Voices Inside Schools

Seeing Student Learning: Teacher Change and the Role of Reflection

CAROL R. RODGERS
State University of New York at Albany

In this article, Carol Rodgers describes a four-phase reflective cycle that she uses in her professional development work with teachers. Drawing on the work of Dewey, Hawkins, Carini, and Seidel, Rodgers explores the roles of presence, description, analysis, and experimentation in helping groups of teachers slow down and attend to student learning in more rich and nuanced ways. She also encourages teachers to solicit structured feedback from their students so they can begin to distinguish between what they think they are teaching and what students are actually learning. Ultimately, Rodgers argues that supportive and disciplined reflective communities of teachers can help teachers understand that their students’ learning is central, and that their own teaching is subordinate to and in service of that goal.

In a recent issue of the Harvard Educational Review, Anne McCrory Sullivan (2000) explored the nature of attention, its development, and its critical role in learning, teaching, and research. As a poet, she suggested that art and artists can offer us a model of aesthetic sensibility — an ability to see — from which we as teachers, teacher educators, and researchers might learn. Such a sensibility, she argues, demands “a high level of consciousness about what one sees . . . a fine attention to detail and form: the perception of relations (tensions and harmonies); the perception of nuance (colors of meaning); and the perception of change (shifts and subtle motions)” (pp. 221–222). This kind of engagement is not dissimilar to what those of us in education and educational research might bring to bear on our work. This ability to “see” the world, to be present to it and all its complexities, does not come naturally, but must be learned. McCrory poses the question of whether it is indeed possible to teach “habits of attending,” and if so, how.
Notes on Contributors

ERIC R. EIDE is an economist with the RAND Corporation in Pittsburgh. His research areas are the economics of education and education policy. He is coauthor of “College Quality and the Distribution of Earning” in Research in Labor Economics (with M. H. Showalter, 2001), and “Is Participation in High School Athletics an Investment or a Consumption Good? Evidence from High School and Beyond” in Economics of Education (with N. Ronan, 2001).

DAN D. GOLDBERG is a Senior Research Associate at the Urban Institute’s Education Policy Center in Washington, DC, and an adjunct faculty member at the Georgetown University Public Policy Institute. His research interests include the implementation and impact of comprehensive school reform models, and teacher labor markets and the role of teacher pay structures in teacher recruitment and retention. His recent published works include “The Mystery of Good Teaching” in Education Next (2002), and “Evaluating the Evidence on Teacher Certification: A Rejoinder” in Educational Evaluation and Policy Analysis (with D. Brewer, 2001).


CATHERINE PRENDERGAST is Assistant Professor of English at the University of Illinois at Urbana/Champaign. Her research interests focus on various aspects of literacy. She is author of “Race, the Absent Presence in Composition Studies” in College Composition and Communication (1998), and coauthor of Opening Dialogue (with M. Nystrand, A. Gamoran, and R. Kachur, 1997).

CAROL R. RODGERS is Assistant Professor of Education at the State University of New York at Albany. Her major professional interests include reflection and reflective practice, and the history of progressive teacher education. She is author of “Defining Reflection: Another Look at John Dewey and Reflective Thinking” in Teachers College Record (2002).
In this article, I build upon and extend McCrary’s idea that learning to pay attention in teaching, learning, and research matters. In particular I focus on how teachers can, through a structured process of reflection, become present — to see student learning: to discern, differentiate, and describe the elements of that learning, to analyze the learning and to respond, as John Dewey says, “intelligently.”1 I offer a framework for reflection that I have used in my professional development work with teachers to develop their skills of attending to and responding to students’ learning. The framework outlines a process of extended inquiry that slows down teachers’ thinking processes and asks them to observe carefully and describe in detail — as an artist might — selected situations within the classroom. After describing the scene, teachers ascribe meaning to what they see before moving on to decide on the best course of action. This process, which I call the “reflective cycle,” grows out of Dewey’s (1933) original work on reflection.2

The reflective cycle has evolved out of my work in three venues: first, as a professor of education at the State University of New York at Albany (SUNY); second, as a facilitator of in-service teacher seminars in the Teacher Knowledge Project (TKP), a federally funded professional development project operated out of the Center for Teacher Education, Training, and Research at the School for International Training (SIT) in Brattleboro, Vermont; and, finally, as a professional development advisor to a small public school in southern Vermont. The TKP grew out of my earlier work with the professional development of mentor teachers and later was extended to groups of experienced K–12 teachers in all subject areas. The classes at SUNY met three hours a week for fourteen weeks, the TKP seminars met for a total of fifteen to thirty hours over the course of a year, and the public school group met once a month for two hours.

The reflective cycle is a process that I use in each of these contexts. The power of the reflective cycle seems to rest in its ability first to slow down teachers’ thinking so that they can attend to what is rather than what they wish were so, and then to shift the weight of that thinking from their own teaching to their students’ learning. The shift, when it happens, is a profound one that results in relief and even exhilaration when they finally see that, as one teacher said, “This isn’t about me!” It is, of course, about the teacher and her teaching, but only as they stand in relationship to the students and their learning. I have two goals when using the reflective cycle in my work with teachers. The first is to develop their capacity to observe skillfully and to think critically about students and their learning so they learn to consider what this tells them about teaching, the subject matter, and the con-

---

1 John Dewey (1938) contrasts intelligent action with routine action. Routine action is automatic and unconsidered, while intelligent action results from thoughtful reflection of the type outlined in this article.

2 I have also been influenced by David Kolb’s work with experiential learning and my many years of work with colleagues at the School for International Training in Brattleboro, Vermont.
texts in which all of these interact. The second goal is for them to begin to
take intelligent action based on the understanding that emerges.

The content for the seminars is the teachers’ own practice. However, be-
fore moving to the text of their own teaching practice, I invite teachers to ex-
amine themselves and each other as learners. Through various exercises that
place teachers in the position of learners, they are able to make a visceral
connection to what it means to learn something. These activities serve as a
way to open up their awareness to the complex nature of learning and also to
build community. From there, teachers move to observing students’ learning
and reflecting upon the implications for their own teaching. Teachers bring
instances of learning and teaching to the seminar in the form of cases
(Shulman & Mesa-Bains, 1993), videotapes, descriptive reviews (Himley,
2000), and student work (Seidel, 1998). It is the process of close observation
and subsequent reflection on what has been observed that sets this work
apart from other professional development efforts, and that supports teach-
ers in learning to see and to respond to the prismatic dimensions of learning
that they encounter on a daily basis.

