Why Durable Teaching Changes Are Elusive and What Might We Do About It?

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Editor’s Note:
In the following article, the authors posit that teaching is difficult to change precisely because it is a cultural activity. Drawing on analyses of the TIMMS Video Studies, they argue that research and experience suggest that teachers and administrators must reconceive and repurpose three elements of culture that operate in our schools—routines, settings, and activities—and use these levers of change to embed continuous improvement into teachers’ daily routines to achieve improved student outcomes. They further state that despite significant resources spent on professional development, teachers often teach the way they were taught as students in K–12 schools and as preservice and inservice educators, with little impact on improved student learning.

Nevertheless, there are steps that can be taken to achieve effective and sustained teaching changes. As you read the article, you are invited to reflect on the questions posed at the end of this piece as they relate to your work in Reading Recovery.

Why is Teaching Hard to Change?
Despite many attempts to change it, in some ways American teaching today differs little from instructional practices described decades ago (Rice, 1893; Stevens, 1912). Why? Probably because teaching is a cultural activity (Cuban, 1990; Little & McLaughlin, 1993; Lortie, 1975; Sarason, 1971; Stigler & Hiebert, 1999).

The cultural nature of teaching was illustrated by the TIMSS Video Studies (Hiebert et al., 2003; Roth et al., 2006; Stigler & Hiebert, 1999). The 1999 study of mathematics teaching (Hiebert et al., 2003) collected random samples of eighth-grade lesson videos in seven countries—638 lessons were analyzed. Each nation taught in a relatively unique fashion. For example, in the U.S. it didn’t matter where a video had been collected: urban, rural, public, and private school teachers taught mathematics using a common instructional pattern. One feature highlighted by the researchers was the way American teachers worked through with students those mathematical problems with rich conceptual learning opportunities. Once teachers begin to work through a problem, they often transform them

...so that the focus shifts from one kind of mathematical process to another. For example, a problem with the apparent intent of making connections among ideas, facts, and procedures can be transformed into a problem that involves demonstrating and practicing a procedure, perhaps because students are struggling with the original problem and the teacher perceives they need additional help. ... [T]eachers in all countries transformed some of the problems so that students’ actual experiences were somewhat different than what might have been predicted from looking only at the statements of the problems. ...

The picture of how problems were worked on comes into clearer focus by following the implementation of a particular kind of problem. Making connections problems are of special interest. ... 17% of the problem statements in the United States suggested a focus on mathematical connections, a percentage well within the range of many
higher-achieving countries. …

What happened to these problems when they were worked on in class? …

At least 37% of the making connection problems in [Hong Kong, Japan, the Czech Republic & the Netherlands] retained their original intent. In contrast, virtually none of the making connections problems in the United States were discussed in a way that made the mathematical connections or relationships visible for students. Mostly, they turned into opportunities to apply procedures. [emphasis added]

Or, they were implemented as problems in which even less mathematical content was visible—only the answer was given. … A plausible conclusion from these results is that teachers in the higher achieving countries attended more to the conceptual development of the mathematics than teachers in the United States. (Hiebert et al., 2005, pp. 119-120)

Was this because the curricula in the U.S. schools were focused on mathematical procedures instead of connections and concepts? No. The American teachers presented just as many rich problems as teachers in some of the higher-achieving countries. Yet, as U.S. teachers worked through problems, they rarely took advantage of the conceptual learning opportunities that rich problems offered. For American teachers, applying procedures is a taken-for-granted cultural pattern of teaching mathematics.

This helps explain why it’s so hard to change teaching. If everyone teaches mathematics (and perhaps other content) the same way, how can American teachers ever envision and implement alternative practices if they seldom see any? Little wonder American teachers focus almost exclusively on procedures instead of mathematical concepts — it is highly probable that most were taught that way themselves and take it for granted it is the right and best way. From the time they are in kindergarten through their preservice induction, the TIMSS Video Studies suggest teachers are likely to have seen culturally common patterns enacted thousands of time. For other subjects, such as literacy, there are parallel examples of instructional practices that seem to persist despite major efforts to change them. Cultural patterns of teaching introduced in childhood, reinforced throughout K–12, and ubiquitous in most schools are going to be difficult to change. If most teachers teach the same way, and most teachers never get to observe alternatives, it’s not surprising that common instructional patterns persist in spite of billions spent on professional development (PD) in recent years.

