The Role of Critical Reflection in Teacher Education

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ABSTRACT: The majority of the teacher candidates in my methods classes come from a background that is different from the primarily African American students at my professional development school. Because these teacher candidates continue to be predominantly White middle-class females, the gap between their cultural comfort zone and their students' cultural backgrounds is likely to continue. As such, I studied the body of research that supports the critical impact that the role of reflection has on a teacher's knowledge, skills, and dispositions, and I decided to use critical reflection as a major component in supporting teacher candidates' growth and success at this professional development school. This resulted in the teacher candidates' deep understanding of their teaching styles, which enhanced their ability to challenge the traditional mode of practice and define their growth toward greater effectiveness as teachers. More important, their ability to relate to their elementary students improved significantly.

I am an assistant professor of elementary education and reading who is engaged in the preparation of teacher candidates at a large comprehensive college in an urban center. I teach a field-based course on the pedagogies of mathematics and science in the elementary school. Each semester, I work with 16 preservice teacher candidates who are primarily in the 3rd year of college, pre-student teaching. Our field-based course takes place in a highneeds school under the general framework of our professional development school (PDS) consortium—a collaborative of teachers, professors, and principals working together to construct optimal teaching experiences for our elementary teacher candidates.

After studying the body of research (Bright, 1996; Brookfield 2004; Cranton, 1996; Dewey, 1933, 1938; Ladson-Billings, 1994; Merrifield, 1993; Reagan, Case, & Brubacher, 2000; Schön, 1996; Willis, 1999) that supports the critical impact that the role of refection has on a teacher's knowledge, skills, and dispositions, I decided to use critical re-

flection as a major component in supporting teacher candidates' growth and success at an urban PDS. Critical reflection is the process by which adults identify the assumptions governing their actions, locate the historical and cultural origins of the assumptions, question the meaning of assumptions, and develop alternative ways of acting (Cranton, 1996). Brookfield (1995, 2004) added that part of the critical reflective process is to challenge the prevailing social, political, cultural, or professional ways of acting. Through the process of critical reflection, adults come to interpret and create new knowledge and actions from their ordinary and sometimesextraordinary experiences. Critical reflection blends learning through experiences with theoretical and technical learning to form new knowledge constructions and new behaviors or insights.

Each semester, I provide teacher candidates appropriate opportunities to authentically practice critical reflection. Journal writing is used weekly to assist teacher candidates

in connecting new learning with prior experience, posing appropriate questions, and exploring their thinking. Writing about their experiences in classroom teaching gives them means to remember, recall, reconstruct, re-create, and represent what they learn of their teaching practice under supervision. In this course, teacher candidates write a self-reflection for each lesson they develop and teach. This work is based on the constructivist theory, which emphasizes the idea that learners construct knowledge for themselves. Each learner individually (and socially) constructs meaning as he or she learns. Constructing meaning is learning; there is no other kind. Reflective journal writing allows teacher candidates to construct their own understanding of the critical nature of the classroom environment, which is instrumental in providing a context for children's learning. It also helps them realize they must be knowledgeable about the intellectual, emotional, physical, and moral development of their student learners.

Near the conclusion of the course, teacher candidates conduct a summative reflection to develop individual professional growth plans, which requires them to review their lesson plan reflections and weekly journal reflections, in addition to the written and verbal feedback provided by their cooperating teachers and college instructors on classroom teaching, course projects, and assigned readings. Teacher candidates then develop a set of authentic goals for professional improvement to focus on during their student-teaching experience for the following semester. One major outcome of the summative reflection is an understanding of the critical role that reflection can play in continuous professional development.

Why Use Critical Reflection in the Preparation of Urban Teachers?

My interest in critical reflection grew out of the interaction between my students and my teaching of preservice, undergraduate, and

graduate classes in education. After teaching an Introduction to Education course for 7 years and bringing the students in my methods of teaching mathematics and science to an urban PDS for the same number of years, I have come to understand the impact of the teacher-student difference (disparity) in preparing predominantly White middle-class female teachers to work in schools where students are primarily poor and ethnically diverse. Ryan and Cooper (2006) observed that the more alike students and teachers are in social and cultural characteristics, the more they share tacit expectations about behavior and academic performance. Inversely, the more disparate they are, the less they understand each other's expectations and goals for academic and social performance.

