

FLEX YOUR SCHOOL'S DATA MUSCLES

LEADERSHIP STRATEGIES STRENGTHEN DATA'S IMPACT

By Jennifer Unger

A colleague tells a story about her experience as a teacher in a university lab classroom. She talks about the day when a visiting team of university professors came to observe her small group of 2nd graders engage with her in a mathematics lesson on fractions using manipulatives.

The professors arrived and watched the lesson from an observation room, where an opaque screen allowed them to observe unseen while hearing both the lesson and the students.

My colleague was overjoyed. The kids were so engaged and working intensely with the manipulatives to complete the activities. At the end of the lesson, she thanked them for their effort and hard



LEADERSHIP FOR A HIGH-PERFORMING DATA CULTURE

Element	Less emphasis on:	More emphasis on:
1 DATA USE	<ul style="list-style-type: none"> Using data to punish or reward schools and sort students. Infrequent use by the school community to inform action. 	<ul style="list-style-type: none"> Using data as feedback for continuous improvement and to serve students. Frequent and in-depth use by entire school community.
2 COLLABORATION	<ul style="list-style-type: none"> Teacher isolation. Top-down, data-driven decision making. No time or structure for collaboration. 	<ul style="list-style-type: none"> Shared norms and values. Ongoing data-driven dialogue and collaborative inquiry. Time and structure for collaboration.
3 EQUITY	<ul style="list-style-type: none"> Belief that only the “brightest” can achieve at high levels. Talk about race and class is taboo. Culturally destructive or color-blind responses to diversity. 	<ul style="list-style-type: none"> Belief that all children are capable of high levels of achievement. Ongoing dialogue about race, class, and privilege. Culturally proficient responses to diversity.
4 RESEARCH AND BEST PRACTICE	<ul style="list-style-type: none"> Decision making based on instinct and intuition. Continuing past practices that yield little or no results. 	<ul style="list-style-type: none"> Using findings from research and best practice in conjunction with previous experiences to inform instructional decisions. Making changes in classroom practices and monitoring results and impact.

Source: Adapted from Love, N., Stiles, K., Mundry, S., & DiRanna, K. (2008). *The data coach's guide to improving learning for all students*. Thousand Oaks, CA: Corwin Press. Used with permission.

work. As the groups began to put away their materials, she noticed one student go over to the observation screen.

Pressing his forehead and nose against the screen, the student said, “Hi. I know you’re in there. I can hear your pencils scratching.”

“Yes, we are here,” said one of the observers. “Thank you for letting us watch your math lesson.”

“Yes,” the student replied, “we are working very, very hard, but we don’t know what we are doing.”

My colleague’s pleasure slowly diminished as she considered her student’s statement.

I frequently think of this story as I work with educational leaders to assist them in using data. I sometimes feel that we are all working very, very hard, but we are not always sure of what we are doing and why.

What is keeping educators from moving districts and schools to high-performing data cultures? What vital role does leadership play? For the past several years, school and district leaders, facilitators from TERC’s Using Data initiative, and I have worked on these questions. TERC’s Using Data, in Cambridge, Mass., provides professional development and technical assistance on establishing and sustaining a system for effective use of data at all levels to school districts and schools across the United States.

Three years ago, as a senior designer and facilitator of this work, I developed a data leadership academy to address

challenges for leaders, whether they hailed from large school districts (e.g. Jacksonville, Fla.) or from smaller school districts and even individual schools. The goal is to establish a firm foundation for effective data use by all stakeholders in their educational systems. Academy content not only reflected on our own experiences, but also what research, best practice literature, and national/state leadership standards were suggesting (see data resources in the box on p. 53). Two major themes emerged.

First, data use is frequently seen as a stand-alone initiative, something that educators do independently from everything else. Educators participate in data days, data retreats, data academies, etc., and, although these have value, most seem disconnected from the classroom.

Second, educators don't always have the big picture of what a high-performing data culture looks and sounds like and, as a result, fail to establish the systems and supports that will achieve it. Too often, they get tied up in details and lose momentum.

