ANALYZING STUDENT TEACHER REFLECTIVE PRACTICE

By:

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A dissertation submitted to the

Graduate School of Education

Rutgers, The State University of New Jersey

In partial fulfillment of the requirements for the degree of

Doctor of Education in Elementary and Early Childhood Education

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August 2011
ABSTRACT OF THE DISSERTATION:
Analyzing Student Teacher Reflective Practice
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While most teacher educators and researchers agree that preservice and inservice teachers need to be reflective in their practice, simply providing opportunities for these teachers to reflect has been shown to be insufficient because the reflection is often not productive (Davis, 2006). It is also unclear as to what these “reflective opportunities” look like. This practitioner inquiry study provided early childhood student teachers with reflection opportunities and then analyzed the outcomes of these opportunities in relation to the student teachers’ development and growth as reflective practitioners.

The analysis of the data revealed that the majority of the participants’ written and oral reflections were descriptive; they primarily provided a narration of what occurred in a teaching experience. As descriptions, they generally did not include critical, or even basic, questioning of what they did or why they were doing it. While description was the primary type of reflection in this study, at times the student teachers began to move beyond basic descriptions. These reflections primarily occurred when the student teachers were in the presence of each other and me in the pedagogical teacher discussion group meetings. As the group became more cohesive and active, this led to slightly deeper reflections. But, it also produced an environment where the student teachers sometimes supported each other in inappropriate or immature thinking about both their teaching and the children in their classrooms. While the student teachers did use the meetings to talk, listen and support each other, the dialogues also revealed that they tended to feed off each other’s assumptions rather than challenge them. They listened to each other and...
engaged in conversation, but were unable to change each other’s opinions about certain aspects of teaching and the children.

It was also revealed that the student teachers’ sharing and integration of documentations and artifacts in their conversations in the group meetings offers further evidence of social conversation providing an opportunity for more extended reflection. Looking across all of the discussions that involved documentations and artifacts, I discovered that the use of them deepened the dialogue.

In my analysis of my role as a facilitator in the pedagogical teacher discussion group meetings, I discovered that, for the most part, I typically acted as cheerleader for the student teachers by recognizing their work in their student teaching classrooms. I also acted as the person in the group meetings who tried to keep the conversation going, though I discovered that there were many moments where I fell short of this role. I worked to ask clarifying questions that were mostly fact based, and only occasionally asked a question that required deeper thought and analysis from the student teachers. Sometimes my talk caused the student teachers to provide more detail, or provide another level of their reflection (emotional feelings for example) that was not present in their original reflection. There were other times, though, where it did not cause their reflection to expand in any way. I should have asked more questions, or at least talked more to see if there was a possibility of the reflection becoming more detailed or thoughtful. My role could have been more questioning and demanding. While at times I think it was important for me to be silent and let the student teachers question and talk with each other, I do think that if I was more active in my own talk, I could have produced more group talk, and extended reflection from the student teachers.
Based on this research study, I have created a framework for student teacher reflective practice that describes the types of reflective practice that should be implemented, when and how often they should be implemented, and the specific constructs that are important to emphasize and encourage for each one. The framework then describes the roles of an active facilitator in the student teachers’ reflective practices.
Acknowledgements

I chose to conduct my research with early childhood preservice teachers because of my passion for both early childhood education and the preparation of teachers to educate young children. This passion has grown as I have had the privilege of developing and teaching my early childhood education program at Dominican College. I would like to thank all of my colleagues in the Division of Teacher Education for supporting me both in my program and in my doctoral studies. Working with all of you is a joy everyday. I’d also like to thank my current and past early childhood students – you make my job enjoyable and my love for the field grow with every class we spend together. I’d especially like to thank Amanda Reihard, Alison Rivera, Stephanie Samuels and Kim Zagaria for participating in this research study and helping me to learn more about student teacher reflection through your words. It was truly a pleasure to work with all of you and to see you grow into wonderful and caring teachers.

Throughout my doctoral studies I was guided by different people in the department of Learning and Teaching. I’d like to thank Sharon Ryan, Carrie Lobman and Lesley Morrow for providing me with rich conversations and experiences. I’d especially like to thank Carrie Lobman, who was my guide and mentor throughout this dissertation process. Her feedback and guidance was incredibly helpful and beneficial as I completed my work, and I will miss our conversations about the study, the data and just the field in general. Thanks for getting on the “crazy fast train” with me and working with me to reach our goal. We did it and I could never have done it without you!

I was also lucky enough to have two big supporters at home as I worked on this dissertation. To my husband Tym, I thank you for your support and hugs when I needed them. I
am also grateful for your ability to listen to me talk and talk and talk about this research study. You always said I could do this, and I couldn’t have done it without you. And to my now two year old daughter Hayleigh Grace, thanks for playing on the floor while mommy had to write, and crawling (and eventually walking) over to me to play just when I needed a break. You add a light to my life that I couldn’t live without, and I want you to see that you can be a successful woman AND mommy when you grow up. Hayleigh, mommy is finally “all done work.”

