USING DATA

To Focus Instructional Improvement

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Debugging the School

How is it that some schools make progress and others do not? In other words, what do highly effective schools do that makes a difference? The answer is fairly obvious. Effective schools use information that is available to them to continuously improve. Those improvements might be related to the culture of the school, the cleanliness of the facility, or the instructional program. The data—information—focus the efforts of the staff members on areas of strength and need.

The problem is not that some schools have access to information and others do not. Schools are awash in information about most aspects of their operation. Some schools just choose to ignore the information that is available to them. Other schools take a look at the information, perhaps take the time to acknowledge the problem, and then do nothing further about it. And still other schools examine the data, develop an intervention plan, and then fail to implement or monitor the plan. This book examines schools that function differently—schools that make a difference by using information available to them to continuously improve, specifically in the area of instruction. Starting with the assumption that opportunities for improvement always exist, we must purposefully seek out errors, understand their causes and effects, and then fix them for continuous improvement to occur. In the parlance of computer programmers, this process is called debugging. As such, continuous assessment can be used by virtually any educational system to study and then improve the experiences and outcomes of the people who teach and learn there. We are not saying that continuous instructional improvement is easy; we are saying that it is worth the effort.

Why Focus on Instruction?

The primary function of schools is to facilitate learning, which is accomplished through instruction. From years of study, the educational community knows quite a bit about effective instruction: that the climate can enhance or reduce learning (Wright, Horn, & Sanders, 1997), that learning is a reciprocal process that occurs between teacher and student (Brophy, 1982), and that teacher expertise matters (Darling-Hammond, 2000; Shulman, 1987). This last point has been made abundantly clear through a large-scale longitudinal study of the economic repercussions of access to high-quality teaching. Three economists (not educators) drew from two sources of data—federal income tax records and standardized test scores—from 1988 to 2009. These two data sets are readily available, but not commonly linked. The economists' ingenious approach? Investigating the economic impact of a high-value teacher (top 5 percent) on the lifetime earnings of a student. Their analysis revealed that having a high-value teacher for one year correlated with a $50,000 lifetime earnings increase for that student (Chetty, Friedman, & Rockoff, 2011). They further reported that these students were more likely to go to college, and that the girls were less likely to become teenage mothers. By definition, not every teacher can be in the top 5 percent; it is mathematically impossible. But the most encouraging news is that replacing a low-value teacher (bottom 5 percent) with an average one equated to overall lifetime earnings that approached $1.4 million dollars per class of 27 students.

The economists' study speaks well to the continuous investment that should be made on the quality of instruction. Increasing teacher expertise positively affects the quality of life for our students long after they have left our classrooms. Replacing a low-value teacher doesn't need to be swapping out one individual for another; "replacing" could mean effectively supporting each teacher's professional growth. What if the instructional skills of every teacher were increased? Consider the effect this change would have on students. Do you know any teachers who aren't eager to become more expert at what they do? If so, they are in the minority of your collegial group. As educators, we all desire to be better at our job today than we were a year ago. We want to hone our teaching skills. But after the first few years of practice, during which we work out the obvious kinks of classroom management, lesson planning, and organization, where do we turn?

Our answer is that a climate exists within a successful school where data analysis, both quantitative and qualitative, informs instructional expertise. In too many schools and

districts, data analysis is viewed as something separate from the daily life of the classroom. In too many instances, data analysis is reserved for a professional development session or scheduled for professional learning community discussions. These events are finite, with a start and stop time, and are only fitfully carried into the classroom. The challenge, as we see it, is to view data—not intuition, not anecdotal reports—as the tools we use to get better at teaching students. To get better at teaching requires us to relentlessly focus our attention, with laser-like precision, on instructional practice and improvement.

Focusing on Instructional Improvement

The first three phases of the instructional improvement model we propose have a lot in common with other systems that have been developed (e.g., Bambrick-Santoyo, 2010). More specifically, any instructional improvement system should begin by *surveying the information available within a school*—both hard and soft data—which is the focus of Chapters 2 and 3. Collecting hard and soft data require that school teams and their leaders develop assessment literacy, meaning that they come to understand what the assessments do and do not measure as well as the validity and reliability of the collected information.

In addition, a systematic approach to instructional improvement requires that *data are analyzed to identify patterns of strength and need*. The vast amounts of data that are available can overwhelm school teams to the point that they become paralyzed in the analysis phase and are unable to use the analysis to move to action. We have found it important in this phase to take time to celebrate successes and achievements. Although instructional improvement is about continuous progress, taking time to recognize areas of growth builds the capacity of the teams while reinforcing the notion that their efforts are rewarded.

The third part of a traditional approach to instructional improvement focuses on using the insights that were highlighted through analysis to *develop goals and objectives* that can drive the school improvement process forward. In high-performing schools, teachers and leaders engage as a community in all three phases of this process, from data collection to analysis and goal development. Developing specific and shared goals helps focus the efforts of a school and guides decisions about professional development and spending priorities, ensuring that there is significant community stakeholder involvement and investment in the outcomes.

