

Please share your stories about how Open Access to this article benefits you.

Preservice Teachers' Metaphors of Teaching in Relation to Literacy Beliefs

by D. Massengill Shaw

A. Barry

and M. Mahlios

2008

This is the author's accepted manuscript, post peer-review. The original published version can be found at the link below.

Massengill, D., Barry, A., & Mahlios, M. (2008). Preservice teachers' metaphors of teaching in relation to literacy beliefs. *Teachers and Teaching: Theory and Practice*, 14(1), 35-50.

Published version: <http://dx.doi.org/10.1080/13540600701837632> .

Terms of Use: <http://www2.ku.edu/~scholar/docs/license.shtml>

Preservice Teachers' Metaphors of Teaching in Relation to Literacy Beliefs

By

D. Massengill Shaw, A. Barry, and M. Mahlios

Abstract:

The purpose of this study was to examine preservice elementary and secondary English and foreign language teachers' metaphors and relate their metaphorical images to conceptions of literacy. Specifically, sixty-six participants completed a questionnaire that solicited their sense of teaching. Results indicated that the preservice teachers' beliefs could be categorized into nine themes. The most common metaphors for teaching were nurturing, guiding, promoting learning and qualities of effective teachers. In comparing response patterns between elementary and secondary, there was considerable overlap among and between categories. There appeared to be limited variability in responses specifically among secondary majors. An association was found between four metaphors and literacy beliefs. We advocate that future research should solicit preservice teachers' metaphors of literacy across content areas and then compare the selected metaphors to their teacher education literacy program in order to better align student learning with the program's conceptual framework. Further, novice teachers should be followed into the classroom and monitored as they engage in learning to teach. We believe the metaphor will continue to be a powerful conceptual means for framing and defining teachers' awareness of their beliefs.

Previous schooling experiences are key to the conceptions and beliefs preservice teachers hold about teaching (Kagan, 1992). Preservice teachers' past learning experiences influence how they act and think during teaching as well as how they interpret the practice of teaching (Bullough, Knowles & Crow, 1992; Butt & Raymond, 1987; Connelly & Clandinin, 1988; Pajares, 1992). In addition to the role that previous schooling plays in the formation of teacher beliefs, other important influences include familial and cultural understandings, and interaction with formal knowledge of subject matter (Richardson, 1996). It is important for teacher educators to recognize and study the existing beliefs of preservice teachers because student conceptions affect their learning in the teacher education program. Moreover, it is a goal of teacher education to assist teachers to examine their beliefs and relate their beliefs to classroom action (Fenstermacher, 1994) and to help preservice teachers understand the influence of beliefs as they learn to teach and how their beliefs change through socialization and experience (Richardson, 1996).

One way to conceptualize the beliefs of individuals is through the use of metaphors. Metaphors are the larger constructs under which people organize their thinking and from which they plan their actions on the multiple environments in which they participate including, to some extent, how they teach and work with students (Lakoff & Johnson, 1980; Hardcastle, Yamamoto, Parkay & Chan, 1985). Several studies have used the metaphor as a tool to investigate preservice teachers' beliefs. Mahlios and Maxson (1995) discovered that preferred metaphors for elementary and secondary school were family and team, and metaphors for life were tree, ocean, mountain and trail. The two most frequently selected metaphors for childhood were flower and spring. Thereafter, the preservice teachers' metaphors of life, childhood and schooling were compared to the adjectives they used to describe ideal students, teachers, administrators and

parents. Mahlios and Maxson found considerable overlap in the adjectives describing ideal adult roles across metaphorical themes and concluded that preservice teachers often possess simple and naïve views of children that cross over the actual differences in their root metaphors. A later study (Mahlios & Maxson, 1998) categorized preservice teachers' metaphors of teaching into four themes: teaching as telling, teaching as nurturing, teaching as guiding and teaching as stimulating. This study found that preservice teachers' personal metaphorical beliefs hold more importance for them than concepts and beliefs commonly taught in their teacher preparation programs. Moreover, novice teachers often experience conflict between their beliefs and the reality of teaching and schooling during their initial classroom teaching experiences (author, in press).

One area of study that has not been investigated is preservice teachers' metaphors of teaching across differing academic majors and content area beliefs. Therefore, the specific purpose of this study was to identify the metaphors of undergraduate elementary preservice teachers and undergraduate secondary English and foreign language majors and relate their metaphorical images to conceptions of literacy. Questions used to guide this study include the following: What patterns exist among the metaphors used to describe their sense of teaching? What are the similarities and differences among metaphors by the differing content areas? How do the metaphors of these preservice teachers relate to literacy beliefs?

Theoretical Framework

Teaching Beliefs

The theoretical framework for examining teachers' beliefs was Zeichner and Gore's (1990) theory of teacher socialization. This theory holds that an individual becomes a participating member in the society of teachers through a process that is influenced by pre-

training experiences as a pupil, formal pre-service teacher education and in-service years of teaching. Academic analysis alone is insufficient for encouraging personal responses to beliefs; teacher candidates become socialized into the profession during the practice teaching component. Meaning is derived through social interaction between persons and modified through a largely internal process of interpretation. Becoming a professional teacher is an interactive and interpretive process between the meaning making of a novice teacher in relation to the context of his teacher education program and the context of his actual practice. The theory of teacher socialization promotes coherence between thought and action.

A classroom will take on its own meaning based on the teacher's beliefs. One way to understand what teachers do in their classrooms and why, is to recognize the teacher's unique and individual beliefs (Nespor, 1987). Beliefs are part of a construct that "name, define, and describe the structure and content of mental states that are thought to drive a person's actions" (Richardson, 1996, p. 102). Typically beliefs are an understanding that a person holds that s/he accepts as true (Green, 1971). Teaching beliefs usually come from personal experience (Clandinin, 1986), prior schooling and instructing experiences (Anning, 1988; Britzman, 1991; Knowles, 1992), and interaction with formal knowledge. Formal knowledge may be imparted, for example, through interaction with school personnel, books, television, and religious classes.

