

Data-Informed Decision Making

A K-12 School Blueprint



Schools are facing increasing challenges to impact student performance in both achievement and growth. In response to these needs, many educators are looking to student learning assessments and a range of other data to provide information on how they are meeting the needs of students. Research has shown that high-performing schools have clear academic goals for students that are based on standards, developed from data, and used to inform instructional practices. However, without a comprehensive and strategic system for analyzing data, school leaders and teachers may become overwhelmed by the amount of information available to them. At the same time, school staff may miss critical and meaningful opportunities to use data to inform the effectiveness of practices.

This blueprint addresses three key planning processes in schools: annual school-wide planning, grade/subject-level planning, and classroom/student-level planning. This document identifies examples of data to use during these planning processes.

It is important to recognize the need for a common protocol in each part of the process:

1. **Achievement data** is gathered from the PSSAs, Keystones, PASA, NOCTI/NIMS, ACCESS for ELLs and locally administered assessments (student learning data);
2. PVAAS is used for analyzing **growth of groups of students and student projections** for planning (student learning data);
3. Other **local sources of data** (process data, demographic data, perceptual data) are considered;
4. **Discovery for root cause** is done through a structured process (Digging Deeper Guides);
5. **Evidence-based strategies** are identified to address the root causes. Solutions can be found from resources such as, but not limited to, Pennsylvania's Evidence Resource Center (www.evidenceforpa.org).

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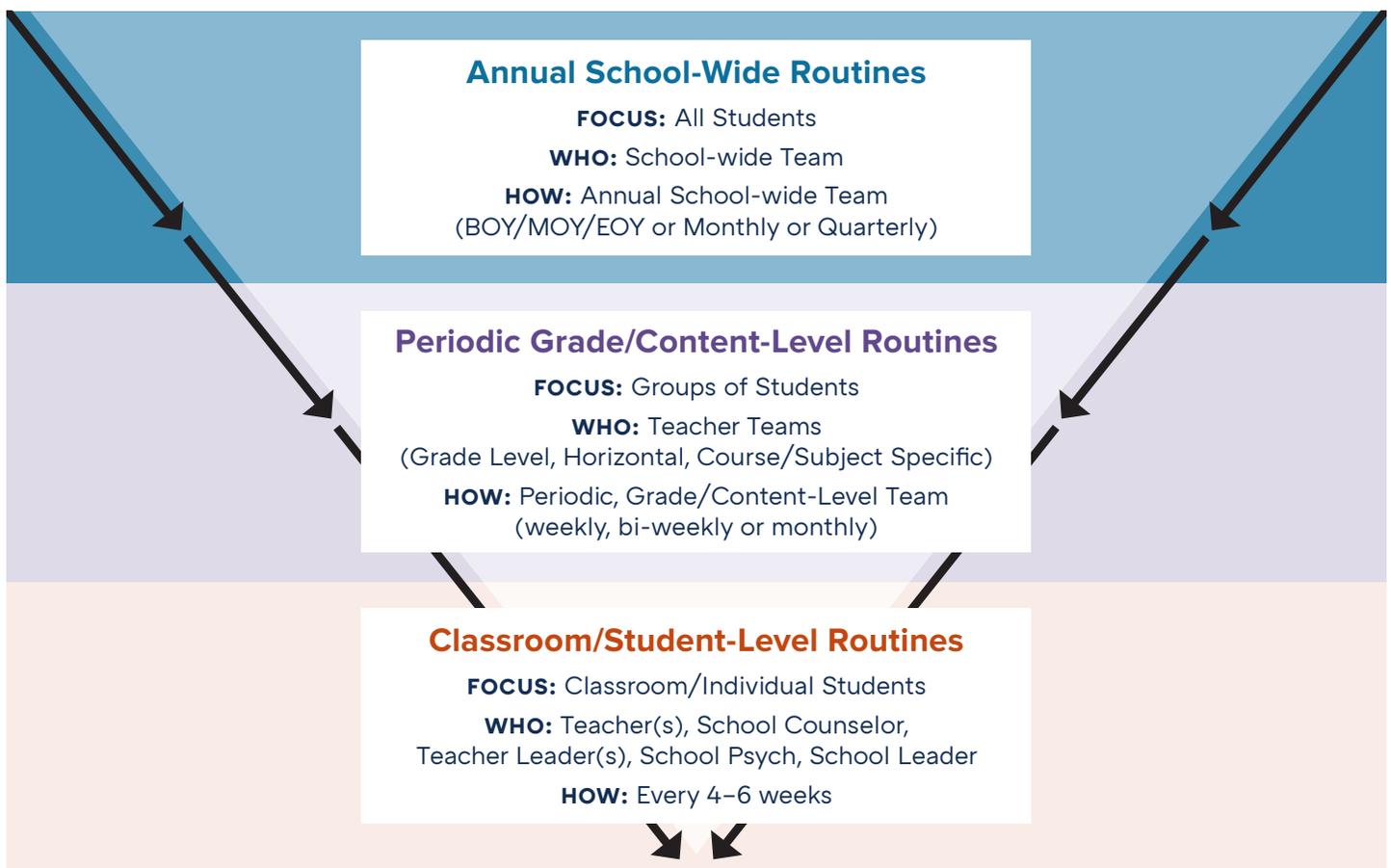