Unfortunately, at this point in the process, many instructional improvement efforts end. In some situations, school teams meet at the beginning of the year, review their data from the previous year, and develop goals based on observed patterns. Then the school year starts and the well-meaning adults within these systems become busy as they do their best to meet the goals, but are unable to continue to assess the success of the implementation in all areas that affect students, faculty, staff, administration, and curriculum. The situation could be worse. Imagine a school where the principal independently analyzes data and then announces the goals for the year to the faculty and staff. Or worse yet, the leadership team receives information from the state assessments and files it away in a drawer, meaning to look at it later.

Despite good intentions, it's no wonder that some schools fail to improve. Instructional improvement is not the sole responsibility of the principal or even the leadership team. It is a shared responsibility of all the school's stakeholders, including students, parents, community members, classified staff, faculty, and administrators. It's also not about the plan itself. Simply writing goals and objectives for school improvement and sending the list to the district office or state department of education will not likely change the experience students have in school.

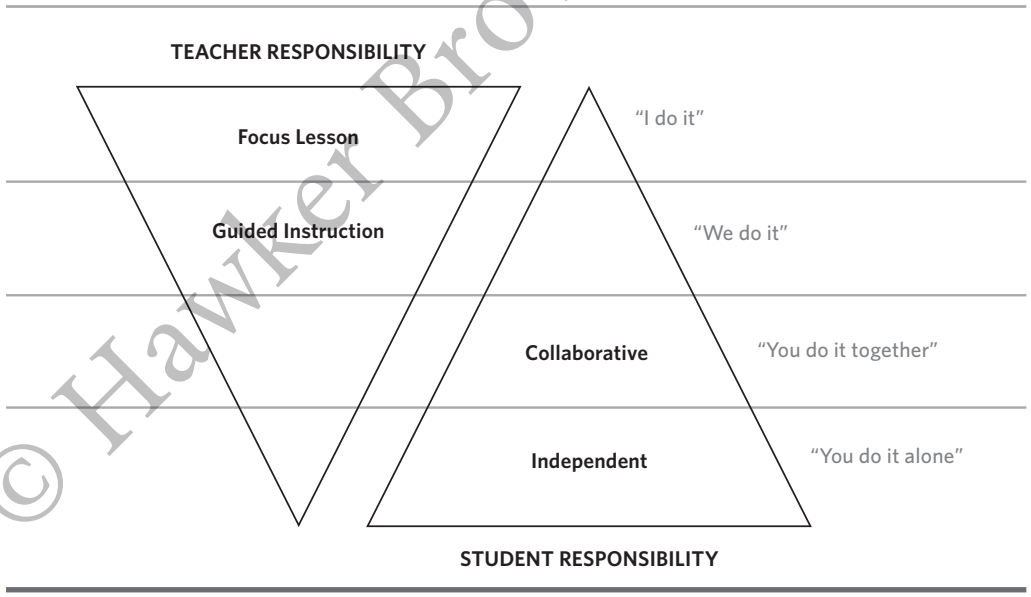
Following a Process

Developing an improvement plan is vital and will be addressed in more detail in the coming chapters. Let's temporarily put that to the side so we can highlight what happens *after* the plan is developed. Most conventional plans acknowledge that implementation and monitoring are important, yet offer few details on how that might be accomplished. Some teams assume that, once crafted, the details of the plan will fall into place. But then the inevitable occurs—competing priorities overwhelm the best of intentions and the plan is derailed. We contend that implementation and monitoring are all about building, maintaining, and extending the competence and confidence of everyone involved. And to do so, administrators need to see themselves as learners and to understand what it means to be a learner.

When it comes to developing our own students' competence and confidence, we turn to a gradual release of responsibility instructional framework (Fisher & Frey, 2008a). The framework is informed by the reading comprehension work of Pearson and Gallagher (1983) who provided a means for describing the shifting levels of cognitive responsibility

between teacher and student as the learner gains knowledge and skills. Our own work has further expanded this view by including other vital aspects of instruction, including setting purpose and fostering collaboration among peers. Concepts and skills are introduced to students through focus lessons that include statements of purpose as well as modeling, demonstrating, and thinking aloud by the teacher. The cognitive responsibility shifts a bit toward students during guided instruction, when they get an opportunity to apply the skill or concept under the watchful gaze of the teacher, who is available to help when understanding breaks down. Students use these skills and concepts in collaborative learning arrangements, where vital opportunities to make mistakes are paramount. As competence and confidence grow, the student is able to assume an increasing level of cognitive responsibility to learn independently and continue building knowledge. Figure 1.1 contains a diagram showing the shifting cognitive and metacognitive responsibility at each phase of learning.

FIGURE 1.1
Gradual Release of Responsibility Instructional Framework



Source: Fisher, D., & Frey, N. (2008). *Better learning through structured teaching: A framework for the gradual release of responsibility* (p. 4). Alexandria, VA: ASCD. Used with permission.