0	2	5	2	7
Qualified interpreter translated, transcribed, and/or scribed student's signed responses (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Qualified interpreter translated, transcribed, and/or scribed EL student responses (Number)	8	5	13	7	12	19	5	14	19	7	3	10	6	15	21	5	11	16
Qualified interpreter translated, transcribed, and/or scribed EL student responses (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Keyboard, word processor, or computer (Number)	4	N/A	4	10	N/A	10	21	N/A	21	22	N/A	22	20	N/A	20	16	N/A	16
Keyboard, word processor, or computer (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Brailler/Notetaker (Number)	2	N/A	2	4	N/A	4	0	N/A	0	0	N/A	0	4	N/A	4	6	N/A	6
Brailler/Notetaker (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Augmentative communication device (Number)	8	N/A	8	1	N/A	1	1	N/A	1	0	N/A	0	2	N/A	2	0	N/A	0
Augmentative communication device (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Assistive Technology Device (Number)	2	13	15	3	14	17	3	18	21	2	18	20	2	17	19	2	10	12
Assistive Technology Device (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Translation dictionary for EL student (Number)	33	157	190	46	103	149	43	155	198	86	250	336	98	241	339	83	245	328
Translation dictionary for EL student (Percent)	.1	.3	.2	.1	.2	.1	.1	.2	.2	.2	.4	.3	.2	.4	.3	.2	.4	.3
Other (per Accommodations Guidelines) (Number)	49	178	227	52	209	261	53	257	310	35	234	269	23	176	199	48	113	161

Type of Response Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Other (per Accommodations Guidelines) (Percent)	.1	.3	.2	.1	.4	.2	.1	.4	.3	.1	.3	.2	0	.3	.2	.1	.2	.1
Mixed-Mode (Number)	N/A	63	63	N/A	26	26	N/A	34	34	N/A	18	18	N/A	0	0	N/A	1	1
Mixed-Mode (Percent)	N/A	.1	.1	N/A	0	0	N/A	.1	0	N/A	0	0	N/A	0	0	N/A	0	0

Incidence of Response Accommodations Received on the 2025 PSSA: English Language Arts

Type of Response Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Test Administrator marked multiple-choice responses at student's direction (Number)	59	16	75	97	4	101	75	8	83	31	12	43	27	8	35	25	6	31
Test Administrator marked multiple-choice responses at student's direction (Percent)	.1	0	.1	.2	0	.1	.1	0	.1	.1	0	0	.1	0	0	.1	0	0
Test Administrator scribed open-ended responses at student's direction (Number)	87	81	168	141	72	213	78	84	162	52	75	127	28	63	91	39	47	86
Test Administrator scribed open-ended responses at student's direction (Percent)	.2	.1	.1	.3	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Test Administrator transcribed student responses (Number)	137	59	196	161	34	195	180	39	219	169	36	205	139	28	167	125	40	165
Test Administrator transcribed student responses (Percent)	.2	.1	.2	.3	.1	.2	.3	.1	.2	.4	.1	.2	.3	0	.1	.3	.1	.1
Keyboard, word processor, or computer (Number)	20	N/A	20	36	N/A	36	83	N/A	83	81	N/A	81	76	N/A	76	60	N/A	60
Keyboard, word processor, or computer (Percent)	0	N/A	0	.1	N/A	0	.2	N/A	.1	.2	N/A	.1	.2	N/A	.1	.1	N/A	.1
Brailler/Notetaker (Number)	8	N/A	8	4	N/A	4	4	N/A	4	0	N/A	0	5	N/A	5	6	N/A	6
Brailler/Notetaker (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Augmentative communication device (Number)	15	N/A	15	7	N/A	7	5	N/A	5	0	N/A	0	2	N/A	2	0	N/A	0
Augmentative communication device (Percent)	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0
Assistive Technology Device (Number)	12	19	31	11	15	26	7	21	28	3	22	25	2	17	19	5	13	18
Assistive Technology Device (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (per Accommodations Guidelines) (Number)	59	98	157	54	126	180	83	126	209	33	96	129	18	109	127	40	71	111
Other (per Accommodations Guidelines) (Percent)	.1	.2	.1	.1	.2	.2	.2	.2	.2	.1	.1	.1	0	.2	.1	.1	.1	.1
Mixed-Mode (Number)	N/A	55	55	N/A	14	14	N/A	24	24	N/A	1	1	N/A	0	0	N/A	2	2
Mixed-Mode (Percent)	N/A	.1	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0	N/A	0	0

Incidence of Setting Accommodations Received on the 2025 PSSA: Mathematics

Type of Setting Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Hospital/home setting (Number)	4	0	4	3	0	3	3	1	4	4	2	6	4	3	7	4	3	7
Hospital/home setting (Percent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
One-on-one setting (Number)	300	246	546	286	203	489	205	209	414	157	172	329	125	151	276	114	118	232
One-on-one setting (Percent)	.5	.4	.5	.5	.3	.4	.4	.3	.4	.3	.2	.3	.3	.2	.2	.2	.2	.2
Small group setting (Number)	8,630	9,899	18,529	8,921	10,294	19,215	7,954	11,416	19,370	6,260	11,065	17,325	6,070	10,281	16,351	5,780	10,187	15,967
Small group setting (Percent)	15.3	15.8	15.6	16.1	17.5	16.8	15.2	17.4	16.4	12.9	16	14.7	12.5	15	14	12	14.6	13.6
Other (per Accommodations Guidelines) (Number)	14	106	120	45	163	208	20	169	189	34	162	196	30	175	205	16	129	145
Other (per Accommodations Guidelines) (Percent)	0	.2	.1	.1	.3	.2	0	.3	.2	.1	.2	.2	.1	.3	.2	0	.2	.1
Smartphone or smartwatch for medical/glucose monitoring (Number)	37	76	113	42	80	122	30	109	139	37	103	140	35	124	159	24	132	156
Smartphone or smartwatch for medical/glucose monitoring (Percent)	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.2	.1	0	.2	.1

Incidence of Setting Accommodations Received on the 2025 PSSA: English Language Arts

Type of Setting Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Hospital/home setting (Number)	3	0	3	71	0	71	51	1	52	36	3	39	31	3	34	18	3	21
Hospital/home setting (Percent)	0	0	0	.1	0	.1	.1	0	0	.1	0	0	.1	0	0	0	0	0
One-on-one setting (Number)	305	262	567	393	206	599	264	214	478	192	199	391	137	165	302	115	129	244
One-on-one setting (Percent)	.5	.4	.5	.7	.4	.5	.5	.3	.4	.4	.3	.3	.3	.2	.3	.3	.2	.2
Small group setting (Number)	8,718	9,915	18,633	9,034	10,302	19,336	8,128	11,506	19,634	6,276	11,328	17,604	5,858	10,801	16,659	5,582	10,658	16,240
Small group setting (Percent)	15.2	16.1	15.7	16.1	17.7	16.9	15.5	17.6	16.7	13.3	16.1	15	13	15	14.2	12.5	14.6	13.8
Other (per Accommodations Guidelines) (Number)	44	111	155	114	173	287	104	155	259	76	165	241	57	185	242	50	131	181
Other (per Accommodations Guidelines) (Percent)	.1	.2	.1	.2	.3	.3	.2	.2	.2	.2	.2	.2	.1	.3	.2	.1	.2	.2
Smartphone or smartwatch for medical/glucose monitoring (Number)	49	78	127	112	79	191	87	107	194	65	104	169	58	130	188	44	133	177
Smartphone or smartwatch for medical/glucose monitoring (Percent)	.1	.1	.1	.2	.1	.2	.2	.2	.2	.1	.1	.1	.1	.2	.2	.1	.2	.2

Incidence of Timing Accommodations Received on the 2025 PSSA: Mathematics

Type of Timing Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Extended time (Number)	2,860	6,435	9,295	2,739	6,100	8,839	2,411	6,545	8,956	1,975	5,823	7,798	2,146	5,448	7,594	1,565	5,524	7,089
Extended time (Percent)	5.1	10.3	7.8	4.9	10.4	7.7	4.6	9.9	7.6	4.1	8.4	6.6	4.4	7.9	6.5	3.3	7.9	6
Frequent breaks (Number)	1,959	4,867	6,826	2,049	5,062	7,111	1,731	5,693	7,424	1,170	5,089	6,259	1,073	4,437	5,510	951	4,147	5,098
Frequent breaks (Percent)	3.5	7.8	5.7	3.7	8.6	6.2	3.3	8.7	6.3	2.4	7.4	5.3	2.2	6.5	4.7	2	6	4.3
Changed test schedule (Number)	193	115	308	173	128	301	136	124	260	130	117	247	128	95	223	119	92	211
Changed test schedule (Percent)	.3	.2	.3	.3	.2	.3	.3	.2	.2	.3	.2	.2	.3	.1	.2	.2	.1	.2
Other (per Accommodations Guidelines) (Number)	47	41	88	33	36	69	29	47	76	10	42	52	8	18	26	6	40	46
Other (per Accommodations Guidelines) (Percent)	.1	.1	.1	.1	.1	.1	.1	.1	.1	0	.1	0	0	0	0	0	.1	0

Incidence of Timing Accommodations Received on the 2025 PSSA: English Language Arts

Type of Timing Accommodation	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Extended time (Number)	2,974	5,870	8,844	5,743	7,009	12,752	5,016	7,713	12,729	3,588	6,566	10,154	3,051	6,156	9,207	2,611	6,120	8,731
Extended time (Percent)	5.2	9.5	7.4	10.3	12	11.2	9.6	11.8	10.8	7.6	9.3	8.6	6.8	8.5	7.8	5.8	8.4	7.4
Frequent breaks (Number)	2,096	4,850	6,946	2,294	5,110	7,404	1,895	5,646	7,541	1,335	5,230	6,565	1,178	4,684	5,862	1,035	4,363	5,398
Frequent breaks (Percent)	3.7	7.9	5.8	4.1	8.8	6.5	3.6	8.6	6.4	2.8	7.4	5.6	2.6	6.5	5	2.3	6	4.6
Changed test schedule (Number)	247	113	360	237	154	391	198	126	324	163	144	307	144	127	271	155	139	294
Changed test schedule (Percent)	.4	.2	.3	.4	.3	.3	.4	.2	.3	.3	.2	.3	.3	.2	.2	.3	.2	.2
Other (per Accommodations Guidelines) (Number)	40	40	80	23	36	59	29	47	76	22	41	63	15	23	38	5	47	52
Other (per Accommodations Guidelines) (Percent)	.1	.1	.1	0	.1	.1	.1	.1	.1	0	.1	.1	0	0	0	0	.1	0

APPENDIX K: ACCOMMODATION RATE FOR NON-IEP AND IEP STUDENTS

Accommodation Rate for Non-IEP and IEP Students on the 2025 PSSA: Mathematics

Student Subgroup	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Non-IEP Students (Number)	44,937	49,448	94,385	44,030	45,909	89,939	41,492	51,333	92,825	39,106	54,587	93,693	39,416	54,925	94,341	39,250	55,973	95,223
Non-Accommodated (Number)	39,787	44,200	83,987	39,800	41,494	81,294	38,195	47,676	85,871	37,149	51,861	89,010	37,428	52,470	89,898	37,761	53,585	91,346
Non-Accommodated (Percent)	88.5	89.4	89	90.4	90.4	90.4	92.1	92.9	92.5	95	95	95	95	95.5	95.3	96.2	95.7	95.9
Accommodated (Number)	5,150	5,248	10,398	4,230	4,415	8,645	3,297	3,657	6,954	1,957	2,726	4,683	1,988	2,455	4,443	1,489	2,388	3,877
Accommodated (Percent)	11.5	10.6	11	9.6	9.6	9.6	7.9	7.1	7.5	5	5	5	5	4.5	4.7	3.8	4.3	4.1
IEP Students (Number)	11,523	13,038	24,561	11,515	12,951	24,466	10,732	14,454	25,186	9,317	14,595	23,912	9,182	13,677	22,859	8,816	13,613	22,429
Non-Accommodated (Number)	4,302	3,682	7,984	3,860	2,968	6,828	3,677	2,829	6,506	3,541	2,785	6,326	3,618	2,823	6,441	3,595	2,880	6,475
Non-Accommodated (Percent)	37.3	28.2	32.5	33.5	22.9	27.9	34.3	19.6	25.8	38	19.1	26.5	39.4	20.6	28.2	40.8	21.2	28.9
Accommodated (Number)	7,221	9,356	16,577	7,655	9,983	17,638	7,055	11,625	18,680	5,776	11,810	17,586	5,564	10,854	16,418	5,221	10,733	15,954
Accommodated (Percent)	62.7	71.8	67.5	66.5	77.1	72.1	65.7	80.4	74.2	62	80.9	73.5	60.6	79.4	71.8	59.2	78.8	71.1

Accommodation Rate for Non-IEP and IEP Students on the 2025 PSSA: English Language Arts

Student Subgroup	Gr. 3 PPT	Gr. 3 CBT	Gr. 3 Total	Gr. 4 PPT	Gr. 4 CBT	Gr. 4 Total	Gr. 5 PPT	Gr. 5 CBT	Gr. 5 Total	Gr. 6 PPT	Gr. 6 CBT	Gr. 6 Total	Gr. 7 PPT	Gr. 7 CBT	Gr. 7 Total	Gr. 8 PPT	Gr. 8 CBT	Gr. 8 Total
Non-IEP Students (Number)	45,527	48,744	94,271	44,274	45,476	89,750	41,503	51,160	92,663	38,103	55,530	93,633	36,526	57,818	94,344	36,321	59,021	95,342
Non-Accommodated (Number)	41,443	44,588	86,031	38,014	40,632	78,646	36,284	46,587	82,871	34,785	52,158	86,943	33,788	54,853	88,641	33,983	56,260	90,243
Non-Accommodated (Percent)	91	91.5	91.3	85.9	89.3	87.6	87.4	91.1	89.4	91.3	93.9	92.9	92.5	94.9	94	93.6	95.3	94.7
Accommodated (Number)	4,084	4,156	8,240	6,260	4,844	11,104	5,219	4,573	9,792	3,318	3,372	6,690	2,738	2,965	5,703	2,338	2,761	5,099
Accommodated (Percent)	9	8.5	8.7	14.1	10.7	12.4	12.6	8.9	10.6	8.7	6.1	7.1	7.5	5.1	6	6.4	4.7	5.3
IEP Students (Number)	11,658	12,896	24,554	11,665	12,795	24,460	10,812	14,375	25,187	9,181	14,785	23,966	8,660	14,284	22,944	8,360	14,176	22,536
Non-Accommodated (Number)	4,269	3,757	8,026	3,716	2,941	6,657	3,343	2,867	6,210	3,273	2,850	6,123	3,254	3,042	6,296	3,210	3,111	6,321
Non-Accommodated (Percent)	36.6	29.1	32.7	31.9	23	27.2	30.9	19.9	24.7	35.6	19.3	25.5	37.6	21.3	27.4	38.4	21.9	28
Accommodated (Number)	7,389	9,139	16,528	7,949	9,854	17,803	7,469	11,508	18,977	5,908	11,935	17,843	5,406	11,242	16,648	5,150	11,065	16,215
Accommodated (Percent)	63.4	70.9	67.3	68.1	77	72.8	69.1	80.1	75.3	64.4	80.7	74.5	62.4	78.7	72.6	61.6	78.1	72

APPENDIX L: INCIDENCE OF ACCOMMODATIONS RECEIVED BY IEP AND EL STUDENTS

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics Grade 3

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	1,702	1,798	528	172
PPT - Some test items/questions read aloud (Percent)	4.2	16.7	12.2	22.9
PPT - All test items/questions read aloud (Number)	278	2,356	146	144
PPT - All test items/questions read aloud (Percent)	.7	21.9	3.4	19.2
PPT - Small group setting (Number)	1,113	6,174	864	479
PPT - Small group setting (Percent)	2.7	57.3	20	63.9
PPT - Extended time (Number)	1,385	1,244	167	64
PPT - Extended time (Percent)	3.4	11.5	3.9	8.5
PPT - Frequent breaks (Number)	182	1,631	53	93
PPT - Frequent breaks (Percent)	.4	15.1	1.2	12.4
PPT - Number assessed (Number)	40,615	10,773	4,322	750
CBT - Some test items/questions read aloud (Number)	806	1,357	302	117
CBT - Some test items/questions read aloud (Percent)	1.8	11.1	7.7	14.9
CBT - All test items/questions read aloud (Number)	226	2,302	245	171
CBT - All test items/questions read aloud (Percent)	.5	18.8	6.2	21.7
CBT - Small group setting (Number)	1,010	7,630	699	560
CBT - Small group setting (Percent)	2.2	62.3	17.7	71.2
CBT - Extended time (Number)	1,887	3,921	358	269
CBT - Extended time (Percent)	4.1	32	9.1	34.2
CBT - Frequent breaks (Number)	434	4,036	136	261
CBT - Frequent breaks (Percent)	1	32.9	3.5	33.2
CBT - Number assessed (Number)	45,508	12,251	3,940	787
Total - Some test items/questions read aloud (Number)	2,508	3,155	830	289
Total - Some test items/questions read aloud (Percent)	2.9	13.7	10	18.8
Total - All test items/questions read aloud (Number)	504	4,658	391	315
Total - All test items/questions read aloud (Percent)	.6	20.2	4.7	20.5
Total - Small group setting (Number)	2,123	13,804	1,563	1,039
Total - Small group setting (Percent)	2.5	60	18.9	67.6
Total - Extended time (Number)	3,272	5,165	525	333
Total - Extended time (Percent)	3.8	22.4	6.4	21.7
Total - Frequent breaks (Number)	616	5,667	189	354
Total - Frequent breaks (Percent)	.7	24.6	2.3	23
Total - Number assessed (Number)	86,123	23,024	8,262	1,537

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics Grade 4

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	1,263	2,093	408	173
PPT - Some test items/questions read aloud (Percent)	3.2	19.4	9.6	24.1
PPT - All test items/questions read aloud (Number)	186	2,397	130	158
PPT - All test items/questions read aloud (Percent)	.5	22.2	3.1	22
PPT - Small group setting (Number)	1,097	6,586	755	483
PPT - Small group setting (Percent)	2.8	61	17.7	67.2
PPT - Extended time (Number)	1,091	1,399	153	96
PPT - Extended time (Percent)	2.7	13	3.6	13.4
PPT - Frequent breaks (Number)	207	1,687	36	119
PPT - Frequent breaks (Percent)	.5	15.6	.8	16.6
PPT - Number assessed (Number)	39,771	10,796	4,259	719
CBT - Some test items/questions read aloud (Number)	710	1,527	272	135
CBT - Some test items/questions read aloud (Percent)	1.7	12.5	7.8	17.6
CBT - All test items/questions read aloud (Number)	151	2,474	180	184
CBT - All test items/questions read aloud (Percent)	.4	20.3	5.1	24
CBT - Small group setting (Number)	925	8,239	564	566
CBT - Small group setting (Percent)	2.2	67.6	16.1	73.8
CBT - Extended time (Number)	1,429	4,056	320	295
CBT - Extended time (Percent)	3.4	33.3	9.1	38.5
CBT - Frequent breaks (Number)	421	4,301	88	252
CBT - Frequent breaks (Percent)	1	35.3	2.5	32.9
CBT - Number assessed (Number)	42,409	12,184	3,500	767
Total - Some test items/questions read aloud (Number)	1,973	3,620	680	308
Total - Some test items/questions read aloud (Percent)	2.4	15.8	8.8	20.7
Total - All test items/questions read aloud (Number)	337	4,871	310	342
Total - All test items/questions read aloud (Percent)	.4	21.2	4	23
Total - Small group setting (Number)	2,022	14,825	1,319	1,049
Total - Small group setting (Percent)	2.5	64.5	17	70.6
Total - Extended time (Number)	2,520	5,455	473	391
Total - Extended time (Percent)	3.1	23.7	6.1	26.3
Total - Frequent breaks (Number)	628	5,988	124	371
Total - Frequent breaks (Percent)	.8	26.1	1.6	25
Total - Number assessed (Number)	82,180	22,980	7,759	1,486

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics 5

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	818	1,715	307	115
PPT - Some test items/questions read aloud (Percent)	2.2	17.1	7.8	16.6
PPT - All test items/questions read aloud (Number)	55	1,777	62	80
PPT - All test items/questions read aloud (Percent)	.1	17.7	1.6	11.6
PPT - Small group setting (Number)	810	6,176	538	430
PPT - Small group setting (Percent)	2.2	61.5	13.7	62.1
PPT - Extended time (Number)	968	1,269	128	46
PPT - Extended time (Percent)	2.6	12.6	3.3	6.6
PPT - Frequent breaks (Number)	120	1,529	29	53
PPT - Frequent breaks (Percent)	.3	15.2	.7	7.7
PPT - Number assessed (Number)	37,579	10,040	3,913	692
CBT - Some test items/questions read aloud (Number)	393	1,853	121	173
CBT - Some test items/questions read aloud (Percent)	.8	13.7	3.6	19.3
CBT - All test items/questions read aloud (Number)	118	2,800	111	188
CBT - All test items/questions read aloud (Percent)	.2	20.7	3.3	21
CBT - Small group setting (Number)	885	9,494	363	674
CBT - Small group setting (Percent)	1.8	70	10.7	75.3
CBT - Extended time (Number)	1,361	4,629	194	361
CBT - Extended time (Percent)	2.8	34.1	5.7	40.3
CBT - Frequent breaks (Number)	407	4,915	46	325
CBT - Frequent breaks (Percent)	.8	36.2	1.4	36.3
CBT - Number assessed (Number)	47,945	13,559	3,388	895
Total - Some test items/questions read aloud (Number)	1,211	3,568	428	288
Total - Some test items/questions read aloud (Percent)	1.4	15.1	5.9	18.1
Total - All test items/questions read aloud (Number)	173	4,577	173	268
Total - All test items/questions read aloud (Percent)	.2	19.4	2.4	16.9
Total - Small group setting (Number)	1,695	15,670	901	1,104
Total - Small group setting (Percent)	2	66.4	12.3	69.6
Total - Extended time (Number)	2,329	5,898	322	407
Total - Extended time (Percent)	2.7	25	4.4	25.6
Total - Frequent breaks (Number)	527	6,444	75	378
Total - Frequent breaks (Percent)	.6	27.3	1	23.8
Total - Number assessed (Number)	85,524	23,599	7,301	1,587

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics Grade 6

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	146	1,033	85	77
PPT - Some test items/questions read aloud (Percent)	.4	11.8	2.2	12.9
PPT - All test items/questions read aloud (Number)	24	866	24	38
PPT - All test items/questions read aloud (Percent)	.1	9.9	.6	6.3
PPT - Small group setting (Number)	531	5,093	316	320
PPT - Small group setting (Percent)	1.5	58.4	8.2	53.4
PPT - Extended time (Number)	786	1,025	112	52
PPT - Extended time (Percent)	2.2	11.8	2.9	8.7
PPT - Frequent breaks (Number)	49	1,069	8	44
PPT - Frequent breaks (Percent)	.1	12.3	.2	7.3
PPT - Number assessed (Number)	35,264	8,718	3,842	599
CBT - Some test items/questions read aloud (Number)	155	2,180	42	164
CBT - Some test items/questions read aloud (Percent)	.3	15.8	1.1	19.6
CBT - All test items/questions read aloud (Number)	67	2,666	132	175
CBT - All test items/questions read aloud (Percent)	.1	19.4	3.5	20.9
CBT - Small group setting (Number)	735	9,520	258	552
CBT - Small group setting (Percent)	1.4	69.2	6.9	66
CBT - Extended time (Number)	895	4,464	144	320
CBT - Extended time (Percent)	1.8	32.4	3.8	38.3
CBT - Frequent breaks (Number)	338	4,475	25	251
CBT - Frequent breaks (Percent)	.7	32.5	.7	30
CBT - Number assessed (Number)	50,843	13,759	3,744	836
Total - Some test items/questions read aloud (Number)	301	3,213	127	241
Total - Some test items/questions read aloud (Percent)	.3	14.3	1.7	16.8
Total - All test items/questions read aloud (Number)	91	3,532	156	213
Total - All test items/questions read aloud (Percent)	.1	15.7	2.1	14.8
Total - Small group setting (Number)	1,266	14,613	574	872
Total - Small group setting (Percent)	1.5	65	7.6	60.8
Total - Extended time (Number)	1,681	5,489	256	372
Total - Extended time (Percent)	2	24.4	3.4	25.9
Total - Frequent breaks (Number)	387	5,544	33	295
Total - Frequent breaks (Percent)	.4	24.7	.4	20.6
Total - Number assessed (Number)	86,107	22,477	7,586	1,435

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics Grade 7

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	77	866	99	63
PPT - Some test items/questions read aloud (Percent)	.2	10.1	2.6	10
PPT - All test items/questions read aloud (Number)	11	519	13	32
PPT - All test items/questions read aloud (Percent)	0	6.1	.3	5.1
PPT - Small group setting (Number)	472	4,890	356	352
PPT - Small group setting (Percent)	1.3	57.2	9.2	55.9
PPT - Extended time (Number)	862	1,060	145	79
PPT - Extended time (Percent)	2.4	12.4	3.8	12.5
PPT - Frequent breaks (Number)	52	946	7	68
PPT - Frequent breaks (Percent)	.1	11.1	.2	10.8
PPT - Number assessed (Number)	35,563	8,552	3,853	630
CBT - Some test items/questions read aloud (Number)	94	2,277	57	176
CBT - Some test items/questions read aloud (Percent)	.2	17.7	1.7	21.3
CBT - All test items/questions read aloud (Number)	38	1,982	67	137
CBT - All test items/questions read aloud (Percent)	.1	15.4	1.9	16.6
CBT - Small group setting (Number)	660	8,802	271	548
CBT - Small group setting (Percent)	1.3	68.5	7.9	66.3
CBT - Extended time (Number)	861	4,166	172	249
CBT - Extended time (Percent)	1.7	32.4	5	30.1
CBT - Frequent breaks (Number)	330	3,851	30	226
CBT - Frequent breaks (Percent)	.6	30	.9	27.4
CBT - Number assessed (Number)	51,479	12,851	3,446	826
Total - Some test items/questions read aloud (Number)	171	3,143	156	239
Total - Some test items/questions read aloud (Percent)	.2	14.7	2.1	16.4
Total - All test items/questions read aloud (Number)	49	2,501	80	169
Total - All test items/questions read aloud (Percent)	.1	11.7	1.1	11.6
Total - Small group setting (Number)	1,132	13,692	627	900
Total - Small group setting (Percent)	1.3	64	8.6	61.8
Total - Extended time (Number)	1,723	5,226	317	328
Total - Extended time (Percent)	2	24.4	4.3	22.5
Total - Frequent breaks (Number)	382	4,797	37	294
Total - Frequent breaks (Percent)	.4	22.4	.5	20.2
Total - Number assessed (Number)	87,042	21,403	7,299	1,456

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: Mathematics Grade 8

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some test items/questions read aloud (Number)	65	684	72	37
PPT - Some test items/questions read aloud (Percent)	.2	8.3	1.9	6.5
PPT - All test items/questions read aloud (Number)	11	411	17	23
PPT - All test items/questions read aloud (Percent)	0	5	.4	4
PPT - Small group setting (Number)	480	4,696	296	308
PPT - Small group setting (Percent)	1.4	56.9	7.7	54.1
PPT - Extended time (Number)	497	932	94	42
PPT - Extended time (Percent)	1.4	11.3	2.5	7.4
PPT - Frequent breaks (Number)	57	843	4	47
PPT - Frequent breaks (Percent)	.2	10.2	.1	8.3
PPT - Number assessed (Number)	35,423	8,247	3,827	569
CBT - Some test items/questions read aloud (Number)	77	2,146	83	175
CBT - Some test items/questions read aloud (Percent)	.1	16.7	2.6	23.9
CBT - All test items/questions read aloud (Number)	40	1,769	39	111
CBT - All test items/questions read aloud (Percent)	.1	13.7	1.2	15.2
CBT - Small group setting (Number)	710	8,788	214	475
CBT - Small group setting (Percent)	1.3	68.2	6.6	65
CBT - Extended time (Number)	885	4,193	186	260
CBT - Extended time (Percent)	1.7	32.5	5.7	35.6
CBT - Frequent breaks (Number)	294	3,634	20	199
CBT - Frequent breaks (Percent)	.6	28.2	.6	27.2
CBT - Number assessed (Number)	52,725	12,882	3,248	731
Total - Some test items/questions read aloud (Number)	142	2,830	155	212
Total - Some test items/questions read aloud (Percent)	.2	13.4	2.2	16.3
Total - All test items/questions read aloud (Number)	51	2,180	56	134
Total - All test items/questions read aloud (Percent)	.1	10.3	.8	10.3
Total - Small group setting (Number)	1,190	13,484	510	783
Total - Small group setting (Percent)	1.4	63.8	7.2	60.2
Total - Extended time (Number)	1,382	5,125	280	302
Total - Extended time (Percent)	1.6	24.3	4	23.2
Total - Frequent breaks (Number)	351	4,477	24	246
Total - Frequent breaks (Percent)	.4	21.2	.3	18.9
Total - Number assessed (Number)	88,148	21,129	7,075	1,300

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 3

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	727	1,246	273	108
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	1.8	11.4	6.3	14.5
PPT - All test items/questions read aloud (Number)	18	210	5	21
PPT - All test items/questions read aloud (Percent)	0	1.9	.1	2.8
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	199	1,886	109	119
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.5	17.3	2.5	16
PPT - Small group setting (Number)	1,098	6,343	785	492
PPT - Small group setting (Percent)	2.7	58.1	18.2	66
PPT - Extended time (Number)	1,340	1,386	167	81
PPT - Extended time (Percent)	3.3	12.7	3.9	10.9
PPT - Frequent breaks (Number)	185	1,752	44	115
PPT - Frequent breaks (Percent)	.4	16.1	1	15.4
PPT - Number assessed (Number)	41,219	10,913	4,308	745
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	261	652	100	66
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.6	5.4	2.6	8.4
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	117	1,248	163	97
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.3	10.3	4.2	12.3
CBT - Small group setting (Number)	1,003	7,589	755	568
CBT - Small group setting (Percent)	2.2	62.7	19.3	72.3
CBT - Extended time (Number)	1,409	3,856	329	276
CBT - Extended time (Percent)	3.1	31.8	8.4	35.1
CBT - Frequent breaks (Number)	424	4,018	148	260
CBT - Frequent breaks (Percent)	.9	33.2	3.8	33.1
CBT - Number assessed (Number)	44,828	12,110	3,916	786
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	988	1,898	373	174
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	1.1	8.2	4.5	11.4
Total - All test items/questions read aloud (Number)	18	210	5	21

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	0	1.9	.1	2.8
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	316	3,134	272	216
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.4	13.6	3.3	14.1
Total - Small group setting (Number)	2,101	13,932	1,540	1,060
Total - Small group setting (Percent)	2.4	60.5	18.7	69.2
Total - Extended time (Number)	2,749	5,242	496	357
Total - Extended time (Percent)	3.2	22.8	6	23.3
Total - Frequent breaks (Number)	609	5,770	192	375
Total - Frequent breaks (Percent)	.7	25.1	2.3	24.5
Total - Number assessed (Number)	86,047	23,023	8,224	1,531

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 4

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	886	1,672	255	154
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	2.2	15.3	6.1	21.4
PPT - All test items/questions read aloud (Number)	100	159	15	14
PPT - All test items/questions read aloud (Percent)	.2	1.5	.4	1.9
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	262	1,942	95	130
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.7	17.7	2.3	18
PPT - Small group setting (Number)	1,189	6,683	675	487
PPT - Small group setting (Percent)	3	61.1	16.2	67.5
PPT - Extended time (Number)	3,442	1,890	294	117
PPT - Extended time (Percent)	8.6	17.3	7.1	16.2
PPT - Frequent breaks (Number)	233	1,894	42	125
PPT - Frequent breaks (Percent)	.6	17.3	1	17.3
PPT - Number assessed (Number)	40,112	10,944	4,162	721
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	312	1,225	204	103
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.7	10.2	5.7	13.5
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	119	1,902	177	149
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.3	15.8	5	19.5
CBT - Small group setting (Number)	915	8,163	653	571
CBT - Small group setting (Percent)	2.2	67.9	18.4	74.6
CBT - Extended time (Number)	2,229	4,120	359	301
CBT - Extended time (Percent)	5.3	34.2	10.1	39.3
CBT - Frequent breaks (Number)	425	4,316	111	258
CBT - Frequent breaks (Percent)	1	35.9	3.1	33.7
CBT - Number assessed (Number)	41,925	12,030	3,551	765
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	1,198	2,897	459	257
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	1.5	12.6	6	17.3
Total - All test items/questions read aloud (Number)	100	159	15	14

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	.2	1.5	.4	1.9
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	381	3,844	272	279
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.5	16.7	3.5	18.8
Total - Small group setting (Number)	2,104	14,846	1,328	1,058
Total - Small group setting (Percent)	2.6	64.6	17.2	71.2
Total - Extended time (Number)	5,671	6,010	653	418
Total - Extended time (Percent)	6.9	26.2	8.5	28.1
Total - Frequent breaks (Number)	658	6,210	153	383
Total - Frequent breaks (Percent)	.8	27	2	25.8
Total - Number assessed (Number)	82,037	22,974	7,713	1,486

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 5

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	590	1,526	220	93
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	1.6	15.1	5.9	13.4
PPT - All test items/questions read aloud (Number)	56	124	9	8
PPT - All test items/questions read aloud (Percent)	.1	1.2	.2	1.2
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	103	1,478	64	84
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.3	14.6	1.7	12.1
PPT - Small group setting (Number)	805	6,399	486	438
PPT - Small group setting (Percent)	2.1	63.2	12.9	63.3
PPT - Extended time (Number)	3,045	1,606	282	83
PPT - Extended time (Percent)	8.1	15.9	7.5	12
PPT - Frequent breaks (Number)	114	1,663	45	73
PPT - Frequent breaks (Percent)	.3	16.4	1.2	10.5
PPT - Number assessed (Number)	37,747	10,120	3,756	692
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	278	1,401	95	109
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.6	10.4	2.7	12.2
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	80	2,156	110	141
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.2	16	3.1	15.7
CBT - Small group setting (Number)	924	9,456	450	676
CBT - Small group setting (Percent)	1.9	70.2	12.8	75.4
CBT - Extended time (Number)	2,377	4,712	252	372
CBT - Extended time (Percent)	5	35	7.2	41.5
CBT - Frequent breaks (Number)	407	4,861	55	323
CBT - Frequent breaks (Percent)	.9	36.1	1.6	36
CBT - Number assessed (Number)	47,649	13,479	3,511	896
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	868	2,927	315	202
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	1	12.4	4.3	12.7
Total - All test items/questions read aloud (Number)	56	124	9	8

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	.1	1.2	.2	1.2
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	183	3,634	174	225
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.2	15.4	2.4	14.2
Total - Small group setting (Number)	1,729	15,855	936	1,114
Total - Small group setting (Percent)	2	67.2	12.9	70.2
Total - Extended time (Number)	5,422	6,318	534	455
Total - Extended time (Percent)	6.3	26.8	7.3	28.7
Total - Frequent breaks (Number)	521	6,524	100	396
Total - Frequent breaks (Percent)	.6	27.6	1.4	24.9
Total - Number assessed (Number)	85,396	23,599	7,267	1,588

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 6

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	146	917	88	50
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.4	10.7	2.5	8.4
PPT - All test items/questions read aloud (Number)	34	71	3	4
PPT - All test items/questions read aloud (Percent)	.1	.8	.1	.7
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	59	713	24	29
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.2	8.3	.7	4.9
PPT - Small group setting (Number)	525	5,129	289	333
PPT - Small group setting (Percent)	1.5	59.7	8.1	56
PPT - Extended time (Number)	2,107	1,194	220	67
PPT - Extended time (Percent)	6.1	13.9	6.1	11.3
PPT - Frequent breaks (Number)	70	1,208	8	49
PPT - Frequent breaks (Percent)	.2	14.1	.2	8.2
PPT - Number assessed (Number)	34,521	8,586	3,582	595
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	75	1,625	51	121
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	11.7	1.3	14.4
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	57	2,165	111	153
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	15.5	2.8	18.2
CBT - Small group setting (Number)	757	9,646	357	568
CBT - Small group setting (Percent)	1.5	69.2	9	67.7
CBT - Extended time (Number)	1,441	4,609	192	324
CBT - Extended time (Percent)	2.8	33	4.8	38.6
CBT - Frequent breaks (Number)	357	4,585	34	254
CBT - Frequent breaks (Percent)	.7	32.9	.9	30.3
CBT - Number assessed (Number)	51,569	13,946	3,961	839
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	221	2,542	139	171
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.3	11.3	1.8	11.9
Total - All test items/questions read aloud (Number)	34	71	3	4

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	.1	.8	.1	.7
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	116	2,878	135	182
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	12.8	1.8	12.7
Total - Small group setting (Number)	1,282	14,775	646	901
Total - Small group setting (Percent)	1.5	65.6	8.6	62.8
Total - Extended time (Number)	3,548	5,803	412	391
Total - Extended time (Percent)	4.1	25.8	5.5	27.3
Total - Frequent breaks (Number)	427	5,793	42	303
Total - Frequent breaks (Percent)	.5	25.7	.6	21.1
Total - Number assessed (Number)	86,090	22,532	7,543	1,434

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 7

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	100	662	77	56
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.3	8.2	2.3	9.5
PPT - All test items/questions read aloud (Number)	23	85	7	4
PPT - All test items/questions read aloud (Percent)	.1	1.1	.2	.7
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	29	395	12	21
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	4.9	.4	3.6
PPT - Small group setting (Number)	488	4,716	322	332
PPT - Small group setting (Percent)	1.5	58.4	9.5	56.6
PPT - Extended time (Number)	1,671	1,128	175	77
PPT - Extended time (Percent)	5	14	5.2	13.1
PPT - Frequent breaks (Number)	67	1,043	7	61
PPT - Frequent breaks (Percent)	.2	12.9	.2	10.4
PPT - Number assessed (Number)	33,151	8,073	3,375	587
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	78	1,670	66	99
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	12.5	1.7	11.3
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	35	1,685	51	129
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	12.6	1.3	14.7
CBT - Small group setting (Number)	678	9,185	353	585
CBT - Small group setting (Percent)	1.3	68.5	9.1	66.9
CBT - Extended time (Number)	1,206	4,444	228	278
CBT - Extended time (Percent)	2.2	33.1	5.9	31.8
CBT - Frequent breaks (Number)	346	4,052	45	241
CBT - Frequent breaks (Percent)	.6	30.2	1.2	27.5
CBT - Number assessed (Number)	53,930	13,409	3,888	875
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	178	2,332	143	155
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.2	10.9	2	10.6
Total - All test items/questions read aloud (Number)	23	85	7	4

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	.1	1.1	.2	.7
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	64	2,080	63	150
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	9.7	.9	10.3
Total - Small group setting (Number)	1,166	13,901	675	917
Total - Small group setting (Percent)	1.3	64.7	9.3	62.7
Total - Extended time (Number)	2,877	5,572	403	355
Total - Extended time (Percent)	3.3	25.9	5.5	24.3
Total - Frequent breaks (Number)	413	5,095	52	302
Total - Frequent breaks (Percent)	.5	23.7	.7	20.7
Total - Number assessed (Number)	87,081	21,482	7,263	1,462

Incidence of IEP and EL Students Receiving Selected Accommodations on the 2025 PSSA: English Language Arts Grade 8

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	78	585	41	37
PPT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.2	7.5	1.2	6.9
PPT - All test items/questions read aloud (Number)	17	51	4	5
PPT - All test items/questions read aloud (Percent)	.1	.7	.1	.9
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	33	336	11	16
PPT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	4.3	.3	3
PPT - Small group setting (Number)	466	4,566	243	307
PPT - Small group setting (Percent)	1.4	58.4	7.3	57
PPT - Extended time (Number)	1,383	1,023	148	57
PPT - Extended time (Percent)	4.2	13.1	4.4	10.6
PPT - Frequent breaks (Number)	68	912	6	49
PPT - Frequent breaks (Percent)	.2	11.7	.2	9.1
PPT - Number assessed (Number)	32,986	7,821	3,335	539
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	53	1,655	101	110
CBT - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	12.3	2.7	14.3
CBT - All test items/questions read aloud (Number)	0	0	0	0
CBT - All test items/questions read aloud (Percent)	0	0	0	0
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Number)	34	1,412	30	77
CBT - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	10.5	.8	10
CBT - Small group setting (Number)	728	9,137	292	501
CBT - Small group setting (Percent)	1.3	68.1	7.9	65.2
CBT - Extended time (Number)	1,131	4,478	236	275
CBT - Extended time (Percent)	2	33.4	6.4	35.8
CBT - Frequent breaks (Number)	316	3,805	28	214
CBT - Frequent breaks (Percent)	.6	28.4	.8	27.9
CBT - Number assessed (Number)	55,312	13,408	3,709	768
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Number)	131	2,240	142	147
Total - Some conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	10.6	2	11.2
Total - All test items/questions read aloud (Number)	17	51	4	5

Accommodation Received by Administration Mode	General Education (non-IEP or EL)	IEP and non-EL	EL and non-IEP	Both IEP and EL
Total - All test items/questions read aloud (Percent)	.1	.7	.1	.9
Total - All conventions questions/ text-dependent analysis prompts read aloud (Number)	67	1,748	41	93
Total - All conventions questions/ text-dependent analysis prompts read aloud (Percent)	.1	8.2	.6	7.1
Total - Small group setting (Number)	1,194	13,703	535	808
Total - Small group setting (Percent)	1.4	64.5	7.6	61.8
Total - Extended time (Number)	2,514	5,501	384	332
Total - Extended time (Percent)	2.8	25.9	5.5	25.4
Total - Frequent breaks (Number)	384	4,717	34	263
Total - Frequent breaks (Percent)	.4	22.2	.5	20.1
Total - Number assessed (Number)	88,298	21,229	7,044	1,307

APPENDIX M: CUT SCORES AND SCALE TRANSFORMATIONS

Subject	Grade	Scaling Intercept	Scaling Slope	Lowest Observed Scaled Score	Scaled Score Cut: Bel. Basic/Basic	Scaled Score Cut: Basic/ Prof.	Scaled Score Cut: Prof./ Adv.
Mathematics	3	956.31	100	600	923	1000	1110
Mathematics	4	981.92	100	600	908	1000	1107
Mathematics	5	961.69	100	600	901	1000	1113
Mathematics	6	931.41	100	600	897	1000	1105
Mathematics	7	956.16	100	600	904	1000	1109
Mathematics	8	951.76	100	600	906	1000	1108
ELA	3	962.47	100	600	905	1000	1143
ELA	4	957.49	100	600	887	1000	1107
ELA	5	958.32	100	600	893	1000	1139
ELA	6	940.78	100	600	875	1000	1115
ELA	7	947.65	100	600	845	1000	1130
ELA	8	961.11	100	600	886	1000	1130
Science	5	NA	NA	NA	NA	NA	NA
Science	8	NA	NA	NA	NA	NA	NA

Note. PSSA Science was a stand-alone field test in 2025. The scaling properties and cut scores will be established following the Spring 2026 administration.

APPENDIX N: RAW-TO-SCALED SCORE CONVERSION TABLES

The raw-to-scaled score conversion tables are presented for each subject and grade level. For each raw score point, the IRT difficulty estimates, standard errors (SE), frequencies, percent, cumulative frequencies, cumulative percent and percentiles were estimated using WINSTEPS (Linacre, 2019). Percentiles were calculated as the cumulative percent for the score below added to half the frequency percent for the current score (half-rounded) and then constrained to the range 1–99 for non-zero frequencies (Linacre, 2009). PSSA Science was a stand-alone field test in 2025. No student scores were reported.

Grade 3 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.0074	1.8343	600	183	0	0.0	0	0.0	0
1	-3.7814	1.0156	600	102	5	0.0	5	0.0	1
2	-3.0569	0.7289	651	73	16	0.0	21	0.0	1
3	-2.6201	0.6039	694	60	38	0.0	59	0.0	1
4	-2.301	0.5305	726	53	143	0.1	202	0.2	1
5	-2.0464	0.4811	752	48	330	0.3	532	0.4	1
6	-1.8325	0.4453	773	45	679	0.6	1211	1.0	1
7	-1.6467	0.4179	792	42	1132	1.0	2343	2.0	2
8	-1.4813	0.3962	808	40	1704	1.4	4047	3.4	3
9	-1.3315	0.3786	823	38	2247	1.9	6294	5.3	4
10	-1.1938	0.364	837	36	2677	2.3	8971	7.6	6
11	-1.0658	0.3517	850	35	2904	2.5	11875	10.0	9
12	-0.9458	0.3413	862	34	2969	2.5	14844	12.5	11
13	-0.8324	0.3325	873	33	3163	2.7	18007	15.2	14
14	-0.7244	0.3248	884	32	2955	2.5	20962	17.7	16
15	-0.6211	0.3182	894	32	2852	2.4	23814	20.1	19
16	-0.5217	0.3125	904	31	2874	2.4	26688	22.5	21
17	-0.4256	0.3076	914	31	2767	2.3	29455	24.9	24
18	-0.3323	0.3034	923	30	2882	2.4	32337	27.3	26
19	-0.2413	0.2998	932	30	2771	2.3	35108	29.7	28
20	-0.1524	0.2968	941	30	2695	2.3	37803	31.9	31
21	-0.065	0.2943	950	29	2791	2.4	40594	34.3	33
22	0.021	0.2923	958	29	2680	2.3	43274	36.6	35
23	0.1059	0.2907	967	29	2811	2.4	46085	38.9	38
24	0.1901	0.2896	975	29	2816	2.4	48901	41.3	40
25	0.2737	0.2889	984	29	2875	2.4	51776	43.7	43
26	0.3571	0.2887	992	29	2892	2.4	54668	46.2	45
27	0.4405	0.2888	1000	29	2837	2.4	57505	48.6	47
28	0.5241	0.2894	1009	29	2877	2.4	60382	51.0	50
29	0.6081	0.2905	1017	29	2973	2.5	63355	53.5	52

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
30	0.6929	0.292	1026	29	3068	2.6	66423	56.1	55
31	0.7787	0.2939	1034	29	2888	2.4	69311	58.6	57
32	0.8658	0.2964	1043	30	2962	2.5	72273	61.1	60
33	0.9545	0.2994	1052	30	3064	2.6	75337	63.7	62
34	1.0452	0.303	1061	30	3010	2.5	78347	66.2	65
35	1.1383	0.3072	1070	31	2893	2.4	81240	68.6	67
36	1.2342	0.3122	1080	31	2990	2.5	84230	71.2	70
37	1.3334	0.318	1090	32	3068	2.6	87298	73.8	72
38	1.4366	0.3247	1100	32	2942	2.5	90240	76.2	75
39	1.5445	0.3324	1111	33	2965	2.5	93205	78.7	77
40	1.658	0.3415	1122	34	2980	2.5	96185	81.3	80
41	1.7781	0.3521	1134	35	2883	2.4	99068	83.7	82
42	1.9064	0.3646	1147	36	2823	2.4	101891	86.1	85
43	2.0447	0.3795	1161	38	2769	2.3	104660	88.4	87
44	2.1954	0.3975	1176	40	2578	2.2	107238	90.6	90
45	2.362	0.4196	1193	42	2526	2.1	109764	92.7	92
46	2.5495	0.4475	1211	45	2280	1.9	112044	94.7	94
47	2.7656	0.4839	1233	48	1973	1.7	114017	96.3	96
48	3.0233	0.5338	1259	53	1685	1.4	115702	97.8	97
49	3.3464	0.6078	1291	61	1222	1.0	116924	98.8	98
50	3.7886	0.7332	1335	73	883	0.7	117807	99.5	99
51	4.5202	1.0196	1408	102	441	0.4	118248	99.9	99
52	5.7525	1.837	1532	184	108	0.1	118356	100.0	99

Grade 4 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.3392	1.8338	600	183	2	0.0	2	0.0	1
1	-4.1145	1.0148	600	101	1	0.0	3	0.0	1
2	-3.3913	0.7281	643	73	10	0.0	13	0.0	1
3	-2.9555	0.6032	686	60	37	0.0	50	0.0	1
4	-2.6372	0.5299	718	53	118	0.1	168	0.1	1
5	-2.383	0.4808	744	48	250	0.2	418	0.4	1
6	-2.1694	0.4452	765	45	575	0.5	993	0.9	1
7	-1.9835	0.418	784	42	954	0.8	1947	1.7	1
8	-1.8179	0.3966	800	40	1531	1.3	3478	3.0	2
9	-1.6677	0.3791	815	38	2009	1.8	5487	4.8	4
10	-1.5295	0.3647	829	36	2514	2.2	8001	7.0	6
11	-1.4009	0.3526	842	35	2762	2.4	10763	9.4	8
12	-1.2803	0.3423	854	34	2965	2.6	13728	12.0	11
13	-1.1661	0.3335	865	33	2967	2.6	16695	14.6	13
14	-1.0575	0.3259	876	33	3101	2.7	19796	17.3	16
15	-0.9535	0.3193	887	32	2950	2.6	22746	19.9	19
16	-0.8534	0.3135	897	31	2812	2.5	25558	22.4	21
17	-0.7568	0.3085	906	31	2808	2.5	28366	24.8	24
18	-0.663	0.3041	916	30	2713	2.4	31079	27.2	26
19	-0.5717	0.3003	925	30	2792	2.4	33871	29.6	28
20	-0.4825	0.297	934	30	2786	2.4	36657	32.1	31
21	-0.3952	0.2942	942	29	2775	2.4	39432	34.5	33
22	-0.3093	0.2919	951	29	2787	2.4	42219	36.9	36
23	-0.2246	0.29	959	29	2891	2.5	45110	39.5	38
24	-0.141	0.2886	968	29	2739	2.4	47849	41.9	41
25	-0.058	0.2875	976	29	2767	2.4	50616	44.3	43
26	0.0244	0.2869	984	29	2879	2.5	53495	46.8	46
27	0.1066	0.2866	993	29	2901	2.5	56396	49.3	48
28	0.1888	0.2868	1001	29	2792	2.4	59188	51.8	51
29	0.2712	0.2874	1009	29	2896	2.5	62084	54.3	53
30	0.3541	0.2884	1017	29	2781	2.4	64865	56.7	56
31	0.4377	0.29	1026	29	2829	2.5	67694	59.2	58
32	0.5223	0.292	1034	29	2785	2.4	70479	61.6	60
33	0.6083	0.2946	1043	29	2874	2.5	73353	64.2	63
34	0.696	0.2978	1052	30	2845	2.5	76198	66.7	65
35	0.7858	0.3016	1061	30	2783	2.4	78981	69.1	68
36	0.8781	0.3062	1070	31	2740	2.4	81721	71.5	70

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.9735	0.3117	1079	31	2782	2.4	84503	73.9	73
38	1.0726	0.3181	1089	32	2629	2.3	87132	76.2	75
39	1.1762	0.3257	1100	33	2675	2.3	89807	78.6	77
40	1.2851	0.3346	1110	33	2691	2.4	92498	80.9	80
41	1.4005	0.3451	1122	35	2675	2.3	95173	83.2	82
42	1.5239	0.3577	1134	36	2445	2.1	97618	85.4	84
43	1.6571	0.3728	1148	37	2484	2.2	100102	87.6	86
44	1.8028	0.391	1162	39	2323	2.0	102425	89.6	89
45	1.9644	0.4136	1178	41	2258	2.0	104683	91.6	91
46	2.147	0.4422	1197	44	2172	1.9	106855	93.5	93
47	2.3586	0.4794	1218	48	1960	1.7	108815	95.2	94
48	2.6123	0.5304	1243	53	1831	1.6	110646	96.8	96
49	2.9322	0.6055	1275	61	1455	1.3	112101	98.1	97
50	3.3724	0.7323	1319	73	1186	1.0	113287	99.1	99
51	4.1036	1.0198	1392	102	722	0.6	114009	99.7	99
52	5.3367	1.8376	1516	184	316	0.3	114325	100.0	99

Grade 5 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.1824	1.8344	600	183	0	0.0	0	0.0	0
1	-3.9561	1.0158	600	102	1	0.0	1	0.0	1
2	-3.2312	0.7292	639	73	4	0.0	5	0.0	1
3	-2.794	0.6042	682	60	14	0.0	19	0.0	1
4	-2.4746	0.5308	714	53	80	0.1	99	0.1	1
5	-2.2197	0.4814	740	48	175	0.1	274	0.2	1
6	-2.0056	0.4455	761	45	381	0.3	655	0.6	1
7	-1.8196	0.418	780	42	709	0.6	1364	1.2	1
8	-1.6542	0.3962	796	40	1179	1.0	2543	2.2	2
9	-1.5043	0.3785	811	38	1746	1.5	4289	3.6	3
10	-1.3668	0.3637	825	36	2259	1.9	6548	5.6	5
11	-1.239	0.3514	838	35	2755	2.3	9303	7.9	7
12	-1.1193	0.3408	850	34	3363	2.9	12666	10.7	9
13	-1.0063	0.3318	861	33	3397	2.9	16063	13.6	12
14	-0.8988	0.3241	872	32	3604	3.1	19667	16.7	15
15	-0.796	0.3174	882	32	3699	3.1	23366	19.8	18
16	-0.6971	0.3117	892	31	3566	3.0	26932	22.8	21
17	-0.6015	0.3068	902	31	3690	3.1	30622	26.0	24
18	-0.5087	0.3026	911	30	3599	3.1	34221	29.0	27
19	-0.4182	0.2991	920	30	3550	3.0	37771	32.0	31
20	-0.3296	0.2963	929	30	3296	2.8	41067	34.8	33
21	-0.2425	0.2939	937	29	3348	2.8	44415	37.7	36
22	-0.1567	0.2922	946	29	3257	2.8	47672	40.4	39
23	-0.0717	0.2909	955	29	3164	2.7	50836	43.1	42
24	0.0127	0.2901	963	29	3084	2.6	53920	45.7	44
25	0.0967	0.2898	971	29	3075	2.6	56995	48.3	47
26	0.1807	0.2899	980	29	2993	2.5	59988	50.9	50
27	0.2649	0.2904	988	29	3032	2.6	63020	53.5	52
28	0.3495	0.2914	997	29	3067	2.6	66087	56.1	55
29	0.4348	0.2928	1005	29	2993	2.5	69080	58.6	57
30	0.521	0.2946	1014	29	2952	2.5	72032	61.1	60
31	0.6084	0.2968	1023	30	2875	2.4	74907	63.5	62
32	0.6972	0.2994	1031	30	2893	2.5	77800	66.0	65
33	0.7878	0.3025	1040	30	2780	2.4	80580	68.3	67
34	0.8803	0.306	1050	31	2713	2.3	83293	70.6	69
35	0.9752	0.3101	1059	31	2730	2.3	86023	73.0	72
36	1.0727	0.3146	1069	31	2639	2.2	88662	75.2	74

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	1.1733	0.3198	1079	32	2610	2.2	91272	77.4	76
38	1.2774	0.3256	1089	33	2646	2.2	93918	79.7	79
39	1.3856	0.3323	1100	33	2501	2.1	96419	81.8	81
40	1.4985	0.3399	1112	34	2418	2.1	98837	83.8	83
41	1.617	0.3488	1123	35	2411	2.0	101248	85.9	85
42	1.7422	0.3593	1136	36	2280	1.9	103528	87.8	87
43	1.8757	0.3719	1149	37	2215	1.9	105743	89.7	89
44	2.0197	0.3876	1164	39	2070	1.8	107813	91.4	91
45	2.1775	0.4075	1179	41	2019	1.7	109832	93.2	92
46	2.3538	0.4334	1197	43	1797	1.5	111629	94.7	94
47	2.5563	0.4683	1217	47	1608	1.4	113237	96.0	95
48	2.798	0.5176	1241	52	1508	1.3	114745	97.3	97
49	3.1032	0.592	1272	59	1309	1.1	116054	98.4	98
50	3.5259	0.7194	1314	72	940	0.8	116994	99.2	99
51	4.2373	1.0096	1385	101	638	0.5	117632	99.8	99
52	5.4555	1.8316	1507	183	271	0.2	117903	100.0	99

Grade 6 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.1888	1.8365	600	184	1	0.0	1	0.0	1
1	-3.9574	1.0193	600	102	2	0.0	3	0.0	1
2	-3.2254	0.7339	609	73	4	0.0	7	0.0	1
3	-2.7816	0.6095	653	61	21	0.0	28	0.0	1
4	-2.4558	0.5366	686	54	73	0.1	101	0.1	1
5	-2.1949	0.4875	712	49	157	0.1	258	0.2	1
6	-1.975	0.4518	734	45	415	0.4	673	0.6	1
7	-1.7835	0.4245	753	42	801	0.7	1474	1.3	1
8	-1.6126	0.4028	770	40	1317	1.1	2791	2.4	2
9	-1.4576	0.3851	786	39	1877	1.6	4668	4.0	3
10	-1.3151	0.3704	800	37	2593	2.2	7261	6.2	5
11	-1.1826	0.358	813	36	3160	2.7	10421	8.9	8
12	-1.0583	0.3473	826	35	3519	3.0	13940	11.9	10
13	-0.9409	0.3382	837	34	3684	3.1	17624	15.0	13
14	-0.8293	0.3302	848	33	3818	3.3	21442	18.3	17
15	-0.7226	0.3233	859	32	3770	3.2	25212	21.5	20
16	-0.6201	0.3172	869	32	3855	3.3	29067	24.7	23
17	-0.5212	0.3119	879	31	3619	3.1	32686	27.8	26
18	-0.4254	0.3073	889	31	3546	3.0	36232	30.8	29
19	-0.3322	0.3033	898	30	3475	3.0	39707	33.8	32
20	-0.2412	0.2999	907	30	3298	2.8	43005	36.6	35
21	-0.1522	0.297	916	30	3340	2.8	46345	39.5	38
22	-0.0646	0.2947	925	29	3135	2.7	49480	42.1	41
23	0.0216	0.2928	934	29	3217	2.7	52697	44.9	43
24	0.107	0.2915	942	29	3040	2.6	55737	47.4	46
25	0.1916	0.2906	951	29	3079	2.6	58816	50.1	49
26	0.2759	0.2902	959	29	3072	2.6	61888	52.7	51
27	0.3602	0.2903	967	29	2908	2.5	64796	55.2	54
28	0.4445	0.2908	976	29	2779	2.4	67575	57.5	56
29	0.5294	0.2919	984	29	2795	2.4	70370	59.9	59
30	0.6151	0.2935	993	29	2670	2.3	73040	62.2	61
31	0.7018	0.2956	1002	30	2707	2.3	75747	64.5	63
32	0.7899	0.2983	1010	30	2707	2.3	78454	66.8	66
33	0.8799	0.3016	1019	30	2555	2.2	81009	69.0	68
34	0.9719	0.3055	1029	31	2478	2.1	83487	71.1	70
35	1.0666	0.3101	1038	31	2526	2.2	86013	73.2	72
36	1.1644	0.3154	1048	32	2378	2.0	88391	75.2	74

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	1.2657	0.3215	1058	32	2370	2.0	90761	77.3	76
38	1.3714	0.3286	1069	33	2423	2.1	93184	79.3	78
39	1.482	0.3368	1080	34	2404	2.0	95588	81.4	80
40	1.5986	0.3462	1091	35	2200	1.9	97788	83.2	82
41	1.7221	0.3571	1104	36	2277	1.9	100065	85.2	84
42	1.8541	0.3699	1117	37	2245	1.9	102310	87.1	86
43	1.9965	0.385	1131	39	2109	1.8	104419	88.9	88
44	2.1515	0.403	1147	40	2166	1.8	106585	90.7	90
45	2.3227	0.4251	1164	43	2046	1.7	108631	92.5	92
46	2.515	0.4529	1183	45	1952	1.7	110583	94.1	93
47	2.7361	0.489	1205	49	1704	1.5	112287	95.6	95
48	2.9987	0.5384	1231	54	1600	1.4	113887	96.9	96
49	3.3266	0.6116	1264	61	1394	1.2	115281	98.1	98
50	3.7733	0.736	1309	74	1095	0.9	116376	99.1	99
51	4.5088	1.0212	1382	102	782	0.7	117158	99.7	99
52	5.743	1.8377	1506	184	315	0.3	117473	100.0	99

Grade 7 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.1671	1.8331	600	183	0	0.0	0	0.0	0
1	-3.9443	1.0134	600	101	5	0.0	5	0.0	1
2	-3.2238	0.7263	634	73	15	0.0	20	0.0	1
3	-2.7906	0.6011	677	60	43	0.0	63	0.1	1
4	-2.4747	0.5277	709	53	165	0.1	228	0.2	1
5	-2.2229	0.4785	734	48	451	0.4	679	0.6	1
6	-2.0114	0.4428	755	44	929	0.8	1608	1.4	1
7	-1.8276	0.4157	773	42	1585	1.4	3193	2.7	2
8	-1.6638	0.3943	790	39	2590	2.2	5783	4.9	4
9	-1.5152	0.3771	805	38	3364	2.9	9147	7.8	6
10	-1.3785	0.3628	818	36	4121	3.5	13268	11.3	10
11	-1.2513	0.351	831	35	4714	4.0	17982	15.4	13
12	-1.1317	0.3409	843	34	4958	4.2	22940	19.6	17
13	-1.0184	0.3324	854	33	4806	4.1	27746	23.7	22
14	-0.9104	0.3251	865	33	4517	3.9	32263	27.6	26
15	-0.8068	0.3188	875	32	4349	3.7	36612	31.3	29
16	-0.7069	0.3134	885	31	3987	3.4	40599	34.7	33
17	-0.6102	0.3087	895	31	3594	3.1	44193	37.8	36
18	-0.5162	0.3047	905	30	3567	3.0	47760	40.8	39
19	-0.4244	0.3013	914	30	3372	2.9	51132	43.7	42
20	-0.3345	0.2984	923	30	3020	2.6	54152	46.3	45
21	-0.2462	0.296	932	30	3017	2.6	57169	48.8	48
22	-0.1592	0.294	940	29	2828	2.4	59997	51.3	50
23	-0.0733	0.2924	949	29	2760	2.4	62757	53.6	52
24	0.0118	0.2911	957	29	2755	2.4	65512	56.0	55
25	0.0963	0.2903	966	29	2509	2.1	68021	58.1	57
26	0.1804	0.2898	974	29	2474	2.1	70495	60.2	59
27	0.2643	0.2897	983	29	2359	2.0	72854	62.2	61
28	0.3483	0.2899	991	29	2330	2.0	75184	64.2	63
29	0.4325	0.2905	999	29	2335	2.0	77519	66.2	65
30	0.5172	0.2916	1008	29	2307	2.0	79826	68.2	67
31	0.6026	0.293	1016	29	2286	2.0	82112	70.2	69
32	0.689	0.2949	1025	29	2244	1.9	84356	72.1	71
33	0.7767	0.2974	1034	30	2162	1.8	86518	73.9	73
34	0.866	0.3005	1043	30	2187	1.9	88705	75.8	75
35	0.9574	0.3042	1052	30	2137	1.8	90842	77.6	77
36	1.0513	0.3087	1061	31	2107	1.8	92949	79.4	79