Public schools throughout the United States are becoming increasingly diverse. By the year 2020, 50% of all schoolchildren will be described as coming from ethnic minority groups, but they still will be taught by a predominantly White teaching force. Eubanks and Weaver (1999) noted that just over 10% of teachers come from racially or ethnically diverse backgrounds. Researchers studying teacher educators (Au & Blake, 2003; Banks, 2002; Frank, 2003; Ladson-Billings, 1994; Quiocho & Rios, 2000; Ryan & Cooper, 2006) have agreed that teachers of color are more likely to understand and embrace the culture of their students whose ethnicity they share; therefore, they can provide culturally relevant pedagogy for students of color, who already represent a majority in urban schools. Teacher education scholars have noted that schools must become "culturally informed," which can be done through the recruitment of prospective teachers from diverse backgrounds and the employment of more teachers of color (Milner & Endo, 2005).

When teacher candidates who are primarily 19 to 21 years old, White, middle class, and female enter a teacher education program, they have already developed a worldview that shapes what they learn from the course and how they will interact with their students (Merrifield, 1993). Because their life expectations have not exposed them to ethnically

diverse populations, some teacher candidates may think of minority students as having cultures that are deficient, rather than valid but different from their own.

In my case, the majority of the teacher candidates in my classes come from backgrounds that differ from those of the primarily African American students at my PDS. This has been the case for all 7 years that I have been teaching methods classes at an inner-city school. Because the growth of teacher candidates from ethnically diverse backgrounds is slow (Au & Blake, 2003; Ryan & Cooper, 2006) and elementary teacher candidates continue to be primarily White females, the gap between my teachers' cultural comfort zone and their students' cultural backgrounds is likely to continue for some time. For these reasons, I began to use a contextual approach to critical reflection, which focuses on reflective practice without sacrificing the important content of the pedagogy to be learned. Opportunities are created for teacher candidates to do critical reflection while learning the content of mathematics and science in the course.

Critical reflection facilitates introspective learning from values, beliefs, knowledge, and experiences that contribute to perspectives of one's self, other people, and the world. To help preservice teachers reflect critically, I make a deliberate effort to design experiential projects that offer my teacher candidates that exact opportunity. The contextual approach of reflective practice enables me to focus on reflective practice without sacrificing important content of the program. My students engage in critical reflection though the following curricula projects:

- goal setting for identified weaknesses or strengths,
- reflective journaling,
- writing reflections for implemented or observed lessons,
- creating a growth portfolio,
- coaching and conferencing after teaching a lesson, and
- writing a reflective summary for the whole course's experiences.

In this course, critical reflection is a thread that helps students interpret everything that happens in their field experience.

Introducing the Need for Critical Reflection to Methods Class

To illustrate the importance of professional introspection and growth, I tell my students the story of a veteran teacher who was described as having "not 10 years of experience, but rather 1 year's experience 10 times." The message is simple: This teacher had stopped growing and developing as a professional after the 1st year. I discuss this illustration with my students, and most of the time the discussion ends with their realizing how easy it can be for teachers to fall into comfortable, if not beneficial, patterns, especially after gaining a few years of experience. This discussion naturally leads to the question "How can a teacher avoid complacency and stagnation?" I suggest that teachers must maintain curiosity and develop the habits of inquiry and reflection that will continuously move them forward. I believe that although it is important to prepare beginning teachers for initial practice by rehearsing the methods of teaching, it is even more important to help them develop the attitudes and skills to become lifelong students of teaching. This means that rather than rely on the authority of others, their own impulse, or unexamined previous practice, they as teachers must continually examine and evaluate their attitudes, practices, effectiveness, and accomplishments. This process of examination and evaluation is called reflective teaching.

Reflective Teaching

Reflection is a process of self-examination and self-evaluation in which effective educators regularly engage to improve their professional practices. The roots of reflective teaching are historically evident in the works of John Dewey (1933, 1938), who maintained that reflection is an important aspect of learning from experience. Reflective thinking leads educators to act deliberately and intentionally rather than randomly and reactively. Not all

teachers engage in reflective activities. For example, a teacher might refuse to recognize the benefits of reflection or a teacher's reflection might be informal—a combination of emoting about how she or he felt and thinking about what happened, without learning or progressing from that retrospective point. When a teacher is involved in active and deliberate reflection and analysis regarding those events that may lead to formulating new strategies for changing behavior in the classroom (Reagan et al., 2000), he or she is using reflection for professional growth. Brookfield (2004) argued that without reflection, teachers run the continual risk of making poor decisions and bad judgments. Without reflection, teachers unquestioningly believe that students can accurately interpret their actions as intended; furthermore, teachers may continue to plan and teach on the basis of unexamined assumptions. They then fall into the habit of justifying what they do as "common sense." "Yet unexamined common sense is a notoriously unreliable guide to action" (p. 4). Reflection itself is not, by definition, critical. For example, one might focus solely on the nuts and bolts of the classroom process, such as timing of coffee breaks or how rigidly she or he wants to stick to homework deadlines for the students. These can be reflections, though not necessarily critical reflections.

