Examining Questions of Equity in Teaching
Teacher inquiry for equity aims to transform schooling by examining and improving teaching and learning in classrooms. The essays in this section document the work of teacher inquirers as they ask and answer questions about teaching practice, student experience, and student learning. The authors use classroom data collected through their everyday work to surface, understand, and address issues of equity.

Why is inquiry vital to improved teaching practice and a move toward equity? One reason is that classroom inquiry helps teachers to learn through their own day-to-day work with students. Teachers can look carefully at the experience of students in the classroom, noticing and documenting what is happening with individual students over time. Taking a close look at the day-to-day work in classrooms also allows teachers to turn the lens on themselves, examining their own assumptions and habits.

In the four essays in this section, inquiry helps teachers to understand students and to develop both the will and the skill to shift teaching practices in ways that make a difference for students. The teacher-inquirers represented in this section include one teacher researching her classrooms in a new small school1 (Aguilar), one teacher researching his classroom in a traditional high school (Roth), and two long-time teachers writing about their work with colleagues or interns (Bostick-Morgan; Osinsky).

Learning from Students

In their quest for equity, the authors represented in this section pay close attention to students, gathering data about their experiences and learning. One author (Aguilar) engaged in multiyear case studies of particular students to understand these students, their classrooms, and her own teaching. She used student interviews and surveys, audio and video recordings, and her journal entries to better understand a case-study student and to develop approaches to support this student’s engagement in reading. She subsequently used her learning to support the engagement of all her students. Another teacher (Roth) used classroom observation and student interview data to understand his students’ experience with a particular aspect of his classroom-tests. In a similar fashion, two teacher-leaders—a speech language pathologist and a preservice-teacher educator (Bostick-Morgan; Osinsky)—describe what they learned from research with their “students,” in this case the teachers or interns with whom they worked. For these researchers, the inquiry included a second layer, where the researchers helped the teachers/interns with whom they worked to gather data.

1 Oakland’s new small schools are part of a growing national movement to develop smaller schools that provide a more equitable and personalized education. The Bay Area Coalition for Equitable Schools has supported many educators in developing and sustaining the small Bay Area schools described in Working Toward Equity.
about the students in the classroom. Marcie Osinsky, for example, worked with teacher interns to establish a focus for their observations, videotaped classroom activities of students and teachers, and then reviewed notes and videotapes.

**Integrating Research into Classroom Life**

In each of these four essays, teacher inquiry is not an add-on activity but part of the fabric of everyday classroom life. It happens as the teachers keep track of the rush of daily activities and in moments of quiet reflection. The authors describe a range of ways that they integrate research into their classrooms.

One way they integrate research into their teaching is through writing. Each teacher-inquirer used reflective writing to document and make sense of her inquiry. Journal writing offered teachers the opportunity to explore critical incidents in their classrooms and construct new knowledge about themselves and their students (Aguilar). Field notes taken quickly in the middle of class can become rich data when reconsidered later (Roth).

While these authors use the data they gather to better understand the students’ learning and experience, they also use the data to reflect on and improve their teaching practice. For example, Roth used his observations of students taking history tests to inform his construction of subsequent tests. Osinsky prompted the interns who collaborated with her to recognize the various ways that students understood math and build on them in their teaching. Similarly, Oreather Bostick-Morgan prompted mainstream teachers to incorporate a variety of strategies to help hearing-impaired students learn to read. And Aguilar’s inquiry process inspired her to incorporate literature circles and dramatic activities into her curriculum.

**Teachers in Inquiry Communities**

Having an inquiry community is not the exception in these stories; it’s the rule. For some authors, (Aguilar; Osinsky), teacher inquiry for equity is the model for professional development at their school. These teachers receive intensive coaching and support for their research. Other authors (Roth; Bostick-Morgan) are active in writing project teacher inquiry networks that sustain ongoing conversations about classroom practice to support equity. As part of the Teacher Research Collaborative, each teacher-researcher had a professional community with whom they shared the work of their own teacher inquiry, their efforts to lead teacher inquiry for equity at their school sites, and their written questions and discoveries.

The essays that follow represent an articulation of these ongoing collegial conversations and investigations into equitable teaching practices. These vivid portrayals of students working to master academic skills, thoughtful teachers actively examining their practices, and the sense of urgency all bring to their work demonstrate how teacher inquiry can begin to dismantle inequities and build classroom practices that promote equity.
An East Oakland Odyssey: Exploring the Love of Reading in a Small School

Elena Aguilar believes that reading skill is a fundamental issue of equity for her students, most of whom are from low-income families and are students of color. As a middle school language arts teacher she is, she says, “obsessed” by her inquiry question: How can I get my students to love to read? As Aguilar shares her three-year inquiry into motivating students to read, she demonstrates the power of the case study: by looking closely at one student’s progress she is able to examine a whole area of teaching practice. She describes how literature circles, drama, and multiple readings of texts all increased her case-study student Eddie’s engagement and provided an important means of assessing his skills. Using three years’ worth of whole-class data, surveys, audio and video recordings, and journal entries, Aguilar emphasizes the complexity of teaching and the ups and downs of both Eddie’s progress and her own development as a teacher-researcher.

By Elena Aguilar

Introduction: “Reading Is Boring”

I am obsessed with teaching my middle school students to love reading. My obsession began when ASCEND, a new small school in Oakland, California, opened in fall 2001. I was the only sixth grade language arts and history teacher, with two classes of twenty-three students each. Although I had taught for five years, I had never taught middle school. As I assessed my students in the beginning of the year, their low skill level—fourth grade level on average—disturbed me. My previous experience teaching third grade had given me ideas for teaching basic language arts skills to struggling students. However, my third-graders had been enthusiastic about everything and delighted in learning. I was not prepared for my ASCEND students’ negative attitudes toward school.

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1 In the fall of 2001, ASCEND (A School Cultivating Excellence, Nurturing Diversity) opened with 170 students in kindergarten and second, fourth, and sixth grades. We were one of five New Small Autonomous Schools that opened that year in the Oakland Unified School District to alleviate overcrowding at neighborhood schools and to address inequities in the education system. ASCEND is located in Oakland’s predominantly Latino Fruitvale neighborhood, and our student population is around 60 percent Latino, 20 percent Southeast Asian, and 20 percent African American. The majority of our students come from low-income families, and previously attended local elementary schools with large classes and low test scores. From ASCEND’s initial conception, inquiry was a core component of our professional development; by our third year, it was the centerpiece of our professional development model.
Most disturbing to me was the students’ attitudes toward reading. On Mondays we regularly had a morning circle to check in about the weekend. Everyone had to share. One after another, students repeated the same thing: “I didn’t do anything. It was boring.” Week after week, one after another complained of uneventful weekends. Although occasionally someone attended a birthday party or a family event, their assessment of their weekend usually was “boring.” Two months after school started, I decided to probe. “What do you mean, you didn’t do anything?” I asked Billy, a shy Cambodian boy.

“I didn’t do anything,” he repeated.

“But what does that mean? Did you sleep? Did you watch TV? Did you eat? Did you take a shower?”

“I did nothing. I lay on my bed and stared at the ceiling,” he said.

I was stunned. I blurted out the first thing that came into my mind: “Why didn’t you read something?”

“Reading is boring,” he said without emotion, and numerous students around the room echoed his sentiments.

Again, I was stunned. I was flooded by memories of my own childhood, of long weekends and summers when I had nothing to do. I was never bored, however, because I read voraciously. Books helped me to understand my social and emotional world; they provided an escape from the chaos in my family; they helped me develop empathy for other people; and they always entertained me. I loved reading, and I still do. I knew at that moment that I needed to do something to teach these students to love reading.

I have now had the rare fortune to teach this group of students for three years as their language arts and history teacher for sixth, seventh, and eighth grade. This continuity allowed me to undertake a three-year study of my students’ attitudes toward reading. Using data that include surveys and reflections, audio and videotapes, and journal observations, I have looked both at whole-class changes in attitude and at four case-study students in particular. This essay reports a small piece of my broader research, focusing on one case-study student, Eduardo. In many ways Eduardo—Eddie for short—is representative of many other students in my classes. In this essay I describe four critical incidents that illustrate the complicated issues Eddie has with reading and school and that marked turning points in his attitude toward reading. I also explain how Eddie’s journey parallels my own, as I have discovered the powerful ways that doing inquiry in the classroom can affect my teaching practice and the success of my students.

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2 All student names in this essay are pseudonyms; teachers’ real names are used.

3 I refer to the years I spent with my students by their grade-level year, as follows: sixth grade = 2001–2002; seventh grade = 2002–2003; eighth grade = 2003–2004.

4 Examples of student surveys about reading and literature circles are included in the appendix at the end of this essay.
Ideas About Teaching and Learning

My key notions about teaching and learning came from my own experience as a student, reader, and teacher, and developed as my research progressed. Several basic assumptions have guided my practice: that reading is a social activity, that there is value in multiple readings of a single text, and that young people need to have a “touchstone” book that changes their lives as readers. My own experience as a reader told me that if students read books that they can relate to, books that address issues and topics of primary importance and relevance to them as adolescents, their attitudes toward reading will change. My teaching experience further informed me that multiple assessments give the clearest picture of student capacity, achievement, and learning. As I began teaching middle school, I learned that students need opportunities to discover and practice their own best way of learning. I also learned that skills can be taught more effectively as attitudes toward learning change. Finally, as I became a researcher in my classroom, my teaching was guided by my conviction that teacher inquiry is the most effective way to change teaching practice and, therefore, student outcomes. In this process, I discovered strategic reasons for inviting students into my inquiry as coresearchers. Eddie’s story illustrates how I applied these beliefs to change my own teaching practice through inquiry, and how Eddie’s attitude toward learning and reading changed in the process.5

Eddie: Background

In every class I’ve taught, I’ve had an Eddie. He’s the kid in the baggy jeans who pierces his own ear and swaggers in late after lunch. He constantly challenges authority and is often seen as irreverent and disrespectful which gets him “in trouble” a lot. He’s also the kid who always asks the “best questions” in class discussions, questions that spark lively debate. He’s popular amongst his peers, but loses his temper easily and gets in fights. In other situations, my Eddie would be a gang-leader.

—Journal, 5/16/03

Eddie is a socially self-confident Latino, whom I first assessed as having very low academic skills: his fifth grade results on the California Standards Test (CST) placed him in the category of “Far Below Basic”—the lowest level for fifth-graders statewide.6 Eddie attended four different elementary schools because his family moved frequently. Although his primary language is Spanish, he was switched back and forth between English-only and Spanish-bilingual classes, most likely hindering the development of his literacy skills. A small motor disability makes Eddie’s handwriting indecipherable, and makes him ashamed of anything

5 Several students captivated my attention from the first time I met them in September 2001. Individually, they posed challenges to my teaching, but they also represented many other students in my classes. In addition to Eddie, my broader research focused on three other students: Tomas, a highly skilled Latino deeply invested in his studies, who struggled with his peers’ perceptions of him as a “nerd”; Billy, a Cambodian student who read a year or two above grade level but would rather stare at the ceiling than pick up a book; and Catalina, a low-skilled, quiet Latina who worked hard to please the teacher and whose attitudes, as a result, were challenging to decipher.

6 The CST is a standards-based (criterion-referenced) test. Scores on the CST are categorized as follows: Far Below Basic, Below Basic, Basic, Proficient, and Advanced.
he writes. Because Eddie was retained in fourth grade, he is a year older than his classmates. He is very aware of his low skill level and has no confidence in doing schoolwork. As a result, he often loudly expresses his dislike for school and disinterest in studying, and most of the time he’s been at ASCEND, he has rarely done homework.

However, Eddie is very bright, has sharp analytical skills, and loves to engage in conversations about history and politics. He learns best orally and has an impressive memory for information that he hears. Once when I was noticing his extensive vocabulary, I asked him where he’d heard a certain word. “On TV,” he said, making me wonder about the role of TV in his literacy development. Eddie is one of the few students who enjoys long lectures about history and who can maintain his attention in a class discussion long after most students have faded out. Yet when doing desk work, Eddie often appears squirmy and wiggly. He could easily have been assessed as having an attention deficit disorder.

In social situations, with adults or with peers, Eddie is very confident. He is charming and mature, and frequently takes leaderships roles such as speaking to the superintendent or organizing students to perform a play. He is well liked, one of the few students with close friends who are not of his ethnicity. However, Eddie also has a temper and has been involved in several conflicts with students and adults at ASCEND.

Eddie’s family lives in a one-bedroom apartment in a rough neighborhood; Eddie sleeps on the couch in a crowded living room where, when he can, he stays up until 2:00 A.M. watching movies. Eddie has been exposed to violence and alcoholism his whole life. His fourth and fifth grade teacher, who is now an administrator at ASCEND, told me she felt that if Eddie had attended any other large middle school, he would have dropped out of school by eighth grade and become involved in gangs. She initially encouraged him to come to ASCEND, where she thought he would be more likely to succeed. Because the challenges Eddie faces are similar to those of many other students who are often overlooked or underserved in urban schools, I have devoted substantial time to understanding him as a student and comprehending his attitudes about reading.

The Social Nature of Reading: Literature Circles Begin—Winter, Sixth Grade

Today was one of my best days teaching ever! We started literature circles, finally. Carlos, Eddie, and Ernesto were having a wonderful time. They laughed and laughed, kept flipping through *The House on Mango Street*, reading parts to each other, checking what the other had highlighted or underlined, reading parts aloud, laughing. Eddie made text-world connections, and lots of text-self connections. Eddie: “See where she writes that men live on Venus—that’s me!” The way he engaged with the writing and analyzed it also struck me. He commented, “This part where she says she’s like a ’red balloon with a string hanging from it’ really made me think. What did she mean? And have I ever felt like that? I spent a long time thinking about that.”

