CHAPTER 2

Theories of Action

There is nothing so practical as a good theory.
—Kurt Lewin, *Field Theory in Social Science*

One year into her first superintendency, Helen Forsythe is confronting the difference between her vision for the Pleasanton schools and the facts on the ground. Her vision, stated in a compelling speech to the assembled teachers and administrators of Pleasanton at the beginning of her first year, was "to provide the highest-quality learning experience for every student, to make Pleasanton a beacon for successful teaching in literacy and mathematics, and to do so with respect for the judgment and competence of our professional staff. Together we can do this. Together we will." Behind these opening remarks was the reality that student performance in Pleasanton, as measured by the state competency exam, had been declining significantly in reading and math, and the proportion of high school students attending two- and four-year institutions after graduation had also declined. The district's demographics had also shifted, with the proportion of low-income students and English language learners increasing significantly.

When Helen surveyed the district's previous attempts to address instructional issues, she found a hodgepodge of special programs addressed to different target populations and considerable confusion at the school and classroom levels about how the district was handling its student performance problems. She quickly settled on a focused strategy of improved content and instruction in literacy and mathematics across the grade levels and announced it at the opening of school. Now, approaching the beginning of her second year, Helen noticed that principals and

teachers didn't seem to understand the new focus. They referred repeatedly to the programs Helen had "shut down" and not to the new strategy. When Helen visited schools, she saw little evidence of the focus on literacy and math in classrooms. Her vision, compelling in principle, and her strategy, well worked-out conceptually, seemed not to have much reality on the ground.

Helen needs a theory. Her problem is one that most leaders confront. Their vision is, at least in their own minds, complete and compelling. The vision obviously worked in getting them into their jobs. But when the vision confronts the messiness of the actual organization, it seems less compelling. School systems and schools are not blank slates waiting to be written on by leaders. They are composites and collections of previous, often long-forgotten "solutions" to problems that other people thought were compelling at one time or another. The organizations embody beliefs and practices that are deeply rooted in people's identities and that can't be erased or displaced with a compelling alternative vision. Schools and school systems represent an equilibrium state—however dysfunctional—that accurately reflects the comfort zone of the people who work in them. Organizations resist "vision" not because of some perverse instinct on the part of people to resist change, but because the existing structures and practices provide a story line that people understand, and the vision often fails to provide an alternative that they find equally persuasive and understandable.

A theory of action can be thought of as the story line that makes a vision and a strategy concrete. It gives the leader a line of narrative that leads people through the daily complexity and distractions that compete with the main work of the instructional core. It provides the map that carries the vision through the organization. And it provides a way of testing the assumptions and suppositions of the vision against the unfolding realities of the work in an actual organization with actual people.

The term *theory of action* comes from the work of Chris Argyris and Donald Schön in their studies of individual and organizational learning.[1] They distinguish between individuals' theories of action, which describe people's implicit or explicit models of how they *intend* to act in the world, and their "theories in use," which describe how people *actually* act. Argyris and Schön focused largely on the learning processes by which individuals close the gap between their theories of action and theories in use. In describing this process of learning, Argyris and Schön distinguish

between single-loop and double-loop learning. Single-loop learning describes the situation in which we act on the world, receive feedback on the consequences of our actions, and adapt our behavior to the feedback. Double-loop learning is the process of single-loop learning with the additional stage of *reflection* on the *process* by which we read and adapt to the consequences of our actions, and try to improve *how* we learn from our actions. These processes, Argyris and Schön argue, can be done at both the individual and the collective, or organizational, levels. The capacity to engage in double-loop learning, they argue, is what distinguishes more successful and less successful individuals and organizations. Hence, Argyris and Schön describe their approach to individual and organizational learning as "reflection in action."

In our work with instructional rounds, we focus a significant amount on getting participants to construct explicit theories of action and to assess these theories against the realities of their work. This work typically occurs after people have had some experience with the rounds process. As participants develop a facility with rounds, working in concert with their colleagues over several cycles of observation, description, analysis, and prescription, they develop some norms of collegiality and support. At this point, we ask them individually to develop their own theory of action about how their work relates *concretely* to the work of teachers and students in classrooms. We ask them to write down their theories of action in simple, descriptive terms. They then discuss those theories of action with their colleagues, typically in pairs and triads, and reshape the theories over time in response to their colleagues' feedback and their own experience. In this process, we hope to model the aligning of the *intended* theory the *enacted* theory through reflection in action.