There seem to be several common themes in the beliefs of preservice teachers regardless of their academic major (Richardson, 1996). The themes include preservice teachers possess optimism and a confidence in their ability to become a teacher, they desire to make a contribution to public service and they readily assert that experience is the best teacher. There also appear to be differences between the beliefs of elementary and secondary education majors. Khan and Weiss (1973) learned that elementary and female teachers possessed more positive

attitudes towards students than secondary and male teachers. Preservice elementary teachers also seemed more tolerant of behavior problems than secondary majors. Book and Freeman (1986) found elementary preservice teachers were more child-oriented than secondary majors, whereas secondary majors were more interested in their subject matter content. Secondary majors provided more complex explanations and rationale about student achievement differences (Avery & Walker, 1993) and secondary preservice teachers offered more originality and creativity in expressing their metaphorical beliefs than their elementary counterparts (Mahlios & Maxson, 1998).

A number of studies have shown the power of the preservice teachers' beliefs; their beliefs strongly affect what and how they learn. Britzman (1991) and Calderhead and Robson (1991) found that preservice teachers have strong positive or negative images of previous teachers, and these reflections greatly influence how they receive and act on their teacher education program. Bullough, Knowles and Crow (1992) and Butt and Raymond (1987) assert that these held beliefs of preservice teachers influence how teachers think, act and view the teaching experience. Too often, ideas and views of preservice teachers have been ignored (Carter, 1990; Connelly & Clandinin, 1988, Kagan, 1992). Pajares (1992) states that the lack of exploring the preservice teachers' beliefs may be one cause for outdated and ineffective teaching practices.

In sum, personal beliefs are central to one's inner self; they shape how one learns and teaches. There appear to be differences in beliefs between elementary and secondary majors. However, preservice teacher beliefs, in general, indicate optimism and confidence about their work. Further, these beliefs should be recognized, valued and acted upon by teacher educators.

Metaphors

Humans use words and images to interpret life, their experiences, and even their sense of self. Some, like Vygotsky (1962), argue that language itself defines and limits our thinking, just as our past experiences influence the way we view and interpret present and future experiences. The publication of Lakoff and Johnson's Metaphors We Live By (1980) sparked the growing interest in the study of metaphor as a means of identifying how teachers understand themselves and their profession (e.g., Munby, 1986; Provenzo, McCloskey, Kottkamp & Cohn, 1989; Tobin, 1990). This interest has been based largely on the idea that metaphors offer a potent, if not primary means by which people conceptualize and eventually come to understand their life experiences (Lakoff & Johnson, 1980).

For the purposes of this line of research, metaphor refers to those analogic devices that lie beneath the surface of a person's awareness, and serve as a means for framing and defining experiences (Hardcastle, Yamamoto, Parkay, & Chan, 1985; Yamamoto, Hardcastle, Muehl, & Muehl, 1990). Much of the earlier research has focused on preservice teachers who have already been enrolled in several education courses, or on inservice teachers (e.g., Bullough, 1991). Only a few studies have begun to examine the metaphors students bring with them into their teacher preparation program (e.g., Comeaux, 1992; Mahlios & Maxson, 1995, 1998). Research has largely left unexamined the possibilities that metaphors change over a period of time, or how they relate to the theoretical orientation of their teaching area.

We agree with Lakoff and Johnson (1980) and Hardcastle, Yamamoto, Parkay and Chan (1985) that metaphors are the larger constructs under which people organize their thinking and from which they plan their actions on the multiple environments in which they participate including, to some extent, how they teach and work with students.

Literacy Beliefs

“Literacy is, by nature, an ever-evolving concept” (Barr, Watts-Taffe, Yokota, Venture & Caputi, 2000; p. 463). Literacy continues to be redefined as we understand more about the processes that are involved in reading, how best to teach those processes and the differences in types of literacy tasks that are required of humans today.

In a traditional sense, literacy skills have been taught as assigned tasks, in which students have been required to complete their work and have it verified by the teacher, e.g., reading a passage and answering questions. In this manner, much of the literacy experience has focused on teacher control of pupil behavior, often with minimal cognitive engagement from the student. In contrast, authentic tasks require students to cognitively and actively engage in material that connects to the real world (Hiebert, 1994). One component of authentic literacy is the role of peer discussion. Through the process of talking with others about their reading, deeper meaning and understanding of the text result (Alamsi, 1995; 1996). Also, students' self-discovery awakens as they hear their peers' interpretations and formulate their own personal interpretation of text (Rosenblatt, 1994). Rosenblatt (1994) has explained that meaning is not already in the text itself, but rather meaning is attained through a transaction between reader and text. Moreover, she advocates that each reader's individual interpretation of the text be shared in a collaborative interchange where student and teacher dialogue can enhance growth and understanding. One way for this to occur is for students to work in small groups. Small groups are often formed based on student needs or interests (Fountas & Pinnell, 1996, 2001). This flexible grouping provides an environment for students to be active, risk-taking participants. In this context, students can metacognitively engage in their reading. Metacognition is the ability to think about one's cognitive processes (Brown, 1985; Garner, 1994). This means that when

readers engage in the process of reading they are aware of their thinking and the strategies they use to identify words and comprehend the text. Struggling readers possess less metacognitive awareness than competent readers (Alexander & Jetton, 2000). Therefore, it is important to teach students to become strategic readers. Strategic readers are able to publicly analyze and talk about their literacy behaviors and use that knowledge when they are learning something new, when they encounter a problem in their reading and when their processing capacity is exceeded (Paris, Lipson, & Wixson, 1994).

The goal of literacy instruction is to prepare students to become successful people who are able to read and write. One way to help students develop in their literacy skills is to scaffold instruction. Scaffolding is rooted in the social constructivism theory, where the teacher provides instruction to the student in his/her zone of proximal development (Vygotsky, 1962). In this manner, the expert assists novice learners to higher levels of conceptual learning that would not be possible without the teacher. In classrooms, this scaffold may be found through direct and supportive approaches. Directive scaffolds are similar to direct instruction of skills (Pressley, 1998), whereas supportive scaffolds allow the teacher to provide a more learner-centered context where there is dynamic assessment and feedback (Bransford, Brown, & Cocking, 1999). Roehler and Cantlon (1997) have identified four types of scaffolds: explicit modeling where the teacher shows how to think-aloud comprehension processes, direct explanations, invitations for students to participate in the conversation through active encouragement and complex language, and verifying or clarifying student understanding.