Critical Reflection

After our class discussion, students write reflective journals on each reading assignment. In their reflections, they must show what new knowledge they learned, and they must discuss how they will apply their understandings in their field placement.

Before these structured experiences with critical reflection, almost every student thinks that reflection is something he or she does. However, by the end of our first discussion, many students have clearly changed their minds and begin to refer to what they have been doing as perhaps merely "reporting" what transpired during the day, realizing that simply sitting back and thinking about what transpired during the day does not make them re-

flective teachers. By this time, it is clear to the teacher candidates that there is power in the practice of reflective thinking. At the same time, I can sense that they are beginning a paradigm shift in the teaching of mathematics from the traditional "show and tell" approach, by which most of them were taught, toward the constructivist model of teaching through problem solving and inquiry.

Critical reflection involves reflective thinking.

Reflective thinking is a multifaceted process. It is an analysis of classroom events and circumstances. By virtue of its complexity, the task of teaching requires constant and continual classroom observation, evaluation, and subsequent action. To be an effective teacher, it is not enough to be able to recognize what happens in the classroom. Rather, it is imperative to understand the "whys" "hows," and "what if's" as well. This understanding comes through the consistent practice of reflective thinking. (McKnight, 2002, p. 1)

What makes reflection critical? Is it a deeper, more intense probing form of reflection? Not necessarily. Critical reflection on experience certainly does tend to lead to the uncovering of paradigmatic, structuring assumptions, but the depth of a reflective effort does not, in and of itself, make it critical (Brookfield, 2004).

Reflection becomes critical when it has two distinctive purposes. The first is to understand how considerations of power undergird, frame and distort so many educational processes and interactions. The second is to question assumptions and practices that seem to make our teaching lives easier, but that actually end up working against our best long term interests—in other words, those that are hegemonic. (p. 5)

For example, consider the teacher who assembles her class into a circle to facilitate discussion and promote an atmosphere of equality. Although some students might interpret this as the teacher's intending to promote

student equity, others might find it intrusive or a sign of the teacher's way of exposing the shy students. Others might not want to get involved in the discussion, because they might be afraid of being wrong and suffering ridicule from other students. So beneath the circle's democratic veneer, there may exist a much more troubling and ambivalent reality.

Kettle and Sellars (1996) found that reflective peer groups encourage student teachers to challenge existing theories and their own preconceived views of teaching, through the social construction of meaning, while giving them experience in the collaborative style of professional development, which is useful throughout a teaching career. Researchers have shown that critical reflection continues to be an effective technique for professional development (Brookfield, 1995; Merrifield, 1993). The implication is that effective teacher professional development should involve activities such as study teams and peer coaching where teachers are expected to examine their assumptions and practices continuously.

When teacher candidates articulate the benefits of reflective teaching and critical reflection, they can begin to practice it in earnest:

When I began to read Brookfield's "The Getting of Wisdom . . . " I had some idea about what critical reflection was, but still a little unsure of how to use it properly. I asked myself, how does it benefit me as a teacher? Why should I take time out of my day to reflect critically? There was one section in particular that I found to be very interesting and helpful. This section was entitled "The Teacher Is a Fly on the Wall." In this section Brookfield discussed reflecting on myself based on how my students see me. I guess I never thought of this type of reflection. I continuously reflect on how I think I am doing as a teacher. I have never thought to reflect on how the students view me as a teacher. This way of critical reflection could be very beneficial. Brookfield mentioned in the article how when the teacher walks around the room from group to group the students will do what they are supposed to be doing until the teacher leaves. If I were to reflect on this point I would reflect on why the students may do this and what is a different way I could observe my students without being so intrusive. How could I observe them acting naturally and still on task? I found Brookfield's article to be very interesting as well as extremely informative. It truly gave me more insight on critical reflection and why it should be used on a daily basis. It can be [a] very effective tool for a teacher if it is used correctly. When I get my own classroom I would like to keep some type of a critical reflective journal. Even when the days are hectic I will try to always to remember to take a few minutes to reflect critically to allow myself to become the best teacher I can be. (student voice, spring 2006)

It is important for teacher candidates to consider and discuss things that reflective teachers do. This usually results in a summary of questions that a reflective teacher asks (Ryan & Cooper, 2006):

- What am I doing and why?
- How can I better meet my students' needs?
- What options are available?
- How can I encourage more involvement or learning on the part of the students?
- Have I considered my own values as a professional and my comfort level in acting on those values?
- What conscious choice can I make to make a difference?

At this point, I give selected reading assignments to the class to inform its process of critical reflection.

