DATA USE—For Equity

Meaningful use of data in school means giving all students the opportunity to achieve at high levels.

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In many schools and districts, the enthusiasm for data-driven decision making has produced volumes of data that are never actually used to inform, much less improve, classroom instruction. When benchmark assessment results or annual standardized test scores are examined, it's often done in a cursory manner, partly because teachers have so many demands on their time. Also strapped for time, leaders may find it difficult to lead crucial conversations around the data and follow up with professional growth opportunities for teachers. Meanwhile, the push to raise student achievement is unabated, especially in schools serving large numbers of low-income students of color.

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Principles, Not Just Practices

To create positive changes in classroom instruction, leaders must provide the conditions for teachers to examine data deeply. Looking at data quickly and uncritically leads to simplified solutions to complex issues. Data use that results in instructional improvement isn't just a set of practices. Rather, it's driven by the important principles of equity, reflection, and valuing student and teacher engagement.

Consider this situation. At the first staff meeting of the year, a school principal displays the data from state assessments administered the previous spring, something she does every year. The graphs reveal the percentages of students who are performing above, at, or below grade level. The same trends appear every year. The majority of English language learners and low-income students are performing below grade level. Teachers ask a few questions about the charts. Some mumble about the changing demographics at the school and the new immigrant families moving into the neighborhood. Unsure how to handle what might become a controversial discussion, the principal quickly moves on to the next agenda item.

Reflecting after the meeting, the principal realizes this was a missed opportunity to address some teachers' deep-seated beliefs about race, social class, and student achievement, as well as bring to light promising practices of other teachers. The data she presented showed patterns by race and social class—she just wasn't sure how to explain them in ways that would lead the staff away from blaming

the students and their families. This wasn't simply about looking at data patterns but about examining the school's commitment to equity. It was about articulating not just the practice of data use—that is, how staff members analyze data and the data they look at—but also the purpose: How does this process serve school improvement goals? This would be a deep conversation that would need to span numerous faculty meetings.

Many principals find themselves in a similar boat. School leaders are often drowning in data but are unsure which forms of data will help them create a portrait of student achievement that motivates staff to look beyond simple trends and delve deeper into root causes. Teachers often wish for more guidance on the kinds of data analysis and teaching strategies that will help them move the needle in classroom instruction. As a teacher once told us, "Don't just throw the data out there and expect the teachers to be able to pick them up and run with them!"

In the course of our work with school leaders, we've found numerous ways to use data for instructional improvement. But a key lesson we've learned is the importance of replicating principles, not just practices.

Here are five key principles of data use that can guide leaders in promoting deeper inquiry around data in their schools and districts so all students have the opportunity to achieve at high levels.

PRINCIPLE 1.

Articulate your purpose and commitment to equity.

Data don't drive (Dowd, 2005). The activity tracker you have strapped to your wrist may help you track how many steps you took in a day, the calories you burned, and even your sleep patterns. Having such data may inspire you to change your habits, but how you make sense of the data and take action ultimately is up to you.

The same is true in schools. Educators must engage in inquiry around data to inform a course of action. Data-*informed* leadership, as opposed to data-driven leadership, is thus a more appropriate term for what we're asking leaders to do (Datnow & Park, 2014).

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Without a clear vision for data-informed decision making, data use can foster inequity. Research has repeatedly documented that some schools devote most of their remediation efforts to students hovering near the proficiency mark; the "just too low" students are considered lost causes (Booher-Jennings, 2005). Data-driven decision making becomes a bad practice when it's used to limit, rather than expand, students' opportunities.