The cultural nature of teaching also means that changing who teaches will make little difference. If images of teaching practices arise from the culture, then anyone recruited into teaching from that culture is apt to teach the same way. That is another lesson of the TIMSS Video Studies.

So how to change a cultural pattern of teaching? In the next section, we “unpack” the concept of culture to identify some levers of change practical enough to be deployed in public schools.

### Unpacking Culture

Where is culture in our lives? Is it values? Is it shared beliefs about how one ought to behave? Where can we see culture influencing behavior? One place is the daily routine of everyday life in families, workplaces, and schools. Three units of analysis help unpack cultural influences: cultural activities, settings, and daily routines.

**Daily routines** are made up of settings in which cultural activities are enacted. These three concepts identify levers of change. But before we get to how to apply these change levers to the problem of changing teaching, a little more defining.

Cultural activities are familiar, mundane, goal-directed tasks and interactions embedded in relatively ubiquitous settings that individuals regard as enduring, taken-for-granted parts of daily routines in specific contexts such as schools, workplaces, and families. In families examples include getting ready for work and school in the morning, family dinner time, and bedtime story among
others. To discover the impact on life of these mundane matters, consider what happens in a two-parent family if both of their autos break down, disrupting the daily commute for two working adults who drive their elementary and high school children in opposite directions to school. Or the impact of a transportation strike on a family of similar composition that relies on buses. The discussions and negotiations among the parents quickly reveal valued settings and activities that are cultural made manifest in their daily routines.

A setting in this trio of concepts is defined as “any instance in which two or more people come together ... over a sustained period of time in order to achieve certain goals” (Sarason, 1972, p. 1). For schools, that might be a reading lesson, mathematics lesson, faculty meeting, grade-level meeting, PD session, and many other familiar settings.

Settings may be unpacked adapting the journalistic device of who, when, what, why, and how. Who are the participants in a given setting, when do they interact, what do they do, why are they doing it, and how does it proceed (Tharp & Gallimore, 1988)? Figure 1 represents four settings familiar to American educators. Answering each of the journalistic questions yields a reasonable description of what an observer might expect to see in each setting. Who (teacher and a group of students, or colleague team), what are they doing, and why are they doing it.

We can further unpack a setting by asking the same questions of the activities enacted. If the setting is a classroom, answering who, what, how, and why distinguishes among different kinds of instructional activities, such as reading versus mathematics lessons. How do the participants interact, what are the rules of participation and turn-taking? Returning to a mathematics lesson, a procedure-focused mathematics instruction is an example of how an activity unfolds. For a reading comprehension lesson, the how might be a teacher asking many known-answer questions in rapid order, restricting students to brief answers. Readers of The Journal of Reading Recovery might easily nominate other culturally shared patterns of reading instruction commonly observed in American lower-elementary classroom and small-group settings. The reading wars staked out a number of robustly defended patterns of instruction, though perhaps there might be a bit more variety in practices than was observed by the TIMSS Video Studies of Mathematics Teaching.

Observe enough classrooms and from time to time alternative activities will appear, for example in schools that have been influenced by a program like Reading Recovery. A teacher with an expansive and rich repertoire for teaching literacy might also still be teaching mathematics as memorization of a set of procedures. Same setting (classroom), different activities. The point is that neither the settings or activities are fixed, unchangeable. That potential for change is a topic we return to in the following section on reconceiving existing school settings and activities to focus on improving teaching.

The final unpacking concept is the daily routine represented in Figure 1 as a collection of four settings and their embedded activities. Many more settings can be imagined, such as professional development sessions, IEP proceedings, parent-teacher conferences, back-to-school nights, PTA meetings, etc.

These three units of analysis help pinpoint a chokepoint of change: there is seldom any part of the typical daily routine of teachers’ lives that is focused on improving teaching. Grade-level and department meetings are fairly common settings for getting important work done. However, they are seldom used for continuous improvement of teaching.
Various leadership team meetings are common settings, but rarely do they include preparing others to facilitate teaching improvement work in grade-level or department contexts. There might be opportunities to collaborate with colleagues, for example, joint analysis of assessment results that never move on to developing instructional responses to specific student learning needs identified by achievement tests (Ermeling & Gallimore, 2012). Such discussions, if they occur, typically end with identifying learning needs, leaving individual teachers to figure out how to devise instructional responses on their own.