Selected reading assignments. Contextualized reflection requires that students work on reflective practices within the pedagogies of focus—in this case, mathematics and science. In math, for example, most of the selected readings come from the journal *Teaching Children Mathematics*. Two articles are on my permanent reading list: "I Did It My Way': Providing Opportunities for Students to Create, Explain, and Analyze Computation Procedures" (Scharton, 2004) and "Learning Through Problems: A

Powerful Approach to Teaching Mathematics" (Trafton & Midgett, 2001). Trafton and Midgett (2001) agree with the National Council for Teachers of Mathematics (2000), who say that "problem solving is natural to children because the world is new to them and they exhibit curiosity, intelligence, and flexibility as they face new situations" (p. 532). The challenge for teachers is to build on children's innate problem-solving inclinations and preserve and encourage their disposition that values problem solving. In both articles, teachers related how they allowed children to do math "their way." I dedicate significant class time to a discussion of how the teachers in these articles provided opportunities for students to create, explain, and analyze their procedures. Following this exercise, teacher candidates conduct a literature search for an article that involves reflective teaching and critical reflection; then, they present the article's major ideas to their peers. Following these presentations, cooperative learning groups present major ideas from a selected chapter of the required class text to their peers.

In most semesters, the class uses *Elementary and Middle School Mathematics* (Van de Walle, Karp, & Bay-Williams, 2004) as a major resource. Finally, teacher candidates share their findings at the collegewide Student Research and Creativity Celebration. In 2008, the teacher candidates wrote of their experience:

In the weeks leading to our field participation, we examined literature that discussed [the] problem based classroom. Van De Walle states that "we now know that . . . children learn mathematics in ways that make sense to them; they must be actively engaged in making sense of mathematics." Our class used critical reflection to identify our feelings pertaining to math and how we will approach the subject in our classroom. Two students worked together . . . and presented the "big ideas" and provided examples of activities that might engage elementary school students. Each team became experts in an area. . . . We entered our participation with more knowledge than we could have gained alone. (EDU 312 poster for 2008 Student Research and Creativity Celebration)

The contextual approach. It is one thing to say that teachers should be reflective practitioners; it is quite another to design meaningful projects that enable teacher candidates to practice reflective teaching in field-based experiences. To help teacher candidates make critical reflection a habit of mind, I design curricular projects that require critical reflection as a necessary form of formative self-analysis. This contextual approach focuses on reflective practice without sacrificing the important content of teaching pedagogy to be learned in this class. As mentioned earlier, critical reflection takes place through the following projects:

- goal setting for identified weaknesses and strengths,
- reflective journaling,
- reflections for implemented or observed lessons,
- coaching and conferencing process,
- creating a growth portfolio, and
- reflective summary of the whole course.

Goal Setting for Identified Weaknesses and Strengths

For goal setting for identified weaknesses and strengths, teacher candidates must do the following, almost in the order in which they are presented:

- reflect on courses before EDU 312,
- identify their weaknesses and strengths,
- set long- and short-term goals,
- assign realistic time frames to complete tasks,
- maintain and monitor plans, and
- determine what they need to readjust to reach the goals.

As the term progresses, teachers become incrementally more critical, expecting more from their elementary students and themselves. What could they change or make different?

Reflective Journaling

Reflective journaling is a process of recording and analyzing events in a prescribed manner to foster reflective thinking. The journaling process may be formal or informal. It can require a detailed description of a significant event or a specific aspect of teaching on which a preservice teacher is asked to focus. In general, teacher candidates keep a daily journal in which they record what they are learning about children in different settings, write about conceptual understandings of the topics they read and discuss in class, pose questions concerning the current topic, write about ideas that they may need help with, and write about topics of interest to them. Teacher candidates share entries of their choice with others in class. These journals are submitted to me biweekly. I encourage teacher candidates to authentically reflect because these journals are meant to reveal significant thinking. The following example represents many voices:

After becoming more familiar with the problem solving approach, I was sold on its value to help students become better learners. I became very concerned once in the classroom when I realized how scripted the lessons and school day [were]. The wonderful creativity that teachers generally possess was being stripped by mandates, testing, and prefabricated lesson plans that were strictly enforced. . . . As a JP [junior participation] I was allowed leeway in my lesson plans by my cooperating teacher (CT), but my CT was responsible for implementing a certain amount of material in a limited amount of time. Teachers were literally policed by the proponents of various curriculum packages to teach. . . . In an environment like this how can a teacher become skilled at implementing a true problem solving approach? Professor, you know I really want to make a difference! (teacher candidate, fall 2007)