Often these understandings and beliefs about literacy are presented to preservice teachers in their teacher education program. Yet, when the teachers enter classrooms, they face many challenges in school settings that impede their ability to act on these literacy beliefs. Several

studies have indicated the dichotomy that exists between the literacy beliefs of teachers and the reality of the classroom; teachers are powerfully swayed in the direction of school dominance. Content area preservice teachers tend to lean towards styles of teaching that reflect transmitting knowledge through teacher control rather than interactive, independent-promoted activities (Fox, 1994; Bean & Zulich, 1992; Bean, 1997; Wilson, et al, 1993). Through case study, Konopak, Wilson and Readance (1994) showed how George, a secondary social studies teacher with nineteen years of experience, showed inconsistencies between his literacy beliefs (which were reader-based) and practice (which were drill and practice dominated by teacher talk and literal responses). The researchers concluded that George's responses reflected his thinking of what he believed should be done although he was not able to connect his beliefs with his practice. Factors such as range of student abilities and mandated curricula influenced his teaching. Other factors that may sway teachers' practices include large class size, the pressure for students to succeed on standardized tests, and state and school guidelines (Alvermann & Moore, 1991).

Muchmore (2001) closely followed one urban high school English teacher (Anna) for five years to identify her beliefs, analyze them in light of her practice, and investigate how her beliefs changed. Muchmore discovered Anna began teaching with temporary beliefs that resulted from her schooling and teacher preparation program, but she changed her teaching to reflect her long-standing beliefs that developed from her personal life experiences. Anna abandoned the temporary beliefs when they did not effectively assist her students. As Anna became more aware of her beliefs, she relinquished teacher-control and focused on learner-centered teaching. Anna's fundamental beliefs about literacy reflected her desire for students to engage in reading, writing and talking to get to know oneself. She emphasized that literacy is important for self-discovery and growth.

Deal and White (2003) observed two elementary preservice teachers (Maggie and Natalie) over the course of student teaching through the full-time teaching of year two. Maggie and Natalie's belief structure were influenced by the sense of reality of time and resources, what is important and what can really be done, and a confidence that arose as they developed their own identity as a teacher through reflection and willingness to adapt and take risks. Maggie began student teaching with literacy beliefs grounded in direct instruction and phonics. Over time she began to value a more balanced literacy instructional program and the importance that students need to have meaning and purpose in their literacy tasks. Maggie believed that students should drive instruction, students should receive differentiated instruction based on their needs, and it was her responsibility to believe that all children could be successful. In comparison, Natalie began her teaching career believing that nurturing and meeting students' emotional and social needs is of foremost importance. She emphasized differentiated instruction within a balanced literacy framework. After time, Natalie continued to hold the belief of balanced literacy and differentiated instruction; however, she also realized instruction should motivate and reflect students' interests, and that taking risks and having high expectations for students are essential. Deal and White concluded that these two preservice teachers' beliefs were challenged during student teaching, and their beliefs began to change when they became more explicit and embedded within practice.

Literacy beliefs are constructed from content presented in education courses and personal life experiences. It appears that novice teachers experience change in beliefs when they are presented with conflicting classroom challenges. The implications for teacher educators are to provide support systems for student teachers as they encounter real-life confrontations and to relate concepts in the teacher education program and school context as much as possible because

this alignment appears to positively influence the development of the coherence between thought and action, i.e. socialization theory (Zeichner & Gore, 1990).

Methodology

We administered a six-part questionnaire entitled “What Was School Like?” (Yamamoto, K., Hardcastle, B., Muehl, S. and Muehl, L., 1990) to elementary and secondary education majors during the fall of 1999. Part 1 solicits demographic data. Part 2 directs students to recall their elementary and secondary school experiences and to check the listed metaphors that best describe each. Students were also directed to give reasons for their metaphor selection. Part 3 asks students to check their ideal school environment. Part 4 asks students to respond to a series of items that describe themselves using a four-part Likert scale (i.e. strongly agree and so on) inventory of self-esteem. The scale in part 4 is an adapted short form of the Coppersmith (1967) *Self-Esteem Inventory*. Part 5 asks students to think about life, childhood, and teaching by responding to metaphors of life and childhood, giving reasons for those responses and creating their own personal metaphors for teaching. In Part 6, students self-selected eight adjectives to describe their ideal student, teacher, parent and school administrator.

We selected the instrument for this study for three reasons. First, it has a long research history with cross-cultural populations, established validity and extensive research use (Hardcastle, et al, 1985; Yamamoto, et al, 1990). Second, Yamamoto and his colleagues developed the instrument through a comprehensive review of the educational literature, selecting constructs commonly used in the literature to describe life, schooling and children (Hardcastle, et al, 1985). Finally, the instrument provides respondents an opportunity to self-report their own metaphors.

We employed a type case model as described by Everston, Weade, Green and Crawford (1985). We took each single case and analyzed its metaphorical content (Ball & Smith, 1992), then other cases were compared and contrasted. By examining each open response, recurrent patterns of metaphors could be determined. Once patterns were identified, the type case analysis allowed identification of what metaphors were typical or ordinary and what metaphors were atypical or extraordinary based on the frequency of occurrence. The use of content analysis as a research tool has some limitations that should be mentioned. A frequency count does not indicate what meaning or significance a particular item might have, only how often the item appears (Ball & Smith, 1992). Also, sometimes the written word could be interpreted in different ways. What we saw in the phrases may not be entirely representative of what the students meant to convey.

After the overall metaphorical categories were identified, the differences in metaphorical beliefs between elementary and secondary teachers' were connected to prior research. Next, each theme of metaphor was analyzed for the number of respondents from the three academic majors: foreign language, English and elementary. The patterns among and between academic subgroups were compared and contrasted. Finally, the metaphorical variables were interpreted against literacy beliefs.