Data-Informed Decision Making: School

LEA / DISTRICT SUPPORT (LEADERSHIP)

Budgetary Support, Professional Development, Resources, School Structure, and Time
Demographic Data • Perceptual Data • Process Data • Student Learning Data



Blueprint For Data-Informed Decision-Making: School-Level

This blueprint offers a framework for district leaders, school leaders, and educators to decide how to maximize the impact of data in their classrooms. The framework provides suggestions for schools to conceptualize a systematic plan for data use and analysis, while emphasizing collaboration among teachers, the identification of goals at a classroom, grade/content and/or whole school level, and the development of action plans to achieve selected goals. Essential to this process is frequent monitoring of student performance to target movement toward the determined learning goals and to intervene and adjust instruction based on student learning needs.



Annual School-Wide Routines

Using data-informed decision making, teams of teachers and school leaders focus on a schoolwide approach to identify evidence of student achievement and growth to target key areas of need, considering whole-school and disaggregated data. The team then sets specific goals and develops action plans to achieve them. Routines may be three to four times per year, monthly or quarterly, to monitor implementation and progress toward goals. Data sources may include:

Student Learning Data

- School Score/Dashboard
- Achievement data (PSSA/Keystones, PASA, NOCTI/NIMS, ACCESS for ELLs)
- Growth and student projection summary data (PVAAS)
- Locally Administered Assessments (ex. Benchmark, Diagnostic)
- **Note:** School-wide aggregate, student group data, and longitudinal views where possible

Demographic, Perceptual, Process Data

- PA's Essential Practices for Schools
- School Demographic/Student Group Data
- Discipline Data
- Attendance Data
- Mobility Rate Data
- Graduation Rate Data
- Surveys: Staff, Students, Families
- Focus Group Data: Staff, Students, Families
- Curriculum, Instruction, Assessment, Organization Data

Periodic Grade/Subject-Level Routines

Teams of teachers meet weekly, biweekly, or monthly to review student performance data and evaluate progress toward specific goals, action plans aligned to the focus set by the school-wide team during annual routines, and grade/subject-specific goals. Teams may consist of teachers by grade levels, or across grade levels and/or subject areas. Teachers evaluate the effectiveness of recent instruction based on students' learning gains and determine adjustments for future instruction. Data sources may include:

Student Learning Data

Initial:

- Achievement data (PSSA/Keystones, PASA, NOCTI/NIMS, ACCESS for ELLs)
- Growth & student projection data (PVAAS)

Cyclical:

- Benchmark Assessment Data – Grade Level
- Diagnostic Assessments
- Common Classroom Assessments (ex. chapter tests, midterms, finals)

