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Leading and Managing with Diagnosis and Design

Taking over as principal at Costen Elementary, Mrs. Kox inherited a staff that had been managing itself for a decade or more. Behind the classroom door, teachers decided which instructional practice was best with minimal interference from outside. For many veteran teachers, this laissez-faire approach to school leadership and management worked well. Costen students performed well on achievement tests, at least compared to other Chicago public schools. On Mrs. Kox's arrival, 56% of Costen students were scoring at or above national norms in reading on the Iowa Test of Basic Skills (ITBS), while 58% of students were doing so in mathematics. With student mobility rates at over 30%, more than 70% of students qualifying for a free or reduced lunch, and 40% of students identified as "limited-English," teachers interpreted the student achievement data as evidence of a job well done. Many staff saw no cause for alarm.

But Mrs. Kox saw things differently. She interpreted the student achievement data as cause for concern rather than celebration—constructing it as evidence of a problem at Costen. Seeing the glass as half-empty, she worried, many might think reasonably, that nearly half of the students at Costen were not succeeding. Moreover, she diagnosed the problem as one of low teacher expectations, staff inattention to standards, and the lack of a coherent instructional program.

Convinced that improvement was imperative and wanting to "get things done," Mrs. Kox hit the ground running. Arriving midyear, with no record of prior organizational arrangements at Costen and eager to transform business as usual, Mrs. Kox felt she did not have the time to gather data to figure out how things were done at the school. Gleaning ideas from her principal training, she eagerly set out to put these ideas to work. She worked to standardize classroom instruction and hold teachers accountable for teaching the standards by monitoring instruction. She implemented new organizational routines—schoolwide grading policies, regular monitoring of teachers' lesson plans, and collecting samples of student work along with scoring rubrics. Regularly dropping in on classrooms unannounced, she never hesitated to reprimand students if necessary. Mrs. Kox's new designs represented a dramatic shift for most Costen teachers, who were used to closing their classroom doors and conducting business

independently. As one might expect, Mrs. Kox's approach threatened many teachers' sense of autonomy.

Mrs. Kox's transition into the principal's office was not smooth. Her diagnosis of the problem at Costen and the new organizational routines she designed in response were met with resistance from some veteran staff. Some veteran teachers publicly challenged Mrs. Kox's diagnosis of the problem and the new order she designed to address it. Some saw no evidence of a problem in student achievement data while others argued that if there was a problem, it had to do with recent changes in student demographics. As one teacher put it at a faculty meeting, "We're getting more and more kids now with problems at home . . . and I can model things here, but if they don't get it at home . . ." While Mrs. Kox worked tirelessly to build and implement new arrangements for managing and leading instruction, a group of veteran teachers worked just as diligently to preserve the status quo. Resentment simmered, eventually erupting in an organized campaign to oust the new principal. Mrs. Kox survived, but at a cost.¹

At Costen Elementary School, Mrs. Kox saw the test data, which indicated that almost half of Costen's students were not achieving at national norms, as evidence of a problem—a problem that she defined in terms of the quality of classroom instruction at the school. Her diagnosis was relatively straightforward: Teachers needed to focus more on district standards, teach a uniform curriculum, have higher expectations for their students, and not waste valuable instructional time. By way of a solution, she designed a set of new organizational routines to monitor instruction in the building and hold teachers accountable for teaching the standards that were already in place.

Mrs. Kox's situation is typical in many respects. She was not operating in an institutional vacuum. Costen, like most schools, is situated in a pluralistic institutional environment with numerous stakeholders including parents, policymakers, community members, publishers, and professional associations putting diverse and sometimes competing demands on school staff. These arrangements require institutional work that falls into two broad categories—organizational legitimacy and organizational integrity (Kraatz, 2009). First, there is the quest for legitimacy as school leaders strive to gain the support of diverse stakeholders by demonstrating to them that their school is a "real" or "legitimate" school. Mrs. Kox was well aware that state and district policymakers were pressing schools to pay attention to state standards and to increase student achievement, which was a considerable shift, as policymakers had previously left matters of instruction mostly to schools. Second, there is the "organizational integrity" imperative pressing school leaders to create an "organizational self" that is minimally coherent, integrated, and self-consistent (Kraatz, 2009; Mead, 1934; Selznick, 1992). Mrs. Kox took the