Principles Underlying the Reflective Cycle

Before I describe the four phases of the reflective cycle in detail, I will set
forth several principles that have guided me in this work with teachers. First,
like many others (Ball & Cohen, 1999; Thompson & Zeuli, 1999; Zeichner &
Liston, 1996), I believe that the most productive starting place for teachers’
professional development is their own classroom experience. While supple-
mentary input from research on teaching and learning is important and
even critical to teachers’ development, the primary text for reflection must
be their experience as teachers and learners. No matter how many good
ideas and best practices exist, I cannot “stick them onto” teachers. Without
keeping their experience central, I can get no foothold into their learning as
reflection on experience where such ideas and practices illuminate teachers’
practice rather than usurp it.

Second, I have found that a process of reflection that is rigorous and sys-
tematic and therefore distinct from ordinary thought (Dewey, 1933) slows
down the teaching/learning process, revealing rich and complex details, al-
lowing for appreciation, and paving the way for a considered response rather
than a less thoughtful reaction (Johnson, 1998). As teachers gain skill in this
kind of extended reflection, they become more able to respond thoughtfully
in the moment. I have also found that they simply become more interested in
and curious about the work they do. They begin to wonder and to want to
slow things down so they can satisfy their curiosity about their students’
learning.
Third, I have found that the formation of a community of respect among teachers is critical to creating an environment for successful reflection as well as successful teaching and learning. Reflection demands community and the diverse perspectives on practice that community brings (Dewey, 1938). Also, because the gathering of different perspectives is a necessary step, I seek to welcome rather than dismiss diverse points of view, to broaden rather than narrow the conversation. Norms for discussion, generated by participating teachers, also guide the ongoing formation of community. One norm I encourage is mutual respect for each other’s stories. Because teachers’ stories are at the heart of our work, it is essential that we value and respect those stories. I have found that teachers often feel their stories are insignificant or that they expose their deficiencies rather than reveal the complexity and richness of their work. Another norm that I impose is the prohibition of giving advice, especially right after a problem is presented. Because the reflective process challenges teachers to describe and analyze experience before jumping to conclusions, solutions tend to present themselves after the careful work of description and analysis, just as the possible meanings of a painting present themselves after careful attention to form, texture, color, light, shadow, and composition.

Fourth, I encourage teachers to value student feedback as critical to understanding students’ learning. While teachers can perceive much through close observation of learning, a great deal more is hidden in the minds and hearts of students themselves. Most teachers rarely take the time to engage their students in conversation about their learning. Furthermore, students may need to learn how to give useful feedback. Yet such dialogue and the subsequent awareness are invaluable to both teachers and learners because, more than anything else, feedback shifts teachers’ attention to students’ learning (Duckworth, 1987). Once students begin to reveal the truth about their experience as learners, it is difficult for a teacher to pretend that learning is happening when it is not. For example, a teacher recently told the story of a class that was “fully engaged” in an activity. Yet through feedback she discovered that although they were, in fact, engaged in the activity, what they gleaned from it had little to do with her objectives for their learning.

Finally, and most importantly, I believe that student learning should guide teaching. Teachers’ classroom practice must be seen as an integrated, focused response to student learning rather than as a checklist of teaching behaviors. When learning is central, teaching becomes subordinate to it (Gattegno, 1976), taking its cue from what students already know and how they know it. Teaching is therefore implicated by learning. That is, in order to know what students know and how they know it, teachers have to create activities, a curriculum, and a learning environment that reveal learning rather than just answers, which represent only the very end of the learning process. Once a teacher’s attention is on her students’ learning, she is free to respond
to it rather than being chained to a lesson plan that may or may not fit the learning.

The Reflective Cycle

Reflection can happen in the midst of experience (reflection-in-action) or outside an experience (reflection-on-action) (Schön, 1983). Kenneth Zeichner and Daniel Liston (1996) describe reflection-in-action as “framing and solving problems on the spot” (p. 14), encountering unexpected student reactions or perceptions while we are teaching and adjusting our instruction to take these into account. Reflection-on-action, however, comes either before or after a given situation. Generally, the latter comes more easily to teachers. In fact, reflection-on-action, where the process is purposefully slowed down, coached, and carried out in the company of others, becomes practice for reflection-in-action — an isolated, in-the-moment enterprise. It is human nature to leap to conclusions about what is happening in any given situation — especially for teachers, who have to react quickly and almost simultaneously to multiple events (Lampert, 1985). Reflection keeps at bay this tendency to interpret and react to events by first slowing down to see, then describing and analyzing what happened, and finally strategizing steps for intelligent action that, once carried out, become the next experience and fodder for the next round of reflection.

I have identified four phases in the process of reflection, which grow out of Dewey’s concept of reflection (1933).\(^3\) (For an extended treatment of Dewey’s work, see Rodgers, 2002.) Although there is a certain linearity to these phases, one may move both forward and backward through the process, especially between description and analysis (see Figure 1).

Presence in Experience: Learning to See

My goal for reflection is not dissimilar to most educators’ goals, no matter what their orientation. Ultimately, reflection must aim at improved student learning. This can best happen if teachers are “present” to students’ learning and able to respond with the best possible next instructional move.\(^4\) The first phase of the reflective cycle focuses on this ability to be present. The more a teacher is present, the more she can perceive; the more she perceives, the greater the potential for an intelligent response. As I stated earlier, I view

---

\(^3\) These four phases were originally developed with my colleagues Jack Millet and Claire Stanley of the School for International Training and first presented at the 33rd Annual TESOL Convention in New York in 1999.

\(^4\) I do not mean to imply here that learning depends on teaching. In fact, this is one assumption I seek to disabuse teachers of early on. We learn to do plenty in life without a teacher or without a reflective teacher, and plenty more in spite of some teachers. What is important here is that effective teaching depends on awareness of students’ learning.
presence as inclusive of several disparate acts that together comprise the whole process of reflection — seeing learning, differentiating its parts, giving it meaning, and responding intelligently — *in the moment and from moment to moment*. It also implies a particular stance or way of being. Below, I try to capture the essence of what it means to be present.