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	1.1482	0.3141	1071	31	2080	1.8	95029	81.2	80
38	1.2489	0.3206	1081	32	2087	1.8	97116	83.0	82
39	1.3541	0.3283	1092	33	2027	1.7	99143	84.7	84
40	1.4648	0.3374	1103	34	2048	1.7	101191	86.5	86
41	1.5822	0.3484	1114	35	2042	1.7	103233	88.2	87
42	1.7081	0.3615	1127	36	1884	1.6	105117	89.8	89
43	1.8444	0.3773	1141	38	1879	1.6	106996	91.4	91
44	1.9939	0.3967	1156	40	1888	1.6	108884	93.0	92
45	2.1606	0.4207	1172	42	1677	1.4	110561	94.5	94
46	2.3502	0.4511	1191	45	1533	1.3	112094	95.8	95
47	2.5712	0.4908	1213	49	1459	1.2	113553	97.0	96
48	2.8382	0.545	1240	55	1243	1.1	114796	98.1	98
49	3.1773	0.6243	1274	62	1047	0.9	115843	99.0	99
50	3.6459	0.7555	1321	76	653	0.6	116496	99.5	99
51	4.42	1.0452	1398	105	407	0.3	116903	99.9	99
52	5.6955	1.8562	1526	186	140	0.1	117043	100.0	99

Grade 8 Mathematics

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.4226	1.833	600	183	0	0.0	0	0.0	0
1	-4.1998	1.0134	600	101	1	0.0	1	0.0	1
2	-3.4795	0.7262	604	73	7	0.0	8	0.0	1
3	-3.0464	0.6009	647	60	20	0.0	28	0.0	1
4	-2.7308	0.5274	679	53	81	0.1	109	0.1	1
5	-2.4792	0.4782	704	48	220	0.2	329	0.3	1
6	-2.268	0.4424	725	44	531	0.5	860	0.7	1
7	-2.0846	0.4152	743	42	956	0.8	1816	1.5	1
8	-1.9213	0.3937	760	39	1661	1.4	3477	3.0	2
9	-1.7732	0.3763	774	38	2355	2.0	5832	5.0	4
10	-1.6371	0.362	788	36	3074	2.6	8906	7.6	6
11	-1.5104	0.35	801	35	3780	3.2	12686	10.8	9
12	-1.3916	0.3398	813	34	4144	3.5	16830	14.3	13
13	-1.2791	0.3311	824	33	4326	3.7	21156	18.0	16
14	-1.172	0.3236	835	32	4352	3.7	25508	21.7	20
15	-1.0694	0.3172	845	32	4299	3.7	29807	25.4	24
16	-0.9707	0.3116	855	31	4135	3.5	33942	28.9	27
17	-0.8751	0.3067	864	31	3914	3.3	37856	32.2	31
18	-0.7824	0.3025	874	30	3692	3.1	41548	35.4	34
19	-0.692	0.2989	883	30	3456	2.9	45004	38.3	37
20	-0.6036	0.2957	891	30	3229	2.7	48233	41.1	40
21	-0.517	0.2931	900	29	3193	2.7	51426	43.8	42
22	-0.4317	0.2909	909	29	3071	2.6	54497	46.4	45
23	-0.3477	0.2891	917	29	2998	2.6	57495	48.9	48
24	-0.2645	0.2876	925	29	2874	2.4	60369	51.4	50
25	-0.1821	0.2866	934	29	2823	2.4	63192	53.8	53
26	-0.1002	0.2859	942	29	2806	2.4	65998	56.2	55
27	-0.0186	0.2856	950	29	2686	2.3	68684	58.5	57
28	0.063	0.2857	958	29	2721	2.3	71405	60.8	60
29	0.1447	0.2861	966	29	2584	2.2	73989	63.0	62
30	0.2268	0.287	974	29	2532	2.2	76521	65.1	64
31	0.3096	0.2883	983	29	2614	2.2	79135	67.4	66
32	0.3932	0.2901	991	29	2485	2.1	81620	69.5	68
33	0.478	0.2924	1000	29	2478	2.1	84098	71.6	71
34	0.5643	0.2953	1008	30	2393	2.0	86491	73.6	73
35	0.6525	0.2988	1017	30	2373	2.0	88864	75.6	75
36	0.743	0.303	1026	30	2257	1.9	91121	77.6	77

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.8363	0.3081	1035	31	2249	1.9	93370	79.5	79
38	0.933	0.3141	1045	31	2307	2.0	95677	81.4	80
39	1.0339	0.3212	1055	32	2099	1.8	97776	83.2	82
40	1.1397	0.3297	1066	33	2029	1.7	99805	85.0	84
41	1.2517	0.3398	1077	34	2068	1.8	101873	86.7	86
42	1.3712	0.3519	1089	35	1937	1.6	103810	88.4	88
43	1.5001	0.3665	1102	37	1939	1.7	105749	90.0	89
44	1.6409	0.3843	1116	38	1899	1.6	107648	91.6	91
45	1.7969	0.4064	1131	41	1807	1.5	109455	93.2	92
46	1.9733	0.4345	1149	43	1699	1.4	111154	94.6	94
47	2.1777	0.4713	1170	47	1535	1.3	112689	95.9	95
48	2.423	0.5218	1194	52	1413	1.2	114102	97.1	97
49	2.7331	0.5967	1225	60	1215	1.0	115317	98.2	98
50	3.1617	0.7235	1268	72	1042	0.9	116359	99.1	99
51	3.8789	1.0122	1340	101	712	0.6	117071	99.7	99
52	5.1004	1.8327	1462	183	398	0.3	117469	100.0	99

Grade 3 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-4.9129	1.8358	600	184	0	0.0	0	0.0	0
1	-3.6833	1.0182	600	102	5	0.0	5	0.0	1
2	-2.9535	0.7326	667	73	25	0.0	30	0.0	1
3	-2.5112	0.6085	711	61	52	0.0	82	0.1	1
4	-2.1865	0.5359	744	54	158	0.1	240	0.2	1
5	-1.9259	0.4875	770	49	358	0.3	598	0.5	1
6	-1.7057	0.4526	792	45	724	0.6	1322	1.1	1
7	-1.513	0.4263	811	43	1280	1.1	2602	2.2	2
8	-1.3403	0.4057	828	41	1987	1.7	4589	3.9	3
9	-1.1826	0.3892	844	39	2748	2.3	7337	6.2	5
10	-1.0365	0.3758	859	38	3596	3.0	10933	9.2	8
11	-0.8995	0.3648	873	36	4014	3.4	14947	12.6	11
12	-0.7698	0.3557	885	36	4439	3.7	19386	16.4	14
13	-0.646	0.3481	898	35	4463	3.8	23849	20.1	18
14	-0.5271	0.3418	910	34	4495	3.8	28344	23.9	22
15	-0.4121	0.3366	921	34	4238	3.6	32582	27.5	26
16	-0.3002	0.3323	932	33	4207	3.5	36789	31.0	29
17	-0.191	0.3289	943	33	4091	3.5	40880	34.5	33
18	-0.0837	0.3262	954	33	4049	3.4	44929	37.9	36
19	0.0219	0.3241	965	32	3956	3.3	48885	41.2	40
20	0.1265	0.3226	975	32	4003	3.4	52888	44.6	43
21	0.2302	0.3217	985	32	4059	3.4	56947	48.0	46
22	0.3336	0.3214	996	32	3787	3.2	60734	51.2	50
23	0.4369	0.3216	1006	32	3965	3.3	64699	54.6	53
24	0.5405	0.3223	1017	32	4008	3.4	68707	58.0	56
25	0.6448	0.3236	1027	32	4013	3.4	72720	61.4	60
26	0.7501	0.3254	1037	33	4055	3.4	76775	64.8	63
27	0.8567	0.3279	1048	33	3876	3.3	80651	68.0	66
28	0.9652	0.331	1059	33	4015	3.4	84666	71.4	70
29	1.076	0.3348	1070	33	3883	3.3	88549	74.7	73
30	1.1896	0.3394	1081	34	3730	3.1	92279	77.9	76
31	1.3066	0.3449	1093	34	3801	3.2	96080	81.1	79
32	1.4278	0.3515	1105	35	3519	3.0	99599	84.0	83
33	1.5541	0.3594	1118	36	3332	2.8	102931	86.8	85
34	1.6865	0.3687	1131	37	3090	2.6	106021	89.4	88
35	1.8265	0.3799	1145	38	2839	2.4	108860	91.8	91
36	1.9758	0.3934	1160	39	2489	2.1	111349	93.9	93

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	2.1369	0.4099	1176	41	2134	1.8	113483	95.7	95
38	2.3133	0.4305	1194	43	1771	1.5	115254	97.2	96
39	2.5097	0.4568	1213	46	1185	1.0	116439	98.2	98
40	2.7338	0.4915	1236	49	995	0.8	117434	99.1	99
41	2.9983	0.5396	1262	54	556	0.5	117990	99.5	99
42	3.327	0.6117	1295	61	320	0.3	118310	99.8	99
43	3.7732	0.7353	1340	74	154	0.1	118464	99.9	99
44	4.5069	1.02	1413	102	57	0.0	118521	100.0	99
45	5.7391	1.8367	1536	184	9	0.0	118530	100.0	99

Grade 4 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.2257	1.8307	600	183	1	0.0	1	0.0	1
1	-4.0089	1.0092	600	101	5	0.0	6	0.0	1
2	-3.2971	0.7203	628	72	6	0.0	12	0.0	1
3	-2.8726	0.5938	670	59	13	0.0	25	0.0	1
4	-2.5654	0.5193	701	52	37	0.0	62	0.1	1
5	-2.3223	0.4693	725	47	67	0.1	129	0.1	1
6	-2.1195	0.4329	746	43	154	0.1	283	0.2	1
7	-1.9443	0.4052	763	41	315	0.3	598	0.5	1
8	-1.7892	0.3833	779	38	475	0.4	1073	0.9	1
9	-1.6492	0.3656	793	37	815	0.7	1888	1.7	1
10	-1.521	0.3509	805	35	1106	1.0	2994	2.6	2
11	-1.4022	0.3387	817	34	1462	1.3	4456	3.9	3
12	-1.291	0.3284	828	33	1698	1.5	6154	5.4	5
13	-1.1861	0.3196	839	32	1939	1.7	8093	7.1	6
14	-1.0864	0.312	849	31	2085	1.8	10178	8.9	8
15	-0.9912	0.3055	858	31	2196	1.9	12374	10.9	10
16	-0.8996	0.2999	868	30	2318	2.0	14692	12.9	12
17	-0.8111	0.295	876	30	2443	2.1	17135	15.0	14
18	-0.7253	0.2908	885	29	2510	2.2	19645	17.2	16
19	-0.6418	0.2872	893	29	2539	2.2	22184	19.5	18
20	-0.5602	0.2841	901	28	2603	2.3	24787	21.8	21
21	-0.4803	0.2815	909	28	2662	2.3	27449	24.1	23
22	-0.4017	0.2792	917	28	2637	2.3	30086	26.4	25
23	-0.3243	0.2774	925	28	2752	2.4	32838	28.8	28
24	-0.2478	0.2758	933	28	2794	2.5	35632	31.3	30
25	-0.1721	0.2746	940	27	2715	2.4	38347	33.7	32
26	-0.0969	0.2737	948	27	2844	2.5	41191	36.1	35
27	-0.0221	0.2731	955	27	2862	2.5	44053	38.7	37
28	0.0523	0.2727	963	27	2833	2.5	46886	41.1	40
29	0.1267	0.2726	970	27	2928	2.6	49814	43.7	42
30	0.201	0.2728	978	27	2943	2.6	52757	46.3	45
31	0.2755	0.2732	985	27	2986	2.6	55743	48.9	48
32	0.3503	0.2738	993	27	2985	2.6	58728	51.5	50
33	0.4255	0.2747	1000	27	3086	2.7	61814	54.2	53
34	0.5012	0.2758	1008	28	3180	2.8	64994	57.0	56
35	0.5777	0.2771	1015	28	3123	2.7	68117	59.8	58
36	0.6549	0.2787	1023	28	3144	2.8	71261	62.5	61

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.7331	0.2806	1031	28	3161	2.8	74422	65.3	64
38	0.8124	0.2827	1039	28	3337	2.9	77759	68.2	67
39	0.893	0.2852	1047	29	3252	2.9	81011	71.1	70
40	0.9751	0.2879	1055	29	3188	2.8	84199	73.9	72
41	1.0589	0.291	1063	29	3128	2.7	87327	76.6	75
42	1.1446	0.2944	1072	29	3050	2.7	90377	79.3	78
43	1.2324	0.2983	1081	30	2938	2.6	93315	81.9	81
44	1.3226	0.3026	1090	30	2759	2.4	96074	84.3	83
45	1.4156	0.3073	1099	31	2663	2.3	98737	86.6	85
46	1.5116	0.3126	1109	31	2434	2.1	101171	88.8	88
47	1.6112	0.3186	1119	32	2233	2.0	103404	90.7	90
48	1.7148	0.3252	1129	33	2032	1.8	105436	92.5	92
49	1.8229	0.3326	1140	33	1746	1.5	107182	94.1	93
50	1.9363	0.3411	1151	34	1511	1.3	108693	95.4	95
51	2.0559	0.3507	1163	35	1347	1.2	110040	96.6	96
52	2.1826	0.3617	1176	36	1070	0.9	111110	97.5	97
53	2.318	0.3744	1189	37	814	0.7	111924	98.2	98
54	2.4637	0.3894	1204	39	662	0.6	112586	98.8	99
55	2.6221	0.4072	1220	41	480	0.4	113066	99.2	99
56	2.7967	0.429	1237	43	335	0.3	113401	99.5	99
57	2.9922	0.4564	1257	46	231	0.2	113632	99.7	99
58	3.2163	0.4919	1279	49	149	0.1	113781	99.8	99
59	3.4817	0.5407	1306	54	87	0.1	113868	99.9	99
60	3.8119	0.6132	1339	61	52	0.0	113920	100.0	99
61	4.2603	0.7369	1384	74	23	0.0	113943	100.0	99
62	4.9966	1.0215	1457	102	6	0.0	113949	100.0	99
63	6.2311	1.8376	1581	184	3	0.0	113952	100.0	99

Grade 5 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.4053	1.8331	600	183	0	0.0	0	0.0	0
1	-4.1824	1.0135	600	101	0	0.0	0	0.0	0
2	-3.4621	0.7262	612	73	4	0.0	4	0.0	1
3	-3.0291	0.6008	655	60	7	0.0	11	0.0	1
4	-2.7136	0.5272	687	53	32	0.0	43	0.0	1
5	-2.4623	0.4778	712	48	75	0.1	118	0.1	1
6	-2.2516	0.4419	733	44	169	0.1	287	0.2	1
7	-2.0686	0.4145	751	41	282	0.2	569	0.5	1
8	-1.906	0.3928	768	39	520	0.4	1089	0.9	1
9	-1.7588	0.3751	782	38	859	0.7	1948	1.7	1
10	-1.6236	0.3605	796	36	1095	0.9	3043	2.6	2
11	-1.4981	0.3482	809	35	1440	1.2	4483	3.8	3
12	-1.3806	0.3377	820	34	1680	1.4	6163	5.2	5
13	-1.2696	0.3287	831	33	1928	1.6	8091	6.9	6
14	-1.1642	0.3209	842	32	2131	1.8	10222	8.7	8
15	-1.0634	0.3141	852	31	2266	1.9	12488	10.6	10
16	-0.9667	0.3081	862	31	2437	2.1	14925	12.7	12
17	-0.8734	0.3028	871	30	2435	2.1	17360	14.8	14
18	-0.7832	0.2982	880	30	2583	2.2	19943	17.0	16
19	-0.6955	0.2942	889	29	2652	2.3	22595	19.2	18
20	-0.61	0.2906	897	29	2607	2.2	25202	21.4	20
21	-0.5265	0.2875	906	29	2715	2.3	27917	23.7	23
22	-0.4446	0.2848	914	28	2681	2.3	30598	26.0	25
23	-0.3642	0.2825	922	28	2746	2.3	33344	28.3	27
24	-0.285	0.2805	930	28	2950	2.5	36294	30.9	30
25	-0.2068	0.2789	938	28	2955	2.5	39249	33.4	32
26	-0.1294	0.2775	945	28	2959	2.5	42208	35.9	35
27	-0.0527	0.2765	953	28	3023	2.6	45231	38.5	37
28	0.0236	0.2758	961	28	3187	2.7	48418	41.2	40
29	0.0995	0.2753	968	28	3279	2.8	51697	44.0	43
30	0.1752	0.2751	976	28	3283	2.8	54980	46.7	45
31	0.2509	0.2753	983	28	3356	2.9	58336	49.6	48
32	0.3268	0.2756	991	28	3274	2.8	61610	52.4	51
33	0.4029	0.2763	999	28	3318	2.8	64928	55.2	54
34	0.4795	0.2772	1006	28	3235	2.8	68163	58.0	57
35	0.5566	0.2784	1014	28	3226	2.7	71389	60.7	59
36	0.6346	0.2799	1022	28	3221	2.7	74610	63.4	62

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.7134	0.2817	1030	28	3182	2.7	77792	66.1	65
38	0.7933	0.2838	1038	28	3203	2.7	80995	68.9	68
39	0.8745	0.2861	1046	29	3044	2.6	84039	71.5	70
40	0.9571	0.2889	1054	29	2997	2.5	87036	74.0	73
41	1.0414	0.292	1062	29	2965	2.5	90001	76.5	75
42	1.1277	0.2954	1071	30	2944	2.5	92945	79.0	78
43	1.2161	0.2993	1080	30	2780	2.4	95725	81.4	80
44	1.3069	0.3036	1089	30	2655	2.3	98380	83.6	83
45	1.4005	0.3083	1098	31	2508	2.1	100888	85.8	85
46	1.4972	0.3137	1108	31	2401	2.0	103289	87.8	87
47	1.5974	0.3196	1118	32	2143	1.8	105432	89.6	89
48	1.7017	0.3262	1128	33	2058	1.7	107490	91.4	91
49	1.8105	0.3337	1139	33	1835	1.6	109325	92.9	92
50	1.9246	0.342	1151	34	1642	1.4	110967	94.3	94
51	2.0447	0.3515	1163	35	1477	1.3	112444	95.6	95
52	2.1721	0.3624	1176	36	1209	1.0	113653	96.6	96
53	2.308	0.375	1189	38	1014	0.9	114667	97.5	97
54	2.4541	0.3898	1204	39	791	0.7	115458	98.2	98
55	2.6128	0.4075	1220	41	669	0.6	116127	98.7	98
56	2.7876	0.4291	1237	43	490	0.4	116617	99.1	99
57	2.9831	0.4562	1257	46	360	0.3	116977	99.5	99
58	3.207	0.4916	1279	49	232	0.2	117209	99.7	99
59	3.4718	0.5402	1306	54	192	0.2	117401	99.8	99
60	3.8013	0.6125	1338	61	101	0.1	117502	99.9	99
61	4.2487	0.7362	1383	74	73	0.1	117575	100.0	99
62	4.9838	1.0207	1457	102	34	0.0	117609	100.0	99
63	6.2171	1.8372	1580	184	8	0.0	117617	100.0	99

Grade 6 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.1798	1.8302	600	183	2	0.0	2	0.0	1
1	-3.9642	1.0085	600	101	0	0.0	2	0.0	1
2	-3.2534	0.7199	615	72	2	0.0	4	0.0	1
3	-2.8292	0.5939	658	59	6	0.0	10	0.0	1
4	-2.5215	0.5202	689	52	20	0.0	30	0.0	1
5	-2.2771	0.471	713	47	41	0.0	71	0.1	1
6	-2.0724	0.4356	734	44	104	0.1	175	0.1	1
7	-1.8946	0.4088	751	41	184	0.2	359	0.3	1
8	-1.7362	0.3879	767	39	337	0.3	696	0.6	1
9	-1.5923	0.3712	782	37	484	0.4	1180	1.0	1
10	-1.4597	0.3575	795	36	686	0.6	1866	1.6	1
11	-1.3361	0.3462	807	35	909	0.8	2775	2.4	2
12	-1.2195	0.3367	819	34	1185	1.0	3960	3.4	3
13	-1.1089	0.3287	830	33	1404	1.2	5364	4.6	4
14	-1.0031	0.3219	840	32	1683	1.4	7047	6.0	5
15	-0.9014	0.316	851	32	1828	1.6	8875	7.6	7
16	-0.8032	0.311	860	31	2085	1.8	10960	9.3	8
17	-0.7079	0.3066	870	31	2170	1.8	13130	11.2	10
18	-0.6151	0.3027	879	30	2296	2.0	15426	13.1	12
19	-0.5245	0.2994	888	30	2467	2.1	17893	15.3	14
20	-0.4357	0.2965	897	30	2609	2.2	20502	17.5	16
21	-0.3486	0.2939	906	29	2732	2.3	23234	19.8	19
22	-0.2629	0.2917	914	29	2675	2.3	25909	22.1	21
23	-0.1784	0.2897	923	29	2833	2.4	28742	24.5	23
24	-0.0949	0.2881	931	29	2971	2.5	31713	27.0	26
25	-0.0123	0.2867	940	29	3061	2.6	34774	29.6	28
26	0.0695	0.2855	948	29	3105	2.6	37879	32.3	31
27	0.1507	0.2846	956	28	3232	2.8	41111	35.0	34
28	0.2315	0.2839	964	28	3197	2.7	44308	37.8	36
29	0.3119	0.2834	972	28	3215	2.7	47523	40.5	39
30	0.3922	0.2831	980	28	3339	2.8	50862	43.3	42
31	0.4723	0.2831	988	28	3307	2.8	54169	46.2	45
32	0.5526	0.2834	996	28	3461	2.9	57630	49.1	48
33	0.633	0.2839	1004	28	3340	2.8	60970	52.0	51
34	0.7138	0.2846	1012	28	3385	2.9	64355	54.9	53
35	0.7951	0.2857	1020	29	3413	2.9	67768	57.8	56
36	0.877	0.287	1028	29	3416	2.9	71184	60.7	59

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.9599	0.2887	1037	29	3252	2.8	74436	63.4	62
38	1.0438	0.2907	1045	29	3317	2.8	77753	66.3	65
39	1.1289	0.293	1054	29	3319	2.8	81072	69.1	68
40	1.2156	0.2958	1062	30	3353	2.9	84425	72.0	71
41	1.304	0.299	1071	30	3167	2.7	87592	74.7	73
42	1.3945	0.3027	1080	30	3083	2.6	90675	77.3	76
43	1.4874	0.307	1090	31	2908	2.5	93583	79.8	79
44	1.5831	0.3118	1099	31	2824	2.4	96407	82.2	81
45	1.682	0.3173	1109	32	2608	2.2	99015	84.4	83
46	1.7846	0.3235	1119	32	2573	2.2	101588	86.6	85
47	1.8915	0.3306	1130	33	2291	2.0	103879	88.5	88
48	2.0035	0.3387	1141	34	2120	1.8	105999	90.3	89
49	2.1213	0.348	1153	35	2000	1.7	107999	92.0	91
50	2.246	0.3585	1165	36	1776	1.5	109775	93.6	93
51	2.3789	0.3707	1179	37	1579	1.3	111354	94.9	94
52	2.5214	0.3847	1193	38	1349	1.1	112703	96.1	95
53	2.6755	0.4009	1208	40	1166	1.0	113869	97.1	97
54	2.8438	0.4199	1225	42	952	0.8	114821	97.9	97
55	3.0294	0.4423	1244	44	726	0.6	115547	98.5	98
56	3.2367	0.4689	1264	47	589	0.5	116136	99.0	99
57	3.4715	0.501	1288	50	422	0.4	116558	99.3	99
58	3.7421	0.5407	1315	54	327	0.3	116885	99.6	99
59	4.0617	0.5919	1347	59	194	0.2	117079	99.8	99
60	4.4534	0.6639	1386	66	123	0.1	117202	99.9	99
61	4.969	0.7826	1438	78	91	0.1	117293	100.0	99
62	5.7761	1.0558	1518	106	30	0.0	117323	100.0	99
63	7.0603	1.8568	1647	186	6	0.0	117329	100.0	99

Grade 7 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.3681	1.833	600	183	0	0.0	0	0.0	0
1	-4.1454	1.0133	600	101	2	0.0	2	0.0	1
2	-3.4254	0.7259	605	73	4	0.0	6	0.0	1
3	-2.9928	0.6005	648	60	3	0.0	9	0.0	1
4	-2.6777	0.5268	680	53	15	0.0	24	0.0	1
5	-2.4269	0.4773	705	48	34	0.0	58	0.0	1
6	-2.2167	0.4414	726	44	82	0.1	140	0.1	1
7	-2.0342	0.414	744	41	155	0.1	295	0.3	1
8	-1.8719	0.3924	760	39	302	0.3	597	0.5	1
9	-1.7249	0.3749	775	37	513	0.4	1110	0.9	1
10	-1.5898	0.3605	789	36	683	0.6	1793	1.5	1
11	-1.4643	0.3484	801	35	875	0.7	2668	2.3	2
12	-1.3465	0.3383	813	34	1109	0.9	3777	3.2	3
13	-1.235	0.3296	824	33	1384	1.2	5161	4.4	4
14	-1.1289	0.3222	835	32	1645	1.4	6806	5.8	5
15	-1.0272	0.3158	845	32	1850	1.6	8656	7.4	7
16	-0.9293	0.3103	855	31	2131	1.8	10787	9.2	8
17	-0.8345	0.3055	864	31	2235	1.9	13022	11.1	10
18	-0.7425	0.3014	873	30	2487	2.1	15509	13.3	12
19	-0.6527	0.2978	882	30	2426	2.1	17935	15.3	14
20	-0.565	0.2948	891	29	2690	2.3	20625	17.6	16
21	-0.4789	0.2921	900	29	2680	2.3	23305	19.9	19
22	-0.3942	0.2899	908	29	2676	2.3	25981	22.2	21
23	-0.3107	0.288	917	29	2729	2.3	28710	24.5	23
24	-0.2283	0.2864	925	29	2792	2.4	31502	26.9	26
25	-0.1466	0.2851	933	29	2945	2.5	34447	29.4	28
26	-0.0657	0.2841	941	28	2907	2.5	37354	31.9	31
27	0.0148	0.2833	949	28	2912	2.5	40266	34.4	33
28	0.0949	0.2827	957	28	3089	2.6	43355	37.1	36
29	0.1747	0.2824	965	28	3175	2.7	46530	39.8	38
30	0.2544	0.2823	973	28	3121	2.7	49651	42.4	41
31	0.3341	0.2823	981	28	3201	2.7	52852	45.2	44
32	0.4139	0.2827	989	28	3210	2.7	56062	47.9	47
33	0.4939	0.2832	997	28	3200	2.7	59262	50.7	49
34	0.5743	0.2839	1005	28	3258	2.8	62520	53.4	52
35	0.6552	0.2849	1013	28	3217	2.7	65737	56.2	55
36	0.7367	0.2862	1021	29	3282	2.8	69019	59.0	58

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.819	0.2877	1030	29	3191	2.7	72210	61.7	60
38	0.9023	0.2894	1038	29	3159	2.7	75369	64.4	63
39	0.9866	0.2915	1046	29	3307	2.8	78676	67.3	66
40	1.0723	0.2939	1055	29	3111	2.7	81787	69.9	69
41	1.1594	0.2966	1064	30	3264	2.8	85051	72.7	71
42	1.2483	0.2997	1072	30	3124	2.7	88175	75.4	74
43	1.3391	0.3032	1082	30	2987	2.6	91162	77.9	77
44	1.4322	0.3071	1091	31	2907	2.5	94069	80.4	79
45	1.5279	0.3116	1100	31	2799	2.4	96868	82.8	82
46	1.6265	0.3166	1110	32	2692	2.3	99560	85.1	84
47	1.7285	0.3222	1121	32	2489	2.1	102049	87.2	86
48	1.8343	0.3285	1131	33	2377	2.0	104426	89.3	88
49	1.9445	0.3357	1142	34	2128	1.8	106554	91.1	90
50	2.0599	0.3439	1154	34	1931	1.7	108485	92.7	92
51	2.1813	0.3532	1166	35	1720	1.5	110205	94.2	93
52	2.3098	0.3639	1179	36	1549	1.3	111754	95.5	95
53	2.4467	0.3764	1192	38	1337	1.1	113091	96.7	96
54	2.5937	0.391	1207	39	1016	0.9	114107	97.5	97
55	2.7534	0.4087	1223	41	873	0.7	114980	98.3	98
56	2.9291	0.4302	1241	43	675	0.6	115655	98.9	99
57	3.1255	0.4573	1260	46	472	0.4	116127	99.3	99
58	3.3504	0.4926	1283	49	363	0.3	116490	99.6	99
59	3.6162	0.5412	1309	54	246	0.2	116736	99.8	99
60	3.9469	0.6135	1342	61	152	0.1	116888	99.9	99
61	4.3955	0.737	1387	74	74	0.1	116962	100.0	99
62	5.132	1.0215	1461	102	22	0.0	116984	100.0	99
63	6.3664	1.8376	1584	184	5	0.0	116989	100.0	99

Grade 8 English Language Arts

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
0	-5.3243	1.8302	600	183	0	0.0	0	0.0	0
1	-4.1087	1.0084	600	101	1	0.0	1	0.0	1
2	-3.3984	0.7194	621	72	2	0.0	3	0.0	1
3	-2.975	0.593	664	59	4	0.0	7	0.0	1
4	-2.6686	0.5188	694	52	26	0.0	33	0.0	1
5	-2.4259	0.469	719	47	68	0.1	101	0.1	1
6	-2.2232	0.433	739	43	128	0.1	229	0.2	1
7	-2.0478	0.4057	756	41	254	0.2	483	0.4	1
8	-1.8921	0.3842	772	38	451	0.4	934	0.8	1
9	-1.7513	0.3669	786	37	701	0.6	1635	1.4	1
10	-1.622	0.3526	799	35	970	0.8	2605	2.2	2
11	-1.5019	0.3408	811	34	1325	1.1	3930	3.3	3
12	-1.3892	0.3308	822	33	1550	1.3	5480	4.7	4
13	-1.2826	0.3223	833	32	1795	1.5	7275	6.2	5
14	-1.1812	0.315	843	32	2049	1.7	9324	7.9	7
15	-1.084	0.3087	853	31	2204	1.9	11528	9.8	9
16	-0.9904	0.3032	862	30	2255	1.9	13783	11.7	11
17	-0.9	0.2984	871	30	2404	2.0	16187	13.8	13
18	-0.8122	0.2942	880	29	2527	2.1	18714	15.9	15
19	-0.7268	0.2905	888	29	2501	2.1	21215	18.0	17
20	-0.6434	0.2872	897	29	2550	2.2	23765	20.2	19
21	-0.5617	0.2844	905	28	2434	2.1	26199	22.3	21
22	-0.4816	0.2818	913	28	2614	2.2	28813	24.5	23
23	-0.4028	0.2797	921	28	2584	2.2	31397	26.7	26
24	-0.3251	0.2778	929	28	2682	2.3	34079	29.0	28
25	-0.2484	0.2762	936	28	2679	2.3	36758	31.3	30
26	-0.1725	0.2748	944	27	2735	2.3	39493	33.6	32
27	-0.0973	0.2738	951	27	2774	2.4	42267	36.0	35
28	-0.0225	0.273	959	27	2773	2.4	45040	38.3	37
29	0.0519	0.2725	966	27	2829	2.4	47869	40.7	40
30	0.1261	0.2723	974	27	2963	2.5	50832	43.2	42
31	0.2003	0.2724	981	27	2972	2.5	53804	45.8	45
32	0.2745	0.2728	989	27	2900	2.5	56704	48.2	47
33	0.3491	0.2734	996	27	2764	2.4	59468	50.6	49
34	0.4241	0.2744	1004	27	2892	2.5	62360	53.0	52
35	0.4998	0.2757	1011	28	2821	2.4	65181	55.4	54
36	0.5762	0.2773	1019	28	2853	2.4	68034	57.9	57

Raw Score	IRT Difficulty Estimate	IRT Difficulty SE	Scale Score	Scale Score SE	Frequency	Percent	Cumulative Frequency	Cumulative Percent	Percentile
37	0.6536	0.2792	1026	28	2962	2.5	70996	60.4	59
38	0.7321	0.2814	1034	28	2798	2.4	73794	62.8	62
39	0.812	0.284	1042	28	2839	2.4	76633	65.2	64
40	0.8935	0.2869	1050	29	2865	2.4	79498	67.6	66
41	0.9768	0.2903	1059	29	2773	2.4	82271	70.0	69
42	1.0621	0.294	1067	29	2762	2.3	85033	72.3	71
43	1.1497	0.2982	1076	30	2663	2.3	87696	74.6	73
44	1.24	0.3028	1085	30	2674	2.3	90370	76.9	76
45	1.3333	0.308	1094	31	2575	2.2	92945	79.1	78
46	1.4299	0.3138	1104	31	2591	2.2	95536	81.3	80
47	1.5304	0.3203	1114	32	2530	2.2	98066	83.4	82
48	1.6353	0.3275	1125	33	2378	2.0	100444	85.4	84
49	1.7452	0.3357	1136	34	2315	2.0	102759	87.4	86
50	1.861	0.3449	1147	34	2177	1.9	104936	89.3	88
51	1.9835	0.3554	1159	36	1962	1.7	106898	90.9	90
52	2.114	0.3674	1173	37	1827	1.6	108725	92.5	92
53	2.254	0.3812	1187	38	1649	1.4	110374	93.9	93
54	2.4053	0.3973	1202	40	1537	1.3	111911	95.2	95
55	2.5706	0.4163	1218	42	1305	1.1	113216	96.3	96
56	2.7533	0.4392	1236	44	1150	1.0	114366	97.3	97
57	2.9584	0.4676	1257	47	919	0.8	115285	98.1	98
58	3.1937	0.504	1280	50	750	0.6	116035	98.7	98
59	3.4719	0.5532	1308	55	585	0.5	116620	99.2	99
60	3.8167	0.6257	1343	63	454	0.4	117074	99.6	99
61	4.2813	0.7484	1389	75	286	0.2	117360	99.8	99
62	5.0354	1.0304	1465	103	152	0.1	117512	100.0	99
63	6.283	1.8429	1589	184	49	0.0	117561	100.0	99

Grade 5 Science

Note. Science was a stand-alone field test in 2025. No student scores were reported.

Grade 8 Science

Note. Science was a stand-alone field test in 2025. No student scores were reported.

APPENDIX O: OPERATIONAL ITEM STATISTICS

The Item Statistics are provided for all operational (OP) items. Item statistics include previous and current item sequence, previous and current *p*-value, and previous and current IRT difficulty estimates. Note that the previous IRT difficulty estimates and parameters were used for pre-equating. Science was a stand-alone field test in 2025; no operational items were administered.

Mathematics Grade 3

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
743136	MC	0	1	5	21	2024	0.82	0.86	-1.2813	-1.2813
738167	MC	0	2	3	22	2024	0.62	0.65	-0.0814	-0.0814
743123	MC	0	3	1	48	2024	0.75	0.79	-0.7579	-0.7579
316233	MC	0	4	3	21	2024	0.61	0.64	-0.0535	-0.0535
394377	MC	0	5	0	18	2022	0.72	0.71	-0.8751	-0.8751
737302	MC	0	6	6	23	2024	0.73	0.75	-0.6908	-0.6908
737308	MC	0	7	9	50	2024	0.57	0.58	0.2396	0.2396
713364	MC	0	8	6	50	2024	0.45	0.48	0.8411	0.8411
737305	MC	0	9	9	22	2024	0.36	0.37	1.2745	1.2745
738164	MC	0	10	2	24	2024	0.41	0.41	1.0556	1.0556
622963	MC	0	11	0	44	2023	0.52	0.51	0.3697	0.3697
299934	MC	0	12	2	48	2024	0.56	0.58	0.2402	0.2402
737304	MC	0	13	2	50	2024	0.43	0.42	0.8727	0.8727
713370	MC	0	14	4	24	2024	0.48	0.46	0.6785	0.6785
579686	MC	0	15	0	42	2023	0.45	0.47	0.9075	0.9075
622961	MC	0	16	2	50	2022	0.35	0.37	1.2492	1.2492
737315	MC	0	17	3	24	2024	0.44	0.43	0.8441	0.8441
711346	MC	0	18	0	40	2024	0.70	0.71	-0.4039	-0.4039
713618	MC	0	19	0	41	2024	0.43	0.44	0.7984	0.7984
579683	MC	0	20	3	50	2019	0.58	0.60	0.2362	0.2362
652779	OE	0	25	0	51	2024	0.53	0.54	0.4522	0.4522
715919	OE	0	26	5	52	2023	0.38	0.37	1.1779	1.1779
706335	MC	0	27	2	24	2023	0.75	0.80	-0.8183	-0.8183
737299	MC	0	28	1	22	2024	0.61	0.62	-0.0099	-0.0099
624787	MC	0	29	0	11	2023	0.58	0.63	0.5307	-0.0625
657713	MC	0	30	0	20	2023	0.64	0.65	-0.1298	-0.1298
314248	MC	0	31	0	15	2022	0.74	0.76	-1.1457	-1.1457
713617	MC	0	32	1	23	2023	0.52	0.52	0.3465	0.3465
711418	MC	0	33	0	33	2024	0.63	0.62	0.0287	0.0287
657721	MC	0	34	0	3	2023	0.64	0.60	-0.0972	-0.0972

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
711421	MC	0	35	9	24	2023	0.52	0.51	0.4276	0.4276
711343	MC	0	36	0	45	2024	0.43	0.43	0.8453	0.8453
711417	MC	0	37	7	48	2023	0.70	0.67	-0.5209	-0.5209
713351	MC	0	38	5	50	2023	0.41	0.42	0.9958	0.9958
743132	MC	0	39	2	47	2024	0.47	0.47	0.6726	0.6726
493237	MC	0	40	0	5	2023	0.37	0.37	1.1379	1.1379
579656	MC	0	41	0	7	2024	0.46	0.41	0.7285	0.7285
657714	MC	0	42	0	17	2023	0.49	0.50	0.4254	0.4254
493239	MC	0	43	0	4	2024	0.63	0.61	-0.1610	-0.1610
713360	MC	0	44	6	49	2023	0.47	0.49	0.6658	0.6658
617228	MC	0	45	2	22	2022	0.51	0.47	0.4923	0.4923
408681	MC	0	46	0	44	2022	0.60	0.61	-0.1113	-0.1113
743720	OE	0	51	7	52	2024	0.49	0.48	0.5876	0.5876

Mathematics Grade 4

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
736734	MC	0	1	7	4	2024	0.70	0.69	-0.8937	-0.8937
622949	MC	0	2	4	4	2022	0.47	0.47	0.1464	0.1464
313261	MC	0	3	0	1	2022	0.65	0.69	-0.6279	-0.6279
743148	MC	0	4	9	49	2024	0.69	0.70	-0.7797	-0.7797
736741	MC	0	5	9	22	2024	0.48	0.49	0.3080	0.3080
706345	MC	0	6	0	7	2024	0.69	0.70	-0.8025	-0.8025
662437	MC	0	7	6	50	2022	0.70	0.76	-1.0300	-1.0300
743143	MC	0	8	5	48	2024	0.68	0.65	-0.7899	-0.7899
574169	MC	0	9	0	43	2023	0.58	0.63	-0.5017	-0.5017
709844	MC	0	10	0	40	2024	0.81	0.82	-1.3889	-1.3889
495235	MC	0	11	0	6	2022	0.75	0.79	-1.1722	-1.1722
314172	MC	0	12	0	13	2024	0.43	0.43	0.4393	0.4393
662435	MC	0	13	0	45	2023	0.62	0.62	-0.5305	-0.5305
713628	MC	0	14	0	33	2024	0.51	0.54	0.0416	0.0416
711428	MC	0	15	4	23	2023	0.42	0.45	0.4737	0.4737
713378	MC	0	16	0	9	2024	0.40	0.41	0.7345	0.7345
314170	MC	0	17	1	50	2019	0.43	0.47	0.3503	0.3503
743915	MC	0	18	5	50	2024	0.73	0.73	-1.0491	-1.0491
662427	MC	0	19	0	45	2024	0.39	0.40	0.4815	0.4815
302228	MC	0	20	7	22	2024	0.73	0.73	-1.0941	-1.0941
737273	OE	0	25	2	52	2024	0.46	0.47	0.4524	0.4524
737280	OE	0	26	6	52	2024	0.39	0.39	0.6297	0.6297
709900	MC	0	27	3	21	2023	0.68	0.75	-0.8936	-0.8936
299668	MC	0	28	4	49	2024	0.61	0.61	-0.3835	-0.3835
743917	MC	0	29	8	22	2024	0.63	0.62	-0.5248	-0.5248
709883	MC	0	30	0	37	2024	0.65	0.65	-0.4875	-0.4875
737335	MC	0	31	4	23	2024	0.61	0.58	-0.3685	-0.3685
662438	MC	0	32	0	18	2024	0.67	0.68	-0.7369	-0.7369
575720	MC	0	33	0	20	2024	0.51	0.52	0.3085	0.3085
493256	MC	0	34	2	21	2019	0.44	0.45	0.3563	0.3563
706342	MC	0	35	4	24	2024	0.54	0.56	-0.0029	-0.0029
659938	MC	0	36	3	24	2024	0.56	0.60	-0.0976	-0.0976
736736	MC	0	37	8	24	2024	0.48	0.49	0.3130	0.3130
737337	MC	0	38	2	22	2024	0.52	0.54	0.0622	0.0622
408775	MC	0	39	3	48	2019	0.41	0.39	0.5602	0.5602
706340	MC	0	40	0	43	2024	0.56	0.51	0.1553	0.1553

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
709889	MC	0	41	0	46	2024	0.47	0.48	0.4255	0.4255
314148	MC	0	42	0	40	2022	0.45	0.43	0.4059	0.4059
495223	MC	0	43	7	24	2023	0.28	0.28	1.3014	1.3014
709895	MC	0	44	1	22	2023	0.54	0.60	-0.2463	-0.2463
497834	MC	0	45	9	24	2019	0.35	0.35	0.8696	0.8696
479194	MC	0	46	7	47	2019	0.45	0.46	0.3111	0.3111
628162	OE	0	51	0	25	2024	0.44	0.43	0.5803	0.5803

Mathematics Grade 5

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
737318	MC	0	1	7	4	2024	0.63	0.61	-0.4123	-0.4123
737321	MC	0	2	2	4	2024	0.32	0.30	1.1442	1.1442
622928	MC	0	3	0	1	2023	0.59	0.58	-0.2393	-0.2393
715770	MC	0	4	0	5	2024	0.82	0.81	-1.2620	-1.2620
653734	MC	0	5	0	14	2023	0.63	0.64	-0.3769	-0.3769
711369	MC	0	6	3	49	2023	0.74	0.80	-1.1217	-1.1217
659951	MC	0	7	0	30	2023	0.56	0.58	0.0615	0.0615
711361	MC	0	8	1	48	2023	0.73	0.87	-1.1701	-2.1004
662448	MC	0	9	3	24	2023	0.50	0.55	0.2102	0.2102
300474	MC	0	10	9	23	2024	0.65	0.68	-0.5304	-0.5304
659940	MC	0	11	0	44	2023	0.52	0.56	-0.0668	-0.0668
713632	MC	0	12	0	37	2024	0.60	0.56	-0.0045	-0.0045
706353	MC	0	13	0	19	2024	0.45	0.45	0.4764	0.4764
709854	MC	0	14	0	30	2024	0.63	0.60	-0.2847	-0.2847
575711	MC	0	15	1	48	2022	0.39	0.39	0.4566	0.4566
706351	MC	0	16	7	50	2023	0.50	0.51	0.1259	0.1259
662453	MC	0	17	7	47	2022	0.47	0.46	0.2054	0.2054
575709	MC	0	18	0	10	2022	0.39	0.42	0.7310	0.7310
706410	MC	0	19	0	17	2024	0.49	0.46	0.5756	0.5756
495261	MC	0	20	0	43	2022	0.38	0.40	0.8597	0.8597
577938	OE	0	25	0	25	2024	0.53	0.53	0.1464	0.1464
737282	OE	0	26	7	52	2024	0.33	0.34	0.9899	0.9899
394398	MC	0	27	0	4	2023	0.80	0.81	-1.4221	-1.4221
715777	MC	0	28	0	40	2024	0.57	0.56	0.0419	0.0419
711367	MC	0	29	0	6	2024	0.66	0.66	-0.5207	-0.5207
659939	MC	0	30	0	6	2023	0.54	0.55	-0.1344	-0.1344
662455	MC	0	31	8	23	2022	0.40	0.43	0.5805	0.5805
738186	MC	0	32	8	24	2024	0.62	0.61	-0.3821	-0.3821
624820	MC	0	33	4	23	2022	0.55	0.54	-0.1472	-0.1472
662449	MC	0	34	6	48	2024	0.53	0.57	0.1531	0.1531
740960	MC	0	35	4	48	2024	0.53	0.56	0.0811	0.0811
740963	MC	0	36	8	50	2024	0.39	0.41	0.7924	0.7924
737097	MC	0	37	8	47	2024	0.51	0.52	0.1768	0.1768
711441	MC	0	38	9	24	2023	0.54	0.49	-0.0003	-0.0003
706354	MC	0	39	4	48	2023	0.50	0.51	0.1704	0.1704
711444	MC	0	40	5	48	2023	0.36	0.36	0.9130	0.9130

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
715907	MC	0	41	9	22	2023	0.37	0.37	0.9278	0.9278
621381	MC	0	42	6	49	2022	0.52	0.55	-0.0267	-0.0267
303009	MC	0	43	4	24	2024	0.42	0.42	0.5923	0.5923
709857	MC	0	44	5	23	2023	0.58	0.55	-0.2010	-0.2010
653732	MC	0	45	3	48	2024	0.44	0.43	0.5253	0.5253
706349	MC	0	46	0	34	2024	0.39	0.39	0.8739	0.8739
738845	OE	0	51	2	52	2024	0.45	0.45	0.5825	0.5825

Mathematics Grade 6

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
617667	MC	0	1	9	4	2022	0.73	0.77	-1.0303	-1.0303
479519	MC	0	2	0	2	2023	0.43	0.44	0.5498	0.5498
743919	MC	0	3	2	4	2024	0.46	0.44	0.4961	0.4961
560221	MC	0	4	4	22	2019	0.72	0.69	-0.7796	-0.7796
581393	MC	0	5	0	38	2023	0.45	0.48	0.7079	0.7079
478716	MC	0	6	0	36	2024	0.53	0.53	0.3094	0.3094
652198	MC	0	7	0	41	2023	0.51	0.50	0.1852	0.1852
496957	MC	0	8	0	5	2022	0.73	0.73	-1.1198	-1.1198
715782	MC	0	9	6	48	2024	0.43	0.41	0.6397	0.6397
314874	MC	0	10	6	23	2024	0.55	0.60	-0.0011	-0.0011
652199	MC	0	11	3	49	2022	0.66	0.57	-0.7176	-0.0838
624476	MC	0	12	9	50	2022	0.37	0.43	0.9187	0.9187
715786	MC	0	13	2	47	2023	0.60	0.57	-0.2333	-0.2333
652197	MC	0	14	3	24	2022	0.33	0.31	1.1136	1.1136
582618	MC	0	15	0	15	2023	0.51	0.52	0.2239	0.2239
615365	MC	0	16	0	20	2023	0.60	0.63	-0.1602	-0.1602
652192	MC	0	17	0	14	2024	0.43	0.42	0.5899	0.5899
654778	MC	0	18	0	28	2023	0.63	0.65	-0.4072	-0.4072
711454	MC	0	19	8	23	2023	0.34	0.38	1.0862	1.0862
615356	MC	0	20	8	49	2023	0.44	0.44	0.5762	0.5762
738930	OE	0	25	5	52	2024	0.41	0.41	0.8003	0.8003
480016	OE	0	26	0	26	2024	0.29	0.30	1.3604	1.3604
715781	MC	0	27	5	21	2023	0.84	0.90	-1.8259	-2.4307
575151	MC	0	28	0	33	2024	0.77	0.76	-1.1640	-1.1640
711455	MC	0	29	3	21	2023	0.58	0.63	-0.1661	-0.1661
711374	MC	0	30	3	48	2024	0.50	0.51	0.2513	0.2513
657503	MC	0	31	0	43	2024	0.55	0.57	-0.0104	-0.0104
715785	MC	0	32	2	21	2023	0.61	0.66	-0.2827	-0.2827
657500	MC	0	33	7	49	2022	0.69	0.74	-0.7890	-0.7890
496613	MC	0	34	6	47	2019	0.57	0.58	0.0752	0.0752
745962	MC	0	35	5	48	2024	0.79	0.79	-1.2754	-1.2754
624651	MC	0	36	8	24	2022	0.52	0.54	0.1288	0.1288
501160	MC	0	37	4	21	2023	0.53	0.56	0.1097	0.1097
478721	MC	0	38	0	30	2023	0.29	0.28	1.3347	1.3347
715779	MC	0	39	0	13	2024	0.70	0.67	-0.6177	-0.6177
740949	MC	0	40	2	49	2024	0.31	0.31	1.3407	1.3407

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
711451	MC	0	41	0	28	2024	0.47	0.43	0.5636	0.5636
740947	MC	0	42	4	48	2024	0.56	0.56	-0.0053	-0.0053
478718	MC	0	43	0	11	2023	0.55	0.54	0.0804	0.0804
624650	MC	0	44	4	49	2024	0.40	0.38	0.8328	0.8328
404808	MC	0	45	0	45	2022	0.41	0.40	0.5802	0.5802
652200	MC	0	46	9	47	2022	0.41	0.43	0.6776	0.6776
760060	OE	0	51	8	52	2024	0.44	0.46	0.6855	0.6855

Mathematics Grade 7

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
737103	MC	0	1	2	4	2024	0.68	0.71	-0.9902	-0.9902
740969	MC	0	2	6	4	2024	0.31	0.32	1.0062	1.0062
490977	MC	0	3	0	3	2023	0.36	0.37	0.3190	0.3190
632831	MC	0	4	8	22	2022	0.63	0.70	-0.7751	-0.7751
741020	MC	0	5	8	50	2024	0.40	0.39	0.4822	0.4822
560206	MC	0	6	0	37	2023	0.49	0.52	0.1057	0.1057
711510	MC	0	7	0	30	2024	0.61	0.64	-0.6565	-0.6565
740995	MC	0	8	2	50	2024	0.60	0.66	-0.5908	-0.5908
741009	MC	0	9	4	49	2024	0.65	0.69	-0.7506	-0.7506
713416	MC	0	10	0	18	2024	0.47	0.49	0.1338	0.1338
741011	MC	0	11	6	47	2024	0.63	0.67	-0.6961	-0.6961
656443	MC	0	12	6	50	2022	0.44	0.52	0.1958	0.1958
741022	MC	0	13	2	47	2024	0.32	0.28	1.0081	1.0081
706368	MC	0	14	7	49	2024	0.57	0.49	-0.4044	-0.4044
657050	MC	0	15	9	21	2023	0.39	0.41	0.5737	0.5737
709907	MC	0	16	0	40	2024	0.47	0.44	0.1395	0.1395
478170	MC	0	17	0	32	2023	0.52	0.48	-0.2270	-0.2270
301881	MC	0	18	4	47	2024	0.43	0.45	0.3901	0.3901
709904	MC	0	19	2	48	2023	0.51	0.51	-0.0737	-0.0737
709902	MC	0	20	0	32	2024	0.53	0.55	-0.0891	-0.0891
658146	OE	0	25	5	52	2024	0.38	0.36	0.5631	0.5631
560139	OE	0	26	0	26	2024	0.26	0.27	1.3864	1.3864
709909	MC	0	27	0	34	2024	0.66	0.67	-0.5626	-0.5626
574900	MC	0	28	0	35	2023	0.55	0.51	-0.2727	-0.2727
617925	MC	0	29	0	9	2024	0.51	0.50	-0.1894	-0.1894
737107	MC	0	30	2	48	2024	0.62	0.59	-0.7032	-0.7032
745998	MC	0	31	9	24	2024	0.46	0.48	0.2446	0.2446
303097	MC	0	32	7	47	2024	0.45	0.47	0.2118	0.2118
737108	MC	0	33	7	23	2024	0.28	0.26	1.2183	1.2183
657051	MC	0	34	1	48	2023	0.61	0.63	-0.7960	-0.7960
711387	MC	0	35	7	21	2023	0.46	0.50	0.1617	0.1617
629172	MC	0	36	2	48	2022	0.60	0.57	-0.5865	-0.5865
615280	MC	0	37	0	11	2024	0.54	0.58	-0.1825	-0.1825
399256	MC	0	38	0	43	2024	0.38	0.38	0.3563	0.3563
741007	MC	0	39	9	49	2024	0.49	0.51	0.0175	0.0175
496114	MC	0	40	0	34	2022	0.56	0.58	-0.4346	-0.4346

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
567236	MC	0	41	0	30	2022	0.51	0.50	-0.0773	-0.0773
478164	MC	0	42	0	44	2023	0.49	0.48	0.0517	0.0517
713655	MC	0	43	6	22	2023	0.61	0.60	-0.5908	-0.5908
503040	MC	0	44	3	24	2023	0.48	0.48	0.0567	0.0567
737106	MC	0	45	9	23	2024	0.46	0.48	0.1944	0.1944
574904	MC	0	46	0	18	2023	0.38	0.37	0.6274	0.6274
745400	OE	0	51	2	52	2024	0.30	0.30	0.9215	0.9215

Mathematics Grade 8

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
747540	MC	0	1	6	4	2024	0.57	0.58	-0.4309	-0.4309
747535	MC	0	2	8	4	2024	0.55	0.55	-0.4102	-0.4102
479791	MC	0	3	0	1	2023	0.56	0.56	-0.5803	-0.5803
713672	MC	0	4	0	10	2024	0.62	0.61	-0.6559	-0.6559
269587	MC	0	5	3	48	2024	0.63	0.63	-0.7829	-0.7829
495725	MC	0	6	3	49	2019	0.60	0.60	-0.6182	-0.6182
623657	MC	0	7	0	7	2024	0.58	0.58	-0.6182	-0.6182
569269	MC	0	8	1	48	2019	0.57	0.54	-0.5522	-0.5522
711407	MC	0	9	1	47	2023	0.50	0.57	-0.3572	-0.3572
404826	MC	0	10	0	16	2022	0.53	0.52	-0.5092	-0.5092
709953	MC	0	11	8	49	2023	0.51	0.52	-0.3319	-0.3319
715819	MC	0	12	0	39	2024	0.55	0.54	-0.3581	-0.3581
404827	MC	0	13	0	42	2022	0.58	0.61	-0.9578	-0.9578
740992	MC	0	14	4	47	2024	0.43	0.43	0.2725	0.2725
303008	MC	0	15	9	23	2024	0.48	0.46	-0.0035	-0.0035
480708	MC	0	16	0	44	2023	0.35	0.36	0.3597	0.3597
747559	MC	0	17	5	49	2024	0.49	0.43	-0.0656	-0.0656
736756	MC	0	18	6	47	2024	0.39	0.41	0.4195	0.4195
503520	MC	0	19	0	17	2023	0.49	0.49	-0.1121	-0.1121
574471	MC	0	20	0	39	2023	0.45	0.47	0.0650	0.0650
759415	OE	0	25	3	52	2024	0.39	0.39	0.6032	0.6032
494645	OE	0	26	0	25	2023	0.35	0.34	0.4479	0.4479
661387	MC	0	27	5	49	2022	0.66	0.72	-1.0587	-1.0587
713419	MC	0	28	4	24	2023	0.72	0.70	-1.3619	-1.3619
412781	MC	0	29	0	44	2022	0.49	0.52	-0.0895	-0.0895
713674	MC	0	30	1	24	2023	0.53	0.58	-0.5465	-0.5465
404815	MC	0	31	0	40	2022	0.36	0.35	0.3251	0.3251
654310	MC	0	32	0	33	2023	0.67	0.69	-0.9304	-0.9304
740993	MC	0	33	8	24	2024	0.56	0.60	-0.4361	-0.4361
711403	MC	0	34	3	50	2023	0.51	0.56	-0.2973	-0.2973
399394	MC	0	35	9	47	2024	0.41	0.43	0.3392	0.3392
736758	MC	0	36	3	24	2024	0.69	0.72	-1.0428	-1.0428
713671	MC	0	37	2	48	2023	0.40	0.35	0.3323	0.3323
747546	MC	0	38	7	24	2024	0.46	0.47	0.1043	0.1043
715821	MC	0	39	7	23	2023	0.53	0.49	-0.3888	-0.3888
415804	MC	0	40	0	28	2022	0.48	0.49	-0.3688	-0.3688

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
413598	MC	0	41	0	11	2022	0.35	0.37	0.4762	0.4762
618329	MC	0	42	0	13	2023	0.60	0.59	-0.6170	-0.6170
488716	MC	0	43	8	49	2019	0.33	0.36	0.7850	0.7850
747544	MC	0	44	5	50	2024	0.54	0.53	-0.3743	-0.3743
625331	MC	0	45	0	45	2024	0.48	0.50	-0.0254	-0.0254
713423	MC	0	46	2	24	2024	0.61	0.58	-0.6943	-0.6943
743719	OE	0	51	4	52	2024	0.43	0.41	0.3326	0.3326

ELA Grade 3

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
743407	MC	0	1	2	6	2024	0.58	0.59	0.0744	0.0744
743477	MC	0	2	6	36	2024	0.39	0.31	1.0541	1.0541
743412	MC	0	3	7	6	2024	0.40	0.40	1.0069	1.0069
714297	MC	0	4	0	1	2024	0.71	0.67	-0.3585	-0.3585
714299	MC	0	5	0	3	2024	0.40	0.40	1.1725	1.1725
747247	MC	0	7	7	24	2024	0.50	0.51	0.5585	0.5585
747246	MC	0	8	7	25	2024	0.54	0.56	0.3445	0.3445
747257	MC	0	9	7	27	2024	0.44	0.43	0.8383	0.8383
747253	MC	0	10	7	28	2024	0.53	0.53	0.4229	0.4229
747254	MC	0	11	7	29	2024	0.45	0.41	0.8215	0.8215
747251	ESR	0	12	7	30	2024	0.54	0.54	0.4339	0.4339
710726	MC	0	13	0	14	2024	0.54	0.53	0.5021	0.5021
710620	MC	0	14	0	15	2024	0.51	0.49	0.4255	0.4255
710616	MC	0	15	0	16	2024	0.76	0.77	-1.1588	-1.1588
710614	MC	0	16	0	17	2024	0.43	0.43	0.9570	0.9570
710617	MC	0	17	0	18	2024	0.65	0.65	-0.2929	-0.2929
710676	ESR	0	18	0	19	2024	0.61	0.60	-0.2070	-0.2070
713654	OE	0	19	0	20	2024	0.45	0.46	1.0255	1.0255
662661	MC	0	31	7	35	2023	0.27	0.25	1.7865	1.7865
743485	MC	0	32	5	37	2024	0.54	0.52	0.2399	0.2399
743414	MC	0	33	9	6	2024	0.41	0.40	0.9898	0.9898
714809	MC	0	34	0	33	2024	0.63	0.61	-0.0463	-0.0463
743373	MC	0	37	3	21	2024	0.53	0.49	0.3876	0.3876
743375	MC	0	38	3	22	2024	0.65	0.62	-0.2699	-0.2699
743370	MC	0	39	3	24	2024	0.40	0.38	1.0220	1.0220
743369	MC	0	40	3	27	2024	0.70	0.68	-0.4614	-0.4614
743367	MC	0	41	3	29	2024	0.53	0.49	0.4105	0.4105
743420	ESR	0	42	3	30	2024	0.68	0.68	-0.3359	-0.3359
747169	MC	0	43	8	21	2024	0.66	0.57	-0.2940	-0.2940
747177	MC	0	44	8	24	2024	0.43	0.41	0.8508	0.8508
747168	MC	0	45	8	25	2024	0.35	0.38	1.1888	1.1888
747174	MC	0	46	8	26	2024	0.57	0.51	0.2037	0.2037
747172	ESR	0	47	8	27	2024	0.65	0.62	-0.2043	-0.2043
747166	MC	0	48	8	29	2024	0.37	0.36	1.1842	1.1842
749245	OE	0	49	8	31	2024	0.51	0.43	0.5182	0.9826

ELA Grade 4

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
714814	MC	0	1	0	5	2024	0.57	0.57	0.1495	0.1495
744153	MC	0	2	2	44	2024	0.80	0.78	-1.2132	-1.2132
662798	MC	0	3	5	45	2023	0.69	0.71	-0.5068	-0.5068
744147	MC	0	4	5	6	2024	0.38	0.28	1.0265	1.0265
714803	MC	0	5	0	40	2024	0.66	0.66	-0.3442	-0.3442
711550	MC	0	7	0	22	2024	0.45	0.53	0.3812	0.3812
711544	MC	0	8	0	23	2024	0.59	0.59	-0.0981	-0.0981
711610	MC	0	9	0	24	2024	0.42	0.47	0.6581	0.6581
711547	ESR	0	10	0	25	2024	0.61	0.67	-0.3014	-0.3014
711545	MC	0	11	0	26	2024	0.51	0.56	0.2154	0.2154
711551	ESR	0	12	0	27	2024	0.53	0.55	0.3965	0.3965
711548	MC	0	13	0	28	2024	0.39	0.40	1.2241	1.2241
744206	MC	0	14	4	30	2024	0.65	0.61	-0.2707	-0.2707
744200	MC	0	15	4	32	2024	0.57	0.50	0.1212	0.1212
744197	MC	0	16	4	33	2024	0.37	0.39	1.1074	1.1074
744207	ESR	0	17	4	34	2024	0.49	0.46	0.5733	0.5733
744203	MC	0	18	4	35	2024	0.56	0.52	0.1969	0.1969
744208	MC	0	19	4	36	2024	0.50	0.48	0.5301	0.5301
744202	ESR	0	20	4	37	2024	0.57	0.54	0.1458	0.1458
712032	MC	0	21	7	30	2023	0.81	0.69	-1.1935	-0.4991
712033	MC	0	22	7	31	2023	0.55	0.42	0.2732	0.7996
712024	MC	0	23	7	32	2023	0.47	0.39	0.6232	0.6232
712034	MC	0	24	7	33	2023	0.66	0.62	-0.3626	-0.3626
712035	MC	0	25	7	34	2023	0.72	0.64	-0.6272	-0.6272
712028	MC	0	26	7	35	2023	0.54	0.48	0.3446	0.3446
712026	MC	0	27	7	36	2023	0.46	0.37	0.7561	0.7561
712031	MC	0	28	7	38	2023	0.47	0.47	0.7074	0.7074
712029	ESR	0	29	7	39	2023	0.50	0.44	0.4973	0.4973
744149	MC	0	41	7	6	2024	0.62	0.59	-0.0482	-0.0482
714306	MC	0	42	0	3	2024	0.26	0.27	1.4243	1.4243
744228	MC	0	43	2	45	2024	0.45	0.48	0.6858	0.6858
744145	MC	0	44	3	6	2024	0.55	0.53	0.2328	0.2328
744020	MC	0	47	3	30	2024	0.38	0.37	1.1428	1.1428
744015	MC	0	48	3	31	2024	0.58	0.57	0.1628	0.1628
744022	MC	0	49	3	32	2024	0.67	0.69	-0.3827	-0.3827
744014	MC	0	50	3	33	2024	0.64	0.60	-0.1046	-0.1046

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
744017	ESR	0	51	3	37	2024	0.49	0.46	0.5549	0.5616
744016	MC	0	52	3	38	2024	0.65	0.64	-0.1750	-0.1750
745947	TDA	0	53	3	39	2024	0.53	0.50	0.7598	0.7598