The stability of school routines, settings, and activities should not be mistaken for permanence. What if some settings of a school’s daily routine were repurposed to support activities focused on the continuous improvement of teaching? In the next section we define what we mean by continuous improvement (CI).

Continuous Improvement of Teaching

Announcing that improving teaching is to be a routine topic on the agenda of familiar school meetings is hardly likely to alter deeply ingrained cultural patterns. So what does it mean to focus on improving teaching? Does this involve some novel, unfamiliar activity? No, we mean time is spent on something that every accomplished teacher already does — planning and implementing instruction, and reflecting on student response to lessons and making adjustments as needed. However, in the typical U.S. school context, teachers are pressed to march through these familiar stages of the teaching cycle at a rapid pace. As a result, most only acquire knowledge about their practice through what Elmore (2000) calls haphazard volunteerism:

Volunteerism leads to (1) innovations that are highly correlated with the personal values and predispositions of individual teachers and hence tend to be adopted only by a small proportion of receptive teachers at any given time; and (2) innovations that are largely disconnected from any collective goal or purpose of the school or the school system. Schools are consequently almost always a boil with some kind of “change,” but they are only rarely involved in any deliberate process of improvement, where progress is measured against a clearly specified instructional goal. (p. 5)

What if instead of individuals working on the teaching cycle in isolation, the familiar teaching cycle became a joint activity? What if for a few hours a month, teachers worked together, slowed down the teaching cycle, zeroed in on nagging instructional challenges, jointly planned and tried out lessons, refined and tweaked them, and then moved on when they saw tangible gains in student learning. Fortunately, there is evidence that such an approach can change teaching and improve achievement.

Four basic features of a collaborative and continuous improvement teaching cycle have been identified by researchers (Ermeling, 2010).

Feature 1: Identifying and defining important and recursive instructional problems specific to the local context

The importance of collectively identifying and developing shared definitions of specific instructional problems is central to CI, according to available research on well-documented CI models (Ermeling, 2010). Specific instructional problems represent recurring academic needs that teachers find challenging to teach, and difficult for students to learn such as using evidence to support claims, understanding the distributive property, drawing inferences from text, or formulating questions based on scientific observations (Gallimore, Ermeling, Saunders, & Goldenberg, 2009). A review of research on professional learning communities (PLCs) also concluded that addressing student learning needs was a central purpose of the collaborative activity among the small number of PLC approaches reporting significant effects on achievement (Vescio, Ross, & Adams, 2008).
**Feature 2: Preparing and implementing detailed instructional plans**

Spend a few hours combing through a teacher’s bookshelf and you discover no shortage of instructional strategies, tools, and exercises aimed at improving student learning. A common routine in teachers’ meetings or faculty lounges is to casually share the latest strategies or ideas collected from any number of sources—websites, workshops, or even graduate school courses. After a brief exchange and discussion, teachers may or may not test out the ideas, or stick with it very long before quickly moving on to the next interesting strategy. What is often missing is a connection between the strategy and the problem it is addressing, but also the necessary thinking and planning required for learning to use the strategy well in the classroom.

Taking time to outline specific details and commit them to writing is an essential part of both the empirical process and the work of CI. Thinking through details such as what examples to share, what questions to ask, what to look for as evidence of understanding as the lesson unfolds, are all critical decisions that will positively or negatively influence student outcomes. As indicated earlier in the TIMSS studies, even well-designed instructional strategies or approaches have limited value if they are not properly implemented. CI teams rarely accomplish successful implementation without thoughtful and detailed instructional planning (Ermeling, 2010; Stigler & Hiebert, 1999).

**Feature 3: Utilizing evidence to drive reflection, analysis, next steps**

Teachers participating in CI use a variety of forms of evidence to guide their investigation of instructional problems and learn to rely on this evidence for feedback on their instructional efforts, both to better understand the problem as well as to inform their decisions about what is working and what approaches to implement next. Student work, student interviews, student questionnaires, checklists, self-assessments, portfolios, systematic classroom observations, test results, audio or video recordings from the classroom—are all potential sources of evidence that teachers might select to inform their investigations. As teachers gain more experience with CI they also learn to select types of evidence that are most instructive for a particular lesson context and targeted student outcome (Ermeling, 2010).