In response to these themes, we developed a model (see chart on p. 51) to help leaders create and hold onto a big-picture vision for high-performing data cultures (Love, Stiles, Mundry, & DiRanna, 2008). Research and best practices show that high-performing data cultures exhibit characteristics listed under the heading "more emphasis on" (White & McIntosh, 2007; Miller, 2009; Armstrong & Anthes, 2001; Nunnaley, 2013).

DATA USE

Most leaders provide opportunities for staff to build their data literacy skills as well as access and analyze data. A good start, yet many leaders we worked with reported that teachers still were not using data to make changes and improve instruction. How can leaders move toward a vision where everyone is using data continuously with a focus on student learning?

For many leaders, it became clear that, while many had developed assessment calendars for the school year, they didn't have a plan in place for actual analysis and use of the data.

To address this, we helped leaders develop plans for using the data that they were collecting and integrating that plan into their assessment calendars. These calendars now included a variety of data sources and measures, a timeframe for collecting and analyzing data, the individuals and groups responsible for analysis and reporting, and the setting or venue for the analysis (e.g. grade-level teams, professional learning communities, faculty meeting, release time, instructional coaches meeting, etc.).

As leaders worked to establish their plans for data use, two issues emerged. First, they were still focusing most of their attention on state assessment results, and, while interim assessments and benchmark assessments might be in place, staff were not using them. Second, many staff were disengaged from the data analysis process because, as many of them told me, "We don't have any data."

If educators' vision is to engage the entire school community, then leaders must determine what other data they need to

collect in order to assess learning in other content areas or grade levels. For example, what data might teachers and staff in K-2, the arts, physical education, health, attendance, career guidance, etc., collect and have available that might assist them in understanding how students are faring with regard to their stated standards or outcomes? What questions might these groups be asking about student learning and their relationship to it? What measures and data sources can leaders identify and provide to assist them in responding to those important questions?

Creating a plan for data use will serve as a structure to support continuous data use by all while embedding it into the day-to-day work of districts and schools.

COLLABORATION

The second piece of the big picture of a high-performing data culture is collaboration. Leaders know that teacher collaboration makes a difference for student learning (Kruse, Louis, & Bryk, 1994; Leana, 2011; Lieberman & Miller, 2008) and that one leadership role is to support structures and systems that enable it. Effective data use is not a show-and-tell. It is an engagement and a learning experience.

Many districts and schools have structured time for collaboration. However, is data a critical part of the collaborative conversation? To what extent is data being used to support and forward the teaching and learning conversation? Are teachers and stakeholders using data, including student work, as evidence of progress or lack of it? If data use is to be effective, it must be central to and fuel the dialogue that educators have with each other about teaching and learning. Even when groups are in place, data use is not automatically ensured.

Effective leaders of data use identify opportunities for collaboration in their district and school schedules and establish *clear expectations* that data is used to support these dialogues. Leaders will need not only to set expectations to use data but also to assist groups in developing data literacy skills, establishing norms for collaboration, and providing protocols that will enable safe and productive data dialogues (Wellman & Lipton, 2003; Love et al., 2008; Garmston & Wellman, 1998).

EQUITY

A third piece of the high-performing data culture picture is equity. What is the leader's role in using data to ensure that each student is getting the support he or she needs to meet or exceed the standards? What does the leader need to know and be able to do to move the culture toward one that believes that each child is capable of high levels of achievement (Singleton & Linton, 2006; Linton, 2010)?

No Child Left Behind has pushed educators to disaggregate data. Educators know the importance of examining data to explore how various groups are doing compared to other groups. At first, they frequently discover that what looked like good news for some students is anything but for others. Disag-

gregated data play a very big role in helping educators explore questions about the degree to which they are able to serve the needs of different groups of students. Disaggregating data makes the invisible visible (Mather, 2012).

At the district level, this can uncover issues that may not surface at the school level. I frequently hear school leaders say that they don't have the numbers of students to warrant disaggregating data, while at the district level, leaders are concerned about why English language learners or special education students are not doing as well as other students. At the school level, leaders will want to make certain that the data being analyzed can be disaggregated to surface any potential achievement gaps.

As groups begin to analyze data and ask questions about why they are getting the results they are seeing, they need to be able to answer questions such as: "To what extent are our male Hispanic students included in this high-performing group?" or "How many of the students in this performance level are frequently absent or tardy from school?"