In her *HER* article, McCrary asked, What does it mean to attend? How does one learn to pay attention? I ask similar questions: What does it mean to be present in the classroom? How does a teacher develop the capacity for presence? Presence is not easy to capture or describe. Being present is not the same as having a presence, though the first often leads to the second. It is a way of encountering the world of the classroom (or nature, a piece of music, or another person), but it also includes a way of acting within it whereby the action that one takes comes out of one’s sensitivity to the flow of events. McCrary characterizes the disposition of the artist in a way that captures the nature of presence. The teacher, like the artist, attends “with his or her whole organism, inquiring, testing with the body as well as the mind, sensing and seeing, responding and retesting — [performing] a multitude of functions . . . simultaneously — registering complexity, then sorting, finding pattern, making meaning” (2000, p. 226). A classic example of this in the classroom, and one that causes the naïve viewer to conclude that teaching is easy, is a teacher’s ability to attend to a single learner while simultaneously casting her attention, like a net, over the entire group.

In a similar vein, Robert Tremmel (1993) likens presence to a state of mindfulness. He writes that mindfulness is the ability “to pay attention right
here, right now, and to invest in the present moment with full awareness and concentration” (p. 433). A colleague of mine, Jack Millett, notes that “teachers cannot be planning their next class or be preoccupied with what they are going to do next and still be present and watching what is happening” (quoted in Johnson, 1998, p. 8). Being present, he says, is being “learning centered,” where a teacher observes what the learner is doing and responds in a way that serves the continuity of that learning.

Dewey talked about the teacher being “alive” both to students’ “bodily expression of mental condition” and to their words. He writes:

The teacher must be alive to all forms of bodily expression of mental condition — to puzzlement, boredom, mastery, the dawn of an idea, feigned attention, tendency to show off, to dominate discussion because of egotism, etc. — as well as sensitive to the meaning of all expression in words. He must be aware not only of their meaning, but of their meaning as indicative of the state of mind of the pupil, his degree of observation and comprehension. (1933, p. 275, italics in original)

Not being present in the classroom manifests itself as simply “covering” the material, and, as Millet puts it, “moving students through activities assuming they are learning” (quoted in Johnson, 1998, p. 7). David Hawkins (1974) describes students who buy into such an assumption as “manipulating [teachers] into believing that they’re being attentive because they’re not making any trouble” (p. 53). In my work with teachers I am constantly bumping up against teachers’ assumption that if students are engaged this means that they are learning. When pressed to define “engaged,” teachers describe students as “having fun,” being “on task,” and “getting work done.” But are students learning? When a teacher is fully present to students’ learning, they don’t assume. Instead, they are being what Hawkins calls a good “diagnostician,” aware of what and how students are understanding. In Eleanor Duckworth’s (1987) words, they are “understanding students’ understanding” (p. 83) with each intervention and adjusting their understanding according to the results of that intervention. The question is less one of being satisfied with the appearance of learning (engagement) than it is of knowing, through a process of inquiry, what students are learning and how they are learning it.

Without being present to the learning, a teacher is unable to provide what Hawkins calls “that external loop, that external feedback, which [the learner] couldn’t provide for himself” (1974, p. 55). While the teacher may be present, it is the action that a teacher takes in response to what is perceived that matters.

As I have tried to grasp and articulate the essential nature of presence, I have come to feel that it includes two qualities that are not generally associated with attention or awareness, which I see as more detached and less personal than presence. These two qualities are generally taboo in academic circles, namely love and passion. By love I do not mean romantic or sexual love,
but a kind of wide-open acceptance of the other that is free of judgment and filled with honor for their capacities as learners. For me, passion means not only a passion for my subject matter but for the human endeavor of learning. There is energy and curiosity associated with passion that, in my experience, keeps one alert to and engaged with a particular situation or person. I feel it in my own work with teachers as I am alert to their shifts in understanding. For example, I find myself longing to know how they will make use of their students’ feedback. This longing to connect with students’ learning is a part of what it means to be present.

As suggested above, an important prerequisite for presence is a deep knowledge of subject matter. Dewey helps us to understand why. In *How We Think* he writes:

> The teacher must have his mind free to observe the mental responses and movement of the student. . . . The problem of the pupils is found in the subject matter; the problem of teachers is what the minds of pupils are doing with the subject matter. Unless the teacher’s mind has mastered the subject matter in advance, unless it is thoroughly at home in it, using it unconsciously without need of express thought, he will not be free to give full time and attention to observation and interpretation of the pupils’ intellectual reactions. (1933, p. 275, italics in original)

Or, as my then 12-year-old son Jonathan once put it, describing a teacher who didn’t know her subject matter, “She taught too much from the book and not enough from herself.” In other words, the subject matter had not been internalized — learned — by the teacher. When a teacher’s attention is on the book, on the lesson plan, on listening for the right answer instead of listening to students’ thinking, on worrying about where students should be instead of where they are, then it is not on the learning, and presence is absent.

While these skills and attitudes do not necessarily represent the sum total of presence, they contribute to an understanding of its essential character and to our understanding of the state of being and skills that constitute presence. The process of description, analysis, and experimentation described in the rest of this article is, in essence, a description of a way for teachers to be present to students’ learning. It is by practicing this process outside the moment — reflecting on action — that teachers are able to employ the various components in the moment and reflect as the action unfolds.

Description: Learning to Describe and Differentiate

We learn to see a thing by learning to describe it. (Williams, quoted in Himley & Carini, 2000, p. vi))

I define description as the process of telling the story of an experience. It is the differentiation and naming of an experience’s diverse and complex elements so that it can be looked at, seen, and told from as many different perspectives as possible. It should be clear from the discussion of presence that
what a teacher is able to describe is largely dependent upon what she has been able to apprehend in the experience. I have found that description is perhaps the most difficult stage of the reflective cycle for teachers because it asks them to withhold interpretation of events and postpone their urge to fix the problems embedded therein until they can “mess about” with the details of the stories. In his essay “Messing about with Science,” Hawkins (1974) talks about the virtues of children taking time to examine and become familiar with natural phenomena. They need time, he argues, to “wander and sniff in the academic maze” (p. 176).