**Feature 4: Persistently working toward detectable improvements, specific cause-effect findings about teaching and learning**

Dogged persistence over a period of time by CI teams is required to identify specific cause-effect connections between teaching and learning. There is no predetermined length of time or number of strategies attempted that enables a team or individual to solve a particular learning problem. The key is persisting long enough until there is progress on key indicators and identification of the specific instructional choices that led to improved student results. (Gallimore et al., 2009).

An example of a successful continuous improvement effort was described by Ermeling (2010). He reported improved instructional practices in a group of high school science teachers participating in a CI process based on the four key features. These teachers adopted a new instructional approach intended to foster greater student struggle with an exploration of scientific concepts. A review of lesson and team meeting videos revealed three out of four teachers made progress, and two teachers made substantial improvements over time in adapting their classroom practice to include this approach. Two teachers initially reverted back to more-familiar instructional routines that minimized student discomfort but then altered their practice to foster rich and challenging struggle opport-

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Changes in teaching like this science case, however, are difficult to replicate at scale. One effort to scale a shift in settings and activities was based on a model presented in Goldenberg (2004). In a 5-year study of Title I schools serving more than 14,000 students (Saunders & Goldenberg, 2005; Saunders, Goldenberg, & Gallimore,
continuous improvement of instruction holds promise for changing teaching. While the improvements reported for CI efforts are salutary, in our experience changes are restricted by what Little (2003) termed teachers’ existing horizons of observation. She based her conclusions on an analysis of teacher discourse during meetings of high school math and English departments. Little’s main point was that teachers, even as they meet in a PLC to improve instruction, construct visions of teaching and learning based on selected voices and epistemologies, and preconceived notions of right, wrong, good, or bad in schooling. Limited horizons of observation limit the solutions teachers develop to improve their own practices or improve student learning.

For example, in a number of contexts we observed schools’ improved teaching and student achievement by implementing well-functioning learning teams. But—and it’s a big one—in most cases only instructional approaches already in use had changed, and only incrementally. For example, in a middle school that won an award for the quality of their learning teams, teachers made great strides in teaching of mathematical procedures. Yet, there were few signs that even well-functioning teacher teams were interested, willing, or able to raise the bar and move beyond teaching procedures to focus on better teaching of mathematical connections and concepts like those the TIMSS team observed in the higher achieving countries. Parallel examples of reading instruction constrained by existing “horizons of observation” no doubt can be offered up by many, including readers of this journal.

What Might We Do About It?
What might assist teacher teams and PLCs from setting low ceilings on their efforts to improve instruction? In the next section, we consider three possibilities:

1. Develop and improve teachers’ professional knowledge for teaching.
2. Develop the judgment capacity needed to deliver timely and effective instruction and re–instruction.
3. Address some conditions probably needed at the local district and school level to get teacher teams to challenge themselves rather than settle for improving how they already know to teach.

Professional knowledge for teaching
One reason we observed teams seldom moving out of their comfort range suggests Little’s “limited horizons” includes we don’t know what we don’t know. For example, mathematics teachers at the award-winning middle schools seemed to have too little knowledge of mathematics to recognize they were handicapping their improvement efforts by restricting their efforts to better teaching of procedures. They were thrilled and satisfied their sterling and award-winning CI efforts had raised student achievement — on procedural mathematics assessments. They had reached their own horizon of observation, and they did not recognize it. It is hardly surprising their horizon of observations as professionals stopped at teaching procedures. Applying procedures to problems is what they knew about mathemat-
It was the way they were taught throughout their own K–20 school careers. Procedure-based mathematics instruction is so deeply soaked into the culture of American schooling that teachers, administrators, parents, and students take for granted that it is the proper way to teach and the goal of schooling.

What kinds of knowledge might be needed to broaden teachers’ horizons? In addition, to content and pedagogical knowledge, Shulman (1986) added a third form he described as pedagogical content knowledge (PCK). PCK is “conceptualized as knowing content in pedagogically useful ways … at the intersection of teaching and learning” (Kersting, Givvin, Thompson, Santagata, & Stigler, 2012, p. 570). Some also describe PCK as knowing how to make content comprehensible to learners.

Hiebert, Gallimore, and Stigler (2002) argued that all forms of professional knowledge for teaching—content knowledge, pedagogical knowledge, and PCK—must be tightly integrated in order to teach a particular lesson well. Such integrated knowledge for teaching is linked with practice and is detailed, concrete, and specific. This differs from research knowledge that tends to be of the “all things equal” variety. It also differs from general pedagogical approaches, such as checking for understanding and other devices that are applicable across a wide range of content. Professional knowledge for teaching is most useful when it is developed in response to defined problems of practice and is applicable to specific teaching situations—content-specific learning objectives.