And finally, I’d like to thank everyone I worked with and studied under at Virginia Tech, and especially at the Virginia Tech Child Development Laboratory. The two years that I spent in Blacksburg working with the children and my colleagues at the school truly made me the educator that I am today. I will never forget all the lessons that I learned and how much I grew as a teacher and a person. Everything that I do as an early childhood educator stems from what I learned from all of you. Go Hokies!
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Chapter 1:

Statement of the Problem

Teaching in early childhood education is a complex decision making process. Teachers’ presence, talk, and decisions have a profound influence on student learning during the early years (Goldstein, 2007). The National Association for the Education of Young Children recommends that early childhood teachers create a meaningful, challenging, stimulating, and responsive environment where children learn through hands-on experiences and explorations that are age and individually appropriate. Early childhood teachers should serve as resources to children and have responsive and reciprocal interactions with children before, during, and after they participate in these learning experiences (Goldstein, 1997; Bredekamp & Copple, 2009).

Reflection/reflective practice are often defined as when teachers look back at their teaching and its consequences in an attempt to understand what they know about teaching and actually do in the classroom. This continual reexamination of their practice is supposed to allow teachers to develop their knowledge, unveil their assumptions, and reconsider what they learn in practice (Shulman & Colbert, 1989; Brookfield, 1995; Loughran, 2002). But, while this is a definition that many researchers and practitioners use, what this practice actually looks like is still very unclear. Reflection and reflective practice have taken on many forms and has been implemented with and by preservice and inservice teachers in many different ways.

While varied definitions and implementations do exist, recommendations from previous research with early childhood teachers suggests that what is called “reflection” or “reflective practice” is an important aspect of their teaching practice. Successful early childhood teachers frame and re-frame problems they are having in the classroom, and consider and implement different solutions to these problems. This constant evaluation and action influences their views
about the children as well as about what and how they teach, and eventually changes their practice. Teachers also reconsider their roles in certain learning experiences and change their teaching based on this reflective practice (Goldstein, 2008; Wood & Bennett, 2000). Through constant reflective practice, early childhood teachers are able to make decisions about what skills to emphasize, what skills require teacher-directed or child-directed instruction, how to structure learning experiences, and how to manage the activity in the classroom (Stipek & Byler, 1997).

Connections have also been made between good reflectors and good teachers. Teachers who are good reflective practitioners are more effective teachers because when they reflect, they consider all of the contexts that shape their practice and make decisions about their practice based on them (Hoover, 1994). This reflective decision making is a cognitive process that influences their planning and teaching. Early childhood teachers who are active participants in this cognitive process are “active agents” in their classrooms. They contemplate how young children learn before creating learning experiences, and integrate the content into the teaching practices that they feel are appropriate for young children (Goldstein, 2008). From this perspective, early childhood teacher effectiveness depends in part on their ability to effectively reflect on their practice and then use the knowledge they gain from these experiences to better their teaching. The quality, range, and flexibility of their work depend on this preparation (Goldstein, 2008; Stipek & Byler, 1997; Wood & Bennett, 2000).

Teacher effectiveness begins long before a teacher secures a job in an early childhood classroom. Research has shown that the effectiveness of teachers appears to be strongly related to the preparation they have received for teaching (Darling-Hammond, Holtzman, Gatlin, & Vasquez-Heilig, 2005). Given the importance of teacher preparation, work towards being an effective reflector and then consequently an effective early childhood teacher needs to begin
while early childhood preservice teachers are participating in their teacher education programs. But, while many teacher educators and researchers agree that preservice and inservice teachers need to be reflective in their practice, simply providing opportunities for these teachers to reflect has been shown to be insufficient because the reflection is often not productive (Davis, 2006). It is also unclear as to what these “reflective opportunities” look like. For example, Sarah thinks about a lesson she taught on the drive home, Tom talks with his friend on the phone about a frustrating experience with a student, and Alex has a dream about a better way to teach a topic. In addition, in many teacher education programs all three of these teachers might also be asked to write a written reflection of their teaching experiences in a daily journal. Based on the definitions all of these would be considered examples of reflective practice. However, are they productive? We have no idea.

Not surprisingly given the lack of clarity on what we mean by reflection there is even less information on how to help preservice teachers develop as reflective practitioners. While research has been done, it is not particularly rigorous and the conclusions have been ambiguous. Some studies used only written reflection as a measure of preservice teacher reflective practice, while others incorporated discussion of experiences with mentors and peers. The methodologies of these studies have been haphazard and none have generated a list of effective and productive reflective practices that teacher educators can employ with their preservice teachers. We do not know what reflection truly is or what it looks like, how it is done the best, or how to teach it to preservice teachers.