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7 This concept is presented in Harvey and Goudvis, *Strategies That Work: Teaching Comprehension to Enhance Understanding* (2000).
When time was up today, Eddie was one of several kids who loudly begged for more time. After the meeting I surveyed the class and asked students to rate their excitement about starting literature circles. On a scale of 1–6, Eddie wrote in, “A 10!!!!!!!” which was by far the highest in the class.

—Journal, 2/6/01

For our first experiment with literature circles, all students read The House on Mango Street, which was at or below the reading level of most students. I predicted that many students would connect with this lively, engaging book written from a child’s perspective and addressing issues of family, identity, immigration, and gender. This first cycle was a great success and literature circles became the cornerstone of my reading program; I hoped they would be a key strategy for changing my students’ feelings about reading and, subsequently, for improving their skills.

One of my initial theories about why my students detested reading had to do with their experience and perception of reading as a solitary activity. In a familiar scenario in many classrooms, students read a novel and write a book report, then return the book to the shelf. That defines “reading” for them. Yet I know that when I am excited by something, such as a novel, I want to share it with others. And when I am confused by something, I seek the counsel of my peers. For these reasons, I felt that the social nature of literature circles would be effective for my chatty, preadolescent sixth-graders.

For Eddie, literature circles became essential to changing his attitude about reading and developing his reading skills. Literature circles were new to all my students, and I knew it was vital that Eddie’s first experience be positive. That first day, as he discussed The House on Mango Street, Eddie discovered that reading could be fun when it is a social event. This was my primary objective in starting literature circles, and the data I collected provided clear evidence that I had accomplished my goal. Furthermore, this first experience was positive for Eddie because he felt successful. This was crucial for him after years of failure in school. However, not only was Eddie able to understand The House on Mango Street, but the activity he was asked to do to demonstrate his understanding—discussion—was something at which he was accomplished. Had students been asked to complete a written response to the book, Eddie would not have felt as confident and would not have been as successful in showing his understanding. But because he knows how to talk and is good at social interaction, he enjoyed sharing his connections to the text. From the first day of literature circles, Eddie knew that was a structure in which he felt comfortable and confident, where he could be successful with his peers. And I recognized that students with stronger social skills would be more successful in the literature-circle structure.

**Multiple Assessments for Reading**

Literature circles give me invaluable assessment data on a student’s reading skills. In the beginning of sixth grade, I assessed Eddie at a second or third grade reading level. However, in the first literature circle meeting, I observed his highly developed analytical skills, making me question my earlier assessment. Eddie was one of the only students to cite text and engage directly with it. The questions he posed to his group provoked much deeper conversations than those in other groups. I have since observed this over and over when Eddie par-
ticipates in literature circles. After students read a novel, they complete a project that usually has a central written component. Although Eddie has the necessary skills, more often than not he does not complete it or turns in low-quality work. On in-class essays and quizzes about literature, Eddie usually scores in the low to middle range. When Eddie reads aloud, his fluency skills are weak and he stumbles on many words. Were I to use only these assessment data, I would conclude that his reading skills are low. However, when I observe Eddie discussing literature, I find his comprehension and analytical skills to be exceptionally high. At first I assumed that he could do this only when he was reading texts that he chose. However, on the SAT-9 standardized test at the end of seventh grade, he scored in the 87th percentile in the reading analysis section, higher than any other student in his grade.

For Eddie, literature circles are a safe place where he can improve his reading comprehension. Over the years, he has repeatedly stated in surveys that he likes reading in literature circles because he can get help from his classmates. In a survey at the end of eighth grade, he wrote, “I think that literature circles help me more [than independent reading] because I have some people that I can talk to about a book if I did not understand anything or to share my feelings.” My notes from observing Eddie in literature circle discussions confirm that he uses his group to further his learning. I have observed him asking for clarification of plot, for definitions and pronunciations of words, and for alternate analyses of a story. Repeatedly, I have noticed that Eddie is not shy in asking his peers for help and that he frequently does so. Although at the end of eighth grade Eddie still completes very little homework, he always does the reading for literature circles and continues to engage his classmates in lively, text-based discussions of novels. He clearly enjoys reading and is motivated to read when he knows he will have a chance to discuss it with his peers.

The Value of Multiple Readings of One Text: Eddie’s Touchstone Book

My all time favorite book is That Was Then, This Is Now because that was the first book that I really got into. This book opened up new thoughts in my mind and made me think of new things.

—Eddie’s survey response. April, eighth grade

After The House on Mango Street, Eddie selected S.E. Hinton’s That Was Then, This Is Now for the next literature circle in sixth grade. My notes from the first meeting read, “Antwan, Chai, and LaShawn are retelling sections of the book. Eddie does not participate in this. Unlike him not to talk whenever possible. Did he understand it as well as they did?” Eddie’s reflections and my observations show that at first he was not particularly excited about That Was Then, This Is Now. In this first reading, I believe that Eddie did not understand the text too well and that he was still anxious about asking for help from a group of students he did not entirely trust. So how and why did this classic in young-adult literature become Eddie’s favorite novel, or what I call a touchstone book8 for him?

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8 I derived this term based on students’ surveys and reflections, written work, and comments.
In the fall of seventh grade, I selected *That Was Then, This Is Now* to use with the whole class to teach character development. I had loved this book when I was in middle school and thought that my students would enjoy it too. In addition, the small group of students who had read this novel in the sixth grade agreed that the class would like it. Although it takes place in the 1960s in an all-white neighborhood on the East Coast, I thought my students would relate to the book’s themes and characters. In this coming-of-age story, two friends confront violence, drugs, gangs, poverty, and family dissolution, and are forced to make extremely difficult decisions. For many of my students, these issues are close to home. In a survey in the fall of eighth grade, exactly half of my students listed *That Was Then, This Is Now* as one of their favorite novels, and at least 40 percent of my students (both boys and girls) cited it as a touchstone book that got them engaged with reading.

The second time Eddie read *That Was Then, This Is Now*, when I taught it as a whole-class book, two things happened. First, he began this reading exercise feeling confident because he had read the book before. In whole-class and small-group discussions, I observed that Eddie had understood the novel better than I originally thought. And having a chance to read it again, to discuss it with the whole class, and to engage in various whole-class activities related to the book allowed Eddie to gain a deep understanding of the novel while interacting socially with others. In one activity students debated the main character’s decision to inform the police that his best friend is selling drugs. This loud, passionate, lively argument engaged even the quietest students. And again I found that when reading involved socializing, Eddie was successful and enjoyed reading. While this is true for many of my students, for Eddie it became the impetus to read and not just slough off another homework assignment.

The data I gathered about Eddie’s several readings of *That Was Then, This Is Now* demonstrate the value of multiple readings of a book, something I encourage my students to do. Eddie was lukewarm about *That Was Then, This Is Now* during the first literature-circle meeting: on the first reading, it was too difficult. But when he read the book the second time, and I asked him what it was like, he said, “Much better. I notice more things.”

“Like what?” I asked.

“Like I just noticed that Bryon’s mom [a minor character] changed too in the book and I hadn’t noticed that before.”

Observing Eddie’s development in attitude and skills as a result of reading this book was validation that students should be allowed, and even encouraged, to read the same novel two or three times. I ask students to articulate why they want to read a book again when they ask for permission. They usually have very good reasons: to understand it better or because they enjoyed it so much the first time. For Eddie, this is a text he always refers back to when discussing his feelings about reading. In the spring of seventh grade, he declared that he disliked reading, “Except *That Was Then, This Is Now*, that was cool.” He has now

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9 From my notes, 10/1/02.
read the book three times. It has become a touchstone text for Eddie, evidence that he might like to read and might be good at it—critical realizations for a reluctant reader. This would not have been the case had he not read it several times.

Eddie’s experience with this book also expanded my understanding of how I could change my students’ reading attitudes. I suspected that if more of my students were exposed to enough books that they could relate to and that they liked, their attitudes would change. This was challenging, because novels whose content appealed to my students were often written at a level far too advanced for their reading skills; conversely, the themes and plots of novels written at their level often held little interest for them. Yet I knew that many of my reluctant readers were awaiting a key book that would turn them on to reading, as That Was Then, This Is Now did for Eddie. Gathering data on my students’ reading tastes over the three years, I eventually came to know each one’s personal likes and dislikes. In addition to knowing my students, I needed to know young adult literature: In the middle of eighth grade, as I prepared to be out of the classroom on maternity leave for a few months, I asked students to write about what makes a good teacher. I was surprised by how many described a good teacher as one who knows what kind of books her students like. Gradually, the trust that I had always actively pursued from my students came to include their trust that I knew them as learners and as readers. Although at times I made mistakes, I believe that Eddie, like most of my students, really trusted that I would recommend books that he would like.

Opportunities to Learn Their Best Way: Discovering Drama in Seventh Grade

I understand this stuff better if I have to act it out and I can show you that I understand it this way.

I know I’ll get a good grade this way.

—Eddie’s written response about his final project, seventh grade

In seventh grade, Eddie discovered that he learns best through drama. This was an invaluable lesson for him, and for me. It has allowed him to direct his own learning when he can, which leads to a tremendous feeling of success. It has allowed him to see that to some extent, he is not a failure in school—rather, school fails to provide him with enough opportunities to learn in the way he learns best.

Although students had numerous opportunities to express their learning through visual art, it wasn’t until seventh grade that I discovered the power of drama. The first confirmation came as students confronted Karen Cushman’s Matilda Bone, a historical novel about the Middle Ages that—despite being written for middle school students—was very difficult for them. I chose this book to teach metacognitive strategies in a novel for which students had little or no schema, or background knowledge. One method I used for the first time was

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10 At ASCEND, teachers select the materials we use in our classrooms. This freedom, an enormous advantage of being at a small autonomous school, permitted me to choose hundreds of books for my classroom. I attribute a great deal of the success I have had with my students to this collection, and I am aware that in many public schools, teachers spend their own money to stock their shelves or simply do not have the resources to feed their students’ reading interests.
reader’s theater, in which students read the entire novel aloud, dramatically reading the dialogue. I also taught reading strategies suggested by Harvey and Goudvis (2000), including visualizing and asking questions to understand the book. Eddie reported that asking questions as he read was most helpful for him when he read alone, but reader’s theater really enhanced his comprehension. In a reflection upon completing the book, he wrote, “It was really confusing, but when I heard them reading in Reader’s Theatre, I got it. It was like the people in the book were here and I could talk to them and when they read the words their feelings were there and so I understood it.”

At the end of the first semester, students put on a play about the Middle Ages. This was an educational and life-changing event for Eddie. He stunned students, parents, and staff with his performance as a fourteenth-century religious fanatic, and felt very proud of himself. In his reflection about the semester, he wrote, “What I learned this semester was that I learn best by acting. When I act I get to be that person and I know how they felt, and I understand history that way.”

In the spring of seventh grade, Eddie wrote and performed a play with three other students as a final project. When I asked him why he’d chosen this particular project, he shrugged his shoulders and explained, as if I should know already, that he just learns best by acting. His play revealed something else I hadn’t realized about him as a student: not only is he a natural actor, but he also has an intuitive sense for writing scripts. His story flowed well, it had a perfect tension, he developed characters through dialogue and actions; in every way it was an impressive piece of writing. Furthermore, Eddie completed all his homework on time; he was the most invested member of his group; and he received recognition from his peers for his ability to act, write, and direct a group of students—all of which made him very proud. I believe Eddie’s success in drama is one of the major factors that has increased his confidence in, and his enjoyment of, learning.

Now at the end of eighth grade, as I reflect on Eddie’s experience in my class, I am aware that his participation and involvement, his submission of homework, and his enjoyment of school were clearly at their height when some sort of acting was involved. What I might not have realized, were it not for this inquiry, is that the same is true for several other low-performing students in my class. My research has revealed an indisputable need to teach to different learning modalities, and has pushed me to reflect constantly on students’ individual needs.

Students as Co-researchers: “I Don't Like Reading!”—Spring, Seventh Grade

Elena: Who has their permission form to go to Berkeley tomorrow?

Eddie: I’m not going.

Elena: Why?

Eddie: Because I don’t like reading and I don’t want to waste my money on a book that I’m not going to read. I don’t like to read.

[Kids look at me to see how I’m going to respond. Eddie is leaning back in his chair, a little grin on his
In the week before spring break of seventh grade, I organized a field trip to a bookstore so that students could buy a book to read during vacation. As I collected permission forms the day before, Eddie instigated a whole-class conversation about reading. During the discussion I took notes, and as soon as the class left, I transcribed the conversation (above). This incident merits close reflection, as it illustrates many of the complex issues involved in Eddie’s attitude toward reading. This discussion was also an inquiry strategy I intentionally used to engage students with me in the puzzle of how to change attitudes about reading. Finally, it was on this day that I first divulged my research project to my students. This critical incident allows me to examine an issue central to Eddie’s educational life: the tension inherent in his need for both peer and adult support, and the ways that the two kinds of support motivate him.

The very setting that Eddie chose for this conversation illustrates this internal conflict. On the one hand, he thrives with an audience, particularly an audience of his peers. He clearly wanted to challenge me in front of his classmates, for their entertainment. On the other hand, I believe that Eddie was also testing my affection for him, something he would feel awkward doing in private. Like my entire class, he is well aware of how important it is to me that my students love reading. Julia, the first student to respond to my request for help illustrates this awareness in her response:

I'd feel really disrespected because we all know that you love to read and that you want us to love to read so I'd feel like he was being disrespectful to me by saying that. We know that you buy a lot of books and you're always telling us about how much you like to read.

Knowing this, I believe the essence of Eddie’s question was really, “Will you still love me if I don’t like to read?”

