

Images and Beliefs:
Emerging Themes on Pedagogy
from Pre-Service Teachers

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Previous research suggests that teacher education programs may have little or no impact on teacher candidates' beliefs about teaching (Brookhart & Freeman, 1992; Knowles, Cole, & Presswood, 1994; Korthagen & Kessels, 1999) and that teachers' beliefs are difficult to change (Borko & Putnam, 1996; Calderhead, 1996). As new teacher educators employed at a large urban university located in the Southwestern United States, we were dismayed to discover that the instruction we were providing to students in the elementary teacher education program was quite possibly having little impact on their existing beliefs. Taking seriously Kagan's (1992a) call for teacher education programs to require students to make their pre-existing beliefs explicit and to "give novices extended opportunities to examine, elaborate, and integrate new information into their existing belief systems" (p. 77), we decided to reconceptualize the introductory elementary teacher education course. We wanted to examine the impact of instruction on entry-level beliefs:

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that is, if instructional tasks were designed to provide students with the opportunity to explore and reflect upon their belief systems, would we notice any changes in their beliefs?

Background/Contexts

For the purposes of this study, we chose to focus on a course entitled “Introduction to Elementary School Teaching.” Because this is the first required education course in our traditional program, we felt that it was a suitable context for determining entry level beliefs. By entry level, we mean those beliefs that are generally defined as pre-service teachers’ implicit assumptions about students, learning, classrooms and subject matter (Kagan, 1992a). These beliefs develop through thousands of hours of observing actual teachers (Britzman, 1991) and stereotypical images of teachers in popular culture. Indeed, as Weber and Mitchell (1995) note, television and other forms of popular culture serve as the first Faculty of Education for adults who wish to become teachers. Before teacher candidates even begin their programs, they have developed “personal beliefs about teaching and images of good teachers” (Kagan, 1992b).

In order to capture the complexities of these beliefs about teachers and teaching, we decided to collect visual data in addition to written data. As Weber and Mitchell (1996, p. 305) write, “Drawings offer a different kind of glimpse into sense-making than written or spoken texts do because they can express that which is not easily put into words: the ineffable, the elusive, the not-yet-thought-through, the subconscious.” Images, say Calderhead and Robson (1991), provide us with an indicator of teachers’ knowledge about teachers, children, and teaching methods. According to Kagan (1992a), this knowledge can be regarded more accurately as belief. Images, then, can be considered reflections of beliefs surrounding teaching and teachers. We believed that collecting visual data would show the integration of candidates’ beliefs about teachers, students, instruction, content, and context.

On the first day of class, students were asked to draw a picture of themselves teaching and to write a paragraph describing their picture. We called this work their “entry” pictures and reflections, signifying that these images were constructed prior to experiences in the introductory course.

At the end of the term, in lieu of a final examination, students were again asked to draw a picture of themselves teaching and to think about visually representing their philosophy of education, their beliefs about learning, and the human dimensions of learning. Additionally, they were required to compare this picture to the one drawn on the first day of class

in a written reflection. We referred to this assignment as the “exit” data, as it was completed at the end of the course. In addition to these two tasks that dealt explicitly with interrogating images of teachers and teaching, we developed other tasks that encouraged students to reflect on their beliefs about teaching. Students were required to complete 24 hours of observation in local elementary schools, for which we designed observation assignments to elicit student beliefs about teaching and learning. For example, one assignment asked students to reflect on assumptions they made regarding diversity in the classroom.

When all course requirements were completed and final grades were submitted, students were invited to participate in our study. As we explained in our consent letter, participation was minimal as students had already completed the course. Participation involved consenting to give the researchers permission to analyze written reflections and drawings. Twenty students (3 males and 17 females) out of 27 agreed to participate.¹ Participants were predominantly Caucasian with a mean age of 25 years.

Analyses

Data were analyzed in three interrelated phases using a modified version of the *constant comparative method* (Bogdan & Biklen, 1998) in which developing themes are integrated with new material from each phase. During all phases of analysis, both researchers took notes about their impressions. These notes were the basis for discussion, further analysis, interpretation, and data reduction (Marshall & Rossman, 1989).