In our framework, a theory of action has three main requirements:

1. It must begin with a *statement of a causal relationship* between what I do—in my role as superintendent, principal, teacher, coach, etc.—and what constitutes a good result in the classroom.
2. It must be *empirically falsifiable*; that is, I must be able to *dis*qualify all or parts of the theory as a useful guide to action that is based on evidence of what occurs as a consequence of my actions.
3. It must be *open ended*; that is, it must prompt me to further revise and specify the causal relationships I initially identified as I learn more about the consequences of my actions.

We encourage people to state their theories of action as *if-then* propositions, in part to stress the causal nature of the statements and in part to reinforce that these are testable propositions that *should be* subject to revision if the goal is improved learning. The form seems a little stilted at first, but over time, people become more comfortable and fluent with it. They learn to develop and elaborate their if-then statements into more explanatory and challenging commitments and ideas.

A CAUSAL STORY LINE

Helen, the superintendent in the opening vignette, is not the only leader who needs a more explicit theory to make her vision and strategy more concrete. Take, for example, the case of a large urban district that decided it could affect the future educational attainment of its students by requiring that all students complete a rigorous algebra course before the end of ninth grade. Like Helen's vision, this was compelling, in large part because the district's data, and other evidence in general, suggested that whether and when students take algebra was a strong predictor of whether they would advance to postsecondary education. The vision was a long way from the facts on the ground. Many students in the system—perhaps as many as 40 percent—did not have the prerequisite math skills to take algebra. Part of the reason for the low achievement was a heavily tracked math curriculum before and during the middle grades that was a holdover from a previous era. Another reason was that the math instruction in the courses designed to prepare students for algebra was highly variable. There was support for the algebra-for-all vision among a significant minority of secondary math teachers, but most teachers still needed to be persuaded that the goal was feasible. The district needed a story line.

At a strategy session with system-level leaders, including the superintendent, the chief academic officer, and the people in the central office responsible for the algebra initiative, we asked what their theory of action was—how, exactly, would the system get from its current state to the one required by the vision? For example, how many new math sections would be required to accommodate the new students taking algebra? How many teachers would it take to staff these sections? How would the increases in algebra sections affect other math offerings? What would be the minimum amount of professional development required for teachers and principals to begin to adapt the existing algebra curriculum to a new clientele? How many coaches and professional developers would it take to meet those requirements? What would be the accountability expectations for schools around

student enrollment and completion of algebra courses? What would constitute a quality experience for students taking algebra, and how would it be communicated and monitored by system-level and school-level leaders? How would the people responsible for the algebra initiative know whether the actual instruction met the requirements for a quality experience? What would happen when the inevitable breakdowns of logistics and organization occurred? Who would be responsible for fixing them?

As the questions rolled out, the assembled administrators looked stunned. Their implicit theory of action was something like "If the algebra-for-all vision is compelling and people have good motives and work hard, then students will take algebra and succeed at it." In our experience, this level of optimism about the direct relationship between a policy and student learning is common, and the people farthest from the daily interactions of the instructional core are most likely to unknowingly subscribe to the "and then a miracle happens" improvement theory. Many systems, like the algebra-for-all district, need a more explicit theory to make their good intentions a reality.

The more concrete the theory and the more it relates to the specific context in which participants work, the more likely it is to be useful. Often, participants start developing a theory of action at a fairly high level of abstraction: "If system and building level administrators monitor teaching practice in a serious and visible way, then teachers will teach high-level reading and writing skills, and then students will learn to write more fluently and powerfully." This might be a good start. First, it signals that the system is focused, at least for the time being, on reading and writing skills and it signals that teachers can't be expected to change the way they teach without challenge and support from administrators. But the theory doesn't deal explicitly with where teachers will get the new knowledge and skill necessary to do the kind of teaching required by the reading and writing initiative.

