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Why Teachers Must Be Data Experts

Jennifer Morrison

An award-winning teacher proposes three attitude shifts that would help teachers learn to love data.

I'm coming clean right here, right now. I'm a practicing classroom teacher, and I love data. Data connect me to my students and their learning, push me to high levels of reflection on my practice, and spur me to engage in dialogue with colleagues, students, and parents.

Unfortunately, most teachers do not share my view of data as a resource that helps them teach better; many experience it as unfamiliar or threatening. In the wake of No Child Left Behind (NCLB), schools are swimming (sometimes drowning) in standardized test data. Districts and administrators are trying to help teachers stay afloat by setting up lanes and lessons in the pool and by coaching (or sometimes haranguing) teachers to the finish line of yearly data-crunching exercises. But we must ask ourselves how sustainable this approach to data is—and whether it's good for teachers or students.

Although coaching teachers in using data helps them feel less overwhelmed by it, if teachers are ever to use data powerfully, *they* must become the coaches, helping themselves and colleagues draw on data to guide student learning, find answers to important questions, and analyze and reflect together on teaching practice.

Teachers will take the initiative on this kind of self-coaching if administrators and teacher leaders facilitate three essential changes in how teachers approach data. Teachers must begin to

- Realize that data include more than end-of-year standardized test scores.
- View collecting data as a way to investigate the many questions about students, teaching practices, and learning that arise for any committed teacher.
- Talk with one another about what data reveal and how to build on those revelations.

I had to come to these realizations myself before I achieved my happy partnership with data, which did not happen until well after I had established myself as a teacher. In the past few years, I've consulted with school districts and found strategies that help other teachers develop more comfortable relationships with data.

Data, More Than Test Scores

When it comes to teaching, I disagree with British physicist Lord Kelvin, who said, "When you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind." In teaching, relationships and perceptions matter as much as curriculum and practice. Numbers are important, but they can't provide educators everything, especially when we're looking for root causes of students' learning difficulties. Teachers must see that data stretch beyond

what's expressed on test company spreadsheets. The concept of data encompasses many kinds of information that help teachers know their students, and themselves as practitioners, in depth—and data can be interpreted in many nuanced ways.

James Popham (2001) is correct that teachers—and most administrators, I would add—are not assessment literate. And we should be. Remaining unaware of the range of assessments and how to use them and accepting (frequently inadequate) standardized tests as the single measure of success is irresponsible.

Getting Beyond Data as a Blind Date

For most teachers, getting acquainted with data happens as a kind of blind date. They come to a faculty meeting, and the principal introduces the data. Some schools use data coaches to facilitate the teacher-data relationship. Even if a coach helps teachers connect their student learning results with other kinds of data that reveal the how and why behind those results, data can still feel like a strange, unwelcome presence. The core problem is that none of this is initiated by teachers themselves.

When I consult with school administrators and district personnel who are excited—sometimes hyperexcited—about getting teachers interacting with classroom data, they inevitably ask, "How do I get my teachers interested in data— especially the unmotivated ones?" But teachers' reluctance does not mean that they are unmotivated: Most teachers care about their students' learning and want to excel at their work. The problem is that we frame data as an entity teachers need to meet and engage with, rather than as information that rises organically out of teachers' work with learners. When teachers don't embrace an idea or mandate, it's often because they feel overburdened: They don't see the time or need for a new professional love interest. There must always be a point to what administrators ask teachers to do with data.

Connecting Data to Questions

Questions and dialogue are key concepts here. I tell administrators that they should first urge teachers to think about what questions they would ideally like to ask to improve their classroom conditions, instruction, and repertoire of interventions. It helps to discuss with teachers the dangers of making assumptions about students and their learning.

Too often, questions about data in schools originate with administrators and district office personnel. Teachers feel no ownership or curiosity other than, Did we make our scores this year? and Do I get my bonus? Teachers cannot take the lead in data mining until they pose their own simple, measurable, and relevant queries.

Several years ago I helped the North Carolina Teacher Academy (2005) develop a learning module for teachers and administrators called *Using Data to Build Classroom Learning Communities*. This module was in demand. With NCLB pressures, principals and districts were looking for ways to help teachers focus on learning results, and teachers were looking for ways to make sense of all the standardized data being dumped on them. We field-tested the module with a group of teachers and administrators representing schools of all grade levels across North Carolina who were attending summer workshops at the North Carolina Teacher Academy. Through this process, I recognized the essential connection between teachers' organic questions and data gathering.

We included in the module Alan Blankstein's idea of the data notebook (2004), an ongoing collection of data a teacher gathers to help inform his or her instruction and interventions during the course of a year. Participants set up data notebooks and shared them with one another. We kept requirements for the notebooks open-ended but had teachers note three dimensions of any data they recorded: the frequency with which they collected these data; the type of teacher thinking this entry showed (descriptive, analytical, or reflective); and the kind of information it represented (such as evidence of student learning; demographics; teachers', students' and others' perceptions; or instructional processes). For example, a teacher might record results of a survey he or she gave parents that gathered their impressions of the learning environment.