Our approach toward uncovering or isolating the thematic statements in the texts (i.e., drawing and written reflections) was the selective reading approach advocated by van Manen (1990). After reading and viewing the texts several times, we asked, “What statements(s), phrase(s), or detail(s) seem particularly essential or revealing about the image being described?” These statements were then highlighted and used for further analysis (Bogdan & Biklen, 1998; van Manen, 1990).

Each participant had an “entry” and “exit” image and a transcribed set of reflections that included discussion about both drawings. These data were split into two random groups and were labeled Group #1 and Group #2. This was done to allow for the *purposeful sampling* (Bogdan & Biklen, 1998) of participants and *verification checks* during analyses (Creswell, 1994). For example, categories that were developed in Group #1 were checked against data and compared with categories within Group #2. Categories that were not substantiated after both groups were

analyzed did not remain. Therefore, we feel that the categories that emerged from this study had a substantial degree of validity. In terms of the inter-rater consistency, all disagreements concerning categories were settled in conference after a thorough discussion to ensure a high degree of reliability.

Phase 1

During Phase One, entrance drawings were analyzed to get our overall impressions. This was done purposefully so that the textual data would not influence our impressions of the participants' images. At this point there were no *a priori* categories established. The main questions asked of the drawings were: "What are teachers saying and doing?" and "What are students saying and doing?"

Group #1 was analyzed first; several broad categories emerged from our impressions of the drawings. After examining Group #2's drawings and the usefulness of the previously established categories, two broad categories remained: Images of Teaching/Learning and Contexts For Teaching.

Phase 2

During Phase Two, the entry drawings were analyzed to, again, allow for our impressions of the images. Imposed categories from Phase One were brought in along with the possibility for new categories to emerge. Along with the aforementioned two categories, eight subcategories were developed (i.e., Group #2's drawings were examined and the categories were further refined and validated.)

Phase 3

During Phase 3, meaning units were gleaned from the transcribed participant reflections and subsumed under the previously existing categories (Moustakas, 1994). Categories continued to be refined and reflections that were either not pertinent or redundant were discarded. At the end of this phase two categories and six subcategories remained, along with the textual examples that best illustrated the categories.

Findings

We present the results of two categories that emerged from participants' beliefs about teaching: (1) Images of Teaching/Learning and (2) Contexts For Teaching. Although we discuss these categories separately, we recognize that in the classroom such distinctions are blurred.

Images of Teaching/Learning

Participants' depictions and descriptions of teaching/learning events addressed three components of curricular experience: beliefs about instruction, participation, and content. In the entry and exit pictures and narratives we analyzed these commonplaces by asking four questions: (1) What counts as teaching? (2) How are teachers and students participating in teaching/learning events? (3) What does their participation entail? (4) What is being learned?

Beliefs about Instruction

Similar to Weber and Mitchell's (1996) findings, we found classical, traditional images of instruction to be prevalent in the entrance data. The act of teaching was viewed primarily as transmission of knowledge, most often involving whole class instruction in activities such as students copying from the board or listening to teacher lectures. One participant described this mode of instruction as "forcing my opinions on them." Another participant noted that he was telling students how to solve the math questions on the board. These images are consistent with Brookhart and Freeman (1992), who noted that entering teacher candidates view instruction primarily as dispensing information.

A variety of instructional modes were portrayed in the exit texts in addition to traditional teacher lectures. Many of the teacher candidates reflected upon successful instructional strategies they had seen during their observation hours. For example, students were drawn constructing models of the solar system, solving math problems collaboratively in small groups, and receiving individual instruction from the teacher as the remainder of the class participated in center time. As Melissa explained in her reflection, "the students are learning from hands-on experiences instead of just hearing me teach." Students were often depicted working together instead of sitting silently at their desks: "I put my students into groups. It symbolizes my belief that learning is social."