Ideas in these reflective journals are not graded but respected as observations, opinions, and facts from the teacher candidates. Journals inform me on teacher candidates' understandings of what they are learning from their field experience. The quoted entry provided an opportunity for the candidate to discuss the district's new mandates for teachers and how, if not taken with care, such mandates can deprive the teachers of professional autonomy. As Fullan (1993) has pointed out,

mandates are important. Policymakers have an obligation to set policy, establish standards, and monitor performance. But to accomplish . . . important educational goals—you cannot mandate what matters, because what really matters for complex goals of change are skills, creative thinking, and committed action. Mandates are not sufficient and the more you try to specify them, the more narrow the goals and means become. (p. 22)

The argument that this reflective journal entry raised was an observation that almost half the class had made. There was general agreement from the discussion that teachers are not technicians and that mandates that do not require thinking are the only ones that are easily mandated because they do not require skill on the part of the implementers to comply. However, in education, all changes of value require new skills, behavior, beliefs, and understanding.

Reflections for Implemented or Observed Lessons

Reflective practice involves what the teacher does before entering the classroom, while in the classroom, and retrospectively after leaving the classroom. Teacher candidates are therefore required to distinguish among reflection for practice, reflection in practice, and reflection on practice. The first is a sort of anticipatory reflection on future experiences, made by stepping back from or out of the situation to consider the various alternatives and their possible consequences. Reflection in practice—thinking on one's feet, acting in a flash, reflecting in the moment of acting—is the most difficult of the three for teacher candidates. Many teacher candidates believe

this to be something they will improve with experience. Finally, reflection on practice is the most traditional form of retrospective consideration of the past experience.

To guide them in their reflections, I give teacher candidates a number of questions:

- Did the material you chose help to teach the specific skill or strategy effectively, Why or why not?
- How did the children respond to visuals you prepared? Did your cooperating teacher intervene? If so, how?
- Did you have any feedback from your cooperating teacher? If so, what was it?
- Did the students learn or extend their knowledge of the skill or strategy through your activity? What makes you think so?
- What might you do differently if you taught this lesson again? How has this lesson expanded your knowledge about teaching?

Coaching and Conferencing Process

Coaching and conferencing is a process that occurs on scheduled and structured times during the junior participation period. This occurs after the teacher candidates have taught a lesson. I conduct individual conferences and some group conferences to provide an opportunity for the teacher candidates to reflect on their lessons. My first question is "What do you think of the lesson you have just delivered?" The answer provides an opportunity to talk about everything that happened during the delivery/implementation period. I try to keep the conversations as natural as possible. The teacher candidate and I share ideas and reflect on the whole lesson together. These sessions promote dialogue about teaching effectiveness and further model reflective thinking about teaching, learning, and performance.

Creating a Growth Portfolio

The process of creating and selecting documents for inclusion in the growth portfolio requires a significant amount of reflective

thinking about oneself as a teacher and one's growth related to the performance standards articulated for student teaching. Portfolio development has become a favorite tool in preservice teacher education because it encourages beginning teachers to gather significant artifacts representing their professional development for the purpose of critical reflection on professional growth over time (Hopkins & Antes, 1990). I require teacher candidates' portfolios to include notes to explain practices that worked well and why each portfolio represents significant artifacts representing the teacher candidates' professional development, materials that document their competencies, and a reflection of which practices worked well and why. The intent is to keep the portfolio over time and to consider growth throughout the teacher's career as one continues to apply reflective learning in practice. At the end of semester, teacher candidates present their portfolios. Teacher candidates have an opportunity to talk about their experiences and the documents they have selected. The reflective process can be one of the most intensive practices to promote reflection and change.

Bridging Differences in Cultural Experiences: Reflective Summary of the Course

Each semester, I give an open-ended question on the 1st day of the junior participation and before the teacher candidates meet the elementary students or mentoring teachers at the PDS:

Please write what you think your experience might be as far as teachers, students, and the school administration at the PDS. You are free to talk about any thoughts that you might have about your anticipated experience. You may also talk about your past experiences, particularly those that you think may have influenced your expectations.

Each semester, the responses to this question generate four themes: the school, family background, the students, and the cooperating

teachers. The school was expected to be "run down" with "poor facilities." It was expected to be of "low morale" and "poor organization." Every teacher candidate expected large class sizes to be the norm. Teacher candidates expected the elementary students to come from low-income families, with half these children coming from single-parent households, broken homes, or troubled backgrounds.