The discrepancy in reflective requirements and experiences, as well as a lack of a clear identification of effective practices contributes to the vast difference in reflective preparation that preservice teachers receive, and consequently the differences in reflective abilities of teachers in
the field. One of the things that is lacking is research that begins to identify practices that support preservice teachers to become more reflective. Questions have also arisen about the value of discussion groups and if a certain level of support, or “scaffolding” is necessary in order for the preservice teachers to obtain the full benefits of their reflective practice. Many researchers agree that written reflection is further enhanced with oral conversation between fellow preservice teachers in the same experiences (Davis, 2006; Hoover, 1994). If teachers were able to discuss the moments they identified in their written reflections with other teachers, they would have the opportunity to question their taken-for-granted assumptions and could see their practice through another teacher’s eyes. This dialogue could enhance their reflective practice. The question then arises of how to structure and guide these discussions so that they are effective reflective experiences (Chitpin, 2006; Davis, 2006; Griffin, 2003; Romano, 2006).

The work of early childhood teachers in Reggio Emilia, Italy might provide an example of the kind of reflective practice by early childhood teachers that theorists call for in American teachers. While the Reggio Emilia approach has not been studied using traditional research methods, practitioners and theorists such as Rebecca New, George Forman, and Leila Ghandini have spent a great deal of time immersed in the schools, exploring both the practice of the teachers and the work of the children. They have deemed the work of the teachers and the schools as a whole as high quality and effective based on their time engrossed in the culture. So, while the practices of Reggio Emilia have not been validated through research, practitioners who have studied and worked there argue that the teacher’s role in Reggio Emilia schools is rich with reflective practice. The Reggio approach has attempted to concretize reflection by building it into the day, creating social contexts for it, and having teachers do certain tasks that support it.
Teachers in Reggio Emilia schools gather a great deal of data from their classrooms. This includes teaching materials, the children’s work, and documentation of the teaching and learning occurring in the classroom. These data are at the core of the teachers’ reflective practice. This reflective practice comes in collaboration with other teachers to analyze and interpret the materials, and use these reflections to guide their practice. By engaging in this collaboration in order to use the data to inform their teaching, the teachers’ previous ways of knowing and believing are often challenged. While being challenged, their thinking is also supported and new perspectives, knowledge, and beliefs are created. The teachers value this inquiry and brainstorming, and they allow them to reenter their classrooms with new provocations (Moran, 1998). This focus on listening and attending to the children’s participation using concrete data and a collective process for discussion appear to provide a framework for successful reflection.

In the current research study my goal was to provide my student teachers with some of the experiences that are provided to teachers in Reggio Emilia in the hopes that I would be able to help extend their reflective thinking beyond what is expected for student teachers.

This teacher research study provided early childhood student teachers with reflection opportunities, and then analyzed the outcomes of these opportunities in relation to the student teachers’ development and growth as reflective practitioners. The data from this research study was used to examine what some best practices might be for teaching and supporting preservice teachers, specifically student teachers in their reflective growth. Through this examination this research study looked to answer the following research questions:

1. What happens when I, as a teacher educator, use a series of interconnected reflective experiences with a group of student teachers?
   
   a. How do the student teachers respond to each of these reflective pedagogies?
b. How do the different reflective pedagogies interact with each other?

2. How does the reflective activity change over time?
   a. In what ways do the student teacher’s individual reflections change over time?
   b. Does the reflective activity of the group change over time? If so, how?

3. What role do I as the facilitator play in supporting student teacher reflection?

4. From the vantage point of the participants, do the reflective strategies support them in their student teaching?
Chapter 2:

Literature Review

In this review, I will discuss literature and research findings relevant to the topic of teacher reflection on their practice, and then how this information pertains to student teachers’ reflective practice during their student teaching experiences. In order to establish a theoretical framework for the study of reflective practice, so I will begin with a discussion of the learning theories of John Dewey and Lev Vygotsky as they pertain to reflective practice.

After establishing this theoretical framework, I will discuss reflection and reflective practice, in order to provide a complete definition of what reflection looks like for teachers. I will go on to discuss specific research studies that have examined preservice and inservice teacher reflective practice, and then provide suggestions for teacher education programs based on this research. Within this discussion, I will discuss the role of the teacher in early childhood education in Reggio Emilia, Italy as an example of effective reflective practitioners. After defining reflection for teachers, I will discuss research that has compared experienced and novice teachers and how their thinking, planning and most importantly reflective practice differ. I will conclude with a focus on student teaching experiences and student teaching seminars in relation to novice practitioners working to become better reflective practitioners.

Theoretical Framework

While teachers cannot change the past, they can affect the future (Dewey, 1932). This comes through extensive thought and analysis of their teaching practices, and this process of reflective practice is grounded in theories of reflection and thinking. Specifically, the theories of John Dewey and L.S. Vygotsky provide a strong theoretical framework for the study of teacher
reflection. Dewey’s ideas about reflection provide information about why it is important for teachers to reflect, while Vygotsky provides a framework for how teachers should reflect.