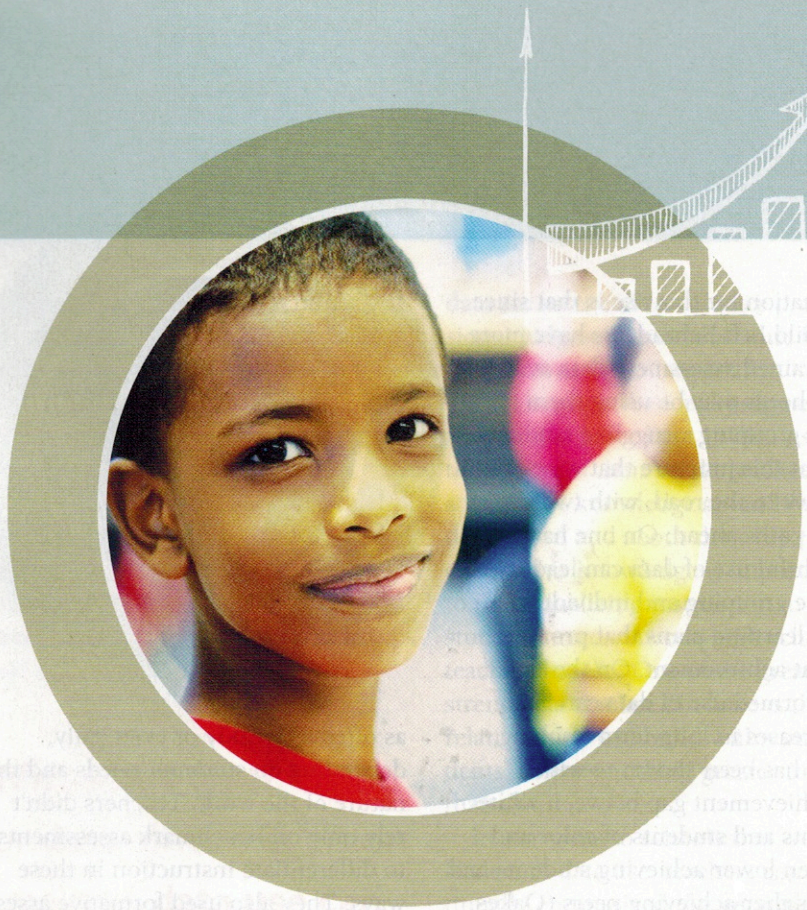
The role of the leader is crucial in setting the tone for data use for equity. Leaders accomplish this by framing data use so the process goes beyond labeling student achievement to identifying gaps in opportunities to learn (Park, Daly, & Guerra, 2013).

In one school district we studied, leaders asked themselves a challenging question: Why were some students failing if they believed that all students were capable of achieving at high standards?

As many leaders have learned, a conversation that revolves around, and stops at, individual student achievement can lead to deficit assumptions about students and their families. Without collecting and examining data on organizational conditions that support or hinder student performance, schools can easily fall into this trap. The district decided to move beyond standardized student achievement data to collecting and examining opportunity-to-learn data, including data on course placement, access to college-preparatory classes, grades, and attendance trends.

The district disaggregated student performance data by race/ethnicity and socioeconomic status but also asked, Do all students have equal access to college-preparatory classes? They found that Asian students who scored at the basic level on the state tests had double the chance of being in college-preparatory courses than Latino students who scored at the same basic level. This data analysis led district leaders to reexamine their class placement procedures and expand access to college-preparatory courses. Rather than relying only on students' grades and their own professional instincts, teachers were also asked to support placement recommendations with other forms of student achievement data, including data from various assessments the students had taken. This more holistic approach resulted in a greater number of students being placed into college-preparatory classes.

Shifting the emphasis from solely focusing on student achievement data



to including opportunity-to-learn data was a strategic effort by leaders to focus on organizational improvement. More important, it reminded them that equity in learning opportunities was an important ethical and moral standard to strive toward. This doesn't happen without bold and focused leadership.

PRINCIPLE 2. Don't rush.

Timely data are essential to well-informed instructional decision making. At the same time, teachers are often rushed to make decisions about instructional interventions, particularly in schools and districts with strict pacing plans. Not surprisingly, the examination of data tends to be hasty and focused on gaining a quick understanding of students' strengths and weaknesses.

If teachers are looking at quiz results to guide their lesson planning for the next day, this makes good sense. But when making crucial decisions that can affect students' trajectories, leaders should emphasize pausing and reflecting on the data, and sometimes even gathering more data, before making decisions. Finding the underlying causes of achievement patterns takes time. It also takes time for teachers to collaborate with colleagues to share instructional practices that improve student achievement.

In our research, we had the opportunity to interview administrators and teachers in racially diverse school districts with records of using data well. A common theme among the district administrators was a belief in the need to pause and reflect on the data. One school administrator explained that just looking at the data will help you ask a lot of questions, but only by digging into the root causes would you find solutions. She said,

> I can give you an aspirin if you have a headache. But if your head hurts because you've had an aneurysm, then giving you an aspirin isn't going to help. It's the same thing with education and data. If you don't examine the data and look deeply at the root causes, you might just be solving the wrong problem or addressing the problem in the wrong way.

