CHAPTER ONE

USING WHAT YOU KNOW TO BE A MORE EFFECTIVE LEADER

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In his autobiography, *Disturbing the Universe,* the physicist Freeman Dyson (2001) relates that he was profoundly affected by a book he read in his childhood called *The Magic City,* by Edith Nesbit (1910). While Nesbit's book is a story about a crazy universe, Dyson came to understand that the universe she described bore a remarkable resemblance to the one we live in. One of the laws of life in the magic city is that if you wish for something, you can have it. If it is a machine, however, you are compelled to keep it and live with it the rest of your life.

Dyson used this metaphor to help us understand what humankind had brought about with the advent of nuclear energy. As we have moved deeper into the Information Age, ruled by ever-smaller yet increasingly powerful computers, we have created quite a box for ourselves out of those wonderful little boxes. Now—for better and maybe for worse—we must coexist with these machines. As much as we control them, they also control us.

In his book *Management of the Absurd,* Richard Farson (1997) posits a number of paradoxes that leaders must consider. One of

those is this: "Technology creates the opposite of its intended purpose" (p. 44). Farson suggests that every time technology is created to make things easier, it simultaneously makes things harder.

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If nothing else, the yin and yang created by the possibilities and perils of technology have bedeviled school leaders for decades. It seems to me that Farson and Dyson have laid out the situation quite clearly for us. We have created something amazing and wonderful—but we have to live with all its implications. The challenge for school leaders is to find a way to make the best of this dilemma.

I was a young superintendent when computers were first being introduced into schools. It is hilarious to look back 30 years and think of how we viewed this new "gift" at the time. Our first thought was that we needed to teach kids how to program, so they could grow up and be computer programmers. That quickly shifted to the notion that we could use computers to teach skills—and computer-assisted instruction burst onto the scene. Children were sent off to computer labs to sit in front of a screen and respond to prompts made by these wonderful new machines. This was going to solve all our achievement problems.

As a superintendent, I knew a couple of things. The first was that I couldn't possibly ignore computers. To do so would mark me as a leader who was behind the times. I would be handicapping my students—sending them into a new world, but without the tools to make the most of it. The second thing I learned was that technology is expensive. So I was caught in one of those paradoxes: I had to have computers, but I had to justify their expense. But wouldn't it be wonderful if these new machines actually had the power to transform education?

I was lucky. At that time, I was superintendent in Princeton, New Jersey. It was a community that had solid resources, was forward-thinking, and (perhaps most important) saw its children as the next generation of "masters of the universe." This somewhat arrogant mind-set allowed us to think about technology differently. We couldn't imagine that we were merely creating the next generation of programmers or that our children could sit for hours in front of a nonhuman

screen, merely responding to its orders and commands. Our children were the ones who needed to be doing the commanding!

Therefore, as I said, we approached this new technology in a different way. We decided to view it as a tool to be wielded by our students rather than a force to be followed. So we *did* teach programming, but only as a means of creating programs that would give the students the ability to control the technology. We taught kindergartners how to do simple programming of robots using the LOGO programming language, and taught high school kids how to do more advanced programming. We put computers in English classes and made sure all the kids could type so that they could do word processing. We worked with the *Wall Street Journal* (which was produced just outside of Princeton) to develop a very early version of online research that allowed students to step up their ability to write papers and do projects.

Of course, we discovered some of the dark side of the gift we had been given. We realized that "garbage in" really did create "garbage out." If students didn't use their language skills with some precision, they received all kinds of useless information on their searches. And we realized pretty quickly that this new way of doing research was also a much more efficient way to cheat, and that it was harder for teachers to know whether something was truly outstanding or just a great job of plagiarism.

But we worked through these and other issues and kept ahead of the curve by buying more computers, and newer models as they came out. Of course, we also realized that technology was a black hole of expenditures for the system, and we were still faced with the nagging question, is it worth it?

To this day, computer companies and school leaders are plagued by the need to justify the "value added" of these expensive machines. And even as the costs came down, the need to buy more machines, to create "take home" programs, and to expand the possibilities offered causes a push for more and more computers—and therefore ever-greater expenditures. Along the way, we have realized that the computers wouldn't fix themselves, so departments have had to be created to stay on top of that issue as well. And *then* we realized that of the many different kinds of computers out there, each had to be repaired a different way, so the dilemma of choice and flexibility versus standardization came into play.