**John Dewey’s Perspective on Reflection**

John Dewey (1933) argued that: ‘We do not learn from experience. We learn from reflecting on experience” (p. 78). He defined reflective thought as an “active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and further conclusions to which it tends” (1933, p. 9). To him, reflection is deliberate thoughtfulness about teaching beliefs and practices. Dewey believed that it was very important for teachers to participate in reflective practice and that this activity is complex, rigorous, intellectual, and emotional, and took time for teachers to do well (Rodgers, 2002).

According to Dewey reflection mirrors the scientific process. Reflectors must first participate in an experience that causes them to interpret it and think about it beyond its end. They then define the problem and identify questions that have arisen from the experience. Next they must participate in a means/ends analysis where explanations and further questions are explored. Finally they generalize their conclusions, create hypotheses, and test them out (Dewey, 1916; 1933 in Rodgers, 2002).

Dewey believed that this process of reflection requires teachers to confront the complexity of their students and their learning, of themselves and their teaching, the subject matter they are teaching, and the contexts in which all of these facets operate. Reflection can be practiced, assessed, and perfected; by reflecting teachers grow in their learning of how to think, teach, and learn. Rodgers (2002) described Dewey’s concept of reflection and reflective practice as including four specific criteria that explain its purpose and its process. First, the function of reflection is to make meaning. Teachers make meaning when they reflect by thinking deeply
about an experience and attempting to understand it as thoroughly as possible. Therefore, as they reflect about their different teaching experiences, they gain a deeper understanding of each one and how they connect to their knowledge as well as each other. Second, reflection is a systematic, rigorous, and disciplined way of thinking. It is a particular way of thinking that is distinctly different from simply pondering something without great thought; it requires a teacher to draw on past knowledge and experience. Third, reflection needs to happen while interacting with others. Dewey believed that having expressed oneself to others so that others understand one’s ideas produces strengths and holes in one’s thinking. Teachers must get outside of their experiences and see them how other teachers see them. In the act of sharing, a teacher’s life experience is broadened. Finally, reflection requires an attitude that values growth. He believed that the attitude that teachers bring to the reflective experience can either open the way to learning or block it (Rodgers, 2002).

The attitudes of open-mindedness, responsibility, and wholeheartedness are integral to reflective action (Dewey, 1910). Individuals must suspend judgment while they search for supporting and conflicting evidence, and when reaching their conclusion they must do so considering the potential short-term and long-term consequences. Dewey (1910) argued that teachers must hold off on their own judgments of the problem in order to accurately diagnose the situation. Once they have defined the problem, they can then entertain a variety of suggestions as to how the problem could be solved. The teacher must then explore these suggestions for implications and interpret the relevant information. Finally, they choose one idea and make a judgment as to how to implement it and solve the problem. This signals the termination of the reflective experience (Dewey, 1910). When teachers participate in this process of reflective action, they are acting as an adult learner.
Vygotsky’s Sociocultural Theory

Even though Dewey talked about the importance of the social interaction for reflection, from a Vygotskian perspective, social interaction is inseparable from reflection since for Vygotsky all new learning starts on the interpersonal level (1978). Vygotsky argued that people develop within their social world and stressed the importance of peer interactions in fostering higher levels of cognitive and social development. This social world is comprised of relationships and interactions where learners collaborate towards shared goals. It offers an open area of communication that gives them the opportunity to express and negotiate their ideas (Rogoff, 1993). Viewing preservice teachers as adult learners links well with Vygotsky’s sociocultural theory. His theory also provides us with information about how teachers reflect and what reflective practice should look like. In reflective processes that are informed by Vygotsky’s theory of learning and development, teachers are continually learning.

The goal of Vygotsky’s work and aim of his sociocultural theory were to better understand the mental processes of people and to contribute to the creation of educational programs that maximize the potential of all learners. He argued that cognitive development not only takes place with social support from others in an interaction, but also involves the development of skill with socially developed tools for mediating intellectual activity. Skill is developed using cultural tools, such as language, through participation and communication. He argued that cognitive and social processes correspond in interactions because individual cognitive processes form within the social interaction (Rogoff, 1993).

Vygotsky believed that learners reconstruct their understanding of the world in a social manner through collaborative processes with their peers. He attributed the benefits of collaboration to the mutual involvement by the learners, the equality of the relationship between
them when in a collective group, and the motivation by them to collaborate based on their shared understandings (Tudge, 1992). In particular, when learners of mixed knowledge levels interact in collaboration, they are able to communicate on a level that they are able to understand and share with each other. This collaborative relationship is what is needed for preservice and student teacher discussion groups in teacher education programs. These programs must create environments that promote growth for their preservice teachers. These environments will allow people to discover not only how to do something, but that they can actually do it, through discussion and collaboration with their peers. These are environments where learning leads development, which is a relationship that Vygotsky described when discussing what happens in the zone of proximal development (Vygotsky, 1978).