So how might content-specific professional teaching knowledge get into the hands of accomplished practitioners of CI?

A common model is an expert who provides access to knowledge either on site (such as a content coach or curriculum specialist), or through conventional workshops and college courses. However, local content coaches are expensive, and content mastery does not guarantee coaching skill. Workshops and courses are often too removed from practice, too limited in scope, and focused on “all things equal” knowledge, rather than the kind of problem-specific and learning teams can easily access.

Many kinds of libraries can be imagined: those created by a local school system, a state, a consortium of states, or national research and professional organizations like the one that publishes this journal. Importantly, digital libraries using modern technologies can be built around lesson videos (Gallimore & Stigler, 2003).

Digital libraries must include only resources that are accurate, verified, and continually improving. Given the intensity of the reading and math

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Imagine digital libraries stocked with lesson videos accompanied by multiple resources such as expert teacher analysis and interpretation of each lesson, alternative instructional moves depending on what students find difficult, formative assessments, links to subject matter content learning and explanation, etc. Not a few lesson videos, and not just those taught by stars; many good but not perfect lessons all easily accessible via contemporary technologies.
links to subject matter content learning and explanation, etc. Not a few lesson videos, and not just those taught by stars; many good but not perfect lessons all easily accessible via contemporary technologies. This might help raise horizons, but it won’t help if teachers don’t learn to use online resources, which brings us to the next possibility for raising the bar for PLCs and learning teams.

**Teacher judgment**

A full quiver of instructional arrows, augmented by digital libraries, might help teacher teams broaden and raise their horizons and push beyond what they already know. But unless teachers develop the judgment to know when each arrow is best used, a problem remains. The problem arises not only in planning what instruction will work best for “our students,” it arises “on-the-fly” during the course of a lesson when, for example, student misunderstanding requires further explanation, better representations, and targeted re-instruction.

Teacher professional judgment can have a significant effect on classroom teaching and student learning, as some recent research has confirmed. A series of innovative studies has shown that teachers better able to analyze lesson videos score higher on classroom teaching quality, and their students do better on learning assessments. Kersting, Givvin, Sotelo, and Stigler (2010) developed an online activity using video clips from mathematics lessons and asked eighth-grade teachers to analyze teaching and write comments on key elements of instruction, such as how to improve instruction they observed in the lesson clips. Two findings are especially relevant to this discussion.

First, teacher ability to analyze lesson clips correlated with a measure of their knowledge of mathematics. Second, their suggestions for improvement were highly predictive of student learning gains. Students of teachers who included more or better suggestions for improving teaching learned more from a fractions unit than did those taught by teachers who offered no or impoverished improvement suggestions.

In a second study, Kersting et al. (2012) again asked teachers to view video clips from fraction lessons that were good but not superlative examples of instruction. This time they added another element — the researchers observed teachers teaching a lesson in their own classrooms. Observations of the quality of teacher’s instructional practice in the classroom, how much they knew about mathematics, and their students’ performance on a fractions test were predicted by how well that they could analyze clips of a lesson video taught by a stranger. Suggestions made for improved instruction was again one of the analytic categories that was predictive of student learning, and this time, with how well a teacher taught in the classroom.

These results indicate that both professional knowledge and the judgment to know when to use what are probably keys to better quality teaching and student learning. These two functions—knowledge and judgment—are probably essential if we are to get PLC teams to raise the bar on what they try to improve.

Perhaps analyzing lesson videos, discussing ways to improve instruction, and other activities might productively be incorporated into the CI process. However, at this point there is only limited evidence that frequent lesson analysis sessions will improve professional knowledge for teaching and professional judgment, or that they would raise the bar, opening the horizons of PCLs and learning teams.