Elementary students were expected to be "awful," "independent," "street smart," "very hard to control," "challenging," "not respectful," "starved for attention," and "undernourished and troublesome"—children who "do not want to listen and follow instructions." "These students will need to be pushed." One candidate said, "Students at this PDS will be expected to swear and have bad behavior possibly from [an] underprivileged home life." Another said, "A good chunk of the students will have learning [dis]abilities they believe cannot be overcome." These students were expected to be "similar to exceptional education students." They were described as "students who go to school because they have to, not because they want to." One teacher candidate said, "Students at this school will have the belief that there is no reason for them to be in school because school is going to do them no good." Each semester, approximately 25% of the teacher candidates said that students at this PDS will be looking for a friend, for help, and that they will be eager to learn from someone new and fresh. Some teacher candidates said that elementary students will be grasping for a positive role model. Teacher candidates also expected the students to be different from suburban elementary students. In comparison to the suburban students, they were expected to be generally louder and to perform below average at their grade level. The majority of the teacher candidates said that they would experience violence and vandalism at the PDS.

Mentoring teachers were expected to be stricter than suburban teachers and to have "laidback classes." There were expectations of yelling and screaming from mentoring teachers, yet they were also described as hardworking—otherwise, they would not be in this inner-city

school. Despite these expectations, all teacher candidates said that they would like their mentoring teachers to be helpful, understanding, and patient. Each semester, approximately one third of the teacher candidates said that they would like to be appreciated and allowed to share what they had to offer, even though they were teacher candidates. One candidate related,

I grew up in a little county. All the residents were White and there was hardly any diversity when considering religion, or ethnic backgrounds. . . . I did not learn about other cultures and I was unaware that these cultures are here in America . . . but I am excited about coming to this urban placement. However, the shift makes me nervous.

The following voices represent approximately 25% of teacher candidates each semester:

- I am looking forward to a positive, fulfilling, and nourishing experience of learning about different cultures.
- I hope to at least influence one child in classroom.
- This is an opportunity to give back to children who are in need of something positive.
- I love diversity. I also enjoy the fact that these children will need a role model.
- I hope to remain open minded and never judge anyone.
- With dedication and creativity, anything can be accomplished.

Teacher candidates' past experiences generally had an impact on their perceptions. Those who had positive prior experiences in urban schools were expecting positive experiences, and those who had negative experiences were expecting negative experiences.

I resolved that the responses to the one open-ended question suggested some kind of intervention—reflective journal entries. My teacher candidates agreed to enter non-judgmental journal reflections every 2 weeks.

Teacher candidates shared their journal entries as a group. I observed their reaction to elementary students' behaviors. I listened to their conversations with elementary students and mentoring teachers. I also listened to their contributions in the elementary classrooms and outside them. I watched them grow completely nonjudgmental in their entries. We met as a group to talk about our many challenges in the school. Each day we drew strength from one another's shared experiences. Teacher candidates who had strong negative opinions about this urban PDS were beginning to think critically about everything they were observing. At the conclusion of the semester's work, the teacher candidates wrote a comprehensive reflective summary of all their experiences. This was an unstructured summary where they were free to write about specific content or general observations coming from their junior participant experience. The following voices, all from teacher candidates, represent those from my 7 years of working in this PDS:

This semester I was able to work with the wonderful students at [PDS]. This was the first time I worked with children in the inner city school. I came into this course with certain misconceptions about the safety of the school and the behavior of the students. I feel as though I have grown immensely as a future educator during the course of EDU312. . . . The experience has proved many myths of urban school to be entirely false. I greatly enjoyed my teaching experience at this school. . . . By means of observations, reflections and teaching experiences, I have been able to gather some skills that I will carry with me throughout my career.

As I write a summary of my experience this semester, one word stands in the forefront of my mind—Awesome. I have learned a lot about "reflection" and feel that it is an essential key in becoming a successful teacher. My JP experience at this school taught me more than I could ever imagine. I realized that the inner city schools are much better than I thought.

I will be honest about the experience at [school]; it has been a challenging but also rewarding and valuable learning experience at the same time. I have truly enjoyed working with you as well. Teaching lessons has been at times challenging but never frustrating. . . . I enjoy participating in this particular school because there is never a dull moment or shall I say "typical" day at [school]. Teaching at this school has given me the opportunity to see the "behind scenes" that you see and hear about in the news.

My experience in EDU 312 was very rewarding. In the classroom setting at this school, I learned many new ways of teaching as well as classroom management techniques. I was very fortunate to have an amazing cooperating teacher who was a great role model. . . . I am very glad that I chose this school to do my EDU 312 class.

The classroom I was in was a challenge to me. There were times when I became frustrated with the students but had to work through it instead of getting upset or giving up. I could see the connection my mentoring teacher had with the students, in a way that I had never seen before or even imagined existed. She was quiet and calm and could always take charge of any situation that faced her. She always got the students back on track because she truly cared about them.

Never assume anything. I began the semester by assuming that my students had more prior knowledge than they actually had. Yelling is not the answer; by speaking to the students in a normal tone, listening to them, and understanding them I was able to gain their respect. . . . Give respect and gain respect.