Beliefs about Participation

All initial drawings and reflections were clearly teacher-centered. Teachers were portrayed at the front of the class, usually in the center of the picture. In one instance, the teacher drawn was actually standing on a platform at the front of the class (Figure 1). "I am the focus. The kids revolve around me," stated Dan. In these teacher-centered drawings the participation of students in teaching/learning events was minimal. Their participation seemed limited ("the students are listening to me teach") as they quietly and attentively sat at their desks.

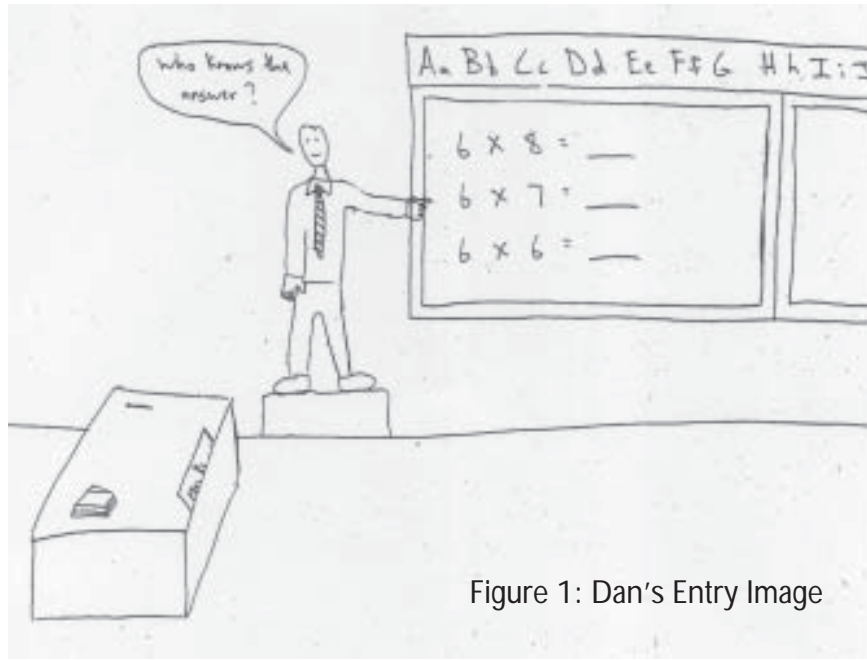


Figure 1: Dan's Entry Image

According to Calderhead and Robson (1991), teacher candidates have difficulty taking children into account when discussing their beliefs. We found this phenomenon reflected in our data in that very few students were drawn (between three and twelve students per classroom) and in two cases no students appeared in the drawing.

A key difference between the entry and exit pictures is a shift from teacher-focused drawings to student-focused drawings. Our participants seemed to agree with Ayers (1993) regarding the role of the teacher: "Outstanding teachers engage youngsters, interact with them, draw energy and direction from them" (p. 29). For instance, Denise wrote, "My main focus for the second picture is my students, as they are the most important people in the classroom, not me." In this re-visioned view of the classroom, teachers were not necessarily seen as the dispensers of knowledge, and students' experiences and ideas were valued. "Each person, including myself," said Angela, "has a light bulb over their heads showing that we are all learning from one another." Student participation in teaching/learning events increased and involved more than sitting and listening. Students were portrayed out of their desks (lying on the floor reading, hunching over the computer, talking with one another) and seemed to be actively involved in the learning process (see Figure 2). Many of the participants recognized the relationship between