ELA Grade 5

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
744681	MC	0	1	7	6	2024	0.66	0.67	-0.3762	-0.3762
744682	MC	0	2	8	6	2024	0.47	0.48	0.6254	0.6254
744904	MC	0	3	5	44	2024	0.59	0.58	-0.0335	-0.0335
716625	MC	0	4	6	45	2024	0.36	0.33	1.2094	1.2094
714318	MC	0	5	0	4	2024	0.42	0.38	0.9746	0.9746
744033	MC	0	7	1	31	2024	0.66	0.62	-0.3414	-0.3414
744025	MC	0	8	1	32	2024	0.53	0.55	0.2213	0.2213
744029	MC	0	9	1	33	2024	0.55	0.57	0.1481	0.1481
744030	MC	0	10	1	34	2024	0.56	0.53	0.1630	0.1630
744027	ESR	0	11	1	35	2024	0.59	0.59	-0.0342	-0.0342
744024	ESR	0	12	1	38	2024	0.57	0.54	0.0767	0.0767
744186	MC	0	13	6	30	2024	0.77	0.66	-0.9320	-0.9320
744195	MC	0	14	6	31	2024	0.44	0.40	0.7921	0.7921
744185	MC	0	15	6	33	2024	0.37	0.37	1.1010	1.1010
744189	MC	0	16	6	34	2024	0.77	0.71	-1.0589	-1.0589
744193	MC	0	17	6	35	2024	0.57	0.51	0.1653	0.1653
744196	MC	0	18	6	36	2024	0.40	0.34	1.0078	1.0078
744191	ESR	0	19	6	37	2024	0.56	0.53	0.2578	0.2578
744192	MC	0	20	6	38	2024	0.54	0.52	0.2944	0.2944
711328	MC	0	21	0	16	2024	0.52	0.43	0.3118	0.3118
711741	MC	0	22	0	17	2024	0.36	0.35	1.0570	1.0570
711320	MC	0	23	0	18	2024	0.65	0.57	-0.3853	-0.3853
711318	MC	0	24	0	19	2024	0.59	0.58	0.0045	0.0045
711553	MC	0	25	0	20	2024	0.53	0.49	0.2517	0.2517
711324	ESR	0	26	0	21	2024	0.52	0.47	0.3507	0.3507
711327	MC	0	27	0	22	2024	0.63	0.57	-0.0982	-0.0982
711738	MC	0	28	0	23	2024	0.54	0.48	0.2421	0.2421
744907	MC	0	40	7	44	2024	0.46	0.43	0.6696	0.6696
714314	MC	0	41	4	6	2023	0.49	0.47	0.5745	0.5745
661444	MC	0	42	0	40	2024	0.34	0.33	1.1922	1.1922
505539	MC	0	43	0	41	2024	0.36	0.35	1.1284	1.1284
711534	MC	0	46	5	29	2023	0.79	0.77	-1.2172	-1.2172
711535	MC	0	47	5	30	2023	0.56	0.53	0.1268	0.1268
711533	ESR	0	48	5	31	2023	0.55	0.54	0.2028	0.2028
711536	MC	0	49	5	33	2023	0.56	0.54	0.2029	0.2029
711540	MC	0	50	5	35	2023	0.59	0.53	0.0002	0.0002

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
711530	MC	0	51	5	37	2023	0.50	0.49	0.4303	0.4303
711532	ESR	0	52	5	38	2023	0.58	0.56	0.0873	0.0873
714542	TDA	0	53	5	39	2023	0.52	0.51	0.6236	0.6236

ELA Grade 6

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
716631	MC	0	1	7	46	2023	0.72	0.73	-0.4138	-0.4138
745253	MC	0	2	7	6	2024	0.48	0.49	0.8280	0.8280
745385	MC	0	3	4	45	2024	0.54	0.53	0.4809	0.4809
584211	MC	0	4	0	3	2024	0.31	0.30	2.0407	2.0407
716633	MC	0	5	0	42	2024	0.58	0.54	0.2889	0.2889
711315	MC	0	7	0	13	2024	0.50	0.52	0.5449	0.5449
711234	MC	0	8	0	14	2024	0.54	0.56	0.2842	0.2842
711241	MC	0	9	0	15	2024	0.65	0.68	-0.1284	-0.1284
711240	ESR	0	10	0	16	2024	0.44	0.46	0.9128	0.9128
711235	MC	0	11	0	17	2024	0.72	0.75	-0.6724	-0.6724
711237	MC	0	12	0	18	2024	0.67	0.69	-0.1696	-0.1696
711232	ESR	0	13	0	19	2024	0.56	0.56	0.3463	0.3463
711239	MC	0	14	0	20	2024	0.47	0.49	0.7307	0.7307
744893	MC	0	15	4	30	2024	0.66	0.63	-0.0852	-0.0852
744900	MC	0	16	4	31	2024	0.58	0.52	0.2778	0.2778
744898	MC	0	17	4	33	2024	0.53	0.51	0.6025	0.6025
744902	MC	0	18	4	34	2024	0.57	0.56	0.3338	0.3338
744935	MC	0	19	4	35	2024	0.53	0.53	0.5054	0.5054
744895	ESR	0	20	4	36	2024	0.53	0.48	0.5379	0.7251
744897	MC	0	21	4	38	2024	0.35	0.31	1.4313	1.4313
744896	MC	0	22	4	39	2024	0.78	0.72	-0.8028	-0.8028
660305	MC	0	23	3	35	2022	0.52	0.48	0.7046	0.7046
660307	MC	0	24	3	38	2022	0.59	0.53	0.4628	0.4628
660306	MC	0	25	3	39	2022	0.39	0.41	1.2254	1.2254
660313	MC	0	26	3	40	2022	0.40	0.35	1.3767	1.3767
660312	ESR	0	27	3	42	2022	0.56	0.49	0.5223	0.5223
660311	MC	0	28	3	43	2022	0.43	0.36	1.1413	1.1413
660308	ESR	0	29	3	44	2022	0.40	0.37	1.3360	1.3092
745392	MC	0	41	1	46	2024	0.50	0.49	0.6205	0.6205
745258	MC	0	42	3	45	2024	0.41	0.42	1.1268	1.1268
745256	MC	0	43	1	45	2024	0.70	0.68	-0.2890	-0.2890
629746	MC	0	44	0	2	2024	0.46	0.43	0.9627	0.9627
744630	MC	0	47	1	31	2024	0.43	0.41	1.0161	1.0161
744632	MC	0	48	1	32	2024	0.74	0.66	-0.3842	-0.3842
744633	MC	0	49	1	34	2024	0.61	0.59	0.1733	0.1733
744638	ESR	0	50	1	35	2024	0.62	0.58	0.1441	0.1441

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
744628	MC	0	51	1	36	2024	0.69	0.61	-0.2205	-0.2205
744637	MC	0	52	1	38	2024	0.69	0.66	-0.1536	-0.1536
747068	TDA	0	53	1	40	2024	0.55	0.54	0.9718	0.9718

ELA Grade 7

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
745805	MC	0	1	1	6	2024	0.53	0.53	0.3738	0.3738
745809	MC	0	2	3	6	2024	0.47	0.47	0.7097	0.7097
745861	MC	0	3	4	45	2024	0.36	0.40	1.2745	1.2745
715765	MC	0	4	0	1	2024	0.80	0.79	-0.7257	-0.7257
715028	MC	0	5	0	3	2024	0.44	0.44	0.7534	0.7534
744644	MC	0	7	6	30	2024	0.51	0.49	0.6403	0.6403
744647	MC	0	8	6	31	2024	0.40	0.40	1.1881	1.1881
744640	MC	0	9	6	32	2024	0.53	0.49	0.5043	0.5043
744649	MC	0	10	6	33	2024	0.70	0.69	-0.4617	-0.4617
744642	MC	0	11	6	39	2024	0.65	0.67	-0.1495	-0.1495
744645	MC	0	12	6	36	2024	0.37	0.32	1.3061	1.3061
744648	ESR	0	13	6	37	2024	0.51	0.53	0.6239	0.6239
623069	MC	0	14	0	7	2024	0.43	0.45	1.0279	1.0279
623067	MC	0	15	0	8	2024	0.74	0.71	-0.5086	-0.5086
623070	ESR	0	16	0	9	2024	0.59	0.55	0.2872	0.2872
623072	MC	0	17	0	10	2024	0.53	0.48	0.4827	0.4827
623071	MC	0	18	0	11	2024	0.62	0.57	0.3821	0.3821
623064	MC	0	19	0	12	2024	0.63	0.61	-0.1079	-0.1079
623066	ESR	0	20	0	13	2024	0.57	0.53	0.4451	0.4451
744625	MC	0	21	7	30	2024	0.79	0.69	-0.9185	-0.9185
744622	MC	0	22	7	31	2024	0.66	0.57	-0.1933	-0.1933
744618	MC	0	23	7	32	2024	0.46	0.38	0.8904	0.8904
744623	MC	0	24	7	33	2024	0.43	0.39	1.0704	1.0704
744620	MC	0	25	7	34	2024	0.68	0.60	-0.2740	-0.2740
744617	ESR	0	26	7	36	2024	0.44	0.39	0.9054	0.9054
744624	MC	0	27	7	37	2024	0.67	0.60	-0.1906	-0.1906
744715	ESR	0	28	7	38	2024	0.66	0.59	-0.2066	-0.2066
745811	MC	0	40	5	6	2024	0.73	0.76	-0.5938	-0.5938
717722	MC	0	41	2	46	2024	0.34	0.33	1.4588	1.4588
715024	MC	0	42	0	42	2024	0.41	0.43	1.0171	1.0171
663532	MC	0	43	0	44	2024	0.40	0.38	1.3488	1.3488
744881	MC	0	46	1	30	2024	0.78	0.77	-0.8186	-0.8186
744882	MC	0	47	1	31	2024	0.66	0.60	-0.1957	-0.1957
744885	MC	0	48	1	32	2024	0.58	0.54	0.1457	0.1457
744886	MC	0	49	1	34	2024	0.59	0.56	0.1929	0.1929
744890	MC	0	50	1	35	2024	0.52	0.52	0.5732	0.5732

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
744889	MC	0	51	1	36	2024	0.53	0.50	0.5059	0.5059
744891	ESR	0	52	1	37	2024	0.61	0.59	0.0969	0.1690
747381	TDA	0	53	1	40	2024	0.53	0.52	0.6789	0.6789

ELA Grade 8

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
717698	MC	0	1	0	1	2024	0.79	0.78	-0.9664	-0.9664
663488	MC	0	2	0	2	2024	0.36	0.36	1.2491	1.2491
746439	MC	0	3	7	6	2024	0.23	0.26	1.8177	1.8177
747122	MC	0	4	5	45	2024	0.41	0.45	0.8468	0.8468
746437	MC	0	5	5	6	2024	0.72	0.72	-0.6802	-0.6802
710656	MC	0	7	0	7	2024	0.66	0.66	-0.2872	-0.2872
710715	MC	0	8	0	8	2024	0.71	0.71	-0.8216	-0.8216
710665	MC	0	9	0	9	2024	0.78	0.77	-1.1197	-1.1197
710657	MC	0	10	0	10	2024	0.63	0.62	0.1609	0.1609
710655	MC	0	11	0	11	2024	0.67	0.66	-0.4342	-0.4342
710658	MC	0	12	0	12	2024	0.61	0.61	-0.3061	-0.3061
710664	MC	0	13	0	13	2024	0.61	0.62	-0.0250	-0.0250
710689	ESR	0	14	0	14	2024	0.40	0.41	0.8775	0.8474
745583	MC	0	15	1	32	2024	0.59	0.54	-0.1686	-0.1686
745582	MC	0	16	1	33	2024	0.48	0.44	0.5065	0.5065
745579	MC	0	17	1	34	2024	0.62	0.55	-0.0544	-0.0544
745574	MC	0	18	1	35	2024	0.32	0.33	1.3122	1.3122
745580	ESR	0	19	1	36	2024	0.60	0.57	-0.0669	-0.0669
745577	MC	0	20	1	38	2024	0.63	0.61	-0.2123	-0.2123
745578	ESR	0	21	1	39	2024	0.50	0.49	0.4316	0.4316
743401	MC	0	22	7	32	2024	0.69	0.73	-0.6086	-0.6086
743397	MC	0	23	7	33	2024	0.51	0.44	0.4393	0.4393
743403	MC	0	24	7	34	2024	0.84	0.75	-1.4759	-0.8898
743400	MC	0	25	7	35	2024	0.69	0.62	-0.5018	-0.5018
743399	MC	0	26	7	37	2024	0.63	0.53	-0.1512	0.4129
743396	MC	0	27	7	38	2024	0.50	0.47	0.5098	0.5098
743425	ESR	0	28	7	39	2024	0.43	0.40	0.8038	0.8038
746438	MC	0	40	6	6	2024	0.52	0.47	0.3995	0.3995
747124	MC	0	41	6	45	2024	0.40	0.41	0.9167	0.9167
584100	MC	0	42	0	42	2024	0.43	0.43	0.9842	0.9842
714524	MC	0	43	0	44	2024	0.44	0.43	0.4015	0.4015
746409	MC	0	46	4	30	2024	0.62	0.62	-0.1662	-0.1662
746410	MC	0	47	4	31	2024	0.63	0.61	-0.2656	-0.2656
746413	MC	0	48	4	33	2024	0.51	0.49	0.4829	0.4829
746420	MC	0	49	4	34	2024	0.56	0.57	0.1626	0.1626
746418	ESR	0	50	4	36	2024	0.56	0.56	0.2381	0.0397

PubID	Type	Form	Item Sequence	Previous Form	Previous Item Sequence	Previous Year	Previous *P*-Value	*P*-Value	Previous IRT Difficulty Estimate	IRT Difficulty Estimate
746416	ESR	0	51	4	38	2024	0.46	0.47	0.5891	0.5891
746415	MC	0	52	4	39	2024	0.59	0.57	0.0299	0.0299
748887	TDA	0	53	4	40	2024	0.54	0.57	0.6357	0.6357

Science Grade 5

Note. Science was a stand-alone field test in 2025. No operational items were administered.

Science Grade 8

Note. Science was a stand-alone field test in 2025. No operational items were administered.

APPENDIX P: RELIABILITIES

Each table in this appendix provides the number of items (N items), number of students (N), mean score (Mean), standard deviation of raw score (SD), reliability (r), standard error of measurement (SEM), overall (indicated as "All"), and disaggregated by reporting category code (see Chapter Two). Reliability of scores is calculated based on weighted raw scores (ELA only). For each subject and grade level, tables present reliabilities disaggregated by gender, Ethnicity, whether students had an individualized educational plan (IEP), whether students were considered an English Learner (EL), and whether students had a low-income background (Low Income). PSSA Science was a stand-alone field test in 2025. No student scores were reported.

Grade 3 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	118356	27.90	12.00	0.92	3.29	MC*OE
A	All	15	12	118356	7.63	3.77	0.80	1.69	MC*OE
B	All	15	12	118356	8.79	3.92	0.78	1.83	MC*OE
C	All	7	4	118356	3.33	1.88	0.46	1.38	MC*OE
D	All	15	15	118356	8.14	3.61	0.79	1.66	MC

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	58270	27.17	11.73	0.92	3.31	MC*OE
Total	Male	52	43	60086	28.60	12.22	0.93	3.26	MC*OE
A	Female	15	12	58270	7.35	3.70	0.78	1.72	MC*OE
A	Male	15	12	60086	7.91	3.81	0.81	1.67	MC*OE
B	Female	15	12	58270	8.57	3.85	0.77	1.85	MC*OE
B	Male	15	12	60086	9.01	3.97	0.79	1.81	MC*OE
C	Female	7	4	58270	3.39	1.85	0.45	1.37	MC*OE
C	Male	7	4	60086	3.28	1.91	0.48	1.38	MC*OE
D	Female	15	15	58270	7.86	3.53	0.78	1.67	MC
D	Male	15	15	60086	8.41	3.66	0.80	1.65	MC

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	257	25.46	11.88	0.92	3.31	MC*OE
Total	African American	52	43	16113	19.99	10.04	0.89	3.28	MC*OE
Total	Hispanic	52	43	18014	22.00	10.86	0.91	3.30	MC*OE
Total	White	52	43	70743	30.74	11.26	0.92	3.23	MC*OE
Total	Multiple Ethnicities	52	43	7359	26.88	12.02	0.92	3.29	MC*OE
Total	Asian	52	43	5772	35.02	11.17	0.92	3.09	MC*OE
Total	Pacific Islander	52	43	98	25.67	11.30	0.91	3.38	MC*OE
A	American Indian	15	12	257	6.91	3.80	0.80	1.69	MC*OE
A	African American	15	12	16113	5.24	3.17	0.72	1.68	MC*OE
A	Hispanic	15	12	18014	5.84	3.41	0.76	1.69	MC*OE
A	White	15	12	70743	8.50	3.56	0.78	1.67	MC*OE
A	Multiple Ethnicities	15	12	7359	7.30	3.77	0.80	1.70	MC*OE
A	Asian	15	12	5772	9.77	3.56	0.79	1.63	MC*OE
A	Pacific Islander	15	12	98	6.81	3.69	0.78	1.73	MC*OE
B	American Indian	15	12	257	8.14	3.90	0.77	1.88	MC*OE
B	African American	15	12	16113	6.48	3.63	0.75	1.82	MC*OE
B	Hispanic	15	12	18014	7.04	3.78	0.76	1.84	MC*OE
B	White	15	12	70743	9.62	3.65	0.76	1.79	MC*OE
B	Multiple Ethnicities	15	12	7359	8.52	3.95	0.78	1.84	MC*OE
B	Asian	15	12	5772	11.00	3.45	0.77	1.66	MC*OE
B	Pacific Islander	15	12	98	8.11	3.83	0.76	1.86	MC*OE
C	American Indian	7	4	257	2.97	1.80	0.41	1.39	MC*OE
C	African American	7	4	16113	2.35	1.66	0.35	1.34	MC*OE
C	Hispanic	7	4	18014	2.56	1.74	0.38	1.37	MC*OE
C	White	7	4	70743	3.69	1.82	0.46	1.33	MC*OE
C	Multiple Ethnicities	7	4	7359	3.24	1.88	0.47	1.37	MC*OE
C	Asian	7	4	5772	4.18	1.85	0.50	1.31	MC*OE
C	Pacific Islander	7	4	98	3.15	1.84	0.39	1.44	MC*OE
D	American Indian	15	15	257	7.44	3.58	0.78	1.67	MC
D	African American	15	15	16113	5.91	2.96	0.67	1.69	MC
D	Hispanic	15	15	18014	6.55	3.24	0.73	1.68	MC
D	White	15	15	70743	8.93	3.46	0.77	1.65	MC
D	Multiple Ethnicities	15	15	7359	7.82	3.61	0.79	1.66	MC
D	Asian	15	15	5772	10.07	3.44	0.79	1.56	MC
D	Pacific Islander	15	15	98	7.60	3.08	0.68	1.75	MC

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	24430	20.25	11.14	0.91	3.26	MC*OE
A	Y	15	12	24430	5.49	3.47	0.77	1.66	MC*OE
B	Y	15	12	24430	6.33	3.81	0.77	1.82	MC*OE
C	Y	7	4	24430	2.27	1.76	0.41	1.35	MC*OE
D	Y	15	15	24430	6.16	3.32	0.75	1.67	MC

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	9319	22.56	11.48	0.92	3.30	MC*OE
A	Y	15	12	9319	6.05	3.62	0.78	1.69	MC*OE
B	Y	15	12	9319	7.22	3.92	0.78	1.84	MC*OE
C	Y	7	4	9319	2.50	1.78	0.40	1.37	MC*OE
D	Y	15	15	9319	6.80	3.38	0.75	1.68	MC

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	58821	23.19	11.02	0.91	3.31	MC*OE
A	Y	15	12	58821	6.23	3.48	0.76	1.69	MC*OE
B	Y	15	12	58821	7.39	3.78	0.76	1.85	MC*OE
C	Y	7	4	58821	2.72	1.76	0.39	1.37	MC*OE
D	Y	15	15	58821	6.85	3.31	0.74	1.69	MC

Grade 4 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	114325	27.95	12.07	0.92	3.36	MC*OE
A	All	21	18	114325	12.26	5.30	0.84	2.13	MC*OE
B	All	13	10	114325	6.44	3.30	0.74	1.69	MC*OE
C	All	8	5	114325	3.38	2.07	0.47	1.51	MC*OE
D	All	10	10	114325	5.87	2.65	0.75	1.32	MC

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	56488	27.04	11.78	0.92	3.40	MC*OE
Total	Male	52	43	57837	28.84	12.29	0.93	3.32	MC*OE
A	Female	21	18	56488	11.92	5.21	0.83	2.16	MC*OE
A	Male	21	18	57837	12.60	5.37	0.85	2.09	MC*OE
B	Female	13	10	56488	6.13	3.21	0.72	1.70	MC*OE
B	Male	13	10	57837	6.73	3.37	0.75	1.67	MC*OE
C	Female	8	5	56488	3.35	2.03	0.44	1.53	MC*OE
C	Male	8	5	57837	3.42	2.11	0.49	1.50	MC*OE
D	Female	10	10	56488	5.65	2.62	0.74	1.34	MC
D	Male	10	10	57837	6.09	2.66	0.76	1.30	MC

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	219	25.52	12.22	0.92	3.37	MC*OE
Total	African American	52	43	15381	19.74	9.83	0.89	3.31	MC*OE
Total	Hispanic	52	43	17301	22.11	10.70	0.90	3.36	MC*OE
Total	White	52	43	69056	30.79	11.37	0.92	3.31	MC*OE
Total	Multiple Ethnicities	52	43	6560	26.82	12.17	0.92	3.37	MC*OE
Total	Asian	52	43	5717	34.90	11.66	0.93	3.18	MC*OE
Total	Pacific Islander	52	43	91	27.15	11.78	0.92	3.35	MC*OE
A	American Indian	21	18	219	11.07	5.52	0.85	2.13	MC*OE
A	African American	21	18	15381	8.77	4.56	0.78	2.12	MC*OE
A	Hispanic	21	18	17301	9.84	4.87	0.81	2.15	MC*OE
A	White	21	18	69056	13.45	4.98	0.83	2.08	MC*OE
A	Multiple Ethnicities	21	18	6560	11.77	5.36	0.84	2.14	MC*OE
A	Asian	21	18	5717	15.23	4.91	0.84	1.94	MC*OE
A	Pacific Islander	21	18	91	11.97	5.21	0.84	2.06	MC*OE
B	American Indian	13	10	219	5.93	3.27	0.73	1.70	MC*OE
B	African American	13	10	15381	4.60	2.80	0.65	1.64	MC*OE
B	Hispanic	13	10	17301	5.04	2.96	0.68	1.67	MC*OE
B	White	13	10	69056	7.07	3.20	0.73	1.66	MC*OE
B	Multiple Ethnicities	13	10	6560	6.21	3.34	0.74	1.70	MC*OE
B	Asian	13	10	5717	8.22	3.25	0.75	1.62	MC*OE
B	Pacific Islander	13	10	91	6.37	3.39	0.73	1.75	MC*OE
C	American Indian	8	5	219	3.06	2.08	0.51	1.46	MC*OE
C	African American	8	5	15381	2.26	1.63	0.31	1.35	MC*OE
C	Hispanic	8	5	17301	2.59	1.78	0.37	1.42	MC*OE
C	White	8	5	69056	3.77	2.05	0.46	1.51	MC*OE
C	Multiple Ethnicities	8	5	6560	3.22	2.07	0.48	1.49	MC*OE
C	Asian	8	5	5717	4.35	2.21	0.53	1.52	MC*OE
C	Pacific Islander	8	5	91	3.24	1.99	0.49	1.43	MC*OE
D	American Indian	10	10	219	5.46	2.67	0.75	1.34	MC
D	African American	10	10	15381	4.11	2.31	0.63	1.41	MC
D	Hispanic	10	10	17301	4.66	2.48	0.68	1.40	MC
D	White	10	10	69056	6.50	2.47	0.73	1.29	MC
D	Multiple Ethnicities	10	10	6560	5.62	2.64	0.74	1.34	MC
D	Asian	10	10	5717	7.10	2.48	0.77	1.20	MC
D	Pacific Islander	10	10	91	5.57	2.52	0.70	1.37	MC

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	24386	19.83	10.78	0.91	3.29	MC*OE
A	Y	21	18	24386	8.79	4.93	0.81	2.13	MC*OE
B	Y	13	10	24386	4.44	2.95	0.70	1.62	MC*OE
C	Y	8	5	24386	2.32	1.74	0.40	1.35	MC*OE
D	Y	10	10	24386	4.29	2.50	0.69	1.39	MC

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	9239	22.35	11.26	0.91	3.37	MC*OE
A	Y	21	18	9239	9.99	5.13	0.82	2.16	MC*OE
B	Y	13	10	9239	5.07	3.04	0.69	1.68	MC*OE
C	Y	8	5	9239	2.60	1.85	0.40	1.43	MC*OE
D	Y	10	10	9239	4.70	2.55	0.71	1.39	MC

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	55214	23.13	10.92	0.91	3.36	MC*OE
A	Y	21	18	55214	10.26	4.97	0.81	2.15	MC*OE
B	Y	13	10	55214	5.28	3.01	0.69	1.67	MC*OE
C	Y	8	5	55214	2.71	1.82	0.38	1.44	MC*OE
D	Y	10	10	55214	4.89	2.51	0.69	1.39	MC

Grade 5 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	117903	27.05	11.59	0.92	3.35	MC*OE
A	All	27	24	117903	15.04	6.47	0.87	2.29	MC*OE
B	All	8	5	117903	4.18	2.28	0.54	1.55	MC*OE
C	All	7	7	117903	3.52	1.77	0.57	1.17	MC
D	All	10	7	117903	4.31	2.38	0.61	1.49	MC*OE

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	57762	26.53	11.22	0.91	3.35	MC*OE
Total	Male	52	43	60141	27.55	11.91	0.92	3.33	MC*OE
A	Female	27	24	57762	14.71	6.28	0.86	2.31	MC*OE
A	Male	27	24	60141	15.35	6.63	0.88	2.27	MC*OE
B	Female	8	5	57762	4.26	2.27	0.53	1.55	MC*OE
B	Male	8	5	60141	4.11	2.29	0.55	1.54	MC*OE
C	Female	7	7	57762	3.43	1.74	0.54	1.17	MC
C	Male	7	7	60141	3.61	1.81	0.59	1.16	MC
D	Female	10	7	57762	4.13	2.29	0.59	1.47	MC*OE
D	Male	10	7	60141	4.48	2.45	0.62	1.51	MC*OE

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	200	24.06	11.19	0.91	3.36	MC*OE
Total	African American	52	43	16291	19.25	8.93	0.86	3.29	MC*OE
Total	Hispanic	52	43	17471	21.49	9.86	0.89	3.34	MC*OE
Total	White	52	43	71367	29.69	11.10	0.91	3.31	MC*OE
Total	Multiple Ethnicities	52	43	6494	25.73	11.50	0.91	3.36	MC*OE
Total	Asian	52	43	5989	34.57	11.38	0.92	3.15	MC*OE
Total	Pacific Islander	52	43	91	25.10	10.51	0.90	3.37	MC*OE
A	American Indian	27	24	200	13.52	6.36	0.87	2.31	MC*OE
A	African American	27	24	16291	10.72	5.32	0.81	2.32	MC*OE
A	Hispanic	27	24	17471	11.97	5.71	0.83	2.34	MC*OE
A	White	27	24	71367	16.51	6.12	0.87	2.25	MC*OE
A	Multiple Ethnicities	27	24	6494	14.31	6.43	0.87	2.31	MC*OE
A	Asian	27	24	5989	19.01	6.10	0.88	2.09	MC*OE
A	Pacific Islander	27	24	91	14.09	6.16	0.86	2.33	MC*OE
B	American Indian	8	5	200	3.67	2.27	0.50	1.60	MC*OE
B	African American	8	5	16291	2.94	1.97	0.44	1.48	MC*OE
B	Hispanic	8	5	17471	3.30	2.06	0.46	1.51	MC*OE
B	White	8	5	71367	4.59	2.22	0.53	1.52	MC*OE
B	Multiple Ethnicities	8	5	6494	3.97	2.27	0.53	1.55	MC*OE
B	Asian	8	5	5989	5.49	2.15	0.56	1.42	MC*OE
B	Pacific Islander	8	5	91	3.68	2.22	0.55	1.49	MC*OE
C	American Indian	7	7	200	3.08	1.64	0.47	1.19	MC
C	African American	7	7	16291	2.62	1.46	0.34	1.19	MC
C	Hispanic	7	7	17471	2.88	1.57	0.43	1.19	MC
C	White	7	7	71367	3.82	1.75	0.56	1.16	MC
C	Multiple Ethnicities	7	7	6494	3.37	1.74	0.55	1.18	MC
C	Asian	7	7	5989	4.45	1.85	0.65	1.10	MC
C	Pacific Islander	7	7	91	3.26	1.70	0.55	1.14	MC
D	American Indian	10	7	200	3.79	2.25	0.59	1.44	MC*OE
D	African American	10	7	16291	2.97	1.80	0.42	1.37	MC*OE
D	Hispanic	10	7	17471	3.34	2.01	0.51	1.41	MC*OE
D	White	10	7	71367	4.77	2.36	0.60	1.49	MC*OE
D	Multiple Ethnicities	10	7	6494	4.08	2.38	0.61	1.49	MC*OE
D	Asian	10	7	5989	5.61	2.48	0.62	1.53	MC*OE
D	Pacific Islander	10	7	91	4.07	2.07	0.46	1.52	MC*OE

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	25079	18.81	9.63	0.89	3.26	MC*OE
A	Y	27	24	25079	10.49	5.61	0.83	2.30	MC*OE
B	Y	8	5	25079	2.68	1.96	0.45	1.45	MC*OE
C	Y	7	7	25079	2.69	1.53	0.40	1.19	MC
D	Y	10	7	25079	2.96	1.98	0.52	1.37	MC*OE

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	8882	21.78	10.38	0.90	3.34	MC*OE
A	Y	27	24	8882	12.20	5.98	0.85	2.33	MC*OE
B	Y	8	5	8882	3.33	2.13	0.49	1.53	MC*OE
C	Y	7	7	8882	2.87	1.61	0.46	1.19	MC
D	Y	10	7	8882	3.37	2.06	0.53	1.42	MC*OE

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	57081	22.34	10.11	0.89	3.35	MC*OE
A	Y	27	24	57081	12.48	5.86	0.84	2.34	MC*OE
B	Y	8	5	57081	3.41	2.11	0.48	1.53	MC*OE
C	Y	7	7	57081	2.97	1.59	0.44	1.19	MC
D	Y	10	7	57081	3.47	2.04	0.52	1.41	MC*OE

Grade 6 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	117473	26.76	11.85	0.92	3.30	MC*OE
A	All	20	14	117473	10.24	5.03	0.81	2.19	MC*OE
B	All	14	14	117473	7.24	3.29	0.76	1.61	MC
C	All	8	8	117473	4.76	2.19	0.72	1.15	MC
D	All	10	7	117473	4.52	2.60	0.71	1.41	MC*OE

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	57382	26.67	11.63	0.92	3.31	MC*OE
Total	Male	52	43	60091	26.84	12.06	0.93	3.29	MC*OE
A	Female	20	14	57382	10.17	4.96	0.80	2.21	MC*OE
A	Male	20	14	60091	10.31	5.11	0.82	2.18	MC*OE
B	Female	14	14	57382	7.22	3.24	0.75	1.62	MC
B	Male	14	14	60091	7.25	3.33	0.77	1.60	MC
C	Female	8	8	57382	4.78	2.16	0.71	1.15	MC
C	Male	8	8	60091	4.74	2.22	0.73	1.15	MC
D	Female	10	7	57382	4.49	2.56	0.70	1.39	MC*OE
D	Male	10	7	60091	4.54	2.65	0.71	1.42	MC*OE

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	185	24.44	11.46	0.92	3.27	MC*OE
Total	African American	52	43	16390	18.68	8.99	0.87	3.22	MC*OE
Total	Hispanic	52	43	17477	20.94	9.79	0.89	3.27	MC*OE
Total	White	52	43	70684	29.45	11.36	0.92	3.27	MC*OE
Total	Multiple Ethnicities	52	43	6414	25.52	11.84	0.92	3.31	MC*OE
Total	Asian	52	43	6215	35.13	11.56	0.93	3.09	MC*OE
Total	Pacific Islander	52	43	108	24.64	11.06	0.91	3.35	MC*OE
A	American Indian	20	14	185	9.34	4.77	0.78	2.22	MC*OE
A	African American	20	14	16390	7.09	4.10	0.74	2.10	MC*OE
A	Hispanic	20	14	17477	7.89	4.36	0.76	2.15	MC*OE
A	White	20	14	70684	11.29	4.83	0.80	2.17	MC*OE
A	Multiple Ethnicities	20	14	6414	9.76	5.02	0.81	2.20	MC*OE
A	Asian	20	14	6215	13.80	4.70	0.81	2.03	MC*OE
A	Pacific Islander	20	14	108	9.53	4.97	0.80	2.24	MC*OE
B	American Indian	14	14	185	6.64	3.22	0.75	1.61	MC
B	African American	14	14	16390	5.47	2.65	0.61	1.67	MC
B	Hispanic	14	14	17477	5.92	2.79	0.64	1.66	MC
B	White	14	14	70684	7.81	3.24	0.76	1.60	MC
B	Multiple Ethnicities	14	14	6414	7.00	3.30	0.76	1.62	MC
B	Asian	14	14	6215	9.37	3.35	0.81	1.48	MC
B	Pacific Islander	14	14	108	6.66	2.91	0.68	1.65	MC
C	American Indian	8	8	185	4.35	2.16	0.72	1.15	MC
C	African American	8	8	16390	3.27	1.79	0.55	1.21	MC
C	Hispanic	8	8	17477	3.86	1.96	0.62	1.20	MC
C	White	8	8	70684	5.24	2.10	0.71	1.13	MC
C	Multiple Ethnicities	8	8	6414	4.49	2.18	0.71	1.17	MC
C	Asian	8	8	6215	6.04	2.02	0.75	1.01	MC
C	Pacific Islander	8	8	108	4.44	2.07	0.67	1.19	MC
D	American Indian	10	7	185	4.10	2.44	0.69	1.36	MC*OE
D	African American	10	7	16390	2.84	2.00	0.60	1.26	MC*OE
D	Hispanic	10	7	17477	3.28	2.16	0.63	1.31	MC*OE
D	White	10	7	70684	5.11	2.53	0.68	1.42	MC*OE
D	Multiple Ethnicities	10	7	6414	4.26	2.58	0.70	1.42	MC*OE
D	Asian	10	7	6215	5.92	2.66	0.70	1.46	MC*OE
D	Pacific Islander	10	7	108	4.02	2.32	0.63	1.41	MC*OE

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	23780	17.80	9.12	0.88	3.18	MC*OE
A	Y	20	14	23780	6.40	4.04	0.75	2.03	MC*OE
B	Y	14	14	23780	5.15	2.60	0.59	1.66	MC
C	Y	8	8	23780	3.43	1.89	0.59	1.20	MC
D	Y	10	7	23780	2.82	2.09	0.62	1.29	MC*OE

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	9013	21.38	10.32	0.90	3.27	MC*OE
A	Y	20	14	9013	8.14	4.58	0.78	2.17	MC*OE
B	Y	14	14	9013	6.01	2.85	0.66	1.66	MC
C	Y	8	8	9013	3.94	2.04	0.66	1.19	MC
D	Y	10	7	9013	3.29	2.25	0.66	1.32	MC*OE

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	56603	21.97	10.31	0.90	3.28	MC*OE
A	Y	20	14	56603	8.32	4.53	0.77	2.16	MC*OE
B	Y	14	14	56603	6.12	2.90	0.67	1.66	MC
C	Y	8	8	56603	3.99	2.03	0.65	1.20	MC
D	Y	10	7	56603	3.55	2.28	0.66	1.33	MC*OE

Grade 7 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	117043	24.31	12.10	0.93	3.29	MC*OE
A	All	21	18	117043	10.82	5.14	0.83	2.11	MC*OE
B	All	13	10	117043	5.79	3.32	0.78	1.56	MC*OE
C	All	10	7	117043	4.13	2.77	0.69	1.54	MC*OE
D	All	8	8	117043	3.57	2.04	0.62	1.25	MC

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	56858	24.17	11.89	0.92	3.30	MC*OE
Total	Male	52	43	60185	24.43	12.29	0.93	3.28	MC*OE
A	Female	21	18	56858	10.82	5.04	0.82	2.13	MC*OE
A	Male	21	18	60185	10.81	5.23	0.84	2.09	MC*OE
B	Female	13	10	56858	5.74	3.27	0.78	1.54	MC*OE
B	Male	13	10	60185	5.84	3.37	0.78	1.57	MC*OE
C	Female	10	7	56858	4.13	2.78	0.69	1.54	MC*OE
C	Male	10	7	60185	4.12	2.76	0.69	1.53	MC*OE
D	Female	8	8	56858	3.48	2.00	0.61	1.25	MC
D	Male	8	8	60185	3.66	2.07	0.64	1.25	MC

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	189	23.30	11.62	0.92	3.30	MC*OE
Total	African American	52	43	16150	16.69	8.65	0.87	3.13	MC*OE
Total	Hispanic	52	43	17525	18.16	9.66	0.89	3.17	MC*OE
Total	White	52	43	70987	26.89	11.78	0.92	3.30	MC*OE
Total	Multiple Ethnicities	52	43	6020	23.01	11.96	0.92	3.28	MC*OE
Total	Asian	52	43	6066	33.50	12.48	0.93	3.20	MC*OE
Total	Pacific Islander	52	43	106	24.43	12.36	0.93	3.29	MC*OE
A	American Indian	21	18	189	10.44	5.20	0.83	2.14	MC*OE
A	African American	21	18	16150	7.75	4.10	0.74	2.08	MC*OE
A	Hispanic	21	18	17525	8.30	4.40	0.77	2.09	MC*OE
A	White	21	18	70987	11.86	4.95	0.82	2.10	MC*OE
A	Multiple Ethnicities	21	18	6020	10.28	5.11	0.83	2.11	MC*OE
A	Asian	21	18	6066	14.59	4.97	0.84	1.97	MC*OE
A	Pacific Islander	21	18	106	11.08	5.28	0.84	2.11	MC*OE
B	American Indian	13	10	189	5.53	3.17	0.76	1.54	MC*OE
B	African American	13	10	16150	3.86	2.57	0.68	1.45	MC*OE
B	Hispanic	13	10	17525	4.27	2.78	0.72	1.48	MC*OE
B	White	13	10	70987	6.43	3.24	0.77	1.57	MC*OE
B	Multiple Ethnicities	13	10	6020	5.48	3.30	0.78	1.56	MC*OE
B	Asian	13	10	6066	8.19	3.37	0.78	1.57	MC*OE
B	Pacific Islander	13	10	106	5.86	3.36	0.77	1.60	MC*OE
C	American Indian	10	7	189	3.79	2.57	0.66	1.50	MC*OE
C	African American	10	7	16150	2.54	2.00	0.56	1.33	MC*OE
C	Hispanic	10	7	17525	2.86	2.24	0.62	1.38	MC*OE
C	White	10	7	70987	4.66	2.74	0.68	1.56	MC*OE
C	Multiple Ethnicities	10	7	6020	3.84	2.71	0.68	1.52	MC*OE
C	Asian	10	7	6066	6.05	2.95	0.71	1.59	MC*OE
C	Pacific Islander	10	7	106	4.00	2.77	0.70	1.52	MC*OE
D	American Indian	8	8	189	3.54	1.91	0.55	1.29	MC
D	African American	8	8	16150	2.54	1.51	0.32	1.25	MC
D	Hispanic	8	8	17525	2.73	1.65	0.43	1.25	MC
D	White	8	8	70987	3.94	2.06	0.63	1.26	MC
D	Multiple Ethnicities	8	8	6020	3.41	2.01	0.61	1.25	MC
D	Asian	8	8	6066	4.67	2.20	0.70	1.20	MC
D	Pacific Islander	8	8	106	3.49	1.93	0.57	1.27	MC

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	22702	15.36	8.44	0.87	3.05	MC*OE
A	Y	21	18	22702	6.99	3.89	0.73	2.02	MC*OE
B	Y	13	10	22702	3.49	2.50	0.68	1.42	MC*OE
C	Y	10	7	22702	2.34	1.96	0.57	1.28	MC*OE
D	Y	8	8	22702	2.55	1.56	0.37	1.24	MC

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	8746	18.38	10.20	0.90	3.18	MC*OE
A	Y	21	18	8746	8.46	4.62	0.79	2.10	MC*OE
B	Y	13	10	8746	4.35	2.92	0.74	1.48	MC*OE
C	Y	10	7	8746	2.88	2.34	0.65	1.38	MC*OE
D	Y	8	8	8746	2.69	1.67	0.45	1.24	MC

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	55386	19.49	10.21	0.90	3.21	MC*OE
A	Y	21	18	55386	8.88	4.60	0.79	2.11	MC*OE
B	Y	13	10	55386	4.59	2.90	0.73	1.50	MC*OE
C	Y	10	7	55386	3.11	2.34	0.63	1.42	MC*OE
D	Y	8	8	55386	2.91	1.74	0.48	1.26	MC

Grade 8 Mathematics

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	52	43	117469	25.69	11.94	0.92	3.35	MC*OE
A	All	8	5	117469	3.61	2.19	0.66	1.28	MC*OE
B	All	27	24	117469	13.63	6.28	0.85	2.42	MC*OE
C	All	10	7	117469	4.64	2.63	0.65	1.55	MC*OE
D	All	7	7	117469	3.81	1.97	0.66	1.15	MC

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	52	43	57233	25.94	11.58	0.92	3.36	MC*OE
Total	Male	52	43	60236	25.45	12.26	0.93	3.33	MC*OE
A	Female	8	5	57233	3.70	2.14	0.65	1.27	MC*OE
A	Male	8	5	60236	3.53	2.23	0.67	1.28	MC*OE
B	Female	27	24	57233	13.72	6.11	0.84	2.44	MC*OE
B	Male	27	24	60236	13.54	6.43	0.86	2.40	MC*OE
C	Female	10	7	57233	4.76	2.56	0.64	1.54	MC*OE
C	Male	10	7	60236	4.53	2.70	0.66	1.56	MC*OE
D	Female	7	7	57233	3.77	1.93	0.64	1.16	MC
D	Male	7	7	60236	3.84	2.00	0.68	1.14	MC

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	52	43	210	22.63	11.41	0.91	3.33	MC*OE
Total	African American	52	43	16707	18.56	9.28	0.88	3.24	MC*OE
Total	Hispanic	52	43	17301	19.91	9.82	0.89	3.29	MC*OE
Total	White	52	43	71422	28.10	11.56	0.92	3.33	MC*OE
Total	Multiple Ethnicities	52	43	5900	24.52	11.85	0.92	3.35	MC*OE
Total	Asian	52	43	5830	35.09	12.08	0.93	3.17	MC*OE
Total	Pacific Islander	52	43	99	24.07	11.59	0.92	3.32	MC*OE
A	American Indian	8	5	210	3.14	2.08	0.60	1.32	MC*OE
A	African American	8	5	16707	2.45	1.81	0.60	1.15	MC*OE
A	Hispanic	8	5	17301	2.69	1.89	0.60	1.20	MC*OE
A	White	8	5	71422	4.00	2.13	0.64	1.29	MC*OE
A	Multiple Ethnicities	8	5	5900	3.45	2.18	0.66	1.28	MC*OE
A	Asian	8	5	5830	5.18	2.17	0.63	1.32	MC*OE
A	Pacific Islander	8	5	99	3.51	2.09	0.69	1.17	MC*OE
B	American Indian	27	24	210	12.01	5.82	0.83	2.39	MC*OE
B	African American	27	24	16707	10.04	4.97	0.77	2.36	MC*OE
B	Hispanic	27	24	17301	10.76	5.27	0.79	2.40	MC*OE
B	White	27	24	71422	14.82	6.10	0.84	2.41	MC*OE
B	Multiple Ethnicities	27	24	5900	13.03	6.24	0.85	2.42	MC*OE
B	Asian	27	24	5830	18.50	6.38	0.87	2.26	MC*OE
B	Pacific Islander	27	24	99	12.77	5.97	0.83	2.45	MC*OE
C	American Indian	10	7	210	4.10	2.60	0.65	1.54	MC*OE
C	African American	10	7	16707	3.30	2.16	0.54	1.47	MC*OE
C	Hispanic	10	7	17301	3.49	2.24	0.56	1.48	MC*OE
C	White	10	7	71422	5.11	2.58	0.65	1.53	MC*OE
C	Multiple Ethnicities	10	7	5900	4.42	2.60	0.65	1.55	MC*OE
C	Asian	10	7	5830	6.46	2.66	0.69	1.49	MC*OE
C	Pacific Islander	10	7	99	4.30	2.75	0.71	1.47	MC*OE
D	American Indian	7	7	210	3.39	2.03	0.69	1.14	MC
D	African American	7	7	16707	2.78	1.69	0.50	1.20	MC
D	Hispanic	7	7	17301	2.96	1.74	0.53	1.20	MC
D	White	7	7	71422	4.18	1.92	0.65	1.13	MC
D	Multiple Ethnicities	7	7	5900	3.62	1.97	0.65	1.16	MC
D	Asian	7	7	5830	4.95	1.84	0.69	1.02	MC
D	Pacific Islander	7	7	99	3.49	1.89	0.61	1.19	MC

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	22246	16.55	8.32	0.86	3.15	MC*OE
A	Y	8	5	22246	2.11	1.67	0.54	1.13	MC*OE
B	Y	27	24	22246	9.02	4.47	0.73	2.31	MC*OE
C	Y	10	7	22246	2.90	1.99	0.51	1.40	MC*OE
D	Y	7	7	22246	2.52	1.60	0.45	1.19	MC

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	8367	19.89	10.13	0.90	3.27	MC*OE
A	Y	8	5	8367	2.70	1.90	0.61	1.19	MC*OE
B	Y	27	24	8367	10.74	5.42	0.81	2.38	MC*OE
C	Y	10	7	8367	3.52	2.34	0.59	1.49	MC*OE
D	Y	7	7	8367	2.94	1.72	0.52	1.19	MC

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	52	43	54582	21.06	10.38	0.90	3.30	MC*OE
A	Y	8	5	54582	2.87	1.97	0.62	1.21	MC*OE
B	Y	27	24	54582	11.27	5.49	0.81	2.40	MC*OE
C	Y	10	7	54582	3.77	2.36	0.59	1.50	MC*OE
D	Y	7	7	54582	3.14	1.82	0.57	1.19	MC

Grade 3 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	45	35	118530	22.40	8.94	0.89	3.02	ESR*MC*OE
A	All	17	13	118530	9.09	3.81	0.78	1.79	ESR*MC*OE
B	All	19	13	118530	9.11	4.02	0.75	2.01	ESR*MC*OE
D	All	9	9	118530	4.20	2.12	0.61	1.33	MC

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	45	35	58397	22.88	8.87	0.88	3.02	ESR*MC*OE
Total	Male	45	35	60133	21.94	8.98	0.89	3.01	ESR*MC*OE
A	Female	17	13	58397	9.34	3.78	0.78	1.78	ESR*MC*OE
A	Male	17	13	60133	8.84	3.82	0.78	1.80	ESR*MC*OE
B	Female	19	13	58397	9.22	3.99	0.74	2.03	ESR*MC*OE
B	Male	19	13	60133	9.01	4.05	0.76	1.99	ESR*MC*OE
D	Female	9	9	58397	4.32	2.12	0.61	1.33	MC
D	Male	9	9	60133	4.09	2.11	0.60	1.33	MC

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	45	35	258	20.57	8.14	0.86	3.05	ESR*MC*OE
Total	African American	45	35	16040	17.56	7.63	0.84	3.04	ESR*MC*OE
Total	Hispanic	45	35	18409	18.17	7.94	0.85	3.04	ESR*MC*OE
Total	White	45	35	70626	24.37	8.64	0.88	2.99	ESR*MC*OE
Total	Multiple Ethnicities	45	35	7341	22.17	8.97	0.89	3.02	ESR*MC*OE
Total	Asian	45	35	5757	25.65	8.77	0.89	2.97	ESR*MC*OE
Total	Pacific Islander	45	35	99	21.26	8.33	0.87	3.03	ESR*MC*OE
A	American Indian	17	13	258	8.50	3.67	0.75	1.82	ESR*MC*OE
A	African American	17	13	16040	7.27	3.57	0.73	1.84	ESR*MC*OE
A	Hispanic	17	13	18409	7.45	3.61	0.74	1.84	ESR*MC*OE
A	White	17	13	70626	9.85	3.64	0.77	1.76	ESR*MC*OE
A	Multiple Ethnicities	17	13	7341	9.02	3.83	0.78	1.79	ESR*MC*OE
A	Asian	17	13	5757	10.22	3.58	0.76	1.75	ESR*MC*OE
A	Pacific Islander	17	13	99	8.44	3.55	0.74	1.82	ESR*MC*OE
B	American Indian	19	13	258	8.22	3.60	0.68	2.04	ESR*MC*OE
B	African American	19	13	16040	7.08	3.41	0.66	1.99	ESR*MC*OE
B	Hispanic	19	13	18409	7.42	3.54	0.68	2.00	ESR*MC*OE
B	White	19	13	70626	9.92	3.97	0.75	2.00	ESR*MC*OE
B	Multiple Ethnicities	19	13	7341	8.98	4.02	0.75	2.02	ESR*MC*OE
B	Asian	19	13	5757	10.49	3.99	0.75	1.99	ESR*MC*OE
B	Pacific Islander	19	13	99	8.98	3.96	0.75	1.99	ESR*MC*OE
D	American Indian	9	9	258	3.85	2.02	0.56	1.34	MC
D	African American	9	9	16040	3.22	1.84	0.48	1.33	MC
D	Hispanic	9	9	18409	3.31	1.92	0.52	1.33	MC
D	White	9	9	70626	4.60	2.07	0.59	1.32	MC
D	Multiple Ethnicities	9	9	7341	4.17	2.12	0.60	1.33	MC
D	Asian	9	9	5757	4.95	2.20	0.64	1.33	MC
D	Pacific Islander	9	9	99	3.84	2.06	0.58	1.33	MC

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	45	35	24261	16.49	7.86	0.85	2.99	ESR*MC*OE
A	Y	17	13	24261	6.60	3.56	0.74	1.82	ESR*MC*OE
B	Y	19	13	24261	6.75	3.52	0.69	1.95	ESR*MC*OE
D	Y	9	9	24261	3.14	1.89	0.51	1.33	MC

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	45	35	9734	16.91	7.51	0.84	3.04	ESR*MC*OE
A	Y	17	13	9734	6.81	3.42	0.71	1.85	ESR*MC*OE
B	Y	19	13	9734	7.03	3.38	0.65	2.00	ESR*MC*OE
D	Y	9	9	9734	3.07	1.89	0.50	1.33	MC

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	45	35	58897	19.22	8.13	0.86	3.04	ESR*MC*OE
A	Y	17	13	58897	7.89	3.66	0.75	1.83	ESR*MC*OE
B	Y	19	13	58897	7.78	3.63	0.69	2.01	ESR*MC*OE
D	Y	9	9	58897	3.56	1.95	0.53	1.34	MC

Grade 4 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	63	39	113952	31.49	11.88	0.84	4.82	ESR*MC*TDA
A	All	18	13	113952	9.07	3.86	0.72	2.03	ESR*MC
B	All	20	16	113952	10.39	4.33	0.78	2.03	ESR*MC
D	All	9	9	113952	4.94	2.04	0.59	1.30	MC
E	All	16	1	113952	7.08	3.78	NA	NA	TDA

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	63	39	56367	32.51	11.85	0.83	4.82	ESR*MC*TDA
Total	Male	63	39	57585	30.49	11.84	0.84	4.77	ESR*MC*TDA
A	Female	18	13	56367	9.31	3.85	0.72	2.04	ESR*MC
A	Male	18	13	57585	8.82	3.85	0.72	2.03	ESR*MC
B	Female	20	16	56367	10.61	4.33	0.78	2.03	ESR*MC
B	Male	20	16	57585	10.18	4.32	0.78	2.04	ESR*MC
D	Female	9	9	56367	5.04	2.02	0.60	1.28	MC
D	Male	9	9	57585	4.86	2.05	0.59	1.31	MC
E	Female	16	1	56367	7.55	3.78	NA	NA	TDA
E	Male	16	1	57585	6.63	3.72	NA	NA	TDA

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	63	39	218	29.54	11.34	0.82	4.80	ESR*MC*TDA
Total	African American	63	39	15297	24.70	10.54	0.79	4.78	ESR*MC*TDA
Total	Hispanic	63	39	17247	26.00	11.04	0.81	4.86	ESR*MC*TDA
Total	White	63	39	68886	34.00	11.28	0.83	4.67	ESR*MC*TDA
Total	Multiple Ethnicities	63	39	6521	30.94	11.96	0.84	4.85	ESR*MC*TDA
Total	Asian	63	39	5693	36.62	11.46	0.83	4.71	ESR*MC*TDA
Total	Pacific Islander	63	39	90	30.54	12.35	0.86	4.70	ESR*MC*TDA
A	American Indian	18	13	218	8.54	3.78	0.71	2.02	ESR*MC
A	African American	18	13	15297	7.24	3.50	0.68	1.98	ESR*MC
A	Hispanic	18	13	17247	7.63	3.58	0.69	1.99	ESR*MC
A	White	18	13	68886	9.74	3.77	0.71	2.04	ESR*MC
A	Multiple Ethnicities	18	13	6521	8.92	3.86	0.72	2.02	ESR*MC
A	Asian	18	13	5693	10.40	3.71	0.70	2.04	ESR*MC
A	Pacific Islander	18	13	90	8.83	4.35	0.80	1.96	ESR*MC
B	American Indian	20	16	218	9.78	4.24	0.77	2.05	ESR*MC
B	African American	20	16	15297	8.14	3.80	0.71	2.05	ESR*MC
B	Hispanic	20	16	17247	8.61	3.95	0.73	2.06	ESR*MC
B	White	20	16	68886	11.22	4.22	0.77	2.02	ESR*MC
B	Multiple Ethnicities	20	16	6521	10.20	4.34	0.78	2.03	ESR*MC
B	Asian	20	16	5693	12.01	4.25	0.78	1.99	ESR*MC
B	Pacific Islander	20	16	90	10.39	4.25	0.76	2.08	ESR*MC
D	American Indian	9	9	218	4.47	1.92	0.52	1.34	MC
D	African American	9	9	15297	3.81	1.89	0.50	1.34	MC
D	Hispanic	9	9	17247	4.06	1.95	0.54	1.33	MC
D	White	9	9	68886	5.37	1.92	0.55	1.28	MC
D	Multiple Ethnicities	9	9	6521	4.86	2.04	0.59	1.31	MC
D	Asian	9	9	5693	5.64	1.95	0.59	1.25	MC
D	Pacific Islander	9	9	90	4.57	2.20	0.66	1.29	MC
E	American Indian	16	1	218	6.75	3.71	NA	NA	TDA
E	African American	16	1	15297	5.51	3.71	NA	NA	TDA
E	Hispanic	16	1	17247	5.69	3.82	NA	NA	TDA
E	White	16	1	68886	7.67	3.57	NA	NA	TDA
E	Multiple Ethnicities	16	1	6521	6.96	3.82	NA	NA	TDA
E	Asian	16	1	5693	8.57	3.67	NA	NA	TDA
E	Pacific Islander	16	1	90	6.76	3.63	NA	NA	TDA

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	24204	22.57	10.52	0.80	4.73	ESR*MC*TDA
A	Y	18	13	24204	6.66	3.38	0.67	1.95	ESR*MC
B	Y	20	16	24204	7.64	3.81	0.72	2.03	ESR*MC
D	Y	9	9	24204	3.75	1.91	0.50	1.35	MC
E	Y	16	1	24204	4.52	3.67	NA	NA	TDA

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	9188	24.53	11.07	0.80	4.99	ESR*MC*TDA
A	Y	18	13	9188	7.15	3.46	0.67	1.98	ESR*MC
B	Y	20	16	9188	8.14	3.86	0.72	2.06	ESR*MC
D	Y	9	9	9188	3.86	1.94	0.53	1.34	MC
E	Y	16	1	9188	5.38	3.99	NA	NA	TDA

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	55005	27.01	11.03	0.81	4.81	ESR*MC*TDA
A	Y	18	13	55005	7.88	3.65	0.70	2.01	ESR*MC
B	Y	20	16	55005	8.88	3.97	0.73	2.06	ESR*MC
D	Y	9	9	55005	4.28	1.96	0.54	1.33	MC
E	Y	16	1	55005	5.97	3.73	NA	NA	TDA

Grade 5 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	63	39	117617	31.58	12.01	0.83	4.93	ESR*MC*TDA
A	All	18	14	117617	9.40	3.95	0.75	1.97	ESR*MC
B	All	20	15	117617	10.64	4.40	0.77	2.09	ESR*MC
D	All	9	9	117617	4.14	1.99	0.52	1.37	MC
E	All	16	1	117617	7.40	3.90	NA	NA	TDA

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	63	39	57658	32.75	11.98	0.83	4.91	ESR*MC*TDA
Total	Male	63	39	59959	30.46	11.93	0.83	4.90	ESR*MC*TDA
A	Female	18	14	57658	9.75	3.93	0.75	1.96	ESR*MC
A	Male	18	14	59959	9.07	3.93	0.75	1.97	ESR*MC
B	Female	20	15	57658	10.80	4.37	0.77	2.09	ESR*MC
B	Male	20	15	59959	10.49	4.43	0.78	2.09	ESR*MC
D	Female	9	9	57658	4.29	2.00	0.53	1.37	MC
D	Male	9	9	59959	3.99	1.97	0.51	1.38	MC
E	Female	16	1	57658	7.91	3.88	NA	NA	TDA
E	Male	16	1	59959	6.91	3.85	NA	NA	TDA

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	63	39	197	29.32	12.04	0.81	5.21	ESR*MC*TDA
Total	African American	63	39	16221	24.84	10.49	0.79	4.83	ESR*MC*TDA
Total	Hispanic	63	39	17402	26.19	11.09	0.80	4.94	ESR*MC*TDA
Total	White	63	39	71242	34.00	11.44	0.83	4.76	ESR*MC*TDA
Total	Multiple Ethnicities	63	39	6490	30.75	12.05	0.83	4.94	ESR*MC*TDA
Total	Asian	63	39	5975	37.78	11.80	0.84	4.78	ESR*MC*TDA
Total	Pacific Islander	63	39	90	29.72	12.18	0.81	5.29	ESR*MC*TDA
A	American Indian	18	14	197	8.92	3.91	0.75	1.96	ESR*MC
A	African American	18	14	16221	7.62	3.54	0.69	1.98	ESR*MC
A	Hispanic	18	14	17402	7.99	3.67	0.71	1.99	ESR*MC
A	White	18	14	71242	10.02	3.87	0.75	1.95	ESR*MC
A	Multiple Ethnicities	18	14	6490	9.18	3.96	0.75	1.97	ESR*MC
A	Asian	18	14	5975	11.14	3.85	0.75	1.91	ESR*MC
A	Pacific Islander	18	14	90	8.59	3.99	0.76	1.97	ESR*MC
B	American Indian	20	15	197	9.62	4.30	0.75	2.13	ESR*MC
B	African American	20	15	16221	8.47	3.95	0.72	2.09	ESR*MC
B	Hispanic	20	15	17402	8.96	4.11	0.74	2.10	ESR*MC
B	White	20	15	71242	11.41	4.28	0.76	2.09	ESR*MC
B	Multiple Ethnicities	20	15	6490	10.40	4.41	0.78	2.09	ESR*MC
B	Asian	20	15	5975	12.57	4.25	0.78	2.01	ESR*MC
B	Pacific Islander	20	15	90	9.97	4.36	0.78	2.06	ESR*MC
D	American Indian	9	9	197	3.86	1.88	0.44	1.40	MC
D	African American	9	9	16221	3.19	1.71	0.36	1.37	MC
D	Hispanic	9	9	17402	3.38	1.78	0.40	1.38	MC
D	White	9	9	71242	4.48	1.96	0.51	1.37	MC
D	Multiple Ethnicities	9	9	6490	4.04	1.98	0.52	1.37	MC
D	Asian	9	9	5975	4.92	2.04	0.56	1.35	MC
D	Pacific Islander	9	9	90	4.06	1.94	0.48	1.40	MC
E	American Indian	16	1	197	6.92	4.23	NA	NA	TDA
E	African American	16	1	16221	5.55	3.72	NA	NA	TDA
E	Hispanic	16	1	17402	5.86	3.88	NA	NA	TDA
E	White	16	1	71242	8.08	3.67	NA	NA	TDA
E	Multiple Ethnicities	16	1	6490	7.12	3.91	NA	NA	TDA
E	Asian	16	1	5975	9.15	3.78	NA	NA	TDA
E	Pacific Islander	16	1	90	7.11	4.36	NA	NA	TDA

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	24956	22.21	10.24	0.79	4.71	ESR*MC*TDA
A	Y	18	14	24956	6.89	3.47	0.68	1.95	ESR*MC
B	Y	20	15	24956	7.65	3.82	0.71	2.07	ESR*MC
D	Y	9	9	24956	3.10	1.73	0.38	1.36	MC
E	Y	16	1	24956	4.58	3.60	NA	NA	TDA

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	8841	24.68	11.22	0.79	5.13	ESR*MC*TDA
A	Y	18	14	8841	7.48	3.54	0.69	1.98	ESR*MC
B	Y	20	15	8841	8.42	4.06	0.74	2.09	ESR*MC
D	Y	9	9	8841	3.27	1.76	0.39	1.37	MC
E	Y	16	1	8841	5.52	4.14	NA	NA	TDA

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	56900	27.03	10.96	0.80	4.88	ESR*MC*TDA
A	Y	18	14	56900	8.17	3.67	0.71	1.99	ESR*MC
B	Y	20	15	56900	9.17	4.08	0.73	2.11	ESR*MC
D	Y	9	9	56900	3.54	1.81	0.42	1.38	MC
E	Y	16	1	56900	6.16	3.78	NA	NA	TDA

Grade 6 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	63	39	117329	32.71	11.66	0.84	4.69	ESR*MC*TDA
A	All	17	14	117329	9.36	3.83	0.76	1.87	ESR*MC
B	All	21	15	117329	10.60	4.29	0.75	2.12	ESR*MC
D	All	9	9	117329	4.63	2.04	0.56	1.35	MC
E	All	16	1	117329	8.12	3.62	NA	NA	TDA

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	63	39	57342	34.19	11.43	0.84	4.63	ESR*MC*TDA
Total	Male	63	39	59987	31.31	11.69	0.84	4.68	ESR*MC*TDA
A	Female	17	14	57342	9.81	3.79	0.76	1.85	ESR*MC
A	Male	17	14	59987	8.92	3.81	0.75	1.89	ESR*MC
B	Female	21	15	57342	10.85	4.18	0.74	2.12	ESR*MC
B	Male	21	15	59987	10.36	4.37	0.76	2.12	ESR*MC
D	Female	9	9	57342	4.82	2.05	0.57	1.34	MC
D	Male	9	9	59987	4.45	2.02	0.55	1.35	MC
E	Female	16	1	57342	8.70	3.55	NA	NA	TDA
E	Male	16	1	59987	7.56	3.60	NA	NA	TDA