helm of a school where everything—from what content to teach to standards for grading students' work—was at the discretion of the individual teacher. Organizational coherence was built around teacher autonomy for instructional matters, but a shifting policy environment was likely to change this as state and district policymakers demanded adherence to standards. Striving for organizational integrity in this changing policy environment that placed new demands on schools, Mrs. Kox worked to create consistency, integration, and coherence, especially with respect to classroom teaching. Like most principals, Kox was working on the dual imperatives of legitimacy and integrity (Kraatz & Block, 2008). Moreover, she was doing so at a time of considerable flux in the institutional environment, as state and district policymakers were enacting policies that defined learning standards and held schools accountable for student achievement.

Mrs. Kox had good intentions and made a valiant effort to transform business as usual at Costen in an effort to improve student achievement. Still, we are left wondering about the wisdom of relying primarily on test scores to diagnose the problem at Costen. Would Mrs. Kox have diagnosed the problem differently and thereby designed a different solution if she had considered other sorts of data in making her case for reform?

In this book we argue that diagnosis and design are core aspects of leading and managing schools. Further, school leaders need to consider different sorts of data—not just student achievement data—in this endeavor. Taking a distributed perspective, we examine the entailments of diagnosis and design work for school leadership and management. Our account is anchored in over a decade of empirical work on the practice of leading and managing in various schools in the United States (see Appendix A). Our goal here, however, is not to give an academic account of our research findings (we have done that in numerous other venues). Rather, we aim to engage school practitioners and those who work with them to develop school leadership in a dialogue about the practice of leading and managing. We strive to do that *not* by providing simple recipes for leading and managing schools. Instead, we use findings and examples from our research on leadership and management to engage readers in thinking about diagnosing practice and designing for its improvement. Finally, while our account zeros in on practice at the school level, we remind readers that work practice in schools is not immune from the broader institutional environment and its various players that place demands on school staff. While we see these issues in the background, we attempt to remind readers of their relevance throughout this book.

DIAGNOSIS AND DESIGN

Diagnosis and design are core elements of leading and managing schools. Taking a diagnosis and design approach to school leadership and management puts school leaders, both formal and informal, front and center in efforts to lead and manage instruction. School leaders are often confronted with a vast array of prepackaged remedies for school reform. While purchasing “off-the-shelf” remedies from the “reforms-r-us” bazaar can aid school leaders in their efforts, most of these remedies rely on school leaders for their successful implementation and institutionalization. Of course, school leaders can also design their own remedies to improve teaching and learning, but regardless of the origins of these remedies, their success ultimately depends on the work of school leaders.

A diagnosis and design approach to leadership and management sees school leaders as the critical agents in improving schools. However, such an approach does not require every school to reinvent the proverbial wheel one reform at a time. Nor does it discourage schools from purchasing from the school-improvement marketplace. School leaders, as savvy consumers, can buy, borrow, and steal from the school improvement bazaar and save time and energy by doing so. Still, the success and/or failure of their purchases will ultimately depend on their own diagnostic and design efforts. Outside inventions will help a school’s improvement efforts only to the extent that they address the problems the school is facing and fit the school’s particular circumstances. All of this requires local diagnosis and design work, with school leaders diagnosing the state of affairs at their own schools and either assessing the fit of available programs or designing and/or redesigning their own remedies.

More specifically, leaders in any organization diagnose the nature or cause of a problem, construct a prognosis by defining goals and identifying strategies to attain those goals, and design or redesign aspects of the workplace by way of implementing these strategies. Of course, diagnosis and design are not as straightforward in practice as they appear in theory. To begin with, problems are not waiting around to be discovered by school leaders or the external consultants on whom they sometimes rely. Rather, school leaders and their staff construct problems as well as the solutions that they design to address those problems. Diagnostic and prognostic framing are key in this process. While diagnostic framing centers on defining problems, identifying their source, and assigning blame, prognostic framing centers on articulating a solution and the strategies for carrying it out (Benford & Snow, 2000; Coburn, 2006; Snow & Benford, 1992). Whereas diagnosis is critical to how problems are defined, prognosis is critical for how solutions to these problems are articulated. Together they are the basis for design work, or realizing those solutions in practice.