Participants

The sixty-six participants were majoring in professional education and were enrolled in their licensure year at a large Midwestern research university. Five secondary participants majored in foreign language. All five were White-European female and four were age 22 or younger, while one was in the age range of 23 to 30. Seventeen English majors were all White-European and four were male. Half of the English majors were 22 or younger. There were 44

elementary majors. Five were from ethnic groups other than White-European (Hispanic-Mexican, Black-African, Asian or Indian) and four were male. Seventeen preservice teachers were age 22 or younger, twenty-two participants ranged between 23 to 30 years of age and the remaining five participants were above 30 years of age.

Results and Discussion

It was the purpose of this study to compare the preservice teachers' metaphors between elementary and secondary majors and across foreign language and English content areas, and to relate the identified metaphors to literacy beliefs. The results will be presented through the guiding questions.

What patterns exist among the metaphors used to describe preservice teachers' sense of teaching?

Examination of the participants' written responses to "What is your sense of teaching?" revealed that preservice teachers had very definite and varied metaphors about teaching. Their ideas could be classified and themed under nine broad categories: adventure, guide, nurturer, mountain, sculptor, bird, self-identity, learning, and qualities of effective teachers. Specific examples may better illustrate the nature of these categories.

Adventure. In the category of adventure, the preservice teachers chose descriptive words, such as "inspiring and exciting," "excited, eager, scared and strong." One participant described teaching as "a cooperative adventure. Students, teachers, parents, administrators – hopefully all working together to discover the possibilities of life and the knowledge we all need to be complete." Two participants described the adventure through the analogy of a rollercoaster. One mentioned that there will be ups and downs like a roller coaster, but she will never regret her career decision. Another preservice teacher said that each child will get on the roller coaster

looking for a fun ride; some children will be scared and others will be excited. If she can help the children so they get off the roller coaster saying, "That was great! I can do it on my own," then the preservice teacher will feel successful.

Guide. The concept that a teacher can be a guide or facilitator revealed itself through novice teachers' words. "I see myself as a tour guide/park ranger. I'm leading a child on their trail for awhile – giving suggestions about where to go next and teaching them how to survive and enjoy their environment." "Teaching is guiding a student to their fullest potential (take personality, talent and desires of child and use these characteristics to find happiness)." "Provide guidance and meaning and learning to life." Even though an analogy of a trail was most common, one preservice teacher paralleled guiding with "driving a bus. Kids need someone to drive them where they are going but there is some choice within and between buses."

Nurturer. The most common category among novice teachers is the metaphorical image of supporting and nurturing students. Many participants used the words *gardener*, *nurturer*, *caring*, *supportive*, and *growing*. Two gardening metaphors were specifically expressed as, "A gardener. Planting seeds of knowledge and nurturing the future" and "walking through a garden. In a garden, you see lots of different flowers – each beautiful in its own way – that's how I feel about students." These preservice teachers who believe teaching is nurturing consider it their responsibility to provide an environment that is conducive to their students' learning and growing.

Mountain. The idea that teaching is like climbing the mountains represent the challenges and efforts of education. The hike takes knowledge and skill. One participant said teaching is "challenging because you deal with so much diversity in your students, teaching strategies, et

cetera.” Another said that “every day there will be a small shower (challenge) but the scenery makes it worth it.”

Sculptor. Several novice teachers spoke of the artistic and creative opportunity they possess. One preservice teacher focused on being a sculptor; “teachers need to help shape young people in a positive way to promote citizenship.” Another referenced the “molding of minds; teachers are creative motivators who, with enthusiasm and variety, can maximize student-interest and learning.” A foreign language major said that teaching is participating in the “creation of a collage. Each teacher adds information and value to the kids so the end product is a person with many different experiences each teacher helped create.”

Bird. The two participants who selected the metaphor of a bird flying revealed two different perspectives. One novice teacher wrote, “like a bird learning to fly!” The second participant said, “spread your wings and fly.” Both desired to help their students be free to leave the nest, but the first teacher focused on instructing the bird (student) how to fly while the second celebrated the success of the bird (student) who learned how to fly.

Self-identity. It is a goal of teachers to “help students know themselves,” and “find their strengths and weaknesses and learn how to use these throughout their life.” The teachers who responded through metaphors that fit into this category mentioned the emotional, social and cognitive abilities of children. One participant said, “We have to find children’s strengths and weaknesses so that we can enable them to find their own rainbow.”

Promote learning. A number of respondents believed it was their role to “help children succeed.” This means teaching them “to think for themselves and be responsible.” One participant referred to the process as “opening the door of knowledge” and another said, “Give them tools to learn and think.” The learning environment should be based in the “world around

them.” Sometimes this means accommodating varied learners by providing different opportunities for children to learn. It may be a shared experience between teacher and student, but most importantly, the learning experience should be positive.

Qualities of effective teachers. Interestingly, some preservice teachers interpreted the question “What is your sense of teaching?” to mean qualities they need to possess in order to provide children effective schooling experiences. Their adjectives are varied: open (to ideas and styles of teaching), changing (adaptable to students’ needs and ideas), prepared, flexible, goal-oriented, sense of humor, optimistic, energetic, and creative. One participant said that she felt it was important to be a good role model. Two novice teachers believed they would be learning from their mistakes and successes and growing professionally. Another preservice teacher framed the context and impact as a “constant evolution.”

These nine categories show the diversity that teachers possess about their view of teaching. The present themes can be compared to categories identified in prior research. Mahlios and Maxson (1998) asked elementary and secondary participants to identify their beliefs of school. The most common metaphor in the previous study was “family,” followed by “team.” Compared to the participants’ selections in this current study, the metaphorical foundation of a family or team would include responses that correspond to the categories of nurturing, guiding, and self-identity. The similarities between the previous and current study show that preservice teachers’ believe that education should be supportive of children. However, there are notable differences between the past and present study due to some categorical disparities. In the previous research study, several students chose metaphors such as circus, stage, and crowd to characterize school experiences. In contrast, the participants in the present study more often chose metaphors such as adventure, mountain, and bird. The responses that fit into the metaphors

of adventure, mountain and bird, reflect a more positive connotation than those in the Mahlios and Maxson (1998) study.