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	63	39	187	31.68	11.83	0.84	4.80	ESR*MC*TDA
Total	African American	63	39	16363	26.57	10.40	0.80	4.62	ESR*MC*TDA
Total	Hispanic	63	39	17427	27.62	10.81	0.81	4.71	ESR*MC*TDA
Total	White	63	39	70622	34.84	11.11	0.83	4.54	ESR*MC*TDA
Total	Multiple Ethnicities	63	39	6412	31.96	11.75	0.84	4.67	ESR*MC*TDA
Total	Asian	63	39	6209	39.80	11.21	0.83	4.60	ESR*MC*TDA
Total	Pacific Islander	63	39	109	32.29	11.49	0.82	4.86	ESR*MC*TDA
A	American Indian	17	14	187	9.11	3.86	0.77	1.85	ESR*MC
A	African American	17	14	16363	7.68	3.54	0.71	1.90	ESR*MC
A	Hispanic	17	14	17427	7.95	3.60	0.72	1.90	ESR*MC
A	White	17	14	70622	9.95	3.73	0.75	1.86	ESR*MC
A	Multiple Ethnicities	17	14	6412	9.16	3.85	0.76	1.87	ESR*MC
A	Asian	17	14	6209	11.15	3.56	0.75	1.77	ESR*MC
A	Pacific Islander	17	14	109	9.33	3.65	0.74	1.88	ESR*MC
B	American Indian	21	15	187	10.32	4.33	0.76	2.13	ESR*MC
B	African American	21	15	16363	8.53	3.79	0.70	2.09	ESR*MC
B	Hispanic	21	15	17427	9.01	3.89	0.71	2.10	ESR*MC
B	White	21	15	70622	11.28	4.18	0.74	2.13	ESR*MC
B	Multiple Ethnicities	21	15	6412	10.35	4.37	0.76	2.12	ESR*MC
B	Asian	21	15	6209	13.09	4.20	0.75	2.09	ESR*MC
B	Pacific Islander	21	15	109	10.32	4.52	0.78	2.13	ESR*MC
D	American Indian	9	9	187	4.39	2.00	0.55	1.35	MC
D	African American	9	9	16363	3.83	1.85	0.46	1.37	MC
D	Hispanic	9	9	17427	3.95	1.91	0.49	1.37	MC
D	White	9	9	70622	4.91	2.02	0.55	1.35	MC
D	Multiple Ethnicities	9	9	6412	4.56	2.03	0.56	1.34	MC
D	Asian	9	9	6209	5.65	1.94	0.56	1.28	MC
D	Pacific Islander	9	9	109	4.50	1.87	0.45	1.39	MC
E	American Indian	16	1	187	7.87	3.78	NA	NA	TDA
E	African American	16	1	16363	6.52	3.49	NA	NA	TDA
E	Hispanic	16	1	17427	6.71	3.63	NA	NA	TDA
E	White	16	1	70622	8.70	3.41	NA	NA	TDA
E	Multiple Ethnicities	16	1	6412	7.89	3.59	NA	NA	TDA
E	Asian	16	1	6209	9.92	3.60	NA	NA	TDA
E	Pacific Islander	16	1	109	8.15	3.81	NA	NA	TDA

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	23697	22.94	9.60	0.78	4.54	ESR*MC*TDA
A	Y	17	14	23697	6.63	3.26	0.66	1.90	ESR*MC
B	Y	21	15	23697	7.60	3.53	0.66	2.06	ESR*MC
D	Y	9	9	23697	3.34	1.81	0.43	1.36	MC
E	Y	16	1	23697	5.37	3.40	NA	NA	TDA

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	8967	26.31	11.12	0.80	4.94	ESR*MC*TDA
A	Y	17	14	8967	7.51	3.50	0.71	1.90	ESR*MC
B	Y	21	15	8967	8.75	3.90	0.71	2.10	ESR*MC
D	Y	9	9	8967	3.73	1.91	0.49	1.37	MC
E	Y	16	1	8967	6.32	3.94	NA	NA	TDA

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	56516	28.52	10.81	0.81	4.66	ESR*MC*TDA
A	Y	17	14	56516	8.18	3.64	0.73	1.90	ESR*MC
B	Y	21	15	56516	9.21	3.95	0.71	2.11	ESR*MC
D	Y	9	9	56516	4.08	1.94	0.50	1.36	MC
E	Y	16	1	56516	7.04	3.54	NA	NA	TDA

Grade 7 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	63	39	116989	33.08	11.87	0.83	4.84	ESR*MC*TDA
A	All	19	14	116989	10.80	4.03	0.76	1.97	ESR*MC
B	All	19	15	116989	9.89	4.07	0.75	2.03	ESR*MC
D	All	9	9	116989	4.63	2.00	0.56	1.33	MC
E	All	16	1	116989	7.76	3.83	NA	NA	TDA

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	63	39	56853	35.00	11.67	0.83	4.78	ESR*MC*TDA
Total	Male	63	39	60136	31.27	11.78	0.83	4.80	ESR*MC*TDA
A	Female	19	14	56853	11.47	3.97	0.76	1.95	ESR*MC
A	Male	19	14	60136	10.17	3.99	0.75	1.99	ESR*MC
B	Female	19	15	56853	10.27	4.03	0.75	2.02	ESR*MC
B	Male	19	15	60136	9.53	4.08	0.75	2.03	ESR*MC
D	Female	9	9	56853	4.83	1.98	0.55	1.33	MC
D	Male	9	9	60136	4.45	2.00	0.55	1.34	MC
E	Female	16	1	56853	8.44	3.77	NA	NA	TDA
E	Male	16	1	60136	7.12	3.77	NA	NA	TDA

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	63	39	189	31.29	11.12	0.83	4.62	ESR*MC*TDA
Total	African American	63	39	16117	26.65	10.49	0.80	4.75	ESR*MC*TDA
Total	Hispanic	63	39	17525	27.41	10.94	0.81	4.83	ESR*MC*TDA
Total	White	63	39	70968	35.43	11.28	0.83	4.67	ESR*MC*TDA
Total	Multiple Ethnicities	63	39	6030	32.30	11.96	0.83	4.86	ESR*MC*TDA
Total	Asian	63	39	6052	39.97	11.37	0.83	4.69	ESR*MC*TDA
Total	Pacific Islander	63	39	108	32.41	12.21	0.85	4.79	ESR*MC*TDA
A	American Indian	19	14	189	10.31	3.96	0.75	1.98	ESR*MC
A	African American	19	14	16117	8.96	3.76	0.71	2.01	ESR*MC
A	Hispanic	19	14	17525	9.16	3.80	0.73	1.99	ESR*MC
A	White	19	14	70968	11.48	3.89	0.75	1.96	ESR*MC
A	Multiple Ethnicities	19	14	6030	10.54	4.09	0.77	1.98	ESR*MC
A	Asian	19	14	6052	12.74	3.72	0.75	1.86	ESR*MC
A	Pacific Islander	19	14	108	10.90	4.17	0.80	1.86	ESR*MC
B	American Indian	19	15	189	9.44	3.73	0.69	2.06	ESR*MC
B	African American	19	15	16117	7.86	3.55	0.67	2.03	ESR*MC
B	Hispanic	19	15	17525	8.23	3.67	0.69	2.03	ESR*MC
B	White	19	15	70968	10.60	3.98	0.74	2.02	ESR*MC
B	Multiple Ethnicities	19	15	6030	9.64	4.10	0.75	2.03	ESR*MC
B	Asian	19	15	6052	11.98	3.94	0.75	1.96	ESR*MC
B	Pacific Islander	19	15	108	9.51	3.99	0.75	2.01	ESR*MC
D	American Indian	9	9	189	4.40	2.02	0.56	1.33	MC
D	African American	9	9	16117	3.78	1.80	0.44	1.35	MC
D	Hispanic	9	9	17525	3.88	1.85	0.47	1.35	MC
D	White	9	9	70968	4.94	1.96	0.54	1.33	MC
D	Multiple Ethnicities	9	9	6030	4.59	2.01	0.56	1.33	MC
D	Asian	9	9	6052	5.53	1.99	0.58	1.28	MC
D	Pacific Islander	9	9	108	4.41	1.96	0.54	1.32	MC
E	American Indian	16	1	189	7.13	3.50	NA	NA	TDA
E	African American	16	1	16117	6.05	3.65	NA	NA	TDA
E	Hispanic	16	1	17525	6.14	3.79	NA	NA	TDA
E	White	16	1	70968	8.41	3.60	NA	NA	TDA
E	Multiple Ethnicities	16	1	6030	7.53	3.85	NA	NA	TDA
E	Asian	16	1	6052	9.72	3.75	NA	NA	TDA
E	Pacific Islander	16	1	108	7.59	3.86	NA	NA	TDA

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	22647	23.26	9.60	0.78	4.53	ESR*MC*TDA
A	Y	19	14	22647	7.88	3.44	0.66	2.00	ESR*MC
B	Y	19	15	22647	7.15	3.39	0.65	2.01	ESR*MC
D	Y	9	9	22647	3.40	1.77	0.42	1.35	MC
E	Y	16	1	22647	4.83	3.36	NA	NA	TDA

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	8709	25.43	10.89	0.79	5.00	ESR*MC*TDA
A	Y	19	14	8709	8.54	3.65	0.70	1.98	ESR*MC
B	Y	19	15	8709	7.73	3.57	0.68	2.03	ESR*MC
D	Y	9	9	8709	3.56	1.78	0.43	1.35	MC
E	Y	16	1	8709	5.60	4.02	NA	NA	TDA

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	55362	28.65	10.99	0.81	4.78	ESR*MC*TDA
A	Y	19	14	55362	9.52	3.86	0.73	2.00	ESR*MC
B	Y	19	15	55362	8.53	3.75	0.70	2.04	ESR*MC
D	Y	9	9	55362	4.05	1.87	0.48	1.35	MC
E	Y	16	1	55362	6.55	3.71	NA	NA	TDA

Grade 8 English Language Arts

Reporting Category	Overall	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	All	63	39	117561	33.30	13.02	0.83	5.33	ESR*MC*TDA
A	All	20	14	117561	10.70	4.52	0.76	2.22	ESR*MC
B	All	18	15	117561	10.02	4.07	0.77	1.95	ESR*MC
D	All	9	9	117561	4.40	2.11	0.61	1.31	MC
E	All	16	1	117561	8.17	4.40	NA	NA	TDA

Reporting Category	Gender	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Female	63	39	57322	35.28	12.87	0.83	5.23	ESR*MC*TDA
Total	Male	63	39	60239	31.41	12.88	0.83	5.30	ESR*MC*TDA
A	Female	20	14	57322	11.25	4.52	0.76	2.22	ESR*MC
A	Male	20	14	60239	10.18	4.47	0.75	2.21	ESR*MC
B	Female	18	15	57322	10.31	4.02	0.76	1.95	ESR*MC
B	Male	18	15	60239	9.76	4.11	0.78	1.94	ESR*MC
D	Female	9	9	57322	4.70	2.13	0.63	1.30	MC
D	Male	9	9	60239	4.11	2.05	0.59	1.32	MC
E	Female	16	1	57322	9.03	4.27	NA	NA	TDA
E	Male	16	1	60239	7.36	4.36	NA	NA	TDA

Reporting Category	Ethnicity	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	American Indian	63	39	211	30.86	12.84	0.81	5.55	ESR*MC*TDA
Total	African American	63	39	16731	26.75	11.46	0.80	5.18	ESR*MC*TDA
Total	Hispanic	63	39	17311	27.20	11.92	0.81	5.25	ESR*MC*TDA
Total	White	63	39	71470	35.71	12.49	0.83	5.17	ESR*MC*TDA
Total	Multiple Ethnicities	63	39	5916	32.71	13.09	0.83	5.39	ESR*MC*TDA
Total	Asian	63	39	5822	41.32	12.50	0.84	5.02	ESR*MC*TDA
Total	Pacific Islander	63	39	100	32.11	11.37	0.81	4.91	ESR*MC*TDA
A	American Indian	20	14	211	9.95	4.51	0.76	2.19	ESR*MC
A	African American	20	14	16731	8.82	4.03	0.70	2.21	ESR*MC
A	Hispanic	20	14	17311	8.84	4.13	0.71	2.21	ESR*MC
A	White	20	14	71470	11.40	4.45	0.75	2.21	ESR*MC
A	Multiple Ethnicities	20	14	5916	10.64	4.52	0.76	2.21	ESR*MC
A	Asian	20	14	5822	13.10	4.37	0.77	2.11	ESR*MC
A	Pacific Islander	20	14	100	9.97	4.26	0.72	2.26	ESR*MC
B	American Indian	18	15	211	9.35	4.12	0.78	1.95	ESR*MC
B	African American	18	15	16731	8.28	3.74	0.73	1.96	ESR*MC
B	Hispanic	18	15	17311	8.40	3.83	0.74	1.96	ESR*MC
B	White	18	15	71470	10.66	3.95	0.76	1.94	ESR*MC
B	Multiple Ethnicities	18	15	5916	9.87	4.10	0.77	1.95	ESR*MC
B	Asian	18	15	5822	12.25	3.89	0.75	1.93	ESR*MC
B	Pacific Islander	18	15	100	9.79	3.70	0.72	1.97	ESR*MC
D	American Indian	9	9	211	4.16	1.99	0.55	1.34	MC
D	African American	9	9	16731	3.39	1.84	0.49	1.31	MC
D	Hispanic	9	9	17311	3.55	1.90	0.52	1.32	MC
D	White	9	9	71470	4.77	2.07	0.60	1.31	MC
D	Multiple Ethnicities	9	9	5916	4.32	2.10	0.61	1.31	MC
D	Asian	9	9	5822	5.38	2.13	0.64	1.28	MC
D	Pacific Islander	9	9	100	4.27	2.01	0.56	1.33	MC
E	American Indian	16	1	211	7.39	4.64	NA	NA	TDA
E	African American	16	1	16731	6.25	4.17	NA	NA	TDA
E	Hispanic	16	1	17311	6.41	4.27	NA	NA	TDA
E	White	16	1	71470	8.88	4.20	NA	NA	TDA
E	Multiple Ethnicities	16	1	5916	7.89	4.47	NA	NA	TDA
E	Asian	16	1	5822	10.59	4.07	NA	NA	TDA
E	Pacific Islander	16	1	100	8.08	3.77	NA	NA	TDA

Reporting Category	IEP	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	22219	22.32	10.03	0.77	4.83	ESR*MC*TDA
A	Y	20	14	22219	7.57	3.56	0.64	2.14	ESR*MC
B	Y	18	15	22219	7.04	3.48	0.69	1.93	ESR*MC
D	Y	9	9	22219	3.04	1.74	0.42	1.32	MC
E	Y	16	1	22219	4.67	3.74	NA	NA	TDA

Reporting Category	EL	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	8328	24.69	11.62	0.79	5.37	ESR*MC*TDA
A	Y	20	14	8328	8.04	3.89	0.69	2.18	ESR*MC
B	Y	18	15	8328	7.69	3.68	0.71	1.97	ESR*MC
D	Y	9	9	8328	3.17	1.79	0.46	1.32	MC
E	Y	16	1	8328	5.79	4.43	NA	NA	TDA

Reporting Category	Low Income	Total Points	N Items	N	Mean	SD	r	SEM	Item Type(s)
Total	Y	63	39	54622	28.62	12.03	0.81	5.26	ESR*MC*TDA
A	Y	20	14	54622	9.32	4.20	0.72	2.22	ESR*MC
B	Y	18	15	54622	8.74	3.85	0.74	1.95	ESR*MC
D	Y	9	9	54622	3.74	1.95	0.54	1.32	MC
E	Y	16	1	54622	6.81	4.28	NA	NA	TDA

Grade 5 Science

Note. Science was a stand-alone field test in 2025. No student scores were reported.

Grade 8 Science

Note. Science was a stand-alone field test in 2025. No student scores were reported.

APPENDIX Q: HISTORICAL STATISTICS

The tables included in this appendix present the historical statistics for number of examinees (N Count), the mean, standard deviation (SD), and maximum (Max) for raw scores and scaled scores, in addition to the percentage of students by performance level (Below Basic, Basic, Proficient, Advanced) and the percentage of students earning either proficient or advanced scores. Scaled scores remain on the same scale of measurement, and therefore, can be compared across years. Raw scores, on the other hand, cannot be compared across tests or administrations because the difficulty of the items on a test can vary across years. The asterisk (*) indicates that the maximum earned scaled score varies across administrations. Due to the Covid-19 pandemic, the PSSA was not administered in Spring 2020. PSSA Science was a stand-alone field test in 2025; no student scores were reported.

Mathematics Grade 3

Statistic	2019	2021	2022	2023	2024	2025
N Count	120604	91693	114714	116303	112845	118833
Raw Score Mean	28.5	25.3	27.6	28.0	27.1	27.9
Raw Score SD	11.7	11.3	11.4	11.2	11.7	12.0
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	1026.4	997.9	1003.1	1008.8	1011.0	1014.2
Scaled Score SD	124.9	121.2	124.8	117.8	120.3	124.6
Scaled Score Max*	1530	1577	1553	1529	1544	1532
Percentage Bel. Basic	22.4	31.0	28.9	24.9	26.1	25.1
Percentage Basic	21.6	21.7	23.4	23.4	22.4	21.3
Percentage Proficient	29.3	29.5	26.9	30.1	30.9	30.0
Percentage Advanced	26.7	17.8	20.9	21.6	20.6	23.7
Percentage Prof. + Adv.	56.0	47.3	47.7	51.7	51.5	53.6

Mathematics Grade 4

Statistic	2019	2021	2022	2023	2024	2025
N Count	123286	92387	114822	116642	116862	114325
Raw Score Mean	26.7	24.0	26.5	27.5	27.4	28.0
Raw Score SD	11.3	10.7	10.8	10.8	11.5	12.1
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	994.2	970.3	980.4	991.9	1002.9	1007.5
Scaled Score SD	124.1	112.0	122.7	115.4	120.7	126.4
Scaled Score Max*	1532	1553	1561	1535	1533	1516
Percentage Bel. Basic	26.1	33.9	30.9	25.1	24.9	24.8
Percentage Basic	27.7	30.6	26.8	28.5	26.5	24.5
Percentage Proficient	27.2	23.4	25.3	30.0	27.4	29.2
Percentage Advanced	19.0	12.1	17.0	16.5	21.3	21.4
Percentage Prof. + Adv.	46.2	35.6	42.3	46.5	48.7	50.7

Mathematics Grade 5

Statistic	2019	2021	2022	2023	2024	2025
N Count	127592	90866	116489	117043	116834	117903
Raw Score Mean	24.4	22.7	23.2	25.0	25.9	27.0
Raw Score SD	11.2	10.7	11.1	11.4	11.4	11.6
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	991.8	971.1	968.8	985.1	988.7	995.5
Scaled Score SD	117.5	110.7	113.3	121.6	118.7	121.0
Scaled Score Max*	1601	1556	1541	1559	1519	1507
Percentage Bel. Basic	23.3	31.3	31.1	29.2	25.3	22.8
Percentage Basic	33.7	32.6	33.5	28.1	31.9	33.2
Percentage Proficient	27.2	24.3	23.3	26.9	27.9	27.8
Percentage Advanced	15.8	11.8	12.2	15.8	14.9	16.2
Percentage Prof. + Adv.	43.1	36.1	35.4	42.8	42.8	43.9

Mathematics Grade 6

Statistic	2019	2021	2022	2023	2024	2025
N Count	127496	90563	115844	117725	116358	117473
Raw Score Mean	25.9	23.9	24.8	25.9	25.7	26.8
Raw Score SD	11.5	10.1	11.3	11.8	11.8	11.9
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	979.6	948.5	953.3	963.3	970.9	972.8
Scaled Score SD	119.4	104.2	122.9	122.8	126.4	128.5
Scaled Score Max*	1500	1513	1521	1516	1524	1506
Percentage Bel. Basic	25.9	35.1	38.9	33.5	31.7	30.8
Percentage Basic	35.1	36.6	28.8	30.1	30.9	31.3
Percentage Proficient	23.2	20.6	18.9	23.5	22.7	23.0
Percentage Advanced	15.8	7.6	13.3	12.9	14.8	14.8
Percentage Prof. + Adv.	39.0	28.2	32.3	36.5	37.4	37.8

Mathematics Grade 7

Statistic	2019	2021	2022	2023	2024	2025
N Count	125808	90812	118357	117601	117279	117043
Raw Score Mean	24.2	21.1	22.2	23.4	23.7	24.3
Raw Score SD	11.2	10.4	10.9	11.6	11.6	12.1
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	965.6	936.2	945.5	954.4	958.0	961.4
Scaled Score SD	120.1	108.5	111.0	118.9	119.9	125.1
Scaled Score Max*	1536	1546	1513	1529	1535	1526
Percentage Bel. Basic	35.8	46.1	43.0	39.5	37.8	37.8
Percentage Basic	26.0	27.1	30.0	27.3	28.1	28.5
Percentage Proficient	24.3	18.8	17.4	20.9	21.6	20.2
Percentage Advanced	13.9	8.1	9.7	12.3	12.5	13.5
Percentage Prof. + Adv.	38.2	26.9	27.0	33.2	34.1	33.8

Mathematics Grade 8

Statistic	2019	2021	2022	2023	2024	2025
N Count	123186	85253	119039	118968	116468	117469
Raw Score Mean	25.6	22.7	22.9	24.5	24.5	25.7
Raw Score SD	11.5	10.5	11.3	11.2	11.7	11.9
Raw Score Max	52	52	52	52	52	52
Scaled Score Mean	950.3	919.0	922.0	931.8	940.5	943.1
Scaled Score SD	116.5	107.0	112.9	118.4	117.7	122.5
Scaled Score Max*	1470	1495	1479	1483	1466	1462
Percentage Bel. Basic	39.6	53.5	50.3	46.9	45.3	43.8
Percentage Basic	28.2	24.5	27.1	27.0	26.1	25.7
Percentage Proficient	22.3	15.8	15.7	17.7	18.8	20.5
Percentage Advanced	9.9	6.3	6.8	8.3	9.8	10.0
Percentage Prof. + Adv.	32.2	22.1	22.6	26.1	28.6	30.5

English Language Arts Grade 3

Statistic	2019	2021	2022	2023	2024	2025
N Count	120564	90980	114398	115762	112499	118530
Raw Score Mean	24.6	23.7	23.4	23.0	22.3	22.4
Raw Score SD	9.1	9.2	9.3	9.0	8.7	8.9
Raw Score Max	45	45	45	45	45	45
Scaled Score Mean	1039.0	1024.6	1014.9	1018.4	1012.0	1001.3
Scaled Score SD	108.9	104.2	108.9	102.0	101.1	104.8
Scaled Score Max*	1544	1536	1537	1539	1541	1536
Percentage Bel. Basic	11.4	14.0	17.9	14.4	16.1	20.1
Percentage Basic	26.6	27.7	29.7	31.6	28	31.1
Percentage Proficient	45.4	44.1	40.6	41.9	46.8	38.2
Percentage Advanced	16.5	14.2	11.8	12.1	9.1	10.6
Percentage Prof. + Adv.	61.9	58.3	52.3	54.0	55.9	48.8

English Language Arts Grade 4

Statistic	2019	2021	2022	2023	2024	2025
N Count	123172	91862	114533	115799	116411	113952
Raw Score Mean	35.4	33.0	34.1	32.8	31.6	31.5
Raw Score SD	12.3	11.7	12.7	12.7	12.2	11.9
Raw Score Max	63	63	63	63	63	63
Scaled Score Mean	1035.0	1015.1	1006.9	1008.3	1003.2	991.1
Scaled Score SD	112.8	105.7	121.1	114.5	108.2	100.0
Scaled Score Max*	1636	1621	1657	1611	1602	1581
Percentage Bel. Basic	10.3	11.9	18.6	17.2	16	17.2
Percentage Basic	26.1	31.5	29.2	30.9	32.5	34.3
Percentage Proficient	36.3	35.2	30.9	30.4	34.6	35.1
Percentage Advanced	27.3	21.4	21.3	21.4	16.9	13.4
Percentage Prof. + Adv.	63.6	56.6	52.2	51.9	51.5	48.5

English Language Arts Grade 5

Statistic	2019	2021	2022	2023	2024	2025
N Count	127550	91028	116274	116608	116698	117617
Raw Score Mean	33.2	33.2	33.7	33.4	32.8	31.6
Raw Score SD	11.4	10.7	12.1	12.0	12.0	12.0
Raw Score Max	63	63	63	63	63	63
Scaled Score Mean	1027.2	1013.2	1010.7	1010.1	1001.9	990.0
Scaled Score SD	107.2	96.4	114.4	112.2	110	104.4
Scaled Score Max*	1647	1660	1649	1616	1603	1580
Percentage Bel. Basic	9.6	10.6	17.7	15.4	16.6	19.2
Percentage Basic	31.8	34.4	28.7	31.0	31.1	36.0
Percentage Proficient	42.7	46.4	40.3	40.4	42	36.2
Percentage Advanced	15.8	8.6	13.3	13.2	10.3	8.6
Percentage Prof. + Adv.	58.5	55.0	53.6	53.7	52.3	44.8

English Language Arts Grade 6

Statistic	2019	2021	2022	2023	2024	2025
N Count	127560	90232	115785	117088	116426	117329
Raw Score Mean	33.9	33.5	34.7	33.2	32.5	32.7
Raw Score SD	11.6	11.8	11.4	11.6	11.3	11.7
Raw Score Max	63	63	63	63	63	63
Scaled Score Mean	1034.4	1020.2	1019.0	1019.6	1009.2	1005.9
Scaled Score SD	106.8	102.3	105.4	104.5	100	107.5
Scaled Score Max*	1692	1614	1643	1627	1583	1647
Percentage Bel. Basic	5.7	7.1	8.3	8.1	8.6	11.2
Percentage Basic	31.3	35.6	35.6	36.3	38.3	37.9
Percentage Proficient	42.2	39.8	36.7	36.8	39.2	35.3
Percentage Advanced	20.8	17.5	19.4	18.8	13.9	15.6
Percentage Prof. + Adv.	63.0	57.3	56.1	55.6	53.1	50.9

English Language Arts Grade 7

Statistic	2019	2021	2022	2023	2024	2025
N Count	125998	90515	118352	117316	117431	116989
Raw Score Mean	34.0	33.7	35.2	33.4	33.6	33.1
Raw Score SD	10.6	10.8	12.2	12.6	12.5	11.9
Raw Score Max	63	63	63	63	63	63
Scaled Score Mean	1026.3	1009.4	1019.8	1019.2	1012.0	1001.5
Scaled Score SD	96.9	93.7	115.8	114.8	110.2	107.0
Scaled Score Max*	1639	1616	1648	1587	1589	1584
Percentage Bel. Basic	2.6	3.9	5.1	4.5	4.7	5.8
Percentage Basic	36.9	42.8	37.7	41.0	41.8	44.8
Percentage Proficient	45.6	43.5	39.5	36.8	38.0	36.6
Percentage Advanced	14.9	9.8	17.8	17.7	15.5	12.8
Percentage Prof. + Adv.	60.4	53.3	57.2	54.5	53.6	49.3

English Language Arts Grade 8

Statistic	2019	2021	2022	2023	2024	2025
N Count	123503	85686	119366	118937	116655	117561
Raw Score Mean	36.7	33.9	35.3	34.6	34.4	33.3
Raw Score SD	12.3	11.6	12.6	12.4	11.7	13.0
Raw Score Max	63	63	63	63	62	63
Scaled Score Mean	1024.2	1007.7	1013.5	1009.9	1004.7	1005.3
Scaled Score SD	115.8	105.0	115.0	113.8	109.4	117.2
Scaled Score Max*	1699	1654	1621	1595	1474	1589
Percentage Bel. Basic	11.9	11.4	14.4	14.4	14.7	15.9
Percentage Basic	30.2	36.0	29.9	32.8	32.9	34.7
Percentage Proficient	41.9	41.7	39.7	38.4	40.6	34.9
Percentage Advanced	16.0	10.9	16.0	14.4	11.8	14.6
Percentage Prof. + Adv.	57.9	52.6	55.6	52.7	52.4	49.4

Science Grade 5

Note. Science was a stand-alone field test in 2025. No student scores were reported.

Science Grade 8

Note. Science was a stand-alone field test in 2025. No student scores were reported.

APPENDIX R: PSSA SCORE REPORT DEVELOPMENT

PENNSYLVANIA SYSTEM OF SCHOOL ASSESSMENT (PSSA)

BACKGROUND

An important aspect of the PSSA transition to the Pennsylvania Core Standard (PCS) is the need to produce revised score reports to support the newly-aligned assessments, specifically the introduction of an English Language Arts assessment with dual reporting of the reading scores and a desire to provide greater detail for the new score reporting categories. PDE also determined that the transition represented an opportunity to reevaluate the score reports as a whole. To that end, PDE and DRC developed a plan to utilize parent and educator focus groups to guide the development of revised PSSA individual student score reports.

This document provides a high-level summary of the focus-group approach that was followed, the feedback that DRC and PDE received, and the direction in which the reports were developed as an output of the process.

THE FOCUS GROUP APPROACH

DRC facilitated seven focus groups at four different locations across the Commonwealth, chosen to provide an opportunity for "geographically-representative" participation.

- A total of 56 educators and 22 parents participated in the seven focus groups.

Prior to the focus groups, DRC collaborated with PDE to select the number and design of the score-report mock-ups that were presented at the focus group meetings.

- Two mock-up designs were selected to give participants an opportunity to visualize key differences ("Sample Student #1" and "Sample Student #2"):
    - Use of the Strength Profile versus a Just-Proficient Mean
    - Reading "Text Types" reported between Reading and Writing versus after Writing
    - ELA dual reporting footnote versions

Focus groups were scheduled for 90 minutes (with the exception of a 120-minute session with the Harrisburg educator group).

- PDE opened each focus group with an overview of the purpose.
- DRC facilitated each session using a survey-question approach (see attached).
    - Participants used the survey to record their individual feedback on particular elements of the report and were also encouraged to share their feedback during the subsequent group discussions.
    - The survey approach ultimately allowed participants to compare and contrast all elements of the two mock-up designs.
    - All written survey feedback was collected and all verbal feedback was recorded by DRC staff.

Some of the main themes of the feedback included (see table on page 4 for additional detail):

- Favorable opinion of the first page with some requests to make information easier to read (larger font, more white space)
    - There were recurring comments against the use of "superior," "satisfactory," "marginal," and "inadequate" in the Performance Level descriptors.

- Consistent input that the information became "overwhelming" with the reporting category definitions appearing within the Score reporting tables
    - There were multiple requests to rewrite the descriptions or move them away from the student's score.
- Majority of the participants preferred the Strength Profile to the Just Proficient Mean
    - Those who preferred the Just Proficient Mean were often still misinterpreting its meaning.
- Majority of the participants preferred to have the Reading Text Types reported after Writing
    - This location was perceived to provide better delineation that the text type score is additional information rather than a direct element of the total ELA score.

After the focus groups were completed, DRC compiled the feedback for PDE to review and make recommendations. A summary of the feedback is found in the table below.

Focus Group	Strength Profile	Just Proficient Mean	Other, Both, or NR	Text Types Table Placed Directly After the Reading Table	Text Types Table Placed After the Entire ELA Reporting Table	Neither, Other, or NR	ELA Dual Reporting Footnote – Version 1	ELA Dual Reporting Footnote – Version 2	Neither, Other, or NR
IU #4 – Educators (13)	11	2	0	1	8	4	2	9	2
IU #4 – Parents (4)	1	3	0	0	4	0	0	4	0
IU #10 – Educators (12)	9	2	1	1	8	3	1	8	3
IU #10 – Parents (10)	8	2	0	2	8	0	2	7	1
Philadelphia – Educators (8)	4	4	0	3	5	0	3	5	0
Philadelphia – Parents (8)	3	2	3	0	5	3	0	4	4
Harrisburg – Educators (23)	17	4	2	0	22	1	0	21	2
Total	53	19	6	7	60	11	8	58	12

A single, revised mock-up was produced to reflect the following PDE recommendations ("Sample Student 3"):

- Minor changes to Page 1 (re-arrangement, spacing, font size)
- Just Proficient Mean eliminated
- Reading Text Types reported after Writing
- All subjects reported on pages 2 and 3 with Reporting Category definitions moved to page 4

The educator focus group participants were invited to a WebEx to view the revised mock-up, provide input, and respond to a survey question about removing the Strength Profile altogether.

- DRC highlighted the changes on the revised mock up and reviewed an alternate design with the Strength Profile removed.
    - All final changes were viewed favorably by the WebEx attendees (especially the new placement of the Reporting Category definitions on page 4).
    - All-but one attendee voted to retain the Strength Profile.

The final mock-up reviewed at the WebEx was used as a basis for the development and production of the 2015 student reports. The following materials are found on the next several pages of this appendix.

- The Focus Group Survey (Parent version – Educator differed only in the “Participant Information”)
- Student 1 Score Report (reviewed at the focus groups)
- Student 2 Score Report (reviewed at the focus groups)
- Student 3 Score Report (reviewed with the educators at the follow-up WebEx)

SURVEY QUESTIONS FROM PARENT FOCUS GROUP

PARTICIPANT INFORMATION

Name of student's school _____

Is this school ____ rural _____ urban ____ suburban?

Grade(s) of your student(s) _____

STUDENT REPORT VERSION 1–PAGE 1

After reviewing page 1 of the PSSA Student Report version 1, please respond to questions 1–2. A group discussion will follow.

1. How easy/difficult is it to determine how the sample student performed on the PSSA for Mathematics, English Language Arts (ELA), and Science?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.
   _____
   _____
   _____

2. How would you rate the **readability** of page 1 of the PSSA report (e.g., font size, placement of student information, performance level definitions)?

   _____ not readable
   _____ somewhat readable
   _____ mostly readable
   _____ very readable

   Please briefly explain why you rated this item as you did.
   _____
   _____
   _____

REPORTING TABLES VERSION 1–PAGES 2, 3, AND 4

After reviewing pages 2–4 of the PSSA Student Report version 1, please respond to questions 3–7. A group discussion will follow.

3. Overall, how easy/difficult is it to understand the information in the tables (e.g., descriptions of reporting categories, the student's points, total points possible, strength profile)?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.
   _____

   _____

   _____

4. How well did you understand the Strength Profile (high, medium, or low) ratings and the footnote information for the Strength Profile?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.
   _____

   _____

   _____

5. In the ELA table on page 3, points are reported for both the Reading Reporting Categories and the Reading Text Types Reporting Categories. How clear is this section of dual reporting?

   _____ not clear
   _____ somewhat clear
   _____ mostly clear
   _____ very clear

   Please briefly explain why you rated this item as you did.
   _____

   _____

OVERALL REPORT FEEDBACK VERSION 1

6. How easy/difficult was it to read and move through the report, find the next section, and find supporting material to understand the student-score information?

   _____ very difficult
   _____ somewhat difficult
   _____ somewhat easy
   _____ very easy

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

7. How well did you understand the contents of the report (e.g., performance levels, footnotes, graphics)?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

STUDENT REPORT VERSION 2–PAGES 2, 3, AND 4

After reviewing the PSSA Student Report version 2, please respond to questions 1–5. A group discussion will follow.

1. How well did you understand the Just Proficient Mean results on pages 2–4 and the footnote information for the Just Proficient Mean?

   _____ not understandable
   _____ somewhat understandable
   _____ mostly understandable
   _____ very understandable

   Please briefly explain why you rated this item as you did.

   _____

   _____

   _____

2. The reporting tables on pages 2–4 include a Just Proficient Mean for each reporting category. Now look at pages 2–4 of version 1. The reporting tables include a Strength Profile (high, medium, or low) for each reporting category. Which version of the information do you prefer and why?

   _____ version 1
   _____ version 2

   Please explain.

   _____

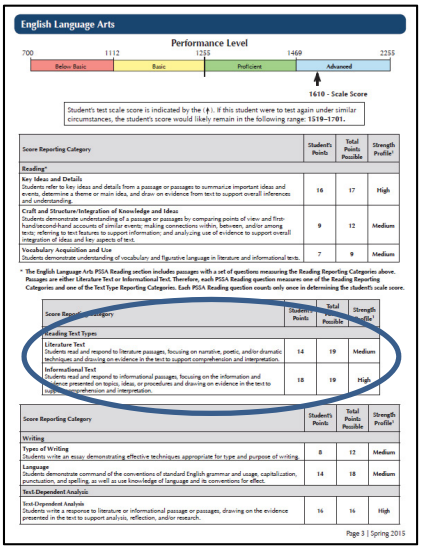
   _____

   _____

ELA REPORT TABLE–PAGE 3 OF VERSION 1 OR VERSION 2?

3. Look at version 1. The Text Types Reporting Category information follows the Reading Reporting Category information. Now look at version 2. The Text Types Reporting Category information is placed at the end of the ELA table. Which version of the order of information do you prefer and why?

_____ version 1 _____ version 2


English Language Arts

Performance Level

700 1112 1258 1469 2255

Below Basic | Basic | Proficient | Advanced

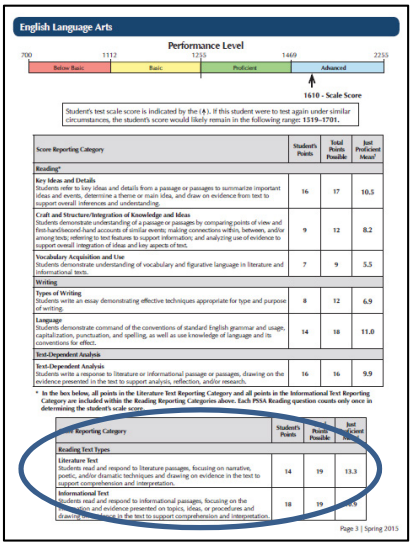
1610 - Scale Score

Student's test scale score is indicated by the (↓). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: 1519–1701.

Score Reporting Category	Student's Points	Total Points Possible	Strength Profile*
Reading*			
Key Ideas and Details Students refer to key ideas and details from a passage or passages to summarize important ideas and events, determine a theme or main idea, and draw on evidence from text to support overall inferences and understanding.	16	17	High
Craft and Structure/Integration of Knowledge and Ideas Students demonstrate understanding of a passage or passages by comparing points of view and first-hand/second-hand accounts of similar events; making connections within, between, and/or among texts; referring to text features to support information; and analyzing use of evidence to support overall integration of ideas and key aspects of text.	9	12	Medium
Vocabulary Acquisition and Use Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.	7	9	Medium
Reading Text Types			
Literature Text Students read and respond to literature passages, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the text to support comprehension and interpretation.	14	19	Medium
Informational Text Students read and respond to informational passages, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the text to support comprehension and interpretation.	18	19	High
Writing			
Types of Writing Students write an essay demonstrating effective techniques appropriate for type and purpose of writing.	8	12	Medium
Language Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, as well as use knowledge of language and its conventions for effect.	14	18	Medium
Text-Dependent Analysis			
Text-Dependent Analysis Students write a response to literature or informational passage or passages, drawing on the evidence presented in the text to support analysis, reflection, and/or research.	14	16	High

* The English Language Arts PSSA Reading section includes passages with a set of questions measuring the Reading Reporting Categories above. Passages are either Literature Text or Informational Text. Therefore, each PSSA Reading question measures one of the Reading Reporting Categories and one of the Text Type Reporting Categories. Each PSSA Reading question counts only once in determining the student's scale score.

Page 3 | Spring 2015


English Language Arts

Performance Level

700 1112 1258 1469 2255

Below Basic | Basic | Proficient | Advanced

1610 - Scale Score

Student's test scale score is indicated by the (↓). If this student were to test again under similar circumstances, the student's score would likely remain in the following range: 1519–1701.

Score Reporting Category	Student's Points	Total Points Possible	Just Proficient Mean*
Reading*			
Key Ideas and Details Students refer to key ideas and details from a passage or passages to summarize important ideas and events, determine a theme or main idea, and draw on evidence from text to support overall inferences and understanding.	16	17	10.5
Craft and Structure/Integration of Knowledge and Ideas Students demonstrate understanding of a passage or passages by comparing points of view and first-hand/second-hand accounts of similar events; making connections within, between, and/or among texts; referring to text features to support information; and analyzing use of evidence to support overall integration of ideas and key aspects of text.	9	12	8.2
Vocabulary Acquisition and Use Students demonstrate understanding of vocabulary and figurative language in literature and informational texts.	7	9	5.5
Writing			
Types of Writing Students write an essay demonstrating effective techniques appropriate for type and purpose of writing.	8	12	6.9
Language Students demonstrate command of the conventions of standard English grammar and usage, capitalization, punctuation, and spelling, as well as use knowledge of language and its conventions for effect.	14	18	11.0
Text-Dependent Analysis			
Text-Dependent Analysis Students write a response to literature or informational passage or passages, drawing on the evidence presented in the text to support analysis, reflection, and/or research.	16	16	9.9
Reading Text Types			
Literature Text Students read and respond to literature passages, focusing on narrative, poetic, and/or dramatic techniques and drawing on evidence in the text to support comprehension and interpretation.	14	19	13.3
Informational Text Students read and respond to informational passages, focusing on the information and evidence presented on topics, ideas, or procedures and drawing on evidence in the text to support comprehension and interpretation.	18	19	12.9

* In the box below, all points in the Literature Text Reporting Category and all points in the Informational Text Reporting Category are included within the Reading Reporting Categories above. Each PSSA Reading question counts only once in determining the student's scale score.

Page 3 | Spring 2015

Please explain.

_____

_____

_____

_____

_____

_____

_____

_____

_____

4. Which version of the ELA dual reporting footnote do you prefer and why?

_____ version 1

The English Language Arts PSSA Reading section includes passages with a set of questions measuring the Reading Reporting Categories above. Passages are either Literature Text or Informational Text. Therefore, each PSSA Reading question measures one of the Reading Reporting Categories and one of the Text Type Reporting Categories. Each PSSA Reading question counts only once in determining the student's scale score.

_____ version 2

In the box below, all points in the Literature Text Reporting Category and all points in the Informational Text Reporting Category are included within the Reading Reporting Categories above. Each PSSA Reading question counts only once in determining the student's scale score.

Please explain.

_____

_____

_____

REPORT OPTIONS–VERSION 1 OR VERSION 2?

5. Now that you have reviewed the two reports, please select the preferred option from each group below.

_____ Strength Profile information
_____ Just Proficient Mean information

_____ Reading Text Type table placement directly after the Reading score reporting table
_____ Reading Text Type table placement directly after the entire ELA score reporting table

_____ ELA dual reporting footnote – version 1
_____ ELA dual reporting footnote – version 2

Additional Comments and Recommendations

_____

_____

_____

_____

_____

APPENDIX S: INVESTIGATION OF PERSON FIT BY MODE AND SUBGROUP

The PSSA is administered as both a paper-pencil test (PPT) and a computer-based test (CBT). In the Standards for Educational and Psychological Testing, comparability of scores across testing conditions is emphasized to support fairness in testing, stating that, "Comparability of scores enables test users to make comparable inferences based on the scores for all test takers" (AERA et al., 2014, p. 59). Whether students are administered PSSA as a PPT or CBT, test users must be able to make the same interpretations about student knowledge and skills based on students' scores. Therefore, it is important to examine the degree to which mode may influence results for any testing program.

Although there are several ways to examine the relationship between mode and student scores, sample size undoubtedly impacts the robustness of the results. In 2021, there was a substantial increase in the proportion of CBT administrations than in previous years which remained somewhat stable until 2024; then in 2025, the proportion of CBTs increased substantially again in advance of the transition to full online testing in 2026. In 2019, between 3% and 7% of all administrations were CBTs; In 2024, between 23% and 38% of all administrations were CBTs; in 2025, between 51% and 62% of all administrations were CBTs.

In 2025, all PSSA ELA and mathematics forms were offered as both paper-pencil based tests and CBTs. Whereas for PSSA science, only 1 form for each grade was offered as a paper-based test due to stand-alone field test in 2025. Most accommodated forms are administered as CBTs, thus providing additional limitations in the results of a formal mode study. For these reasons, traditional approaches to mode studies may not be feasible or appropriate. The count and proportion of PPT and CBT are shown in Table S–1. Chapter Ten provides additional information of PSSA administrations by mode, accommodations, and student characteristics. In 2025, PSSA Science was a stand-alone field test; therefore, no mode analyses were conducted for science. Refer to Appendix U for additional information and mode considerations for PSSA Science.

Table S–1. Final N-Counts and Proportion by Mode, 2025

Subject	Grade	Count Paper	Proportion Paper (%)	Count CBT	Proportion CBT (%)
Mathematics	3	55926	47.25	62430	52.75
Mathematics	4	54969	48.31	58824	51.69
Mathematics	5	51508	43.93	65739	56.07
Mathematics	6	47619	40.79	69115	59.21
Mathematics	7	47750	41.06	68538	58.94
Mathematics	8	47202	40.44	69508	59.56
ELA	3	57068	48.15	61462	51.85
ELA	4	55811	48.98	58141	51.02
ELA	5	52208	44.39	65409	55.61
ELA	6	47184	40.22	70145	59.78
ELA	7	45046	38.50	71943	61.50
ELA	8	44542	37.89	73019	62.11

Until online participation reaches sufficiently large sample sizes, any true population differences between scores on the paper- and computer-based modes may be difficult to distinguish from differences that are attributable to sampling and random error. However, in the interim, an analysis of person fit statistics was conducted to gain insight into whether evidence of mode or student subgroup effects exist.

METHOD

Engelhard (2009) provided a framework and methods for defining measurement quality in terms of measurement invariance across conditions and subpopulations as measured by model fit (by item—differential item function and by person—differential person functioning). The method employed used residual analysis to explore differences between observed and expected responses by individuals and groups, under different conditions, and given a specified item response theory (IRT) model. Although they are not exact tests of fit, these methods allow for insight into the invariance properties of an assessment through these types of fit analyses. In this study, the preliminary focus is to examine person fit on the test level.

The IRT model used for the PSSA is based on the work of Georg Rasch. The Rasch partial credit model (RPCM; Wright & Masters, 1982) was used to calibrate PSSA data because both dichotomous multiple-choice (MC) and polytomously scored items (e.g., open-ended and evidence-based selected-response) were part of the assessment. The RPCM extends the Rasch model (Rasch, 1960) for dichotomous (0, 1) items so that it accommodates the polytomous OE item data. Under the RPCM, for a given item i with score categories, the probability of person n scoring x (x = 0, 1, 2..., m_i) is given by:

$$P_{ni}(X = x) = \frac{\exp \sum_{j=0}^{x} (\theta_n - D_{ij})}{\sum_{k=0}^{m_i} \exp \sum_{j=0}^{k} (\theta_n - D_{ij})},$$

where θ_n represents a student's proficiency (ability) level, and D_{ij} is the step difficulty of step j on item i. For dichotomous MC items, the RPCM reduces to the standard Rasch model and the single step difficulty is referred to as the item's difficulty. The Rasch model predicts the probability of person n getting item i correct as follows:

$$P_{ni}(X = 1) = \frac{\exp(\theta_n - D_{ij})}{1 + \exp(\theta_n - D_{ij})}.$$

The Rasch model places both student ability and item difficulty (estimated in terms of log-odds or logits) on the same continuum. When the model assumptions are met, the Rasch model provides estimates of a person's ability which are independent of the items employed in the assessment, and conversely, estimates item difficulty independently of the sample of examinees. Item calibration was implemented via WINSTEPS (Linacre, 2019), which employs unconditional (UCON), joint-maximum-likelihood estimation (JMLE).

To produce person fit values, residuals of IRT model (essentially the differences between observed and expected responses) are summarized to create the mean square error statistics (MSE) of Infit and Outfit for items and persons. In this study, we use the unstandardized measures of Infit and Outfit, which are essentially MSE residuals and have expected values of 1.0 and a standard deviation of about 0.2 (Bond, & Fox, 2007). Such values represent adequate fit, whereas values greater than 2.0 represent more variability than expected, and less than 1.0 can mean students did not independently respond to items. In this study, person infit and outfit statistics were produced in WINSTEPS.

To assess the relationship between testing mode (i.e., computer-based or paper-pencil based) and PSSA performance, we examined differences in person infit and outfit with respect to student characteristics (e.g., whether students have an individualized educational plan (IEP)) and test characteristics (e.g., whether forms were administered as CBT or PPT). The dependent variables were person infit and person outfit, and the independent (predictor) variables included mode, whether students had an IEP, whether students were ELs, and the interaction of mode and EL, and mode and IEP.

RESULTS

Means and standard deviations were computed for infit and outfit for each student subgroup and mode. Tables S–2M and S–2E display a summary of person fit means, standard deviations by mode and group (EL and IEP) for mathematics and ELA, respectively. No results are presented for science due to the stand-alone field test in 2025. As the table shows, there are minimal differences in the means and standard deviations for each group by mode, and person fit statistics are within acceptable ranges.

Table S–2M. Person Infit and Outfit Descriptive Statistics by Mathematics Grade, Mode, and Group

Grade	Group	Mode	N	Infit Mean	Infit SD	Outfit Mean	Outfit SD
3	EL (non-EL)	CBT	4726 (57704)	0.98 (0.95)	0.17 (0.17)	1.02 (0.96)	0.23 (0.22)
3	EL (non-EL)	PPT	4593 (51333)	0.99 (0.96)	0.17 (0.18)	1.04 (0.98)	0.22 (0.23)
3	IEP (non-IEP)	CBT	12982 (49448)	0.99 (0.94)	0.17 (0.17)	1.05 (0.94)	0.23 (0.22)
3	IEP (non-IEP)	PPT	11448 (44478)	1.00 (0.96)	0.17 (0.19)	1.06 (0.96)	0.24 (0.22)
4	EL (non-EL)	CBT	4265 (54559)	1.00 (0.97)	0.18 (0.20)	1.02 (0.96)	0.23 (0.24)
4	EL (non-EL)	PPT	4450 (50519)	1.00 (0.98)	0.19 (0.21)	1.03 (0.97)	0.24 (0.24)
4	IEP (non-IEP)	CBT	12915 (45909)	1.01 (0.96)	0.17 (0.21)	1.07 (0.94)	0.24 (0.23)
4	IEP (non-IEP)	PPT	11451 (43518)	1.01 (0.97)	0.18 (0.22)	1.08 (0.95)	0.25 (0.23)
5	EL (non-EL)	CBT	4282 (61457)	0.98 (0.98)	0.17 (0.20)	1.02 (0.97)	0.22 (0.22)
5	EL (non-EL)	PPT	3955 (47553)	0.98 (0.98)	0.17 (0.20)	1.02 (0.98)	0.21 (0.22)
5	IEP (non-IEP)	CBT	14407 (51332)	1.01 (0.97)	0.17 (0.20)	1.09 (0.94)	0.24 (0.20)
5	IEP (non-IEP)	PPT	10648 (40860)	1.01 (0.97)	0.17 (0.20)	1.09 (0.96)	0.24 (0.21)
6	EL (non-EL)	CBT	4576 (64539)	0.97 (0.96)	0.17 (0.20)	1.00 (0.96)	0.22 (0.25)
6	EL (non-EL)	PPT	3706 (43913)	0.99 (0.97)	0.18 (0.19)	1.02 (0.98)	0.23 (0.25)
6	IEP (non-IEP)	CBT	14528 (54587)	1.00 (0.95)	0.16 (0.20)	1.06 (0.94)	0.23 (0.25)
6	IEP (non-IEP)	PPT	9231 (38388)	1.01 (0.96)	0.17 (0.20)	1.09 (0.96)	0.25 (0.25)
7	EL (non-EL)	CBT	4270 (64268)	0.98 (0.96)	0.14 (0.17)	1.02 (0.99)	0.18 (0.21)
7	EL (non-EL)	PPT	3736 (44014)	0.98 (0.96)	0.14 (0.17)	1.03 (0.99)	0.19 (0.21)
7	IEP (non-IEP)	CBT	13613 (54925)	1.00 (0.95)	0.12 (0.18)	1.06 (0.97)	0.18 (0.21)
7	IEP (non-IEP)	PPT	9057 (38693)	1.00 (0.95)	0.12 (0.18)	1.07 (0.97)	0.19 (0.21)
8	EL (non-EL)	CBT	3977 (65531)	0.98 (0.96)	0.15 (0.17)	1.02 (0.99)	0.17 (0.18)
8	EL (non-EL)	PPT	3640 (43562)	0.98 (0.97)	0.15 (0.17)	1.01 (0.99)	0.16 (0.18)
8	IEP (non-IEP)	CBT	13535 (55973)	1.00 (0.96)	0.13 (0.18)	1.06 (0.97)	0.17 (0.18)
8	IEP (non-IEP)	PPT	8678 (38524)	1.00 (0.96)	0.13 (0.18)	1.06 (0.97)	0.17 (0.18)

Table S–2E. Person Infit and Outfit Descriptive Statistics by ELA Grade, Mode, and Group

Grade	Group	Mode	N	Infit Mean	Infit SD	Outfit Mean	Outfit SD
3	EL (non-EL)	CBT	4687 (56775)	1.06 (1.00)	0.21 (0.20)	1.17 (1.04)	0.29 (0.26)
3	EL (non-EL)	PPT	5047 (52021)	1.08 (1.01)	0.22 (0.21)	1.17 (1.04)	0.29 (0.26)
3	IEP (non-IEP)	CBT	12720 (48742)	1.07 (0.99)	0.2 (0.20)	1.19 (1.01)	0.31 (0.24)
3	IEP (non-IEP)	PPT	11541 (45527)	1.07 (1.00)	0.21 (0.20)	1.18 (1.02)	0.32 (0.24)
4	EL (non-EL)	CBT	4310 (53831)	0.97 (0.95)	0.26 (0.27)	1.06 (0.99)	0.27 (0.24)
4	EL (non-EL)	PPT	4878 (50933)	1.01 (0.96)	0.27 (0.27)	1.09 (1.00)	0.29 (0.24)
4	IEP (non-IEP)	CBT	12667 (45474)	0.98 (0.94)	0.26 (0.27)	1.08 (0.97)	0.27 (0.23)
4	IEP (non-IEP)	PPT	11537 (44274)	0.99 (0.96)	0.26 (0.27)	1.09 (0.98)	0.28 (0.23)
5	EL (non-EL)	CBT	4404 (61005)	1.05 (1.00)	0.31 (0.31)	1.17 (1.06)	0.34 (0.30)
5	EL (non-EL)	PPT	4437 (47771)	1.07 (0.98)	0.31 (0.28)	1.18 (1.04)	0.35 (0.29)
5	IEP (non-IEP)	CBT	14251 (51158)	1.04 (0.99)	0.30 (0.31)	1.19 (1.03)	0.35 (0.29)
5	IEP (non-IEP)	PPT	10705 (41503)	1.05 (0.97)	0.30 (0.27)	1.18 (1.01)	0.35 (0.27)
6	EL (non-EL)	CBT	4796 (65349)	1.03 (1.03)	0.34 (0.37)	1.13 (1.06)	0.38 (0.35)
6	EL (non-EL)	PPT	4171 (43013)	1.06 (1.01)	0.33 (0.33)	1.18 (1.05)	0.41 (0.34)
6	IEP (non-IEP)	CBT	14616 (55529)	1.01 (1.03)	0.30 (0.38)	1.15 (1.04)	0.36 (0.35)
6	IEP (non-IEP)	PPT	9081 (38103)	1.03 (1.01)	0.30 (0.33)	1.18 (1.03)	0.38 (0.33)
7	EL (non-EL)	CBT	4754 (67189)	1.04 (0.99)	0.32 (0.31)	1.14 (1.04)	0.36 (0.30)
7	EL (non-EL)	PPT	3955 (41091)	1.08 (1.00)	0.33 (0.30)	1.18 (1.06)	0.39 (0.31)
7	IEP (non-IEP)	CBT	14127 (57816)	1.02 (0.99)	0.30 (0.32)	1.15 (1.02)	0.34 (0.29)
7	IEP (non-IEP)	PPT	8520 (36526)	1.05 (1.00)	0.31 (0.31)	1.19 (1.04)	0.37 (0.30)
8	EL (non-EL)	CBT	4460 (68559)	1.09 (1.09)	0.34 (0.39)	1.19 (1.12)	0.37 (0.41)
8	EL (non-EL)	PPT	3868 (40674)	1.10 (1.07)	0.33 (0.37)	1.19 (1.11)	0.37 (0.39)
8	IEP (non-IEP)	CBT	13998 (59021)	1.07 (1.10)	0.33 (0.40)	1.18 (1.12)	0.35 (0.42)
8	IEP (non-IEP)	PPT	8221 (36321)	1.08 (1.07)	0.32 (0.38)	1.19 (1.10)	0.37 (0.39)

To further analyze differences in person fit, we conducted multivariate analyses in SAS to examine the main effect of mode, IEP and EL status, and interaction effects of mode and IEP, and mode and EL status. Table S–3 summarizes the overall results from the generalized linear model using mean-square infit and mean-square outfit as the dependent variables. Statistics reported include the F Value, the associated significance value (Sig.), and the amount of variance explained by the model (R^2) or effect size. Although all significance values are less than .05, indicating statistical significance of the models, the R-square values indicate that the model explains very little variation in person fit (min = .001, max = .086). Meaning, mode, EL and IEP explain very little of person infit and outfit and therefore person fit cannot be reliably predicted by mode. R-squared values provide an indication of effect size of significant findings, effect sizes less than .1 are very small.

Table S–3. Multivariate Regression Model Results by Subject and Grade Level

Subject	Grade	Person Fit	F Value	Sig.	R-Square
Mathematics	3	Infit	346.90	<.0001	0.014
Mathematics	3	Outfit	1085.23	<.0001	0.044
Mathematics	4	Infit	215.00	<.0001	0.009
Mathematics	4	Outfit	1313.34	<.0001	0.055
Mathematics	5	Infit	217.51	<.0001	0.009
Mathematics	5	Outfit	1847.45	<.0001	0.073
Mathematics	6	Infit	284.75	<.0001	0.012
Mathematics	6	Outfit	1069.67	<.0001	0.044
Mathematics	7	Infit	305.43	<.0001	0.013
Mathematics	7	Outfit	880.28	<.0001	0.036
Mathematics	8	Infit	197.21	<.0001	0.008
Mathematics	8	Outfit	922.22	<.0001	0.038
ELA	3	Infit	703.89	<.0001	0.029
ELA	3	Outfit	2241.82	<.0001	0.086
ELA	4	Infit	143.44	<.0001	0.006
ELA	4	Outfit	997.85	<.0001	0.042
ELA	5	Infit	374.87	<.0001	0.016
ELA	5	Outfit	1548.50	<.0001	0.062
ELA	6	Infit	38.68	<.0001	0.002
ELA	6	Outfit	644.99	<.0001	0.027
ELA	7	Infit	145.30	<.0001	0.006
ELA	7	Outfit	964.85	<.0001	0.040
ELA	8	Infit	25.67	<.0001	0.001
ELA	8	Outfit	176.20	<.0001	0.007

CONCLUSION AND FUTURE DIRECTIONS

The analyses conducted here provide some evidence that there is little influence of mode on person infit and outfit statistics, suggesting that the data fit the model regardless of mode, EL, and IEP status. Although the results show statistical significance, there is very little practical significance in the results of the study.

APPENDIX T: PRE-EQUATING VERIFICATION RESULTS

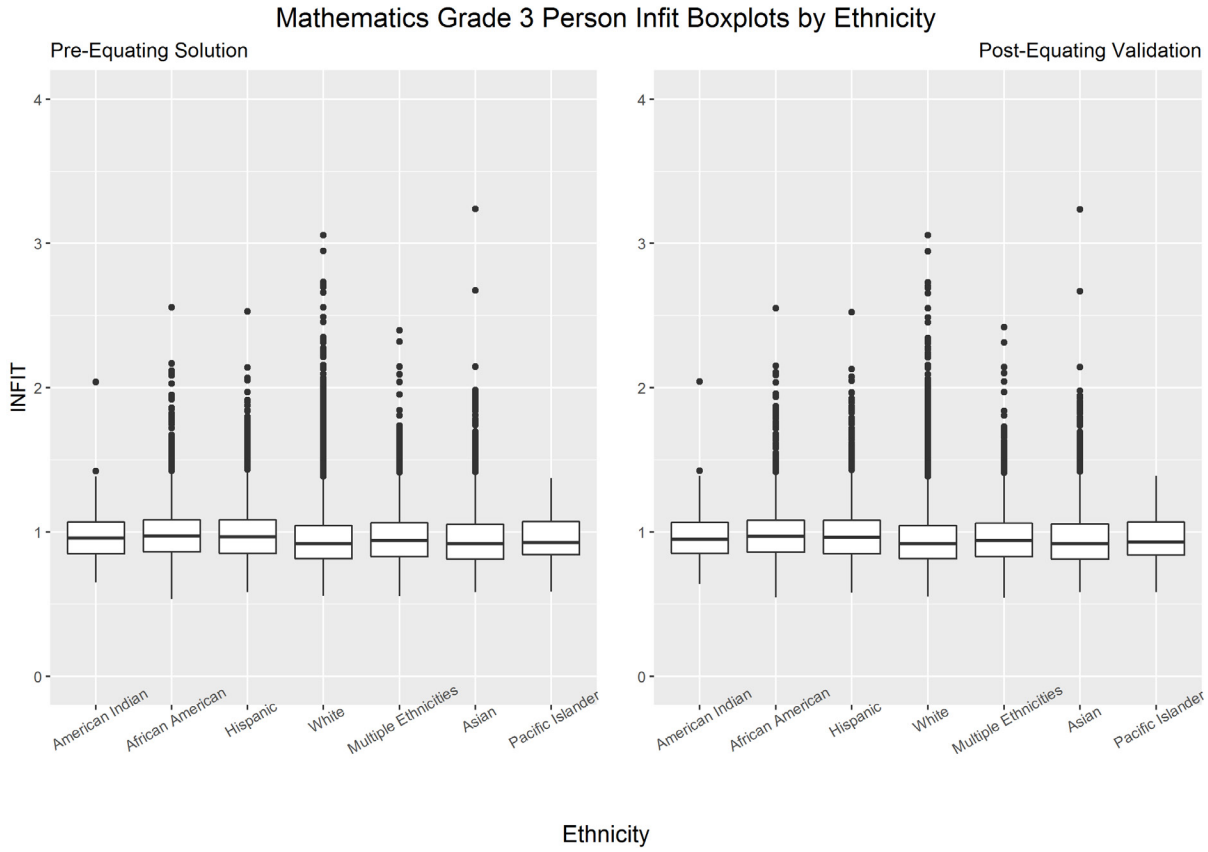
PRE-EQUATING VERIFICATION RESULTS

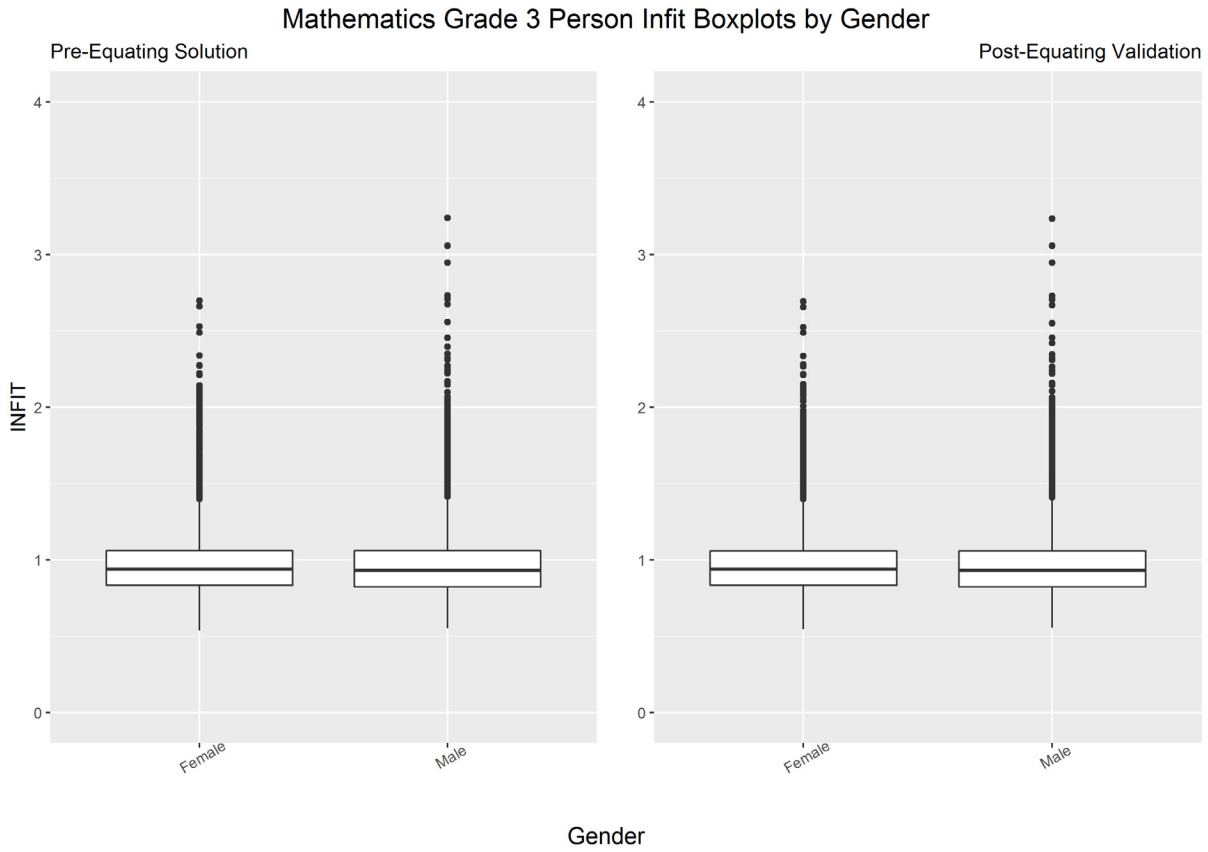
Appendix T contains information and results based on the data used for the pre-equating verification. Results are presented for the fully-anchored pre-equating solution (hereinafter "pre-equating") and the partially anchored pre-equating solution when misfitting items were freely calibrated (hereinafter "post-equating"). The results presented in this appendix provide support for utilizing the pre-equated solution for all student reporting. A complete description of the pre-equating verification process is discussed in Chapter Fifteen. In 2025, PSSA Science was a stand-alone field test; therefore, no operational analyses, including pre-equating verification were conducted. Refer to Appendix U for additional information and mode considerations for PSSA Science.