Solutions do not always follow problems: Sometimes the solution comes before the problem is defined. We can all think of situations where a particular solution long-ignored eventually found currency. Further, school leaders are often under pressure to attend to the problem definitions pressed by various institutional players or to adopt the pet solutions of key stakeholders. And, concerned about the legitimacy of their organization, school leaders may feel compelled to do so.

Most school leaders engage in diagnosis and design every day, though they may not label their work as such. The purpose of this book is to put diagnosis and design work at center stage in leadership and management practice. We argue that ongoing and deliberate diagnosis and design are critical to leading and managing schools. Further, we contend that a purely implementation mind-set is problematic and limiting when it comes to school leadership and management.

Design

We typically think of design as a rather grandiose pursuit, something that the Frank Lloyd Wrights and Calvin Kleins of the world do. But even ordinary architects and fashion designers do not have a monopoly on design. Design is an everyday activity. It is the everyday, sometimes mundane, pursuit of molding aspects of our situation in purposeful ways to address some particular goal or function. Most of us do design in some form or another.

Moreover, design is a component of leading and managing any organization. School leaders attempt to mold aspects of the organizational infrastructure, which include organizational routines, formal positions, and tools of various sorts, to attain particular purposes or to address particular organizational functions. The functions that seem to matter most in schools include setting directions (e.g., defining an instructional vision), human development (e.g., promoting professional learning among staff), and organizational development (e.g., building collaborative processes among staff) (Leithwood, Louis, Anderson, & Wahlstrom, 2004; Leithwood & Riehl, 2003; Robinson, Lloyd, & Rowe, 2008). Fulfilling these functions is necessary for schools to do well. School leaders design or redesign aspects of their organizational infrastructure, such as routines and tools, to address these functions.

At Costen, for example, Mrs. Kox designed organizational routines such as the lesson plan review in an effort to standardize instruction across classrooms and hold teachers accountable for teaching to district and state standards. These efforts could help address both the legitimacy imperative by keeping district policymakers happy, and the integrity imperative

by creating a more consistent and coherent instructional program. School leaders like Mrs. Kox work to lead change by designing or redesigning aspects of their organization to attain particular purposes. They might design more or less from scratch by inventing new designs, or they might borrow the designs of others, tweaking them as necessary to fit the particulars of their circumstances. But whatever their origin, once implemented and institutionalized, savvy school leaders strive to maintain or manage their new designs over the long haul, at least as long as they serve particular essential functions.

Diagnosis

Diagnosis and design work are closely related. As we saw at Costen, design with minimal diagnosis can have detrimental consequences for school leaders' best-laid plans. Mrs. Kox's failure to diagnose standard ways of doing business at Costen when she took the reins as principal adversely affected the changes she introduced. Some teachers contested her claim that there was a problem in the first place. Some teachers, who begrudgingly agreed there might be a problem with student achievement at Costen, rejected Mrs. Kox's definition of it. Other teachers believed that Mrs. Kox's prognosis and her strategies for remedying the problem were not on the mark. Diagnosis is essential for design and redesign work, though people often design based on flimsy diagnoses.

Ongoing diagnosis informs how leaders design and redesign aspects of the school's infrastructure. For many, the first thing that comes to mind upon hearing the word *diagnose* is their last visit to the doctor's office to address some medical problem. We relate our symptoms to our physician so she can render a diagnosis by pinpointing the problem and its causes and, based on that, give us a prognosis. While medical diagnosis is often difficult and misdiagnoses are not uncommon, diagnosing social phenomena can be even more difficult. As we will take up in more detail below, the very idea of pinpointing a problem is flawed because it assumes that the problem already exists below the surface, just waiting to be discovered. Diagnosis is less a process of discovering problems and more a process of constructing or defining them (Spillane & Miele, 2007). Indeed, problems do not define themselves; people define them. Moreover, people can and often do define problems in different ways, just as Mrs. Kox and her staff disagreed about whether there even was a problem at Costen and also about how to define that problem.

No matter the circumstance, diagnosis is often the basis for design and redesign work. But our diagnostic work does not end when our new designs are in place. We must continue to diagnose the progress, redesigning

as necessary in order to maximize our improvement efforts.