The current participants' metaphors of teaching may be compared to previous participants' metaphor of life. In the earlier study, secondary and elementary participants most commonly chose life as a tree growing and life as climbing a mountain (Mahlios & Maxson, 1998). Other metaphors selected by a few novice teachers included life is like an ocean with waves, following a trail, a bird flying, chasing a rainbow and going down a river. These metaphorical categories of life that were stated by previous education participants are very similar to those in the current study in which preservice participants' sense of teaching included metaphors of nurturing, guiding, adventure, mountain, and bird.

What are the similarities and differences among metaphors by the differing content areas?

Table 1 illustrates the metaphorical images selected by elementary, English and foreign language secondary majors. The four most common metaphors accounted for 70% of the responses and included nurturing (26%), guiding (17%), promoting learning (13.5%) and qualities of effective teachers (13.5%). As can be seen, the two most common metaphors, guiding and nurturing, accounted for approximately 42% of the total responses.

There seems to be homogenous views among the twenty-two secondary and forty-four elementary participants. In comparing response patterns between elementary and secondary, there was considerable overlap among and between categories, with only one category (bird) that was not chosen by any of the secondary preservice teachers. All three majors, elementary, foreign language and English, selected nurturing to be their foremost choice of metaphors to describe their sense of teaching. The elementary participants chose, in rank order, nurturing, guiding and qualities of teachers; whereas, English majors equally emphasized, nurturing,

guiding and promoting learning. Foreign language teachers wrote of nurturing as their first choice, followed equally by adventure and sculpting.

There also appear to be some differing views, specifically among secondary majors. Although fewer participants in the secondary group limited the diversity of responses, there are a few categories that were not selected by any participants by major. For example, guiding, mountain, bird, self-identity, promoting learning and qualities of effective teachers were not chosen by any foreign language majors. No English participant mentioned the adventure of teaching or the view that teaching is helping children learn to fly (bird). The secondary participants seemed less focused on helping students discover their identity and did not, as frequently, articulate the qualities they need to possess as a teacher.

In prior research by Mahlios and Maxson (1998), four themes had previously been identified: teaching as guiding, teaching as nurturing, teaching as stimulating and teaching as telling. In comparing the findings of this present study to the previous research, three themes were evident: teaching as guiding, teaching as nurturing and teaching as stimulating. The first two are quite clearly and commonly stated. In the third category, it appeared that stimulating the learner meant that teachers provided a positive, realistic world view that helped children learn in any way possible. Teaching as stimulating is comparable to the category in the present study that contained responses that indicated “teaching is to promote learning,” of which four English and five elementary majors selected by their words. The fourth category that Mahlios and Maxson identified, teaching as telling, was not reflected in the present preservice teachers’ responses. However, the literature has indicated that in practice, teachers’ actions often fall into this category, i.e. teaching as telling (Fox, 1994; Bean & Zulich, 1992; Bean, 1997; Wilson, et al, 1993).

Lakoff and Johnson (1980) illustrated how metaphors can link together through entailments. In prior research, this concept was displayed in a visual and descriptive format. Taking the two most common categories, nurturing and guiding, Mahlios and Maxson (1998) identified the coherence between the two entailments as “moving students toward a goal” (p. 237). Nurturers emphasized the need to provide students with support and Guiders felt they should encourage and lead their students to new information. Both views require teacher support and academic content.

In the present study, coherence among and between metaphors may be found in the categories of climbing a mountain and being a guide. Figure 1 provides an example of how two of the metaphors link, and thus forecast possible cognitive structures guiding thinking and practice possibilities. Some of our participants saw teaching as guiding while others saw it as climbing a mountain. In both cases these participants saw teaching as supporting students learning. Those who selected guiding defined the support as scaffolding instruction and transferring responsibility to students. Those who selected climbing a mountain defined support as giving suggestions and helping students make wise choices so they can become skilled climbers and enjoy the hike. The coherence between the two entailments comes from the amount of support the students need and the transfer of responsibility on the journey.

In sum, it appears that the three groups of teachers-to-be (elementary, English, foreign language), share some considerably similar views of teaching. Across all three majors, nurturing was selected as their foremost preference followed by an emphasis on guiding and promoting learning.

How do the metaphors of these preservice teachers relate to literacy beliefs?

No known study has solicited teachers' metaphorical beliefs about literacy or any content area. However, the metaphors that participants selected in this study can be related to the literature on literacy beliefs. Specifically, there appear to be similarities between literacy beliefs and the metaphors of nurturing, self-identity, promote learning and guiding.

The connotation of nurturing implies a conducive learning environment where the teacher provides love and care to the students, and the classroom is designed as a safe place where students are encouraged to take risks. One way to provide attention to the students is through small-group literacy instruction where students are grouped based on their needs or interests. Small groups are best employed in a classroom with a nurturing and safe environment where students are free to take risks and engage in their interaction with others and they are nurtured as active learners. Morrow (1988) and Morrow and Smith (1990) found that reading to children in small-groups provided as much interaction as one-on-one and led to greater comprehension than individual or whole group settings. In secondary content-area classrooms, student-centered small-group methods do not appear often (Bean, 2000) and may be a result of need for teacher-control, the focus to cover as much content material as possible or differences in teacher beliefs. However, secondary students prefer small-group interaction and like being given the opportunity to learn concepts through social construction (Lloyd, 1996).

The metaphorical statements of self-identity focused on helping students to know themselves and learn how to best use their strengths and weaknesses. One way to promote this identity is through sharing the private interpretations of text (Rosenblatt, 1994). The transaction that occurs between text and reader is individual and personalized. When students make their interpretations public in a setting such as literature discussions, they carefully listen to their

peers' interpretations, share opinions and ask questions, and they are often challenged to stand for their beliefs and interpretations (Almasi & Gambrell, 1994). Not only are the students engaged and motivated as they talk and work together to master knowledge (Almasi & McKeown, 1996; Morrow & Asbury, 1999), but they also learn about themselves through the process.