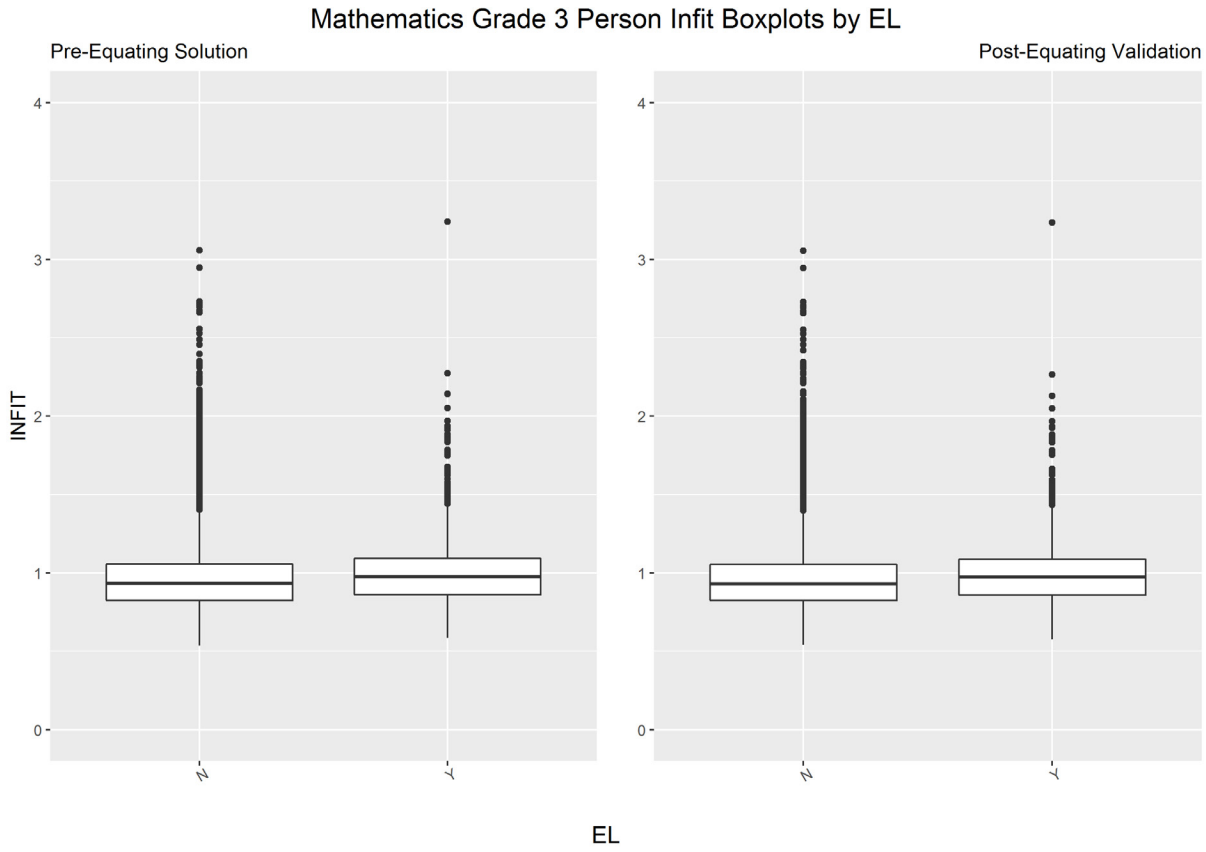
Figure T–1 shows person infit boxplots for pre-equated (left) and post-equated (right) solutions by subject and grade.

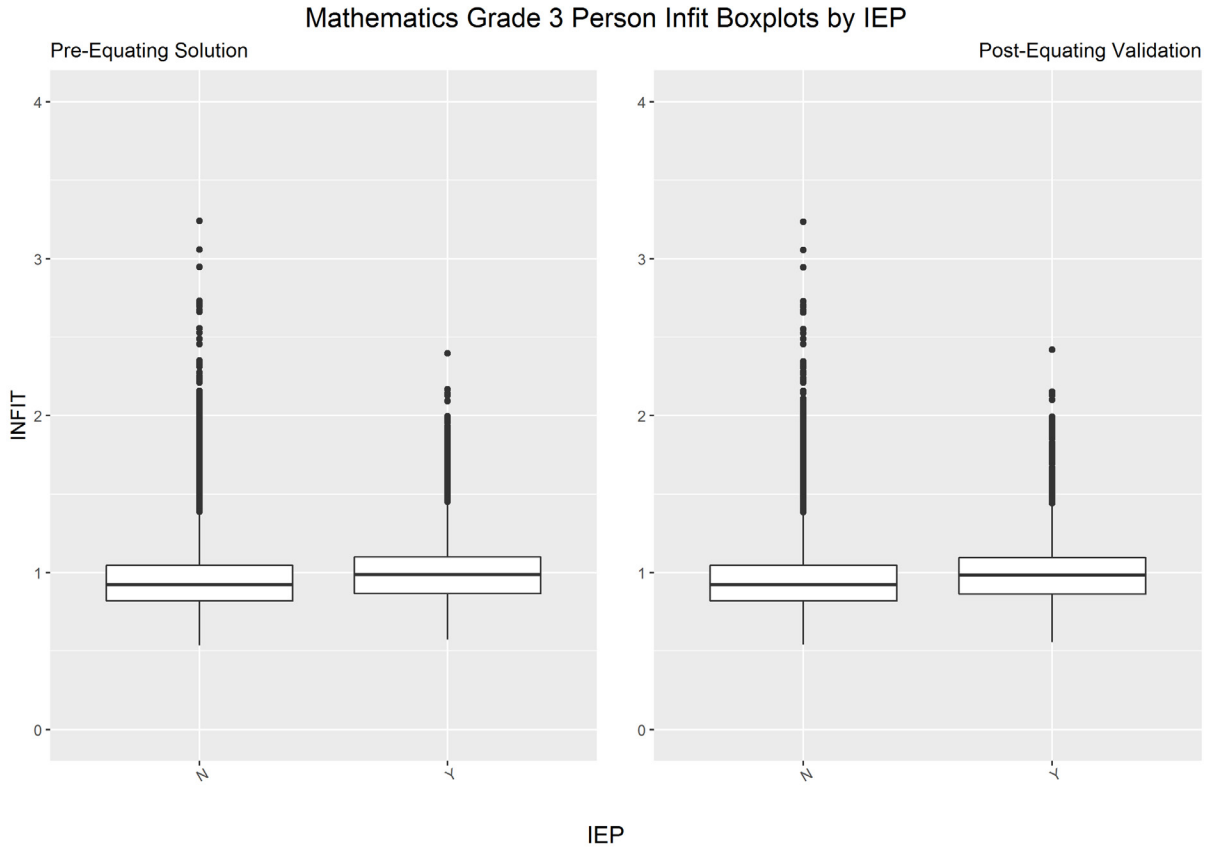
Figure T–1. Person Infit Boxplots by Subject and Grade for Pre- and Post-Equated Solutions