Having access to a variety of disaggregated data will deepen the data dialogue and enable educators to question the extent to which they believe that all students can learn. Disaggregated data can be a springboard for next steps and conversations about the degree to which educators are prepared to serve students from different backgrounds and what knowledge and skills they will need to acquire to improve their efforts.

RESEARCH AND BEST PRACTICE

This fourth piece of the high-performing data culture puzzle is important for all educators to grapple with. Frequently, the mere mention of research and best practice is met with skepticism. Where can leaders find time to engage with research and best practices, let alone provide leadership for others?

This is an important question for district and school leaders. Most of us secretly harbor the belief that we really can do the same thing over and over again and get different results. Engaging with the right research and best practice literature can help leaders consider what they might do differently in order to improve results.

If leaders want classrooms to reflect a repertoire of effective instructional strategies, they will know, understand, and use not only what other colleagues are finding successful but also what research and best practice is showing them about what works.

We advise leaders to start with what they know and catalogue their current repertoire first. Consider district or school professional development initiatives for the last couple of years. In what ways do these initiatives reflect research-based practices? Work with other leaders to brainstorm possible sources of research and best practices from their knowledge and experiences, e.g. state departments of education, university coursework, association memberships and journals, and online resources.

How do leaders identify what research and best practices resources are *most important* to put on the table? As groups engage

DATA RESOURCES

Ask a REL

<http://ies.ed.gov/ncee/edlabs/askarel>

Learning Forward

www.learningforward.org/standards/data

National Council of Teachers of English

www.ncte.org

National Council of Teachers of Mathematics

www.nctm.org

PD 360

www.pd360.com

Regional Educational Laboratories

<http://ies.ed.gov/ncee/edlabs>

TERC's Using Data

<http://usingdata.terc.edu>

The Education Trust

www.edtrust.org

WestEd

www.wested.org

What Works Clearinghouse

<http://ies.ed.gov/ncee/wwc>

World-Class Instructional Design and Assessment

www.wida.us

with data, let the questions they are raising lead the way: Why are we getting these results? Are our assessment strategies fully aligned with the standards? What assessment practices have the most impact on student learning? Are our expectations for students the same for each student, and what impact might it be having on their learning? What instructional strategies should we be using to better meet the needs of our English language learners?

Research can help leaders understand not only why they might be getting the results they are, but also bring them to a deeper understanding of what the practice might look and sound like in the school and classroom. Having a deeper understanding and a vision for what it looks like in practice can lead to changed practice and improved results.

LAY THE GROUNDWORK

If schools and classrooms are to become high-performing data cultures that get results, then leaders need to work together to forge a shared vision that connects the pieces and lays the groundwork for successful implementation. When we can bring this picture together, not only will students be learning at high levels, but leaders and teachers will be as well.

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Building common knowledge

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Develop a school culture that supports innovation and excellence. Change means loss for so many teachers. Their reactions tend to fall into two categories: “This new initiative will never last” or “what I am going to do with the seven years of materials I developed?”

After three years of coaching, supporting, listening, and calming teachers, we now have a school that supports standards-based work. We have designated leaders in each department area who lead and support teachers.

These leaders modeled for teachers how formative assessments could be used effectively in each subject area. Leaders meet with the principal and assistant principal each month and report our progress to the school board at the end of year. Developing a school culture that supports innovation and excellence is not easy, but with patience, commitment, and the help of teacher leadership, it can be done.

Invest in professional learning. Our principal and assistant principal have repeatedly said over the last two years that it is all about support and challenge for teachers and students. For teachers, it has been a challenge to make this instructional shift in thinking and practice and to design the necessary materials to support the work. We have had the support of time and resources for professional learning, including books, articles, and an outside consultant from WestEd Learning Innovations.

Support at the school level could not happen without assistance from central office, where both the superintendent and assistant superintendent monitor and support the process. Without this, we couldn't have accomplished all that we did.

Build in time, time, and more time. Over the past three

years, the time commitment has been consistent and expansive, including after-school department meeting time, summer institutes, professional learning days, and release days from the classroom with substitute teacher coverage.

Now we have time during the school day to meet, collaborate, review common formative assessments, and/or share effective practices. Staying the course by providing the time and structure for teacher teams to collaborate and complete the work has been essential.

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