A give-and-take of the concrete details can deepen and refine the theory and make it more practicable. So colleagues might ask, "Where is the knowledge and skill to do this new kind of teaching going to come from?" To which the participant might respond, "If teachers have access to coaching and professional development focused on the core skills of high-level reading and writing, and if administrators monitor and support the acquisition of these skills through their daily visits to classrooms, then teachers will teach higher-level skills and students will demonstrate their learning by producing higher-level work." But, colleagues might ask, "Who gets to say what higher-level work might consist of, and how will we know it when

we see it?". The participant might reply, "If teachers are knowledgeable about the performances that equate to high-level reading and writing and if they participate in the development of assessments that provide evidence of those performances, then they will know how to test their own knowledge and skill against the requirements of the new curriculum." And so on.

It is important for individuals to commit to a theory of action in written form, if for no other reason than it is easy to speak in causal terms when you're not actually required to write anything down. The act of writing itself forces individuals to confront the gaps and holes in their espoused theories and to think hard about exactly what they might mean when they say something like, "I regularly monitor the progress of principals in their school improvement plans." What exactly does it mean to monitor progress on a plan? Where does this occur? Does it occur in the principal's office after a series of classroom visits, or does it occur in the superintendent's office, with the principal reporting on what is happening at the school? What happens as a consequence of this monitoring? What evidence is there that monitoring influences principals' practice and that changes in principals' practice influence changes in teachers' instructional practices and student learning? How would we know when a particular approach to monitoring improvement plans was working? What are *you* and the principal actually learning in this process? What would we take as evidence of this?

The point here is not to develop a definitive theory that is useful once and for all time. It is, rather, to put into words the steps and contingencies that have to be mastered in order for a broad vision or strategy to result in concrete action that influences student learning. It is more important to have tried to figure out these contingencies than it is to find exactly the right expression for them. Theories of action should be, and will be, revised in light of experience.

One of the activities our rounds participants do is make an inventory of all the districtwide initiatives they are currently engaged in. The participants write down these initiatives on sticky notes, which are then put on a sheet of flip-chart paper and arrayed in relation to the participants' theory of action, which was developed earlier. What quickly becomes evident in such exercises is that the number of distinct initiatives is, for the typical district or school, significantly more that any single person can keep track of at one time. This is no real surprise—most organizations don't grow by design; they grow through opportunistic responses to their environments. And in most school systems, initiatives sprout like kudzu. Most projects have a deep history in the organization—a great idea that seemed to make sense at

the time, a funding opportunity too good to pass up, a special project of a particular board member who used it as a way of getting elected, a state or federal mandate that has to be shoehorned into the organization chart, a particularly powerful and well-connected internal constituency that has managed to stake out a position in the organization chart, or the occasional project that time forgot. The job of a good theory of action is to find a clear path through this initiative thicket.

The essential principle of a theory of action is that it provides a *through-line* to the instructional core—what are the vital activities that need to happen to improve teaching and learning? A good theory of action connects an important part of the overall strategy to the actions and relationships critical to good performance. When they try to array initiatives against their theory of action, people usually have a very difficult time figuring out where some of those initiatives belong, including some number of "orphans" that don't actually fit very well. In fact, the better the theory of action, the more orphans it is likely to produce. That is, much of the clutter of programs, projects, and initiatives that constitute the typical organization chart of a school or system doesn't lie on the through-line that connects the organization's vision and strategy to the instructional core. How to clean up the organizational clutter that is exposed through a good theory of action is beyond the scope of this book, but in our networks, the developing of theories of action has had an impact on how participants have redesigned their organizations.

A corollary of the through-line principle is that it is *not* the job of a good theory of action to make sense of the clutter in an organization. There is often a temptation in the early stages of creating a theory of action to make a list of all the treasured and protected initiatives in a school or a system and then try to shoehorn them into a theory of action. This is the strategic equivalent of cleaning up your garage or your basement storage room—it is a laudable and virtuous activity, it makes you feel good when it's over, but it won't necessarily help you find a clear path to the instructional core. Whatever the specific problems of clutter in a given organization, instructional improvement requires a clear through-line to the instructional core, even if that involves pushing some treasured initiatives or orphans aside for the moment.

