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**Doing Data Right** Pages 62-67

## Who's in the Driver's Seat?

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**The problem isn't in data itself—it's in what we decide to measure.**

The driverless 1964 Impala convertible cruises down a sunny highway. A man and woman—he with a carefree smile, she holding onto her hat with one hand—float down from the sky into the empty front seat, while the Hi-Los croon, "Let Hertz put you in the driver's seat."

I'm reminded of that iconic commercial every time I hear about the need for schools to be driven by data. I imagine a number 2 pencil and a bubble sheet coming down from the "assessment clouds" to drive curriculum and instruction.

Let me confess right off, I don't want to be *driven* by data! Any data set is a welcome passenger in the back seat for an occasional route confirmation. But I'll have love of learning or a passion for excellence in my driver's seat. Data can serve those drivers only when (1) the data measure something more significant and enduring than discrete facts and skills, (2) they take into account the whole child, and (3) students own the process of collecting and analyzing data and set their own goals.

I'll offer examples of how data analysis can serve a passion for learning. But first, let me explain why I don't trust it in the driver's seat. I don't doubt data's effectiveness in improving performance. Increasing student achievement and closing the achievement gap are crucial goals for schools. The act of collecting and analyzing data has the potential to play a significant role in helping teachers plan lessons and design projects that target specific student needs. I've seen data's efficacy in holding our intuition accountable and helping set goals for improvement. But I've also seen it unintentionally obscure the broader school vision and drive essential dimensions of school life to the periphery.

Too often the complex terrain of student achievement is reduced to the set of indicators that is easiest to assess with standardized tools. As such indicators focus our attention on easily quantifiable skills, they can cause us to lose sight of the forest for the trees, to focus on a narrow band of what it means to be human. Because data analysis is so effective in addressing the mastery of discrete skills, the process tends to see everything as a discrete skill. It assumes that learning is a linear process, skill by skill, bit by bit, starting in kindergarten at A and ending with a PhD at Z.

Data analysis might play the role of a servant who helps us help students learn when we begin the journey of educating them. But once aboard, it likes to become a master, taking over other dimensions of education's purpose. I'm reminded of a cartoon where a knight confidently encounters what seems to be a dragon not much bigger than himself—but is really a puppet held by a huge dragon hiding behind a cliff.

The problem isn't in data itself, or even in how we use data—it's in what we decide to measure. As Mike Schmoker wrote, "our current data-driven decision making is to a great degree *standardized-test-data-driven* decision making."<sup>1</sup> How can we invite data into schools without letting data usurp the fullness of our humanity?



## What Can We Measure?

What if we could reliably measure characteristics and competencies beyond the realm of content and skills—intangible qualities like beautiful work, or traits like perseverance? I like to ask students, "What can you measure?" They usually think of using a ruler at first, measuring length or height. Then maybe surface area, volume, or speed. Some wonder, How about brightness? Or hardness?

Reminding students that measurement is a key to scientific discovery, I challenge them to think of more things they would like to evaluate and design scales to measure them. Could you measure the wind? (Consider the Beaufort scale.) Or how loud it is in the cafeteria? How about time, without a watch? Yes, we could use the sun, but could you use water, sand, or the wind? Why might the sun—but not the wind—work to measure time?

Then I ask, "Is there anything we *can't* measure?"


Students say things like, "the pride of accomplishing something," or "how much my mother loves me."

"Really?" I sometimes challenge. "We can't measure those?"

People can design surprising tools to measure even complex emotions. I helped Jenna Gampel's class at Conservatory Lab Charter School in Boston with a project about snakes. These 2nd graders' goal was to convince people not to be afraid of snakes. Jenna asked, "How will you know if you succeed?" and discussed the challenge of measuring how afraid someone is.

We asked each of the kids to describe his or her own level of fear of snakes. They crafted statements to describe various relationships to snakes, then voted for the final descriptors to use in their survey that assessed how afraid people were before and after they taught them why they shouldn't fear snakes (see fig. 1). You can see a [video of Jenna's class in action](#).

**Figure 1. Fear Scale**

Name _____		Date _____	
Please rate how scared you are of snakes. Circle the one rating that fits you best.			
1	2	3	4
I love snakes SO much if a snake crawled in my bed I'd kiss it.	I would let a snake crawl on me, but not for long.	I am scared of snakes, but won't faint if I see one.	Every time I see a snake I panic. I hate snakes so much I would move to Jupiter. I would rather eat a dragon than look at a snake.
			
If you rated yourself a 3 or 4, please explain why you are scared of snakes.			



behaviors that might have as much bearing on their test scores as knowledge and skill—rushing, getting anxious, misrecording answers, and other unhelpful behaviors. They help students recognize those behaviors and set goals for improvement. Students record their goals and monitor their own improvement as they prepare for the real test.

At weekly grade-level data meetings, classroom teachers, specialists, and administrators go through the list of students, consider each student's profile, and design a plan to address that learner's individual needs. A reflective but shy child who scored poorly on the English language arts pretest would receive targeted help in mastering skills, but might also be invited to join the poetry club, where she might gain confidence with language. Another who had strong leadership skills but often used them in distracting ways might be asked to be the announcer at student-led community meetings. Often the issue is as much about getting students engaged in their own learning as it is about developing specific skills.

## High-Quality Work

This dimension measures how expertly students transfer disciplinary knowledge and skills to authentic contexts. Can students use their knowledge to solve complex problems and create a body of work that shows craftsmanship, deep thinking, and creativity? To give evidence of competence, students in this network of schools present their work to diverse audiences and communicate their thinking about it through writing and speaking.

Expeditionary Learning is distinguished by an explicit focus on high-quality student work. One likely reason other schools avoid this topic is that it's messy; quality in student products cannot be easily defined and quantified. For years, we tried to identify criteria, but they were elusive and dependent on genre or format. Quality in a poem is different from quality in a lab report; an excellent museum exhibit differs from an excellent public service announcement. Ron Berger, chief academic officer for Expeditionary Learning, and Steve Seidel, director of the arts in education program at Harvard Graduate School of Education, have worked with colleagues and schools for 25 years to collect, analyze, and archive exemplary student work and then use that work to improve teaching and learning (see <http://centerforstudentwork.elschools.org>). They articulated three attributes of high-quality work:

*Complexity.* When educators examine student work, they look for examples of higher-order thinking connected to big concepts that undergird or unite academic disciplines. They should see evidence that learners can transfer understanding to new contexts and see an issue from multiple perspectives. Complex work demands skill with complex texts and with evidence-based writing and speaking.

*Craftsmanship.* Well-crafted work is done with care and precision. Educators analyze attention to accuracy, detail, and beauty in conception and execution.

*Authenticity.* Authentic work demonstrates original thinking. It uses formats, standards, and sometimes audiences from the professional world, rather than school formats—and connects academic standards with real-world issues. Authentic work matters to students.

Our schools use these criteria to collect data about student work and inspire deep conversations among faculty about what high-quality work looks like and how to help kids produce it. They regularly examine student work schoolwide and create a body of evidence that describes how it has improved over time.

For example, Genesee Charter School conducted a quality work protocol. They analyzed a year's worth of student products for complexity, craftsmanship, and authenticity. There was much to be proud of, but they identified areas in which to grow. One area was individual student accountability; educators questioned how they could be sure that every student mastered intended learning targets when some work was produced collaboratively. Another area for growth was creating products that have an authentic audience beyond the school community.

## Education as a Thermostat

Our national institutions are increasingly obsessed with data. Neil Postman, one of my inspirations for becoming a teacher,

