

## Tackling Complexity

*When you are sorting through competing theories and multiple sources of data, take Einstein's advice: Make everything 'as simple as possible, but not simpler'*

In my April 2011 column, I considered how board members could accelerate their expertise in tackling the tough issues they face. But no matter how great your expertise and education, many education issues are complicated by competing theories and multiple data sources.

The arena of American politics sometimes breeds an impulse to reduce issues to sound bites, but we should heed Albert Einstein's admonition that everything "should be made as simple as possible, but not simpler."

Education policymakers regularly deal with complexity, and this article suggests three ways to acknowledge it without being overcome.

First, critically evaluate claims of cause and effect by considering alternative causes. Second, insist that the data on which you make decisions include both quantitative and qualitative information. Third, lead your communities to pursue goals that inspire students, teachers, and leaders to be better than the sum of your test scores.

### Consider alternative causes

The first principle of complexity is that life is multivariate—one effect, such as student achievement, can have many causes. Just because two factors are related does not mean that one causes the other. The Red Sox lost last night and today there are thunderstorms, but it's not likely (though not impossible) that the former caused the latter.

Nevertheless, education leaders are tempted to make similar errors when they assume that, for example, schools with higher socioeconomic status have better student results simply because higher achievement is strongly correlated with student economic status. But stop for a moment and think about alternate causes of

high student performance.

Teaching quality is well known as a primary cause of student achievement. In many districts, the most experienced and qualified teachers use their seniority to move to schools with the highest socioeconomic status, the most supportive parents, and the safest parking lots. The newest and least experienced teachers often are assigned to the poorest schools.

One of the most disturbing features of the restructuring of "failing schools" is that they are frequently staffed by first-year administrators and teachers despite infusions of cash and external support. No amount of governmental rewards or punishments will substitute for quality teaching and leadership.

### Measure what matters

The second principle of complexity is that data and information are not the same. Board members are wise to require data to support their decisions, but they also must be mindful of another Einstein principle: "Not everything that can be counted counts, and not everything that counts can be counted."

Educational statistics are full of what is easiest to measure—test scores, economic status, skin color, and gender. It's less common to find reliable data on specific leadership and teaching strategies. We can quantify the percentage of students who are proficient in literacy and math, but we must turn to descriptive, nonquantitative methods to consider essential issues such as character,



leadership, and commitment. Test scores, attendance, student safety, and other quantifiable data are important, but these data do not give board members a complete picture of the schools they govern.

For every piece of data policymakers receive, they also should require an explanation of the story behind the numbers. Changes in student achievement are never the result of a single cause. Votes by a school board will not change many measureable student characteristics, but effective policies, leadership, and teaching can significantly influence how schools use time, curriculum, assessment, feedback, and other observable strategies to improve achievement.

The key educational leadership challenge of our time is to measure what matters—the educational factors we can influence—and then act on that information in a decisive manner.

### Goals that inspire

National and local policymakers are drawn to lofty goals, but the third principle of complexity is that leaders must reach for the stars without being blinded by them.

The No Child Left Behind Act set the inspiring goal that 100 percent of students would be proficient in reading and math. Among the unfortunate results, however, is that some states

reduced proficiency standards to a ridiculously low level while others, in pursuit of the ideal of rigor, have labeled more than three-quarters of their schools as failing.

The fault was not in the goal, but in the accompanying bureaucratic impact. No parent would say, “My goal is for 60 percent of my children to be successful.” We all want to aspire for 100 percent success. But few parents would say, “If a child in my family fails to meet my standards of success, I will publicly humiliate her until she improves.”

Once again, Einstein offers some helpful commentary: “The aim [of education] must be the training of individuals who, however, see in the service to the community their highest life problem.” Parents will know intuitively that some children achieve professional and economic success while others will create lives of service and meaning that are without economic reward.

Indeed, the success of every school district depends on leaders who manage multimillion-dollar budgets and devote 80-hour weeks to the safety and learning of our children, all without stock options or golden parachutes. We depend on great teachers who, had they turned their professional ambitions to law or medicine,

would be better positioned to send their own children to college. These administrators and teachers exemplify the ethic of service we all wish for our own children.

While almost every achievement indicator extols individual achievement, educational leaders can help remind communities, parents, and students that community service is a goal as worthy as academic superiority. These goals will rarely if ever appear in state or federal accountability reports, but local board members can help remind us that students who demonstrate service and leadership contribute as much as those whose energies are focused solely on pursuing the most obvious and measureable goals. Good goals challenge our students; great goals will inspire them.

Board members should be wary of any expert claiming to render the complex too simple. Rather, confront complexity with the critical thinking, rational judgment, and sense of fairness that your constituents and students have a right to expect. ■

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Douglas B. Reeves (dreeves@leadandlearn.com) is an author and founder of The Leadership and Learning Center, which provides professional development services, research, and solutions for educators and school leaders who serve students from prekindergarten through college.