Another corollary of the through-line principle is that good theories of action tend to tighten up accountability relationships in the organization because the theories show how people in different roles must depend on one another to get a good result. In one district, the leadership team initially thought that by providing a high-quality curriculum and introducing the expectation that teachers would

participate in professional development, the team would see good results in the classroom. What it discovered through rounds visits was that there were several breakdowns in that model—principals and teachers were not on the same page about the quality of the professional development, expectations about what role the principals would play in the roll-out of the curriculum were unclear, and the district's relationship with the professional development vendor was too loose. Once these contingencies were clear, it was possible to come up with some ideas about how to make key accountability relationships work and, more importantly, what support principals and teachers needed in order to be accountable.

Theories of action can also serve as glue for accountability relationships, particularly when the theories are made public. It is not unusual for superintendents we have worked with to make their theories of action available to people who work in the system. Theories by nature are unfinished products, hypotheses that may be wrong—sharing them is a form of making practice public that many people initially find scary. The more explicit that people are about their theory, the easier it is for others to hold them accountable for getting the desired result—and for following the through-line. Nevertheless, once rounds participants get over their initial hesitation, theories of action enter the language and the bloodstream of the organization. Participants often begin to develop theories of action with people in their systems. It is not unusual now to walk into a school in one of these systems, and to have the principal of that school present you with his or her theory of action.

Table 2.1 and figure 2.1 illustrate how this relationship between district- and school-level theories of action has played out in one Connecticut district—Farmington—where the superintendent, Robert Villanova, and the deputy superintendent, Eileen Howley, have worked over several years to bring system-level and school-level administrators into a working relationship around instructional improvement. The school-level theory of action is the result of Peter Cummings, the principal of West Woods Upper Elementary School, who is a relatively new principal, but a longer-term leader in the district. The Farmington leadership team, composed of key central office staff, principals, and assistant principals, does school visits and instructional rounds as part of its regular meetings. These meetings reinforce the common themes of the district's strategy and theory of action and provide principals with the opportunity to develop their theories of action tailored to the specifics of their school.

Looking at table 2.1 and figure 2.1 can be more than a little daunting if you've never developed a theory of action. It's important to understand that the Farmington

TABLE 2.1 TWO THEORIES OF ACTION

District-Based Theory of Action

1. If I/we create environments of shared collaboration focused on improving standards, curriculum, instruction, and assessment, then shared responsibility and shared accountability will create urgency for change and support continuous improvement of learning for all students.
2. If I/we cultivate expertise in teaching and learning as the means for improving student achievement, then teaching will be strengthened and more students will learn in deeper ways that better approach the "essential understanding" of the standards.
3. If I/we use data in systemic ways as a vehicle for examining school, classroom, and individual student progess, then interventions will be targeted in focused ways and achievement will increase.
4. If I/we foster a belief system driven by the principles of efficacy, hard work, and persistence, then we will increase student efforts to apply themselves to the work in focused ways and promote their achievement and mitigate against low expectations for student achievement.

School-Based Theory of Action

1. If we devote resources and time to developing the capacity of our teacher leaders to facilitate ongoing instructional improvement, then the focus of our teachers' regular work together will be grounded in improving learning experiences for all students.
2. If we continually develop the instructional expertise of our teachers, then teaching will be strengthened and all students will learn in deeper and more meaningful ways.
3. If we monitor students' progress through multiple formats over time, then we will be able to assess our instructional effectiveness and develop focused intervention strategies.
4. If we develop the efficacy of students so that they become active participants in their learning, then students will fully engage in school and develop the habits of mind that lead to successful lifelong learning.
5. If we develop a school climate and culture where every student and his or her family feel a sense of belonging, then families will join as partners in meeting the academic and social needs of early adolescents.

Adapted with permission from Peter J. Cummings, Principal, Farmington, Connecticut, School District.