**The zone of proximal development.** Vygotsky (1978) emphasized that certain interactions between learners contribute to a higher level of cognitive understanding. One activity that is specifically involved in increased understanding is the *zone of proximal development*. Vygotsky defined the zone of proximal development as the distance between a person’s actual developmental level and their level of potential development under adult guidance or in collaboration with more capable peers (Vygotsky, 1978). This zone defines the functions that have not yet matured in a learner but are in the maturation process. The zone of proximal development is more of a process or an activity; without the people interacting and communicating, the zone of proximal development would not be created. Both the zone itself (the environment) and the process of learning leading development has broad implications across the life span, and does not need to be confined to children (Holzman, 2009).

The zone of proximal development and its role in development have implications for the study of guided reflection in a student teaching experience, but it also raises important questions
about the types of interactions that need to occur for student teacher development to occur. In a student teaching seminar, a supervisor and fellow student teachers can provide new information and insight to each other. The activity of discussing, debating, and problem solving that occurs in these seminars can be seen as the creation of and work in the zone of proximal development of the student teachers involved. However, many student teachers and seminar leaders are not necessarily aware of what it takes to create a zone of proximal development and they may just share their experiences or commiserate or empathize with challenging situations. The activity of how the student teachers interact is the important and influential aspect of social reflection.

Guided reflection in the zones of proximal development involves working with information that is just beyond each student teacher’s current preferred system of problem solving. Thus the word guided in guided reflection implies that there is active discussion by more capable others or co-learners of a person's zone of proximal development or current preferred ways of solving complex problems. Vygotsky conceived instruction and interaction as collaboration with adults or more advanced peers. Can this teaching occur between student teachers and supervisors or just between student teachers? If it can occur, will it support and challenge those involved, and lead the development of the student teachers (Holzman, 2009; Reiman, 1999)?

Because of the importance of interaction within the zone to increase levels of cognitive understanding, interactive seminar groups could work to provide the environment for this work in the zone to occur. In these groups, student teachers would be asked to interact and converse with each in a manner that supported scaffolding and modeling. When learners scaffold each other, they use their knowledge of the situation to assist each other in reaching a higher level of understanding. When learners model for each other, they offer behavior for imitation (Tharpe & Gallimore, 1988).
As children guide each other through an activity towards a specific goal, they exhibit behaviors that assist each other towards a higher understanding of the activity as well as step further towards the mastery of a skill. This work occurs naturally between children in interactive learning experiences (Tharpe & Gallimore, 1988). Is it possible for student teachers to assume a similar role when in reflective discussion of their experiences in the classroom? These discussions are not the “natural experiences” that children have, but rather they are planned meetings and discussions. If student teachers were to emulate children’s scaffolding and modeling behavior, they might offer a situation for analysis and call on other members of the group to assist them in solving a problem or better understanding their experience. The stimulation of the social interaction would allow the student teachers to advance to higher understanding of the cognitive world they are exploring.

**The importance of language.** Within this exploration, language plays an important role in the movement to a higher understanding during these social interactions. Vygotsky labeled language as a powerful and strong tool in collaborative interactions because of the shared meanings that form between those involved, as well as the important transmission of social meanings that occurs (Tudge, 1992). According to Vygotsky speech and thought are a unified activity (Holzman, 2009; Vygotsky 1986). Vygotsky (1986) believed that the relationship between thinking and speaking is dialectical—speech completes your thoughts and has an impact on what you are thinking. The relationship of thought to word is a process; thought is completed in the word, and speech is not just the expression of thought, but rather thought is restructured and transformed into speech (Vygotsky, 1986). Holzman (2009) extended Vygotsky’s conception of completion by arguing that speaking completes thinking but the completer does not have to be the one who is doing the thinking. Therefore, student teachers in a discussion
group talking about their teaching experiences and struggles can aid each other in interpreting and understanding these different occurrences in their teaching lives.

Reiman (1999) argued that the relationship between the Vygoskian principle of language mediating thought and reflection is a direct one. Within the importance of language, Vygotsky recognized the role of feedback between learners to promote a high level of joint understanding. As the learners listen to and respond to each other’s they are able to reinforce and extend their understandings, thereby extending their cognitive abilities. Therefore, the feedback contributes to cognitive comprehension because of the joint interaction and understanding between those involved (Tudge & Winterhoff, 1993).

The role of intersubjectivity for learners. In considering Vygotsky’s ideas about how people learn best, Tudge and Winterhoff (1993) suggested that collaboration was only likely to be successful to the extent to which intersubjectivity was attained by the collaborating partners. Intersubjectivity is created between learners when they are able to come to a shared understanding of the process and goals of the activity. Intersubjectivity is ideally constructed when the learners adopt each other’s perspectives and transfer their ideas successfully through verbal and non-verbal communication. This requires a joint focus of attention, and this shared focus is a part of a cooperative activity between the learners as they expand their existing knowledge and learn to understand new situations (Goucu, 1993). This is done through constant communication and reciprocation of each other’s ideas. In a sense, the learners come to a “cooperative understanding” within the interaction (Tudge & Rogoff, 1999). They negotiate their ideas and experiences and use their knowledge of the situation to contribute to the interaction. Trust between the learners is important in the formation of intersubjectivity as well as their combined faith in the mutually shared world in which they are in when they are interacting
(Goucu, 1993). These aspects of the interaction increase the bond and therefore the understanding between the learners.