Ample research confirms the connection between students’ academic success and their need to know that their teacher cares about them. One of my challenges as a teacher is to discover how and when each student wants this affection demonstrated. From the first day I met Eddie, his need for affirmation was glaring, his lack of confidence reflected in his hunched shoulders. However, because of his obvious desire for peer approval, I felt that he would resist my attention in front of his classmates. This turned out to be true. So, while there were many occasions on which I could have publicly recognized his accomplishments, I often refrained or moderated my response. Eddie said repeatedly that he did not want to be seen as a “nerd” or a “teacher’s pet,” yet he was conflicted. Sometimes he relished it when I praised him in front of the class, basking in my attention. Other times when I recognized him publicly, he became embarrassed and annoyed. The only occasions when Eddie never rebuked my attention were parent conferences with his mother. These were often tense meetings, as I was usu-
ally delivering bad news about Eddie's study habits. However, from my first conversation with his mother, I always also spoke at length of his exceptional abilities, specifically his analytical and verbal skills. I spoke of my confidence in Eddie and of my belief that he could succeed in school. In parent conferences, Eddie wrung his hands anxiously, looked at his shoes, and glanced at his mother, measuring her response to my praise. He clearly wanted and needed that praise in front of the person whose opinion he most values.

From the beginning of his sixth grade year, I sensed Eddie needed to hear me recognize his academic accomplishments and skills, and that he would need to hear affirmations for years. Outside of class, I spent many hours with him and Tomas, his best friend (another of my case-study students) in museums, performances, and restaurants. On many occasions he sought me out to talk, or for comforting. Although I was sure that he knew that I cared about him, I also made it a point to tell him so directly.

However, much to my dismay, my attention and affection were not enough to motivate Eddie to do all his homework. At times I practically begged him to do his work, and offered great rewards if he would accept extra tutoring. I promised food, outings, even a trip to the pyramids in Mexico, but Eddie did not do his homework or come to school early for the tutoring I offered. My desperation made me uncomfortable (and still does), and I questioned my strategies and teaching practices. The support I offered Eddie was not appropriate because I could not extend it to all students, and it made him inordinately important to me as a student. I wondered how much my affection for him and the increased attention he received simply by being a focus in my research awarded him privileges that other students did not receive. My awareness of this inequity raised critical issues for me as a teacher and researcher, and continues to provide important challenges for me to reflect on.

By spring break in seventh grade, I was very frustrated with Eddie. I couldn’t figure out how to motivate him. I believe he sensed my frustration, leading him to challenge me in front of his classmates. One discussion he prompted evolved into a debate about the difference between boys and girls in their attitudes toward school; of whether it is necessary for one to like reading or just be good at it; and the significance of elementary school reading experiences. (It was during this discussion that I told my students about my research, describing it as a way to improve my teaching methods.) At times the discussion revolved around Eddie; my students participated by analyzing him. Although I was apprehensive about this, observing him closely to gauge his reactions, I felt the discussion might be useful because of his need for his peers’ approval and support. Later that day, I checked in with Eddie about how he had felt about being put on the spot. He admitted to feeling uncomfortable, and again I was not sure that I had done the right thing. I reiterated how much I cared for him and how I just wanted to learn how to teach him better. Although I was left with many uncertainties about that discussion, one thing is sure: the whole class discussed issues that are central to learning, and student participation was at its highest.

Shortly after this discussion, the seventh grade math/science teacher and I discovered something interesting. Even though Eddie enjoys math a great deal more than reading and writing, and even though his skills are much higher in math, he often missed weeks and weeks of homework assignments. Then all of a sudden, in the spring of seventh grade, he started...
turning in his math homework—every single assignment. One day his math teacher noticed some negotiations going on between Ernesto, a highly motivated student, and Eddie. She discovered that Ernesto was paying Eddie $1 for each day that he turned in homework. When we probed about what was happening, the boys brushed off our questions and didn’t offer details or explanations. We didn’t push it, and the homework continued to be turned in on time every day.

I believe that Eddie needs peer approval and encouragement, as long as it permits him to be cool. It was easy for him to say that he was doing homework only because Ernesto was paying him, but several times he boasted that he was the only one in his group to have all his homework turned in. ASCEND immerses students in a culture that praises them for being academic, yet many students struggle to take on an academic identity. Eddie would never have done his homework if I’d paid him; his deal with Ernesto let him fit into his own social world (“I’m only doing it for the money”), but also receive the recognition and approval from teachers and parents that he longs for.

Learning: A Recursive, Nonlinear Growth

One of the most interesting and challenging findings from my inquiry is the recursive nonlinearity of learning. Eddie, alternately exhilarating and frustrating, is a prime example. He has gone through periods when he declares he “loves reading!” Then, in his seventh grade end-of-year survey, he rated his enjoyment of reading at a 2 (on a scale of 1–5). This was an all-time low for him, but it made sense, as he had just read a challenging book that he couldn’t get into. His enjoyment of reading is still very fragile, and he is easily discouraged by negative experiences.

In the classroom I often assume that change will be steady and straight; drops in attitude and performance cause me great distress. But I have to remind myself that attitudes don’t change in one year; they fluctuate depending on many factors. Spending three years as Eddie’s teacher has given me a tremendous advantage: I have seen clearly that as Eddie’s skills have improved and his confidence has risen, his attitude has changed. And I have also been constantly reminded of the recursive, nonlinear way that most students learn.

An Assessment at the End of Eighth Grade

Eddie was one of ten students caught drinking on campus. When I asked him why he did this, he shrugged and said, “I don’t know.” He is failing all his classes, never turns in any homework, and seems less and less engaged with school all the time. He vacillates between wanting my attention and resenting it. I keep telling him that I won’t give up on him . . . I think he still needs to hear this even though he pretends otherwise. But I am so worried about him. He seems more “at risk” every day. I worry that there won’t be a happy end to my inquiry.

—Journal, 3/17/04
As I assess Eddie at the end of eighth grade, I focus first on the glaring negatives. My attention is consumed by the Fs on his report cards and the months of missing homework. More often than not, he seems disengaged with school. In reflections, he writes that he has “stopped caring” and feels he can’t change his study habits. When discussing the drinking incident, he implied that this was a common activity for him outside of school. This year I have had bouts of hopelessness when I think about Eddie. I have felt discouraged and wondered if I have to accept that the academic and personal challenges that Eddie faces will defeat our attempts to help him succeed in school.

And yet the data I have collected have shown substantial gains, even when Eddie does no homework and seems disengaged. To begin with, Eddie’s attendance record is remarkable: he has missed only two days of school this year. On standardized tests, Eddie has made significant improvement every year; by eighth grade his score on the CST was up to “Basic” (he had scored “Far Below Basic” in fifth grade). In my own assessments of reading, writing, and history, he has also made tremendous progress. In literature circles, Eddie continues to take a leadership role and regularly demonstrates his ability to analyze literature, use literary vocabulary, and instigate thoughtful conversations. His low grades are more a result of his inability to turn in homework and projects than of his skill level.

Furthermore, when I evaluate my inquiry, I must remind myself that my research is about changing attitudes. While I believe that attitude and skill are inextricably linked, I have chosen to approach the development of skills by looking first at improvements in attitude. And Eddie’s feelings about reading have changed profoundly, documented not only in his own reflections but also in other data. In the middle of eighth grade, while I was on maternity leave for three months, Eddie did not do any homework. However, my substitute’s notes on students’ literature-circle projects reported, “Eddie clearly read the book and is excited by it. He dominated the presentation to the class and went on and on about the book.” This critical piece of evidence demonstrated Eddie’s enthusiasm for reading, even in my absence.

In addition to his feelings about reading, Eddie’s attitude has changed in other areas. His academic confidence with his peers is notably higher than when he came to ASCEND. He has become a leader in literature circles, drama, and classroom discussions. On a survey at the end of eighth grade, when asked about the change in his confidence during his three years at ASCEND, Eddie responded that his confidence has “gone way up.” He has publicly declared that he aspires “to be like Tomas,” his best friend who would rather stay in at lunch and read than hang out with friends. This is something he would never have done in sixth grade, when he was so concerned with appearing cool.

Again and again, I have to remind myself that change is slow and inconsistent. At times its subtleties are obscured or barely recognizable. I remind myself to focus on small, positive things more often: the hour and a half Eddie spent after school cleaning and organizing his messy backpack; his choice to make a scrapbook of his three years at ASCEND, rather than write a play, because as he explained, “I’ve never done that before.” And when students were assigned to do a skit about their literature-circle books, he participated in his own

Key factors in Eddie’s change of attitude:
- Increased confidence
- Opportunities to do what he is good at
- Positive experiences in literature circles
- Improvement in his reading skills
- Support from peers and adults
- A “touchstone” book
group’s skit and then volunteered to be an extra in two other groups’ skits. I frequently see Eddie taking such risks in school now.

At the end of eighth grade, students who were failing were faced with an ultimatum: Turn in all homework for the rest of the year or repeat the eighth grade. Eddie finally began to do all his homework. For the rest of the year, he proudly paraded around, loudly announcing that he had done his homework and berating his friends who did not do theirs. Now at the end of eighth grade, my students are working on a lengthy reflection of their years at ASCEND. In one part, I asked them to reflect on what they had learned in or about language arts. I intentionally left the assignment vague and open. To my delight, a resounding 90 percent of my students are writing about the change in their feelings toward reading. Eddie wrote about “how I learned to love books.”

When I reflect on why Eddie’s attitude changed, I see a number of key factors: his increased confidence, opportunities to do what he is good at, positive experiences in literature circles, the improvement in his reading skills, the support from peers and adults, and a touchstone book that taught him that reading can be wonderful.

Teacher Inquiry for Equity: Empathy and Hope

To a great extent, I attribute Eddie’s change in attitude to my inquiry process. Inquiry was the lens that pushed me to ask questions, and to collect data that informed and shaped my practice. It pushed me to analyze my data, reflect on them, and write about my findings, thus pushing my understanding of Eddie to a deeper level. Inquiry made me feel empowered in the classroom: I was never “at the end of my rope” (a familiar place for many teachers), for there were always more questions to ask. This was critical when dealing with an often-frustrating student like Eddie. Inquiry gave me hope and helped me see the daily successes. Perhaps more than anything, it allowed me to love Eddie, and all of my students, even more, as it exposed the impact on them of our educational, social, economic, and political system. It removed the blame from individuals, and granted those same individuals the power to effect change. Eddie is not lazy or unmotivated or to blame for his failure in school; likewise, it is not my fault that I couldn’t turn him into an A student. And thus, for me, inquiry became a process of empathy and hope.

What I recognize now, which I can only touch upon here, is how my inquiry about one student caused deep repercussions in the learning of all my students. In many ways, Eddie’s struggles reflect those of many of my students. The measures I took to address his lack of confidence positively impacted Catalina and Billy and Sara and all my students whose confidence was low. Many in my classroom shared Eddie’s positive experience in literature circles. The majority of my students attribute the improvement in their reading skills to the development of metacognitive reading strategies. Many of my reluctant readers can trace their change in attitude to their experience with one touchstone book. Although I instituted many changes in my classroom as a result of data I gathered about the whole class, the changes that responded to Eddie’s needs in particular also affected the whole class positively.
Next year Eddie will attend a new small high school in Oakland. I have many hopes for him: I hope he will be able to direct his own learning as a result of having learned about his interests and skills as a student. I hope he can reference his years at ASCEND as a touchstone experience in his education—an experience that was positive and supportive. I hope he knows that he can succeed in academic endeavors. I hope he knows how much I care about him and will always care about him. And I hope he continues to read for pleasure and have his mind opened up by literature. On several occasions I have told Eddie that I will “haunt him for years,” as I will be keeping track of him in high school and continuing my research on him. Although I feel I have had a happy end to my inquiry, I hope that in four years I will be cheering at Eddie’s high school graduation and watching him go to college.

Reading and Equity

In the beginning of sixth grade when I asked students if they thought they were good readers, Eddie said “no” and wrote, “I read too slow.” At the end of seventh grade when I asked the same question, Eddie responded, “I think maybe because I read slow but I understand everything I read and I know how to go back and understand things I didn’t get.”

—Journal, 2/4/04

The more I reflect on why I am obsessed with my students’ attitudes toward reading, the more I realize that this is fundamentally an issue of equity. If students do not enjoy reading or engaging in academics, I doubt that they will be successful as students. If they do not see the purpose of reading, I doubt they will choose to read. The purpose of reading has to become personal and must extend beyond reading to get good grades or reading to pass an exam. Reading can also alleviate pain, loneliness, and suffering—in inevitable emotions that might otherwise be remedied with a wide array of unhealthy substances and activities.

Finally, and simply, if students enjoy reading, they will read; as they read, their skills will improve. The longer my students stay below grade level, the more at risk they are of dropping out. In order to improve their skills, I am convinced that they must enjoy reading, as it is hard to get middle school students to do anything that they don’t really want to. To middle school students, parents are no longer a threat or a reward, peer pressure is overwhelming, and there is plenty to do that is a lot more fun than studying. Although many middle- or upper-class students who read at grade level may not enjoy reading, for them this attitude is not potentially life-determining. Most likely, with academic and financial support from their parents and schools, they will complete high school and perhaps discover in college, or even after that, that they enjoy reading. My students, in contrast, must learn to love reading, and learn to love learning, now.
References


Elena Aguilar is a middle school humanities teacher at ASCEND, a new and autonomous school that is part of the Oakland Public Schools in Oakland, California. Part of ASCEND’s mission is to develop an effective and engaging instructional program guided by teacher inquiry and research. Of the 268 students, over 80 percent qualify for free or reduced-price lunch, and 59 percent are English language learners. Aguilar has been a teacher for ten years and has been involved with teacher research for the past three. Her research questions have focused on issues of reading. Aguilar is now engaged in a research project on what happens to her forty-five middle school students when they are in high school. This will be a four-year study with the goal of improving ASCEND’s middle school program to better prepare students for high school. Aguilar is half Jewish, half Costa Rican, and was born in London, England.
Appendix: Student Surveys About Reading and Literature Circles

Beginning-of-the-Year Reading Survey

1. On a scale of 1–5, how much do you like reading? (1: not at all, 2: sort of/sometimes, 3: most of the time, 4: I like reading, 5: I LOVE reading.)