As the semester comes to an end, I can look back on my experiences as a JP at this school; I can honestly say that I have learned a tremendous amount as a college student and as [a] preservice teacher. Being at [PDS] and in your class has helped me to learn and expand on my knowledge of becoming a reflective and effective teacher.

As I began my semester here, it was an exciting experience. . . . It was a change from the semester before where I was at a suburban school in [district]. . . . My overall experience at this school was one of the best experiences that I have had as a teacher candidate. At the beginning of this semester, I felt that I might not be ready to student teach next fall. After being here, I have learned so much and I feel so comfortable with my teaching ability that I plan on student teaching this fall. . . . I believe that I will continue to grow because of this wonderful experience.

My time at this school has taught me more than I could have imagined about my future profession and myself as well. I value the experiences I have had in this particular school and will take with me an endless amount of irreplaceable learning experiences.

This experience was much different than I had experienced at another urban school experience. In this experience I feel that I have been able to learn and reflect more than I previously did.

Give respect and gain respect. Even though my students are only second graders they are still humans. I saw in the halls of the school how terribly some of the teachers treated the young children. I tried to go in the classroom every day with a caring and loving attitude. I listened to what the students had to say and they, in turn, would listen to me. I feel as though I have become a reflective teacher. I actually began to enjoy writing my refection. Reflecting allowed me to organize my thoughts and determine why certain things were happening. I have found that becoming a reflective teacher will carry over to my personal life and allow me to become a reflective person.

These teacher candidates' reflections represent various kinds of experiences. First, the candidates demonstrate a high level of commitment to reading and understanding the materials on critical reflection. Second, many candidates' shift of attitude toward this PDS,

from fearful and negative to positive, is evident in their biweekly reflections and end-ofsemester summaries. As mentioned, at the beginning of each semester, teacher candidates expect the elementary students to be "awful," "independent," "street smart," "very hard to control," "challenging," "not respectful," "starved for attention," and "undernourished and troublesome"; they are "children that do not want to listen and follow instructions," "students who will need to be pushed," and "students who would have bad behavior possibly from [an] underprivileged home life." A few teacher candidates believed that these elementary students had learning disabilities that the students themselves believed they could not overcome. The candidates thought that most elementary students in this school go to school because they have to, not because they want to—that schooling was not going to do them any good. However, at the end of the junior participation, teacher candidates referred to the elementary students at the PDS as "smart," "eager to learn," and "wonderful." One student said, "The best part of my semester was the relationship I built with my students, one-onone." Many candidates said that they earned the elementary students' respect. By the end of the semester, my teacher candidates were focused on ways to enable the elementary students to reach their capabilities. Teacher candidates were using their reflections to become positive role models in this PDS.

Each semester about 65% to 70% of the teacher candidates said that they had an effective mentoring teacher. About 30% of the teacher candidates said that they had an excellent role model from whom they learned how to become effective teachers. A small set of reflections were similar to that from the teacher candidate who learned how to understand the urban situation and the "behind scenes" that one normally hears about from the media. Still, a third of the teacher candidates said that they learned what not to do. Here is a representative voice:

This semester was the most challenging one I have had over the course of

my college career. . . . I believe I have become a stronger student as well as a stronger teacher because of the things I have had to get through and overcome. I have done a lot of reflection, which I feel has helped me get through this time. I am not pleased with some of the things I have seen at [school] that I felt needed to be addressed. However I am ending this semester with much positive strength that I have gained.

Teacher candidates reported that negative examples such as the one quoted here made them "stronger," able to face and survive any situation. It is important to mention that as teacher candidates returned to examine whether they met the goals they specified at the beginning of the semester, their new goals included their commitment to becoming reflective and effective teachers of all children.

Results: Preservice Teachers' Deeper Understanding of Their Accomplishments

From years of reading reflective projects, I have concluded that the primary benefit of reflective practice for teacher candidates is a deep understanding of their teaching styles and an ability to define how they will grow toward greater effectiveness as teachers. Other benefits include validation or repudiation of teachers' ideals, challenges to traditional modes of practice, the recognition of teaching as artistry, and respect for diversity in applying theory to classroom practice. This kind of reflective practice can be viewed as ongoing action-based research because such research is defined as a tool of curriculum development consisting of continuous feedback that targets problems in a school setting (Hopkins & Antes, 1990).

Practicing critical refection encourages teacher candidates to challenge teaching practices, examine their personal biases, create an environment of trust, and build a context for reflection unique to every learning situation. From careful and methodical shaping of criti-

cal reflection skills, teacher candidates can benefit in overcoming a temptation to rushed judgment.