These conjectures look ahead—far ahead—and they beg a question. Given how often learning teams hit a ceiling effect on what they attempt to improve, what might prompt them to break out of their horizon of observations and set a higher standard for themselves and their students, and access digital libraries and lesson analysis opportunities to expand their knowledge and sharpen their judgment? This brings us to our final conjecture — a reconceived role for school and district leadership settings and activities.
Constructing a system of settings to sustain and enhance site-based teacher learning through continuous improvement

Helping teachers widen their horizons of observations is going to depend on administrators recognizing that Sarason’s famous insight applies to them as well as to teachers and students. Replace teacher with administrator in Sarason’s quotation, and it resonates no less richly:

The assumption that teachers [and administrators] can create and maintain those conditions which make school learning and school living stimulating for children, without those same conditions existing for teachers [and administrators], has no warrant… . That the different efforts to improve the education of children have been remarkably short of their mark is in part a consequence of the implicit value that schools are primarily for children, a value which gives rise to ways of thinking, to a view of technology, to ways of training, and to modes of organization which make for one grand error of misplaced emphasis… . (Sarason, 1972, pp. 123–124)

What if everyone in the system became a teacher and a learner — not only students and teachers as Sarason advocates, but district and building administrators too? What might a system of settings focused on improving teaching look like?

• district administrator meetings focused on teaching and preparing building administrators to feature and support instructional improvements in the settings they lead

• school leadership team meetings preparing teacher-leaders to facilitate teacher learning in grade-level or department meetings

• grade-level or department team meetings, in turn, focused on collaboratively learning to address critical student learning problems in the classroom, and design, implement, and reflect on specific lessons aimed at addressing these problems

• classroom lessons focused on trying out and testing these instructional plans and collecting evidence to aid the reflective analysis when the teacher team again meets

Each of these settings is a potential node in an integrated system of continuous improvement (Ermeling, 2012a; Goldenberg, 2004). In such a system, district and school-level leaders conceive of themselves as teachers as well as administrators — teaching others to organize settings to support continuous improvement in faculty meetings, school leadership teams, grade levels and departments. And in turn, what teachers learn from testing out a solution to learning problems is discussed in grade-level or department meetings, and propagated back through the system of settings so that even the highest levels of administration discover what policies and approaches work and which need revision. Everyone teaching. Everyone learning. A professional learning community that includes every teacher, specialist and administrator.

With such a system in place, it becomes possible to strategically identify and address the next increment of growth best suited for each group of educators in the cascade of settings. If school administrator and leadership meetings, for example, focus on carefully reviewing progress of teacher teams, they can identify the specific types of assistance and resources needed for each group or team facilitator (Ermeling, 2012b). One group of teachers might be struggling with mastery of CI routines such as designing an effective assessment for an upcoming lesson they are planning to implement.

Equipped with concrete information about the needs of each team, administrators are better positioned to differentiate assistance and think through the best strategy for nudging each team forward in their growth and development.

Another group might have a firm grasp of the CI process but lack the professional knowledge to work through rich mathematical problems with an emphasis on conceptual understanding. Yet another team might have knowledge of useful instructional approaches but need assistance developing judgment for timely and effective application in the classroom. Equipped with concrete information about the needs of each team, administrators are better positioned to differentiate assistance and think through the best strategy for nudging each team forward in
their growth and development. In the same way, district leaders can focus their meetings on reviewing the growth and progress of school administrators and identifying the type of assistance and resources that would help each improve in their ability to support and guide teacher teams.

When district and building administrators encounter problems they are not prepared to address, they can adapt to their challenge and develop effective solutions with the four continuous improvement features (Ermeling, 2012a) summarized above. (a) identify and define the goal; (b) prepare and test out a solution; (c) collect evidence to drive reflection and analysis; and (d) stick to it until detectable improvements are secured, and cause-effect connections established.

This brings us back to settings and routines as levers that can change established activities if thoughtfully integrated into a dynamic system that provides just that amount of assistance needed to sustain CI. We could pursue unpacking all possible settings this vision entails using the concepts of activity, setting, and daily routine, but this is the important point: there is potential benefit in constructing a daily routine in a district and its schools so that every setting is reconceived as part of an integrated and dynamic system that sustains CI over time. Some portion of leadership meetings and teacher teams meetings still addresses other important business that remains necessary for daily school functioning, but at least half of the time in these settings is protected, non-negotiable, and dedicated to the work of improving student learning through the continuous improvement of teaching. A system of settings in which both administrators and teachers engage in CI routines to maximize what they already know, expand their horizons of observation, and raise their standard of practice — one school, one principal, and one teacher team at a time.