In the category of promoting learning, teachers believe they should give students tools to think, to be responsible and to learn from the world around them. This draws upon the literacy concept that instruction should be authentic. Authentic tasks are those that serve a function for the children and connect to the real-world in which they live (Hiebert, 1994). When students are involved in authentic tasks their cognitive engagement increases and they become more active in their thinking. In addition to providing students with authentic, meaningful literacy experiences, students need to become responsible and be given tools to think. This may be accomplished by teaching students how to be metacognitive and think about their cognitive processes (Brown, 1985; Garner, 1994), how to monitor their learning and how to become strategic (Paris, Lipson & Wixson, 1994).

A common metaphor selected among preservice teachers is guiding students to new knowledge. There is a difference between "guiding" students and "telling" students about knowledge. In the former, the emphasis is on scaffolding; the teacher guides the participation of the student (Rogoff, 1990, 1995) and guides their discovery (Brown & Campione, 1994). Scaffolding assists novice learners to higher levels of conceptual learning that would not be possible without the teacher. In classrooms, this scaffold may be found through direct and supportive approaches. In this manner, "guiding" students' literacy development begins with the teacher modeling his/her thought processes and then transferring the responsibility to the student.

As can be seen, connections can be made among metaphorical beliefs and literacy instruction. We have specifically related the metaphors of nurturing, self-identity, promoting learning and guiding to literacy beliefs and practices of social construction of knowledge through discussion of literature and interactions with others, scaffolding, authenticity, metacognitive practices of strategic learners, and small-group instruction.

Implications and Recommendations

This study allows us to see preservice teachers' core beliefs of teaching expressed through metaphors. Several dominant categories arose such as nurturing and guiding, and several less common metaphors of teaching were also found (bird, mountain, sculptor). We also have looked closely to determine categorical similarities and differences among teachers' content majors. While there appear to be more similarities than differences between elementary and secondary majors, we know there are variations among students who pursue differing majors (Bean, 2000). Reasons for this variation among participants by major areas may be a result of individual uniqueness, distinctions among the content area subculture and differing previous in-field experiences. Grossman and Stodolsky (1995) stated that secondary teachers have distinctive subject subcultures that are set apart by contrary norms, beliefs and practices. We recommend that educators discuss the differences in beliefs and practice among and between subject areas. Through "interpretive communities," one's understanding of his/her own belief system can be both challenged and enriched.

Similar concepts are evident in the comparison of metaphors and literacy beliefs. For example, we know that children construct meaning through their personal transaction with the text as well as their social interactions. These experiences help students find their identity. Good readers are strategic and metacognitively aware of their thinking, which promotes responsibility

and becoming an independent learner. Scaffolding is explicitly connected to guiding students on their learning journey and nurturing provides opportunities for student needs to be met, which may occur in small-group instruction. We interpret these parallels to indicate that even though metaphors were not solicited exclusively for literacy, their conceptual and heuristic nature allows educators to expressively identify their beliefs across school in general and literacy in specific.

The challenge arises in connecting beliefs to practice; research has documented the discrepancy between teachers' stated beliefs and their practices. Even though teachers' beliefs and metaphors indicate they value student learning, their interpretation of those beliefs through practice vary in significant ways. This means that we must continually study the complex, diverse contexts in which learning occurs. One way to conduct this investigation may be through teacher autobiographies, dialogue journals, self-examination of metaphors and their meaning, discussion of teaching cases and discussing field experiences with preservice and novice teachers (Bullough & Baughman, 1997; Bullough et al, 1992). It is through depth of inquiry that complex issues will be better understood.

It is recommended that teacher educators become more aware of their students' beliefs (Richardson, 1996) and the quality of their teacher education experiences (Dewey, 1938). Since these hold such power in their teaching style and effectiveness, we would better serve our preservice teachers by soliciting their views and experiences, and then analyzing them against the program's key concepts. In this matter, the differences may be presented to students, discussed and interpreted, which may, in turn, positively influence their understanding and accommodation of program beliefs.

Even though this study has value, we must also acknowledge its limitations. First, the small sample size and unequal samples of secondary and elementary candidates prevents us from

making conclusive generalizations. Second, we do not have evidence of how their metaphors are displayed in teaching – we are not able to analyze the alignment between metaphorical beliefs and practice. Also, self-reporting data can be a limitation, especially when not triangulated with observations and interviews.

This study has afforded insight into the beliefs that preservice teachers hold about teaching, and the similarities and differences in teaching metaphors among elementary and secondary English and foreign language majors. Further research should solicit preservice teachers' metaphors of literacy across content areas. Then, the similarities and differences of the metaphors should be identified and compared to the teacher education literacy program to seek coherence among the program's key concepts and themes. Differences between student beliefs and the conceptual principles of the literacy program should be presented to preservice teachers to aid in their understanding and accommodation of program concepts, practices, and beliefs. Thereafter, it is recommended to follow several teachers as they instruct literacy in the classroom to investigate their metaphorical literacy beliefs and practices. As they experience conflict and change and must confront the truths they hold, we believe the metaphor will continue to be a powerful conceptual means for framing and defining their awareness.

The field of literacy is dynamic and ever-changing. We are continually learning more about the transaction that occurs between reader-text, as well as how the social context of learning influences literacy experiences and the development of skills. We have begun to understand the strategies that readers use and how better to articulate and scaffold them in our instruction. Information on the topic of literacy continues to expand and deepen. As teachers gain formal knowledge, they may question and redefine their beliefs, which in turn influence their teaching. In this manuscript, we have examined an association between metaphors of teaching

and the literature on literacy, which indicates the possibility that the metaphor may offer educators a conceptual means to define and examine their literacy beliefs. Metaphors, in general, offer a framework for organizing one's thinking and plan for action. As the field of literacy continues to revolutionize, one's metaphor of literacy may change over time, or the metaphor may be a concrete and potent means to describe one's beliefs amidst the pendulum swings in the field. These questions remain to be examined.