The same is true for teachers. They need the time and space to explore and to be surprised by the multiple elements present in any teaching/learning situation. It has been argued, and rightly so, I believe, that the very act of telling a story is an act of interpretation (Labov, 1972). The point of this phase of the cycle is, through collaboration, to dig up as many details as possible, from as many different angles as possible, so that one is not limited to the sum of one’s own perceptions. Yet the urge to fix problems and move on is powerful among the teachers I work with. The discipline of description, which I initially impose and which they later impose on each other, forces them to slow down, to look, and to see the variety and nuance present in such moments before leaping into action. Below I describe various ways that I have helped teachers to develop their descriptive skills and to learn how to gather descriptive data from their own classrooms.

Description versus Interpretation

A prerequisite to being able to describe an experience is being able to distinguish between description (what one sees) and interpretation (ascribing meaning to what one sees). The work of Patricia Carini of the Prospect Center in North Bennington, Vermont, and Steve Seidel, director of Harvard’s Project Zero, has reinforced my belief in the importance of teachers coming together in groups to learn how to carefully describe classroom events. I have worked with teachers on being able to discern the two through progressively more complex exercises. Initially I ask teachers to describe an object — a shell, an orange, a stone — much the way McCrary asked her students to describe everything they saw in a small area of grass. Like McCrary, I push them to go back and generate more details, even when they feel they have said all they possibly could say about the object. From here we move on to describe a picture. I use an ambiguous photograph or painting that piques

---

5 Carini (1979) and her colleagues at the Prospect Center have developed the Descriptive Review, a detailed process for description of children and children’s work that looks closely at one child at a time, detailing the child’s physical presence and gesture, disposition and temperament, connections with other people, strong interests and preferences, and modes of thinking and learning (Himley & Carini, 2000). By looking closely at one child, one sees the multiple dimensions of all children, develops a seeing eye, and grows “more sensitively attuned to who [children] are and are becoming, so that, recognizing them as persons, we can assist and support their learning better” (p. 57).
teachers’ curiosity and ask them to write down everything they notice. Then I have them go back and sort out which of their observations are descriptive and which are interpretative. If they interpret, I ask how they know, and then ask if there could be other ways to interpret the same evidence. Invariably, other teachers are ready with alternative interpretations based on the same evidence.

Finally, I show them a video clip from a class of elementary schoolchildren, which documents an emotional incident that occurred with a group of first through fourth graders during a role-play activity of Mahatma Ghandi and the salt tax protests (Merton & Dater, 2000). In deciding who should be Ghandi, the boys of the group are oblivious to one of the girls who also wants to be Ghandi. While discussing the incident later, the girl, age nine, breaks down in sobs at having been denied the role by the boys. My students, who become very caught up in the drama of the incident, have to work hard just to describe the sequence of events rather than leap to conclusions and judgments about the girl’s behavior and what the teacher in the video should have done. Some common reactions I have heard include, “She’s just a crybaby who wants to manipulate the teacher.” “The teacher shouldn’t have let that happen. She has no control.” In the course of our discussions, however, they learn much from each other about what they missed, overlooked, or made up entirely. They also begin to realize that the conclusions and judgments that they have already formed about the characters drive much of what they notice. I have found that exploring the source of those interpretations often leads students to confront their unexamined assumptions about teaching, learning, their students, subject matter, school, and ultimately fundamental values that they hold. This can be a delicate moment in our work together. I try to keep in mind that the teachers I work with are also learners, and to be present to what I call the edge of their learning. With the male teacher who judged the girl in the video as a “crybaby,” I asked him to slow down and describe what he saw (a girl who appeared very upset and was crying). Then I asked him what the girl’s crying might mean. I encouraged him to explore an alternative explanation, and then another one. When he had no more explanations to offer, I opened it up to the rest of the class. The women in the class were eager to share still more possibilities. By simply asking them to describe and offer alternative explanations, I convey to them that there are no right or wrong interpretations, which, I believe, decreases the risk of exposure inherent in moments like these. Over the years, teachers have told me that this exercise and others like it cause them to slow down in the moment and consider alternative ways of seeing and responding to the events that they are witnessing.

---

6 I have found The Circle of Life: Rituals from the Human Family Album (Cohen, 1991) to be an excellent source of photographs. I have also used paintings by Brueghel, O’Keefe, Tissot, and Picasso. It helps if the paintings and photos are ambiguous in meaning, leaving room for a range of interpretations.
Moments

Once students have understood (at least intellectually) the distinction between a description and an interpretation, we spend several sessions practicing describing “moments” from their own classrooms. The primary objectives are to slow down and see, to notice when they are jumping to conclusions, and to understand what prior knowledge, experience, values, assumptions, needs, desires, fears, and so forth might be driving their interpretations and the actions teachers take in their own classrooms based on these interpretations.⁷

A “moment,” to use Anne Lamott’s (1994) image, is “a one-inch frame” (p. 17) that describes in as much detail as possible something specific that happened. I ask them to choose a moment from their classroom that they found puzzling, troubling, or exciting. A moment can include any or all of the classroom elements — teacher, students, subject matter, and context, and their intersecting dynamics. I strive to limit the scope of what teachers describe and to get them to look at individuals and details rather than painting the whole group and scene with broad strokes and primary colors. This is crucial, because students understand and learn as individuals, not as a group. Too often I hear teachers make comments like, “They don’t want to learn” or “They just don’t care.” Taking such a monolithic view allows them to depersonalize students and, in effect, releases them from having to relate to students as learners. The fact is, there is no such thing as “they,” and the sooner teachers see beyond “they” to the individuals in their classes, the sooner they can connect with each learner.