FIGURE 2.1 DETAILS OF POINT 2 OF THE SCHOOL-BASED THEORY OF ACTION

2. If we continually develop the instructional expertise of our teachers, then teaching will be strengthened and all students will learn in deeper and more meaningful ways.
   - We will embed ongoing professional development in our regular schedule (content area meetings, team meetings, faculty meetings) and specifically develop teachers' pedagogical content knowledge in reading, writing, math, science, and social studies.
     - Sixth grade content area meetings in writing and math
     - Faculty meetings devoted to instructional practice
   - We will work with resource teachers to develop and implement specific content models of good instruction tailored to the upper elementary level.
     - Developing concepts of Teaching For Understanding through collaborative coaching and implementation of new curricula
     - Creating and coordinating professional development so that there is a common focus on the "big ideas" of upper elementary instruction, while exploring how instruction should be tailored to content in each area
   - We will work with team leaders to develop their group facilitation skills and implementation of a collaborative planning model.

Adapted with permission from Peter J. Cummings, Principal, Farmington, Connecticut, School District.

theories come from a system that has worked long and hard on its improvement strategy with stable leadership and deep professional development, coupled with thoughtful recruitment and development of school leadership. The resulting theories are a result of an iterative process. Most initial attempts at developing theories of action don't look like this. They look more like the earlier examples of simple if-then statements that attempt to capture the crucial relationships if the intentions embedded in vision statements and strategies are to reach the instructional core.

THEORY OF ACTION AS A FALSIFIABLE HYPOTHESIS

When working with practitioners on their individual and collective theories of action, one quickly discovers that grand strategies of improvement at the system and school level typically lack enough operational detail to help people understand

what the story line behind the strategy is and whether the strategy is working. In delving into the second key component of a theory of action, that it be falsifiable, one should distinguish between the vision that informs the strategy, the strategy itself, and the theories of action that operationalize the strategy. The vision might be at a very high level of abstraction: "Our students will develop the knowledge and skills required to be self-sufficient, responsible, and competent citizens in the twenty-first century." The strategy states the broad outlines of how the vision will be achieved: "Our focus for the next five years is raising the level of content and pedagogy in core academic subjects and measured performance for all students to world-class standards through investments in teachers' knowledge and skill and through the development of leadership capacity at all levels of the system." Buried in this strategy are a host of contingencies, like those outlined above in the algebra-for-all example, that someone will need to address in order for the strategy to work.

Theories of action might emerge while you are trying to make the strategy work in specific settings. So, for example, one problem that routinely arises when systems undertake ambitious improvement efforts is that the systems' capacity to deliver on the knowledge and skill required to improve instruction at the classroom level falls short of what is needed to make the strategy work. Sometimes, this shortfall is the result of an underestimate of how complex the actual work of teaching is. Sometimes, predictable logistical snafus limit professional development, and sometimes the relationships between the parties who have to work together to bring about the desired results falter. Teachers and administrators might see these problems become manifest in student performance, in the participation or lack thereof of teachers and principals in professional development, or in classroom practice that doesn't represent what they were hoping for. Observations of classrooms and of teacher and administrator team meetings might show that while the language that teachers and administrators are using to describe what they are doing corresponds to the lofty goals of the vision and the strategy, the actual practice in the classroom doesn't. Again, this is not an unusual occurrence in our experience.

The rounds process, then, might result in a revision of the superintendent's theory of action to place more emphasis on monitoring the quality of professional development and the level of support that teachers and principals receive in understanding and implementing higher-level instruction in the classroom. "If professional development occurs close to the setting in which the knowledge and skill will be used, and if teachers and administrators have regular and frequent observation

and support from knowledgeable coaches, then instruction will begin to reflect the knowledge and skill we expect students to master." This theory of action is, notably, tailored to solving a central issue that arises in the enactment of the strategy. It allows the superintendent, the principals, and the teachers to focus on a specific line of causality that might connect what the system is doing with what the school is doing with what is going on inside the classroom. Furthermore, the theory of action is falsifiable in the sense that we can monitor whether moving the professional development closer to the classroom really does make a difference and whether a higher frequency of interaction between teachers and administrators around instructional practice has greater impact on student learning. If it doesn't, then we need to move to the next level of detail, or back off and try another theory.