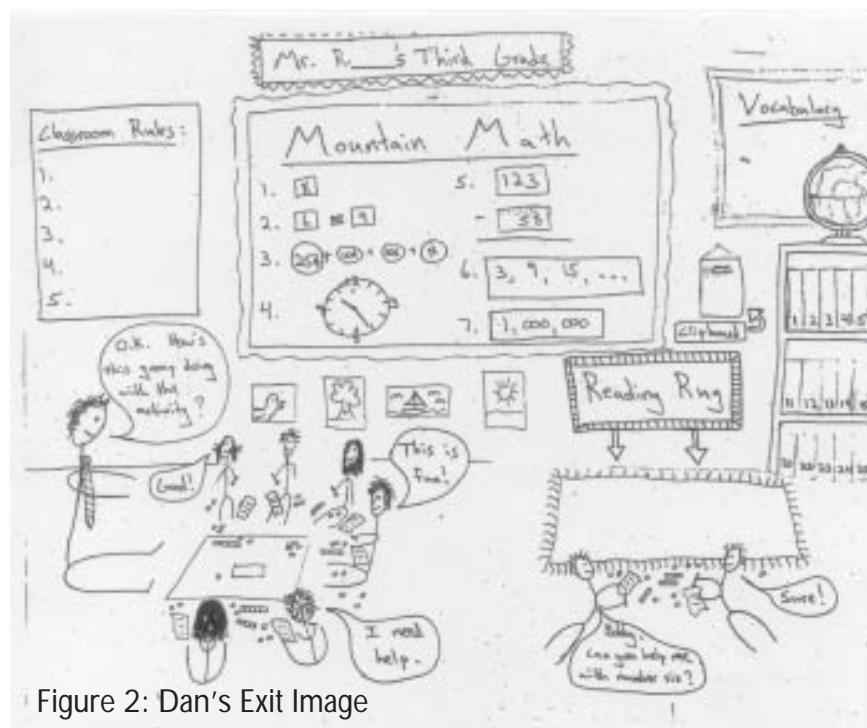


Figure 2: Dan's Exit Image

instructional strategy and student participation. "I am teaching an interactive lesson now, and the students are not as passive," said one participant. David mentioned his realization that "just writing questions on the board and answering them is not the ideal way to teach students. I believe I should allow students to discover how to solve them."

Beliefs about Content

A limited awareness of curricular components was displayed in the entry data. In most of the classrooms, students were learning basic skills and discrete facts. Basic math facts ($2+2$), for example, were drawn on the chalkboards in 12 pictures (see Figure 1 for an example). Equally popular were lists of spelling words. Interestingly, and as further evidence of our participants' failure to take into account subject matter when thinking about teaching and learning, the word "curriculum" did not appear in any written reflections.

Another striking change between the entry and exit texts involved the participants' view of curriculum. In all of the entrance pictures, and like most current school curricula, curriculum was reduced to a noun: the lesson plan, the scope and sequence chart, the mastery test, the goals and

objectives (Kincheloe, Slattery & Steinberg, 2000). In the exit pictures, however, many students recognized that curriculum is an active process: “In my second picture, we are experiencing the curriculum rather than robotically completing worksheets.”

In the exit texts, a greater number of curricular components were portrayed. Instead of only math and spelling being taught, students were receiving instruction in art, science, and social studies. Even within a specific curricular area, a greater range of content and instructional strategies was depicted. For example, in math students were doing more than memorizing basic facts through independent skill and drill exercises. In the exit texts, students were involved in place value, addition with regrouping, and problem solving activities by using math manipulatives and math games. Students were also shown working at interactive math centers.

When comparing the entry and exit data, it became clear to us that our participants’ images of teaching/learning had undergone significant changes. Instead of traditional teacher-centered classrooms, our participants began to recognize other ways of “being a teacher” and the challenges of these new images.

Contexts for Teaching

According to Palmer (1998), “Teachers possess the power to create conditions that can help students learn a great deal—or keep them from learning much at all. Teaching is the intentional act of creating those conditions” (p. 6). From the entry and exit data, we came to see that our participants viewed creating conditions, or what we called “contexts,” as a crucial aspect of classroom life. In participants’ descriptions and reflections on the contexts of teaching, three sub categories emerged from participants. The three categories include beliefs about (1) Physical Environment, (2) Affective Relationships, and (3) Classroom Management.