Teachers bring their moments to class and share them with the group. The group’s task is to ask the presenting teacher as many questions about the moment as they can, with the aim of helping the teacher to stay grounded in the descriptive details of the actual events. The group works to coax the teacher beyond the boundaries of her own necessarily limited perceptions by fleshing out the details, filling in the missing pieces, and looking at the incident from a number of different standpoints. Teachers in the group are also invited to contribute similar moments from their own lives, but they must keep

⁷ There are other techniques for gathering descriptive data, including video clips from teachers’ own classes, case studies (e.g., McAninch, 1993; Merseth, 1996; Shulman & Mesa-Bains, 1993), visual thinking strategies from museum education (e.g., Arneheim, 1989; Perkins, n.d.; Yenawine, 1991), as well as techniques used by writers to describe dialogue, setting, people, and action (e.g., Lamott, 1994; Ueland, 1987). The Tuning Protocol developed by David Allen (1998) provides yet another way to look closely at student work, similar to The Collaborative Assessment tool. (Unlike with the Collaborative Assessment or the Descriptive Review, judgment is built into the Tuning Protocol with the addition of “warm and cool feedback.”) In addition, the Primary Language Record (Falk, 1998) provides a framework for documenting students’ experiences, work, and learning strategies, as well as a scale that describes progress in literacy learning. All of these activities work on exercising teachers’ ability to perceive and portray the discreet aspects of the learning that unfolds around them all the time. They also provide the data from which further analysis can be made. The richer the description, the more complex and varied the data, the potentially more profound the analysis, and, thus, the more fertile the ground for taking action.
in mind that the purpose of their contribution is to shed light on the description being shared. As teachers write up more moments, their peers’ questions and stories become internalized and their own descriptions grow richer and more complex. A teacher once said to me, “Now I have all these voices [of my peers] inside of me that keep me company through the moments of my day.”

Charlie, a teacher in one seminar, offered this written description of a moment from a sixth-grade science lesson. This was her first time describing a moment and reveals how teachers often struggle to distinguish between description and interpretation. Throughout this excerpt, one senses Charlie’s judgment, frustration, thwarted expectations, and fatigue, as well as her tendency to analyze a moment before she has fully seen it. In effect, she wants students to be other than where they are and judges them for not being there. She characterizes one girl in particular as “uptight” and “high pressure.” She also spends time focusing on her own actions, justifying them in the face of students’ resistance:

I was roaming around the room, looking over shoulders as students tried to complete the activities at the three stations. I was trying to make sure each student was participating where possible (we have several ESL students who are really challenged by science class because there’s a lot of reading and writing). I was noticing a lot of pairs were confused by station one. I was getting frustrated by the number of times I had to get students to slowly reread the procedure, check the materials list, because they couldn’t follow the procedure without having the correct materials. One moment involved working with a very uptight, high-pressure, school board chair’s daughter who was so sure the procedure couldn’t be done, she was ready to give up. Asking her to reread it was only making her shut down more. I felt myself becoming more frustrated as she continued to deem the assignment impossible and stupid. I did not want to just give answers or do the work for the students. I felt it was important for them to discover they had the resources to work each station if they would slow down and think. I think my students would look back on the activity as fun because they were working with friends and eventually they all “got it,” but it was not fun for me.

To help Charlie slow down and focus on description, I asked the other teachers to respond with questions that asked her to fill out the details of the moment. In the exchange they asked Charlie if it was an activity that happened on a regular basis, if there were a culminating task for which the students were supposed to use their results, how the students eventually “got it,” what the school board chair’s daughter was able to do, and if students were familiar with scientific procedure. By putting comments in the form of questions, the group helps the presenting teacher expand the details of what happened and keep her interpretations multiple and tentative. This type of dis-

* Written permission has been obtained for all teacher and student work included in this article. Unless otherwise indicated, their real names have been used, also with their permission.
cussion gives teachers like Charlie the opportunity to paint a fuller picture before others jump to conclusions and start to give advice, an impulse that inevitably shuts down the process of inquiry. As teachers experiment with these new skills, I participate by asking similar questions and monitoring their contributions, making sure they stay within the bounds of description. If they venture into interpretation by ascribing meaning to the events, I ask them to substantiate those interpretations with descriptive details and evidence.

Feedback

Another way I encourage teachers to see beyond the limits of their initial perceptions and become better at describing and differentiating classroom experiences is through the use of students’ feedback. Below I share two kinds of feedback that I find useful during my work with teachers — ongoing and structured. Ongoing feedback is related to the concept of presence that I described earlier, and involves teachers attending to information that is available at every minute in the classroom, including all elements of and interactions between the teacher, students, subject matter, and context. When a teacher is present to what is happening in the classroom, she is present to ongoing feedback. Reflection-in-action is reflection in the midst of this kind of feedback.

In contrast, structured feedback lets a teacher consciously step away from the ongoing feedback by posing specific questions to students about their learning (or lack thereof). In my own teaching practice, these questions vary, but often take the following forms: “What do you think you’ve really learned?” “How do you know that you’ve learned it?” “Can you describe how you learned it?” “What helped your learning?” “What hindered your learning?” “How did you feel?” Even when I observe what seems like learning, rather than having to guess at whether students have learned, I may still need to check it out with them by asking. While students’ answers reference my teaching, I am not asking for advice or critique. Rather, I am asking them — the authorities on their learning — about that experience, an experience that I can observe but about which they can also tell me a great deal, information to which I otherwise have no access. I make a point of helping students distinguish between what they learned, what I taught, and what they did. It takes some practice to distinguish among the three. It is one way that teachers — and students — begin to understand the difference between learning a subject and covering it.

It can often be difficult for teachers to seek feedback from students because it feels risky. Knowing this, we do several practice rounds in the semi-

9 I am indebted to my former colleagues at the School for International Training for their deep understanding and skillful use of feedback, and to the original work done on feedback by Caleb and Shakti Gattegno. The terms ongoing and structured feedback were coined by Donald Freeman and Kathleen Graves (Broderick, 1981).
narr before teachers try it in their own classrooms. One activity is called “The Teaching Game,” where everyone is assigned to teach a 10-minute lesson to a group of three or four of their “student” peers (Freeman, 1993). These are simple lessons requiring little preparation, done right in the class. Teachers have taught simple dance steps, knot tying, origami, math shortcuts, and so on. At the end of their lesson, they must ask the questions described above of their peers. They are not allowed to respond to “students’” answers, only to paraphrase them or to ask probing questions or questions for clarification. Otherwise they write down what students tell them. This is done as a way of training teachers to listen to what students’ experiences have been, rather than to defend or explain what they, as teachers, have done. Recently a teacher did a 10-minute sign-language lesson, teaching her “students” the alphabet. When she asked them for feedback, they told her that they’d learned the first one or two letters of their names. From this, the teacher realized that this brief exposure to the alphabet did not enable them to learn all twenty-six letters. The feedback forced her back to the place of a beginning learner, looking at the subject matter and its mastery through their eyes.