Conclusion

Critical reflection enables teacher candidates—who in my case happen to be White middle-class females—to benefit in the following areas: first, deeply understanding the ways in which their teaching styles enhance their ability to challenge the traditional mode of practice; second, defining how they will grow toward greater effectiveness as teachers.

As a result of their engagement in reflecting on their practice or prior experiences, teacher candidates examined everything they routinely observed and performed in their classrooms. This finding agrees with Brookfield (1995), Dewey (1933, 1938), Schön (1996), and Van Manen (1995), who laid the groundwork for teachers to differentiate between reflective versus routine action. Another important observation—if not the most important, in my view—is that through continual reflection on what and whom they teach, my teacher candidates' ability to relate to their primarily African American students significantly improved. Howard (2006) has argued that we cannot teach what we do not know. At an individual level, critical reflection does bring about an awareness of the need for change. SUP

References

Au, K. H., & Blake, K. M. (2003). Cultural identity and learning to teach in a diverse community: Findings from a collective study. *Journal of Teacher Education*, 54(3), 192–205.

Banks, J. A. (2002). Cultural diversity and education: Foundations, curriculum and teaching. Boston: Allyn & Bacon.

Bright, B. (1996). Reflecting on reflective practice. Studies in the Education of Adults, 28(2), 162–184.

Brookfield, S. (1995). Becoming a critically reflective teacher. San Francisco: Jossey-Bass.

- Brookfield, S. (2004). The getting of wisdom: What critically reflective teaching is and why it's important.

 Retrieved from http://nlu.nl.edu/academics/cas/ace/facultypapters/StephenBrookfield.cfm
- Cranton, P. (1996). Professional development as transformative learning: New perspectives for teachers of adults. San Francisco: Jossey Bass.
- Dewey, J. (1933). How we think: A restatement of the relation of reflective thinking to the educative process. Boston: Heath.
- Dewey, J. (1938). Experience and education. New York: Macmillan.
- Eubanks, S. C., & Weaver, R. (1999). Excellence through diversity: Connecting the teacher quality and teacher diversity agendas. *Journal of Negro Education*, 68, 451–459.
- Frank, A. (2003). If they come, we should listen: African American education majors' perceptions of a predominately White university experience. *Teaching and Teacher Education*, 19, 697–717.
- Fullan, M. G. (1993). Change forces: Probing the depths of educational reform. London: Falmer.
- Hopkins, C. D., & Antes, R. L. (1990). Educational research: A structure of inquiry (3rd ed.). Itasca, IL: Peacock.
- Howard, G. R. (2006). We can't teach what we don't know: White teachers, multiracial schools (2nd ed.). New York: Teachers College Press.
- Kettle, B., & Sellars, N. (1996). The development of student teachers practical theory of teaching. *Teaching and Teacher Education*, 12(1), 1–24.
- Ladson-Billings, G. (1994). The dreamkeepers. San Francisco: Jossey-Bass.
- McKnight, D. (2002). Field experience handbook: A guide for the teacher intern and mentor teacher. College Park: University of Maryland.
- Merrifield, M. (1993). Reflective practice in global education: Strategies for teacher educators. *Theory Into Practice*, 32(1), 1–6.
- Milner, P., & Endo, H. (2005). Journey to becoming a teacher: The experiences of students of color. *Multicultural Education*, 13(1), 2–9.

- National Council of Teachers of Mathematics. (2000). Principles and standards of school mathematics. Reston, VA: Author.
- Quiocho, A., & Rios, F. (2000). The power of their presence: Minority group teachers and schooling. *Review of Educational Research*, 70, 485–528.
- Reagan, T. G., Case, C. W., & Brubacher, J. W. (2000). Becoming a reflective educator: How to build a culture of inquiry in the schools (2nd ed.). Thousand Oaks, CA: Corwin.
- Ryan, K., & Cooper, J. M. (2006). Those who can, teach. Boston: Houghton Mifflin.
- Scharton, S. (2004). "I did it my way": Providing opportunities for students to create, explain, and analyze computation procedures. *Teaching Children Mathematics*, 10, 278–283.
- Schön, D. A. (1996). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. San Francisco: Jossey-Bass.
- Trafton, P. R., & Midgett, C. (2001). Learning through problems: A powerful approach to teaching mathematics. *Teaching Children Mathematics*, 7, 532–536.
- Van de Walle, J., Karp, K., & Bay-Williams, J. (2004). Elementary and middle school mathematics: Teaching developmentally. Boston: Allyn & Bacon.
- Van Manen, M. (1995). On the epistemology of reflective practice: Teachers and teaching. *Theory and Practice*, 10, 33–50.
- Willis, P. (1999). Looking for what it's really like: Phenomenology in reflective practice. *Studies in Continuing Education*, 21(1), 91–112.



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