Beliefs about Physical Environment

Many participants portrayed the “ideal” classroom in terms of the physical setting. “My first picture had a very simple and ideal classroom setting. All of the students were looking straight ahead and I was doing my perfect little math lesson.” Additionally, the physical environment included several descriptions of it being very tidy and orderly including: “Neat little rows of students’ desks facing the front of the room where the teacher’s desk is” Other than the teacher’s desk and straight rows of desks, the images did not have much detail, as one participant recognized. If detail was given, traditional props were often included such as

the alphabet chart, bulletin boards, displayed spelling words, globes on the teacher's desk, large almost overpowering chalkboards, apples, flags, pointers, and chalk.

Another intriguing aspect of the context of learning that was depicted and described by the majority of participants was the physical separation or distance between students and teacher and among the students themselves. Linda stated: "In the first one, my students are sitting away from each other, each in his/her own desk." Another participant noted that "drawing Number One leaves a lot of open space" and that "there is a clear separation between myself and my students." Indeed, these were stark, colorless, cold, white-spaced places.

As shown in the exit drawings and reflections, participants began to realize the crucial link between the physical environment of the classroom and the potential for student involvement (Jarolimek & Foster, 1997). Orderly rows of students gave way to desks and/or students arranged in circles, in small groups of twos and fours, round tables, and a variety of centers. One participant saw this as the biggest difference in her entry and exit images: "I had pushed the desks aside and the kids made a circle. I had the kids be in a circle because the children won't get bored by just sitting at their desks, and they would be able to participate a lot more." Tim stated that "during my observations I noticed that lining the desks up in rows presented a problem. It seemed some students received more attention in the front rows than others. It also does not allow students to interact with each other to work on assignments." Several of the classrooms contained no desks at all in the exit drawings.

Every one of the exit images included more detail concerning the physical environment. One such detail was a more realistic body count of students in the classroom. One student summarized this by stating that he "was amazed at the amount of bodies a teacher is responsible for!" Overall, 78 students were drawn in the entrance images and 147 students were drawn in the exit images.

Depictions of the influence of technology in education was a new arrival in the exit drawings: "In this new age of technology, a computer is needed in the classroom." Another participant stated that he had not realized "the effect of technology in teaching today. The applications for technology in the classroom are only limited to the imagination of the teacher." Other instructional resources in the exit images included mini-libraries, many decorations, and an overhead projector. Interestingly, chalkboards were still prevalent, although they no longer overpowered the room.

Finally, in the physical setting of the exit drawings the distance that was portrayed earlier wasn't as apparent. This closeness between teacher

and student did not go unnoticed by participants in their reflections. Wrote one, "Now I am in the middle of the class and my students are surrounding me."

Beliefs about Affective Relationships

Similarly, the physical separation that was apparent among all participants in the classroom showed itself in the seeming lack of affect which would lead to more negative feelings associated with the learning environment. Participants failed to recognize the importance of the teacher-student relationship in the entry data. None of the participants portrayed any aspect of affect between teachers and students that are advocated in the literature (e.g., Zehm & Kottler, 1993). Furthermore, classrooms were drawn as stale and lifeless. As one participant noted, "That picture looks so boring! I would hate being a student in that class—I would hate teaching in that class!"

The affective aspects of the learning context were very much alive in the exit images. The influence of the textbook used in the course was particularly apparent. Zehm and Kottler (1993) stress the crucial link between developing a true relationship between student and teacher and its impact on learning, saying "Learning most easily takes place within the context of a safe environment in which people feel secure enough to experiment, to take risks, to venture beyond their capabilities into the great unknown" (p. 44). Angie paraphrased this belief in her reflection: "After taking the course, I have a better understanding of the academic scene. The greatest aspect of teaching, in my mind, is almost intangible. It is the growth, the relationships, the human dimension of teaching." Several participants felt that their second drawing depicted the room climate as much warmer, more inviting, softer, positive, and giving.

To add to the more human side of teaching and the relationships that can be nurtured, some participants depicted posters with various positive messages affirming individual student accomplishments and learning in general. For example, one participant reflected that in her exit drawing, "I drew posters of my Student of the Week because I learned that student recognition is really important in building positive relationships between myself and my students."