Demographic, Perceptual, Process Data

- PA's Essential Practices for Schools Demographic/Student Group Data
- Engagement Data
- Satisfaction Data
- Attendance Data
- Walk Through Data
- Surveys: Students
- Curriculum, Instruction, Assessment, Organization Data

Classroom/Student-Level Routines

Teachers use evidence of student learning to plan, differentiate, and adjust instruction. Assessments of learning gains are frequent and ongoing. Data sources may include:

Student Learning Data

Annual:

- Achievement data (PSSA, Keystones, PASA, NOCTI/NIMS, ACCESS for ELLs)
- Teacher specific growth data & student projection data (PVAAS)
- Student-level achievement data and PVAAS projection data

Cyclical:

- Benchmark Data – Student Level
- Diagnostic Assessments
- Common Classroom Assessments (ex. chapter tests, midterms, finals)

Continuous:

- Individual Classroom Assessments
- Progress Monitoring (formal)

Demographic, Perceptual, Process Data

- Student Historical Information
- Student Medical Information
- Student Learning Information
- Student Discipline Information
- Student Attendance Data
- Classroom-specific Curriculum, Instruction, Assessment, Organization Data

Interaction Among Planning Levels

Each planning level interacts and informs the levels adjacent to them. The *Annual School-Wide Planning Process* produces the year-long goals, benchmarks and action plans that the *Periodic Grade/Subject-Level Planning Process* relies on for direction and focus. The feedback of the individual teachers provide critical information that should be shared within the *Periodic Grade/Content-Level Planning Process*. In addition, the decisions at the *Student-Planning Process* provide focus and direction for classroom instruction and support for individual students. ***A truly data-informed decision-making culture includes not only each of the three levels of planning, but also the interaction of the levels.***

What other skills are needed to develop a school-wide culture of data-informed decision making?

In addition to a framework for using data in schools, *Data-Informed Decision Making: A K-12 School Blueprint* illustrates key areas for school leaders to develop as they establish and develop the use of data by their staff. School leaders work with teacher leaders to provide teachers with a system that allows for easy access to relevant information, as well as routines and structures for collaboration among staff. Individuals in leadership roles establish a structure of routines and build the capacity of the school staff to hold routine data meetings that are focused and purposeful. This discussion leads to action plans that are linked to evidence of students' needs, provide clear, measurable goals that are monitored consistently, and allow for adjustments in practices as needed. This occurs at all three levels: school, grade/subject and classroom/student.

Pennsylvania's Observation and Evidence: Framework for Principals includes several components directly related to data-informed practices. This includes, but is not limited to:

- 1a: Creates an Organizational Vision, Mission and Strategic Goals
- 1b: Uses Data for Informed Decision Making
- 2b: Ensures a High Quality, High Performing Staff
- 3a: Leads School Improvement Initiatives
- 4c: Support Professional Growth

Pennsylvania's Observation and Evidence: Framework for Evaluation includes several components directly related to using data-informed practices. This includes, but is not limited to:

- 1b: Demonstrating Knowledge of Students
- 1c: Setting Instructional Outcomes
- 1e: Designing Coherent Instruction
- 3d: Using Assessment in Instruction
- 4a: Reflecting on Teaching

The *Data-Informed Decision Making: A K-12 School Blueprint* framework is designed to support leaders as they work toward establishing and developing these practices. As schools begin to utilize a range of data and assessments to reflect on the effectiveness of curriculum, assessment, instruction and organization, teachers and leaders can move closer to their ultimate goal: positively impacting the performance and growth of all students.

Resources:

PDE PIL Blended Data Courses:

- Foundations: Data to Action
- School-Level: Data to Action
- Classroom-Level: Data to Action

Digging Deeper Guides:

- Students with a History of Higher Achievement
- Students with a History of Lower Achievement
- English Language Arts (ELA) Grades 3-5, 6-8, Keystone Lit. Mathematics Grades 3-5, 6-8, Keystone Algebra I
- Science Grades 4 & 8, Keystone Biology