DIGGING DEEPER: EXPLORING THE ENTAILMENTS OF DIAGNOSIS AND DESIGN

In an era of high-stakes accountability, school principals like Mrs. Kox are under pressure to make change in the hope of improving student achievement. But mantras such as “data-based decisionmaking” and “evidence-based practice” mask the complexity of what it takes to raise test scores and improve student learning. They oversimplify the entailments of leading school improvement—the complexity of diagnosis and design.

Leading and managing schools involves sense-making, gathering and marshaling data, constructing evidence of and for a problem, and making decisions about how to remedy the problem as defined. Anyone who has spent time in schools knows to expect the unexpected. Indeed, when things are going more or less smoothly in an organization, people work on autopilot, automatically processing what goes on around them. But when the unexpected happens, things that interrupt people’s work, they switch from automatic to conscious processing in an attempt to make sense of the interruption and decide how to handle it (Weick, 1995). An unforeseen drop in student achievement, an increase in teacher absenteeism, or declining parental participation can prompt diagnostic work. When unexpected events occur or when expected events do not occur, we are prompted to sit up and take notice (Mandler, 1984). Sense-making is a central, if mostly taken-for-granted, process in any organization. It involves noticing and singling out for attention some things in our environment (while ignoring many others), as well as framing and interpreting these signals (Coburn, 2006). Of course, policymakers, especially in an era of standards and test-based accountability, work hard at getting school leaders to notice particular things in the environment, like new policies, using mechanisms such as rewards and sanctions.

Diagnostic and prognostic framing are key processes in how school leaders make sense of their environment. Given that problems do not lie beneath the surface of the school’s organizational infrastructure waiting for school leaders to dig them up, we acknowledge that diagnostic and design work in schools is neither simple nor straightforward (Coburn, 2006). Diagnostic work is more about construction than discovery. It involves constructing and defining a problem and marshaling evidence to support a particular definition of it. Problems are not typically lying around just below the floorboards in the schoolhouse or the turf in the schoolyard waiting to be discovered by school staff; identifying and defining problems requires builders as much as explorers. These builders use data to

construct evidence of a problem—specifically of its nature and its cause—and to formulate a prognosis or plan of attack for how to solve it.

Using Data to Build Evidence: A Problem or Not?

Data and information are not synonymous with evidence, though in everyday life we often treat them as such (Majone, 1989; Phillips, 2007). Data showing increases or decreases in student achievement at Costen, for example, are information, not evidence of anything. Evidence is something we construct when we piece together certain pieces of data, while intentionally or unintentionally ignoring other pieces, to build an argument that a particular problem exists (Spillane & Miele, 2007). Consider the opening vignette. Mrs. Kox used student achievement data to construct evidence that there was a problem at Costen: Close to 50% of students were not reading at grade level. Mrs. Kox explained, “I happen to be one that believes that the test results do tell you something about curriculum. Fifty percent are succeeding. I look at it the other way. Fifty percent of our children are not succeeding.” But some teachers at Costen used that same data to construct evidence that there was *no* problem. At one faculty meeting, a teacher challenged Mrs. Kox’s claim that there was a problem, noting, “But our [student achievement] scores are going up!” Using the same data, the principal constructed evidence that Costen had a problem, whereas some teachers constructed evidence that all was well.

Consider how the principal at neighboring Baxter School marshaled student achievement data to construct evidence of a problem there. Baxter serves a culturally diverse student population that has been shifting in recent years, with 70% of Baxter’s students qualifying for free or reduced lunch. Similar to Costen, student achievement data for Baxter, when compared to other district schools, suggested that Baxter was one of the better-performing schools in the district. Baxter’s students performed comparatively well on the Iowa Test of Basic Skills (ITBS), with 60% scoring at or above national norms on the reading portion and 69% doing so on the mathematics portion. But when the principal at Baxter took a closer look at the student achievement data and reanalyzed them longitudinally to measure actual student growth over time, he identified some surprising grade- and cohort-level trends. Compared to the top 12 performing schools in the district, students at Baxter were at the bottom of the list when it came to actual growth. The principal at Baxter marshaled these data as evidence that all was not well at Baxter, defining the problem as one of stagnant growth in student achievement. He explained:

The analysis made clear that out of the 12 schools, Baxter was either