1 2 3 4 5

Explain.

2. Do you think you’re a good reader? Explain.

3. What do you think makes a good reader?

4. What did you read in elementary school?

5. Check all the boxes of the kinds of reading you did in elementary school.
   - Fiction/novels (“chapter books”)
   - Nonfiction
   - Textbooks
   - Memoir/biography
   - Poetry
   - Newspapers
   - Magazine articles
   - Historical fiction
   - Math
   - Science
   - History
   - Other: 

6. What kinds of reading homework did you have in elementary school?

7. Name three books that you have read that you liked. Explain why you liked them.

8. Name a book that you have read or heard that you didn’t like. Explain why you didn’t like it.

9. Who do you know who likes to read?

10. What do you do when you read a book that you really like?

11. What do you do when you don’t understand something you read?
History as a Reader

Your assignment is to write your history as a reader. I want you to tell me everything you can about your life as a reader.

In this essay, include the following stories of your life as a reader:

- How you learned to read and your memories of this experience (At home? In school? Was it easy? Hard? What was easy/hard?)
- How you felt about learning to read
- What language you learned to read in
- Your parents’ involvement in your learning to read (Did they help you? Did they read with you? Did they read to you?)
- Who you have known who has been a reader (Do your parents like to read? What do they read? Do you have older siblings/friends/cousins who like to read?)
- Any other memories of learning to read
- The first books you remember reading
- Your favorite books from early childhood
- Your feelings about reading in school (Did you like it? Was it hard? Was it fun? Did you like the books you read?)
- Reading aloud (Did your teachers read aloud to you? What books did they read? Did you like it?)
- Genres (What genres have you read? Which ones do you like? Which do you love?)
- Patterns (When you look at your life as a reader, do you see any patterns?)
- Habit changes (Do you see any changes in your reading habits?)
- Feeling changes (Do you see any changes in the way you feel about reading?)
- Favorite books (What are some of your favorite books now?)
- Circumstances (When and where do you read now?)
- Motivation (Why do you read now?)

Use details, examples, and dialogue if necessary. Be creative. Be thorough. Tell me everything. Reveal your deepest, darkest secrets about reading....
End-of-Year Reading Reflection

On a scale of 1–5, how much do you like reading? (1: not at all, 2: sort of/sometimes, 3: most of the time, 4: I like reading, 5: I LOVE reading.)

1 2 3 4 5

Explain (Write on the back if necessary).

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Since school started this year, have you become more interested in reading?

Yes    Maybe    No

Please explain:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Do you think Literature Circles made you more interested in reading?

Yes    Maybe    No

Why or why not?

________________________________________________________________________
________________________________________________________________________
Do you think you’re a good reader?

What do you think makes a good reader?

Why do you read?

Do you think it’s important to LIKE to read, or is it just important to know how to read well? EXPLAIN.

What did you learn about yourself as a reader this year?
Literature Circle Reflection

Book you read: __________________________

Members of your group: __________________________

1. On a scale of 1–5, how would you rate this LC? 
[1=horrible; 2=not very good at all; 3=it was ok; 4=it was great; 5=it was amazing!]

1 2 3 4 5

Please explain your rating: __________________________

________________________

________________________

________________________

________________________

________________________

2. On a scale of 1–5, how would you rate the book you read? 
[1=horrible; 2=not very good at all; 3=it was ok; 4=it was great; 5=it was amazing!]

1 2 3 4 5

________________________

________________________

________________________

________________________

________________________

________________________
NAME: __________________________

WHAT MADE LITERATURE CIRCLES EFFECTIVE?
(At the end of the first year of Literature Circles)

Number these in order of importance:
(1=most important to you, and so on…)

☐ We got to do projects about the books
☐ We got to choose the book to read
☐ We got to be in a group with our friends
☐ They helped me to understand the book better
☐ The books were really interesting
☐ We got to talk about the books
☐ They were fun
☐ We got to tell other people about the books we’d read
Name: ____________________

What has helped you improve in reading?

Please put these in order of importance to you:

☐ Silent reading

☐ Reading homework

☐ Being read to (Elena reading to you)

☐ Tutoring younger students

☐ Literature circles

☐ Learning how to think about reading / strategies for reading

☐ Choosing your own books to read

☐ Buying your own books

☐ Having books in the classroom to check out

☐ Going to the library to get books

☐ Getting individual help from someone

Anything else:
________________________________________________________________________
________________________________________________________________________

Please explain your answers:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Taking Tests

Robert Roth believes that classroom tests should be opportunities for students to “unleash their own intellectual power, to find their own intellectual centers”—rather than merely replicating the structure of standardized tests. Here he takes a close look at how his high school history students in San Francisco, California, experience test taking in his classroom. Through informal but detailed classroom observations, Roth uncovers the complicated nature of students’ struggles to demonstrate what they have learned and what they understand as they write about significant events in American history. In the process of carefully examining a narrow slice of his classroom practice, Roth questions how he designs and administers tests, what purposes they serve, and how his students experience them. His essay illustrates how collecting data informally from students can support more equitable classroom practice.

By Robert Roth

Erica1 is hard at work on the test. For the last fifteen minutes, she hasn’t even looked up from her paper. When I stop by her desk, I notice that she has written a three-page response to a short-answer question about Chinese immigration. I urge her to move on. “Erica, that’s great. But how are you going to finish? You need to manage your time better.” She finally looks up and says, “How can I stop? There’s no end to this story.” Reggie hasn’t written a word. When I come over, he asks me, “What’s the name of that guy who was racist to the Chinese?” I answer, “Do you mean Denis Kearny?” He nods and proceeds to write three paragraphs about nativist organizations in the late 1800s.

As a social studies teacher, I have struggled for many years over the issue of giving tests. Obviously, there are plenty of terrible tests, foremost among them the standardized tests our students are too often judged by. These tests pick away at students with the apparent goal of uncovering gaps in students’ knowledge. They aim to reveal what students don’t know, rather than what they have learned or understood. Administered in an atmosphere of repressive rigidity, where students’ questions are not answered and help is not offered, these exams render many students powerless and vulnerable.

Searching for authentic ways to evaluate students’ work, I have used a variety of assessment methods including projects, journals, essays, artwork, and poetry. While tests have never been my sole or even main assessment instrument, I have given my share of them. Not

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1 Students are referred to by pseudonym.
multiple-choice or fill-in-the-blank, however. I’m talking about tests that call for extensive written response, give students choice in what they can answer, and allow them to demonstrate that they understand the heart of what they have studied. After sixteen years of working in urban schools—where so many students have learned to question their ability and where so many enter my classroom having experienced years of failure—I have found that a good test, bolstered by careful preparation and a supportive testing environment, can actually motivate and push students, including those who are accustomed to struggling. Students can demonstrate what they know about a subject, what they understand about why a historical event took place, and how the past is connected to their own lives. They have an opportunity to shine. A thoughtful test—like a carefully crafted project or essay—can be authentic assessment: a chance for students to develop a sense of their own intellectual capacity, to more rigorously approach the subject, and to refine their knowledge.

Too often, students experience a disconnect between what they learn and what they are tested on. A student once told me he never studied for a chemistry test because “the teacher makes up questions on little things we don’t really study.” The test was a mystery to this student, an insoluble puzzle not worth figuring out. On the other hand, when students see the connection between the intellectual work they’ve done in class and an assessment—whether a test or an essay or a project—their confidence and commitment build. I try to create tests based on what students have actually discussed, reflected upon, and learned in class. For example, by the end of our unit on Chinese immigration, students have uncovered the many ways in which Chinese immigrants experienced discrimination and racism, as well as how they resisted. They know the specifics, not just formulaic statements like “The Chinese were treated badly.” They know about the laundry tax, the antimiscegenation laws, and the attempts to drive Chinese workers from the California mines. They also have brainstormed and discussed the topic of their test essay question, making connections between the experience of the Chinese in the mid-to-late 1800s and the situation facing immigrants today. And they have opinions and feelings about what they have learned.

If students are engaged and prepared, they can rise to the challenge of a demanding test. Momentum builds when students believe they will do well, and as a result they take real pride in the process of studying and mastering the material. They study with each other at lunch, come to my room with questions, and show up ready to try their best on the day of the test. I can’t count the times students have told me, “I studied so hard for this test. I was up all night.” Whether or not it’s true, the point is that they have pride in the work they’ve done.

So much is involved in the testing process: developing test questions that encourage students to apply and share their knowledge, giving students choice without sacrificing expectations, creating essay questions that encourage critical thought, structuring in-class review time, holding after-school sessions, helping students internalize a deeper sense of their own capacity. And then, of course, there is the day of the test.
Many times, looking out over a room of thirty students taking a test, I have been over-whelmed by how hard they were working. Not a sound in the room, except for pencils meeting paper. I go over the test with them, reminding them to read the directions carefully and once more going over the rules: “No talking of any kind. Any question, raise your hand and I’ll come over and help. If you have questions, feel free to ask them.” Often, there are no questions at the beginning. Students settle in to the test and begin to write. But as I walk the room, the dialogue begins: “What does this word mean?” “Did we study this in class?” For some students, there is frustration. The pencil drops, the head follows, the hand is raised. “I can’t do this,” followed by a minute of intense back-and-forth. I always have stories in my head after a day of tests: what Diego asked about World War I, what Reggie said after he finished his paper, what Samantha wanted explained about the question on the Harlem Renaissance.

What always strikes me is the intensity of the test-taking experience, both for the students and for myself. By the time students take the test, there have been hours of preparation. Most are ready to give their best and demonstrate what they have learned. They are counting on a test that is fair and genuinely reflects what we have studied. But they are also fighting their own demons, built up over many difficult years of school.

You can almost feel all of this as students enter the room. When she walks into class, Erica tells me to hand out the papers right away before she forgets everything. Derrell races in and announces that he’s studied for ten hours and got only two hours of sleep. Joanna tells me she’ll need more time because she knows so much. Andrew wants to know how many questions there are on the test. Manuel asks me to do another review—at least for fifteen minutes. I say no; we’ve done enough review.

I’ll spend most of the period walking the room, encouraging questions, checking student work, looking for my own mistakes as well as for theirs. Perhaps a question is unclear. Perhaps a student needs a word or two to move forward. Perhaps I haven’t taught a particular concept well. So much is at play here: confidence, trust/distrust of the teacher, the relative openness or rigidity of the testing process, students’ willingness to ask their questions and my willingness to hear the questions, the pressure of time . . . and more.

This year I decided to observe test taking in my class. I wanted to learn more about how to make the test-taking experience more positive, more secure, and less threatening. I also hoped that a close look would help me understand the strengths and weaknesses of my own approach to testing.

What follows are some initial observations made in one class at Thurgood Marshall Academic High School. During two U.S. history tests, I jotted down brief notes about each interaction with a student. What did the student ask? How did I respond? I also noted the “feel” of what had happened: was the student frustrated, confident, annoyed? These notes were, of necessity, brief, since many hands were up and I had to keep moving around the class. No time to analyze or evaluate. Right after class, during my prep period, I looked at the notes and rewrote them as coherent sentences, so that I would be able to understand them later on; these notes became the following narratives.
Second Period: U.S. History
February 2003 Test: Turn of the Century

The class consists of twenty-five students—a mix of African American, Latino, Filipino, Samoan, Chinese, and Vietnamese eleventh- and twelfth-graders. It’s a class I love to teach; the students burst with energy, they actually seem to care about history, and they love to argue and debate. Here is what I observe as I walk around the room:

Steven has one passion in life: break dancing. School is way down on the list. He started off the year truant, and only began coming to class when I told him I was about to call home. He told me, “Forget it, Mr. Roth. They only speak Cantonese. They won’t understand a word you say.” When I pointed out that we had a Cantonese interpreter who could make the call, he switched gears and promised to improve his attendance. At first he did little or no class work. But that has begun to change. Today his hand is raised continually for the first half hour. He requires assistance on each question, starting off each round with, “I don’t get this.” Each time I ask him to tell me what he thinks the question means, he explains it accurately. The one question he does not “get” is the one on imperialism. He simply does not understand the concept and cannot give any examples from what we have covered in class. I tell him to skip the question and focus on what he does understand. I promise to be back in about ten minutes and tell him that I expect to see lots of writing on the paper. Fifteen minutes later, when I forget to go back, he calls me over to show me how much work he has done. I look it over and, imperialism notwithstanding, I realize that he will pass the test.

Jamal—inquisitive, highly articulate—is one of the intellectual leaders in the class. Not the most disciplined student, he gets B’s instead of the A’s he could earn, but is at the center of every class discussion and prides himself on his knowledge of history. He turns in his paper early for me to look at. I’ve warned him about his tendency to rush and cut too many corners, so he tells me, “Don’t worry, I’m not done. I just want to know if I’m doing it right.” I notice that he has misread a question about “urban inhabitants” and has instead answered with a page about European immigrants. Upon checking other students’ papers, I see that at least five other students have made the same mistake. The problem? I’ve never used the word inhabitant either as a vocabulary word or in my own descriptions of urban life. And five students are seeing the word immigrant instead. I stop the class briefly and point this out. There are a few groans—but everyone keeps working.

