For as long as testing has been in use, education has relied on assessment data to drive practice. But today, data can deliver even more critical insights into how effective a school is in teaching students and where opportunities for improvement exist.

Principals can employ data not only to measure student progress, but also to direct instruction and drive professional development based on the measurement of particular strategies’ success. And they can share their decision-making responsibility by empowering teachers to use data.

Look to the following resources for details on the effective uses of data and assessment.

Data and Leadership
“Principals’ Use of Data: An Executive Summary” provides a descriptive account of leaders’ use of data for decision-making in a Midwestern state, including a summary of how often the principals used data, their perceptions of data’s utility in decision-making, their confidence in using data, and the organizational mechanisms present to support data use.


Effective school management almost invariably includes the objective, consistent, and useful assessment of teachers and teaching quality and uses data to make decisions about instruction, says “School Leadership Counts.” Effective leaders also tend to champion a shared purpose and vision, an atmosphere of trust and respect, and high and consistent
academic standards to ensure student success and optimal school performance.


Reviewing 70 existing support systems, “Data-Driven Decision-Making for School Leadership: A Critical Analysis of Supporting Systems” says that school leaders must design strategic plans that integrate the characteristics and behaviors of interrelating agents such as principals, teachers, students, parents, and infrastructural assets to affect overall school performance.


Building Capacity

Effective use of data by teachers, school leaders, and support staff has become central to school-improvement processes, says “What Makes a School a Learning Organization? A Guide for Policymakers, School Leaders, and Teachers.” Schools can realize major improvements when they increase capacity to engage in ongoing assessment for learning and regularly evaluate, amend, and update theories about how interventions are intended to work and whether they actually do.


While school leaders recognize the need to provide support to teachers attempting to interpret and respond to data, there is little theoretically sound research on data-driven decision-making to guide their efforts, says “How Leaders Can Support Teachers With Data-Driven Decision-Making: A Framework for Understanding Capacity Building.” This paper offers a framework to help build teachers’ capacity to use data, noting implications for leadership practice.


Teacher networks can be a potentially powerful mechanism for developing the capacity to use data, says “The Development of Capacity for Data Use: The Role of Teacher Networks in an Elementary School.” Greater attention should be paid to capacity as embedded in social relations; interactions among elementary school educators can support development of capacity within schools.


“Structuring Professional Learning to Develop a Culture of Data Use: Aligning Knowledge From the Field and Research Findings” offers an analysis of current research related to school and district data use with a focus on identifying key characteristics of effective data-use cultures. School and district leaders can employ a conceptual framework of five elements to guide professional learning in data usage, making a mental map to address the range of knowledge and skills teachers must learn in order to use data as part of their daily practice.


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