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Meanwhile, at the back-office level there was a growing realization that these wonderful new contraptions could be used to keep the books and inventories, sort out personnel records, keep track of attendance and test scores, and generally make the business side of the education operation more efficient—until there was a breakdown, that is. I have seen district offices brought to their knees by "glitches" in the system. As typewriters were replaced by desktop computers, and mainframes replaced by distributed networks, operations became more efficient—and increasingly dependent on technology. If the system was down, no one could work.

Here is truly the curse that Dyson and Farson wrote about: Once you wish for it and you have it, you are stuck with it. And while it makes one part of your work easier, it makes others more difficult.

As American education moved boldly into the era of accountability, leaders began to recognize that technology could help here also—by providing faster and more comprehensive feedback on how they might understand the available data and use it effectively to enhance student achievement.

Now I have to throw in a few caveats here. Accountability is more than test scores. When the public says it wants accountability, it means accountability across a wide spectrum. It wants accountability in compensation. The economic meltdown of the fall of 2008 proved at least one thing—people who make billion-dollar screwups should not get million-dollar bonuses. Main Street understood that long before Wall Street figured it out. The public wants to know how its money is spent. That calls for clear and transparent budgets. Even the *language* used by educators must be considered. It is hard to be accountable if you speak a language that the public cannot comprehend. Educators are often accused of using "educationese" to sound like they know something, when simple language would be much more persuasive. So accountability is more than student achievement.

Likewise, however, student achievement is more than test scores. I have been a vocal critic of No Child Left Behind (NCLB), that titanic federal attempt to raise student achievement. I was concerned

about it, not because I oppose raising student achievement and would like to see children left behind, but because NCLB was an overly simplistic approach to a pretty complex process.

Just because most of us have learned to read doesn't mean that learning to read is the same as learning to ride a bicycle. Reading involves a pretty amazing set of skills and insights that must be put together in just the right way for success to ensue. Likewise, being an educated person means more than simply mastering basic skills. My guess is that the folks who drove the economy into the ground, or those who committed massive fraud (Bernie Madoff comes quickly to mind), probably had pretty good scores on their achievement tests. But they were clearly missing some important components in their education. It proves once again the wisdom attributed to Albert Einstein, who observed that "not everything that can be counted counts and not everything that counts can be counted."

Having said all that, in education we are currently in a mode that places major emphasis on those things that can be measured. Unfortunately, right now the state of the art in assessment means that simple, low-cost tests (which are the ones used because they are the most affordable) are also the least satisfactory form of assessment. Moreover, when you emphasize only those things that can be measured, you can leave out some very important factors.

Therefore, the first lesson I would offer to school leaders today is to know, deep down, that your work with children is more than simply checking the test scores. I do *not* mean that you shouldn't be using the data you do have—making use of all the tools available is critical for any leader. But you have to know what you know, and then use it properly.

The title of this volume is *Data-Enhanced Leadership.* The term *enhanced* was chosen deliberately. Dozens of volumes have been written that use the notion of "data-*driven* decision making." There are problems with that idea. Letting *anything* that is mechanical and narrow drive your leadership is a mistake. However, it would be the height of stupidity not to use every tool available to you; the availability of data and the insights it can offer will make you a better leader—they should *enhance* your leadership.

When I went to Tucson as superintendent, I wanted to raise student achievement. A big part of that had to be raising test scores. This was before NCLB, so the weight of the federal government wasn't hanging over me, but community dissatisfaction with how the

kids were learning definitely affected my planning. So I worked with my technology wizard, Jesse Rodriguez (who contributes an extremely practical chapter to this book). While I started by trying to push Jesse to give me a better system of measuring and weighing outcomes, the conversation quickly turned into Jesse's pushing *me* to be clear on what I wanted. He said, essentially, "Look, I can give you data in lots of different forms. But what are you trying to do? What do you want at the end of the day?"

Those were fair questions—and ones that I'm afraid too few leaders answer for themselves. My back-and-forth discussions with Jesse produced a program that focused on the bottom fourth of our students. These were the ones who were clearly lacking the skills to be successful, and the ones we would be losing before graduation. If we could raise their learning, it would lift the whole system. So I wanted to know how each classroom was doing in each school, and I wanted to know how each teacher was doing.