When looking at student teachers as learners, similar to children they can attain intersubjectivity in their collaborations in at least three different ways. They can attain it by converging different meanings until all of the student teachers’ understandings of the task agree; when one student teacher assumes the view of the other student teacher; or when the student teachers mutually shift between the two views and come to a joint understanding (Stremmel & Fu, 1993). Intersubjectivity between student teachers can occur during their collaborations in discussion groups during their student teaching experiences. The faculty supervisors of the groups must encourage and model these collaborations that lead to intersubjectivity in order to enhance the experience for the student teachers to the point where they can communicate on a shared level.

**Assisted performance.** Tharpe and Gallimore (1988) argued that teaching must be redefined as “assisted performance,” where teachers assist the students by providing structure and assistance in their work. They utilized Vygotsky’s ideas to stress the need for education to move towards a more collaborative role between students and teachers. Assisted performance can also occur between student teachers during their reflective discussion in their student teaching seminars, as well as through feedback on their reflections from their supervisors and peers. In these experiences, student teachers and supervisors provide information to each other, and the goal should be to increase their understanding of the activity. This concept is related to Vygotsky’s term of working within the zone of proximal development. Vygotsky (1978) believed that teaching and learning is best when it proceeds ahead of development because it awakens and brings to life the functions that are currently maturing. These functions lie in the
zone of proximal development and can be created for any domain of skill. When reflections are structured under the concept of assisted performance, student teachers can work within the zone at points where their teaching requires assistance. Assistance is best offered in interactional contexts where there is the possibility of generating joint performance, such as student teaching seminars. Teachers can get support or assistance, or even comfort from each other while in this community (Tharpe & Gallimore, 1988).

But this community must be set-up for this work to occur. Within a joint performance between student teachers on a task of discussing their teaching experiences and how to overcome and solve problems, scaffolding can occur and the individual student teachers can move through their zone of proximal development with assistance from each other. Will student teachers be able to take on the role of a more capable peer, and work within the joint activity to be responsive to the other student teacher’s level of performance and perceived need? Will the other student teacher be responsive to this work? What role does the seminar leader have in supporting this joint activity? If this guided participation is fostered, the more capable student teacher will have the opportunity to offer new information or suggestions to help further the less-capable student teacher’s goal. They may also exhibit behavior for imitation in order to further their practice and understanding. This modeling has the possibility of offering a wider range of assistance on the part of the more capable peer. It is also important to recognize that the more capable peer is fluid. Vygotsky (1978) believed that the more capable peer changes based on discussion and the situation, so student teachers can switch their role from more capable to less capable many times throughout the reflective process.

Vygotsky believed that intellect develops within higher cognitive and affective psychological processes, and these processes are interdependent (Manning & Payne, 1993). The
development of higher psychological processes occurs in a spiral and in qualitative shifts as a person’s prior knowledge and past experiences interacts with a present learning event (Vygotsky, 1978). Teacher education programs must provide reflective experiences where student teachers can internalize their higher order thinking, and they must work to create teachers who function at high cognitive and social levels. Throughout the reflection process, teachers use both their cognitive and social abilities to interpret situations, draw conclusions, and make decisions.

**The role of the teacher.** Vygotsky’s theory focuses on learning through social interaction and with the help of a more experienced person. He also believed that students play an active role in their learning. Therefore, the role of the teacher and student are often shifted and learning is a reciprocal experience between student and teacher. The role of the teacher has been integrated into each aspect of Vygotsky’s theory that I have discussed. But, it is also important to extract his ideas about the role of this skillful tutor and highlight it in a separate section.

According to Vygotsky, the work of the teacher involves developing the learner’s higher mental functions (1978). Teachers must organize the social environment and create a context for learning in which students can become engaged in interesting activities that encourages and facilitates their learning. Vygotsky stated that this learning process is active in three ways. The student is active, the teacher is active and the learning environment which they have constructed is also active (1926/1991). As the students and teachers collaborate in this learning environment, the teachers must guide and direct the students’ activity. But this regulation is never routine; it is a complex and creative process where the teacher must be aware of the possibilities of her own teaching of the students’ knowledge, abilities and skills. When creating and working in the zone of proximal development, the teacher must match where the learner is and then gradually and strategically mismatch according to the learner’s developmental and individual needs and skills.
Teachers also scaffold their students when they help to structure or arrange a task so that their students can work on it successfully.