Deandra has recently been diagnosed with a learning disability. She works hard, turns in homework, and has good attendance, but her comprehension shows big gaps, despite one-on-one conferencing and in-class help. We go back a ways, since I was her teacher in middle school. Nearly every week, she stays after class to remind me of something that happened “back in the day.” As I walk by her desk, I see that she has answered a question about the Spanish-American War with two paragraphs about European immigrants. Upon checking other students’ papers, I see that at least five other students have made the same mistake. The problem? I’ve never used the word inhabitant either as a vocabulary word or in my own descriptions of urban life. And five students are seeing the word immigrant instead. I stop the class briefly and point this out. There are a few groans—but everyone keeps working.

Working Toward Equity
Shakira—free-spirited, engaged, and self-aware—has defined a unique space for herself within the class. She has made it clear that she believes in gay rights and women’s rights and that she has absolutely no problem defending those stands in the heat of classroom debate. She has started off by writing one page (both sides) on the slogan, “Remember the Maine.” When I go by her desk, I point out that this is only an identification question, not worth many points on the test. “I know,” she responds, “but I have a lot to say. I really found that story interesting. Don’t stress, Mr. Roth, I’ll get it done.”

Marcus prides himself on his knowledge of black history. Thoughtful and deliberate, he takes a long time to complete any piece of work. He has not written a word about the Triangle Shirtwaist Factory fire. This is odd, because we’d had a long discussion in class, worked on an information sheet, read a poem, done some real work. And, as usual, Marcus was a chief participant, opinionated, his hand raised, making the connection to sweatshops today. I ask him why he’s left the question blank. He says, “Don’t you remember? I got that one wrong.” I remembered. He’d said in class that the exit doors were locked to prevent journalists from getting in. Actually, they were locked to prevent union organizers from meeting with the young women workers. A relatively minor point, but it had stuck with him. I remind him how much he did understand. He reluctantly begins writing, and ends up with a single paragraph about the fire.

Peter has struggled throughout his high school career. He once told me that he had “always sucked” in school. As usual, he has finished first. Not a good sign. Questions are half-answered, and his one-page essay is only one paragraph. I ask him if he knows anything else about the essay topic, the experience of Chinese immigrants in California. He says he does, but he’s too tired to write. I insist that he write what he knows. He works on it carefully for the next ten minutes, but he’s still the first one finished.

Joanna is retaking this eleventh grade class after failing it last year. She asks me if I can check her essay on Manifest Destiny. The essay question: In what ways was turn-of-the-century (1900) imperialism consistent with or different from the earlier idea of Manifest Destiny? Her essay describes U.S. actions in Cuba, Puerto Rico, and the Philippines, but there’s no mention anywhere of Manifest Destiny. I tell her that the essay shows real knowledge but doesn’t address the central question. She says, “I left out the part about Manifest Destiny because I wasn’t here when we covered that. I don’t remember anything at all about it.” I ask her if there are any other essay choices that she does understand, and she agrees to work on another question. I wish I had noticed this much earlier.

Ryan is an outstanding, engaged student with a learning disability that impacts his reading and writing. He always asks critical questions, takes the discussion deeper, and wants to know more. I watch him write carefully for one hour and, finally, put down his pencil. I know him well; he’s given his maximum effort. As he turns in his paper, he whispers, “I knew everything. I never wrote so much in my life. If I don’t get an A on this test, it is impossible for me to ever get one.” He has definitely transferred the pressure back to me. When I look at his paper, his answers look fine, but he’s left out two major short-answer questions.
Rafael asks “Can I do this test on another day?” I say no. Then he asks if he can use his notes. I say no. Then he asks if he can go to the bathroom. I sit down next to him and ask him what’s up. He says he’s going to fail the test because his attendance has been bad, and he’s been shuffling between one house in the Mission District [of San Francisco] and one in Oakland, and he didn’t study because he lost all his notes. I tell him we’ll sit down after class and sort all this out. Then he asks if I can help him with some of the questions. We pick out a few questions that he can answer, and he begins.

April 2003 Test: The Great Depression

Not as many questions this time. The students appear more relaxed, more self-reliant, ready. Again, I walk around the room taking quick notes on what I observe.

Ryan asks if the Dust Bowl included the Great Plains. I ask him what area was affected by the dust storms. He says, “From Texas to North Dakota.” I ask, “Does that include the Great Plains?” He says, “Yes.”

Mario always tries to convince me that, despite evidence to the contrary, he is really a terrible student. “If you could only see me in other classes, you’d know what I mean.” He asks me if this test will affect his grade. I tell him, “Yes,” and he responds, “I’m doomed.” I laugh. I ask him if he needs any help. He responds, “Never,” and I laugh again. “I’m cool with this stuff, except I don’t know nothing about farmers.” Ten minutes later he asks me over to have me read aloud the question about farmers during the Great Depression. I ask him to read it aloud to me, and he does. Later, he asks me to read his answer. He actually knows a great deal about farmers.

Test Taking and Learning

Although these are merely anecdotes, as observations deriving from my inquiry into testing they nevertheless raise some important concerns. Teaching involves so much communication between students and teachers—a process often truncated by a test. Yet why should the dialogue stop when the testing begins? My inquiry has strengthened my conviction that authentic testing—testing that encourages this dialogue to continue—can deepen the learning for both the students and the teacher.

In every school where I’ve taught, students feel vulnerable and defensive about tests. I have found, in the course of many years teaching in urban schools, that bright and creative students are often convinced that their ideas do not “fit” with school. They become less sure of themselves over time, rather than more confident. When Erica spends “too much time” on the question about Chinese immigration, she is, perhaps, not using the best test-taking strategy. But she is also discovering and reveling in her intellectual capacity. She knows important information, can spin a story around that information, and understands its historical significance. For her—and for me—that is valuable.

What I found most interesting were the ways in which some of the most engaged students subverted the carefully prepared test I presented to them. Shakira wrote at length about...
“Remember the Maine” because the story captured her interest. When we studied the Spanish-American War, she was upset that the Maine explosion was used as a pretext to go to war. She believed that similar pretexts were taking us into war against Iraq. “Remember the Maine” was important to her, and she was determined to explain it—even if it didn’t get her that much credit. Similarly, Erica had internalized the story of Chinese immigrants and connected it with her own experience as a child of Central American immigrants. She did have “a lot to say,” much more than I had asked. Both students determined their own focus and refused to tailor it to the constraints of the test. This presents a challenge: how to fully acknowledge what students have learned, and not simply dismiss their efforts as “poor time management” or “lack of test-taking skills.”

Some might argue that these students are not being prepared for the rigors of more traditional testing, that they will fare poorly in classes where teachers expect them to answer test questions without any test-prep sessions or any support during the test itself. But I think students have had plenty of experience not getting help; they don’t need more of that from my class. Too often, they have had their confidence undermined, not enhanced, and their academic strengths invalidated. I would rather not replicate the alienation and disconnectedness of the standardized testing process.

Unfortunately, this is exactly what social studies teachers in urban schools are being urged to replicate. Our administrators are far more focused on “measurable” assessments than on something more intangible such as student engagement or intellectual excitement. Our blackboards are supposed to be uniformly configured to show the standard taught each day, along with a measurable aim. Our curriculum has to cover all the standards assessed on the latest STAR test. With newly developed computer programs, it is now possible to print out multiple-choice tests one after another, all standards-based, and then feed the results into a scanner that can track and disaggregate student data. Since the standards-based tests are multiple choice, this often becomes the preferred teaching format, and is otherwise known as “teaching to the test.”

In the face of these pressures, many teachers are struggling to develop and maintain a different model, one that connects assessment with intellectual discovery and achievement. I want tests to be an extension of my classroom, part of a dialogue that takes place the whole year, part of a process in which students can show academic knowledge, experience their own intellect, and develop confidence. In the end, I am convinced this will engender self-reliance in other test-taking situations. Will it also translate into higher scores on standardized tests? Given the barren quality of those exams, who knows? But I do know that students who begin to take pride in their own intellectual capacity will be far more able to negotiate the difficult twists and turns of college academic life.

Since beginning to write this essay, I have, of course, given more tests—and continued to observe. My notes from the last exam included the following reminders to myself: teach what the words support and oppose mean, clarify again the difference between analyze and describe, explain again the concept of chronology and why certain dates are historical markers. After the next test, there will be new questions, new challenges, new adjustments to make.

“What is clear is the need to learn from our students and to pay close attention as they respond to our assessments.”
When the test is done, of course, you have to grade it. How do I respond to Shakira, who wrote two pages on one question and left out others? Should Deandra or Rafael be able to take a make-up test? How will Ryan react to his grade of B? In fact, should he get a B? How do these tests fit within an overall assessment plan? Such questions present themselves over and over again throughout the course of the year, with few ready-made answers. What stands out, however, is the importance of fostering a supportive, encouraging environment in which students feel connected to their teacher and able to access what they really have learned. What is clear is the need to learn from our students, and to pay close attention as they respond to our assessments. How much are we missing when we don’t listen to and watch our students during the test-taking process? And equally importantly: How much do we learn when we do listen?

Robert Roth teaches social studies at Thurgood Marshall Academic High School, a predominantly Asian American and African American school in the Bayview-Hunters Point neighborhood of San Francisco, California. Roth has been a teacher for the past seventeen years, and has been involved with teacher inquiry for the past eight years. His experience as a teacher-researcher has centered within the Bay Area Writing Project (BAWP), a site of the National Writing Project. He has been a facilitator in the development of BAWP’s teacher research program, participating in several of its projects and serving as a mentor in its urban program. As a longtime community activist, Roth has always seen his teaching within the framework of the fight for social justice and equity. His research has included an examination of his own work in teaching a research paper at the middle school level, and interviews with his students about their own views of “good” and “bad” teaching.
Learning to Listen: Supporting Classroom Teachers Through Collaborative Inquiry

In order to effectively promote change, Oreather Bostick-Morgan had to learn how to “do research with teachers, not on teachers.” Here Bostick-Morgan, a speech language pathologist in an elementary school in a large southern metropolitan city, first discusses the reading needs of hearing-impaired students in mainstream classes. Next, she relates how she learned to coach two teachers, one new and one veteran, who had hearing-impaired students mainstreamed into their classes, giving detailed attention to collaborative projects she engaged in with these teachers. She explains how the inquiry process helped the teachers address the needs of students who were not learning to read through a phonics-based approach.

By Oreather J. Bostick-Morgan

We don’t all wear a size nine shoe—and there is no only answer.

—Author version of traditional saying

As a speech language pathologist who works with hearing-impaired students, I am concerned about the inequity of systemic reform initiatives that mandate teaching all students in the same way. I worry when schools select one specific reading program, one specific math program, or one scripted teaching method for all students without regard for their individual needs. While these decisions can negatively affect many students, they pose particularly significant problems for hearing-impaired students learning to read. And equity is seriously compromised when the requirements of the hearing-impaired are not met.

Teachers often document the behaviors of hearing-impaired students but miss the reasons behind the behaviors. This is especially true when collaboration is lacking between teachers and specialists such as the speech language pathologist, audiologist, or other professionals with the expertise or time to consistently observe for miscues. In order to provide equitable learning environments for students with hearing impairments and auditory processing problems, teachers must have at their disposal—and be free to employ—a variety of instructional strategies.
In this essay I share some of the lessons I have learned, as a participant in a research group, about the effectiveness of collaborating with teachers rather than coming in as an outside expert in an attempt to “correct” them. My experience illustrates the importance of building trusting relationships with teachers when using inquiry as a way of building teachers’ capacity to teach students with special needs; it also demonstrates the important role my inquiry group has played in my development as a researcher and as a leader of teacher research.

My elementary school serves the greatest number of hearing-impaired students in the district because of its central location: hearing-impaired students are bused here so that they will have peer support. Approximately twenty-three students with hearing impairments are enrolled each year, either in self-contained classes of six to eight students or through some combination of regular classes, pull-out services, and in-class assistance from a teacher of the hearing-impaired. At this school there are four teachers of the hearing-impaired, one speech language pathologist (myself), two American Sign Language (ASL) interpreters, and three paraprofessionals who support students’ educational needs.

**My Research Questions**

Those of us who have taught for many years have reaped both the benefit and the pain of periodic curricular change. These changes have often left us struggling to accommodate students who become disenfranchised despite the fact that these changes were ostensibly implemented to include them. Because whole-school reform initiatives are often implemented with little regard for individualization, some students are left floundering.

Hearing-impaired students are different from each other. They have varying degrees of hearing loss and experience various types of learning challenges in mainstream classrooms. Some use oral speech (they have some residual hearing and use speech as their primary mode of communication); some sign in ASL (the primary language of the deaf, which is not in English word order); some use SYMCOM (signing and speaking simultaneously); and some use Signing Exact English (signs in English word order).

The variations in this population’s individual needs, along with my trepidations about some of the initiatives currently being implemented in schools across the nation, led me to ask: Are packaged whole-school reforms really designed to be successful for all students, or just for some? I also asked, Why are some students failing to learn phonics? Is phonics-based instruction the only way to effectively teach reading? Shouldn’t general education also address the needs of students who cannot learn to read through a phonics-based approach? Below I describe the steps I took to address some of these concerns, first through conversations with fellow speech language pathologists and then through my involvement with a teacher research initiative. I hope that by describing my own inquiry, I can challenge other

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1 This school is located in a large southern metropolitan city with a diverse population. The demographics of the school, however, do not reflect this diversity because of the thrust over the past three years to “reinvent” the neighborhoods. Enrollment averages 325 students, 96 percent of whom are black and 4 percent of whom are Hispanic. The majority (98 percent) are eligible for free or reduced-price lunch.
educators to become researchers by looking at their own practices. I provide teachers with strategies, learned from my own experiences, to help them avoid some of the pitfalls of the process of engaging in the frightening “R” word, research. In particular, I describe how collaboration, trust-building, and participation in a research group can benefit a teacher-researcher.