One high school science teacher shared the importance of learning about students' histories to test assumptions about student ability. When a student failed a test, he didn't simply assume that the student didn't understand the scientific concepts and that he would need to reteach the lesson. By looking at students' transcripts and speaking with them, he learned to pause and ask deeper questions about what supports students needed: Was it their math skills? Did they struggle with English? He learned that some of his students did well in science but poorly in English. He found that some were high-performing students until they reached high school, and thus engagement and motivation could be their primary issues. Finding answers to these questions resulted in new knowledge about the students, leading him to consider new ways to address students' needs that results on the science assessment wouldn't have revealed.

Even with so many demands on teachers' time, it's absolutely necessary to pause and reflect to identify root causes and possible solutions. Leaders can support this inquiry not only by providing structured time for teachers to make meaning of data, but also by guiding them to understand the data in a broader context, just as this science teacher did.

PRINCIPLE 3. Use caution.

Ability grouping has reportedly been on the rise in the past 20 years. A recent study found that the percentage of 4th grade teachers who reported using ability grouping in reading grew from 28 percent in 1998 to 71 percent in 2009 (Loveless, 2013). Reported use of ability grouping also grew in math, from 40 percent to 61 percent over a similar period. One possible

explanation for this rise is that since No Child Left Behind, we have more fine-grained assessment data available, and schools may be using them to justify grouping struggling students.

It's at this juncture that we come to a fork in the road, with two different paths ahead: On one hand, thoughtful use of data can lead to flexible grouping and individualized learning plans that promote student achievement. On the other, misinformed use of data can lead to increases in long-term tracking, which has been shown to widen the achievement gap between white students and students of color and between lower-achieving students and their higher-achieving peers (Oakes, 1985; Schofield, 2010).

Although benchmark assessment data provide information on student progress in mastering standards, they're typically not intended for placing students into classes. Yet in a study of seven districts, almost half the principals reported that benchmark assessment data were used for placement purposes (Davidson & Frohbieter, 2011). In one school, scores on beginning-of-the-year benchmark assessments were used to place students in regular, advanced, honors, or advanced placement courses. As the authors point out, "the widely cited use for student placement does not appear to be consistent with the original purposes of assessment adoption" (p. 22). District administrators didn't intend for the results to be used for tracking purposes, but they were sometimes used this way at the site level.

In contrast, in the high-performing schools we studied, teachers were more likely to use assessment data for flexible grouping within the classroom to individualize instruction. The groups shifted regularly, sometimes as often as weekly or even daily, depending on students' needs and the nature of the work. Teachers didn't rely only on benchmark assessments to differentiate instruction in these ways. They also used formative assessments they had created themselves and curriculum-embedded assessments.

One math and science teacher used exit tickets to see what students did and didn't understand about the big concepts he taught. If only a few students didn't get a concept, he knew he needed to reinforce that material with just those few students. He added that these types of assessments are useful because "they give me immediate feedback on every student in class."

Another high school changed its time structure to enable teachers to address the needs of students who needed extra support, without resorting to tracking. Students were given assessments in English and math every Thursday. The teachers scored the assessments that afternoon and on the following morning. They had the rest of their Friday mornings to plan their reteach lessons while students took other subjects. In the afternoon, the students attended the math and English reteach classes. Students who demonstrated proficiency on the weekly assessments participated in clubs or other enrichment activities during this time.

In the schools we studied, benchmark assessments were primarily used to assess students' progress toward the standards rather than as the driver of class placements. A science teacher remarked, "I would have never stopped [and retaught parts of a unit] had I not looked at their benchmark scores." Ongoing feedback regarding student mastery enabled teachers not only to gauge whether students had actually learned a concept or skill, but also to reflect on the strengths and weaknesses of their instructional practices.

Leadership is crucial in guiding teachers to use assessment data in ways that promote, rather than limit, student growth. Using assessment data in the service of fixed-ability grouping or tracking will not enhance student achievement, whereas flexible and dynamic groupings within heterogeneous classrooms will facilitate it.

PRINCIPLE 4.