Here's an example from our own practice. Early in our work with the Cambridge Leadership Network—which is composed of principals and central office staff, including the superintendent—the problems of practice that principals were coming up with prior to our rounds visits began to clump up around issues of math instruction. The district, under the leadership of its superintendent, Tom Fowler-Finn, had undertaken an ambitious strategy to improve teaching and learning in literacy and math. The strategy involved extensive investments in teacher professional development and the adoption of very ambitious, high-end curricula. During our rounds visits, we noticed that literacy instruction was developing more or less according to plan, but that math instruction was not. Math instruction was highly variable from classroom to classroom and, at its best, did not represent what the designers of the curriculum expected. During one of our debriefing sessions with the network participants, the principals raised this issue and an interesting discussion ensued.

"How many principals had done the professional development for the literacy strategy?" we asked. All the hands went up. "How many principals had done the professional development for the math strategy?" Two of twelve hands went up. "What were the participation rates of teachers in the professional development?" It turned out that many teachers were not showing up for the professional development sessions they were signed up for, pleading that they could not be out of their classrooms on the designated days.

As the debriefing discussion developed, several things became evident. The principals were uneasy about their own knowledge of math instruction. Teachers were uneasy about the new curriculum and its expectations for their own knowledge

of math. Parents were starting to complain about the lack of focus on computational skills in the new curriculum. The teachers were avoiding the professional development, in part because the word was out that the quality of the professional development was variable. The professional development and coaching in the literacy strategy was considered exemplary by teachers, and the math work suffered by comparison. At some point in the debriefing, it became clear that the theory of action that had informed the literacy work wasn't working for math—different context, different set of problems, different set of base conditions of teachers' knowledge and skills. At that point, the superintendent and principals began to craft a new approach to implementing the math strategy. The principals resolved to spend the next year working on their own math knowledge. The central office staff renegotiated their relationship with the math professional development provider to include tighter quality control and more responsiveness to the district's agenda. The principals began to listen more carefully to the teachers' views on the curriculum and the quality of the professional development. And after several more rounds visits, the network developed much more explicit language about what it was looking for as evidence of high-level math instruction and student learning.

What was happening here was the network was tuning its theory of action, which was derived in part from the literacy work, to a new situation. The initial theory of action might have been something like: "If we adopt a well-designed reading and writing curriculum, and provide high levels of professional development and support for teachers in learning how to use it, then we will see changes in instruction consistent with our aspirations for student learning and increases in higher-level reading and writing skills for students." The tuned theory of action had to allow for the possibility that the problems of accountability and knowledge were more formidable in the math strategy than in the literacy strategy: "If we adopt a well-designed math curriculum, and if we understand the knowledge and skill gaps that have to be filled in order for teachers and principals to master the curriculum, and if we provide and carefully monitor the quality of the professional development, and if we develop clear accountability expectations around participation in professional development, then we will see changes in instructional practice consistent with our aspirations for student learning and increases in higher-level math skills for students." Over the next year, the Cambridge network crafted all its problems of practice around math instruction, principals and central office staff worked out detailed descriptions of what they expected to see in classrooms as evidence of

high-level math instruction, and the district's curriculum specialist helped develop several sessions around mathematics content and pedagogy.

The Cambridge example illustrates how a powerful vision and a well-worked-out strategy in one domain may not work equally well in another domain. It also illustrates how the rounds process can be used to tune a strategy to the particular circumstances of a new line of work. And it illustrates how rounds can create a culture of collaborative problem-solving when discussions are about the actual instruction in classrooms as opposed to people's projections of their own ideas about what's happening in classrooms. But the main lesson from the Cambridge example is that the drive for specificity and discipline that comes from a close examination of whether a theory of action is working (in other words, testing the hypothesis) carries rewards in increasing the connection of vision and strategy to practice.

In our rounds, we try to model the development of theories of action as a process of serial learning over time. We ask people to make a simple initial statement of their theory and to share it with one or two of their colleagues, using a protocol of presenting and then listening to colleagues talk about what they see in the theory—much the same as we try to stay primarily in the descriptive voice when we speak about instructional practice on our rounds visits. We do not have hard-and-fast rules about whether participants should make their theories of action public, but most participants do at one stage or another of development. As noted above, in the Connecticut Network, all participants use their theories of action with their senior leadership teams, and many participants have led principals in their districts through the process of developing their own.