My Assumptions

Because of my personal background as a child of a deaf adult and my professional expertise as a speech language pathologist (SLP), I thought that I already knew the answer to the question, Why are students failing to learn to read through phonics? I felt that one significant reason was that teachers frequently use the schwa vowel when teaching phonics. This common practice of adding the {uh} sound to voiceless consonants makes the consonant sound easier to hear but distorts the way it is produced, and thus interferes with sound blending, speech mastery, and eventually reading fluency. I assumed that if only teachers were made aware of the adverse effects of this practice, the reading achievement of hearing-impaired students would improve.

In addition to drawing on my own professional knowledge, I discussed my opinion of the schwa—as well as other phonics-related issues—with some SLP colleagues. We concluded that some hearing-impaired (and some hearing) students struggle with concepts such as the schwa that are integral to phonics-based programs. We also discussed teacher preparedness and teaching methodologies, noting some of the difficulties we observed classroom teachers encountering as they taught phonics. For instance, SLPs tend to teach phonics analytically, using verbal, tactile, and visual cues to help students learn how and where in the mouth to produce sounds. These are not approaches that most classroom teachers are familiar with.

All right, I will admit it. As I entered classrooms where hearing-impaired students were mainstreamed, I closely observed the methodology of the teacher because of my concern that these students need to receive equitable opportunities to be successful. I was observing the teacher with the intent of figuring out how to “fix” her—my approach was to blame the teacher for the students’ failure, and my solution was to be an outside expert and show her what she was doing wrong.

The “Outside Expert”

My sensitivity to the educational barriers facing hearing-impaired students led me on a campaign to provide their teachers with the information they would need. I gave teachers a handout (Anderson 1996) explaining facts that impact the lives of hearing-impaired children. One extremely significant fact is the high correlation between a student’s degree of hearing loss and his or her language delay and performance on language tests: almost half of all students with hearing loss of thirty decibels or greater in one ear are retained or referred for additional support in school (the appendix shows this correlation). These astounding data are crucial as we set expectations for this particular population to master phonemic awareness and

“I... was observing the teacher with the intent of figuring out how to ‘fix’ her.”
phonics-based programs. The data are also important in raising teachers’ awareness of the importance of identifying students who may be mildly hearing-impaired.

As a speech language pathologist, I am used to considering the needs of hearing-impaired students as I teach, and I wanted to share my expertise with other teachers. For example, even students with mild hearing losses rely heavily on quiet learning environments and visual cues for understanding oral communication. The information they get from speech-reading is often context driven, so they need to be seated close enough to the teacher to effectively use their residual hearing. They need carpeted floors to dampen the noises of feet shuffling, pencils dropping, and chairs scraping, because their hearing aids amplify all sounds. Voicing cues can help them differentiate words that sound very similar (e.g. bay, may, pay). (Many teachers haven’t been taught to automatically think about factors that may cause miscues, and don’t realize that words that are made with sounds that look alike on the face are very difficult for hearing-impaired students to understand unless they are placed in context.) Even when a teacher realizes that there are perplexed looks on students’ faces and asks, “Did you understand?” hearing-impaired students often smile and nod because they don’t know what they were supposed to understand, or they actually think they did understand.

From my observations, it was clear to me that equitable outcomes for the hearing-impaired in mainstream classrooms were currently not treated as a priority—nor even being adequately and proactively addressed. I knew that these students needed more than what was included in a scripted program, and that the teachers needed to be able to modify the script in order to employ strategies that would help them. To me, the solution seemed simple: teachers could be exposed to the specialized knowledge and equitable practices they needed, during a workshop on how to modify the general-education setting for students with auditory processing problems, language processing problems, or hearing impairments. However, through my work with a research group, I was about to discover that I had completely overlooked a key factor to success: an outside expert does not change practice by providing information alone.

My (Re)search for Answers—a Rocky Beginning

As I continued my search for strategies to support our struggling readers, Gwendolyn Williams, director of the Peachtree Urban Writing Project, a site of the National Writing Project, invited me to participate in a new teacher research initiative. I joined a group of Peachtree Urban Writing Project scholars, where I would research a topic of my own interest. I began delving into the issues of phonemic awareness and phonics. I wanted to determine the most effective teaching strategies for educating students who were being failed by phonics-based programs—many of whom were deaf or hearing-impaired, or had other learning deficits. I also wanted to ask pointed questions that would increase administrators’ awareness of our diverse populations and their needs, to help them make better-informed decisions about curricular initiatives. Becoming part of a group of teachers investigating their own practices provided a forum for me to test my beliefs. In the teacher research I felt safe, and was also stretched to look more critically at what I thought I knew.
My next step as a teacher-researcher was to begin looking at the practices of teachers at my school. Armed with questions that I thought would be helpful, I attempted to engage them in a discussion of their teaching practices. One of the first obstacles I encountered in my research was the fact that several teachers regarded my queries as invasive of their domains. It seemed to them that I was overstepping my boundaries by asking about students who were not “my students.” They knew that I was investigating their practices, and feared I would share their shortcomings with the administration. I was about to learn why I was facing this problem: I had not taken the time to create trusting relationships with them.

Moving Toward Collaboration

The next time our research group met, I shared the concerns of the teachers and my failure to gain the data I needed. Our inquiry leader Gwen Williams quietly offered the first valuable lesson I was to learn about doing research in schools: “You must learn how to be collaborative and how to do research with teachers, not on teachers. You must create a community with teachers so they can learn to trust you. If they don’t trust you, then they will not share what is important to them.”

This advice was profound. Research with teachers instead of on teachers, hmmm—a morsel to ponder. But how do I develop trust? Gwen had more advice: “Communicate your intentions; let them see your passion; be respectful and honest.”

I returned to school determined to be more communicative, and enlisted the principal in my quest. I thought now I was on my way. Surely with the principal telling them that we were going to do this, the teachers would see it was a great idea and be glad to share their data so that I could analyze the data and tell the teachers what they were doing wrong. Oops! I had fallen into the “power trap” and didn’t realize that this strategy was doomed. Although I thought I had heard what our research director said, I hadn’t internalized it. This second attempt proved to be similar to my first experience with the classroom teachers.

In fact, this time there was even less cooperation than before, so back I went to my research group seeking answers. They shared some beliefs that helped me to structure my research, principles that have become second nature to me now:

- Respect the teachers and the process.
- Listen intently; give them the chance to tell you what the issues are.
- Begin and end with questions instead of answers.
- Communicate about everything.
- Build a relationship that encourages buy-in.
- Make sure both the teacher and the students are engaged in the research process as collaborators.

Being in a research group that was responsive to my needs as a researcher and my development as a collaborator helped me realize I needed to take some foundational steps before
I could seriously begin to look at the needs of the students. I had to make my research effort a “we-search” collaborative, engaging both the teachers and the students. On the advice of my research group, I stepped back from thinking I already understood how to fix the problem and knew what kinds of information I needed to collect from teachers in order to do so. I began to really listen to the teachers and the students. I tried to set aside my own biases and preconceptions, knowing that these could adversely affect the gathering of accurate data. I stopped working in isolation and provided teachers with oral progress comments on the students I saw during pull-out therapy. I began asking if the problems these students faced were typical of other students in the class. When possible, the teacher and I would select a peer tutor to assist a struggling student with speech and language skills. I began systematically following up with the teachers to jointly monitor student progress.

Building a Working Collaboration

Two teachers emerged as ongoing collaborators in this endeavor. One was a veteran teacher who had worked twenty years as a teacher in Africa before returning to the United States. She was in her fourteenth year at our school as a third grade teacher and very confident of her ability to teach reading. The second participant, a relatively new teacher, was in her second year of teaching second-graders. My approach was different for each teacher because of their different levels of prior knowledge, but with both teachers I continued to notice that the more collaborative and communicative I became, the more willing they were to share what they noticed about their students. (I refer to the teachers as the veteran teacher and the novice teacher from here forward.)

I began by spending a few minutes on alternating Mondays in each teacher’s classroom. I explained the need to do this by saying that I needed to assist two of my students in carrying their speech and language lessons over into their regular curriculum. Each Monday I sat with a group of four students, always including one student from my caseload. At the end of the day, I would return and discuss with the teacher what I observed, and strategize with her how we might address the students’ challenges. As I became a partner with these teachers, I also assisted in administering the Basic Literacy Tests and became an eager participant in analyzing the results.

The Novice Teacher: From Modeling to Team Teaching

The novice teacher was very tentative about what was going on in her classroom. She described the students as failing to attend to her. She complained, “If I have said this once, I have said it a thousand times; they just don’t listen. We just went over that last week.” As we built camaraderie, she began to share some of her own weaknesses. Because she had never been taught to teach phonics, she depended heavily on the teacher’s guide. The perfect opportunity to begin a collaborative inquiry arose when we placed one of my students, Tevin, in her room. Tevin had severe language and articulation deficits.

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2 Students are referred to by pseudonym.
After observing class one day, I said to the novice teacher, “When I sat with Tevin, Paul, Kerry, and Angelo today I noticed that Tevin was not the only one who was having difficulty decoding /str/ blends. Kerry also seems to miss more information when you walk around the room. Today he said to me, ‘I heard what she said, but I can’t say that sound, and it didn’t make sense.’ When he realizes that he has a miscue he gets stuck and then misses other information.” Then I asked her permission to present a minilesson to work on that one skill with all of the students. This strategy served several purposes: It lessened the feeling of isolation students had when they were pulled out from their classes for extra instruction. It shifted the burden of responsibility temporarily off the teacher, who did not have the experiential knowledge of alternate strategies to help the students decode /str/ blends. Finally, it allowed me to model for the teacher a process of unobtrusive questioning to check student comprehension. After this, I began team teaching with her on a regular basis, and modeling some strategies to help her succeed with struggling students.3

The novice teacher and I began to have conversations about reading, teaching, and learning. For instance, we talked extensively about phonemic awareness and how it differs from phonics. These discussions were invaluable for building a relationship, as well as for imparting additional knowledge. As we built mutual respect and trust, the novice teacher was receptive when I shared articles from the book Teaching Struggling Readers, edited by Richard Allington (1998). I also provided her with handouts describing strategies for teaching students with hearing losses, auditory processing deficits, and language processing deficits. It was wonderful for me to watch as she began ensuring that the struggling students were included in classroom dialogues and that they truly understood what was happening around them or were provided additional tutorial time and individualized instruction.

The Veteran Teacher: Coteaching

The veteran teacher was articulate, soft spoken, and analytical. Her lengthy experience had given her strength and self-confidence as a teacher. In our conversations together, we realized that phonemic awareness was a problem for several students. For instance, she noted the failure of struggling students to engage in word and finger plays. On one occasion she had asked the students if they remembered some of the finger plays (Five Little Ducks; Hickory, Dickory, Dock) that helped them practice rhyming words and prepared them for reading, and she was surprised when they did not. We agreed that, for whatever reasons, several of her students had not “broken the code” for words that sound the same except for beginning or ending sounds. Their vocabularies were limited (often two or more years delayed), and they had major difficulties with sound blending when words were presented syllabically.

3 The minilessons I modeled included
- oral motor posturing for targeted sounds
- word plays for sound-letter associations
- listening with your eyes, ears, and hands (air writing)
- “skating” on blends (especially str)
- multimodality teaching (using writing to aid retention)
Our discussions were rich with literacy strategies she was already using in her classroom, and some that I was able to share with her. As we talked about the difficulties that specific students were having, she realized she employed an “auditory verbal” method for teaching phonics (the teacher models a sound and asks the students to repeat it). I suggested we try a verbotion method (for example, the child places a hand before the teacher’s lips to feel the sound of /p/, and then before her own lips as she makes the sound herself) and tactile method (the child touches the teacher’s nose, and then his own, when the /m/ is made, to feel the tone) for the students who were struggling. Eventually I asked if she would agree to coteaching with me periodically so that I could watch some of the other struggling students, and we could talk about them in our next discussions to strategize how we could meet their needs. She was excited about this team-teaching approach.

While participating in her class, I took notes, which I fleshed out later as I talked with her. Listening to the students, I picked up some really interesting information about them that we might otherwise easily have missed. For instance, one of the students had hearing loss in one ear and wore a hearing aid. The noise from the air conditioner, periodic noises when students dropped things on the tiled floor, and the sounds of students talking around the room were all amplified by his hearing aid and competed for his attention. Therefore he missed important chunks of information he would have otherwise absorbed. When asked specific questions, he often seemed distracted, responding “What you say? I didn’t hear you.” What he really meant was, “I’m confused because I missed a part of what you said so I didn’t understand your comment or direction.”

The teacher was becoming more and more exasperated because she often missed the clues that indicated why this student gave a specific response. As I explained to her how these noises affected him, she repeatedly said, “Without you here, I would have totally misunderstood that. I have often taken for granted that if I give this child preferential seating, because he has one fairly good ear, he should be able to understand me. I never knew how much he was missing, and I feel so guilty for failing him.” She was relieved to understand why the student had such difficulty with sound-blending in phonics, and she began to ask him to repeat what he thought he heard. This example illustrates how my learning to collaborate with the teachers enabled us both to learn by listening to students. As we talked and strategized about this hearing-impaired student, I was grateful to my research group for suggesting and supporting this collaborative approach.