Conclusion

Experience and research converge on this hypothesis: Changing teaching practices means reconceiving and then repurposing existing routines, settings, and activities — the three ways that culture is revealed in everyday life. The modest evidence available suggests using these levers of change to embed continuous improvement into teachers’ daily routine yields better teaching and improved student achievement.

However, the intuitive appeal of learning teams and communities must be measured against a sobering reality: Few studies have investigated their impact on student achievement. Vescio et al. (2008) identified eight investigations that reported student achievement data of some kind — five were case studies and three were self-report surveys. One study published after the Vescio et al. review employed a quasi-experimental or experimental versus comparison group design to investigate the effects of grade-level teams working collaboratively to improve student learning (Saunders et al., 2009). So few longitudinal or methodologically rigorous comparisons of participating and non-participating schools or teachers is a warning that we are far from knowing exactly how to replicate and scale successful learning teams and communities (Smylie, 1994).

Turning schools into places for learning for administrators as well as teachers and students is probably key to durable and meaningful improvements in teaching. Although school leadership might introduce a continuous improvement approach and assist teachers to broaden their horizon of observations, ultimately teachers are the final common pathway to better teaching:

… [T]eachers vastly underestimate their power to change things. Teachers tend to see themselves at the bottom of the hierarchy of power in educational decision-making. That is the way things are, although that
is slowly changing. And yet what teachers were telling me implied that unless their sense of powerlessness changed, the effort to reform schools would be another instance of “the more things change, the more they remain the same.” More than that, their basic stance was that alterations in their relationship to education decision making would come from those higher in the hierarchy of power. That will not happen, in my opinion, except infrequently and (probably) begrudgingly. It will come primarily from teachers exercising initiative, leadership, and courage. (Seymour Sarason, 1992, as quoted in Fried, 2003, p. 18)

Imagine that school cultures across the nation gradually repurpose and reconceive take-for-granted routines, settings, and activities to support teacher teams working to continuously improve their teaching. Imagine teachers routinely collaborating to identify student problems, develop responsive instruction, try out lessons, refine them until they see student gains, and then move on to the next challenge. Imagine the impact on teacher commitment and morale once they see tangible gains in student learning that they attribute to their own dogged efforts to teach better. Imagine as their continuous improvement work stabilizes, they expand their horizons to access online lesson videos richly contextualized with resources of many kinds. Imagine some teams, some schools begin submitting for review contributions to digital libraries that are widely and easily available to teachers nationwide — even worldwide. Imagine a time when this knowledge that teachers accumulate throughout a career of deliberate improvement efforts is stored and shared for the next generation. Imagine district and building administrators also working as learners to study and improve their leadership and assistance. Imagine a system and a teaching profession that continuously refines and improves teaching and learning, one meaningful step at a time.

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Reflecting on Our Practice

It is widely acknowledged in education circles that Reading Recovery’s training and continuous development model transforms literacy teaching and learning, helping the lowest-performing learners in becoming independent, strategic readers and writers. Yet, those of us in Reading Recovery are not content to rest on our history of successful outcomes with children. Reading Recovery educators espouse, practice, and affirm a theory of continuous performance improvement — using sensitive observation and literacy performance data at all levels to inform their work with struggling learners, one child at a time, each day, and over time. While substantive teaching changes for improved outcomes may be elusive in some education contexts, it has always been the aim of Reading Recovery to respond to challenges without delay. After all, children are dependent on our collective response, resolve, and action.

Thus, given Reading Recovery’s focus on research and data collection at all levels and the ideas presented by Gallimore and Ermeling, readers are invited to identify what the authors describe as “the cultural patterns of teaching” as they relate to Reading Recovery and ask how these patterns might lend themselves to further examination—and perhaps change—as we strive to continuously improve achievement outcomes for our lowest-performing literacy learners.

Do we teach in procedural ways that interfere with a focus on support for a particular child’s control over literacy processing?

Are there recursive problems of instruction or implementation in Reading Recovery schools, districts, or sites that compromise literacy outcomes and if so, when and how might we address these challenges?

How do we use evidence to drive reflection, analysis, and action plans to inform next steps in support of each student’s literacy achievement, and school and district outcomes?

Can we identify cause-effect connections between Reading Recovery teaching and learning outcomes, and if so, do we have the will to change in ways that will have a systemic effect on outcomes at the school, district, and site levels?

How do we create a system of settings within our Reading Recovery contexts that further supports continuous performance improvement at all levels, among educators and administrators, “one meaningful step at a time?”