Teachers must also enter into dialogues with the students. These dialogues help teachers understand how and what the students need to learn, and provides an opportunity for them to engage the learners in cooperative learning experiences in their zones of proximal development. Through collaborative dialogue, the teacher models behaviors and provides instruction. The student must then work to understand the actions and instructions, internalize the information, and then use it guide and regulate their performance (Vygotsky, 1978). According to Vygotsky, this type of social interaction involving co-operative or collaborative dialogue promotes cognitive development (1978).

A key component of the role of the teacher is to know how to become involved in a learning experience with a student. Their initial goal is get the learner to see the task, however incompletely and briefly, from the perspective of them as the expert; getting the learner to understand what the task is from an expert point of view. This brief look through the expert teacher’s eyes is called 'prolepsis' or 'shared definition of situation' in Vygotsky’s theory (Donato, 1994; Verity, 1992; 1995). When the teacher orients the student toward the task, she provides a starting place for the learner to begin to engage with the task and, ultimately, begin to learn the expert's knowledge. They can then work together in the learner’s zone of proximal development.

Creating Environments for Reflection

This research study was conducted through the lens of the theories of John Dewey and L.S. Vygotsky. I brought these two theorists together as the theoretical framework for this research study because taken together, their ideas provide us with information about why
teachers should reflect, and then how that reflective process should look. Dewey (1932) describes the importance of reflection, but while he acknowledges the importance of the social, it is Vygotsky’s (1978) understanding of the zone of proximal development that takes reflection out of the individual mind and puts it in a social context. Dewey (1932) felt that teachers can change their future teaching by participating in extensive thought and analysis of their teaching practices. Vygotsky (1978) felt that people learn and develop through the creation of their zones of proximal development, and provided ideas about what this work looks like.

Therefore, this study approached the student teachers as adult learners who develop within their social world. This social world, in this case, was a weekly student teacher discussion groups. Vygotsky stressed the importance of peer interactions in fostering higher levels of cognitive and social development, but student teachers, while often asked to reflect, are not often in social contexts which are specifically designed to scaffold their reflective practice. Therefore the goal of this study was to create contexts that were comprised of relationships and interactions where learners collaborated towards shared goals, and offered an open area of communication that gave them the opportunity to express and negotiate their ideas (Rogoff, 1993). It was my goal to have the student teachers create and work within their zones of proximal development as they discuss their student teaching experiences. Since there is evidence that this is not a “natural” activity for adults, my role was to model reflective practice and scaffold the student teachers to the point where they can do it on their own. The use of language, intersubjectivity, and assisted performance supported their reflective practice and growth (Vygotsky, 1978).

Vygotsky and Dewey provide a theoretical framework from which to understand the importance of reflection and the challenges of creating environments which support student teachers to be successful reflective practitioners. In order to further understand teacher reflective
practice, the next section will discuss how teacher reflection is defined and described, how teacher reflection as it is taught and practiced in the United States up to this point, and the reflective practices of the teachers of Reggio Emilia, Italy that were employed in this research study.

**Reflection and Reflective Practice**

Many educational researchers have defined reflection and reflective practice based on both their work and research with teachers as well as by studying theory on teacher reflection. These researchers have also suggested ways in which teacher education programs can promote reflection and reflective practice in their preservice teachers. This review of reflection literature will begin by defining and describing reflection. I will then discuss research studies that have employed reflection and reflective practice when working with preservice and inservice teachers and the use of scaffolding in preservice teacher reflective practice. Next I will summarize the suggestions for teacher education programs that have come from these previous research studies. I will end with a discussion of the reflective practices of the teachers of Reggio Emilia.

**Definitions and Descriptions of Reflection and Reflective Practice**

Dewey (1933) defined reflective thought in the practice of teaching as an active, persistent, and careful consideration of any belief or knowledge in the context that supports it and the conclusions that it contributes to. Reflection requires teachers to look back at their teaching and its consequences and helps them understand what they know and do. This continual reexamination of their practice allows teachers to develop their knowledge, unveil their assumptions, and reconsider what they learn in practice (Shulman & Colbert, 1989; Brookfield, 1995; Loughran, 2002). In reflection, teachers must be aware of and be able to monitor their own thinking, understanding, and knowledge about teaching. They must also be aware of the
different kinds of knowledge they can draw upon to help develop their practice (Parsons & Stephens, 2005).

The main goal of reflection is to think about practice in order to improve one’s teaching. Reflection is situated in practice, is cyclic in nature, and is made up of multiple perspectives. It begins when there is either a problem that the teacher cannot resolve or when a teacher feels the need to reconsider an educational situation or a previous conclusion or decision (Lee, 2005; Hatton & Smith, 1995; Ward & McCotter, 2004). Lee (2005) therefore argues that the process of reflective thinking should not just discuss progress towards the solution of a problem, but rather the degree of awareness of the situation; the process and progress should be viewed together. Reflective practitioners focus on specific dimensions of their pedagogy and can see that dimension from a variety of perspectives. They are able to engage in dialogue with other teachers to expand beyond their own perspective and come to a thorough understanding of the events they are reflecting upon so that they are able to take action (Jay & Johnson, 2002).