Focus on student engagement.

Student engagement must be at the heart of efforts to improve instruction. Yet most of the data that schools and districts collect tell us nothing about whether students are actively engaged in learning. Attendance data provide only a crude measure of student engagement; they don't inform us about the students who come to school but who passively move through their day. Gathering and analyzing data on student engagement can be a powerful way to improve student achievement.

One school we studied made improving student engagement a schoolwide goal and collected student survey and classroom observation data to measure their progress. One goal was to have a majority of students feel that their classes helped them understand what's happening in the

world. A second goal was that all students would feel important, respected, recognized, and cared for by their teachers and peers. Questions about these issues were part of the student survey administered annually. School staff examined the survey data and discussed possible improvements. When a survey showed that fewer than half of the students in one grade felt respected and cared for, teachers reflected on their practices and interactions with students, rather than just explaining the results in terms of the students' developmental stage (that is, early adolescence).

School administrators also conducted brief weekly classroom observations, assessing student engagement on a scale ranging from "authentically engaged" to "dysfunctional," along with other teaching and learning indicators. The goal was for all or almost all students to be engaged and self-directed. When data revealed that most classes were teacher directed, this provided an opportunity for sharing pedagogical strategies that would get more students actively engaged in learning.

In this school system, professional development focused on enabling teachers to use a wide range of instructional strategies to engage students. To support ongoing teacher development, a decision was made to shift the role and responsibilities of department chairs. Previously, department chairs had focused on teacher evaluation and departmental logistics. Their new role was to be instructional coaches who provided feedback and support by regularly observing classroom lessons and meeting with teachers to discuss practices.

In another district, district leaders gathered student engagement data by experiencing schooling through a student's eyes. District staff members began informally mentoring struggling students, and as part of that initiative, they shadowed students throughout the school day. They noticed that some students rarely spoke with anyone during the course of an entire school day.

The data gathered during the shadowing process informed professional development. District staff members focused on how to get students to become more active participants in their own learning. Teachers were trained on how to teach students self-regulation strategies. District staff members also assisted teachers in developing strategies for using inquiry in the classroom. They believed that these classroom-based efforts would help students become more engaged and invested in their learning.

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Drawing on student engagement data moves schools toward a more holistic portrait of student growth that takes into account academic, social, and civic engagement.

PRINCIPLE 5.

Use professional judgment.

Some believe that putting data in the hands of teachers reduces the need for teachers to rely on their own wisdom—that once equipped with data, teachers will no longer be "shooting darts blindfolded," as one teacher put it. True enough, data can provide useful information that can guide instructional improvement. But data are intended to enhance professional judgment, not substitute for it (Hargreaves & Fullan, 2012).

Teachers' professional judgment is an essential ingredient in data use. In the course of their work, teachers gain a wealth of knowledge about how students learn and about their life experiences. This knowledge is important to individualizing instruction to meet students' needs. As one high school teacher shared, "One of the greatest strengths a teacher can have is the relationships you build with your students. There's nothing greater that I do than that."

In our visits to schools that were leaders in data use, teachers continually emphasized the importance of getting to know their students so they could figure out what makes them tick. For example, one 4th grade teacher noticed that a student's test scores fluctuated from 30 percent to 75 percent in one semester. Viewing this as a puzzle, the teacher observed the student, including his responses to the test-taking environment. She finally realized that some of the test-taking strategies she was teaching were hindering him. She found that providing him with additional encouragement instead of pushing him to use the various strategies improved his focus.

This speaks to the important role that professional reflection and judgment play in data-informed decision making. In the end, teaching is not about numbers, but about providing all students with the best education possible so they can achieve to their full potential.

Data-informed decision making must contribute to teacher professionalism—not threaten it. Investing in what Andy Hargreaves and Michael Fullan call *professional capital*—teachers' knowledge, capacities to

work collaboratively, and ability to make wise judgments—is crucial. Leaders need to support teachers in a way that acknowledges the demands of data use in the context of their work.

Lessons Learned

Our research suggests a key lesson for leaders: Focus on the *principles* of effective data use, not just the practices. Centering on the goals of improving education for all students, promoting an inquiry mind-set, and supporting teacher professionalism will help leaders use data for long-term continual improvement. And don't shy away from hard conversations. Tackle equity issues head on. EL

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