

Asking and Answering the Right Questions:
Addressing Achievement Gaps with Data
By Rossi Ray-Taylor, Ph.D

During the past several years, educators have been urged to use data to make decisions about instruction and instructional programs. The call to use data was heightened with No Child Left Behind standards that classified schools based on test-score performance, graduation rates, and adequate yearly progress toward school achievement goals. A common cry, though, among teachers is “But what do all of these numbers mean? And what do they have to do with my day-to-day teaching?” With digitized analysis and number crunching, we can produce reams of data and colorful charts. However, the key to quality schools may be how we use these data to guide our work and decision making.

Using Data to Identify and Solve Problems

During a workshop I recently conducted with principals and central administrators, a principal asked, “Each year we receive a notebook of our school’s student data. How do I present this notebook of data to my staff?” My flip answer was, “You don’t. At least not right away. And not in one chunk.”

Instead, it’s helpful to introduce the concept of using data as a tool to identify and solve problems. Rather than scouring page after page of data as if cramming for a test, one way to start is by posing a question and then using more questioning to follow the data to uncover the stories behind the numbers.

Here is a case in point. During the same workshop, another principal said that when reviewing with teachers the grade level data for entering fourth graders, the teachers noticed that two thirds of the students were performing below grade level in reading based on data from the nationally normed Iowa Test of Basic Skills given the previous spring.

The result was a dramatic departure from the overall school scores and from the scores of other entering fourth graders in earlier years. The principal said the team of teachers began to worry whether this was a cohort of particularly “challenged” children and wondered how to remediate instruction and plan instructional interventions. One teacher suggested the team check the previous year placement for the children who were performing below grade level and study the children’s earlier test data.

When probed further, the team discovered that the low-scoring children were concentrated in three classrooms where the teachers all had experienced major life events (major illnesses and a difficult divorce) that impacted their attendance and teaching. The three classrooms had experienced a string of substitute teachers and interrupted instruction. With this information, the team began to consider the problem in a different way: These were not necessarily children who had been taught the curriculum and failed to learn but instead had not had access to effective instruction in the first place.

Now the remedy could be cast in a profoundly different way. The instructional question became “How should we give these children the instruction that they should have been given but were not?” The curriculum question developed into “How do we get these children performing at grade-level expectation?” The policy questions grew to be “How do we prevent this circumstance from happening again? How can the school flag disruption in instruction early? How can such disruption be prevented?”

By expanding the participants in the discussion of a common set of data, a school was led to profound questions and analysis of school and district practices.

Putting a Face on the Data

A few years ago during a discussion about what my school district was doing for low-achieving high school students, a board member asked when she would be receiving the phone call placed to every parent of students failing two or more classes. Her child fit the school’s profile for intervention yet had fallen between the cracks. The board member said these intervention programs were nice to have but if they were not used by the intended audience, they meant nothing.

Our district’s Secondary Summits were created from this experience. I asked the central office staff to produce a list for each school of students who fit an academic profile, say below a 1.5 grade-point average and / or failing more than three classes the previous semester. Principals were asked to use this data to review student-by-student what was happening for each: the classes and support services in which each student was involved, the experiences of the school’s classroom teachers, the classes in which the student performed better, and the academic experiences of the student in previous years.

These factors and the subsequent discussion by both the school-level team (in preparation for the meeting and presentation by each principal to the superintendent) and the top-level instructional team resulted in a unique sharing and critiquing of strategies by educators. Suddenly, teachers and principals now had faces to go along with the names of students failing in their school. Sometimes they were surprised who the faces were and who they were not. Sometimes this information led to deeper questions about why some students fail. They heard stories of effective and ineffective practices through this focused discussion. School-level teams were able to target or refine services and instruction given to individual students, abandon some ineffective practices, adopt practices proven effective in their colleagues’ schools, clarify their expectations, and monitor improvement.

Reviewing Data Should Be Standard Practice

Although a great starting point, test scores tell us only so much. Focus groups, surveys, and reviews of participation rates can give valuable information. Through student panels, focus groups, and student conference activities, we have learned how students experience schools and discovered that their experience may not mirror the educators’ intent. As teachers discuss their students, they may hold insight that is shadowed by performance on a single test. Review of data – such as course placements, attendance, mobility, and disciplinary rates and causes – can be informative.

As educators consider how to do business in schools, data review should be a central component of decision making. Analysis of the data that describe a school, classroom, and student performance should be an ongoing activity, not just once a year during staff meetings. The closer the data are to instruction and student performance, the more frequently the data should be analyzed. Running records and classroom performance indicators should get frequent review, perhaps daily or weekly.

Sharing Data Is an Important Decision

As schools look at data about student achievement and, in particular, disaggregated data that show gaps in achievement of African-American and Latino students and their peers, many educators worry about how to produce and discuss the data without reinforcing stereotypes. They worry about local media reports and community reactions that may be less than informed. But even in the most distressing data, there are examples of very high achieving African-American and Latino students. Although we do not want to lose sight of these students and their accomplishments, we cannot ignore the challenges faced by schools. Instead, educators can ferret out the locations and circumstances where success is occurring and seek to understand that success. And while there are statistical differences in the data that correlate with race and income of students and their families, these data are made up of a thousand stories of individual students.

Classroom-level review of daily assignments, unit tests, and semester and final grades are staples for individual teachers and another important way data are used at the school level. However, schools seldom facilitate these discussions across classrooms, across grade levels, and across schools. Such discussions can be used to develop common understandings of local standards, alignment of curriculum and instruction, rubrics for assessment, and high expectations for instruction and student performance. Each of these factors is shown to be strongly associated with high-performing schools, yet some schools do not effectively use classroom and school-level data as the center of professional discussions. What does “A” quality work look like from one classroom to the next in your school? Which lessons and concepts are the most difficult for students to learn and the most challenging for teachers to teach? Test and end-of-unit data can provide valuable information and may even point the way to answers within the school and district for effective practices confirmed by data.

Exploring Beliefs and Guiding Principles

A way for a school staff or team of educators to begin is to explicitly state guiding principles and beliefs about students and their achievements and about teaching. Professional readings from books by Lisa Delpit, Jonathan Kozol, Gloria Ladson-Billings, Pedro Noguera, Theresa Perry, or Belinda Williams, among others can be used to set the stage. Visit the Resources and Links tab on the Ray.Taylor and Associates website to view what we are reading and the accompanying articles and book review. Guided discussions around common reading can help prepare teams for discussions of statistical data and can help pose important questions to ask of the data.

Data can be an essential ingredient for problem solving to improve teaching and student learning and to improve our educational system as a whole.

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