References

- Alexander, P. A., & Jetton, T. L. (2000). Learning from text: A multidimensional and developmental perspective. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (p. 285-310). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Almasi, J. F. (1995). The nature of fourth graders' sociocognitive conflicts in peer-led and teacher-led discussions of literature. *Reading Research Quarterly*, 30 (3), 314-351.
- Almasi, J. (1996). A new view of discussion. In L. B. Gambrell, & J. Almasi (Eds.), *Lively discussions! Fostering engaged reading* (pp. 2-24). Newark, DE: International Reading Association.
- Almasi, J. & Gambrell, L. (1994). *Sociocognitive conflict in peer-led and teacher-led discussions of literature* (Rep. No. 12). University of Maryland and University of Georgia, National Reading Research Center: University of Georgia.
- Almasi, J., & McKeown, M. (1996). The nature of engaged reading in classroom discussions of literature. *Journal of Literacy Research*, 28 (1), 107-146.
- Alvermann, D., & Moore, D. (1991). Secondary school reading. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2, pp. 951-983). New York: Longman.
- Anning, A. (1988). Teachers' beliefs about children's learning. In J. Calderhead (Ed.), *Teachers' professional learning* (pp. 128-145). London: Falmer.
- Avery, P., & Walker, C. (1993). Prospective teachers' perceptions of ethnic and gender differences in academic achievement. *Journal of Teacher Education*, 44 (1), 27-37.

- Author, (in press). Metaphors and sense of teaching: How these constructs influence novice teachers. *Teaching Education*.
- Ball, M. S., & Smith, G. W. H. (1992). *Analyzing visual data*. Newbury Park, CA: Sage.
- Barr, R., Watts-Taffe, S., Yokota, J., Ventura, M., & Caputi, V. (2000). Preparing teachers to teach literacy: Rethinking preservice literacy education. *Journal of Literacy Research*, 32 (4), 463-470.
- Bean, T. W. (1997). Preservice teachers' selection and use of content area literacy strategies. *Journal of Educational Research*, 90, 154-163.
- Bean, T. W. (2000). Reading in the content areas: Social constructivist dimensions. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of Reading Research* (pp. 629-644). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Bean, T. W., & Zulich, J. (1992). A case study of three preservice teachers' beliefs about content area reading through the window of student-professor dialogue journals. In C. K. Kinzer & D. J. Leu (Eds.), *Literacy research, theory, and practice: Views from many perspectives: Forty-first yearbook of the National Reading Conference* (pp. 463-474). Chicago: National Reading Conference.
- Book, C., & Freeman, D. (1986). Differences in entry characteristics of elementary and secondary teacher candidates. *Journal of Teacher Education*, 37 (2), 47-51.
- Bransford, J. D., Brown, A. L., & Cocking, R. R. (1999). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academy Press.
- Britzman, D. (1991). *Practice makes practice: A critical study of learning to teach*. Albany: State University of New York Press.

- Brown, A. L. (1985). Metacognition: The development of selective attention strategies for learning from texts. In H.S. Singer & R. B. Ruddell (Eds.), *Theoretical models and processes of reading* (3rd ed.). Newark, DE: International Reading Association.
- Brown, A. L., & Campione, J. C. (1994). Guided discovery in community of learners. In K. McGilly (Ed.), *Classroom lessons: Integrating cognitive theory and classroom practice* (pp. 229-270). Cambridge, MA: MIT Press.
- Bullough, R. V., Jr. (1991). Exploring personal teaching metaphors in preservice teacher education. *Journal of Teacher Education*, 42 (1), 42-51.
- Bullough, R. V. Jr., & Baughman, K. (1997). *"First year teacher" eight years later*. New York: Teachers College Press, Columbia University.
- Bullough, R. V., Knowles, J. G., & Crow, N. A. (1992). *Emerging as a teacher*. New York; Routledge.
- Butt, R. L., & Raymond, D. (1987). Arguments for using qualitative approaches in understanding teacher thinking: The case for biography. *Journal of Curriculum Theorizing*, 7 (1), 66-93.
- Calderhead, J., & Robson, M. (1991). Images of teaching: Student teachers' early conceptions of classroom practice. *Teaching and Teacher Education*, 7, 1-8.
- Carter, K. (1990). Teachers' knowledge and learning to teach. In W. R. Houston, M. Haberman, & J. Sikula (Eds.), *Handbook of research on teacher education* (pp. 291-310). New York: Macmillan.
- Clandinin, D. J. (1986). *Classroom practice: Teacher images in action*. Philadelphia, Falmer.

- Comeaux, M. (1992). *Challenging students' views about teaching and learning: Constructivism in social foundations classroom*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- Connelly, F. M., & Clandinin, D. J. (1988). *Teachers as curriculum planners: Narratives of experience*. New York: Teachers College Press.
- Coppersmith, S. (1967). *The antecedents of self-esteem*. San Francisco: W. H. Freeman.
- Deal, D., & White, C. S. (2003). Influences and evolving literacy beliefs of elementary teachers: A longitudinal study. Paper presented at the National Reading Conference, Scottsdale, AZ.
- Dewey, J. (1938). *Experience and education*. New York: Collier Books.
- Everston, C. M., Weade, R., Green, J. L., & Crawford, J. (1985). *Effective classroom management and instruction: An exploration of models. Final report*. National Institute of Education Grant (NIE-G-83-0063).
- Fenstermacher, G. D. (1994). The place of practical arguments in the education of teachers. In V. Richardson (Ed.), *Teacher change and the staff development process: A case in reading instruction* (pp. 23-42). New York: Teachers College Press.
- Fox, D. L. (1994). What is literature? Two preservice teachers' conceptions of literature and of the teaching of literature. In C. K. Kinzer & D. J. Leu (Eds.), *Multidimensional aspects of literacy: Research, theory and practice: Forty-third yearbook of the National Reading Conference* (pp. 394-405). Chicago: National Reading Conference.
- Fountas, I. C., & Pinnell, G. S. (1996). *Guided Reading: Good first teaching for all children*. Portsmouth, NH: Heinemann.