Mathematics Grade 3

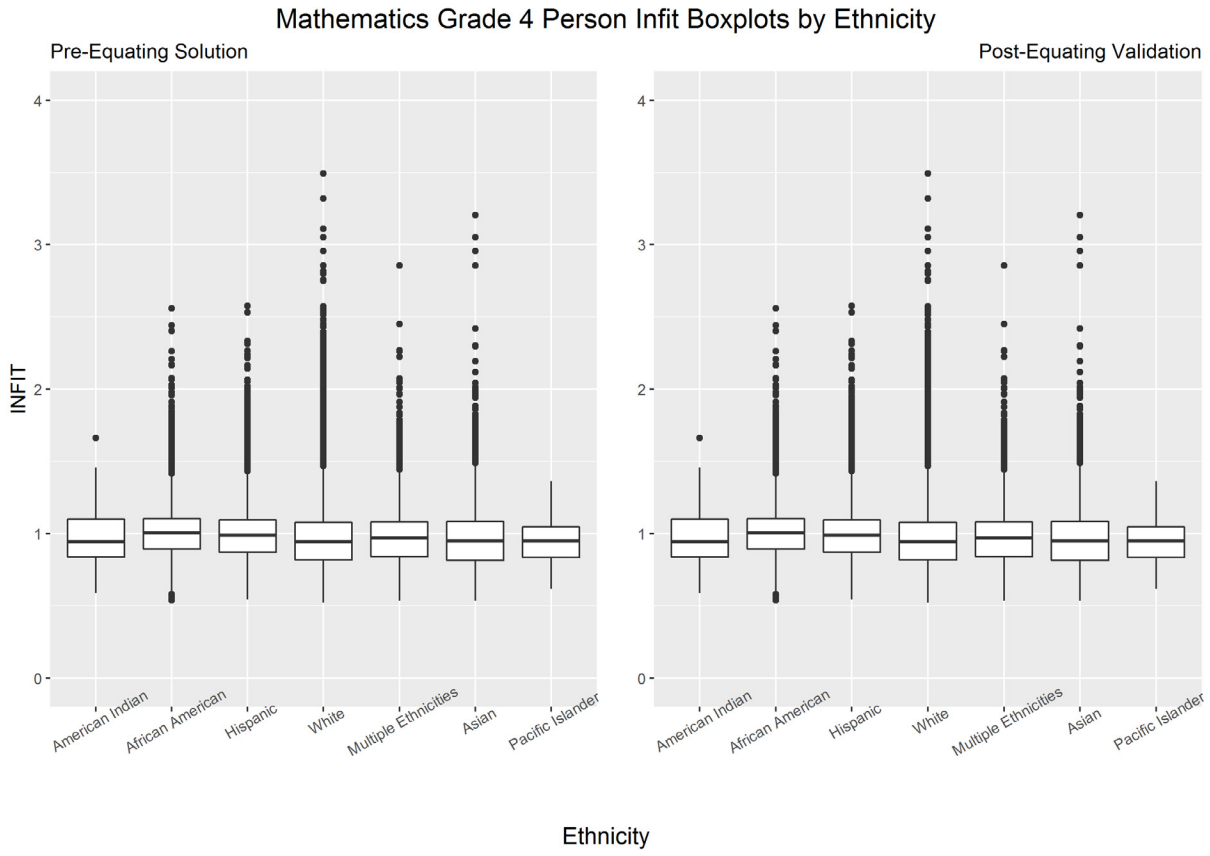




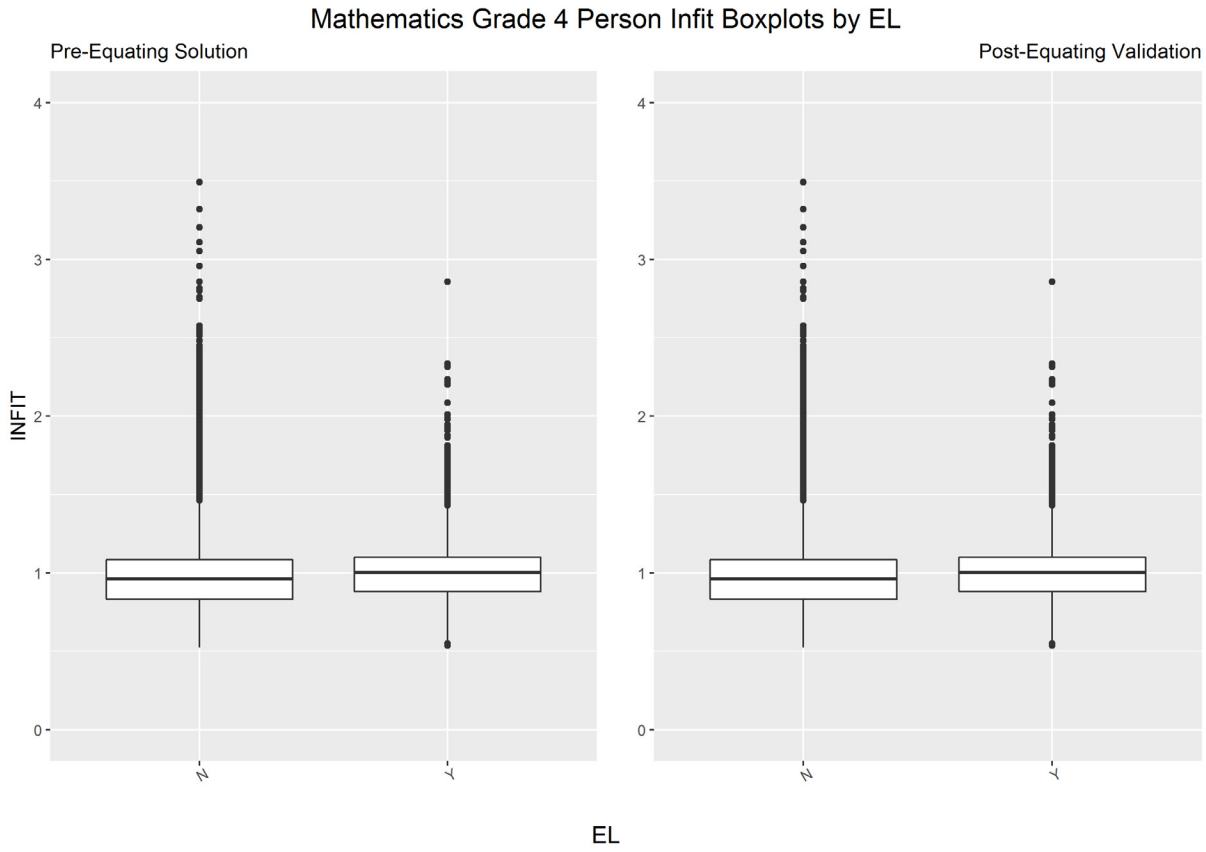

Mathematics Grade 3 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

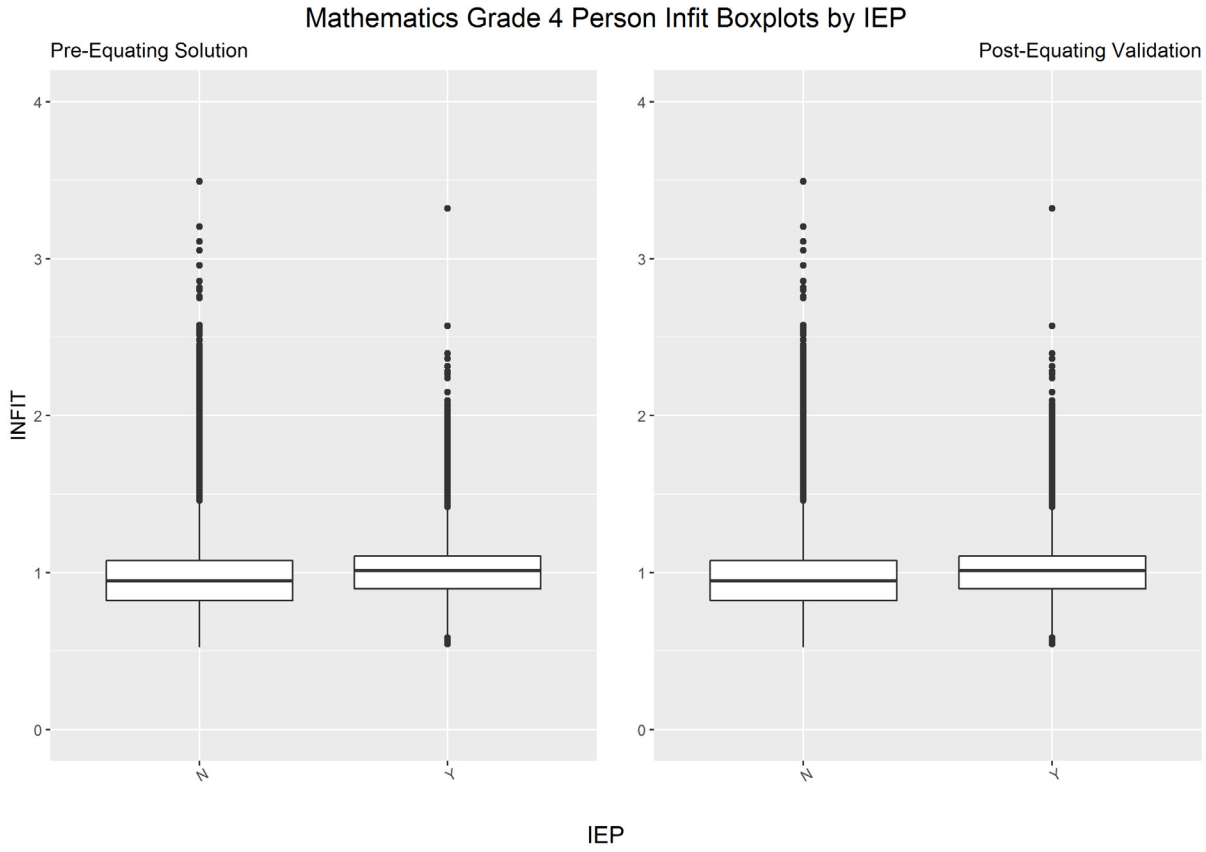

Mathematics Grade 3 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

Mathematics Grade 4

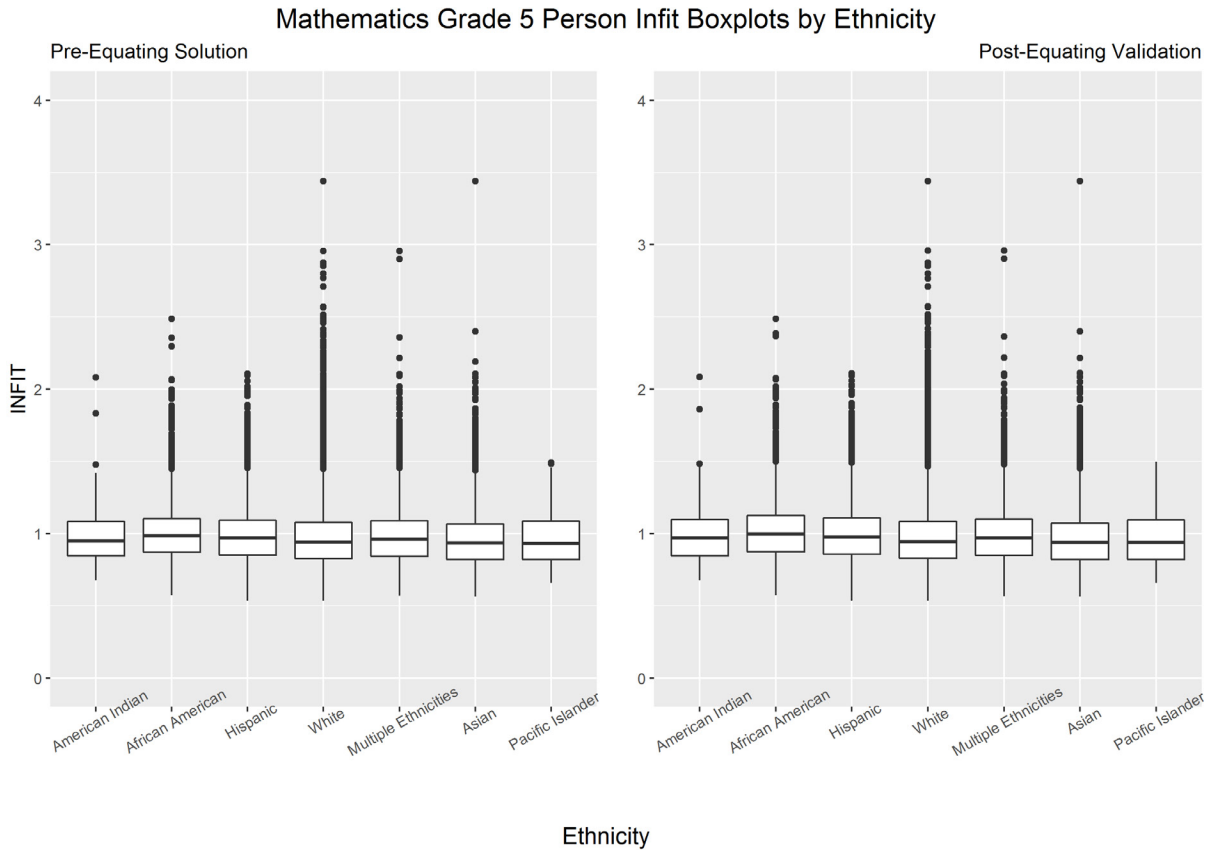




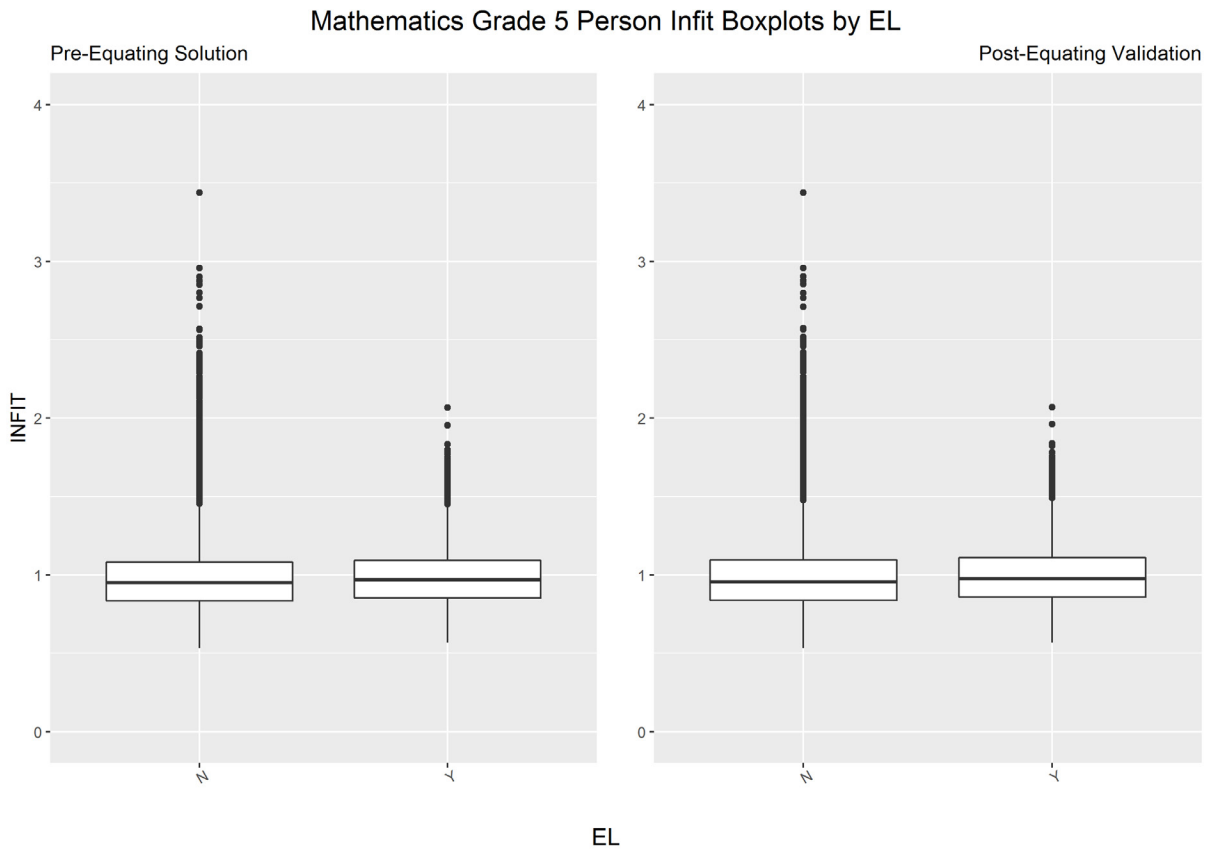

Mathematics Grade 4 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

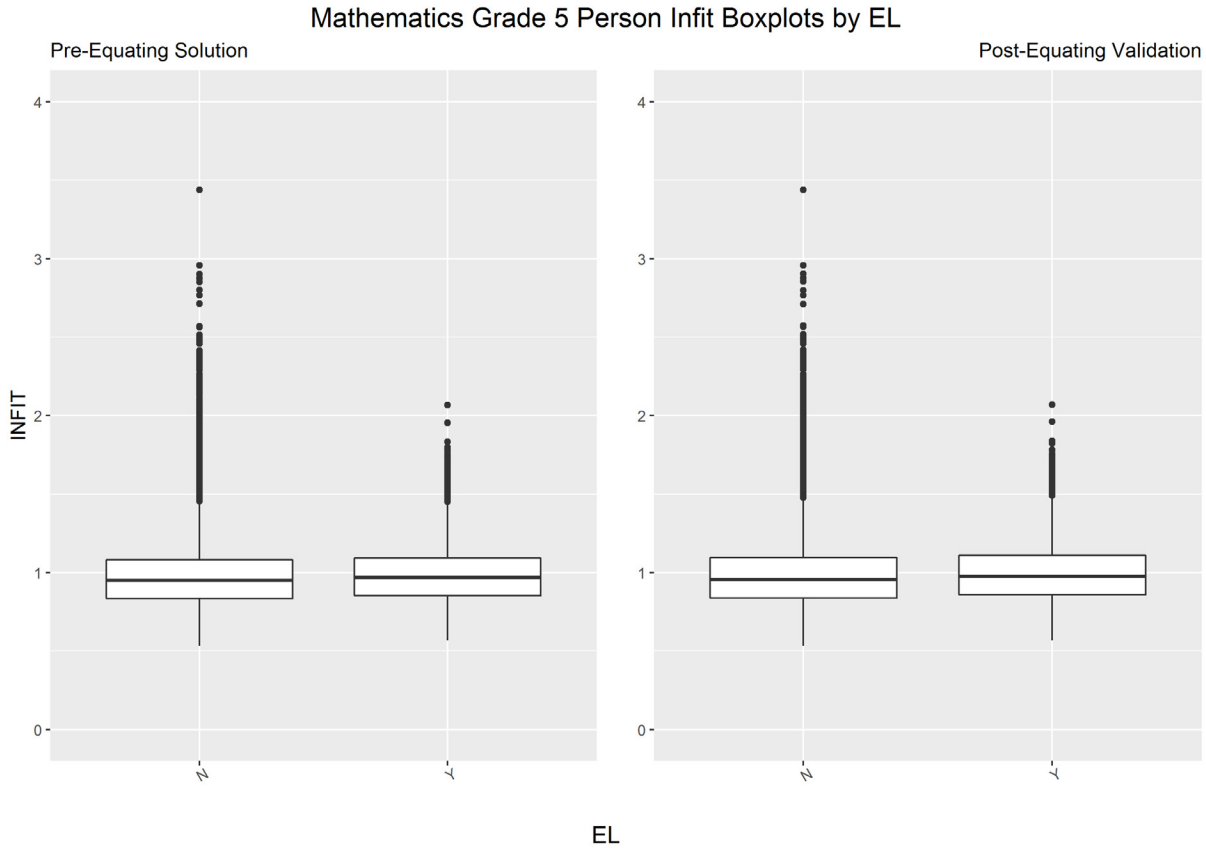

Mathematics Grade 4 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

Mathematics Grade 5

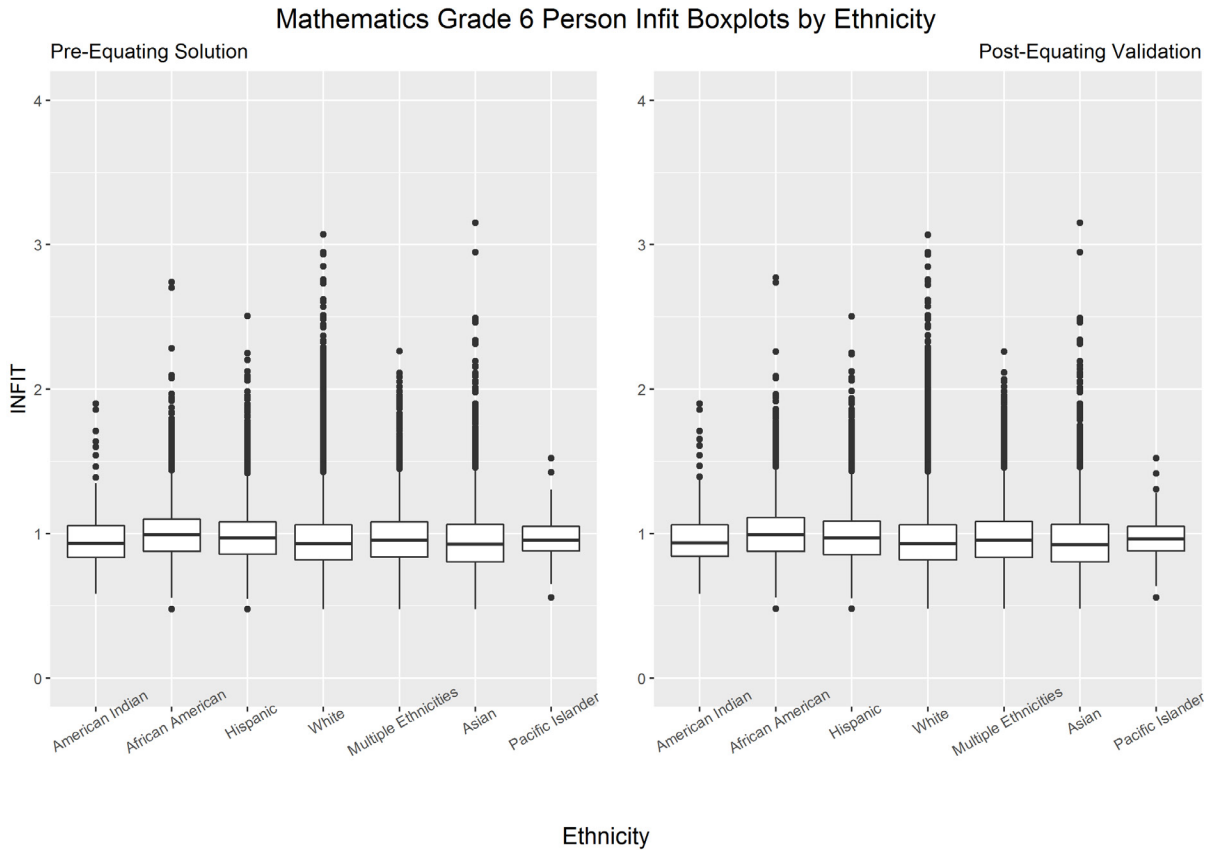


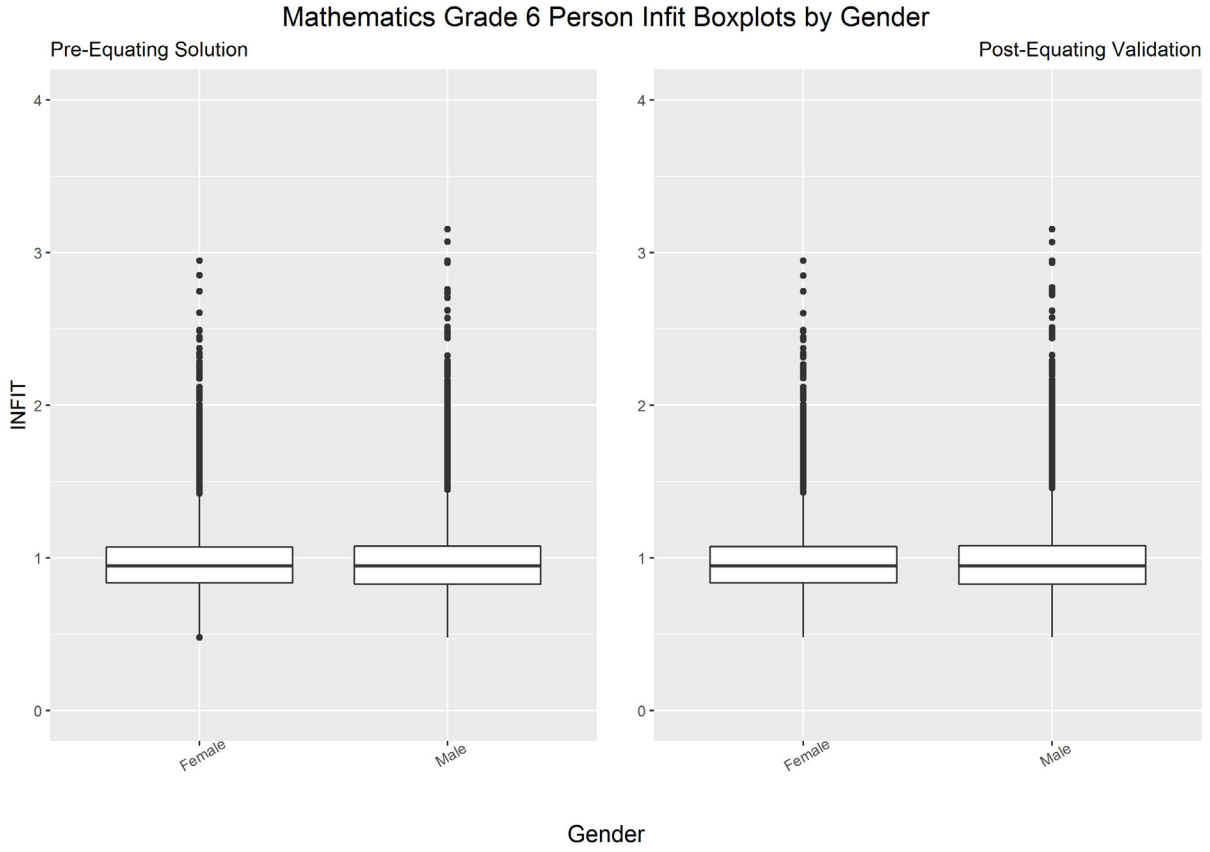


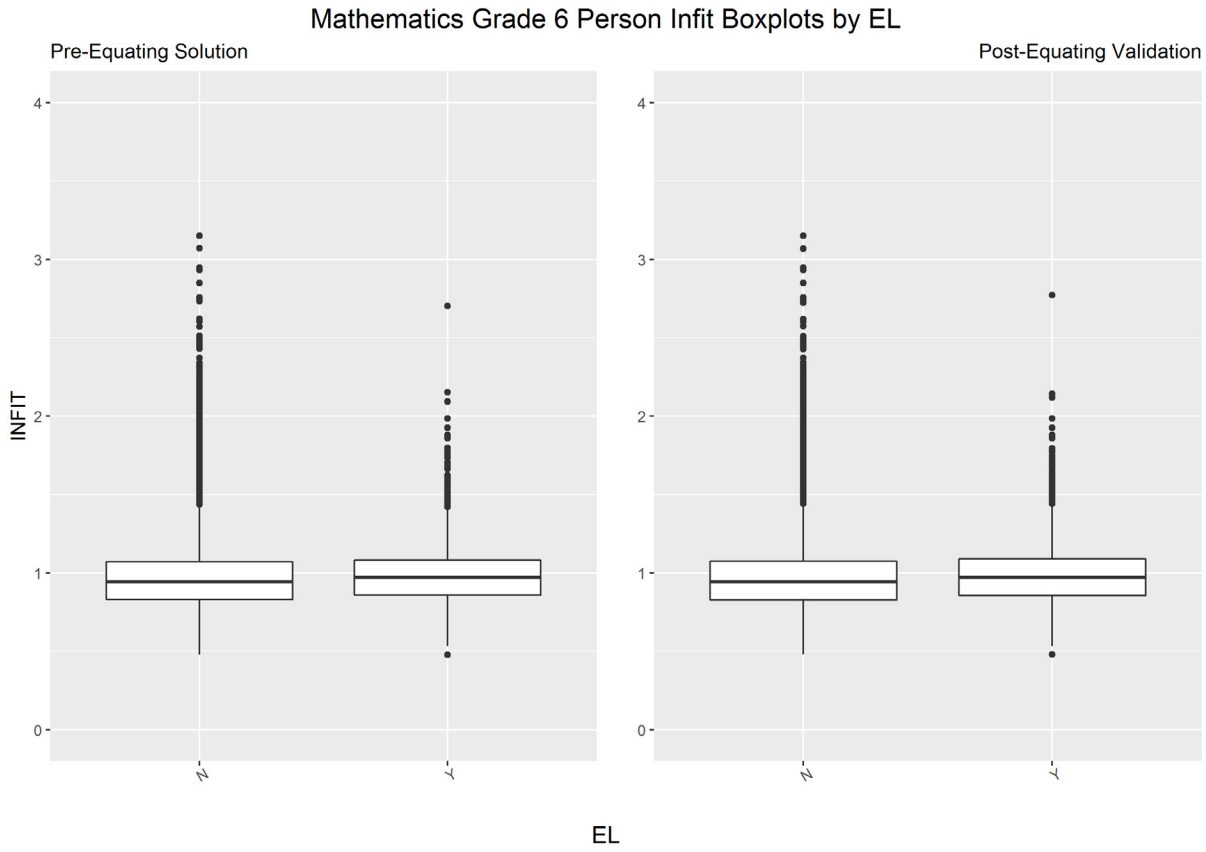

Mathematics Grade 5 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
EL
N
Y

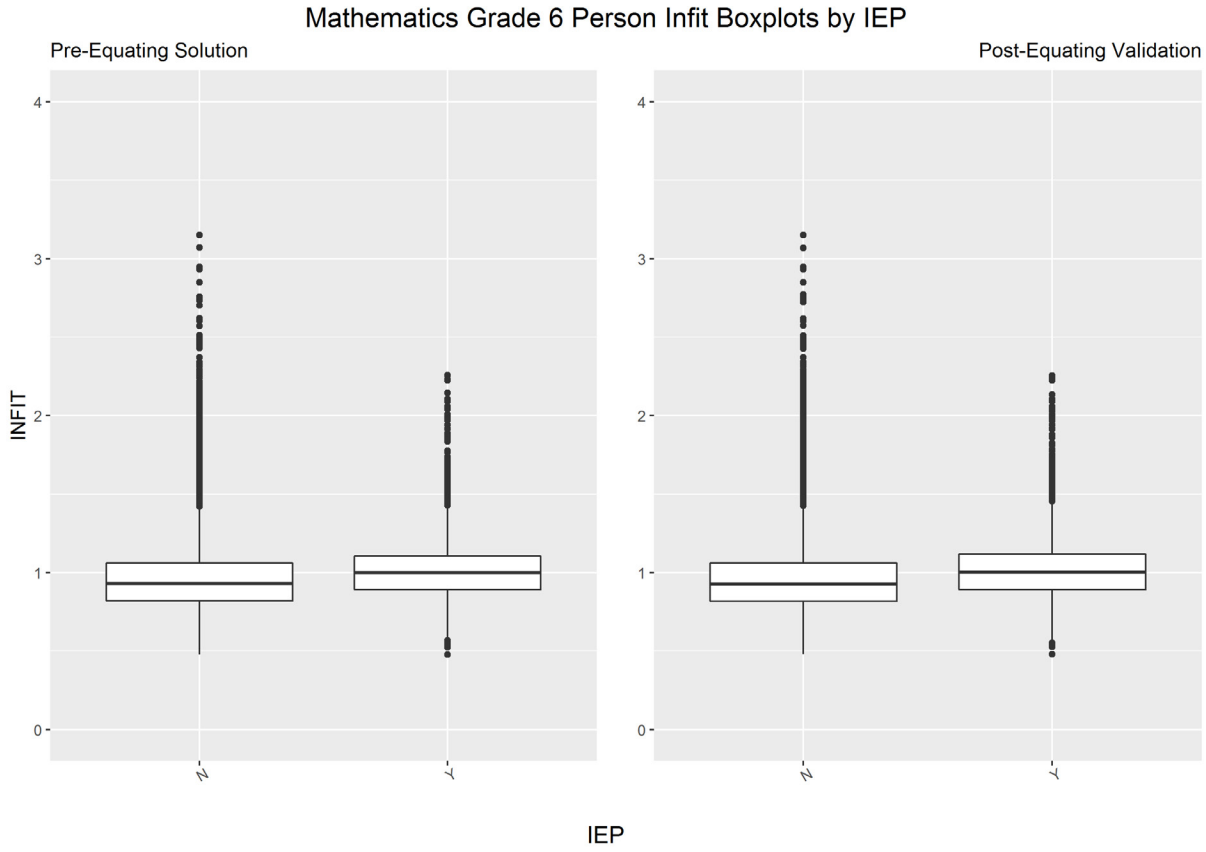

Mathematics Grade 5 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
EL
N
Y

Mathematics Grade 6

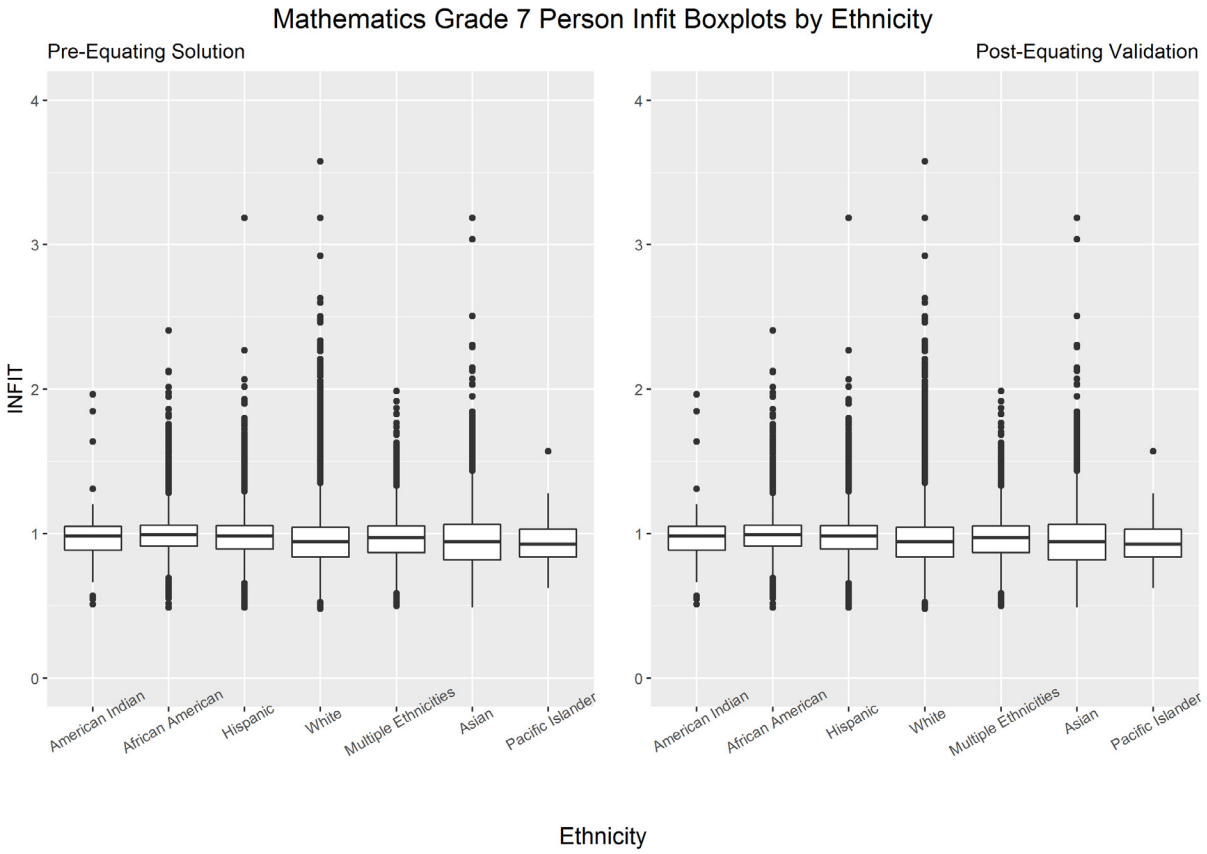




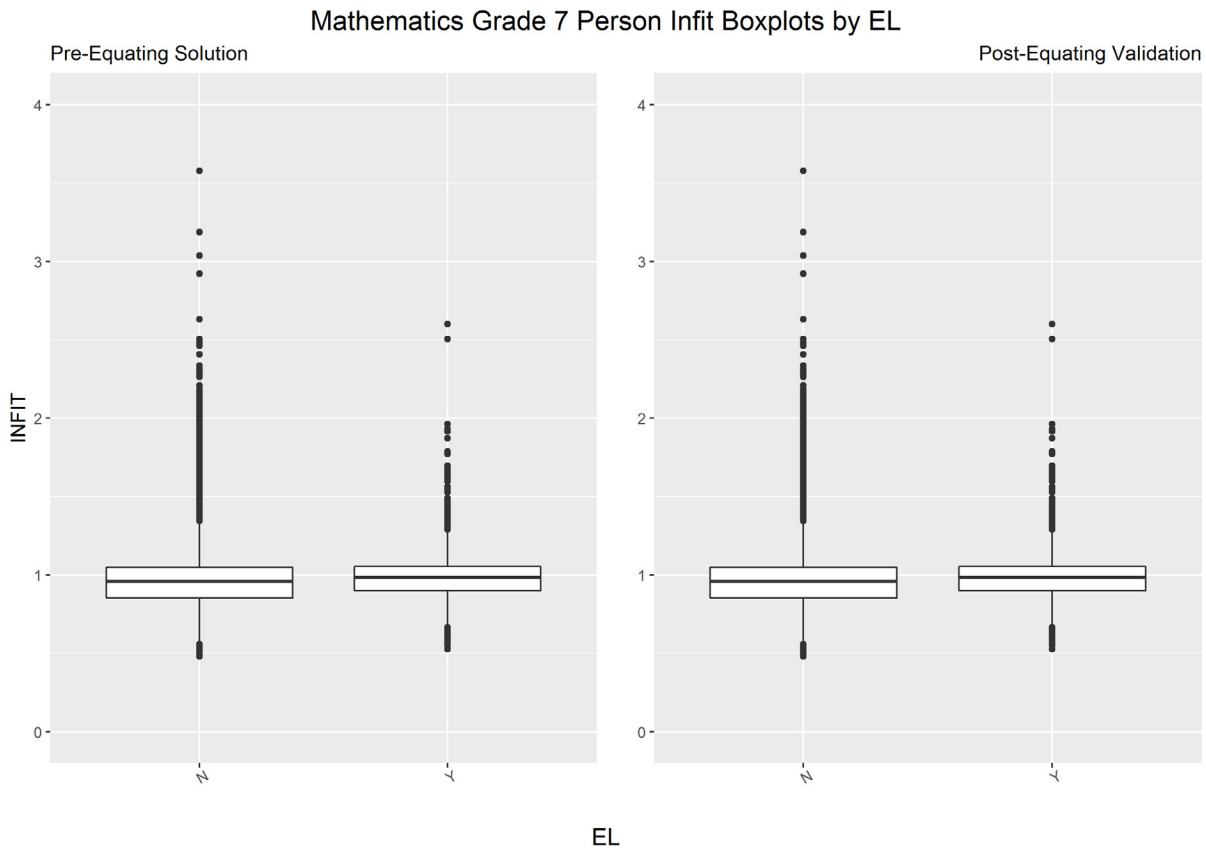

Mathematics Grade 6 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

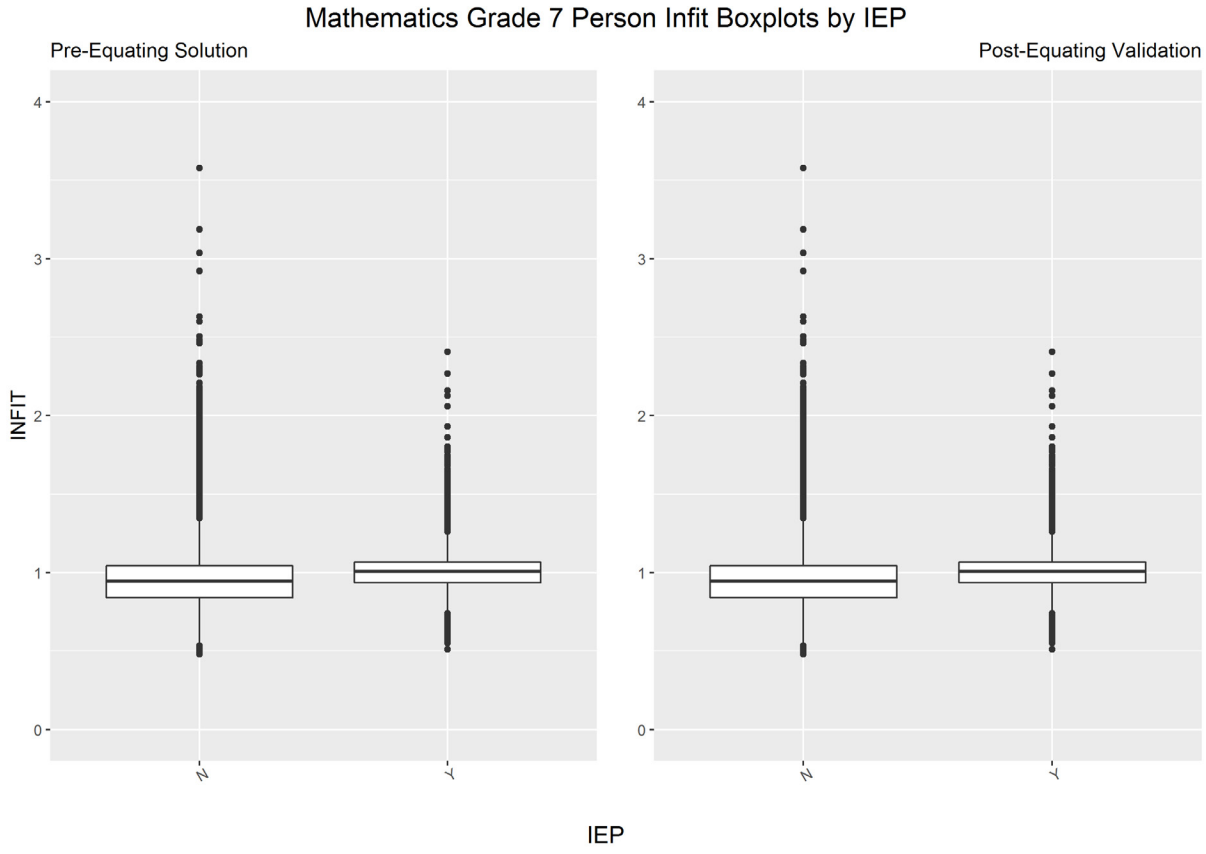

Mathematics Grade 6 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

Mathematics Grade 7

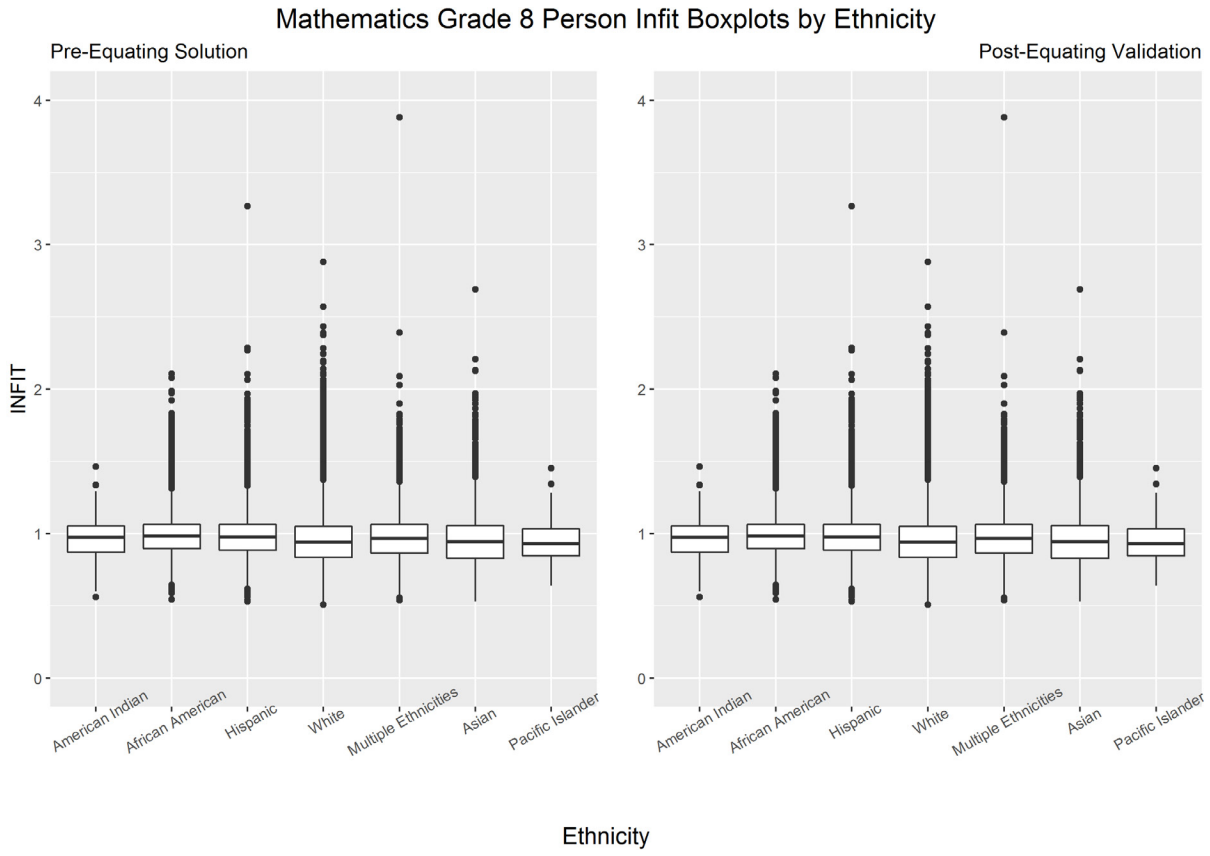


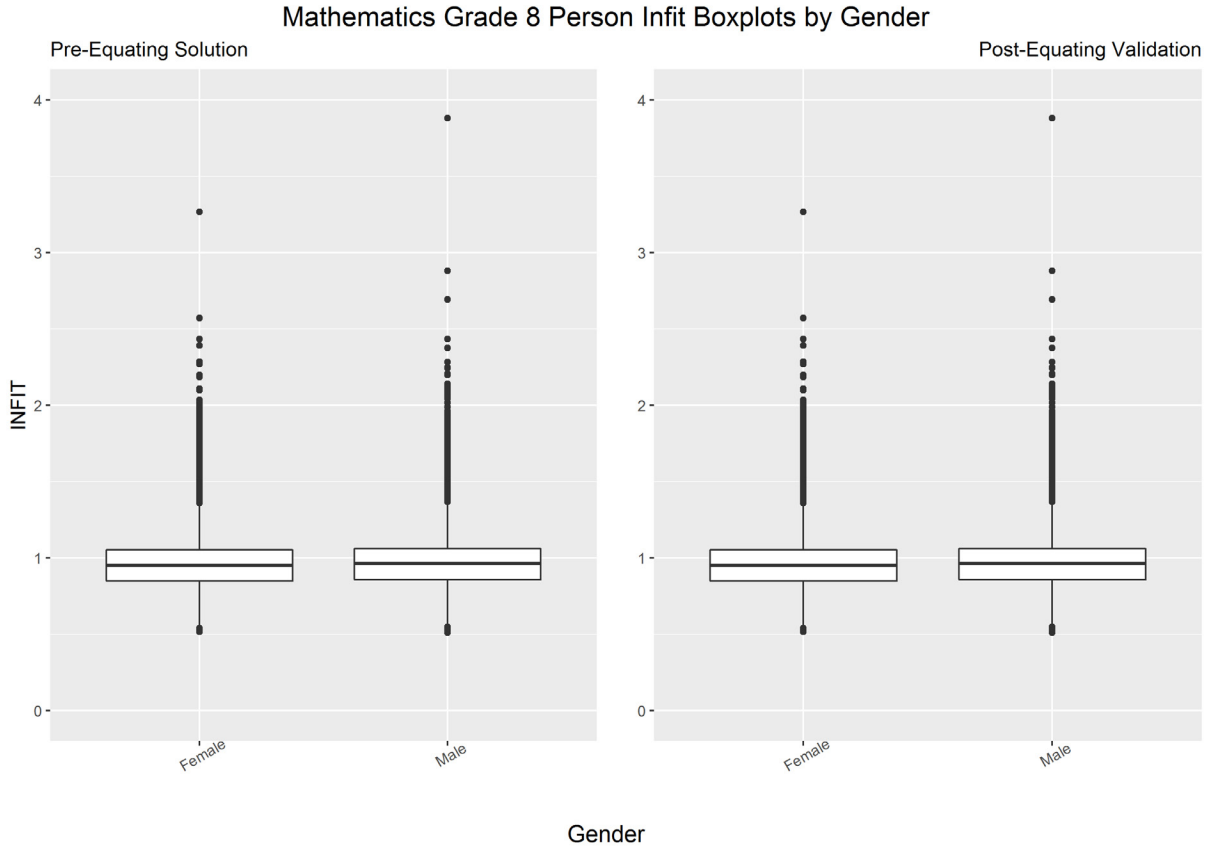


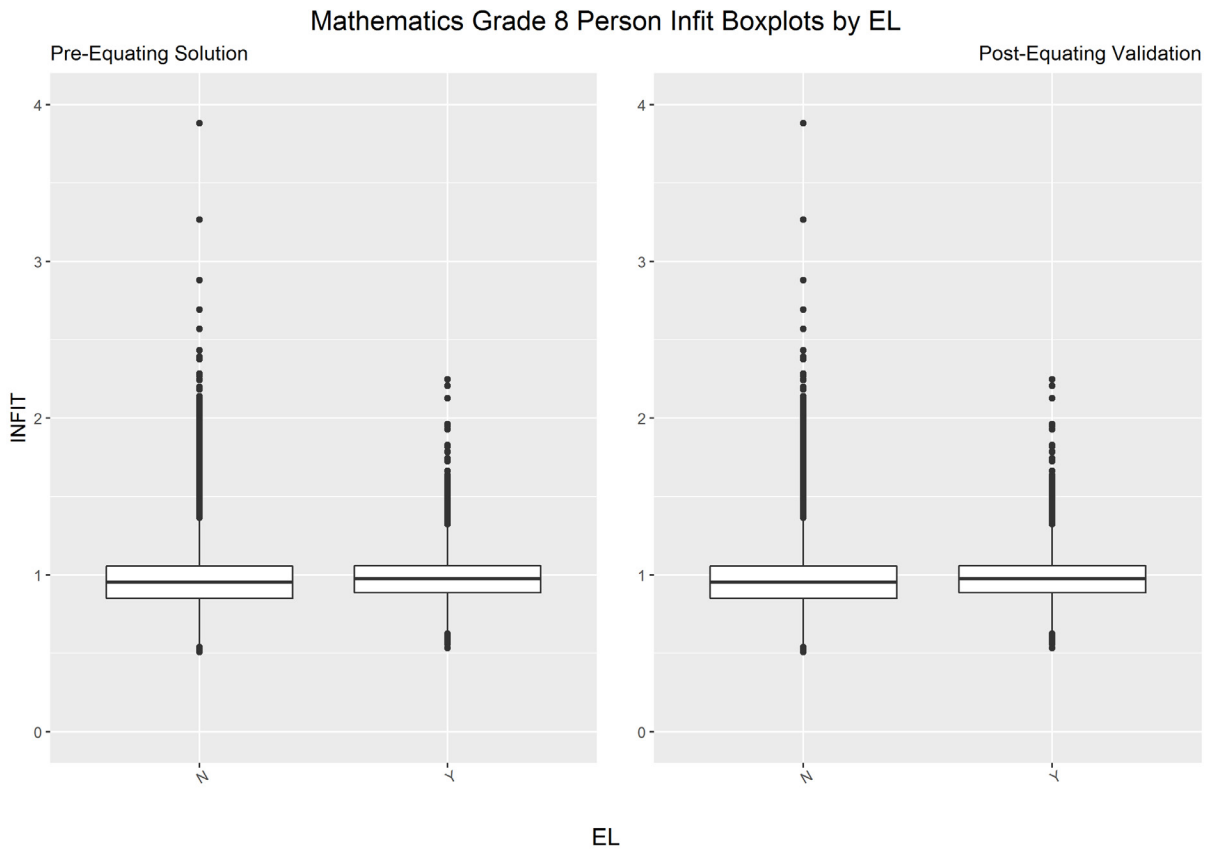

Mathematics Grade 7 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

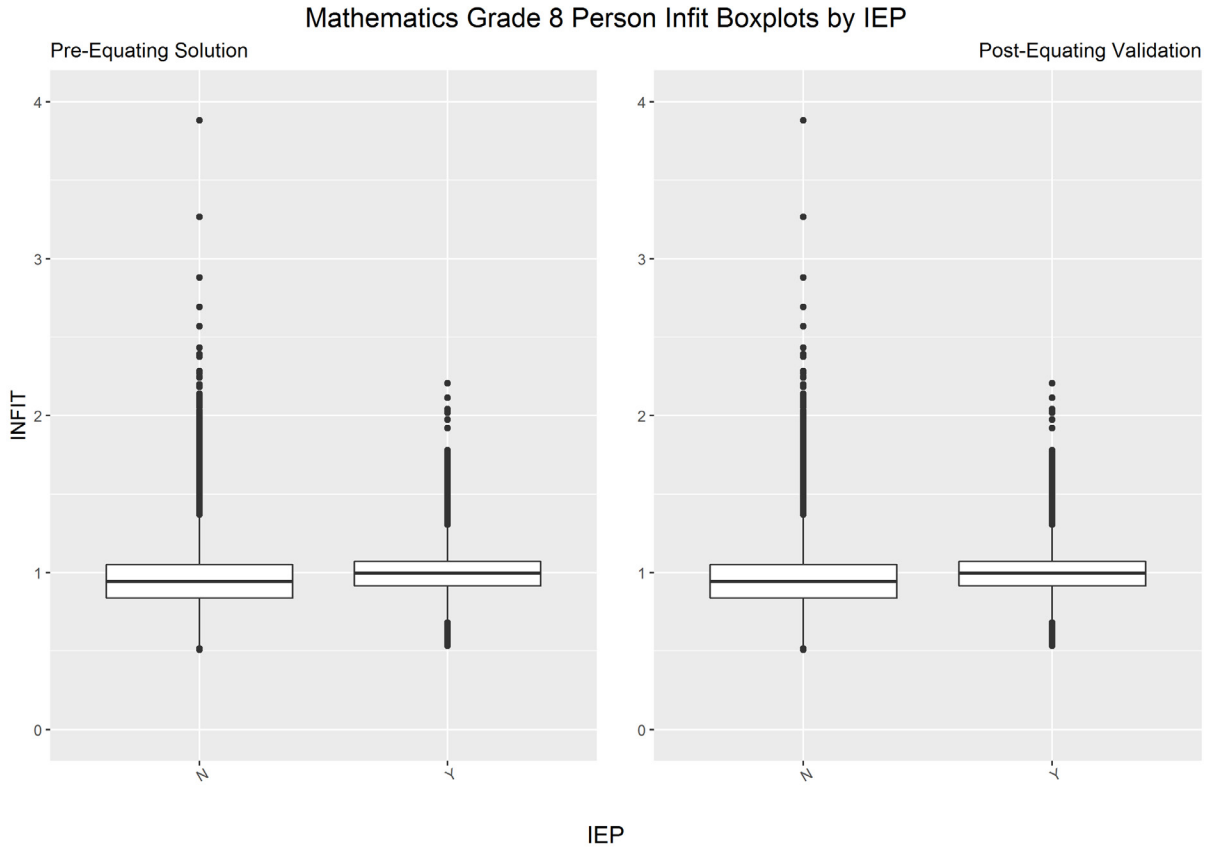

Mathematics Grade 7 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

Mathematics Grade 8

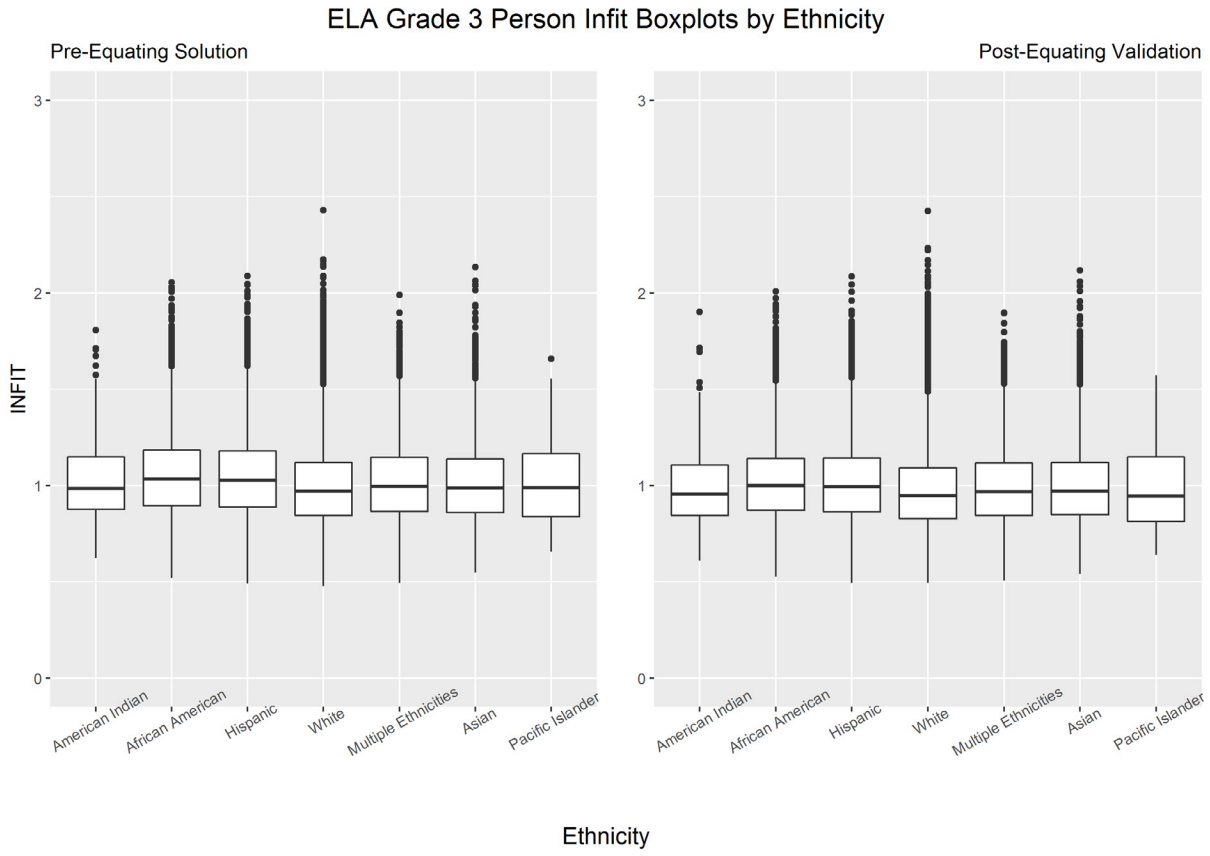


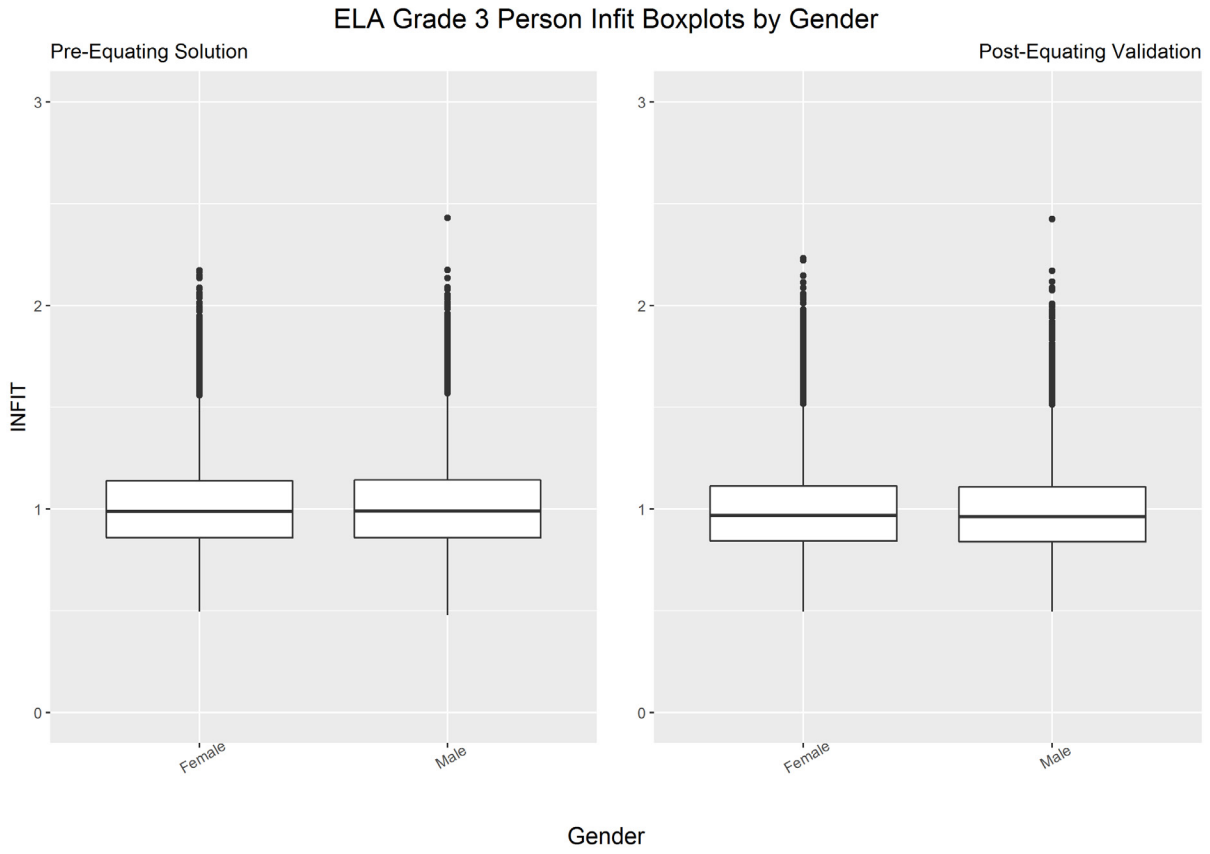


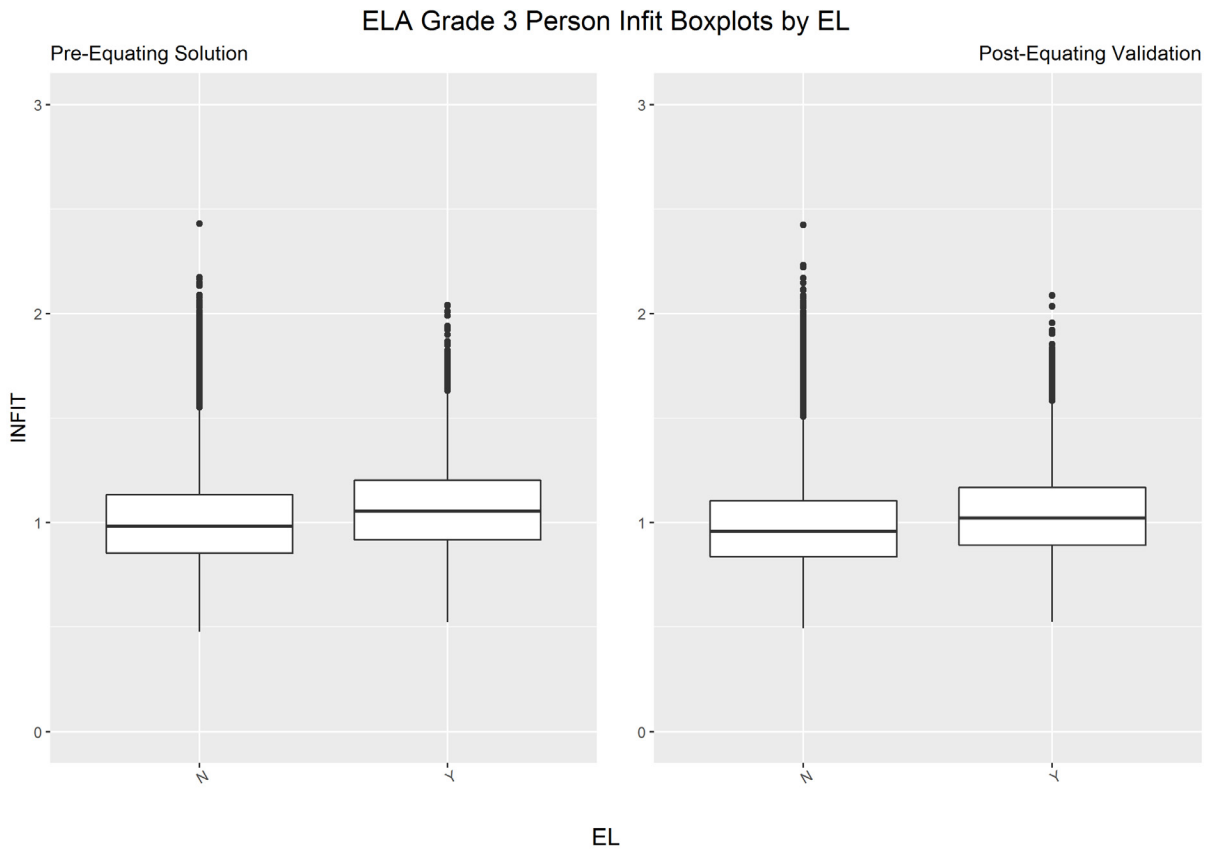

Mathematics Grade 8 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

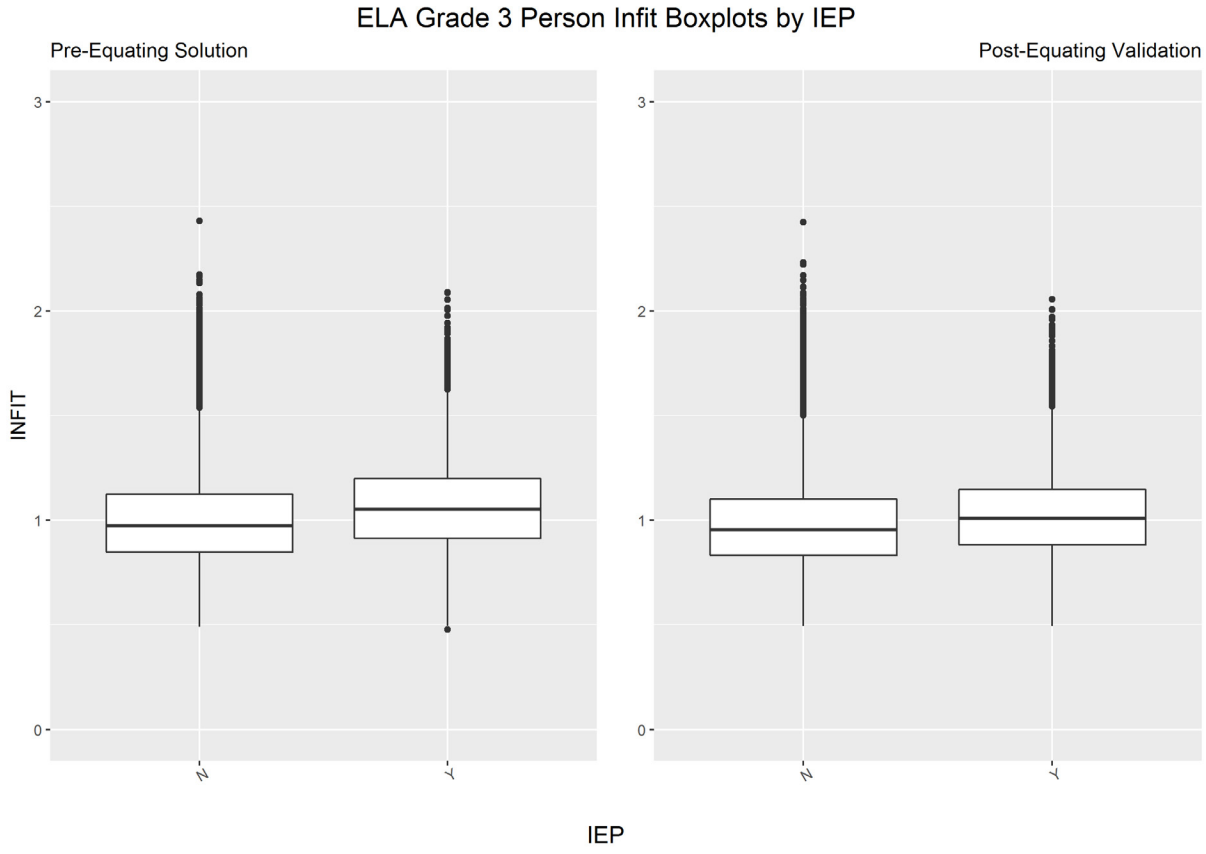

Mathematics Grade 8 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

ELA Grade 3

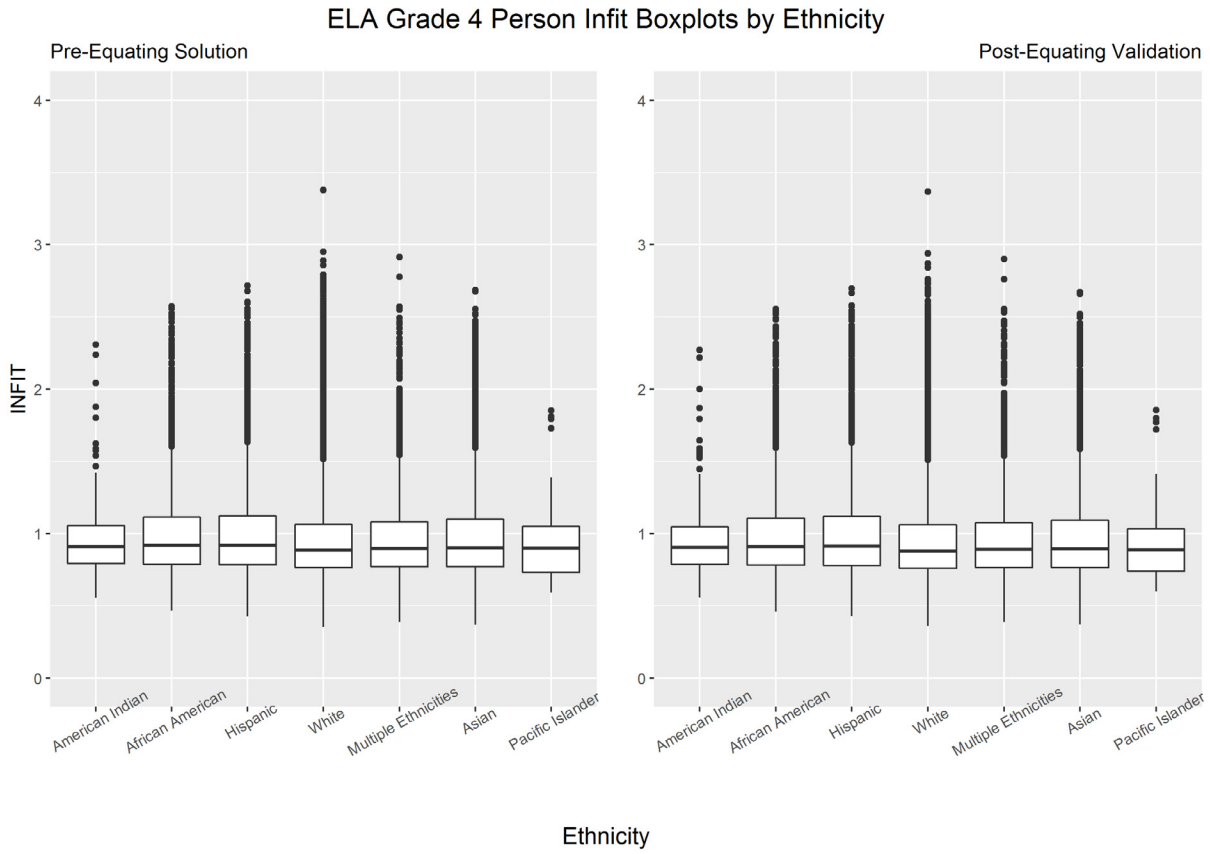

ELA Grade 3 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity

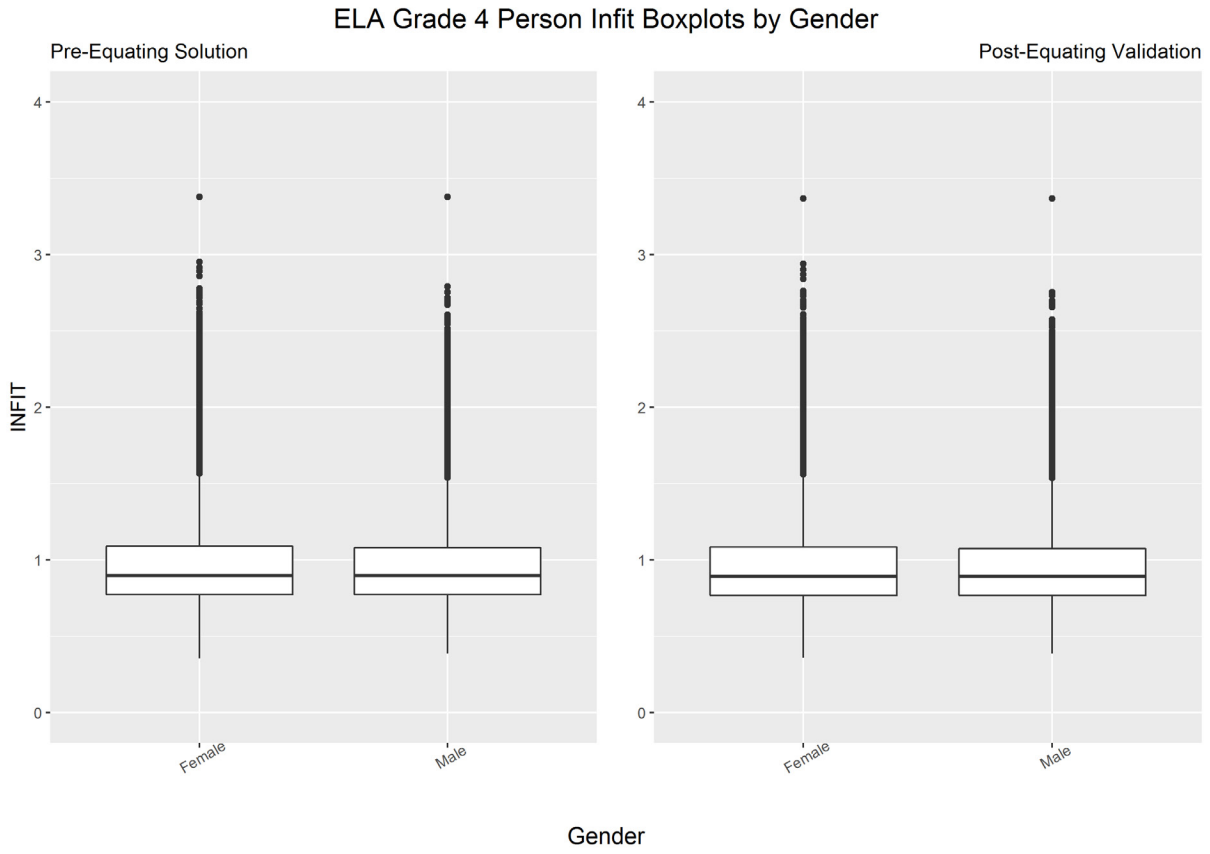

ELA Grade 3 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
Female
Male
Gender

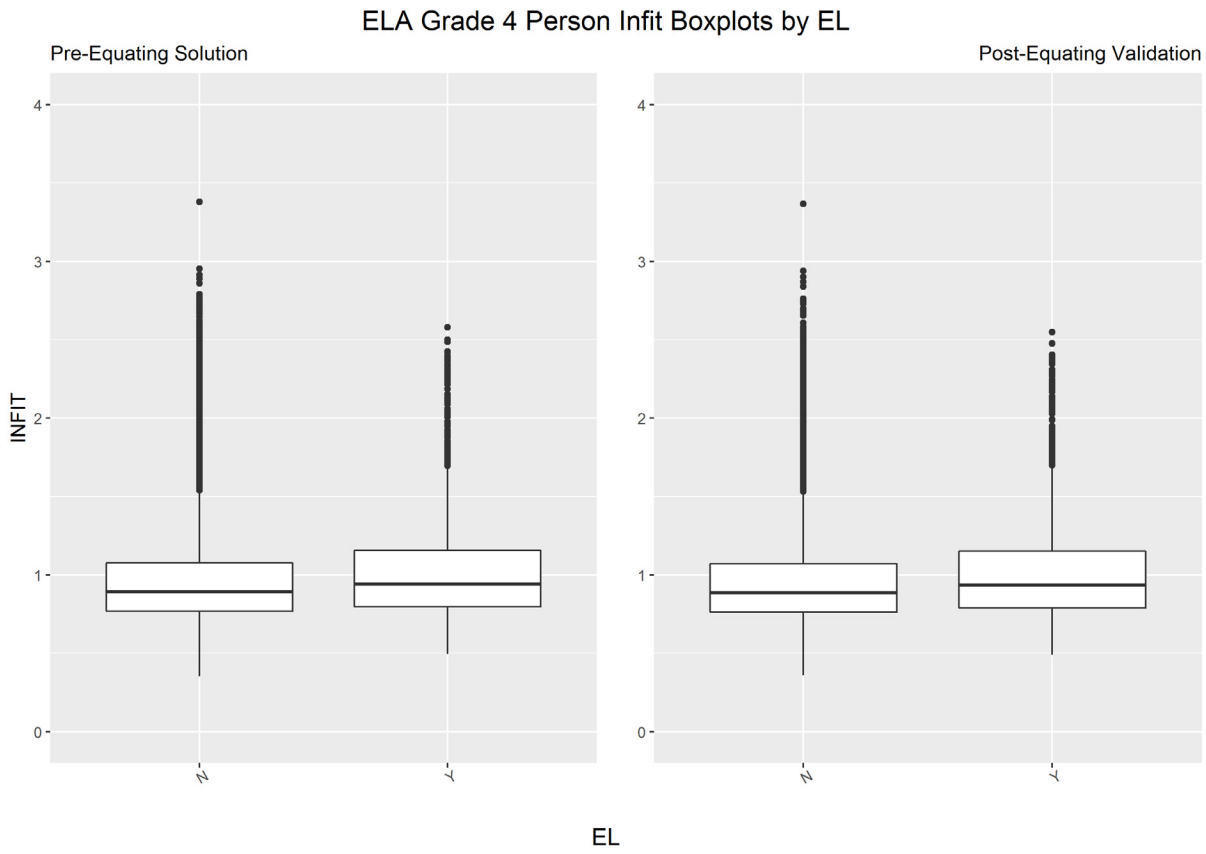

ELA Grade 3 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
N
Y
EL

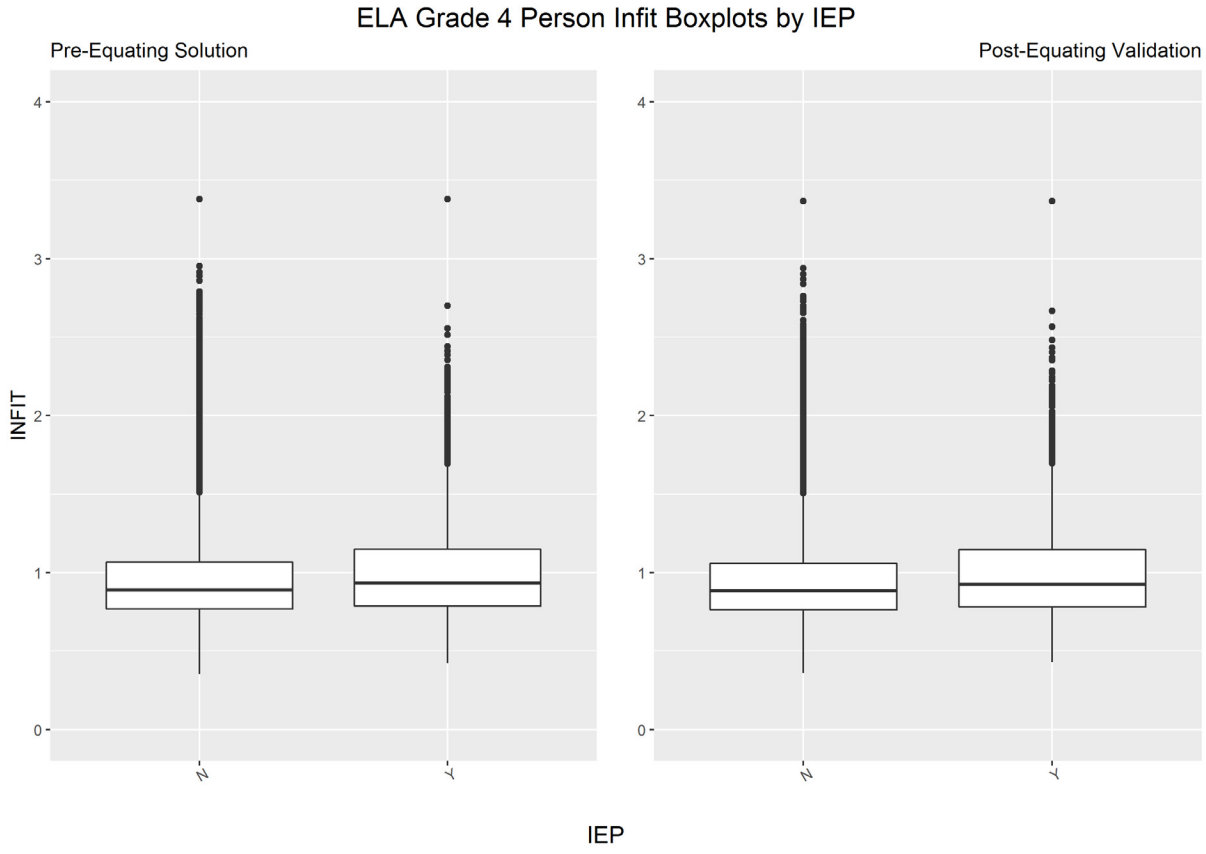

ELA Grade 3 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
N
Y
IEP

ELA Grade 4

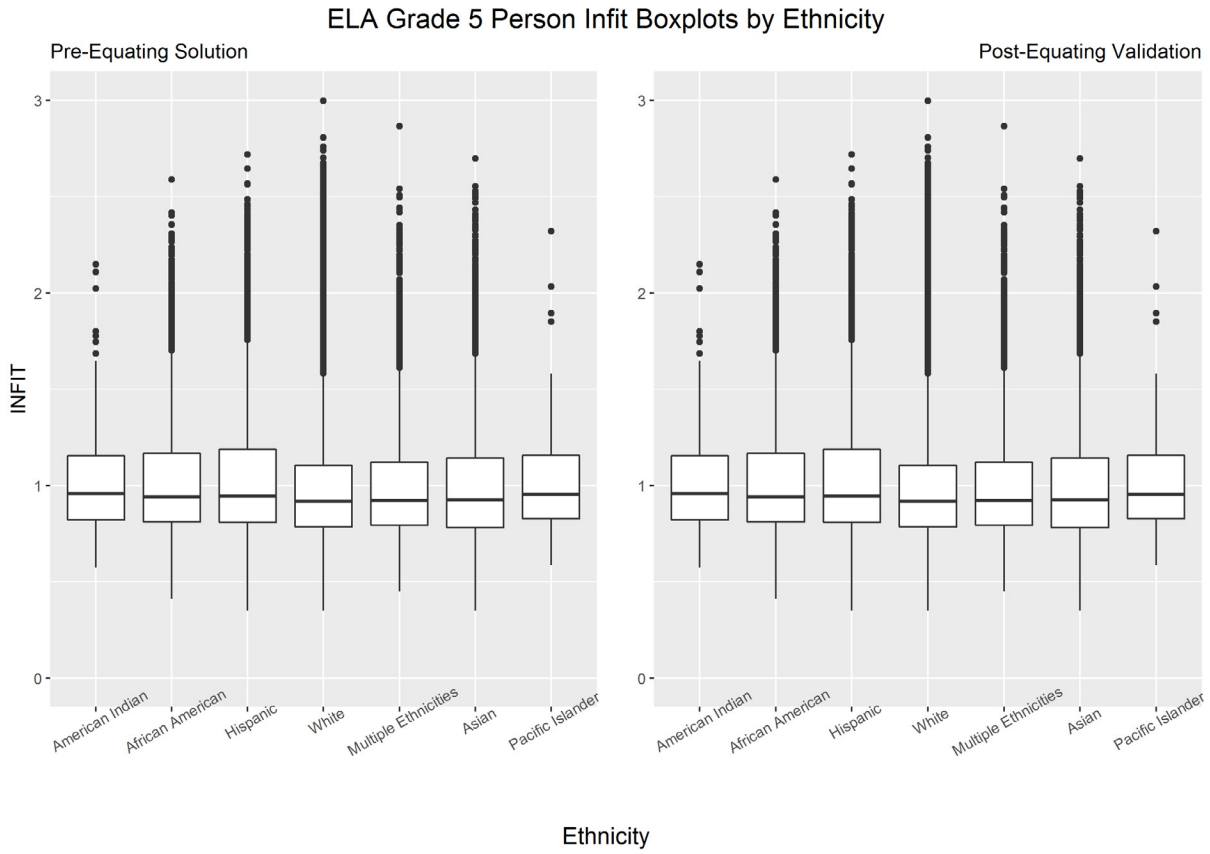

ELA Grade 4 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity

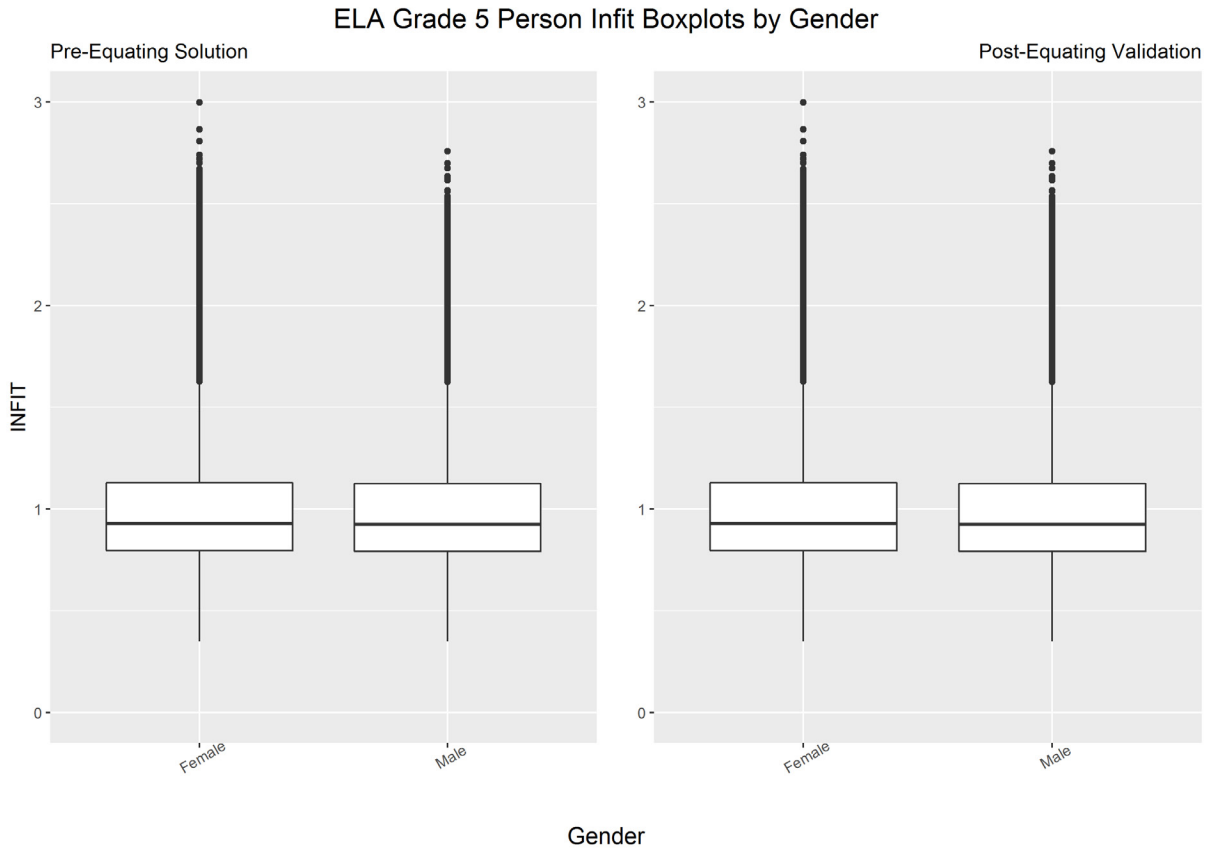

ELA Grade 4 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
Female
Male
Gender

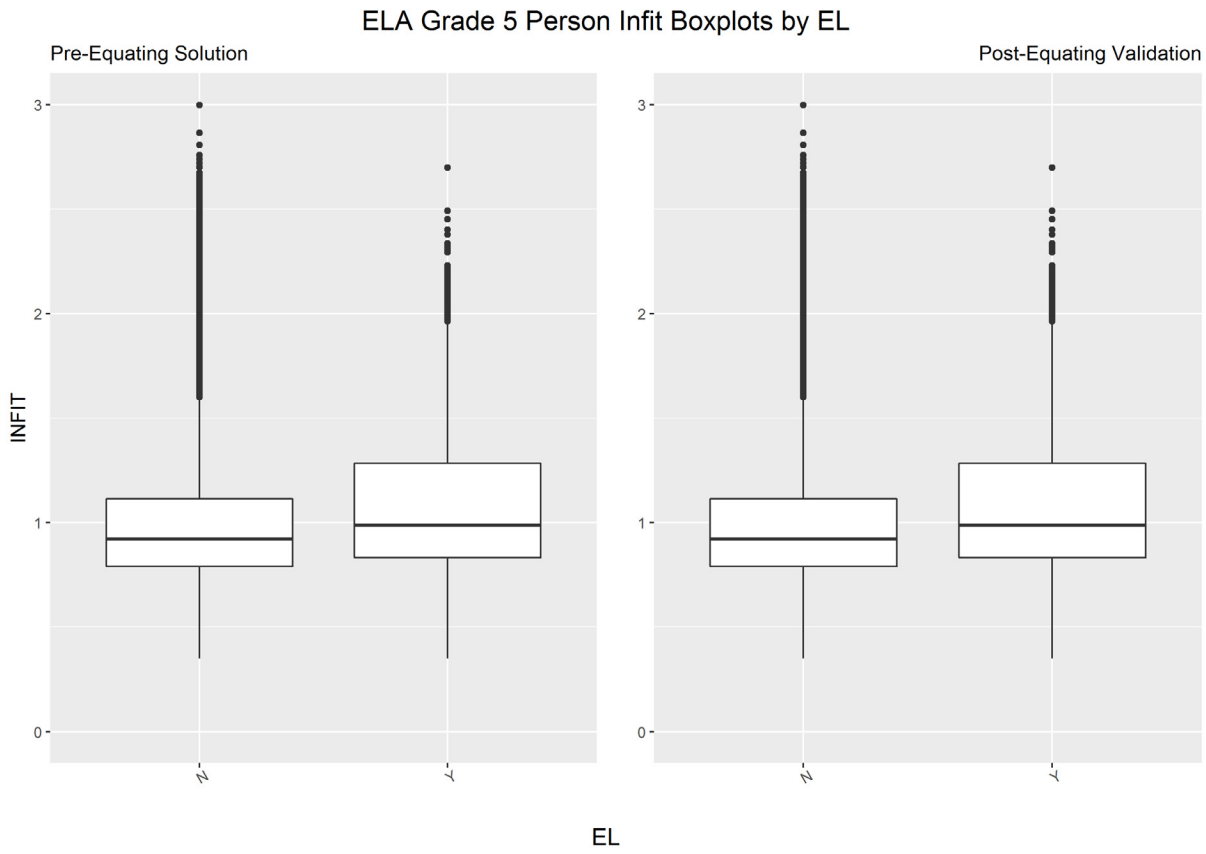

ELA Grade 4 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

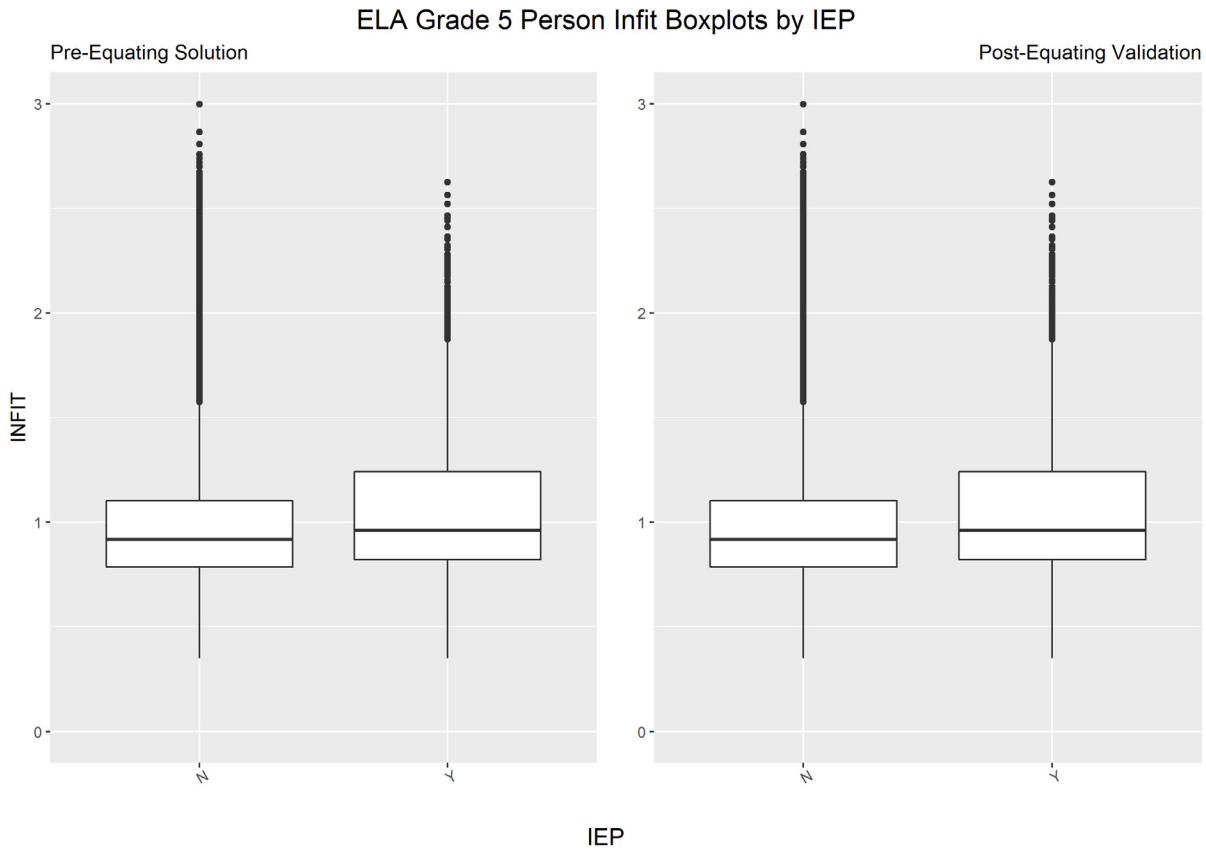

ELA Grade 4 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

ELA Grade 5

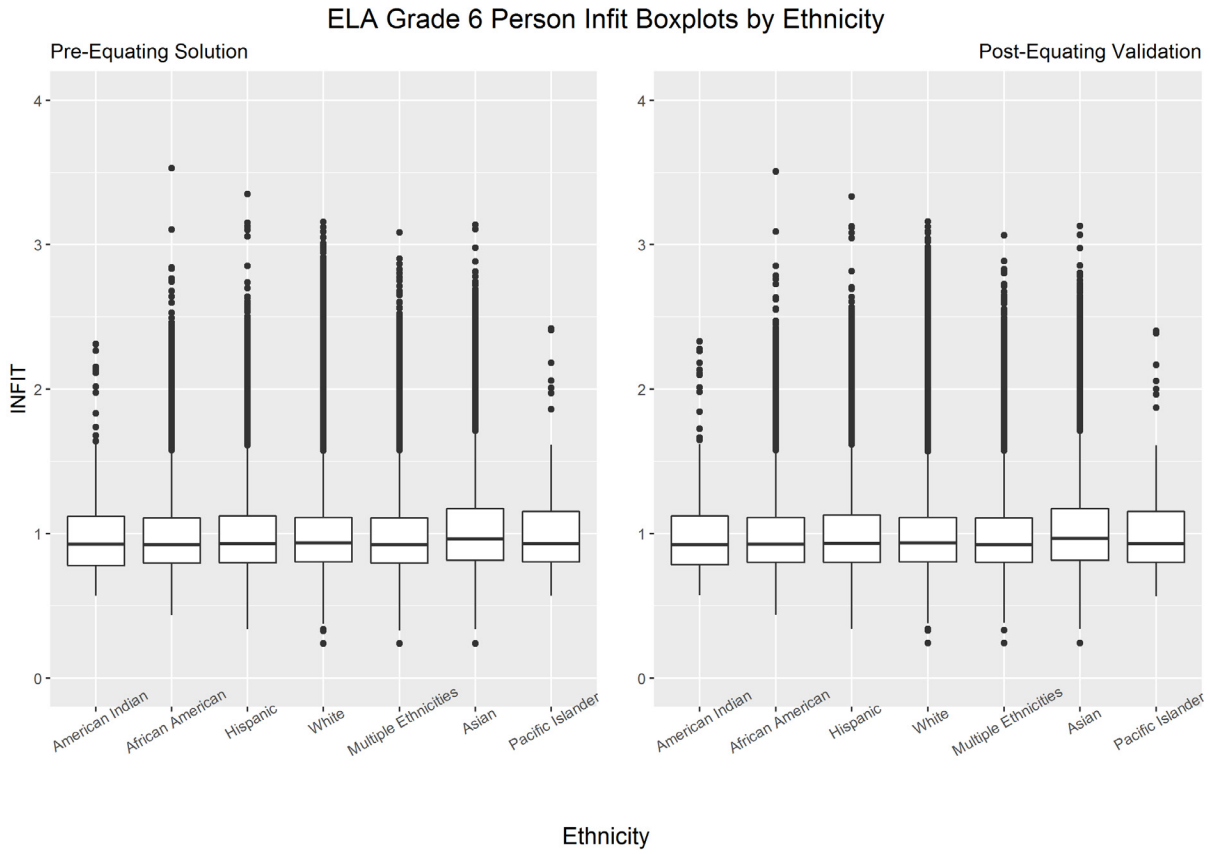

ELA Grade 5 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity

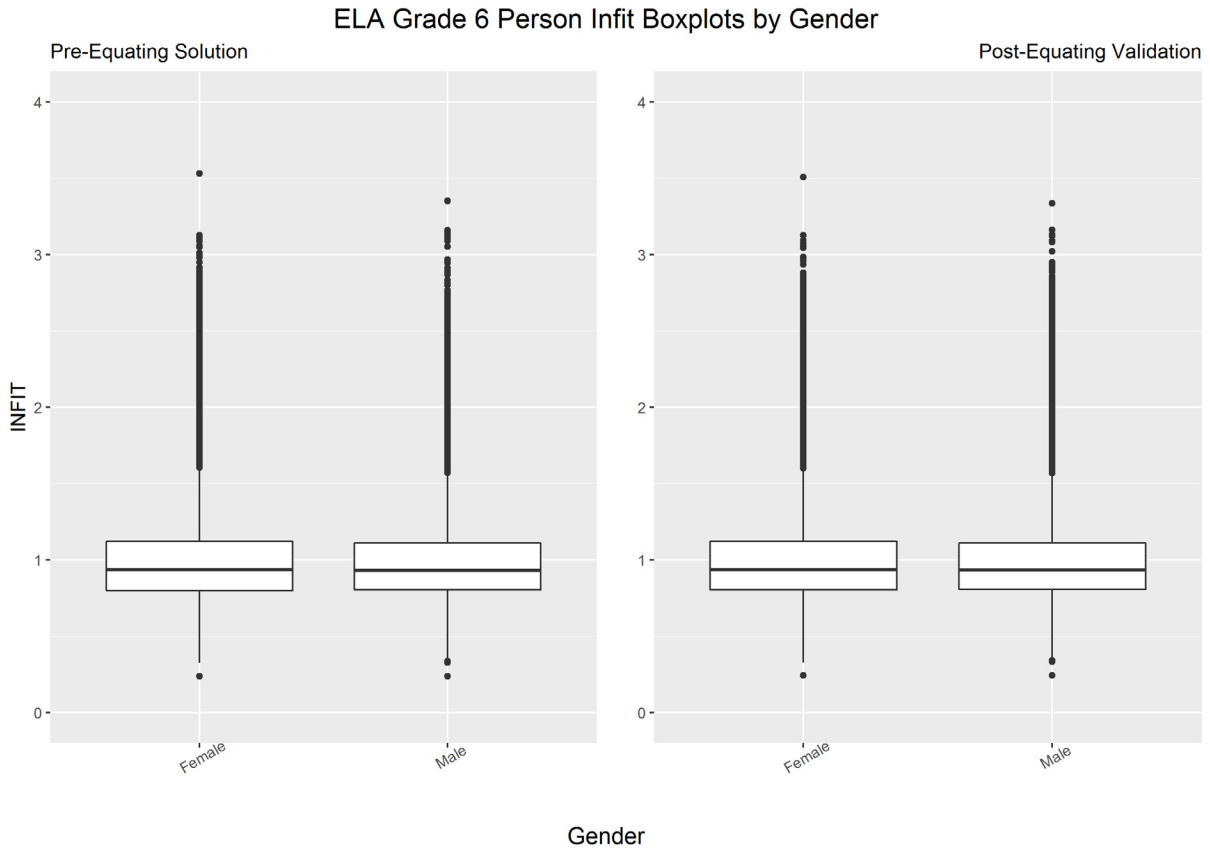

ELA Grade 5 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
Female
Male
Gender

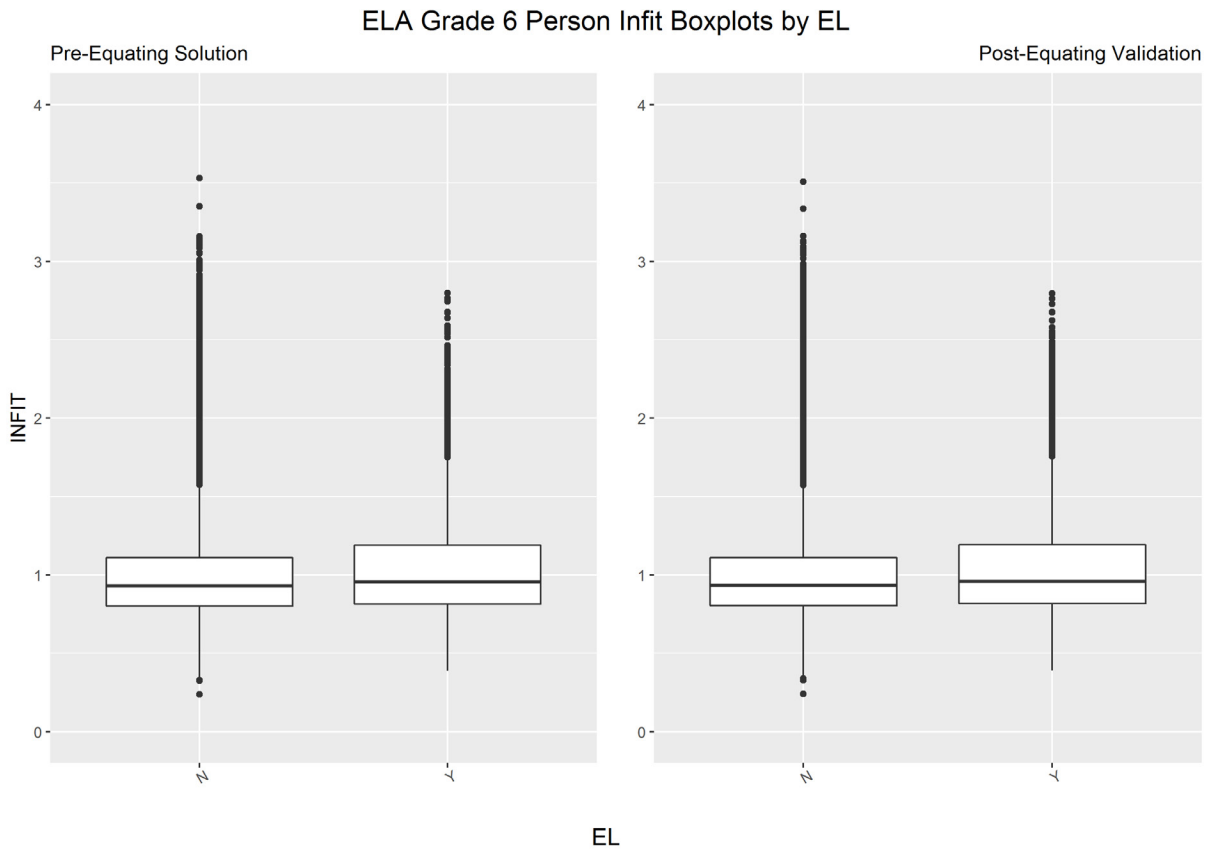

ELA Grade 5 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
N
Y
EL

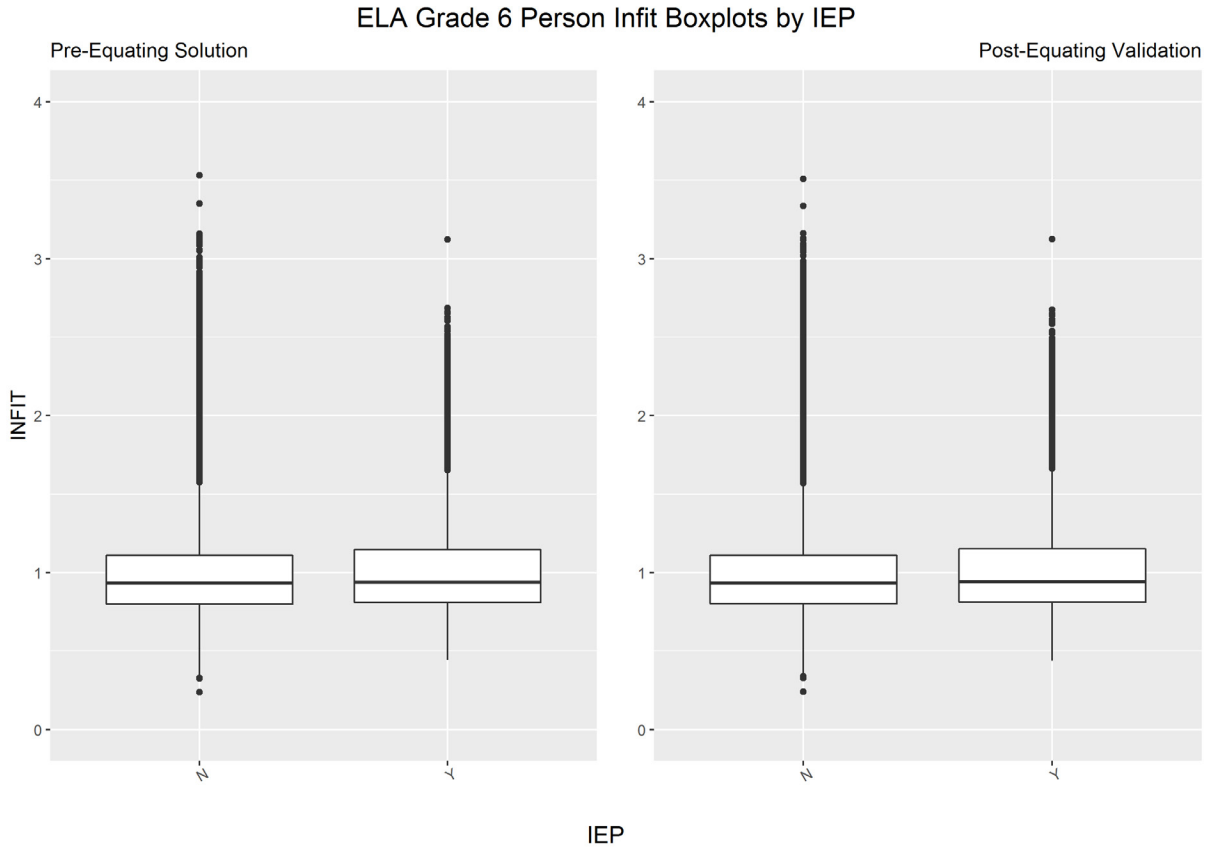

ELA Grade 5 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
3
2
1
0
N
Y
IEP

ELA Grade 6

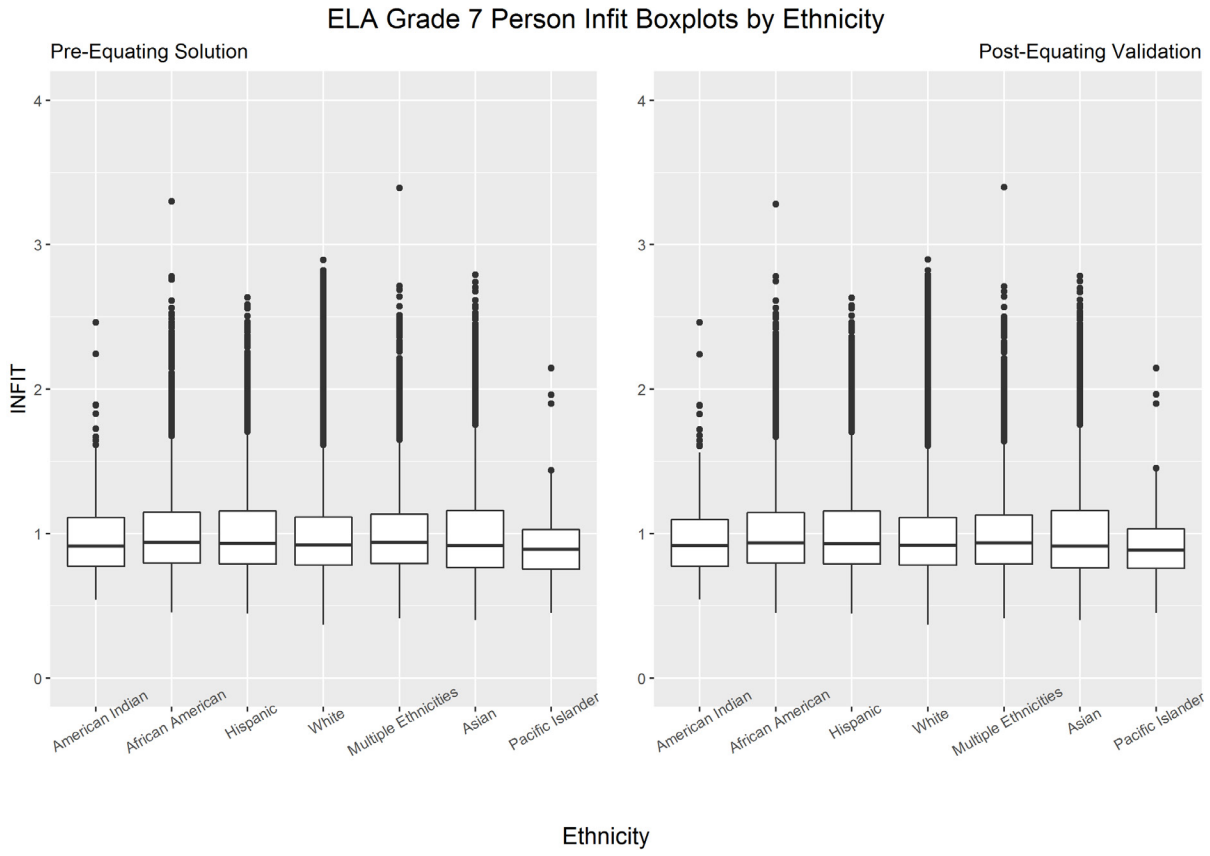

ELA Grade 6 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity

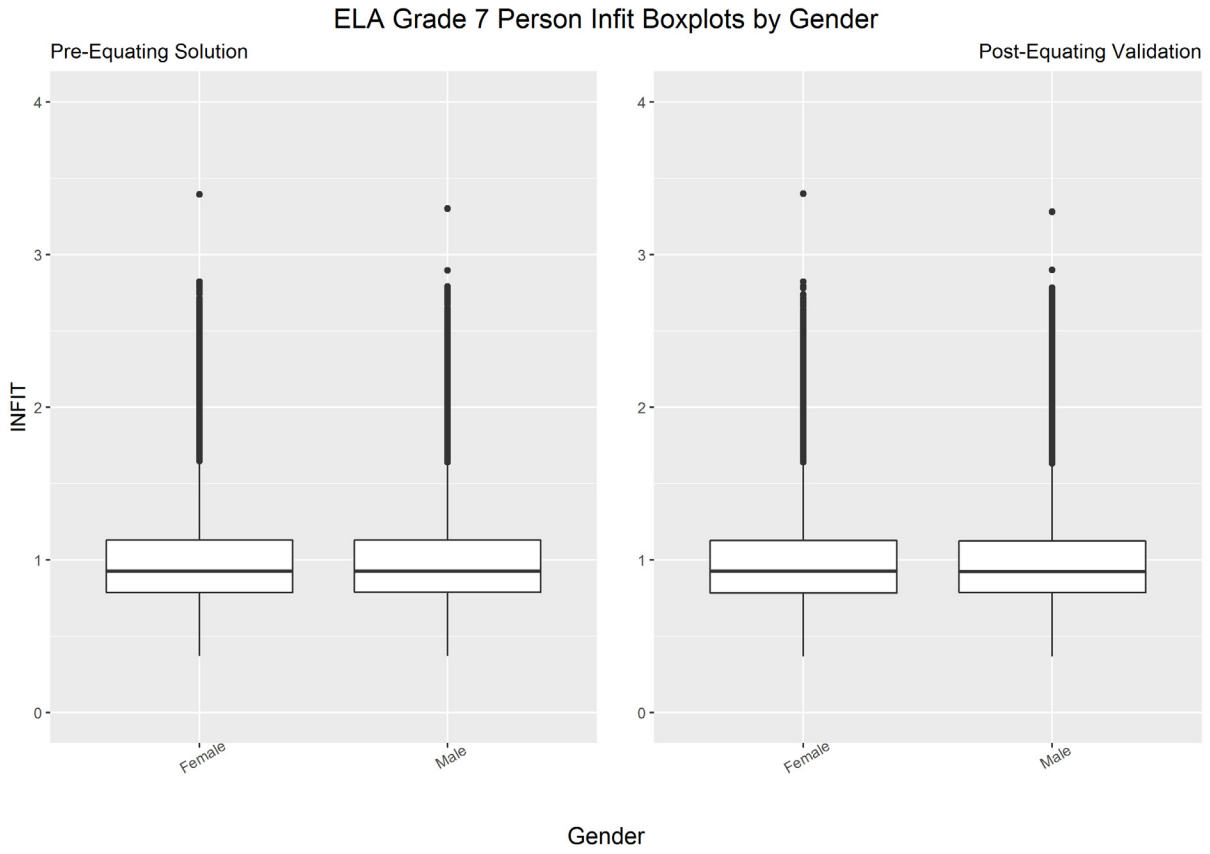

ELA Grade 6 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
Female
Male
Gender