Returning to my student Charlie, four months after her first entry she wrote a second entry that described the impact that both structured and ongoing feedback had on her teaching:

It is interesting to me to see how this idea of feedback is becoming so important to me and how naming it has put it much more into my consciousness. I think what’s different is I realize when I interpret [ongoing] feedback I need to consider lots of different possibilities for what I’m seeing. When I’m acting like a burnt-out teacher, my interpretations of students’ actions tend to be negative. However, when I am open to other interpretations, I become much more humane to my students. . . . I don’t have to assume that [ongoing] feedback (like students asking what page we’re on) means the student is not interested in learning. . . . When I grade a math test and a student gets a low score, likewise there are lots of ways to interpret that low score and I need to ask the student [for structured feedback]. . . . I like the way [another teacher in the seminar] says we can find out if students are learning rather than just finding out if we’re teaching.

This entry was exciting to me because it showed evidence of ways that Charlie’s efforts to see her students’ learning, to be sensitive to multiple interpretations of their behavior, and to gather their feedback on both put her in partnership with her students. It demonstrated that she was, in fact, becoming more present in the classroom and therefore better able to respond effectively to what she observed.

All of the information gathered through structured feedback is data that allows teachers to more fully describe the situations in their classroom — data that can only be gotten by asking. As reflective practitioners, it is essential that teachers not only learn to see but that they learn to see through their students’ eyes. In effect, teachers and students become partners in inquiry. It
has been my experience that the use of structured feedback often represents the turning point in teachers’ awareness of the centrality of students’ learning. Structured feedback pulls back the curtain and reveals the multiple truths about students’ learning. As a result, teachers are compelled to see ongoing feedback — students’ learning — differently, becoming at once more aware of and more curious about it. One consequence is that tests diminish in importance since more information about students’ academic progress is revealed through ongoing and structured feedback than through tests.

In addition to helping teachers move through the reflective cycle, structured feedback can go a long way in creating a community of inquiry in the classroom. But it also can raise unsettling questions for both teachers and students. For example, teachers may ask themselves if there is a difference between what the teacher taught (i.e., what students were supposed to learn) and what they actually learned. What does it mean to learn something — when can you say, “I’ve learned?” What does the teaching have to do with learning? What role do other students play in students’ learning? How do students feel about the subject matter? What is the effect of group dynamics on learning?

One of the most compelling aspects of description — whether through differentiating it from interpretation, focusing on moments, or seeking student feedback — is that teachers begin to realize that certain ways of structuring curriculum, activities, and the physical classroom itself offer more opportunities to observe learning than others. Those who only lecture, those who spend most of their time “telling,” and those who have a poorly organized or chaotic structure have descriptions that are far less robust than those who create opportunities for observation of students’ experiments, constructions, and mistakes. When they create opportunities to observe students’ learning, they begin to perceive and paint pictures with nuance, detail, and tone — fuschias, golds, and azures instead of blocks of primary color.

Analysis of Experience: Learning to Think Critically and Create Theory

Once descriptions are rendered, teachers can move into the next phase of the reflective cycle: analysis. Analysis involves generating a number of different explanations for “conjectures” (Ball & Lampert, 1999) about what’s going on and settling on a theory or hypothesis that one is willing to test in action. It is the phase where meaning-making happens. Although it comes after description, there is often a dialectical relationship between the two. During the analysis, it is sometimes necessary to return to the descriptive phase and seek more data, which in turn may point toward different analyses. Below I discuss various approaches I use with teachers to help them analyze their teaching practice, including their students’ learning.
Grounding Analysis in the Text of Experience

It is my firm conviction that the theory that is generated about teaching and learning must be grounded in the text of teachers’ experience — that is, in the evidence that arises from the description of practice. In turn, this evidence needs to be looked at from various perspectives and rigorously questioned so that explanations and theories are not allowed to stand on selective data.

I am currently an advisor to a professional development project with faculty at a small, progressive public school in southern Vermont. We have been meeting for two hours a month since September 2001. The majority of our work has involved describing and interpreting a single artifact: one sheet of paper on which school rules are listed. Teachers and students developed the list some years ago; since then there has been some faculty turnover. To understand some of the values and principles that comprise the heart of the school’s identity, the faculty, including the principal, decided to describe these rules. This discussion moves beyond the boundaries of classroom learning, yet gets right to the heart of kids’ learning experiences in the hallways and on the playground, as well as teachers’ experiences trying to regulate those experiences.

We first tilled the ground for reflection by telling stories from the early days of the school, watching a movie a local filmmaker had made about its first principal and ruminating together on the word “home.”¹⁰ We then read the rules aloud and got our first impressions off our chests. These included statements like “The safety rules seem to be met inconsistently” or “We have rules about things that in other places would be against the rules” and “The rules demand a great deal of responsibility on the part of the students.”

From there we backed up to read carefully through each rule, describing what it was saying. Three months later we are still only on the second rule. The first rule was only five words long: “No running in the halls.” As we attempted to describe the rule we immediately got involved in determining what was actually meant by “no running” and by “running” itself. Did no running mean no running ever? Teachers recognized that they ran — did this rule just apply to students? And what qualified as running, anyway? In an attempt to describe, we found ourselves interpreting. So teachers went back to their experience for more evidence. What about the basketball lay-up move the junior high kids did? Did that count as running? Was dancing running? What about going up or down the stairs two at a time?

This discussion led to an analysis of the nature of a rule. What did it mean to enforce a rule? Did it apply 100 percent of the time? Always in the same way? The group also noted that parents were players in the whole question of

---

¹⁰ Reflection on a word is a process Garini uses to prepare the ground for descriptive review. It is meant to evoke certain associations, images, and memories that somehow speak to the person or issue at hand. For our group, the idea of the school as a home-like place provoked the reflection. Often a question accompanies the description. Our question was, “How do we know when we’re home?”