Let me add a sidelight here: I believe all the current talk of "merit pay" based on student performance is probably overblown. Each year, a teacher faces a different roomful of children with different needs. It is hard (and probably not smart) to use year-to-year comparisons on test scores to decide income. Too much can go wrong.

For example, what happens if one year, by chance, the teacher has a classful of high-flyers and the next year, a class where few can get off the ground? Is the comparison of test scores fair? And we know from the authors of *Freakonomics* (Levitt & Dubner, 2005) that if teacher pay is tied to a single score, it creates a perverse incentive to cheat. One must be cautious in using student tests to determine teacher pay. However, if you have data running over several years that take into consideration children's level coming into the class, and teacher X consistently underperforms with his students compared to teachers Y and Z, then at least you have a starting point in looking at evaluation as a means to improve him or to rid the system of him.

Well, Jesse ended up building a system that gave me exactly the data I had asked for. His system offered a tool to the principals and central office staff that allowed them to work on those areas that needed improvement within the school as well as look at teacher performance.

We also did something in the mid-1980s that is currently a topic of national debate: We looked for *growth.* We ranked our schools, not by their scores, but by their growth in student achievement. This gave recognition and hope to faculties that were working in some of

the most difficult schools. They were doing more with their children than was happening in some of our more affluent areas. We did have to factor in the "topping-off effect." That is, it is harder to grow if you are already at the 90th percentile than if you are in the bottom 10 percent. However, since we focused on the bottom quartile of students—and every school had a bottom quartile—it smoothed out the differences between schools. Data became a source of conversation among administrators, and it also allowed us to focus more on problem areas.

The first commandment in data-enhanced leadership is to know what you are trying to do. What outcomes are most important to you and your district? What form do they need to be in to help people move forward?

This is just one story of using data to enhance a leader's decision making. There are many, many more ways to do it. The current context of accountability dictates that leaders focus on outcomes. But simply reporting outcomes or exhorting staff to do better (and excoriating them when they fail) will not work. *Leadership is not just showing people where they need to go—it is showing them how to get there.* Creating and using a system that allows available information to be shaped into meaningful patterns for staff and community so that improvement can take place is at the heart of the leader's role today. Enhancing decision making is also enhancing the quality of life for students and staff.

There are a few more things that leaders must consider. In moving the system toward using technology and its fruits, you have to lead by example. I know leaders who still do not use the Internet, and who have their secretaries print out all their emails because they don't use the technology in the office. Staff members need to see you using technology as a tool in your office if you hope to require them to use it for improving student learning.

As I said earlier, I was an early user, placing a computer on my desk in 1980 and using it as a tool. I will quickly admit, though, that as the pace of technology has advanced, my own use of it has not advanced at the same rate. But computers have become a tool I can't live without.

If you want to know how your students are doing or how your teachers are performing, you must be a user of the available technology. Moreover, you must lead by example. When I was superintendent

in Tucson, I wanted my staff to begin using email. Many of them simply would not give it a try, so I devised a simple solution: I began using email to communicate with them. After that, when a meeting was held that they "didn't know about" or an issue was discussed that seemed new to them, I would simply point out that they had received an email about it from me. Soon they were all using email.

The second thing you have to do as a leader is develop a good working relationship with your chief information officer (CIO). (Well, actually you first need to make sure you have one.) Even in smaller districts, someone should be tasked with this role, and then given support, visibility, and authority. Two of the most important staff members on any district staff today are the CIO and the public relations (PR) person. The CIO can gather and form the data available to make them useful and meaningful, and the PR person can help you get these valuable data out, in understandable form, to the community. That is real accountability, and it's also using data to inform decisions and to inform the public.

Finally, as I indicated above, the first commandment in data-enhanced leadership is to know what you are trying to do. What outcomes are most important to you and your district? What form do they need to be in to help people move forward? One of the most important qualities of leadership is clarity—being clear on what is expected and what is happening. This leads to transparency and to positive action.

Yes, Dyson and Farson were correct. When you wish for a tool and you get it, you have to live with it. Technology is here to stay. The use of data is central to the role of leader in today's context. You have to live with that and turn the dilemmas that come with it into positive action. Leadership is about using what you have to get what you want and what the organization needs.

References

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