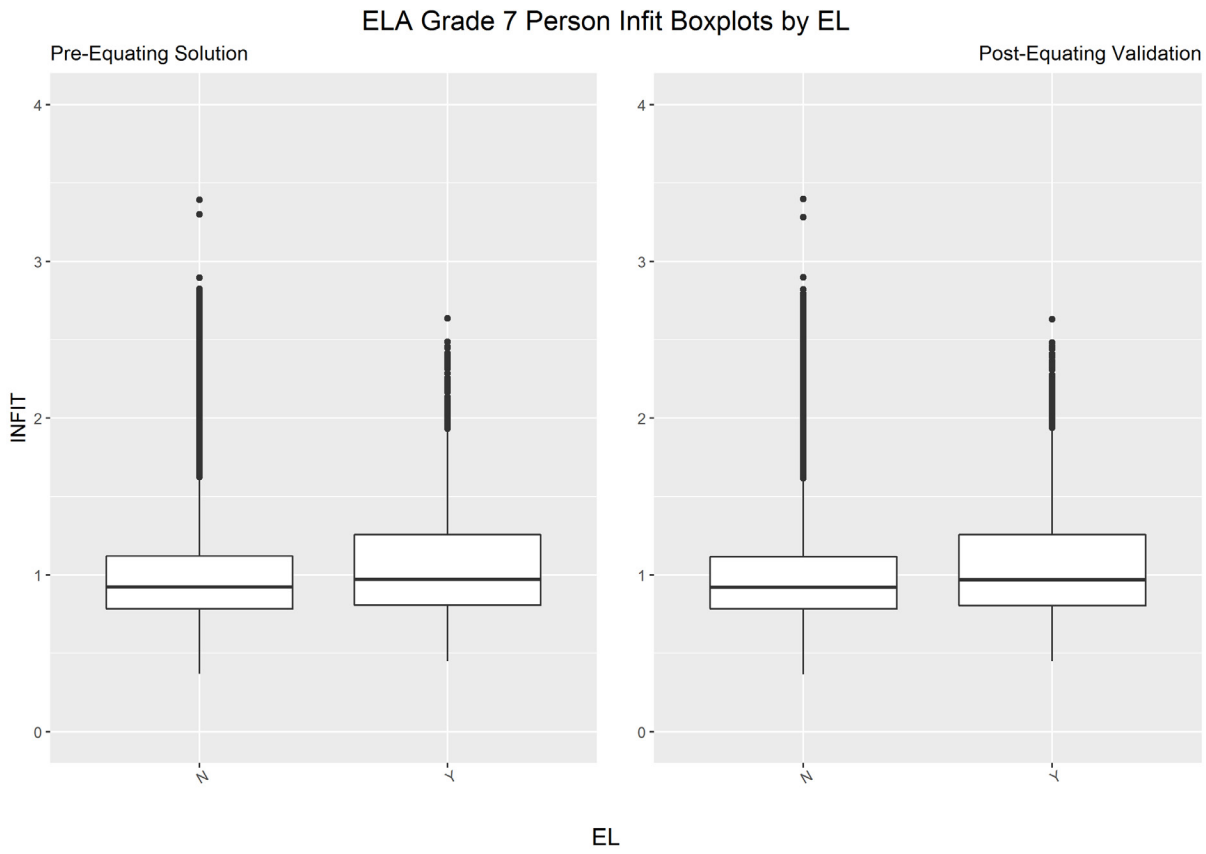

ELA Grade 6 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

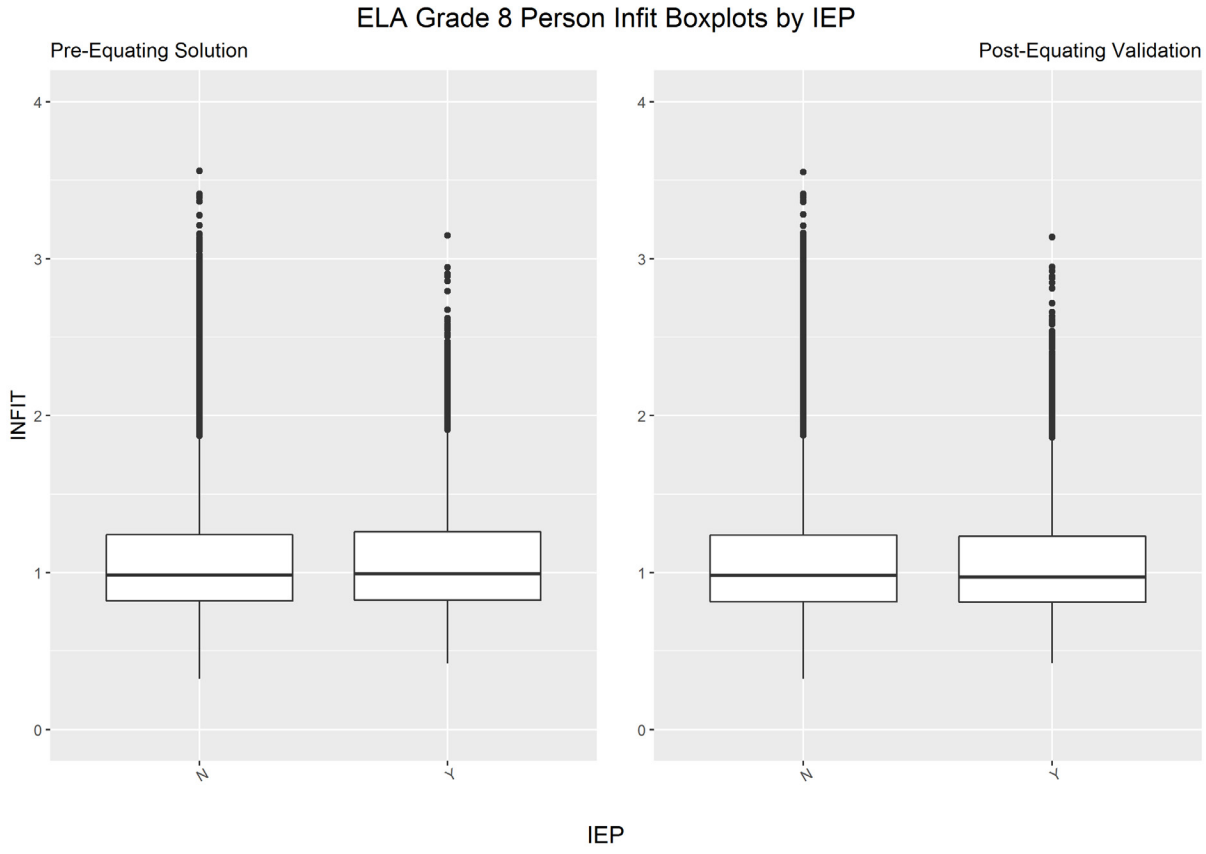

ELA Grade 6 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

ELA Grade 7

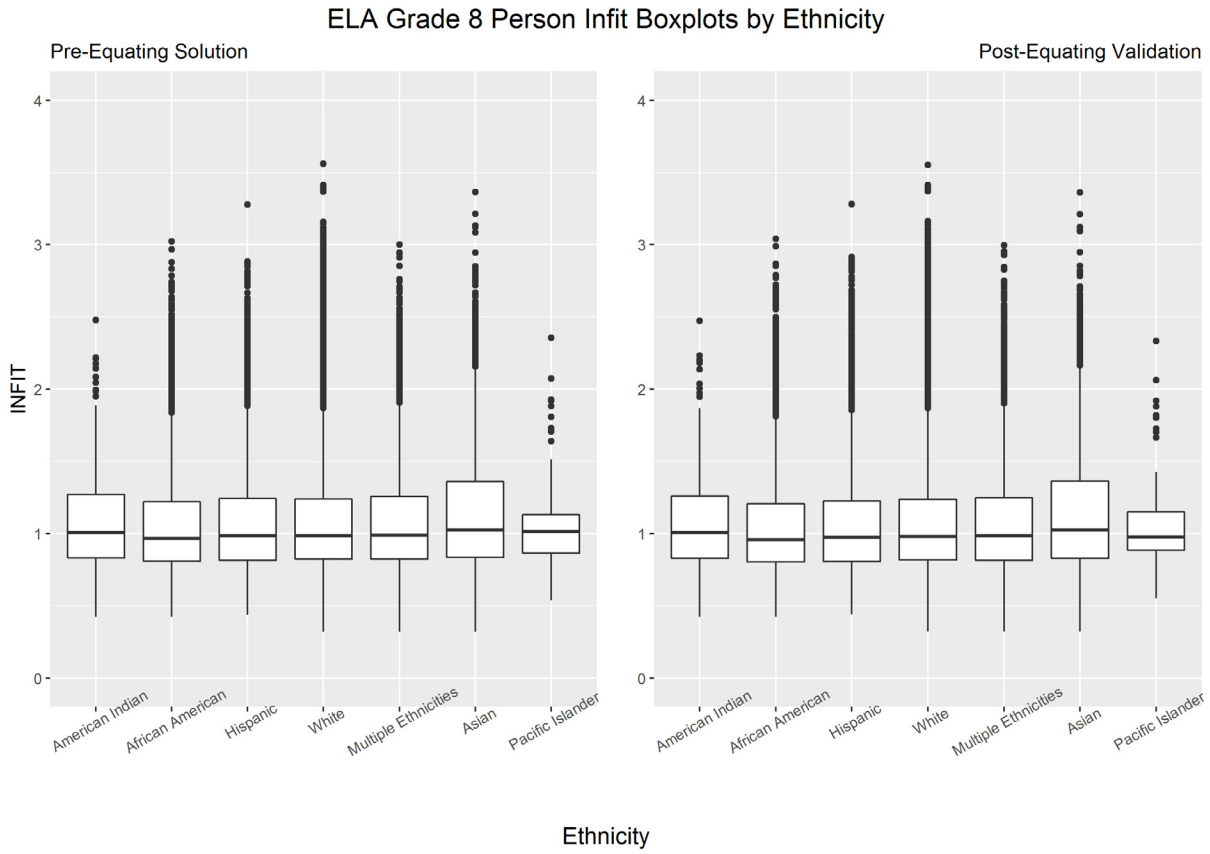

ELA Grade 7 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity

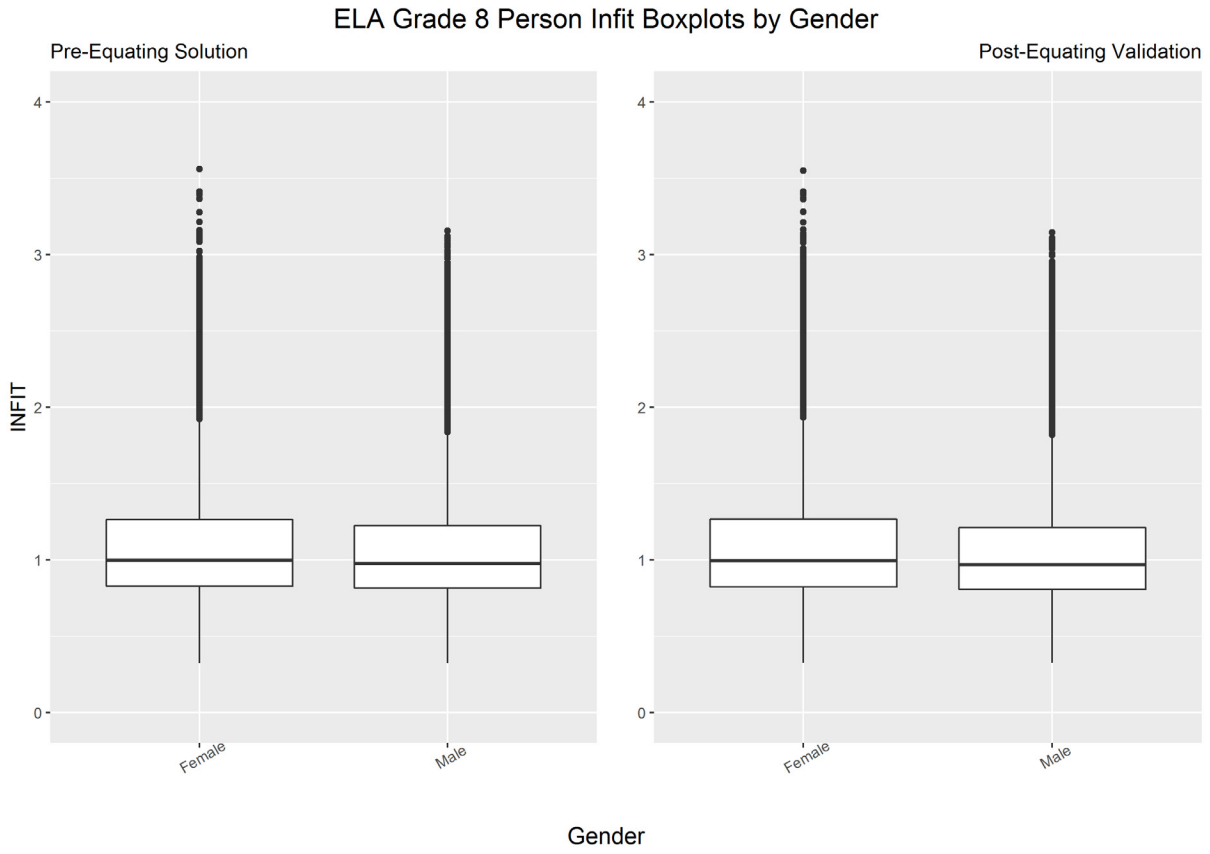

ELA Grade 7 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
Female
Male
Gender

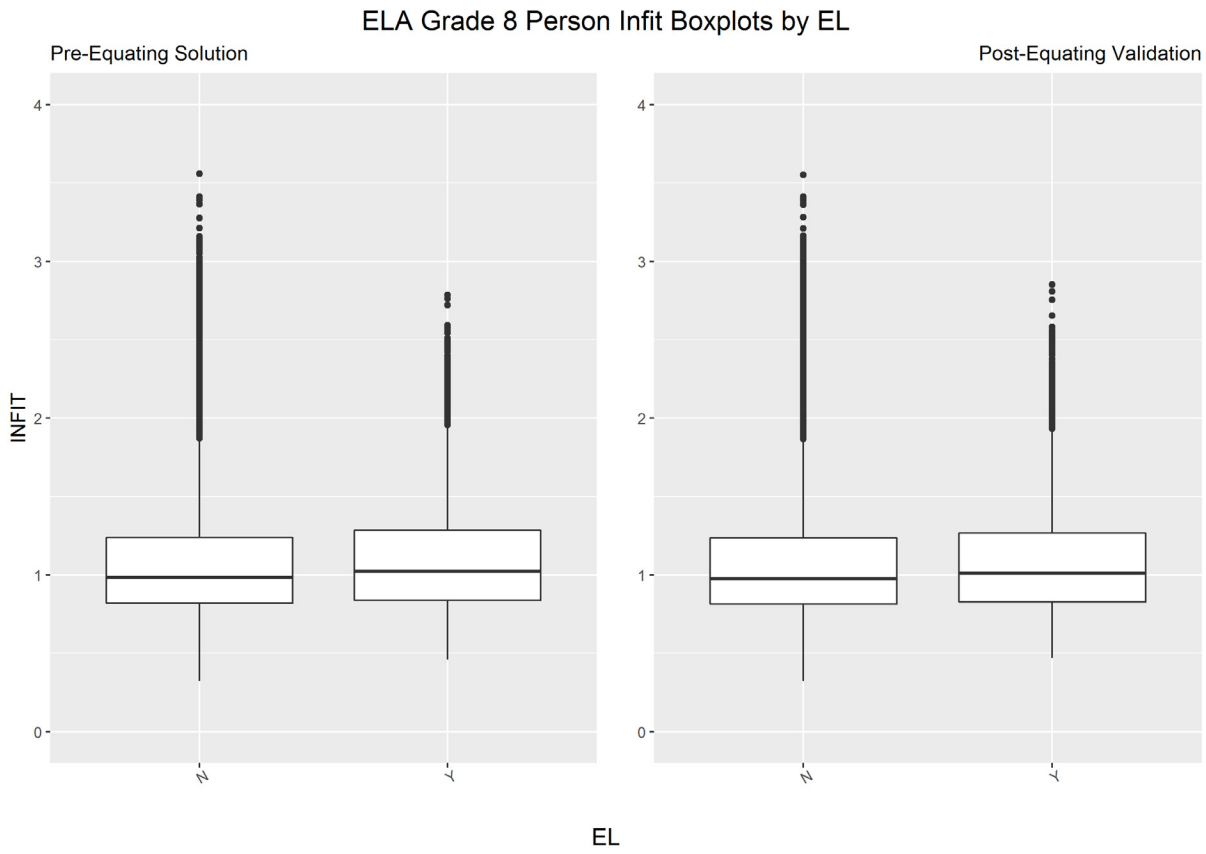

ELA Grade 7 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL

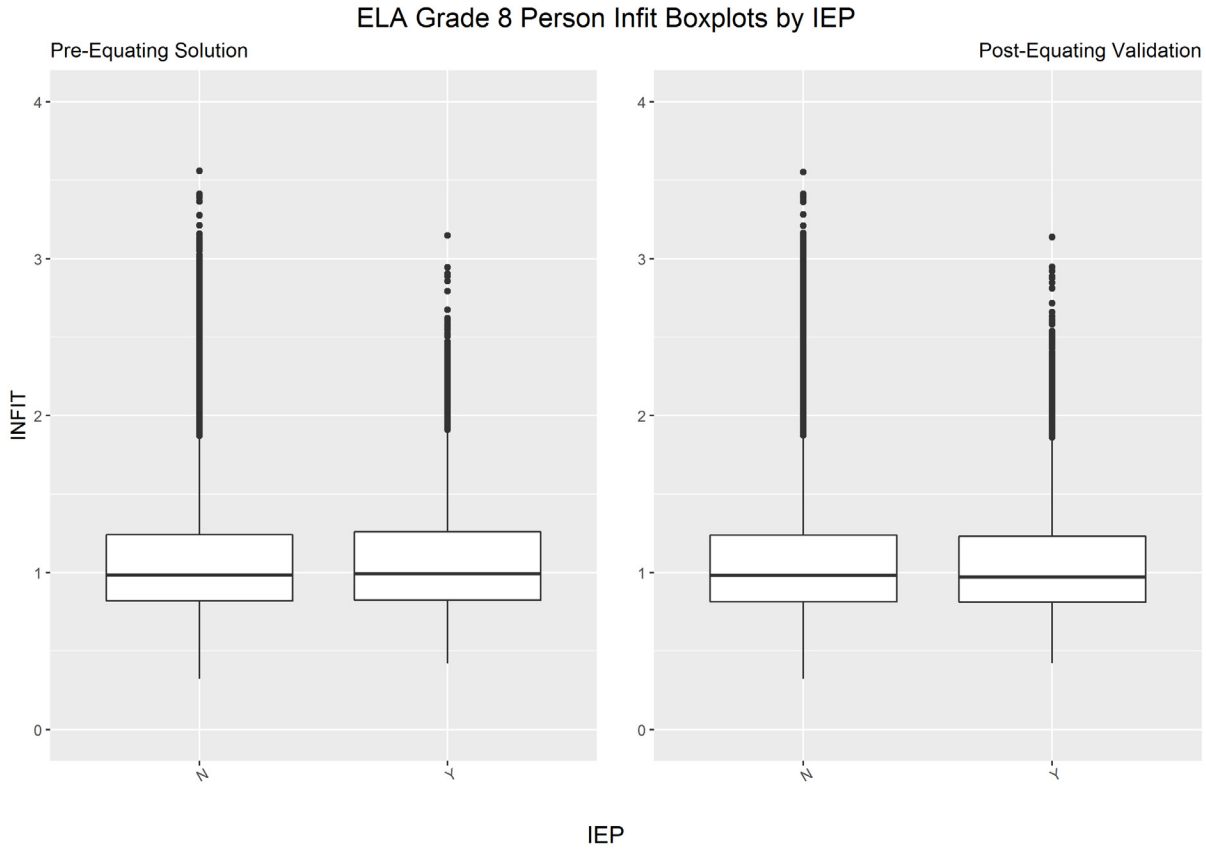

ELA Grade 8 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

ELA Grade 8


ELA Grade 8 Person Infit Boxplots by Ethnicity
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
American Indian
African American
Hispanic
White
Multiple Ethnicities
Asian
Pacific Islander
Ethnicity


ELA Grade 8 Person Infit Boxplots by Gender
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
Female
Male
Gender


ELA Grade 8 Person Infit Boxplots by EL
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
EL


ELA Grade 8 Person Infit Boxplots by IEP
Pre-Equating Solution
Post-Equating Validation
INFIT
0
1
2
3
4
N
Y
IEP

Science Grade 5

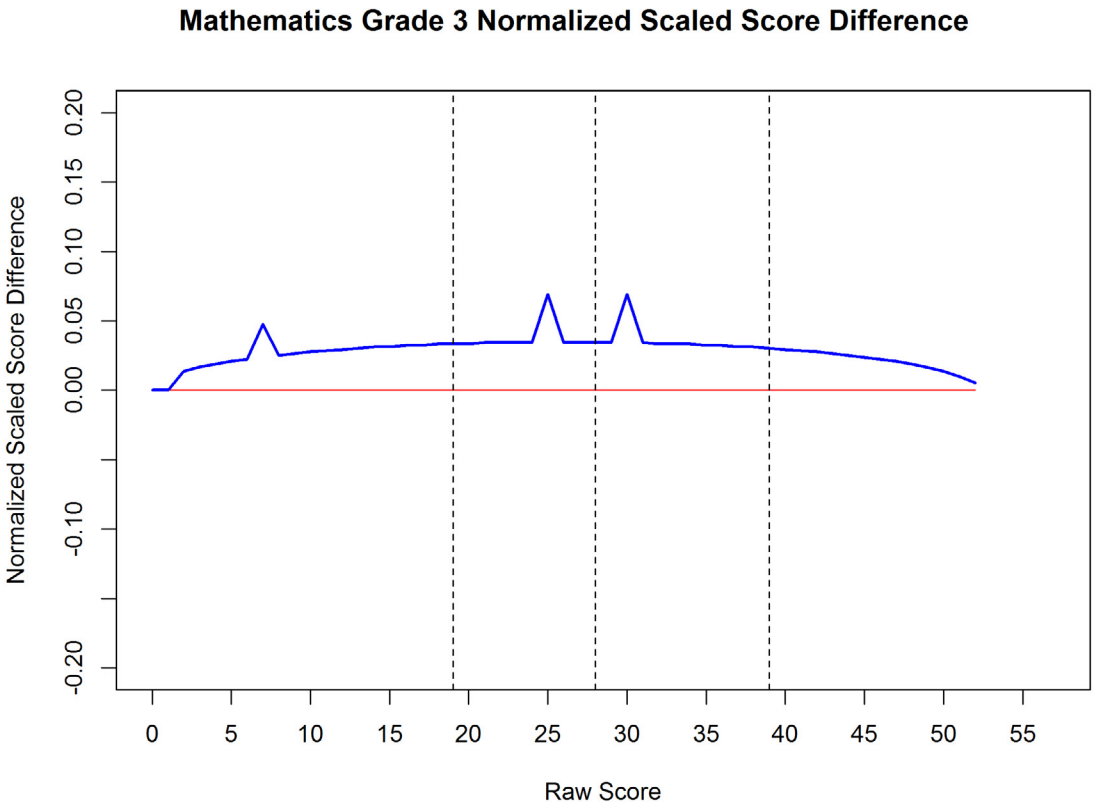
Note. Science was a stand-alone field test in 2025. No pre-equating verification analyses were conducted.

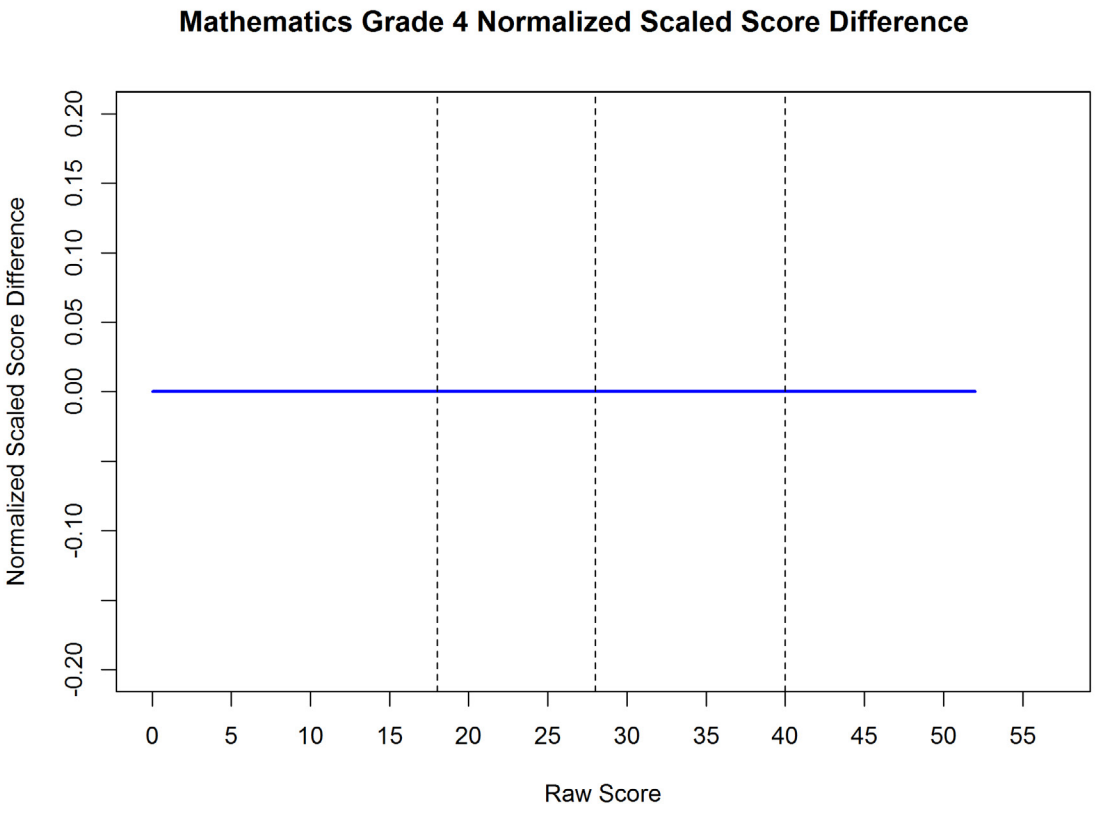
Science Grade 8

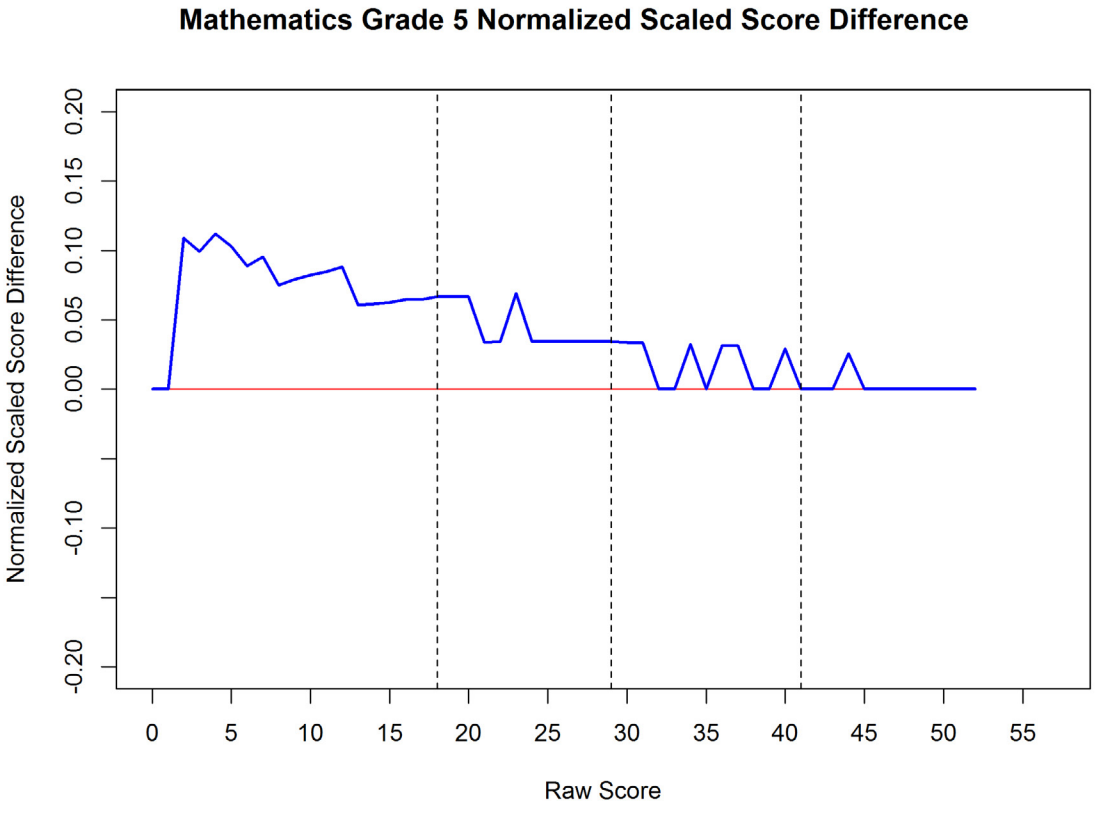
Note. Science was a stand-alone field test in 2025. No pre-equating verification analyses were conducted.

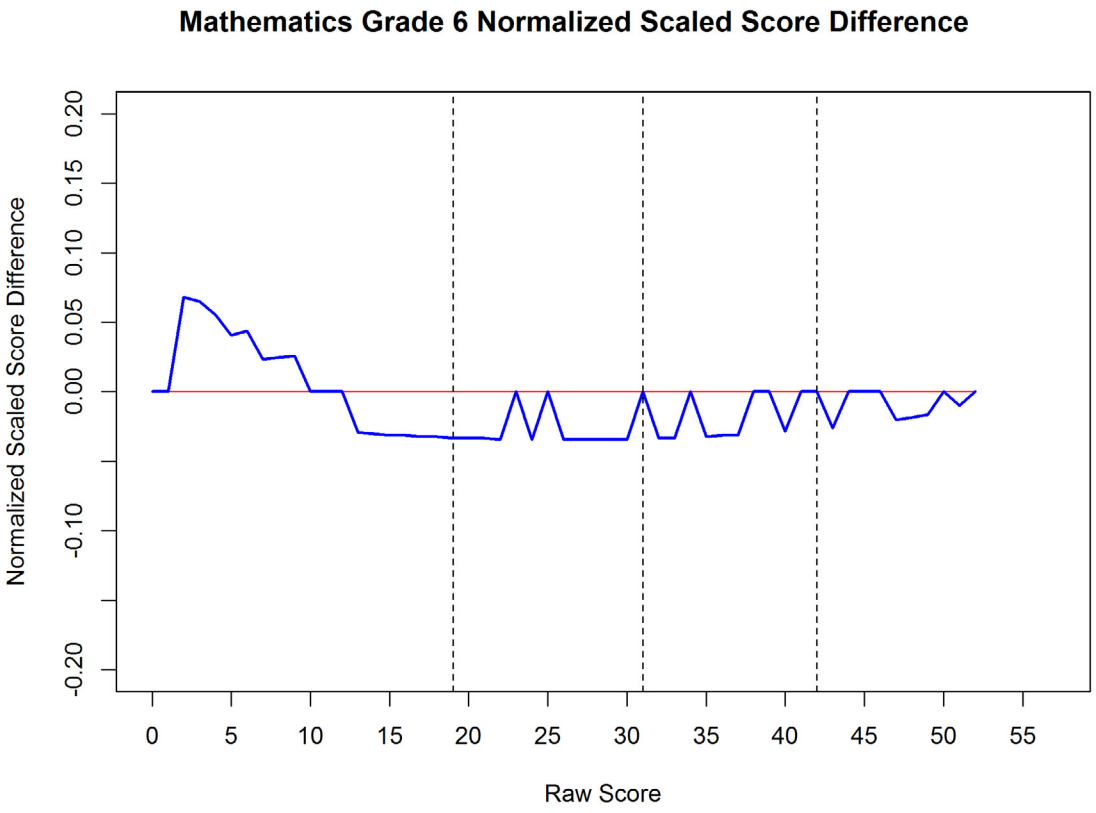
Figure T–2 displays the normalized scale score distributions by subject and grade across raw score points. The blue line represents the normalized scaled score difference between pre- and post-equated solutions at each raw score point. The red line represents no change between the solutions and the black dotted vertical lines represent the original raw cut-scores for each performance level classification (Basic, Proficient, and Advanced). If no red line is shown, then there were no differences between pre- and post-equated solutions.

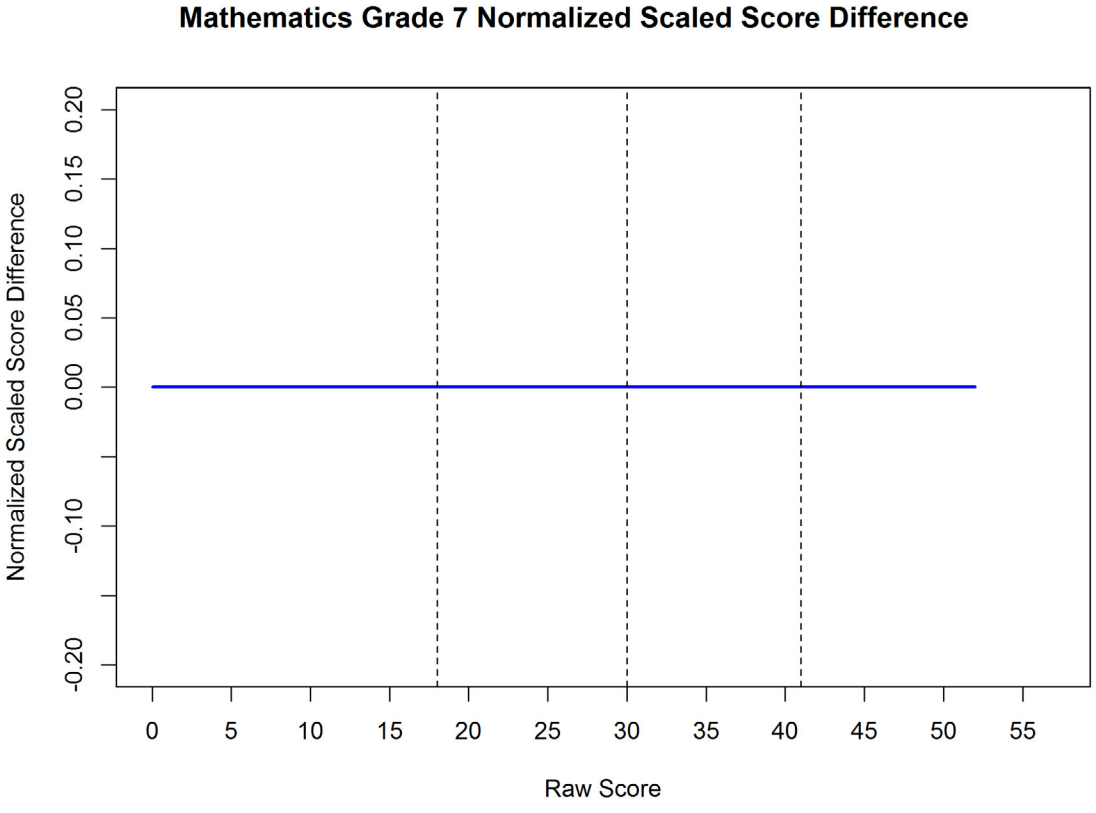
Figure T–2. Normalized Scale Score Distributions by Subject and Grade

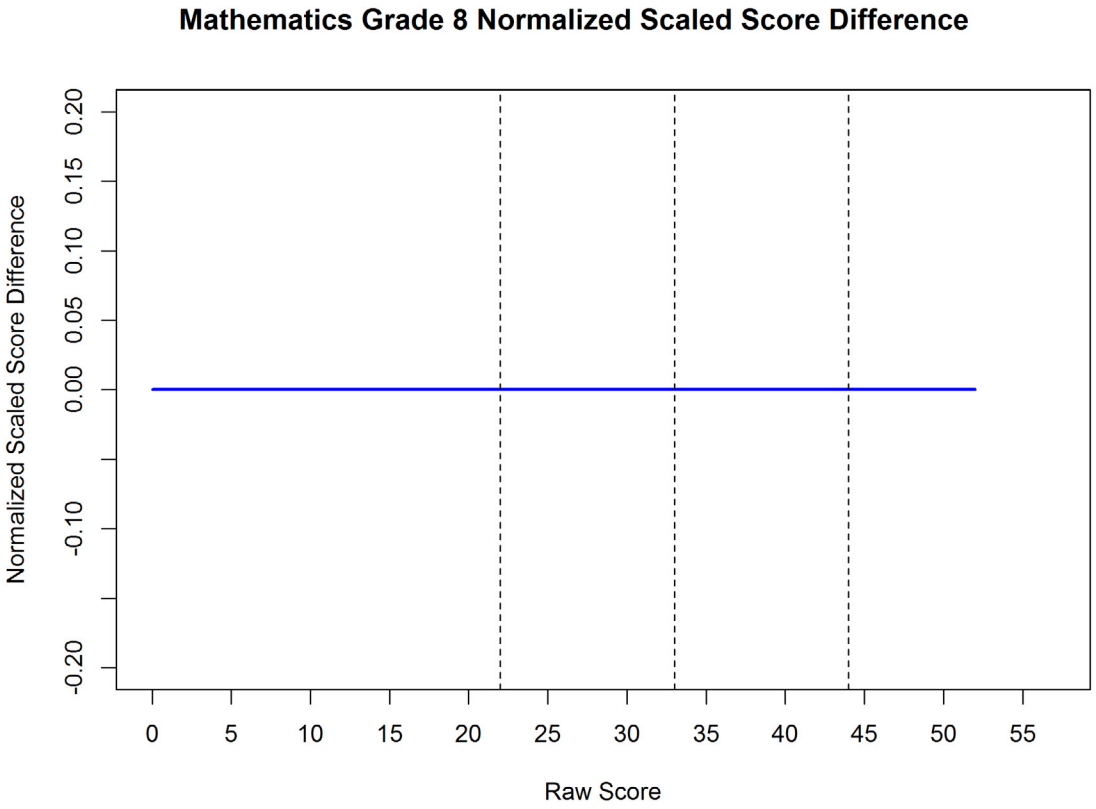


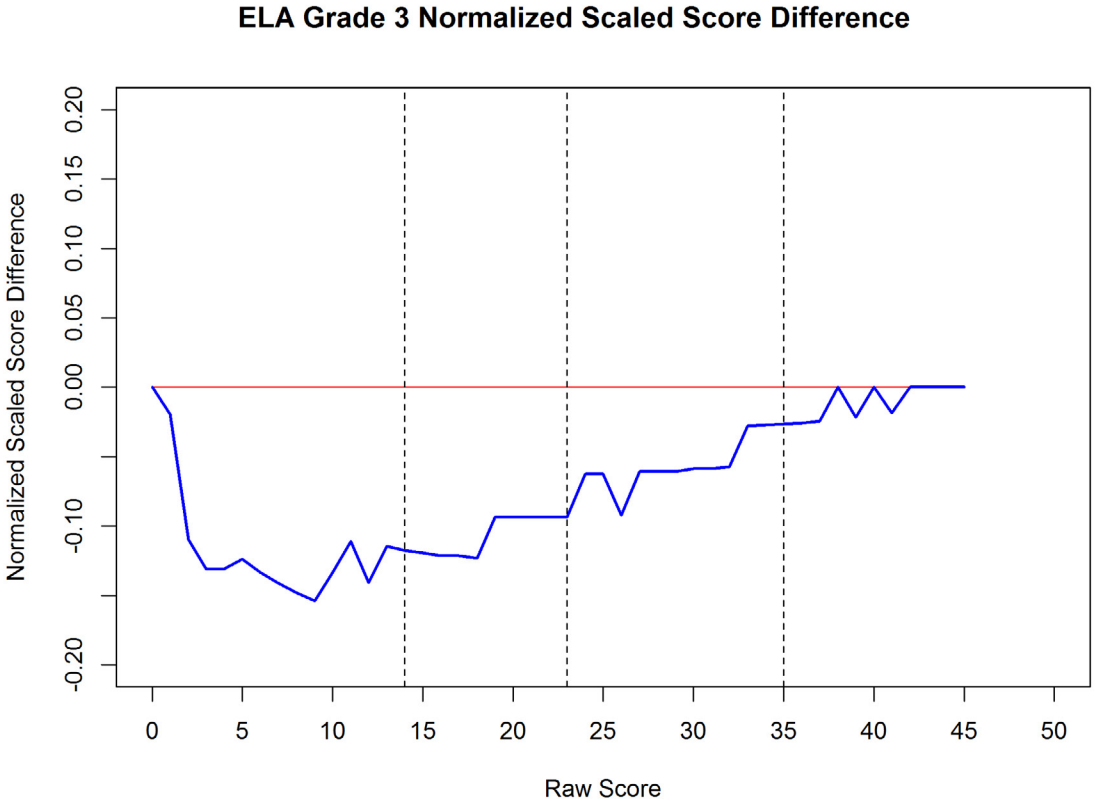

Mathematics Grade 4 Normalized Scaled Score Difference
Normalized Scaled Score Difference
0.20
0.15
0.10
0.05
0.00
-0.10
-0.20
0
5
10
15
20
25
30
35
40
45
50
55
Raw Score

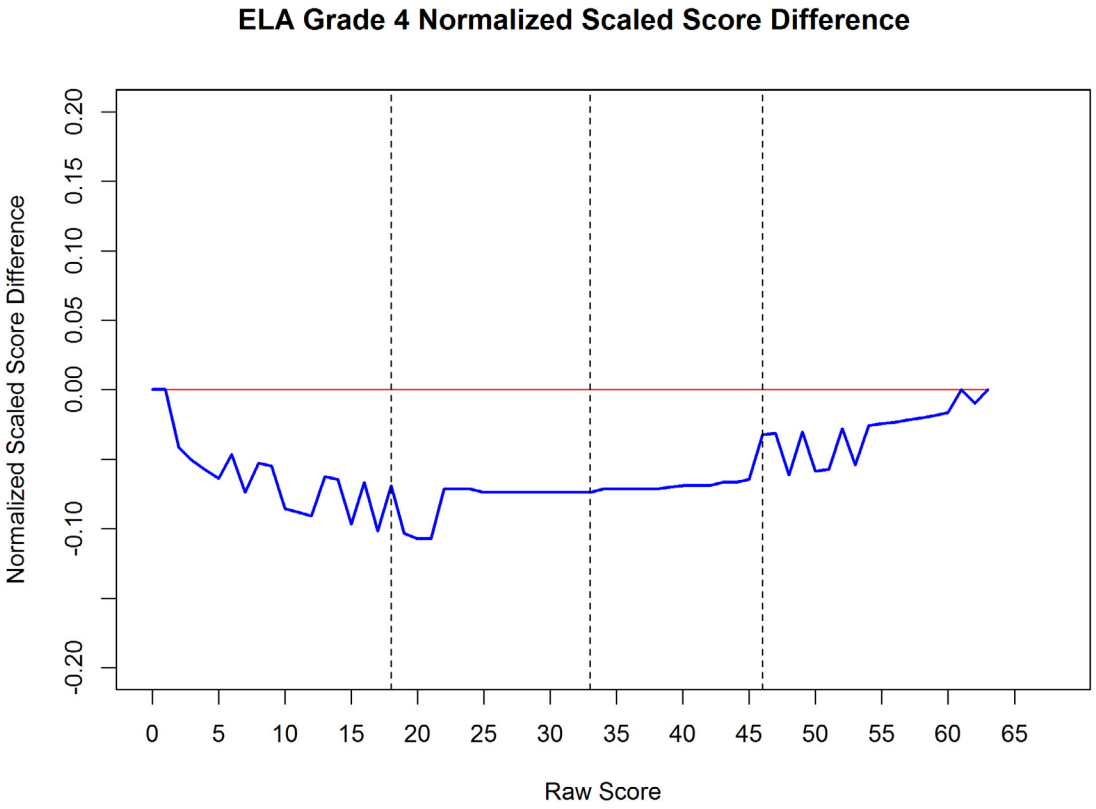

Mathematics Grade 5 Normalized Scaled Score Difference
Normalized Scaled Score Difference
0.20
0.15
0.10
0.05
0.00
-0.10
-0.20
0
5
10
15
20
25
30
35
40
45
50
55
Raw Score

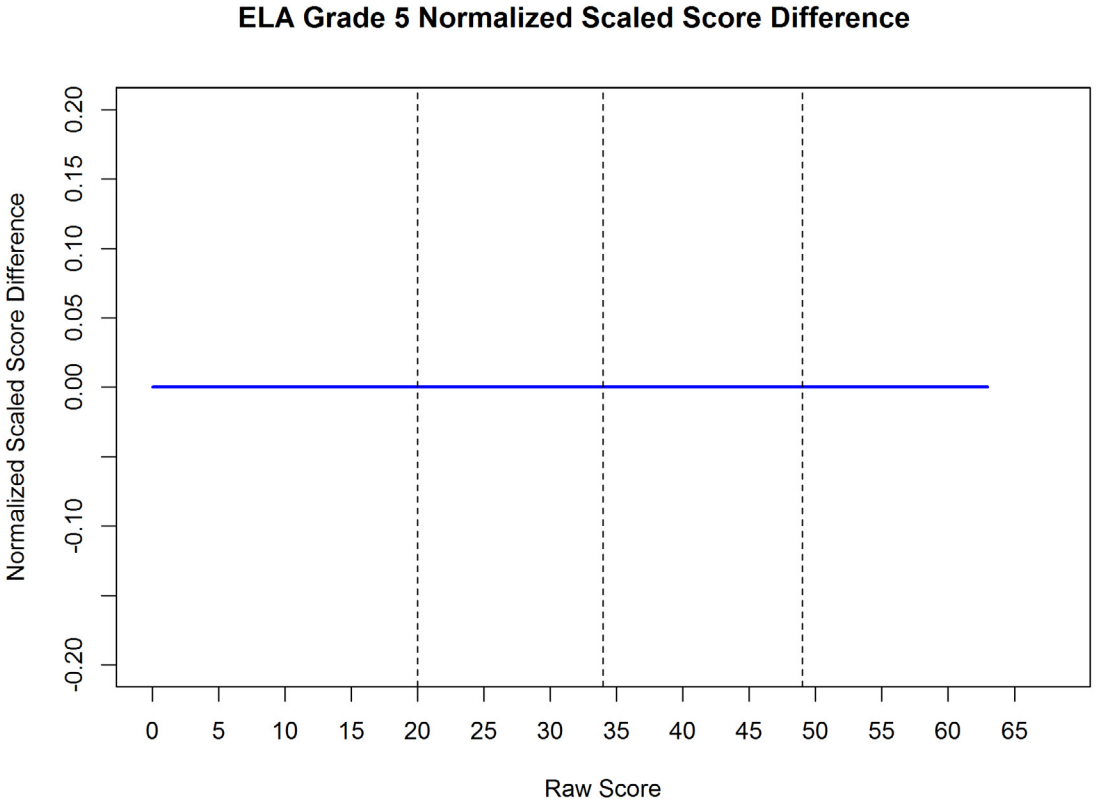

Mathematics Grade 6 Normalized Scaled Score Difference
Normalized Scaled Score Difference
0.20
0.15
0.10
0.05
0.00
-0.10
-0.20
0
5
10
15
20
25
30
35
40
45
50
55
Raw Score

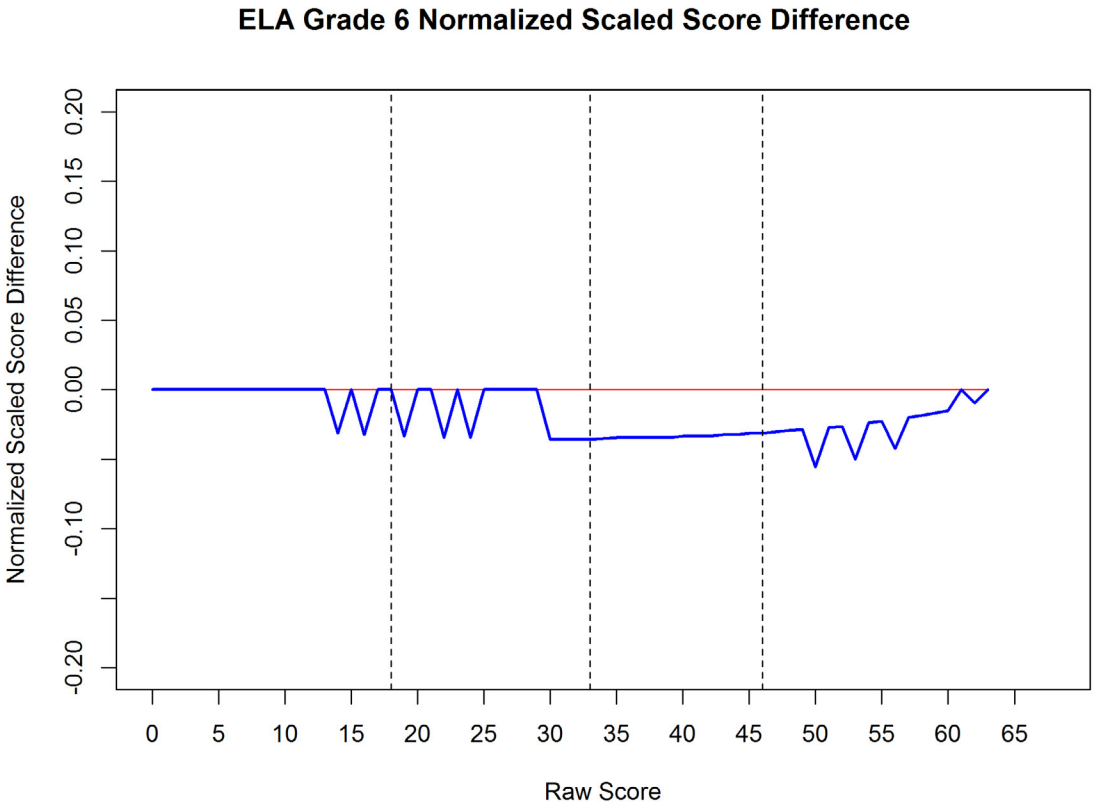

Mathematics Grade 7 Normalized Scaled Score Difference
Normalized Scaled Score Difference
0.20
0.15
0.10
0.05
0.00
-0.10
-0.20
0
5
10
15
20
25
30
35
40
45
50
55
Raw Score

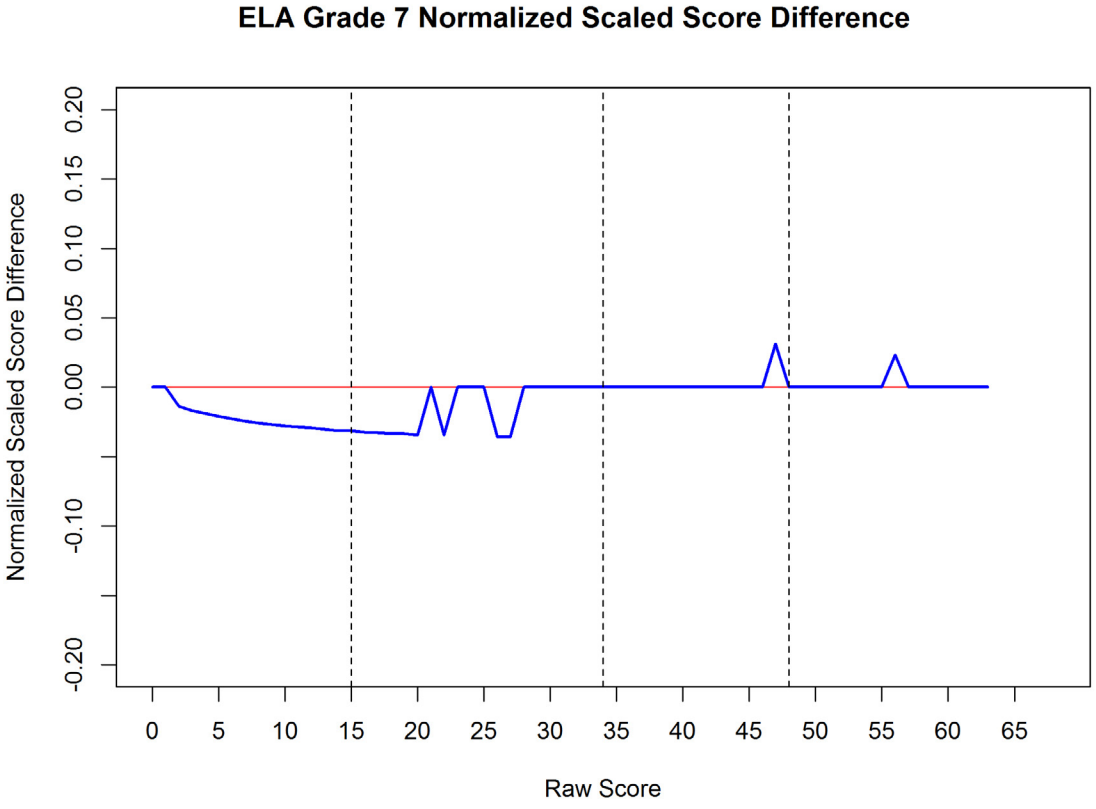

Mathematics Grade 8 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
55
Raw Score


ELA Grade 3 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
Raw Score


ELA Grade 4 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Raw Score


ELA Grade 5 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Raw Score


ELA Grade 6 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Raw Score


ELA Grade 7 Normalized Scaled Score Difference
Normalized Scaled Score Difference
-0.20
-0.10
0.00
0.05
0.10
0.15
0.20
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Raw Score

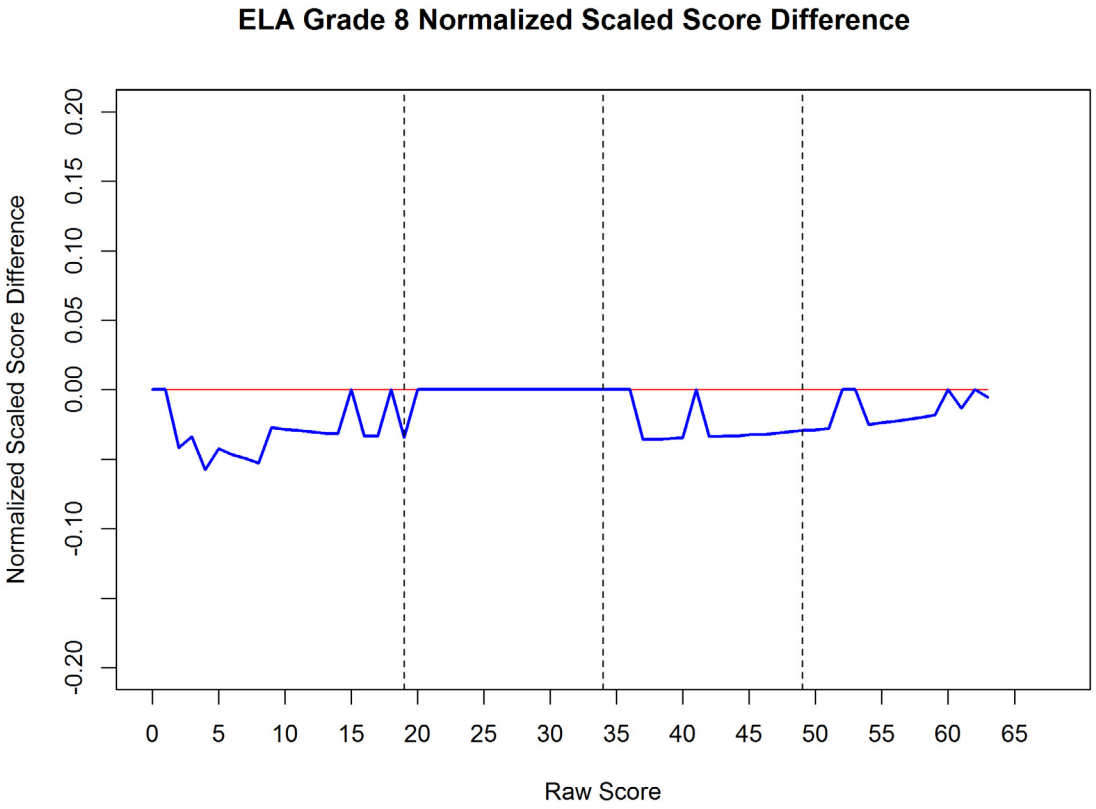

ELA Grade 8 Normalized Scaled Score Difference
Normalized Scaled Score Difference
0.20
0.15
0.10
0.05
0.00
-0.10
-0.20
0
5
10
15
20
25
30
35
40
45
50
55
60
65
Raw Score

Table T–1. Pre- and Post-Equated Conversion Tables by Subject and Grade

Mathematics Grade 3 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	102	102	BB	BB	0.0	True
2	651	650	73	73	BB	BB	0.0	True
3	694	693	60	60	BB	BB	0.0	True
4	726	725	53	53	BB	BB	0.1	True
5	752	751	48	48	BB	BB	0.3	True
6	773	772	45	45	BB	BB	0.6	True
7	792	790	42	42	BB	BB	1.0	True
8	808	807	40	40	BB	BB	1.4	True
9	823	822	38	38	BB	BB	1.9	True
10	885	824	37	37	BB	BB	1.8	True
10	837	836	36	36	BB	BB	2.2	True
11	850	849	35	35	BB	BB	2.4	True
12	862	861	34	34	BB	BB	2.5	True
13	873	872	33	33	BB	BB	2.7	True
14	884	883	32	32	BB	BB	2.6	True
15	894	893	32	32	BB	BB	2.4	True
16	904	903	31	31	BB	BB	2.5	True
17	914	913	31	31	BB	BB	2.4	True
18	923	922	30	30	B	BB	2.5	False
19	932	931	30	30	B	B	2.4	True
20	941	940	30	30	B	B	2.3	True
21	950	949	29	29	B	B	2.4	True
22	958	957	29	29	B	B	2.3	True
23	967	966	29	29	B	B	2.4	True
24	975	974	29	29	B	B	2.4	True
25	984	982	29	29	B	B	2.5	True
26	992	991	29	29	B	B	2.5	True
27	1000	999	29	29	P	B	2.4	False
28	1009	1008	29	29	P	P	2.4	True
29	1017	1016	29	29	P	P	2.5	True
30	1026	1024	29	29	P	P	2.6	True
31	1034	1033	29	29	P	P	2.4	True
32	1043	1042	30	30	P	P	2.5	True
33	1052	1051	30	30	P	P	2.6	True
34	1061	1060	30	30	P	P	2.5	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
35	1070	1069	31	31	P	P	2.4	True
36	1080	1079	31	31	P	P	2.5	True
37	1090	1089	32	32	P	P	2.6	True
38	1100	1099	32	32	P	P	2.5	True
39	1111	1110	33	33	A	A	2.5	True
40	1122	1121	34	34	A	A	2.5	True
41	1134	1133	35	35	A	A	2.4	True
42	1147	1146	36	36	A	A	2.3	True
43	1161	1160	38	38	A	A	2.4	True
44	1176	1175	40	40	A	A	2.1	True
45	1193	1192	42	42	A	A	2.1	True
46	1211	1210	45	45	A	A	1.9	True
47	1233	1232	48	48	A	A	1.6	True
48	1259	1258	53	53	A	A	1.4	True
49	1291	1290	61	61	A	A	1.0	True
50	1335	1334	73	73	A	A	0.7	True
51	1408	1407	102	102	A	A	0.4	True
52	1532	1531	184	184	A	A	0.1	True

Mathematics Grade 4 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	643	643	73	73	BB	BB	0.0	True
3	686	686	60	60	BB	BB	0.0	True
4	718	718	53	53	BB	BB	0.1	True
5	744	744	48	48	BB	BB	0.2	True
6	765	765	45	45	BB	BB	0.5	True
7	784	784	42	42	BB	BB	0.8	True
8	800	800	40	40	BB	BB	1.3	True
9	815	815	38	38	BB	BB	1.8	True
10	829	829	36	36	BB	BB	2.1	True
11	842	842	35	35	BB	BB	2.4	True
12	854	854	34	34	BB	BB	2.5	True
13	865	865	33	33	BB	BB	2.6	True
14	876	876	33	33	BB	BB	2.7	True
15	887	887	32	32	BB	BB	2.6	True
16	897	897	31	31	BB	BB	2.5	True
17	906	906	31	31	BB	BB	2.5	True
18	916	916	30	30	B	B	2.4	True
19	925	925	30	30	B	B	2.5	True
20	934	934	30	30	B	B	2.5	True
21	942	942	29	29	B	B	2.5	True
22	951	951	29	29	B	B	2.4	True
23	959	959	29	29	B	B	2.6	True
24	968	968	29	29	B	B	2.4	True
25	976	976	29	29	B	B	2.4	True
26	984	984	29	29	B	B	2.5	True
27	993	993	29	29	B	B	2.6	True
28	1001	1001	29	29	P	P	2.4	True
29	1009	1009	29	29	P	P	2.6	True
30	1017	1017	29	29	P	P	2.4	True
31	1026	1026	29	29	P	P	2.5	True
32	1034	1034	29	29	P	P	2.5	True
33	1043	1043	29	29	P	P	2.5	True
34	1052	1052	30	30	P	P	2.5	True
35	1061	1061	30	30	P	P	2.4	True
36	1070	1070	31	31	P	P	2.4	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1079	1079	31	31	P	P	2.4	True
38	1089	1089	32	32	P	P	2.3	True
39	1100	1100	33	33	P	P	2.4	True
40	1110	1110	33	33	A	A	2.4	True
41	1122	1122	35	35	A	A	2.4	True
42	1134	1134	36	36	A	A	2.1	True
43	1148	1148	37	37	A	A	2.2	True
44	1162	1162	39	39	A	A	2.1	True
45	1178	1178	41	41	A	A	2.0	True
46	1197	1197	44	44	A	A	1.9	True
47	1218	1218	48	48	A	A	1.7	True
48	1243	1243	53	53	A	A	1.6	True
49	1275	1275	61	61	A	A	1.3	True
50	1319	1319	73	73	A	A	1.0	True
51	1392	1392	102	102	A	A	0.6	True
52	1516	1516	184	184	A	A	0.3	True

Mathematics Grade 5 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	184	BB	BB	0.0	True
1	600	600	102	102	BB	BB	0.0	True
2	639	631	73	74	BB	BB	0.0	True
3	682	676	60	61	BB	BB	0.0	True
4	714	708	53	54	BB	BB	0.1	True
5	740	735	48	49	BB	BB	0.1	True
6	761	757	45	45	BB	BB	0.3	True
7	780	776	42	42	BB	BB	0.6	True
8	796	793	40	40	BB	BB	1.0	True
9	811	808	38	38	BB	BB	1.4	True
10	825	822	36	37	BB	BB	1.8	True
11	838	835	35	36	BB	BB	2.3	True
12	850	847	34	34	BB	BB	2.8	True
13	861	859	33	33	BB	BB	2.9	True
14	872	870	32	33	BB	BB	3.0	True
15	882	880	32	32	BB	BB	3.1	True
16	892	890	31	31	BB	BB	3.0	True
17	902	900	31	31	B	BB	3.1	False
18	911	909	30	30	B	B	3.0	True
19	920	918	30	30	B	B	3.0	True
20	929	927	30	30	B	B	2.8	True
21	937	936	29	30	B	B	2.8	True
22	946	945	29	29	B	B	2.8	True
23	955	953	29	29	B	B	2.7	True
24	963	962	29	29	B	B	2.6	True
25	971	970	29	29	B	B	2.7	True
26	980	979	29	29	B	B	2.6	True
27	988	987	29	29	B	B	2.6	True
28	997	996	29	29	B	B	2.6	True
29	1005	1004	29	29	P	P	2.6	True
30	1014	1013	29	30	P	P	2.6	True
31	1023	1022	30	30	P	P	2.5	True
32	1031	1031	30	30	P	P	2.5	True
33	1040	1040	30	30	P	P	2.4	True
34	1050	1049	31	31	P	P	2.3	True
35	1059	1059	31	31	P	P	2.3	True
36	1069	1068	31	32	P	P	2.2	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1079	1078	32	32	P	P	2.2	True
38	1089	1089	33	33	P	P	2.3	True
39	1100	1100	33	33	P	P	2.1	True
40	1112	1111	34	34	P	P	2.1	True
41	1123	1123	35	35	A	A	2.0	True
42	1136	1136	36	36	A	A	1.9	True
43	1149	1149	37	37	A	A	1.9	True
44	1164	1163	39	39	A	A	1.8	True
45	1179	1179	41	41	A	A	1.7	True
46	1197	1197	43	43	A	A	1.5	True
47	1217	1217	47	47	A	A	1.4	True
48	1241	1241	52	52	A	A	1.3	True
49	1272	1272	59	59	A	A	1.1	True
50	1314	1314	72	72	A	A	0.8	True
51	1385	1385	101	101	A	A	0.5	True
52	1507	1507	183	183	A	A	0.2	True