In the Cambridge example, the discovery that a relatively simple theory that seemed to work for literacy does not work for math underscores the importance of falsifiability. We should be able to discover, as we have now in many observations, that putting teachers in teams to do grade-level or content-level common planning, does not, other things being equal, make instruction more coherent across classrooms. We should be able to discover that providing off-site professional development in a key instructional domain—no matter how good—does not provide teachers and principals with answers to the critical issues of practice they face when they try to put the ideas into play in classrooms. Notice, it is *not* that the initial theories are necessarily *wrong*. In fact, there are compelling reasons for districts to continue to invest in high-quality, professional development and to put teachers in teams for common planning. The problem is that the theories of action that

informed the use of professional development and common planning time were underdeveloped. We can only learn that they are underdeveloped and what to do about it by initially stating what we think we are doing and then testing our theories against the reality of the environment in which they have to work. The principle of falsifiability allows us to take our best ideas into practice, to see where they break down, and to modify them in light of experience.

REVISING THE THEORY OF ACTION AND DOUBLE-LOOP LEARNING

While having a falsifiable, if-then causal statement is a good start, it is the act of repeatedly revisiting the theory in the presence of colleagues that matters most for people's learning. In the process of successive revisits, the actual written version becomes an artifact or a proxy for a more complex cognitive and emotional learning process—a kind of life ring available to the practitioner when the water gets rough and evidence of success is scarce. People learn to treat their theories of action as touchstones for their own professional and cognitive development, as works-in-progress along a path that leads through successively greater levels of understanding of the work. In this sense, if you tend to your theory of action over time, it becomes like a diary, a record of the progression of learning in practice.

The requirements of open-endedness and successive discussion and revision are important for two reasons: First, these norms model the process of double-loop learning. If practitioners see their theory of action as a "finished product," suitable for framing and public display, then it ceases to function as a learning tool and it becomes a symbolic artifact, useful primarily as a tool for legitimizing their authority. "This is my theory, and I'm sticking with it." The norm of open-endedness suggests that developing your practice is a continuous process over time and that, no matter how successful you think you are, there is some set of problems you have not yet come to terms with. Second, open-endedness and successive discussion and revision are important because they model knowledge and skill in practice as a *collective*, rather than an individual good. That is, if you return to your colleagues on a regular basis for consultation, it creates the expectation that you will have something to say about your learning. It also creates the expectation that your colleagues are engaged in a process of learning, and if *you* show up with something interesting to say about your learning, *they* should also have something to say about their learning. Over time, people learn that it is acceptable to incorporate other

Tips and Takeaways

A theory of action, then, is a set of causal connections, usually in the if-then form, that serves as a story line that connects broad visions with the more specific strategies used to improve the instructional core. The discipline of crafting a theory of action requires cutting through the predictable clutter of the organization to the set of actions critical to instruction and student learning. Good theories of action also tend to tighten up accountability relationships in the organization because they expose mutual dependencies that are required to get the complex work of instructional improvement done. Theories of action also provide the basis for single-loop and double-loop learning. They provide the opportunity to test our presuppositions about what we think will work against the evidence of what actually works. And they enable participants to reflect individually and collectively on their practice and the process of learning they are engaged in around their practice.

Here are a few key practical ideas to keep in mind as you try to develop theories of action in the context of instructional rounds:

- *A simple and incomplete theory is better than no theory at all.* It's hard to learn if you don't make mistakes, and it's hard to learn if you don't test your best ideas against reality. The process of developing a good theory of action is iterative for a reason—it is a learning process.
- *More heads are better than fewer.* Like the process of observing and analyzing instruction, the process of developing and testing a theory of action works better when it occurs in concert with other people who have different ideas, whose experiences can be used to inform your practice, and who might know some things that you don't know. Strong norms of confidentiality and candor make collegial discussions of theories of action more powerful.
- *Clutter is the enemy of clarity and coherence.* You may not be able to change the organizational clutter of the system all at once, but you can find a clear path through the clutter with a well-developed theory of action. The role of a theory of action is not to make sense of the clutter, but to cut through the clutter to the instructional core. Save the orphans for later, and don't let them get in the way of the strategy.
- *Share your theory of action inside and outside your organization.* Public discussions of your own learning model show other people the process you expect them to go through in the development of their own practice. Make your own theory public, and work with others to make theirs public, too.