Direct Work with Students

It was exciting to see both teachers growing in their knowledge of the requirements of the hearing-impaired, becoming increasingly responsive to the needs of their students, and being more open for collaboration. We decided it was time to expand the “we-search” collaborative, to help students take more responsibility for their own learning. We decided to share what we were learning with the regular and special-education students we were observing. Quick individualized conferences made the greatest impact. For example, we might say, “Tevin, you seem to have a hard time learning new information in a noisy spot and you get off task. Would you like to move to a quieter area for a few minutes until you learn to say these words?” He learned to ask for clarification, for a peer tutor, or to move to
a quieter space to better understand instruction. We also gave him words to use that would more accurately describe the exact problem he was having (e.g., “Did I hear you say . . . ?”). Through miniconferences like this, I was able to see the direct effect of collaborative inquiry on students.

**Sharing What We Learned**

As March approached, with testing imminent, the two teachers and I began meeting for a few minutes after school to talk about some of our findings before we would no longer have the luxury of consistent meetings. (During testing, the teachers’ time is taken up with groups that meet after school for test preparation.) Each of us had developed our own list of “ah ha!” moments to share; I was overwhelmed by how appreciative they were that I had become a resource both for them and for the students. The novice teacher wrote,

I have learned so much this year. Every new teacher should have a mentor who can come into their rooms and share strategies that will help the students. It was a great experience to have someone who looks beyond the lesson planned and knows how to delve into the why of a student’s failure to catch on.

It was also informative for me to note what each of the teachers learned in this process. The veteran teacher said she valued learning to be more systematic in observing students, and to try different instructional modalities:

One of the most valuable things I learned was to be more systematic in how I observe my students. It is not enough to know that Tevin isn’t getting the information and needs more individualization; it is so important to have someone with the knowledge to intervene when he needs the intervention. Sometimes I would find myself noting a need to go back and explain something just for him, but the time just seems to get away from me and I can’t go back.

The three students who needed more than an auditory visual approach were the ones who became quickly bored with any activity that was not hands-on. [However,] planning hands-on activities for them wasn’t enough because just as you planned something hands-on, what they really needed was a different approach, such as the tactile.

Like the veteran teacher, the novice teacher valued her new understanding of the importance of different teaching modes for hearing-impaired students. She also appreciated learning how to get beyond the scripted teacher manual and think about her students’ individual needs:

I now understand that some children hear the words but they aren’t being defiant when they can’t give it back. We have to teach those students in a different way.

Our talks about things that work and trying them in class really helped me bring together the research and what works in my class. More importantly, I know that just because something is written in a book doesn’t mean that it will work for my class. All of my students are individuals and I need to look at their learning that same way.

Through our collaboration, both teachers developed an awareness of the specific needs of hearing-impaired students—an awareness that will ultimately help the teachers better iden-
tify and meet the individual needs of all students in their classes. They learned how to recognize and interpret students’ behaviors not as defiant, but as representing a lack of understanding, and they learned strategies to better serve them. Furthermore, the novice teacher developed a new stance toward curriculum, gaining the confidence to modify or augment scripted lessons to meet students’ particular needs.

What I Learned

In the process of partnering with these teachers, I learned to question my own assumptions. I discovered that my original assumption—that many of the problems facing hearing-impaired students could be solved by eliminating use of the schwa—did not hold true. Review of assessment results did show that while some students overused the schwa, it did not turn out to be the culprit for those who evidenced the greatest difficulty mastering reading. The majority of the students who had the greatest difficulty were also unable to accurately identify word patterns, or words that were different only if the final sound was different. These students sought the teacher’s attention repeatedly, with positive or negative attention grabbers.

I learned that collaborating with teachers on research can provide them with opportunities to reflect on their instructional practices, and help them find new ways to meet the needs of struggling students. Although phonemic awareness and phonics are two of the most necessary structures for reading success, my research confirmed that not all students may be able to derive benefit from them. Students may have auditory processing problems, hearing losses, cognitive deficits, lack of sufficient systematic exposure, or difficulty concentrating in noisy environments; whatever the reason they struggle with reading, we need to remain open-minded and provide equitable opportunities for learning. Just as we don’t all wear a size nine shoe, phonics-based approaches to reading will not work for all students. My research suggests that inquiry may be a good way for schools to look at their populations and fit the model to the child, not the child to the model.

I also learned that equity is about sharing instructional tools with general-education teachers, to help them work with hearing-impaired students in their classes. And I learned that it requires a safe environment, such as a trusting relationship, for teachers to examine issues that they can change in their own classrooms. The teachers had to be coinvestigators about their own classroom practices; simply providing them with information was not the way for them to internalize the changes that would ensure equitable learning in their classrooms.

I believe that I learned more from this experience than anyone. I learned about leadership through inquiry, particularly the importance of taking a collaborative approach. However, I could not have done that without the support of my research group. They asked questions, made suggestions, shared their own experiences, offered support, and encouraged me to develop my skills as a leader of teacher research.
References


Oreather J. Bostick-Morgan, a twenty-three-year veteran speech language pathologist, credits the Peachtree Urban Writing Project for engaging her in investigating her own practices through systematic journaling, thereby leading her to the Teacher Research Collaborative. Her passion for educating students with hearing impairments arose from her childhood experiences with her deaf mother and her professional experiences with deaf and hearing-impaired students. This passion is at the heart of her research into equitable practices for deaf and hearing-impaired students.
Appendix: The Impact of Hearing Loss on Language Delay

<table>
<thead>
<tr>
<th>Degree of Loss</th>
<th>Language Delay in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>15–26 decibels</td>
<td>Within normal limits</td>
</tr>
<tr>
<td>27–40 decibels</td>
<td>Mild loss: 25–40 db</td>
</tr>
<tr>
<td></td>
<td>Hears conversation; may need some type of amplification</td>
</tr>
<tr>
<td>41–55 decibels</td>
<td>Moderate loss: 41–70 db</td>
</tr>
<tr>
<td></td>
<td>Develops speech and language but requires amplification; voicing and resonance are often adversely impacted</td>
</tr>
<tr>
<td>56–70 decibels</td>
<td>Severe loss: 71–90 db</td>
</tr>
<tr>
<td></td>
<td>Requires amplification, auditory management, and professional assistance</td>
</tr>
<tr>
<td>90+ decibels</td>
<td>Profound loss: 90+db</td>
</tr>
</tbody>
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Learning to Teach Elementary Mathematics: Inquiry in Preservice Teaching

Preservice teacher educator Marcie Osinsky engaged in collaborative inquiry with teaching interns in a Massachusetts teacher education program. Here she describes how, by debriefing videotaped segments of their elementary school mathematics classroom teaching, she and the interns inquired into issues of teaching and equity. Drawing on vignettes about two teacher interns, Osinsky illustrates how she supported the participants in the program to identify and develop their own mathematical content knowledge as well as explore the racial and cultural assumptions they brought into their classrooms. This process affected the teaching and learning in the interns’ classrooms as well as the structure of the teacher education program.

By Marcie Osinsky

It was October. Kevin, a six-year-old African American boy, sat on the rug during the first grade math lesson. He was raising his hand with enough excitement and energy to lift his body from the ground. While the teaching intern, Kate, a young white woman, listened to another student explain her answer, he spoke aloud his strategy for solving the addition problem: “You say 2 in your head and then you say, 3, 4, 5, 6, ’cause you are adding four more.” On his face was a look of satisfaction, as he articulated his new method for approaching the problem. He looked around to see if his words were having an impact. Kate was still talking to the other child, repeating the question. Kevin then slid his body over to the side of the rug area and became involved in playing with the papers that were tacked to the wall. Kate had three more students share strategies and then ended the lesson.

My role as supervisor was to collect data during the lesson. Before each lesson, the teaching intern and I would establish a focus. Kate’s focus question for this lesson was How am I engaging the students and helping them to explain their thinking?

After the lesson Kate met me in the library to debrief. She was somewhat harried and anxious, expressing her disappointment in the lesson. She wanted all the students to share their ideas and listen to each other. She was frustrated, saying that Kevin was disengaged, distracted, and unable to listen to the other students. I read my notes, playing back her words and actions, as well as the responses of the children. The notes showed that Kevin was listening, and was not initially disengaged.

1 Students are identified by pseudonym.
Her perception of his behavior began to change when she recognized that she had missed an opportunity to validate his strategy and therefore keep him engaged in the lesson. As we talked, clarifying the concepts in the math unit about combining numbers, we noted the progress he was making: “He used to solve $2 + 4$ by counting 1, 2, $-3$, 4, 5, 6. Today was the first time he started at 2 and ‘counted on’ the numbers being added.” Then Kate said, “I didn’t realize that he had made that leap in understanding in his answer. He’s been listening more than I knew.” At that moment, her focus became less on managing his behavior and more on listening to his thinking and learning. “For the next observation,” she said, “will you write down what the students are saying, so I can try to understand their thinking? I don’t want to miss the ideas.”

Introduction

Working with teaching interns like Kate brings me back to an image of myself as a first-year teacher of first- and second-graders. It was twenty years ago and I was sitting around a small circular table with my colleagues, at one of the weekly meetings where we discussed the work of our students and reflected on our math teaching. The teachers in the school were making a commitment to teach algebra to all the students, as algebra was the gatekeeper to higher-level mathematics and a vehicle for future educational and economic access. In the local high school, students of color were not represented in advanced mathematics classes; ending the practice of “tracking” and preparing all our students to enter advanced math classes was a larger equity issue. The school was committed to figuring out what it would take to ensure that all students learned algebra.

At this particular meeting we were discussing how to teach the concept of equivalence to first-graders. I was thinking about Marcus, who could easily answer $3 + 3 = 6$, but when he saw $\_ + 3 = 6$, he said “9.” I was wondering how the work I did with my first-graders related to math achievement in middle and high school. I was also realizing that I knew only the algebraic formulas I had memorized in eighth grade. Talking with my colleagues about how my students approached the math work, looking at achievement data, and examining the curriculum were important parts of my own teacher education. As I learned about the importance of algebra, I was raising questions about how my own knowledge and practice connected to the learning experiences of my first grade students. As I reflected with my colleagues, I was learning ways to engage my students meaningfully in my math classroom and explore the connections between their achievement and a larger vision of access to mathematics education.

This memory reminds me of how important it is to help teachers like Kate link a vision of equity with the day-to-day practice of engaging students in meaningful learning. Kate often spoke about her commitment to equity. Now, as she began her teaching career, I wanted to help her participate in a teaching community where she could reflect on the experiences of students in the classroom and ask questions about equity, access, and achievement in our teaching.
The Context of My Inquiry

My early years of teaching, at a school that was committed to equity and valued reflection and inquiry in teachers, inform my current work as a teacher educator supervising teaching interns from a local college program in their work at an urban science-and-math elementary school. The school has a mission to provide academic excellence for all students. There and at the college, mentor teachers, professors, and I are exploring ways to support and train new teachers who believe in the lives and minds of their students, who understand the context of urban schools, and who make a commitment to engage in the day-to-day intellectual work of teaching math in a serious way. Our goal is to develop a program where new teachers learn to teach an engaging and challenging mathematics curriculum, where they are equipped with both content and pedagogical knowledge, and where they recognize issues of inequity in their daily practice. In my role as a supervisor, I conduct inquiry into math teaching, collecting data about students’ experiences and learning during math lessons. Examining these data with key questions in mind is a central part of our interns’ teaching preparation. This essay describes how sharing the inquiry process with interns provides opportunities for examining their teaching decisions—reflecting on the thinking behind those decisions and the impact of those decisions on their students’ learning.

In preservice training, content and equity issues are often discussed separately, but in the actual teaching and learning, they are inextricably linked. Equitable teaching depends on strong content knowledge, reflection on one’s actions and underlying assumptions, building meaningful relationships with students that convey commitment to their success, and recognizing one’s responsibility to find ways for each child to learn. The teaching interns we hire share a passion for making a difference in the lives of children with diverse types of experience and knowledge. Some come with experience working in after-school programs and community agencies in urban areas, as well as strong mathematical knowledge and education. Others come less prepared for the task of teaching elementary-level mathematics in an urban school. Whatever their entry point, we are finding that inquiry enriches the experience of preservice teachers.


“Why do I have to learn math if I know I will only be teaching in a kindergarten classroom?”

—Teaching Intern

Many of our interns want to become teachers because they enjoy working with children; they want to make a difference in the lives of children and families. However, those who come to work in the elementary grades often say that they are “math phobic” or do not have strong skills in math. Since many interns are themselves afraid of not understanding math concepts, they often cannot see that young children have the capacity to grapple with these concepts. Even confident interns who have been successful in math may face challenges when they are asked to teach math in a way that is different from how they themselves were taught, or if their knowledge does not include a solid understanding of mathematical concepts.
Our goals are to create a program that reveals the complexity of the early-elementary math curriculum and to help interns develop the knowledge and skills they need to responsibly teach all students. We found that gaps in the interns’ content knowledge—particularly when they lacked conceptual understanding—often made it difficult for them to grasp a student’s line of thinking or to explore multiple ways to approach a problem. Thus a lack of teacher knowledge can limit students’ learning and achievement. We were hoping to address the equity challenge presented by this issue: that of preparing interns to teach mathematics effectively to all students. In order to address this challenge, a math professor from the college, the school math coach, and I began to develop a model for the teacher-intern program that included math self-assessment, a mathematics seminar, and classroom teaching experiences supported by a series of planning, observation, and debriefing sessions with us, their coaches.

When we started the program four years ago, the interns began the year by taking a mathematics assessment to identify their own areas of strength and weakness. They assessed their own knowledge of math concepts and completed a series of math problems that were aligned with the general elementary curriculum as prescribed by National Council of Teachers of Mathematics standards. However, there was no way to include more math work in the interns’ course load. So we took some time in our weekly site-based seminar to review math concepts and to investigate and complete the lessons in the curriculum they were expected to teach. We chose concepts that the assessments identified as most challenging: mental math, fractions and percents, strategies for multiplication and division. We also chose areas that were often difficult for the students at each particular grade level: subtraction, fractions and percents. Each week we met to explore mathematical concepts and to create a community where the teaching interns learned together.