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
rules and came at them from at least two angles. For example, if there is a problem with kids throwing apples, the school community could solve the problem by cutting down the apple tree, or they could use the incident as an opportunity for the students to learn about acceptable behavior.

Over the weeks, the discussion evolved into one about why rules exist in the first place. We determined that rules were guidelines for behavior but not necessarily what teachers wanted students to learn. What the teachers really valued was not “obeying the rules” but that students “pay attention to the space between us” — that is, that they become aware that their actions had an impact on others, even those who weren’t present at the time. Other values included safety, school stewardship, and taking responsibility for one’s own actions.

As we contemplated the nature of rules, the faculty also affirmed its appreciation of the value of freedom for its kids. This prompted me to bring in Dewey’s short chapter on “Freedom” in Experience and Education (1938). We spent a two-hour session describing one sentence of the chapter: “The ideal aim of education is creation of the power of self-control.” The group determined that the “power of self-control” is distinct from “self-control,” since it focuses on students’ power of self-determination rather than on their ability to control themselves. This in turn led to deeper insight about the kind of learning that the teachers wanted to nurture in their students — about helping them find within themselves the power of self-determination with appropriate attention to and care for those with whom they must live. The faculty since has renamed the school rules “school rules, recess rules, and life rules.”

Even as I write these words, I am moved by the stunning complexity and power that lie beneath the surface of things. While the process was slow in terms of the rules we covered, the depth of understanding that emerged from the iterative processes of description and analysis was, I felt, rich beyond any idea of quantity.

**Developing a Common Analytical Language**

A second critical point about analysis is the need for the group of teachers to generate a common language about teaching and learning. In the process of turning over evidence and asking what is going on, I frequently run into words that seem to carry shared meaning, but when we scratch the surface of the word different meanings emerge. As I mentioned earlier, a word like “engagement” may hold multiple meanings for the teachers around the table. What does it mean to be engaged in the first place? Have fun? Stay on task? Does it necessarily include learning? Learning itself is another of these words. Unveiling the nuances of the words and concepts we use to talk about teaching and learning is as important as revealing the nature of teaching and learning themselves. If there is as yet no common language across education, there does need to be a common language within a community of inquiry. Teachers and facilitators need to assume the responsibility of asking each
other to define what they mean by words or terms that we assume are commonly understood.

A common language can be forged by the group or borrowed from existing frameworks drawn from research, philosophy (e.g., Dewey’s attitudes (1916/1944, 1933), from Hawkins’ “I, Thou, and It” (1974) or Noddings’ notion of caring (1992), from art (one of Pollack’s paintings representing order derived from chaos served as a framework for one group) or even literature. Below I explore Hawkins’ “I, Thou, and It” paradigm as an effective source of common language.

Unearthing Assumptions

In clarifying what teachers mean by what they say, we uncover many of the assumptions that drive our actions as teachers, learners, teacher educators, and researchers. This process of unearthing assumptions is a third critical aspect of analysis. Some scholars claim that meaning resides not in the text of an experience but in the reader (Ball & Lampert, 1999; Rosenblatt, 1978). Careful consideration of the theoretical and emotional ground from which interpretation of experience arises is essential to careful analysis. If indeed “we teach who we are” (Palmer, 1998), such scrutiny can involve scary and delicate personal work. The facilitator and group must be supportive but also willing both to push and be pushed by one another to risk exploring the territory of assumptions — assumptions that grow out of teachers’ very identities. For example, one young teacher, when faced with the possibility that teaching does not necessarily cause learning, felt that her very identity as a teacher was threatened. “If teaching doesn’t cause learning,” she mourned, “then what am I for?” The process often uncovers dissonance between espoused theories (who we’d like to think we are) and theories in use (who our actions show us to be) (Argyris & Schón, 1974). At this point the need for a community with strong leadership and shared norms is especially critical.

One example of a teacher whose assumptions were distorting what she was able to see was Anna (a pseudonym), who taught refugee women who had recently arrived in the United States. As an activist, Anna was committed to issues of social justice. Wishing to raise her students’ awareness of workplace issues and rights, she had given them several relatively sophisticated magazine and newspaper articles on sexual harassment. But her students did not seem as committed as she was. In fact, they showed themselves to be positively indifferent to issues that Anna felt were so important to their well-being. Her analysis of their behavior was that they were “lazy and resistant.” As she described the issue and then responded to questions posed by the group, it became clear that, rather than being recalcitrant, the students actually did not possess the basic vocabulary and pronunciation necessary to un-

11 Dewey’s attitudes, whole-heartedness, open-mindedness, and responsibility (1933, pp. 28–31), and the forgotten attitude, directness (1916/1944), have served as anchors in talking about dispositions for learning.
derstand the pieces she had given them to read. The meaning she made of her experience suddenly shifted from seeing her students as “lazy and resis-
tant” to “ill-equipped.” Anna’s assumptions, that these students were lazy, that they were equipped to dig into sophisticated topics, that they were or should be as passionate about issues of social justice as she was, had to be owned by her before she was ready to meet her students where they were, rather than stew in frustration that her students were not in the place where she wanted them to be.

Using Frameworks
While it is essential to investigate personal theories and assumptions, it is also necessary to give careful attention to theories from outside the immediate community of inquiry. The introduction of paradigms and frameworks from research on teaching and learning provides a fourth approach to expanding ways of naming and understanding experience. One of the most useful frameworks I have employed has been Hawkins’ (1974) “I, Thou, and It” paradigm. Hawkins describes the “I” as the teacher, the “Thou” as the learner, and the “It” as the subject matter that draws the I and Thou together to form a dynamic nexus. In my work I think of this triangle of elements as held in tension by the force field of context/s — the classroom, school, community, and outward, even to the levels of nation and globe. Hawkins’ framework has divided the complicated universe of teaching and learning into manageable categories, providing teachers with a common language without losing the inherent complexity in the process. The visual aspect of the framework along with its simplicity lends itself to creative manipulation. For instance, Anna might have painted her situation as one where the connection between the I and the It was strong, but between the I and Thou was weak, or where the It for the teacher (sexual harassment) was different from the It for the students (English vocabulary and grammar).