Beliefs about Classroom Management

Interestingly, very few of the entry images included details concerning aspects of classroom management. Only two images portrayed hints of classroom management or discipline problems. Although it has been reported that classroom management is on the minds of many pre-

service teachers (Woolfolk, 1998), participants' self-reported ignorance and lack of experience in the classroom showed in their images.

Another very apparent addition to participants' exit images of the contexts for teaching was various examples of classroom management. Along with this added detail was a sense of a more realistic classroom. To help them stay organized, message boards, posted daily agendas, and student reminders were evident. For instance, several humorous portrayals included the teacher with eyes drawn in the back of her head and specific discipline problems related to the learning environment. One participant stated, "You may notice that the boys' bathroom pass and the office pass are missing. Bobby and Eric are not at their desks and I am asking the rest of the class where they are. They have been gone too long." Another participant noted that she "added a girl spilling water on the floor and a boy pulling a girl's hair just to express that things do not necessarily flow smoothly and that is one of the challenges of teaching." Along these same lines, a detention list, a set of classroom rules, and other expectations for positive behavior were drawn.

Overall, there was a striking contrast between the images of the contexts for teaching that were constructed before and after the class. In the exit data classrooms were depicted as busy, visually stimulating, detailed, colorful places to be. Comparing images drawn by the same participant (Figure 1 and Figure 2) provides an excellent example of the contrasts between entry and exit pictures.

Implications

Traditional stereotypes of teaching and teachers are still powerful forces in the classroom (Weber & Mitchell, 1996). Seemingly, the course work encountered in teacher preparation programs does little to dislodge these traditional images once teacher candidates begin student teaching. Goodlad (1999), finding an extraordinary lack of variety in pedagogy at all grade levels, believes that teacher candidates' professional education appears not to "jar them loose" from equating the way teaching is with the way teaching should be. In order to help our students think and act in ways that will lead to good teaching, it is important to explicitly and intentionally challenge their traditional beliefs. Until teacher candidates understand the relationship between what they do in classrooms and their beliefs about what ought to occur, it will be difficult for them to participate effectively in the teaching process (Maxson & Sindelar, 1998). Critically examining their beliefs allows teacher candidates to begin the process of thoughtfully considering the way teaching should be. Reflection and discussion of beliefs, together with classroom field place-

ments, assists students' understandings of teaching and learning in context (Gallego, 2001).

Course work must be reconceptualized, and not only in the introductory courses. Assignments such as the drawing and reflecting tasks of this study, in conjunction with earlier exposure to classrooms in field work, provides an opportunity for preservice students to articulate their beliefs and to consider the implications of holding such beliefs. Beginning with images of teachers and teaching, these images can then become meaningful tools for guiding and reflecting on practice (Dooley, 1998). In addition to articulating beliefs, images of teaching and learning can be used to interrogate these beliefs. When teacher educators become aware of the assumptions that teacher candidates bring to our classrooms, we can introduce experiences that address particular misconceptions about the nature of teaching and learning (Dooley, 1998). For our students, the drawing activities served to make explicit some of their beliefs about teaching and learning. By the end of the course, for example, Bobbie had a more detailed and realistic image of herself as a teacher: "I now have a visual image in my mind." According to Stuart and Thurlow (2000), it is important for preservice teachers to connect to a personalized vision of what their classroom could be. The drawing activity is one way to provide the opportunity for students to develop a vision of their future classrooms.

Other instructional tasks that provide opportunities for students to articulate and examine their beliefs about teaching are also necessary as students continue their program. As many of our participants recognized, belief systems are dynamic:

As you can tell simply from looking at my second picture compared to my first, my beliefs about teaching have changed from the beginning of the semester. And while it has changed once, I expect it will change in the future as I continue to grow as a person and learn more about being a teacher.

As Wilson (1990) says, our job as teacher educators is "to help students find ways to examine their beliefs, discard those that are unhelpful or outdated, and acquire new ones" (p. 205).

Note

¹ Pseudonyms are used to refer to these participants.

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