- Fountas, I. C., & Pinnell, G. S. (2001). *Guiding readers and writers*. Portsmouth, NH: Heinemann.
- Garner, R. (1994). Metacognition and executive control. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (p. 715-732). Newark, DE: International Reading Association.
- Green, T. (1971). *The activities of teaching*. New York: McGraw-Hill.
- Grossman, L. G., & Stodolsky, S. S. (1995). Content as context: The role of school subjects in secondary school teaching, *Educational Researcher*, 24 (8), 5-11.
- Hardcastle, B., Yamamoto, K., Parkay, F.W., & Chan, J. (1985). Metaphorical views of school: A cross-cultural comparison of college students. *Teaching and Teacher Education*, 1(4), 309-315.
- Hiebert, E. H. (1994). Becoming literate through authentic tasks: Evidence and adaptations. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (p. 391-413).. Newark, DE: International Reading Association.
- Kagan, D. M. (1992). Professional growth among preservice and beginning teachers. *Review of Educational Research*, 62 (2), 129-169.
- Khan, S., & Weiss, J. (1973). The teaching of affective responses. In R. M. W. Travers (Ed.), *Second handbook of research* (pp. 759-804). Chicago, Rand McNally.
- Knowles, J. G. (1992). Models for teachers' biographies. In I. Goodson (Ed.), *Studying teachers' lives* (pp. 99-152). New York: Teachers College Press.
- Konopak, B. C., Wilson, E. K., & Readance, J. E. (1994). Examining teachers' beliefs, decisions, and practices about content-area reading in secondary social studies. In C. K.

- Kinzer, D. J. Leu (Eds.), *Multidimensional aspects of literacy research, theory, and practice*. Chicago, IL: National Reading Conference.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: University of Chicago Press.
- Lloyd, C. (1996). Scientific literacy in two high school biology classrooms: Considering literacy as a social process. *Journal of Classroom Interaction*, 31, 25-30.
- Mahlios, M. & Maxson, M. (1995). Capturing preservice teachers' beliefs about schooling, life and childhood. *Journal of Teacher Education*, (46) 3, 192-199.
- Mahlios, M. & Maxson, M. (1998). Metaphors as structures for elementary and secondary preservice teachers' thinking. *International Journal of Educational Research* (29) 3, 227-240.
- Morrow, L. M. (1988). Young children's responses to one-to-one story readings in school settings. *Reading Research Quarterly*, 23, 89-107.
- Morrow, L., & Asbury, E. (1999). Best practices for a balanced early literacy program. In L. Gambrell, L. Morrow, S. Neuman, & M. Pressley (Eds.), *Best practices in literacy instruction* (pp. 49-67). New York: Guilford.
- Morrow, L. M., & Smith, J. K. (1990). The effects of group size on interactive storybook reading. *Reading Research Quarterly*, 25, 214-231.
- Muchmore, J. A. (2001). The story of "Anna": A life history study of the literacy beliefs and teaching practices of an urban high school English teacher. *Teacher Education Quarterly*, 28 (3), 89-110.
- Munby, H. (1986). Metaphor in the thinking of teachers: An exploratory study. *Journal of Curriculum Studies*, 18 (2), 197-209.

- Nespor, J. (1987). The role of beliefs in the practice of teaching. *Curriculum Studies*, 19 (4), 317-328.
- Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62 (3), 307-332.
- Paris, S. G., Lipson, M. Y., & Wixson, K. K. (1994). Becoming a strategic reader. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (p. 788-810). Newark, DE: International Reading Association.
- Provenzo, E. F., Jr., McCloskey, G. N., Kottkamp, R. B., & Cohn, M. M. (1989). Metaphor and meaning in the language of teachers. *Teachers College Record*, 90 (4), 551-573.
- Pressley, M. (1998). *Reading instruction that works: The case for balanced teaching*. New York: Guilford Press.
- Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education* (pp. 102-119). New York: Macmillan.
- Roehler, L. R., & Cantlon, D. J. (1997). Scaffolding: A powerful tool in social constructivist classrooms. In K. Hogan and M. Pressley (Eds.), *Scaffolding student learning: Instructional approaches and issues* (pp. 6-42). Cambridge, MA: Brookline.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. (1995). Observing sociocultural activity on three planes: participatory appropriation, guided participation, and apprenticeship. In J. V. Wertsch, P. Del Rio, & A. Alvarez (Eds.), *Sociocultural studies of mind* (pp. 139-164). New York: Cambridge University Press.

- Rosenblatt, L. (1994). The transactional theory of reading and writing. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (1057-1092). Newark, DE: International Reading Association.
- Tobin, K. (1990). Changing metaphors and beliefs: A master switch for teaching? *Theory into Practice*, 29 (2), 122-127.
- Wilson, E. K., Konopak, B. C., & Readence, J. E. (1993). A case study of a preservice secondary social studies teacher's beliefs and practices about content-area reading. In D. J. Leu & C. K. Kinzer (Eds.), *Examining central issues in literacy research, theory, and practice: Forty-second yearbook of the National Reading Conference* (pp. 335-343). Chicago: National Reading Conference.
- Yamamoto, K., Hardcastle, B., Muehl, S., & Muehl, L. (1990). Metaphorical images of life in young and middle adulthood: An exploration. *The Journal of Psychology*, 124 (2), 143-154.
- Vygotsky, L. S. (1962). *Thought and language*. Cambridge, MA: MIT Press.
- Zeichner, K., & Gore, J. (1990). Teacher socialization. In W. R. Houston, M. Haberman, & J. Sikula (Eds.), *Handbook of research on teacher education* (pp. 329-348). New York: Macmillan.

Table 1
Metaphors of Teaching across Content Area

	Secondary				Elementary		Total N
	Foreign Language		English		N	%	
	N	%	N	%			
Adventure	1	20	0	0	5	11.00	6
Guide	0	0	4	23.33	7	16.00	11
Nurturer	3	60	4	23.33	10	22.00	17
Mountain	0	0	1	6.00	3	7.00	4
Sculptor	1	20	1	6.00	2	5.00	4
Bird	0	0	0	0	2	5.00	2
Self-Identity	0	0	1	6.00	3	7.00	4
Promote Learning	0	0	4	23.33	5	11.00	9
Qualities	0	0	2	12.00	7	16.00	9

Figure 1

