



# when DATA drives school culture

Data availability and use are crucial to improving academic outcomes at high-performing schools.

**F**or schools to be effective learning organizations, their teachers and leaders need to continuously evaluate what is working and what isn't. Some recent research shows that such reflection might be particularly important in the middle grades – a crucial time to identify and intervene with students at risk of later academic failure. To make the best decisions, educators need to have access to timely assessment and other data, such as attendance and behavior records.

In its study of middle grades education, *Gaining Ground in the Middle Grades: Why Some Schools Do Better*, EdSource surveyed 303 middle grades principals, 157 superintendents, and 3,752 English and math teachers to find out which practices distinguished higher-performing from lower-performing schools serving students with similar socioeconomic characteristics. The study found that high-performing schools focus intensely on improving academic outcomes for students, and data availability and use play a crucial part in what these schools do.

The surveys asked about a wide range of practices – including the use of data – thought to have an impact on middle grades students' outcomes. Among other findings, the study provides insights into how data are used in higher-performing schools to help improve instruction and student learning.

## ■ Districts support higher-performing schools by providing timely, user-friendly data on students

For a school to be able to effectively use student data to improve instruction, it must have the support of its district in a number of ways. In the EdSource study, districts with higher-performing

schools play a pivotal role by setting expectations, supporting school capacity, making sure data is available, and using data themselves. These districts emphasize regular teacher use of benchmark and/or diagnostic assessments. They support teachers and principals by providing a computer-based system that is easy to access and by training staff on how to use the data management software effectively.

Districts also provide standards-based benchmark tests in each grade and each subject that they expect all schools to administer. They then analyze the data and provide them promptly to the school in ways that are most useful to teachers and principals. Teachers not only receive California Standards Test (CST) data for each individual student, but also disaggregated by specific skill or academic content for all their students so that they can see whether they have been effective in imparting knowledge or teaching a skill. In addition, the district provides data based on subgroups (ethnic, English learners, etc.) and summary data for all students across the grade levels they teach.

Districts also use student outcomes to influence school improvement, such as by recognizing both good teacher practices and areas where improvement is necessary.

## ■ Higher-performing schools use assessment and other student data extensively and in multiple ways

Very few principals or teachers who responded to the EdSource

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*By EdSource*

study reported never using test data to inform their work. However, higher-performing schools appeared to differ from their lower-performing counterparts in the frequency of their data use – throughout the year versus a few times a year. They also differed in how many and in what ways they use data.

### The changing role of principals

In higher-performing schools, the principals personally use the data extensively and in multiple ways to develop strategies to improve student achievement and teaching. Many of these principals say they review CST and benchmark tests throughout the year with individual teachers, teachers grouped by grade level, English and math teachers by department, and other school administrators. They also review the data based on subgroups of students. Many say they also meet with the entire school staff to review schoolwide benchmark scores.

Principals in these schools report that they use data to set goals to improve student learning overall. But they also use individual test results to focus on specific students, develop strategies to help them improve, and follow up on their progress.

Like their district leaders, these principals set high expectations and emphasize the use of data to assess progress. They expect teachers to monitor student grades and class test scores, to evaluate subgroup progress, to set measurable student goals, and to rapidly report any need for intervention. They use data to examine teachers' practices and content knowledge so they can determine what professional development is needed for individual teachers or for a department. They also use data to identify areas for schoolwide improvement.

### A schoolwide culture shift

The extensive use of assessment data by principals and teachers signals a culture shift in higher-performing schools to a more intense focus on student outcomes. Teachers and principals agree that their school has an instructional plan in place and that they assess the effectiveness of that plan on an ongoing basis.

Teachers in these schools report that they rely on test data to evaluate students and themselves. They use data to determine students' progress individually and by subgroups, to identify and correct gaps in their learning, and to set goals – again, individually and by subgroups. Teachers also use data to encourage students – to help them see how they are steadily improving. And, equally important, teachers rely on test data to inform their own instructional practice.

Teachers in these schools administer a wide variety of tests to accomplish their goals, including:

- Benchmark tests to determine whether students are meeting particular standards;
- Diagnostic assessments to figure out what students know and the nature of any misconceptions;
- Classroom-based tests to help guide instruction.

And in some of these higher-performing schools, teachers say that special teams meet to review student attendance and/or behavior data and devise solutions. Research has shown that student behavior and attendance can predict, for example, whether students entering

high-poverty middle schools behind grade level in mathematics will catch up before they leave. This research emphasizes the value of an immediate response to a student's first unexcused absence and consistent modeling and recognition of positive student behavior.

Finally, the schools use annual student standards-based assessment scores to aid in the placement of students, including a determination of whether they should be promoted and whether interventions are needed.

### ■ Effective use of data varies across the state

The EdSource study points out the variation in the access to and use of data throughout the state. Only 163 of 303 principals surveyed strongly agreed that their district provides a computer-based system to enable school staff members to access and review student data. And only 63 strongly agreed that their district provides adequate training to staff in data management software.

The study also indicates the important role of data in driving school improvement. Effective schools in this study have an intense focus on improving student outcomes, reflecting continuously on what is working, what is not, and how to change. These schools use data to inform decisions about additional academic support and student placement and to set goals for meeting the needs of individuals and student subgroups.

Districts play a crucial role in making ongoing evaluation of progress effective at the school level. They do this by enabling schools to access student assessment data quickly and in a usable form, and by making reflection on common benchmarks for student learning not only possible, but also expected. ■

*For more information about the study or to read the full report, go to [www.edsource.org/middle-grades-study.html](http://www.edsource.org/middle-grades-study.html)*

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*EdSource is a not-for-profit 501(c)(3) organization established in California in 1977. Independent and impartial, EdSource develops and distributes information that clarifies K-14 education issues and promotes thoughtful decisions about California's public education system.*

**About this study:** The research team included EdSource Executive Director Trish Williams and other EdSource staff; Michael Kirst, professor emeritus, and Edward Haertel, professor, at the Stanford University School of Education; and Jesse Levin of American Institutes of Research.

Three surveys asked teachers, principals, and superintendents about district and school policies and practices in the middle grades. Among the 303 schools, one-quarter were K-8 schools, one-quarter were grades 7-8, and the rest were predominantly grades 6-8. They were located throughout the state, varied widely in size, and represented low- and middle-income communities. Survey responses were analyzed against spring 2009 scores on California Standards Tests in English language arts and math for almost 204,000 students in grades 6, 7 and 8, plus algebra 1 in grade 8.

The study identified the middle grades practices in place in California that differentiate higher-performing schools, other things being equal.