Over the next four years we transformed our model. Since the mathematical knowledge required for teaching is extensive, the seminar was clearly not enough. If we were serious about our commitment to teaching all students mathematics because of its “gatekeeping” function in society, then all interns needed further study of mathematics to prepare them for the task. We advocated for the college course work to include more mathematics content. At the school site we recognized that the interns needed support preparing for and analyzing the teaching and learning in their classrooms. Inquiry, into both math lessons and teaching decisions, became the focus of our work as we supported lesson-planning and analyzed student work and math conversations from lessons the interns had taught.

Why Inquiry?

The first goal of the inquiry process was to gather information about how students in the interns’ classes were developing mathematical understanding and knowledge. The interns shared their challenges in understanding children’s thinking and relating the students’ responses to the stated learning goals and essential concepts of the lesson. The interns needed opportunities to tease out their students’ answers and to design the next step or question based on students’ learning needs.

The second goal of the inquiry was for interns to be reflective about themselves and their own teaching practice, especially issues of engagement in, and access to, a curriculum that
Learning to Teach Elementary Mathematics

supported high student achievement. Videotaping was an important part of the inquiry; it allowed the interns to see patterns in students who got their attention and in their own ways of responding to each student’s thinking. The videotape slowed down teaching moments, allowing us to see what might have been missed and to rethink what had happened. The video-debrief conversations challenged interns to examine the lens through which they approached their teaching and their students. The interns were asked to reflect on the ways in which their beliefs and actions expanded or limited students’ possibilities for achievement. We were making transparent the lens and the thinking process behind their teaching decisions.

Using Inquiry to Understand Math Thinking and Examine Teaching Decisions

When we began using short videos of lessons the teaching interns had presented, we noticed that many interns had difficulty recognizing the ways that students displayed an understanding of mathematics in their responses. Consequently, interns often missed opportunities to support students’ understanding, or to affirm and challenge students to expand their thinking. So we created debrief questions to help build awareness:

- What do you see/hear the students doing/saying?
- What does that tell you about their understanding?
- What did you do?
- How did that support the students’ learning at that time?

Capturing and slowing down the lesson in this way allowed the interns to focus on the students’ thinking, and on their own subsequent teaching decisions. It also allowed them to see patterns that emerged in their practice, and in the students’ learning successes and challenges. Below I present a vignette from a videotaped lesson, followed by a discussion of how we debriefed the tape and the lesson.

During a lesson in a first grade class, Larissa, a Cape Verdean teaching intern, called repeatedly on Tomas, a six-year-old Puerto Rican child who was having difficulty sitting and staying focused on the rug. Larissa had asked, “How many hands are there in this room?” and the students were engaged in solving the problem. Tomas sat right next to Larissa, and was moving about trying to maintain her attention. She asked him to show how he would solve the problem. He got up and walked around the rug area counting “2, 4, 6, 8, 10 . . . “ as he pointed to each child.

At the other end of the rug sat Tiffany, an African American girl who up until this point had been listening and quietly discussing the problem with the friend next to her. As Tomas passed Tiffany, she raised her hand and waited to be called on. After Tomas was finished Tiffany was called on and said, “We could line up and count all the hands on one side and then all the hands on the other.” Larissa smiled and then immediately refocused the whole class on Tomas’ strategy.
A video clip of this lesson provided Larissa with the opportunity to investigate the students’ thinking more explicitly and to reexamine her understanding of her students’ strategies and her own teaching decisions. When we debriefed this lesson, Larissa said she was having difficulty keeping Tomas engaged throughout the day. She was pleased by his involvement in this lesson, and by his use of a “counting by twos” strategy for finding the total number of hands in the classroom. As we watched the videotape together, she expressed surprise at Tiffany’s answer, and remarked at how sophisticated it was; she did not recall Tiffany’s strategy. We talked about the interesting discussions she could have led reflecting on the two strategies: “Two groups of nineteen, or nineteen groups of two. . . . Counting by twos nineteen times or counting nineteen, two times. Are they the same? What do the students notice about the numbers?” Larissa began to wonder how she could have led this discussion and what the other children had been thinking. She also began to question her focus on Tomas and to examine why she did not follow up on Tiffany’s answer. Was it because she was thinking of only one way to solve the problem—counting by twos? Was it because she was trying so hard to keep Tomas engaged? How could she challenge Tiffany and the other students by exploring multiple strategies further? In other words, the inquiry process led to more questions—questions that were clearly linked to Larissa’s ability and willingness to make teaching decisions that supported and challenged a range of students.

Larissa’s inquiry stance also allowed her to reflect on her own experience in relation to math, an important aspect of understanding her approach to her students and the curriculum. “I loved math as a child in Cape Verde,” she recalled, “and I was always good at math. As a young girl I was always encouraged in math too.” However, like many interns, Larissa talked about how this curriculum differed from the ways she had been taught mathematics. She remembered being taught one method in Cape Verde, and then another as a child in U.S. schools. Like many interns, she observed that this curriculum demanded a shift from procedural learning to conceptual understanding.

**Using Inquiry to Understand Oneself as a Teacher**

As we observed videotapes, we asked the interns to explore the “why” behind their teaching decisions. This exploration led us to questions about the values and assumptions underlying these decisions. The interns began to reflect on who they were and how their life experiences affected their teaching. Exploring issues of identity, culture, and race became a vehicle for further examining their assumptions about students and their learning experiences in the classroom.

For example, debriefing encouraged Larissa to think about the ways in which aspects of her own identity influenced her perspective and her actions. The video—in combination with the questions she was led to ask when she watched it—helped her to self-understanding. After the debriefing, she commented,

> I was surprised that I paid all my attention to Tomas’ thinking. As a black woman, I feel I try to be attentive to issues of race. I firmly believed that I would not respond more to boys than to girls, but when I noticed it in the videotape . . . I can see myself, as the little girl in math—being really thoughtful and quick to understand the concept. I can see the way I was taught as a woman to be attentive
to others, as I am now, a mom of three boys focused on their needs. I will definitely be aware of this as I continue to work in the classroom.

As Larissa reflected on herself as a teacher, she examined how her own identity (including race, gender, culture, and family) influenced her teaching instincts and decisions. This examination helped her understand how she was responding to individual students, and encouraged her to raise questions about the experiences and beliefs that guide her practice.

The story of Kate from the vignette that opened this essay provides another example of how inquiry can expand a teacher’s understanding of herself and her practice. Kate’s inquiry into the experience of one child in her classroom illustrates a change in her understanding of a teacher’s responsibility to motivate and engage students in the learning of mathematics and to take an active role in teaching in a way that supports each child’s engagement and achievement. Although Kate’s inquiry focused on only one child, it demonstrates a shift in her understanding of her role as she sharpened her observational skills to better understand his thinking and experience in her class. By focusing on Kevin’s behavior, Kate had been missing an opportunity to affirm his mathematical understanding. Her initial assumption was that Kevin was not able to listen to the other students during the math conversation. But in debriefing that lesson, she recognized that she had missed his contribution, that he had developed new understanding to offer his classmates, and that her assumption was incorrect.

As Kate took on whole-class teaching responsibilities, she encountered more challenges. At first she was quick to punish and was easily frustrated with “disruptive” behaviors, for which she blamed the students. She did not easily recognize what role she played, nor what role her own assumptions played, in the dynamic. After a particularly hard day, we decided to collect more data on another African American boy in the class, Mark, who repeatedly resisted working whenever she was teaching. She kept a record of when he was on track, when he felt successful, and his moments of tension or “acting up.” She videotaped sections of her lessons each day, watching them with a careful eye on when Mark was engaged and how she responded, and also on what she said and did at times when he was not engaged. Lastly, she noted the behaviors of the rest of the class during these lessons. The video clips showed that when Mark felt confident, and when he clearly understood the entry point for the lesson, he was focused and on task. When there was ambiguity in the lesson, or when he had difficulty connecting the lesson to what he knew, he was anxious and quick to create a diversion. Kate saw that she was quicker to respond to Mark’s “off-task” behaviors, than to those of other students.

The video clips also showed Kate that when she was confident and clear in the lesson, she was able to be patient, ask focusing questions, and firmly convey her expectation that Mark engage in the lesson. When she had carefully planned the lesson with enough scaffolding around new concepts, she was able to facilitate Mark’s learning. If she did not have a good understanding of what he needed as a learner, he became anxious, confused, or restless; then her anxiety also went up and her responses were negative and urgent, focusing on controlling his behavior rather than teaching him math. I encouraged her to reflect on questions such as: What was her understanding of the motivation for his behavior? What were her expectations for Mark in math? What were her assumptions about Mark’s skills and knowledge? I also encouraged her to reflect on the role that identity and race played in her interactions with Mark. How did race and racism play a role in the assumptions she had? How did her own
identity as a white woman impact her understanding of Mark as a learner in the class? In the larger world? How could she listen to and learn more about his experiences?

Slowly, Kate began to examine her attitudes and beliefs about Mark. Watching the tapes helped Kate to see that her ability to be clear about the learning goals of the lesson—and what those goals meant specifically for Mark—played a role in creating a successful learning situation for him. She also began to see a pattern of focusing on his negative behaviors more often than those of other students, further isolating him from the classroom community. As she examined why this was happening, she recognized that her frustration was aggravated when Mark did not understand because she personalized his behavior; that is, she experienced it as a reflection of her own capabilities. Kate was beginning to recognize some of her assumptions and to take a different stance toward her students’ learning.

At the end of the semester she was able to articulate her new understanding:

I had to put my own feelings about the student aside (he doesn’t care, he can’t do this) because they were not accurate. I had to keep watching my responses to him . . . to his behavior and to his thinking. . . . I had to help him make connections to the math . . . to take what he did understand and affirm it. I had to, it was my job to, push ahead and get to know what helped him feel successful . . . to learn. . . . He was resilient, coming in each day and approaching his learning anew, but I had to be resilient too—and persistent, in understanding his thinking and teaching him.

Conclusion

Over the years I have learned a great deal about using inquiry to support teaching interns, about my role as a supervisor, and about working collaboratively with a college faculty member to support interns in their mathematics teaching. In this essay, I have focused on inquiry as an approach that is particularly well-suited to help teaching interns address issues of meaningful engagement and access to a rigorous mathematics curriculum, which are important aspects of equity.

The stories of two teaching interns, Larissa and Kate, illustrate the power of an inquiry-focused approach in helping interns reflect on their math teaching. The interplay of content knowledge, knowledge of effective pedagogy, and knowledge of oneself and one’s students affects the decisions teachers make about how to teach. Inquiry can play an important role in increasing new teachers’ abilities to reflect on classroom data, to tease apart a lesson, and to raise questions that challenge them to explore new ways to meet the needs of their students.

Using an inquiry approach, collecting and analyzing data in this way, reshaped my role as a supervisor. In the beginning, teaching interns would always say, “Oh, that lesson went well,” or “That lesson did not go well,” and then they would ask me what I thought. Having the video and data enabled me to say, “Let’s both look and see what we see in the data in relation to your question,” and to focus explicitly on the experience of the children and the teaching decisions that the intern made in the moment. In this way, the interns were challenged to relook at what the children were saying and doing and to take responsibility for assessing and raising questions about their teaching decisions.
As a third important dimension of this work, my collaboration with a college math professor developed into shared responsibility for student achievement in mathematics. Teaching interns often comment that what they learn in college classes does not align with what they are experiencing in the schools. In a school committed to equity, staff and administrators thus feel constant pressure to educate new teachers to ensure the success of all children. It is encouraging when colleges and universities are also committed to the preparation of teachers to ensure the achievement of children in urban schools. We had always recognized the challenges teachers face in adapting their content knowledge to teaching mathematics in elementary schools; this collaborative experience confirmed the need both for a stronger mathematics component of teacher preparation at the college and for the college professor to better understand the experiences of students and interns in the schools. After our two-year collaboration, the math professor went back to the college to propose a new mathematics course sequence for undergraduates who declare education as their concentration.2

When Kate and Larissa graduated from the program with their cohort of teachers, they left with lists of next steps for their own learning. They left talking about what it meant to them to be an effective teacher in an urban school. They left framing the successes of their students in ways that honored the children and identified the components in their classrooms and curricula that supported them to achieve these successes. As I continue to support beginning teachers, I am struck by the complexity of their work to understand themselves, to know the content they are teaching, and to motivate and challenge their students to achieve. I have come to see inquiry, framed by a focus on equity, as a powerful tool to help them in that work.

Marcie Osinsky began her education career as a first and second grade teacher in the Cambridge, Massachusetts, public schools. Her experiences there led her to explore how school partnerships with community and educational institutions can support teacher preparation, student achievement, and the role of teacher leadership in urban schools. To continue this exploration she became a liaison between Wheelock College and the Young Achievers Science and Math Pilot School in the Boston public schools, and a member of the Coalition of Essential Schools as well as the Boston Pilot Schools Network of the Center for Collaborative Education. In her role as a liaison, she worked with college faculty and public school educators to design a yearlong internship program focusing on mathematics and equity. In keeping with this focus, she has been examining teaching, observation, and feedback methods for new teachers. Currently, she is working as the curriculum director for the Boston Teacher Residency Program.

“Having the video and data enabled me to say, ‘Let’s both look and see what we see in the data in relation to your question.’”

2 The sequence includes three math courses focusing on mathematical content for teaching, with a math methods course as well. These courses could pave the way for similar graduate courses in the future.