Mathematics Grade 6 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	184	184	BB	BB	0.0	True
1	600	600	102	103	BB	BB	0.0	True
2	609	604	73	74	BB	BB	0.0	True
3	653	649	61	62	BB	BB	0.0	True
4	686	683	54	54	BB	BB	0.1	True
5	712	710	49	49	BB	BB	0.1	True
6	734	732	45	46	BB	BB	0.3	True
7	753	752	42	43	BB	BB	0.6	True
8	770	769	40	41	BB	BB	1.1	True
9	786	785	39	39	BB	BB	1.6	True
10	800	800	37	37	BB	BB	2.2	True
11	813	813	36	36	BB	BB	2.7	True
12	826	826	35	35	BB	BB	3.0	True
13	837	838	34	34	BB	BB	3.2	True
14	848	849	33	33	BB	BB	3.3	True
15	859	860	32	32	BB	BB	3.2	True
16	869	870	32	32	BB	BB	3.3	True
17	879	880	31	31	BB	BB	3.1	True
18	889	890	31	31	BB	BB	3.0	True
19	898	899	30	30	B	B	3.0	True
20	907	908	30	30	B	B	2.8	True
21	916	917	30	30	B	B	2.9	True
22	925	926	29	29	B	B	2.7	True
23	934	934	29	29	B	B	2.7	True
24	942	943	29	29	B	B	2.6	True
25	951	951	29	29	B	B	2.6	True
26	959	960	29	29	B	B	2.6	True
27	967	968	29	29	B	B	2.5	True
28	976	977	29	29	B	B	2.4	True
29	984	985	29	29	B	B	2.4	True
30	993	994	29	29	B	B	2.3	True
31	1002	1002	30	30	P	P	2.3	True
32	1010	1011	30	30	P	P	2.3	True
33	1019	1020	30	30	P	P	2.2	True
34	1029	1029	31	31	P	P	2.1	True
35	1038	1039	31	31	P	P	2.2	True
36	1048	1049	32	32	P	P	2.0	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1058	1059	32	32	P	P	2.0	True
38	1069	1069	33	33	P	P	2.1	True
39	1080	1080	34	34	P	P	2.1	True
40	1091	1092	35	35	P	P	1.9	True
41	1104	1104	36	36	P	P	1.9	True
42	1117	1117	37	37	A	A	1.9	True
43	1131	1132	39	38	A	A	1.8	True
44	1147	1147	40	40	A	A	1.9	True
45	1164	1164	43	42	A	A	1.8	True
46	1183	1183	45	45	A	A	1.7	True
47	1205	1206	49	49	A	A	1.5	True
48	1231	1232	54	54	A	A	1.4	True
49	1264	1265	61	61	A	A	1.2	True
50	1309	1309	74	74	A	A	0.9	True
51	1382	1383	102	102	A	A	0.7	True
52	1506	1506	184	184	A	A	0.3	True

Mathematics Grade 7 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	634	634	73	73	BB	BB	0.0	True
3	677	677	60	60	BB	BB	0.0	True
4	709	709	53	53	BB	BB	0.1	True
5	734	734	48	48	BB	BB	0.3	True
6	755	755	44	44	BB	BB	0.8	True
7	773	773	42	42	BB	BB	1.3	True
8	790	790	39	39	BB	BB	2.1	True
9	805	805	38	38	BB	BB	2.8	True
10	818	818	36	36	BB	BB	3.6	True
11	831	831	35	35	BB	BB	4.0	True
12	843	843	34	34	BB	BB	4.2	True
13	854	854	33	33	BB	BB	4.2	True
14	865	865	33	33	BB	BB	3.9	True
15	875	875	32	32	BB	BB	3.8	True
16	885	885	31	31	BB	BB	3.4	True
17	895	895	31	31	BB	BB	3.1	True
18	905	905	30	30	B	B	3.1	True
19	914	914	30	30	B	B	3.0	True
20	923	923	30	30	B	B	2.6	True
21	932	932	30	30	B	B	2.6	True
22	940	940	29	29	B	B	2.5	True
23	949	949	29	29	B	B	2.4	True
24	957	957	29	29	B	B	2.4	True
25	966	966	29	29	B	B	2.2	True
26	974	974	29	29	B	B	2.1	True
27	983	983	29	29	B	B	2.1	True
28	991	991	29	29	B	B	2.0	True
29	999	999	29	29	B	B	2.0	True
30	1008	1008	29	29	P	P	2.0	True
31	1016	1016	29	29	P	P	2.0	True
32	1025	1025	29	29	P	P	1.9	True
33	1034	1034	30	30	P	P	1.8	True
34	1043	1043	30	30	P	P	1.8	True
35	1052	1052	30	30	P	P	1.8	True
36	1061	1061	31	31	P	P	1.8	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1071	1071	31	31	P	P	1.8	True
38	1081	1081	32	32	P	P	1.8	True
39	1092	1092	33	33	P	P	1.7	True
40	1103	1103	34	34	P	P	1.7	True
41	1114	1114	35	35	A	A	1.7	True
42	1127	1127	36	36	A	A	1.6	True
46	1120	1124	31	31	A	A	2.2	True
43	1141	1141	38	38	A	A	1.6	True
44	1156	1156	40	40	A	A	1.5	True
45	1172	1172	42	42	A	A	1.4	True
46	1191	1191	45	45	A	A	1.3	True
47	1213	1213	49	49	A	A	1.2	True
48	1240	1240	55	55	A	A	1.0	True
49	1274	1274	62	62	A	A	0.8	True
50	1321	1321	76	76	A	A	0.5	True
51	1398	1398	105	105	A	A	0.3	True
52	1526	1526	186	186	A	A	0.1	True

Mathematics Grade 8 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	604	604	73	73	BB	BB	0.0	True
3	647	647	60	60	BB	BB	0.0	True
4	679	679	53	53	BB	BB	0.1	True
5	704	704	48	48	BB	BB	0.2	True
6	725	725	44	44	BB	BB	0.4	True
7	743	743	42	42	BB	BB	0.8	True
8	760	760	39	39	BB	BB	1.4	True
9	774	774	38	38	BB	BB	2.0	True
10	788	788	36	36	BB	BB	2.6	True
11	801	801	35	35	BB	BB	3.2	True
12	813	813	34	34	BB	BB	3.5	True
13	824	824	33	33	BB	BB	3.6	True
14	835	835	32	32	BB	BB	3.6	True
15	845	845	32	32	BB	BB	3.7	True
16	855	855	31	31	BB	BB	3.6	True
17	864	864	31	31	BB	BB	3.4	True
18	874	874	30	30	BB	BB	3.1	True
19	883	883	30	30	BB	BB	3.0	True
20	891	891	30	30	BB	BB	2.8	True
21	900	900	29	29	BB	BB	2.8	True
22	909	909	29	29	B	B	2.6	True
23	917	917	29	29	B	B	2.6	True
24	925	925	29	29	B	B	2.5	True
25	934	934	29	29	B	B	2.4	True
26	942	942	29	29	B	B	2.5	True
27	950	950	29	29	B	B	2.4	True
28	958	958	29	29	B	B	2.3	True
29	966	966	29	29	B	B	2.2	True
30	974	974	29	29	B	B	2.2	True
31	983	983	29	29	B	B	2.3	True
32	991	991	29	29	B	B	2.1	True
33	1000	1000	29	29	P	P	2.1	True
34	1008	1008	30	30	P	P	2.0	True
35	1017	1017	30	30	P	P	2.0	True
36	1026	1026	30	30	P	P	1.9	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1035	1035	31	31	P	P	2.0	True
38	1045	1045	31	31	P	P	2.0	True
39	1055	1055	32	32	P	P	1.8	True
40	1066	1066	33	33	P	P	1.7	True
41	1077	1077	34	34	P	P	1.7	True
42	1089	1089	35	35	P	P	1.7	True
43	1102	1102	37	37	P	P	1.6	True
44	1116	1116	38	38	A	A	1.6	True
45	1131	1131	41	41	A	A	1.5	True
46	1149	1149	43	43	A	A	1.4	True
47	1170	1170	47	47	A	A	1.3	True
48	1194	1194	52	52	A	A	1.2	True
49	1225	1225	60	60	A	A	1.0	True
50	1268	1268	72	72	A	A	0.9	True
51	1340	1340	101	101	A	A	0.5	True
52	1462	1462	183	183	A	A	0.3	True

ELA Grade 3 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	184	183	BB	BB	0.0	True
1	600	602	102	102	BB	BB	0.0	True
2	667	675	73	73	BB	BB	0.0	True
3	711	719	61	61	BB	BB	0.0	True
4	744	751	54	53	BB	BB	0.1	True
5	770	776	49	48	BB	BB	0.3	True
6	792	798	45	45	BB	BB	0.6	True
7	811	817	43	42	BB	BB	1.1	True
8	828	834	41	40	BB	BB	1.7	True
9	844	850	39	39	BB	BB	2.4	True
10	859	864	38	37	BB	BB	3.0	True
11	873	877	36	36	BB	BB	3.4	True
12	885	890	36	35	BB	BB	3.8	True
13	898	902	35	35	BB	BB	3.8	True
14	910	914	34	34	B	B	3.9	True
15	921	925	34	33	B	B	3.6	True
16	932	936	33	33	B	B	3.6	True
17	943	947	33	33	B	B	3.5	True
18	954	958	33	32	B	B	3.5	True
19	965	968	32	32	B	B	3.4	True
20	975	978	32	32	B	B	3.4	True
21	985	988	32	32	B	B	3.4	True
22	996	999	32	32	B	B	3.2	True
23	1006	1009	32	32	P	P	3.4	True
24	1017	1019	32	32	P	P	3.4	True
25	1027	1029	32	32	P	P	3.4	True
26	1037	1040	33	32	P	P	3.4	True
27	1048	1050	33	33	P	P	3.3	True
28	1059	1061	33	33	P	P	3.4	True
29	1070	1072	33	33	P	P	3.3	True
30	1081	1083	34	34	P	P	3.1	True
31	1093	1095	34	34	P	P	3.2	True
32	1105	1107	35	35	P	P	2.9	True
33	1118	1119	36	36	P	P	2.8	True
34	1131	1132	37	37	P	P	2.6	True
35	1145	1146	38	38	A	A	2.4	True
36	1160	1161	39	39	A	A	2.0	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1176	1177	41	41	A	A	1.8	True
38	1194	1194	43	43	A	A	1.5	True
39	1213	1214	46	46	A	A	1.0	True
40	1236	1236	49	49	A	A	0.8	True
41	1262	1263	54	54	A	A	0.5	True
42	1295	1295	61	61	A	A	0.3	True
43	1340	1340	74	73	A	A	0.1	True
44	1413	1413	102	102	A	A	0.0	True
45	1536	1536	184	184	A	A	0.0	True

ELA Grade 4 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	628	631	72	72	BB	BB	0.0	True
3	670	673	59	59	BB	BB	0.0	True
4	701	704	52	52	BB	BB	0.0	True
5	725	728	47	47	BB	BB	0.1	True
6	746	748	43	43	BB	BB	0.1	True
7	763	766	41	40	BB	BB	0.3	True
8	779	781	38	38	BB	BB	0.4	True
9	793	795	37	36	BB	BB	0.7	True
10	805	808	35	35	BB	BB	1.0	True
11	817	820	34	34	BB	BB	1.3	True
12	828	831	33	33	BB	BB	1.5	True
13	839	841	32	32	BB	BB	1.7	True
14	849	851	31	31	BB	BB	1.8	True
15	858	861	31	31	BB	BB	1.9	True
16	868	870	30	30	BB	BB	2.0	True
17	876	879	30	29	BB	BB	2.2	True
18	885	887	29	29	BB	B	2.2	False
19	893	896	29	29	B	B	2.3	True
20	901	904	28	28	B	B	2.3	True
21	909	912	28	28	B	B	2.3	True
22	917	919	28	28	B	B	2.3	True
23	925	927	28	28	B	B	2.4	True
24	933	935	28	28	B	B	2.5	True
25	940	942	27	27	B	B	2.4	True
26	948	950	27	27	B	B	2.5	True
27	955	957	27	27	B	B	2.5	True
28	963	965	27	27	B	B	2.5	True
29	970	972	27	27	B	B	2.6	True
30	978	980	27	27	B	B	2.6	True
31	985	987	27	27	B	B	2.6	True
32	993	995	27	27	B	B	2.6	True
33	1000	1002	27	27	P	P	2.7	True
34	1008	1010	28	28	P	P	2.8	True
35	1015	1017	28	28	P	P	2.8	True
36	1023	1025	28	28	P	P	2.8	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1031	1033	28	28	P	P	2.7	True
38	1039	1041	28	28	P	P	2.9	True
39	1047	1049	29	28	P	P	2.8	True
40	1055	1057	29	29	P	P	2.8	True
41	1063	1065	29	29	P	P	2.7	True
42	1072	1074	29	29	P	P	2.7	True
43	1081	1083	30	30	P	P	2.5	True
44	1090	1092	30	30	P	P	2.4	True
45	1099	1101	31	31	P	P	2.3	True
46	1109	1110	31	31	A	A	2.1	True
47	1119	1120	32	32	A	A	1.9	True
48	1129	1131	33	32	A	A	1.8	True
49	1140	1141	33	33	A	A	1.5	True
50	1151	1153	34	34	A	A	1.3	True
51	1163	1165	35	35	A	A	1.2	True
52	1176	1177	36	36	A	A	0.9	True
53	1189	1191	37	37	A	A	0.7	True
54	1204	1205	39	39	A	A	0.6	True
55	1220	1221	41	41	A	A	0.4	True
56	1237	1238	43	43	A	A	0.3	True
57	1257	1258	46	46	A	A	0.2	True
58	1279	1280	49	49	A	A	0.1	True
59	1306	1307	54	54	A	A	0.1	True
60	1339	1340	61	61	A	A	0.0	True
61	1384	1384	74	74	A	A	0.0	True
62	1457	1458	102	102	A	A	0.0	True
63	1581	1581	184	184	A	A	0.0	True

ELA Grade 5 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	612	612	73	73	BB	BB	0.0	True
3	655	655	60	60	BB	BB	0.0	True
4	687	687	53	53	BB	BB	0.0	True
5	712	712	48	48	BB	BB	0.1	True
6	733	733	44	44	BB	BB	0.1	True
7	751	751	41	41	BB	BB	0.2	True
8	768	768	39	39	BB	BB	0.4	True
9	782	782	38	38	BB	BB	0.7	True
10	796	796	36	36	BB	BB	0.9	True
11	809	809	35	35	BB	BB	1.2	True
12	820	820	34	34	BB	BB	1.4	True
13	831	831	33	33	BB	BB	1.6	True
14	842	842	32	32	BB	BB	1.9	True
15	852	852	31	31	BB	BB	1.9	True
16	862	862	31	31	BB	BB	2.1	True
17	871	871	30	30	BB	BB	2.1	True
18	880	880	30	30	BB	BB	2.2	True
19	889	889	29	29	BB	BB	2.3	True
20	897	897	29	29	B	B	2.2	True
21	906	906	29	29	B	B	2.3	True
22	914	914	28	28	B	B	2.3	True
23	922	922	28	28	B	B	2.4	True
24	930	930	28	28	B	B	2.5	True
25	938	938	28	28	B	B	2.5	True
26	945	945	28	28	B	B	2.5	True
27	953	953	28	28	B	B	2.6	True
28	961	961	28	28	B	B	2.7	True
29	968	968	28	28	B	B	2.8	True
30	976	976	28	28	B	B	2.8	True
31	983	983	28	28	B	B	2.8	True
32	991	991	28	28	B	B	2.8	True
33	999	999	28	28	B	B	2.8	True
34	1006	1006	28	28	P	P	2.8	True
35	1014	1014	28	28	P	P	2.7	True
36	1022	1022	28	28	P	P	2.7	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1030	1030	28	28	P	P	2.7	True
38	1038	1038	28	28	P	P	2.7	True
39	1046	1046	29	29	P	P	2.5	True
40	1054	1054	29	29	P	P	2.5	True
41	1062	1062	29	29	P	P	2.5	True
42	1071	1071	30	30	P	P	2.5	True
43	1080	1080	30	30	P	P	2.4	True
44	1089	1089	30	30	P	P	2.2	True
45	1098	1098	31	31	P	P	2.1	True
46	1108	1108	31	31	P	P	2.0	True
47	1118	1118	32	32	P	P	1.8	True
48	1128	1128	33	33	P	P	1.7	True
49	1139	1139	33	33	A	A	1.6	True
50	1151	1151	34	34	A	A	1.4	True
51	1163	1163	35	35	A	A	1.3	True
52	1176	1176	36	36	A	A	1.0	True
53	1189	1189	38	38	A	A	0.9	True
54	1204	1204	39	39	A	A	0.7	True
55	1220	1220	41	41	A	A	0.6	True
56	1237	1237	43	43	A	A	0.4	True
57	1257	1257	46	46	A	A	0.3	True
58	1279	1279	49	49	A	A	0.2	True
59	1306	1306	54	54	A	A	0.2	True
60	1338	1338	61	61	A	A	0.1	True
61	1383	1383	74	74	A	A	0.1	True
62	1457	1457	102	102	A	A	0.0	True
63	1580	1580	184	184	A	A	0.0	True

ELA Grade 6 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	615	615	72	72	BB	BB	0.0	True
3	658	658	59	59	BB	BB	0.0	True
4	689	689	52	52	BB	BB	0.0	True
5	713	713	47	47	BB	BB	0.0	True
6	734	734	44	44	BB	BB	0.1	True
7	751	751	41	41	BB	BB	0.1	True
8	767	767	39	39	BB	BB	0.3	True
9	782	782	37	37	BB	BB	0.4	True
10	795	795	36	36	BB	BB	0.6	True
11	807	807	35	35	BB	BB	0.8	True
12	819	819	34	34	BB	BB	1.0	True
13	830	830	33	33	BB	BB	1.2	True
14	840	841	32	32	BB	BB	1.4	True
15	851	851	32	32	BB	BB	1.6	True
16	860	861	31	31	BB	BB	1.8	True
17	870	870	31	31	BB	BB	1.8	True
18	879	879	30	30	B	B	1.9	True
19	888	889	30	30	B	B	2.1	True
20	897	897	30	30	B	B	2.2	True
21	906	906	29	29	B	B	2.3	True
22	914	915	29	29	B	B	2.3	True
23	923	923	29	29	B	B	2.4	True
24	931	932	29	29	B	B	2.6	True
25	940	940	29	29	B	B	2.6	True
26	948	948	29	29	B	B	2.6	True
27	956	956	28	29	B	B	2.7	True
28	964	964	28	28	B	B	2.7	True
29	972	972	28	28	B	B	2.7	True
30	980	981	28	28	B	B	2.8	True
31	988	989	28	28	B	B	2.8	True
32	996	997	28	28	B	B	3.0	True
33	1004	1005	28	28	P	P	2.8	True
34	1012	1013	28	29	P	P	2.8	True
35	1020	1021	29	29	P	P	3.0	True
36	1028	1029	29	29	P	P	2.9	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1037	1038	29	29	P	P	2.7	True
38	1045	1046	29	29	P	P	2.8	True
39	1054	1055	29	29	P	P	2.8	True
40	1062	1063	30	30	P	P	2.9	True
41	1071	1072	30	30	P	P	2.7	True
42	1080	1081	30	30	P	P	2.6	True
43	1090	1091	31	31	P	P	2.5	True
44	1099	1100	31	31	P	P	2.4	True
45	1109	1110	32	32	P	P	2.2	True
46	1119	1120	32	32	A	A	2.2	True
47	1130	1131	33	33	A	A	2.0	True
48	1141	1142	34	34	A	A	1.8	True
49	1153	1154	35	35	A	A	1.7	True
50	1165	1167	36	36	A	A	1.5	True
51	1179	1180	37	37	A	A	1.4	True
52	1193	1194	38	38	A	A	1.2	True
53	1208	1210	40	40	A	A	1.0	True
54	1225	1226	42	42	A	A	0.8	True
55	1244	1245	44	44	A	A	0.6	True
56	1264	1266	47	47	A	A	0.5	True
57	1288	1289	50	50	A	A	0.4	True
58	1315	1316	54	54	A	A	0.3	True
59	1347	1348	59	59	A	A	0.2	True
60	1386	1387	66	66	A	A	0.1	True
61	1438	1438	78	78	A	A	0.1	True
62	1518	1519	106	106	A	A	0.0	True
63	1647	1647	186	186	A	A	0.0	True

ELA Grade 7 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	605	606	73	73	BB	BB	0.0	True
3	648	649	60	60	BB	BB	0.0	True
4	680	681	53	53	BB	BB	0.0	True
5	705	706	48	48	BB	BB	0.0	True
6	726	727	44	44	BB	BB	0.1	True
7	744	745	41	41	BB	BB	0.1	True
8	760	761	39	39	BB	BB	0.3	True
9	775	776	37	38	BB	BB	0.4	True
10	789	790	36	36	BB	BB	0.6	True
11	801	802	35	35	BB	BB	0.7	True
12	813	814	34	34	BB	BB	0.9	True
13	824	825	33	33	BB	BB	1.2	True
14	835	836	32	32	BB	BB	1.4	True
15	845	846	32	32	B	B	1.5	True
16	855	856	31	31	B	B	1.8	True
17	864	865	31	30	B	B	1.9	True
18	873	874	30	30	B	B	2.1	True
19	882	883	30	30	B	B	2.1	True
20	891	892	29	29	B	B	2.3	True
21	900	900	29	29	B	B	2.3	True
22	908	909	29	29	B	B	2.3	True
23	917	917	29	29	B	B	2.4	True
24	925	925	29	29	B	B	2.4	True
25	933	933	29	28	B	B	2.5	True
26	941	942	28	28	B	B	2.5	True
27	949	950	28	28	B	B	2.5	True
28	957	957	28	28	B	B	2.7	True
29	965	965	28	28	B	B	2.7	True
30	973	973	28	28	B	B	2.7	True
31	981	981	28	28	B	B	2.7	True
32	989	989	28	28	B	B	2.8	True
33	997	997	28	28	B	B	2.7	True
34	1005	1005	28	28	P	P	2.8	True
35	1013	1013	28	28	P	P	2.8	True
36	1021	1021	29	29	P	P	2.9	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1030	1030	29	29	P	P	2.8	True
38	1038	1038	29	29	P	P	2.7	True
39	1046	1046	29	29	P	P	2.8	True
40	1055	1055	29	29	P	P	2.7	True
41	1064	1064	30	30	P	P	2.8	True
42	1072	1072	30	30	P	P	2.6	True
43	1082	1082	30	30	P	P	2.6	True
44	1091	1091	31	31	P	P	2.5	True
45	1100	1100	31	31	P	P	2.4	True
46	1110	1110	32	32	P	P	2.3	True
47	1121	1120	32	32	P	P	2.1	True
48	1131	1131	33	33	A	A	2.0	True
49	1142	1142	34	34	A	A	1.8	True
50	1154	1154	34	34	A	A	1.6	True
51	1166	1166	35	35	A	A	1.5	True
52	1179	1179	36	36	A	A	1.3	True
53	1192	1192	38	38	A	A	1.2	True
54	1207	1207	39	39	A	A	0.9	True
55	1223	1223	41	41	A	A	0.7	True
56	1241	1240	43	43	A	A	0.6	True
57	1260	1260	46	46	A	A	0.4	True
58	1283	1283	49	49	A	A	0.3	True
59	1309	1309	54	54	A	A	0.2	True
60	1342	1342	61	61	A	A	0.1	True
61	1387	1387	74	74	A	A	0.1	True
62	1461	1461	102	102	A	A	0.0	True
63	1584	1584	184	184	A	A	0.0	True

ELA Grade 8 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
0	600	600	183	183	BB	BB	0.0	True
1	600	600	101	101	BB	BB	0.0	True
2	621	624	72	72	BB	BB	0.0	True
3	664	666	59	59	BB	BB	0.0	True
4	694	697	52	52	BB	BB	0.0	True
5	719	721	47	47	BB	BB	0.0	True
6	739	741	43	43	BB	BB	0.1	True
7	756	758	41	40	BB	BB	0.2	True
8	772	774	38	38	BB	BB	0.4	True
9	786	787	37	37	BB	BB	0.6	True
10	799	800	35	35	BB	BB	0.8	True
11	811	812	34	34	BB	BB	1.1	True
12	822	823	33	33	BB	BB	1.3	True
13	833	834	32	32	BB	BB	1.5	True
14	843	844	32	31	BB	BB	1.7	True
15	853	853	31	31	BB	BB	1.9	True
16	862	863	30	30	BB	BB	1.9	True
17	871	872	30	30	BB	BB	2.1	True
18	880	880	29	29	BB	BB	2.2	True
19	888	889	29	29	B	B	2.1	True
20	897	897	29	29	B	B	2.2	True
21	905	905	28	28	B	B	2.1	True
22	913	913	28	28	B	B	2.2	True
23	921	921	28	28	B	B	2.2	True
24	929	929	28	28	B	B	2.3	True
25	936	936	28	28	B	B	2.3	True
26	944	944	27	27	B	B	2.3	True
27	951	951	27	27	B	B	2.4	True
28	959	959	27	27	B	B	2.4	True
29	966	966	27	27	B	B	2.4	True
30	974	974	27	27	B	B	2.5	True
31	981	981	27	27	B	B	2.6	True
32	989	989	27	27	B	B	2.5	True
33	996	996	27	27	B	B	2.4	True
34	1004	1004	27	28	P	P	2.5	True
35	1011	1011	28	28	P	P	2.4	True
36	1019	1019	28	28	P	P	2.4	True

Raw Score	Pre-SS	Post-SS	Pre-SEM	Post-SEM	Pre-PL	Post-PL	Proportion (%)	Same PL
37	1026	1027	28	28	P	P	2.5	True
38	1034	1035	28	28	P	P	2.4	True
39	1042	1043	28	29	P	P	2.5	True
40	1050	1051	29	29	P	P	2.4	True
41	1059	1059	29	29	P	P	2.4	True
42	1067	1068	29	30	P	P	2.4	True
43	1076	1077	30	30	P	P	2.3	True
44	1085	1086	30	30	P	P	2.3	True
45	1094	1095	31	31	P	P	2.2	True
46	1104	1105	31	31	P	P	2.2	True
47	1114	1115	32	32	P	P	2.2	True
48	1125	1126	33	33	P	P	2.0	True
49	1136	1137	34	34	A	A	2.0	True
50	1147	1148	34	35	A	A	1.8	True
51	1159	1160	36	36	A	A	1.7	True
52	1173	1173	37	37	A	A	1.6	True
53	1187	1187	38	38	A	A	1.4	True
54	1202	1203	40	40	A	A	1.3	True
55	1218	1219	42	42	A	A	1.1	True
56	1236	1237	44	44	A	A	1.0	True
57	1257	1258	47	47	A	A	0.8	True
58	1280	1281	50	50	A	A	0.6	True
59	1308	1309	55	55	A	A	0.5	True
60	1343	1343	63	63	A	A	0.4	True
61	1389	1390	75	75	A	A	0.2	True
62	1465	1465	103	103	A	A	0.1	True
63	1589	1590	184	184	A	A	0.0	True

Science Grade 5 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Note. Science was a stand-alone field test in 2025. No pre-equating verification analyses were conducted.

Science Grade 8 Raw-to-Scaled Score Comparison for Pre-Equated and Post-Equated Solutions

Note. Science was a stand-alone field test in 2025. No pre-equating verification analyses were conducted.

APPENDIX U: SCIENCE STAND-ALONE FIELD TEST

INTRODUCTION

In 2025, the PSSA Science assessment was a stand-alone field test in grades 5 and 8 assessing the newly adopted and implemented Science, Technology, Engineering, Environmental Literacy and Sustainability (STEELS) standards. These newly adopted standards will guide students through inquiry, problem-solving, critical thinking, and authentic exploration.

THE STEELS STANDARDS

The STEELS standards were developed jointly to ensure consistency, coherence and a cohesive K–12 integrated approach to science education in the Commonwealth. The integration of science, engineering, and environmental literacy and sustainability disciplines in the standards highlights the interconnectedness of scientific, technological, and engineering focused study; the integral relationship between humans and the environment; and the importance of integrating the teaching and learning of science, technology, and engineering.

The PSSA science standards come directly from the Foundation Boxes Pennsylvania Academic Standards in science. Foundation Boxes provide detail for each standard: Clarifying Statements, Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts or Technology and Engineering Practices. Foundation boxes also include a PA context, linkage to PA Career Ready Skills, and connections to other PA standards.

TEST DESIGN

For the stand-alone field test in grades 5 and 8, eight computer-based test forms, one print form, and one special accommodated form for each Science grade level were developed consisting entirely of field-test items. The print form and the special accommodated form (01S) consisted of the same items as the online form except in the case of items that require online presentation. For those, the print and accommodated forms utilized multiple-choice item approximations which were intended to measure the same knowledge and skills. The print form and the special accommodated form (01S) consisted of the same items as the online form 1. Unlike other content areas, only one print form was available to increase participation in computer-based testing (CBT) in advance of the transition to full online testing in Spring 2026. The U.S. Department of Education issued a performance waiver for Pennsylvania's stand-alone science assessments in spring 2025 but required full participation in the field test for accountability purposes.

On each form, item types included multiple-choice (MC), technology-enhanced (TE), and short constructed response (CR) items. Scenario-based items were introduced in grade 5, whereas scenario-based items have been used for grade 8 under the previous science academic standards. There are typically 2 to 4 MC items associated with each scenario. Eight scenario-based items were presented on each grade 5 form, and 16 scenario-based items were presented on each grade 8 form. Table U-1 shows the number of field test items for each form, by grade level and item type.

Table U-1. Field Test Item Count by Form and Overall

Grade	Item Type	Form Count	Overall Count
5	Total	50	353
5	MC	42	301
5	CR	4	28
5	TE	4	24
8	Total	52	364
8	MC	44	312
8	CR	4	32
8	TE	4	20

The PSSA Science stand-alone field test followed a common items non-equivalent groups design in which common or linking items were presented on multiple forms. This linking design allowed for the joint calibration of data and estimation of item parameters for all field-test items on a common, temporary scale. Refer to the Calibration section for additional information. As shown in Table U-1, MC, TE, and CR items were used for linking in grade 5, and MC and TE items were used for linking in Grade 8. Some scenario-based MC items were also used for linking purposes. Refer to the Calibration section for additional information.

Table U–2 illustrates the test design for the spring 2025 standalone field test event. As one can see from the graphic, MC, TE, and CR items were repeated across multiple forms to establish a link between forms. These items, termed linking items (LK) were used to allow for a concurrent calibration of all forms within a grade level so that item parameters would be on the same underlying scale of measurement (Refer to Rasch Calibration Section for additional information). Rather than using a common set of items across all forms, different common items were repeated across forms to maximize the number of field test items on the 2025 forms. For example, forms 5 and 6 had the same scenario-based MC items, as did forms 7 and 8. In other sections of the test, stand-alone MC items were repeated across multiple forms as well. Table U-2 shows an excerpt of the field-test design.

Table U-2. Excerpt of PSSA Science Grade 5 Stand-Alone Field Test Design

Position	Form 1	Form 2	Form 3	Form 4	Form 5	Form 6	Form 7	Form 8
1	MC	MC	MC	MC	MC	MC	MC	MC
2	MC	MC	MC	MC	MC	MC	MC	MC
3	MC	MC	MC	MC	MC	MC	MC	MC
4	TE	TE	TE	TE	TE	TE	TE	TE
5	SC-MC	SC-MC	SC-MC	SC-MC	SC-MC LK 1	SC-MC LK 1	SC-MC LK 3	SC-MC LK 3
6	SC-MC	SC-MC	SC-MC	SC-MC	SC-MC LK 2	SC-MC LK 2	SC-MC LK 4	SC-MC LK 4
7	TE	TE	TE	TE	TE	TE	TE	TE
8	MC LK 1	MC LK 1	MC LK 5	MC LK 2	MC LK 2	MC LK 3	MC LK 4	MC LK 4
9	MC LK 3	MC LK 5	MC LK 6	MC LK 6	MC LK 8	MC LK 7	MC LK 7	MC LK 8
…	…	…	…	…	…	…	…	…
49	CR LK 1	CR LK 2	CR LK 2	CR LK 3	CR LK 1	CR LK 1	CR LK 3	CR LK 3
50	CR	CR	CR	CR	CR	CR	CR	CR

Note. LK represents linking items designated to establish the link across forms. SC-MC represents scenario-based MC items.

TEST BLUEPRINT

Under the STEELS standards, there are four reporting categories for PSSA. Each of the 4 reporting categories will comprise approximately 25% of the first operational test in spring 2026. Therefore, the PSSA Science stand-alone field test closely reflected the operational test blueprint. The four reporting categories are:

- Life Science and Environmental Literacy and Sustainability
- Physical Science
- Earth and Space Science
- Technology and Engineering

TEST ADMINISTRATION

Both print and online forms were available for the stand-alone field test. For science, only one print form was available; whereas eight online forms were available. Online form 01S and print form 01 consisted of the same set of field test items. These forms had the same MC and CR items as online form 01, but had MC replacement items in place of the TE items presented in the online forms.

Consistent with PSSA mathematics and ELA, online forms were spiraled in DRC's Test Engine INSIGHT. Form 01 was administered to the highest volume of students because it is the main accommodated form in which braille, large print, video sign language, and other common accommodations are available; this is similar to mathematics and ELA. Table U-3 shows the number of testers overall, by mode, and by form.

There was a high level of participation in the stand-alone field test. For grade 5, 118,183 students participated in the science test compared to approximately 118,000-119,000 students for mathematics and ELA grade 5; similarly for grade 8, 117,450 students participated in the science test compared to approximately 117,500 to 118,500 for mathematics and ELA for grade 8. The majority of testers took PSSA science as a CBT; 83% of grade 5 and 82% of grade 8 testers took a computer-based form.

Table U-3. Student Counts by Form

Grade	Form	Mode	N Students
5	Total	All	118,183
5	Total	Online	97,708
5	Total	Print	20,475
5	01S	Online	8,377
5	01	Print	20,475
5	01	Online	23,239
5	02	Online	9,446
5	03	Online	9,408
5	04	Online	9,485
5	05	Online	9,433
5	06	Online	9,443
5	07	Online	9,467
5	08	Online	9,410
8	Total	All	117,450
8	Total	Online	96,629
8	Total	Print	20,821
8	01S	Online	8,726
8	01	Print	20,821
8	01	Online	19,606
8	02	Online	9,805
8	03	Online	9,726
8	04	Online	9,748
8	05	Online	9,801
8	06	Online	9,728
8	07	Online	9,717
8	08	Online	9,772

Tables U-4 and U-5 show the distribution of student demographic and background characteristics overall and by form for grade 5 and grade 8, respectively. Student demographics include gender, race/ethnicity, student group (economically disadvantaged students, English Learners [EL], and students with individualized education plans [IEP]), and locale as defined by the National Center of Educational Statistics (NCES). As shown in the tables, there was a similar distribution of student characteristics across all forms. As expected, there were slightly different distributions for students taking the test online versus print because online and print forms were not spiraled together. However, it is important to note that historically there have been larger, more noticeable differences in the population of students taking print and online forms; this year there were substantially smaller differences. The largest difference between print and online forms is in the representation of locale. The print form had a higher percentage of students from city settings whereas the online forms had lower percentages of students from cities and higher representation of students from suburban settings.

Table U-4. PSSA Science Grade 5 Student Demographics (in Percentages) Overall and by Form

Category	Total	Form 1S Online	Form 1 Print	Form 1 Online	Form 2 Online	Form 3 Online	Form 4 Online	Form 5 Online	Form 6 Online	Form 7 Online	Form 8 Online
Female	48.93	50.53	48.36	46.44	49.59	49.89	49.95	49.37	49.77	49.52	50.39
Male	50.99	49.47	51.19	53.56	50.41	50.11	50.05	50.63	50.23	50.48	49.61
AIAN	0.17	0.14	0.15	0.22	0.19	0.17	0.14	0.19	0.14	0.12	0.22
Asian	5.12	6.28	4.95	3.69	5.13	5.39	5.65	5.46	5.75	5.71	5.59
Black	13.95	11.20	21.91	14.68	11.44	11.29	11.56	12.01	11.56	11.43	11.74
Hispanic	14.43	14.35	14.49	15.67	14.19	14.09	13.89	14.06	14.34	13.64	13.67
Multi-Race	5.53	5.34	5.73	5.88	5.29	5.07	5.66	5.58	5.23	5.41	5.37
NHPI	0.08	0.08	0.08	0.05	0.04	0.09	0.07	0.12	0.04	0.12	0.11
White	60.64	62.61	52.22	59.82	63.71	63.90	63.04	62.59	62.94	63.58	63.30
Ec. Disad.	47.32	42.96	53.79	53.97	42.98	43.22	43.48	43.89	44.00	43.50	43.59
EL	7.01	6.51	7.81	8.78	6.17	6.23	6.27	6.16	6.24	6.22	6.11
IEP	21.24	12.15	21.44	50.46	12.19	12.03	11.88	12.34	12.11	12.05	11.80
City	20.81	16.64	41.94	17.07	16.08	16.06	16.07	15.98	16.06	16.31	16.16
Rural	15.57	16.32	13.13	16.72	15.96	15.88	15.67	15.93	15.65	15.82	15.86
Suburb	54.72	58.39	36.42	56.28	59.23	59.49	59.38	59.28	59.76	59.16	59.34
Town	8.61	8.56	7.62	9.60	8.61	8.45	8.76	8.65	8.38	8.60	8.52

Note. AIAN represents American Indian Alaskan Native; NHPI represents Native Hawaiian Pacific Islander.

Table U-5. PSSA Science Grade 8 Student Demographics (in Percentages) Overall and by Form

Category	Total	Form 1S Online	Form 1 Print	Form 1 Online	Form 2 Online	Form 3 Online	Form 4 Online	Form 5 Online	Form 6 Online	Form 7 Online	Form 8 Online
Female	48.67	49.92	48.39	45.89	49.71	49.52	48.92	49.89	48.54	49.74	49.49
Male	51.20	50.08	50.88	54.11	50.29	50.48	51.08	50.11	51.46	50.26	50.51
AIAN	0.18	0.22	0.15	0.22	0.16	0.21	0.22	0.13	0.16	0.19	0.11
Asian	5.02	5.02	4.59	3.78	5.34	5.65	5.51	5.59	5.35	5.51	5.65
Black	14.32	10.86	23.54	15.96	11.49	11.79	11.43	11.48	11.14	11.19	11.80
Hispanic	14.24	14.51	15.10	14.77	13.60	13.64	13.65	14.21	13.96	13.45	14.01
Multi-Race	5.03	5.09	5.26	4.91	5.31	4.91	4.99	4.94	4.79	5.17	4.81
NHPI	0.08	0.08	0.09	0.09	0.07	0.07	0.05	0.11	0.05	0.10	0.09
White	61.00	64.22	50.53	60.26	64.02	63.72	64.16	63.53	64.55	64.40	63.53
Ec. Disad.	45.43	41.97	52.33	52.16	41.73	42.37	41.61	42.24	41.44	41.85	41.64
EL	6.47	5.84	8.16	7.71	5.68	5.50	5.78	5.77	5.68	5.79	5.61
IEP	18.92	12.29	19.48	43.20	12.59	12.20	12.75	12.68	12.66	12.78	12.77
City	20.18	14.71	45.01	18.10	13.82	14.09	13.79	14.07	14.05	13.83	13.76
Rural	15.89	16.83	11.96	16.51	16.86	16.89	16.57	16.76	16.62	16.88	16.93
Suburb	54.44	58.86	34.43	54.68	59.97	59.84	60.16	59.75	59.88	59.81	59.95
Town	8.93	9.45	6.58	10.31	9.15	9.01	9.31	9.21	9.20	9.29	9.14

Note. AIAN represents American Indian Alaskan Native; NHPI represents Native Hawaiian Pacific Islander.

DATA FOR STATISTICAL ANALYSIS

The previously discussed data sources for PSSA Science stand-alone field test were similar to PSSA mathematics and ELA (refer to Chapter Nine). Item analyses were conducted, and item statistics were banked based on the CBT data. Final data indicates the number of student records included in percentile reports.

Table U-6. Data Source *N*-Counts for PSSA Science

Subject	Grade	Item Bank (CBT)	Final (Paper/CBT)
Science	5	97,708	117,667
Science	8	96,629	117,036

CLASSICAL ITEM ANALYSIS AND DIFFERENTIAL ITEM FUNCTIONING

Table U-7 provides the summary statistics for the difficulty and discrimination for the 2025 field-test items with respect to grade and item type (see Chapter Five for a summary of the item statistics used for PSSA). As desired, there is a range of *p*-values, ranging from 0.10 and 0.96 for MC items, between 0.18 and 0.84 for CR items, and between 0.05 and 0.82 for TE items. Mean p-values tended to be close to 0.5 across all item types. The mean item-total correlations were between 0.38 and 0.4 for MC items, approximately 0.72 for CR items, and approximately 0.42 for TE items. As expected, item correlations tended to be higher for multi-point CR items.

Table U-7. Summary Statistics for Difficulty and Discrimination by Grade and Item Type

Subject	Grade	Item Type	N	Mean p-val.	Min p-val.	Med p-val.	Max p-val.	Mean I-T Corr.	Min I-T Corr.	Med I-T Corr.	Max I-T Corr.
Science	5	CR	28	0.53	0.21	0.55	0.84	0.72	0.58	0.73	0.82
Science	5	MC	301	0.55	0.10	0.54	0.96	0.38	-0.13	0.41	0.60
Science	5	TE	24	0.48	0.05	0.49	0.82	0.42	0.06	0.43	0.55
Science	8	CR	32	0.44	0.14	0.47	0.67	0.72	0.57	0.72	0.80
Science	8	MC	312	0.50	0.17	0.49	0.91	0.38	-0.06	0.41	0.60
Science	8	TE	20	0.52	0.28	0.52	0.77	0.42	0.15	0.43	0.60

DIF analyses were conducted on the 2025 field-test items. The number of items from each subject and grade that were assigned to each severity code is shown in Table U–8 for MC items, Table U-9 for CR items, and Table U-10 TE items. Results from DIF analyses are provided for gender (male/female) and ethnicity (white/black). Only two science MC items showed severe (C-level) DIF for gender or ethnicity. No CR or TE items were flagged for C-level DIF. These items were reviewed by a committee of Pennsylvania educators at Data Review Meeting and deemed appropriate for future use (see Chapter Five for additional information about data review).

Table U-8. DIF Summary for MC Items

Subject	Grade	DIF Comparison	A+	A-	B+	B-	C+	C-	Total
Science	5	Gender: Male/Female	155	143	1	1	0	1	301
Science	5	Ethnicity: White/Black	164	131	0	5	0	1	301
Science	8	Gender: Male/Female	164	144	2	2	0	0	312
Science	8	Ethnicity: White/Black	173	137	0	2	0	0	312

Table U-9. DIF Summary for CR Items

Subject	Grade	DIF Comparison	A+	A-	B+	B-	C+	C-	Total
Science	5	Gender: Male/Female	14	14	0	0	0	0	28
Science	5	Ethnicity: White/Black	9	16	0	3	0	0	28
Science	8	Gender: Male/Female	18	14	0	0	0	0	32
Science	8	Ethnicity: White/Black	17	12	1	2	0	0	32

Table U-10. DIF Summary for TE Items

Subject	Grade	DIF Comparison	A+	A-	B+	B-	C+	C-	Total
Science	5	Gender: Male/Female	13	9	1	1	0	0	24
Science	5	Ethnicity: White/Black	9	14	0	1	0	0	24
Science	8	Gender: Male/Female	6	13	0	1	0	0	20
Science	8	Ethnicity: White/Black	5	12	0	3	0	0	20

CONSTRUCTED RESPONSE ITEMS

SAMPLING

For all PSSA content areas, a sample of field-test responses to constructed response items is developed for handscoring. The size of the sample is dependent on the maximum score and properties of the CR items within each content area and grade level. For example, the sample for ELA grade 3 is 1100 per form because it utilizes 3-point CR items whereas the sample for ELA grades 4 through 8 is 1500 per form because it utilizes 4-point CR items that have historically positively skewed distributions (e.g., lower mean scores and a low proportion of students earning 4 points). For the stand-alone field test, the sample size for PSSA science increased from 1100 to 1500 with the adoption of the STEELS standards as 3-point CR items replaced 2-point CR items. Unlike other content areas, the sample consisted solely of online responses as the majority of the students took PSSA Science as a CBT. Moreover, with the full transition to online testing in Spring 2026, it was important to construct the scale based on data from CBTs[1].

Prior to developing the sample of constructed responses, blank student responses were known. The average omit rate was about 1-2% per CR item. Therefore, slightly more than 1500 responses were selected – 1,515 per form for grade 5 and 1,550 per form for grade 8.

Consistent with procedures for PSSA mathematics and ELA, DRC utilized simple random sampling for selecting a subset of student responses for each form. Then, the sample was compared to that of the population to ensure adequate representativeness in terms of background and demographic characteristics. Samples were redrawn until the distribution of background and demographic characteristics was similar to the overall population of online testers. Historically, students taking online form 01 tend to differ from the population because it is used both as an un-accommodated and an accommodated form; as such, the form 1 sample tends to show more differences when compared to the population. Tables U-11 and U-12 present the demographic and background characteristics of the sample used for scoring the field-test constructed response items.

Table U-11. PSSA Science Grade 5 Student Demographics (in Percentages) Total Sample and by Form

Category	Total Sample	Form 1 Online	Form 2 Online	Form 3 Online	Form 4 Online	Form 5 Online	Form 6 Online	Form 7 Online	Form 8 Online
Female	49.33	46.80	48.98	50.96	50.96	48.84	49.37	48.05	50.69
Male	50.67	53.20	51.02	49.04	49.04	51.16	50.63	51.95	49.31
AIAN	0.21	0.13	0.26	0.26	0.26	0.13	0.13	0.20	0.33
Asian	5.42	4.42	5.28	5.48	5.74	4.82	5.81	5.94	5.87
Black	11.98	14.39	12.21	10.83	11.42	12.61	11.49	12.08	10.83
Hispanic	13.83	14.32	13.73	13.47	13.20	13.86	14.79	12.28	14.98
Multi-Race	5.73	5.81	4.88	5.21	5.74	6.53	5.81	6.53	5.28
NHPI	0.10	0.20	0.07	0.07	0.07	0.20	0.00	0.07	0.13
White	62.73	60.73	63.56	64.69	63.56	61.85	61.98	62.90	62.57
Ec. Disad.	43.80	51.22	40.46	41.52	41.91	44.36	44.36	44.16	42.44
EL	6.45	7.85	6.27	5.81	5.87	6.01	7.13	6.27	6.40
IEP	15.96	41.12	12.87	11.82	13.53	12.94	12.01	12.01	11.35
City	16.01	16.63	15.91	15.84	16.30	15.18	16.17	16.11	15.97
Rural	15.63	14.46	16.30	14.92	15.71	15.97	15.45	16.63	15.58
Suburb	59.32	58.42	59.21	60.00	59.87	59.87	60.13	57.36	59.74
Town	8.88	10.36	8.58	8.98	8.05	8.78	8.12	9.57	8.58

Note. AIAN represents American Indian Alaskan Native; NHPI represents Native Hawaiian Pacific Islander.

[1] The Pennsylvania Technical Advisory Committee (TAC) approved this approach for the 2025 stand-alone field test.

Table U-12. PSSA Science Grade 8 Student Demographics (in Percentages) Total Sample and by Form

Category	Total Sample	Form 1 Online	Form 2 Online	Form 3 Online	Form 4 Online	Form 5 Online	Form 6 Online	Form 7 Online	Form 8 Online
Female	49.14	49.03	48.52	50.13	49.29	50.13	48.13	49.35	48.52
Male	50.86	50.97	51.48	49.87	50.71	49.87	51.87	50.65	51.48
AIAN	0.14	0.26	0.06	0.19	0.13	0.06	0.06	0.00	0.32
Asian	5.02	3.55	5.16	5.42	5.42	5.74	5.03	4.71	5.16
Black	12.00	14.26	11.48	12.52	12.19	9.94	11.42	11.68	12.52
Hispanic	14.02	14.77	13.42	14.45	12.32	14.84	12.90	14.45	14.97
Multi-Race	5.05	5.10	4.90	4.26	5.94	5.68	4.71	4.71	5.10
NHPI	0.05	0.00	0.00	0.06	0.13	0.06	0.06	0.06	0.00
White	63.73	62.06	64.97	63.10	63.87	63.68	65.81	64.39	61.94
Ec. Disad.	43.04	47.87	41.87	42.97	41.61	43.23	42.19	43.10	41.48
EL	5.48	6.58	5.35	5.94	4.90	5.16	4.90	5.68	5.35
IEP	15.15	33.35	12.77	11.16	12.90	11.48	11.74	12.90	14.84
City	14.50	17.10	14.26	15.87	13.23	14.58	13.74	13.61	13.61
Rural	16.77	16.84	15.87	15.87	15.94	17.35	17.74	17.03	17.55
Suburb	59.11	56.45	59.87	58.45	61.68	57.48	59.61	59.55	59.81
Town	9.35	9.29	9.87	9.48	9.03	10.26	8.65	9.42	8.77

Note. AIAN represents American Indian Alaskan Native; NHPI represents Native Hawaiian Pacific Islander.

RESULTS

As previously discussed, science CR items are scored polytomously from 0 to 3 (previously 0-2). Because the STEELS standards are more rigorous than the previous science standards and 2024-25 was the first academic year with the new standards, it was expected that students may have lower performance across all item types, but especially on the constructed response items. For six grade 5 items and nine grade 8 items, the percentage of students earning 0 points was greater than 30%; however, there were only seven items across both grade levels with less than 5% in the highest score point of 3. Omit rates tended to be higher for grade 8 than grade 5. The average omit rates for grades 5 and 8 were 0.33% and 0.93%, respectively. The distribution of student scores for each item and score are presented in Table U-13.

Table U-13. Percentage of Responses Awarded for each Score Point and Category, by Grade

Grade	Item	Form Number(s)	Score 0	Score 1	Score 2	Score 3	Blank	Non-Scorable
5	1	1	25.28%	25.02%	28.12%	17.69%	0.73%	3.17%
5	2	1	40.20%	24.36%	20.86%	9.17%	0.79%	4.62%
5	3	1, 3	54.52%	27.46%	9.31%	5.31%	0.72%	2.69%
5	4	1	38.88%	27.66%	27.06%	1.65%	0.79%	3.96%
5	1	2, 4	32.59%	21.20%	19.68%	24.56%	0.66%	1.32%
5	2	2	22.24%	36.70%	34.92%	4.69%	0.20%	1.25%
5	3	2	34.85%	28.05%	26.34%	9.24%	0.20%	1.32%
5	4	2	6.34%	8.38%	20.20%	63.83%	0.26%	0.99%
5	1	3	13.60%	20.26%	43.76%	20.79%	0.20%	1.39%
5	2	3	19.01%	20.40%	31.09%	27.26%	0.33%	1.91%
5	3	3	5.35%	12.48%	64.75%	17.29%	0.07%	0.07%
5	1	4	22.71%	20.33%	26.47%	28.45%	0.46%	1.58%
5	2	4	18.75%	19.80%	28.51%	31.29%	0.46%	1.19%
5	3	4	16.24%	16.63%	26.34%	39.41%	0.40%	0.99%
5	1	5	20.46%	21.65%	29.37%	28.25%	0.13%	0.13%
5	2	5	20.07%	24.36%	32.94%	20.99%	0.20%	1.45%
5	3	5	16.24%	23.83%	34.19%	23.83%	0.33%	1.58%
5	4	5, 7	8.31%	21.31%	35.69%	33.05%	0.00%	1.65%
5	1	6	22.90%	28.51%	30.56%	15.45%	0.53%	2.05%
5	2	6, 8	6.73%	17.68%	26.98%	48.48%	0.07%	0.07%
5	3	6	20.13%	18.81%	26.60%	33.14%	0.26%	1.06%
5	4	6	13.00%	15.18%	40.07%	28.91%	0.26%	2.57%
5	1	7	20.26%	33.86%	28.51%	15.51%	0.07%	1.78%
5	2	7	25.54%	23.70%	27.00%	22.24%	0.13%	1.39%
5	3	7	13.40%	14.19%	25.02%	46.34%	0.07%	0.99%
5	1	8	4.29%	6.86%	19.47%	67.46%	0.53%	1.39%
5	2	8	19.34%	26.86%	33.20%	19.74%	0.07%	0.79%
5	3	8	49.83%	24.29%	14.65%	9.31%	0.20%	1.72%
8	1	1	51.55%	23.87%	13.61%	3.35%	1.23%	6.39%
8	2	1	15.42%	28.58%	39.74%	13.55%	0.45%	2.26%
8	3	1	19.48%	25.48%	29.81%	20.32%	0.58%	4.32%
8	4	1	28.52%	24.71%	22.00%	17.48%	1.03%	6.26%
8	1	2	59.42%	26.06%	7.10%	2.58%	1.03%	3.81%
8	2	2	19.29%	20.97%	28.26%	25.16%	1.35%	4.97%
8	3	2	18.58%	29.16%	30.19%	17.16%	1.10%	3.81%
8	4	2	25.23%	23.68%	25.68%	18.39%	1.74%	5.29%
8	1	3	29.87%	29.94%	26.52%	10.32%	0.84%	2.52%

Grade	Item	Form Number(s)	Score 0	Score 1	Score 2	Score 3	Blank	Non-Scorable
8	2	3	9.81%	15.23%	34.97%	36.58%	0.90%	2.52%
8	3	3	36.58%	21.42%	18.71%	21.23%	0.52%	1.55%
8	4	3	26.45%	26.58%	29.68%	11.42%	1.29%	4.58%
8	1	4	6.71%	22.19%	35.61%	31.42%	0.77%	3.29%
8	2	4	26.39%	27.94%	25.16%	13.81%	1.61%	5.10%
8	3	4	14.84%	21.81%	21.74%	37.23%	1.10%	3.29%
8	4	4	43.74%	22.32%	17.55%	10.77%	1.03%	4.58%
8	1	5	66.71%	18.84%	6.26%	2.32%	1.23%	4.65%
8	2	5	23.87%	26.90%	28.52%	17.68%	0.45%	2.58%
8	3	5	59.35%	26.39%	7.81%	1.03%	1.23%	4.19%
8	4	5	22.39%	28.65%	26.77%	17.68%	1.10%	3.42%
8	1	6	7.74%	42.71%	32.84%	13.29%	0.65%	2.77%
8	2	6	38.77%	25.48%	18.58%	12.45%	0.77%	3.94%
8	3	6	18.71%	28.71%	27.23%	21.16%	0.26%	3.94%
8	4	6	45.55%	37.35%	9.61%	2.19%	0.84%	4.45%
8	1	7	18.90%	22.90%	29.35%	23.74%	1.16%	3.94%
8	2	7	17.55%	11.94%	35.48%	29.29%	1.10%	4.65%
8	3	7	34.71%	21.10%	22.97%	18.32%	0.52%	2.39%
8	4	7	23.10%	11.81%	19.23%	42.19%	0.84%	2.84%
8	1	8	11.29%	25.74%	27.42%	31.55%	0.77%	3.23%
8	2	8	24.52%	38.77%	19.23%	12.19%	0.97%	4.32%
8	3	8	22.52%	42.19%	24.26%	6.77%	0.65%	3.61%
8	4	8	23.42%	17.35%	20.90%	34.13%	0.77%	3.42%

Note. There were four CR items used for linking purposes in Science Grade 5. The four items appeared on multiple forms, but aggregated data is presented.

During handscoring, DRC's Performance Assessment System department conducts a 10% read behind for each field-test CR item to evaluate inter-rater agreement. Tables U-13 and U-14 presents the inter-rater agreement for each CR item for grade 5 and grade 8, respectively. For grade 5, the exact agreement ranged from 65% to 96% and the exact plus adjacent agreement ranged from 92% to 100%. For grade 8, the exact agreement ranged from 72% to 96% and the exact plus adjacent agreement ranged from 94% to 100%.

Table U-14. Science Grade 5 Inter-Rater Agreement for FT CR Items

Grade	Form	Item	%Exact Agreement	% Adjacent Agreement	% Exact Plus Adjacent
5	1	1	87	12	99
5	1	2	91	8	99
5	1	3	79	14	93
5	1	4	85	13	98
5	2	1	80	18	98
5	2	2	79	19	98
5	2	3	80	18	100
5	2	4	82	17	99
5	3	1	78	20	98
5	3	2	96	4	100
5	3	3	84	11	95
5	3	4	74	24	98
5	4	1	77	18	95
5	4	2	76	22	98
5	4	3	81	19	100
5	4	4	75	22	97
5	5	1	72	25	97
5	5	2	80	18	98
5	5	3	77	20	97
5	5	4	92	8	100
5	6	1	77	20	97
5	6	2	73	24	97
5	6	3	85	15	100
5	6	4	86	12	98
5	7	1	79	19	98
5	7	2	69	28	97
5	7	3	74	24	98
5	7	4	76	22	98
5	8	1	67	28	95
5	8	2	65	27	92
5	8	3	75	22	97
5	8	4	85	14	99

Table U-14. Science Grade 8 Inter-Rater Agreement for FT CR Items

Grade	Form	Item	%Exact Agreement	% Adjacent Agreement	%Exact Plus Adjacent
8	1	1	86	12	98
8	1	2	80	18	98
8	1	3	86	14	100
8	1	4	86	11	97
8	2	1	84	13	97
8	2	2	76	18	94
8	2	3	74	22	96
8	2	4	83	16	99
8	3	1	72	26	98
8	3	2	78	21	99
8	3	3	78	20	98
8	3	4	84	14	98
8	4	1	90	10	100
8	4	2	78	17	95
8	4	3	82	16	98
8	4	4	84	14	98
8	5	1	76	24	100
8	5	2	83	14	97
8	5	3	85	13	98
8	5	4	90	8	98
8	6	1	84	14	98
8	6	2	81	18	99
8	6	3	78	20	98
8	6	4	89	10	99
8	7	1	70	24	94
8	7	2	86	14	100
8	7	3	83	15	98
8	7	4	71	24	95
8	8	1	87	11	98
8	8	2	80	17	97
8	8	3	83	16	99
8	8	4	82	17	99

CALIBRATION BASED ON THE RASCH MODEL

For each grade level separately, response data from all the field test items was calibrated utilizing the common item nonequivalent groups design. Multiple field test forms shared common items to allow for a joint calibration that estimated item parameters for all field-test items on a temporary baseline scale. The temporary baseline scale was constructed in order to build the Spring 2026 forms, the first operational administration under the STEELS standards.

The constructed scale is considered temporary for two main reasons. First, 2024-2025 was the first academic year of classroom instruction under the newly adopted STEELS standards. As teachers gain more experience with developing curriculum and instructing students in alignment with the STEELS standards, student performance may shift. Second, the test design utilized a small number of liking items in order to field test as many newly developed items as possible, whereas in 2026 the operational set of items will be a common set of items. Utilizing the operational set of items for linking field test items ultimately results in more robust and stable item parameters.

The following steps outline the scale linking procedure used for PSSA Science. All calibration was conducted using WINSTEPS (Linacre, 2019).

1. Calibrate auto-scored FT items in an unanchored concurrent design.
    a. Include data from MC and TE items.
    b. Include only students that tested online and completed the test.
2. Calibrate all FT data in a partially anchored design.
    a. Anchor auto-scored FT items to parameters estimated in Step 1.
    b. Include only students that were included in the CR sample (tested online and completed the test).
    c. The resulting item parameters are banked for future use.

DATA REVIEW

The criteria used to identify items for data review are discussed in Chapter Five.

As discussed in Chapter Five, all field-test items were analyzed statistically using conventional item-analysis methods. For MC items, classical item statistics included the corrected point-biserial correlation (Pt. Bis.) for the correct and incorrect responses (distractors), percent correct (*p*-value), and the percent responding to incorrect responses. For constructed-response (CR) items (including open-ended questions, short-answer questions, and text-dependent analysis questions) and technology-enhanced (TE), the statistical indices included the item-test correlation, the point-biserial correlation for each score point, the percent of responses at each score point, and the percent of non-scoreable responses.

The following set of criteria was used to identify items for additional educator review.

For an MC item to be flagged, the criteria included any of the following:

- Percent correct (*p*-value) less than 0.3 or greater than 0.9
- Point-biserial correlation for the correct response less than 0.25
- Point-biserial correlation for any incorrect response greater than 0.0
- Percent responding to any incorrect responses greater than the *p*-value
- Gender or ethnic DIF code of either C- or C+

For a TE or CR item to be flagged, the criteria included any of the following:

- *p*-value less than 0.3 or greater than 0.9
- Point-biserial correlation less than 0.25
- Score proportion less than 0.05
- Gender or ethnic DIF code of either C- or C+

REVIEW OF ITEMS WITH DATA

In Chapter Five, the process for reviewing item was discussed. Each committee reviewed the pool of flagged field-test items and made recommendations on each item and/or scenario/passage. Data review details and results are shown in Table U-15. Full results for all subjects and grades are provided in Chapter Five.

Table U-15. 2025 Data Review Committee Results - Science

Grade	Total No. of Items	Reviewed MC/TE	Reviewed OE	Reviewed DIF only	Reviewed Total	Reviewed % of Total	No. of Items Rejected by Committee	% of Items Rejected by Committee	No. of Items Classified as Rejected *	% of Items Classified as Rejected *
5	353	68	3	1	71	20.11%	17	4.82%	21	5.95%
8	364	66	5	0	71	19.51%	6	1.65%	16	4.40%

*Items classified as “Rejected” from 2025 field test (all sources: data review committee, PDE, and DRC)

REPORTING RESULTS

Given the new adoption of the STEELS standards, there is great interest in receiving information about how students perform on PSSA Science. Yet, there is caution with reporting and interpreting student performance from any stand-alone field test. First, the forms were comprised entirely of field-test items. The purpose of the stand-alone field test was to collect item level data to support the selection of items for operational use. As discussed in this chapter, not all items were deemed eligible for future use due to poor statistical quality. The item level scores from poor performing items would influence the generalizations students can make about their performance. Second, the forms were not equivalent in terms of difficulty. Each form was comprised entirely of a unique set of field-test items with no common set of items appearing on each form; therefore, student performance cannot be compared across forms. In addition, the constructed underlying scale is considered temporary, so no common reporting scale was developed to report scores on a common metric. Lastly, standard setting is scheduled to occur following the first operational administration and development of the underlying baseline scale. This is scheduled for late summer 2026.

The Pennsylvania Department of Education understood the importance of providing the field with information about student performance. DRC provided each district with a percentile report. For each grade and form, percentiles were calculated based on all auto-scored multiple-choice and technology-enhanced items.

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