Below, a Chinese teacher of English talks about how his view of teaching and learning has changed as a result of his work in my class at Albany, using the I, Thou, and It paradigm as a way of framing the shift in his thinking:

The worst thing for me is that I never really thought about teaching and learning. [In this class] I began to change my idea of teaching [to consider that] what really matters is not how much we teach, it is how much the students learn. To improve our teaching, we need to know more about our students [including] their learning styles, what helps them learn, what hinders their learning. In the triangle “I, Thou and It,” I just paid attention to the “I” and “It”; I did not pay any attention to “Thou,” in whom the learning happens. The only way to improve my teaching is to know more about students’ learning. (personal communication, December 2000)

I accepted where he was in his learning and was pleased by his insights. This student, who has a doctorate in teaching English, is from China, but he is not different from teachers from the Albany area who are chained (or who chain
themselves) to Regents exams and standards testing, and are encouraged to see students as completers of tasks and takers of tests.\textsuperscript{12} They see students as people with lives outside the classroom, but seeing them as learners is something new.

Theoretical concepts can be drawn from any piece of research that is relevant to the inquiry being done. If a group is focusing on a particular theme — school rules, for example — readings within that area can lend depth to the discussion. What is important is that the weight of the theory of “experts” is balanced by teachers’ experience, and is not necessarily taken at face value.

Description and analysis represent what Dewey (1916/1944) called the “reorganization and reconstruction of experience” (p. 76). Such reflective work allows one to direct the course of similar future experiences, he says, and leads toward “intelligent action.” One example of this is the steps that teachers are taking with the rules at their school in Vermont.

Experimentation: Learning to Take Intelligent Action

Experimentation is the final as well as the initial phase of the reflective cycle because it doubles as the next experience. In fact, experience and experiment have the same Latin root, \textit{experiri}, which means to try or to test (\textit{American Heritage Dictionary}, 1973, p. 252). It takes a group time to get to this phase. The suggestions for action that characterize this phase come only after the hard work of description and analysis, and are based on well thought out and mutually constructed theory. This is why the action is seen as intelligent rather than routine (Dewey, 1938).

The first step toward action takes place within the group, where teachers proffer different strategies for dealing with the classroom problem or question at hand. These ideas for action differ from advice. The latter can feel coercive while the former feels more like an offering. One silences, while the other is generative. Advice can sound like, “You should do . . . ,” whereas ideas for action are couched in language like, “What would happen if you . . . ?” or “Once I tried . . .”

But at some point the ideas for action that teachers settle on must be tested in action. Like Michael Huberman (1995), I have found that description, analysis, and ideas for action are necessary but incomplete. As he writes, “although conceptual knowledge or understanding is essential, it is not sufficient. . . . It is still possible to understand and yet not be able to do. Professional development has to come to grips with this challenge too” (p. 357). As such, I consciously build in check-in time, if not a written report, in follow-up sessions to see how these “tests” have gone. It is easy for teachers

\textsuperscript{12} All New York State high school students must pass the Regents exams in order to earn a high school diploma.
to abandon perfectly good ideas because they didn’t work the first time, or to be satisfied with the ideas but reluctant to carry them out. By requiring experimentation and enjoining teachers to bring their stories back to the group, I am able to encourage them to take risks, to describe and analyze their experiments, and to plan for second, third, and fourth tries, each of which is text for further reflection and offers an opportunity to practice being present to the dazzling intricacy of teaching and learning.

Conclusion

One day I observed an artist effortlessly arranging some two dozen Aquarelle crayons in their case by hue. I marveled at how one color blended neatly into the next, aware that I lacked whatever skill he possessed. He was seeing something in those colors that I was not. Driven by curiosity and a desire to see what he was seeing, for the next several months I paid close attention to colors. For example, I asked myself what other colors were present in the different shades of red. I eventually began to see that some reds had more blue in them, making them closer to purple, while other reds had more yellow in them, making them closer to orange. Where before I would have seen them all as vaguely “red,” I could now begin to name the other colors present in them. Slowly the world of color opened up for me, becoming at once clearer and more complex.

Teachers, too, need to see in more than just one color, in other words, to discern the complex shades of teaching and learning. When teachers start to “see” in more nuanced ways, they start to differentiate their teaching from their students’ learning. Once they see this distinction they become more sensitive to the fact that good teaching is a response to students’ learning rather than the cause of students’ learning, becoming more curious about and aware of learning as they do so.

In this article I have presented a framework for reflective inquiry into practice that offers teachers and teacher educators a way to learn to see and be present to students’ learning. It involves teachers in a process that moves from experience to description to analysis to action. I outline a number of methods for gathering the data necessary for description, from “moments,” to Prospect’s Descriptive Reviews, to dialogues with students that gather feedback on their learning. These methods are often the vehicles that bring teachers to their breakthrough moments when they see that, in the words of one teacher, “We can find out if students are learning rather than just finding out if we’re teaching.” In turn, these insights send teachers back to the classroom with different eyes, looking for and seeing different things.

I suggest that, in the context of a supportive and disciplined community of reflection, teachers can formulate explanations for what they see that come from their own knowledge of teaching, learning, and subject matter, from
each other, and from research. After weighing various explanations carefully, they can choose a course of action that will, because of the time and consideration taken, be intelligent action. I am satisfied that while teachers are with me and with each other in our community of reflection their practice changes for the better. It is not clear to me that, once that community is gone, change persists. I am not oblivious to the tremendous contextual forces that teachers operate under — tests, standards, tenure — that can undo this work in much less time than it took to develop it.

More work must be done to trace the effects of this kind of reflective professional development on teachers’ practice and its elusive connection to students’ learning. Evidence from teachers’ own accounts suggests that it does affect the ways they think about their teaching, their students, and their students’ learning, as well as what they actually attend to — what they see — in the classroom. But it is clear that further research must be done to see whether a change in how teachers think and in what they attend to in the classroom actually alters what they do over time, and how that is connected in turn to students’ learning. It is hard to imagine that once a teacher has seen the stunning array of colors present in students’ learning he or she would turn back to the monochromatic world of teaching as the delivery of a product. Teachers involved in this kind of reflective professional development discover that life in the classroom cannot be scripted. It is therefore harder, but it is also full of passion and breathtaking color.

References