Prodding teachers to collect meaningful data on their own ensures that they will begin to ask questions, as I found out when I put together a sample data notebook. In the process of collecting, analyzing, and reflecting on information about my classes, I stepped outside my assumptions and understood students more clearly. I discovered a new way of thinking about my practice, but better still, the process caused me to ask such questions as, Are my students demonstrating growth in learning? or What do I need to change to accelerate growth? To satisfy these wonderings, I had to design assessments that would gather the information I needed and analyze the results, sometimes rethinking my methods as a consequence.

I now routinely identify questions and secure data that shed light on those questions as I teach. After 10 years of teaching 8th graders in an urban middle school, this past school year I began teaching high school seniors in a small rural setting. I wanted to know many things about my new students: how they perceived my style and methods, what and how much they were learning, and how their accomplishments matched the state curriculum and testing requirements. I sought a clear read on these questions through surveying my students, asking students to write reviews of their own learning and work products, mapping and analyzing trends in their grades, and even looking at their standardized test scores. If I hadn't investigated these things, I'd have fallen into making distracting assumptions about the whys and hows of my students, their families, and the class's learning.

Dialoguing With Data

This school year, I began to think beyond the model of each teacher examining data on an individual basis (such as in data notebooks) and to explore how teachers can share their questions and data among stakeholders at the classroom and school levels. As a teacher, I know that if students aren't talking about it, then it's not happening. And when it comes to data, if teachers aren't talking about their data discoveries, no discoveries are happening.

As Judith Warren Little notes, in learning-rich conversations, there must be "a bridging back and forth between the particularities of what happened on [a given] day and more general principles and practices and ways of seeing" (Crow, 2008, p. 55). Group discussions about data can be the bridge connecting teachers' day-to-day activities with deeper reflections. Data can play a central role in professional development that goes beyond attending an isolated workshop to creating a thriving professional learning community, as described by assessment guru Dylan Wiliam (2007/2008).

Compiling a data notebook is one thing, but talking about it with colleagues who share my students offers much broader potential for growth. Administrators who want teachers to embrace data and jump in as their own coaches must make room for this kind of dialogue.

To this end, almost all the data I collect, including some analysis and reflection, are available on my Web site (www.artofeducating.com). That gives students and families access to the data as well. Last school year, I e-mailed all of my students' families links to the class's average grades so that they could gauge their children's performance in comparison with peers. I shared with students and parents the results of my end-of-year survey asking students for feedback about my class, including my reflections on what the survey revealed. This kind of data sharing and the resulting discussion was a tremendous help in developing relationships with students and parents at my new school, in part because parents could clearly see that I'm a thoughtful practitioner who cares about each student. Sharing data also elicited important information about my students' learning needs.

Encouraging Expanded Views

I believe all teachers can learn to be both data lovers and their own personal data coaches if we encourage these expanded views about measuring teaching practice and learning. Teachers will need support both to become assessment literate and to adopt workable ways to gather, analyze, reflect on, and discuss data. Uncomfortable questions about the nature of standardized testing, school goals, and leadership may arise. Administrators should help their learning community respectfully talk through tough questions. They will build teacher capacity and leadership in the process.

Teaching is such a "particularistic endeavor" (Popham, 2008), that guiding teaching practice by one-size-fits-all test data will only take us so far. For the next phase of data's role in education, I prefer Andy Hargreaves's (2007) vision that "Teachers will need to be the drivers, not the driven" (p. 38).

References

Blankstein, A. M. (2004). *Failure is not an option*. Thousand Oaks, CA: Corwin Press.

Crow, T. (2008). Declaration of interdependence (interview with Judith Warren Little). *Journal of Staff Development, 29*(3), 53–56.

Hargreaves, A. (2007). Five flaws of staff developments and the future beyond. *Journal of Staff Development, 28*(3), 37–38.

North Carolina Teacher Academy. (2005). *Using data to build classroom learning communities*. Morrisville, NC: Author.

Popham, W. J. (2001). *The truth about testing: An educator's call to action*. Alexandria, VA: ASCD.

Popham, W. J. (2008). *Transformative assessment*. Alexandria, VA: ASCD.

Wiliam, D. (2007/2008). Changing classroom practice. *Educational Leadership, 65*(4), 36–42.

Jennifer Morrison teaches language arts at Mid-Carolina High in Prosperity, South Carolina. She won ASCD's Outstanding Young Educator Award in 2003; PO Box 724, White Rock, SC 29177; 704-996-0933; jmorrison@artofeducating.com.

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