In considering the complex definitions of reflective thought, LaBoskey (1993) created a continuum of reflective thinking in teachers that describes how they move in growth and inquiry from concrete thinkers, to alert novices, to pedagogical thinkers. Concrete thinkers rely on personal experience and external motivation, and ask basic knowledge questions. Alert novices want to reflect and explore their teaching and ask ‘why’ questions. Pedagogical thinkers are grounded in knowledge and consider reflection a major part of their teacher development. Teachers in each of these roles define reflection differently and reflect differently based on their thinking. LaBoskey (1993) believed that the goal of all teachers should be to become pedagogical thinkers.

Teachers become pedagogical thinkers by reflecting both during and after their teaching.
Reflection allows teachers to change the way they go about solving problems, and their reflective thinking serves to reshape what they are doing in the classroom, possibly at the same time they are doing it (Schon, 1983; 1987). Schon (1983; 1987; 1991) emphasized the relationship between reflection and experience. He said that there is a difference between reflection-in-action and reflection-on-action, and that teachers must be aware of both of them. Reflection-in-action refers to teachers being aware of their decisions as they work, while reflection-on-action refers to teachers reflecting back on and critiquing their own practice. Both emphasize the importance of experience and the application of knowledge gained through reflection in teacher experience (Schon, 1983; 1987; 1991).

Reflection-in-action is sometimes described as ‘thinking on our feet.” It involves looking at our experiences, connecting with our feelings, and attending to our own theories. It entails building new understandings to inform our actions in the situation that is unfolding. Reflection-in-action is something that teachers bring to their everyday practices, while operating under conditions of complexity and uncertainty in their own unique classrooms (Schon, 1983: 1987). If teachers participate in reflection-in-action during their teaching and then participate in reflection-on-action with others after their teaching is done, they would be able to reconstruct their theories of action and make their teaching responses and strategies able to be honestly devised and open to criticism.

With these ideas in mind, it is important that teachers learn from their practice. Teachers must allow themselves to experience surprise, puzzlement, or confusion in a situation they find uncertain or unique. They must then reflect on the situation and on their prior understandings which have influenced their behavior. They then must respond to the situation, which will generate a new understanding of the circumstances and their own behavior. But, not all actions
lead to learning. Schon (1983) believed that only when action is informed by reflection and in turn informs reflection is one able to learn and refine one’s knowledge.

Regardless of when teachers reflect, they tend to reflect about the following aspects of their teaching experiences: The environment, behavior, competencies, and beliefs (Korthagen & Vasalos, 2005). When reflecting on these specific aspects of teaching, there is also a possibility that they may reflect on a problem with their teaching. Loughran (2002) believed that the nature of a problem and how it is framed and reframed is the cornerstone of reflection and an important aspect of learning about teaching. Effective reflective practice lies in the ability to frame and reframe a teaching setting and then respond to the framing with action. This activity builds upon teachers’ professional and practical knowledge.

Metacognition is also an important element of reflection and effective reflective practice (Parsons & Stephenson, 2005). As teachers analyze and evaluate their practice, they are developing their practice. Teachers should be encouraged to consider the different ways that students’ learning is promoted in their classrooms by considering not only their technical teaching skills, but also the issues and aspects of their practice that go beyond their actual teaching and influence student learning. Reflection is not simply writing about whether a lesson went well, but rather identifying reasons for success or failure. These reasons must extend beyond the teachers’ past teaching experiences, and draw from theoretical knowledge and the teachers’ understanding of children’s learning and pedagogy (Parsons & Stephenson, 2005). In order for this to happen, teachers must be aware of their own beliefs and learning (metacognition), so that the reflection process can produce a choice for future teaching. The reflection process may cause a teacher to change how he thinks about an issue or situation or their values and attitudes. Or, it may also not cause anything to change. Either way, effective
reflection means that the choice was made based on thought and analysis, and the teacher made a conscious decision based on his learning (Parsons & Stephenson, 2005).

The underlying theme in each of these definitions and descriptions of reflection and reflective thinking is that they influence teachers’ future practice. Incorporated into this work are teachers’ knowledge and beliefs, and their perspective on the teaching experience they are reflecting on. Each reflective experience builds teachers’ professional growth. While it is acknowledged that reflection is important and beneficial, we are unsure how often teachers actually do it, and more importantly, if they do it well. While many teacher educators and researchers agree that teachers need to be reflective in their practice, research is needed to explore what form reflection can and should take, what the role of reflection has in a teacher’s beliefs and practices, and how teacher educators can best facilitate the use of reflection (Bean & Stephenson, 2002). While the previous definitions and descriptions were theoretically rather than empirically derived, there have been specific studies of teacher reflection that have been employed with both preservice and inservice teachers to examine reflection in practice.

**Studies of Preservice and Inservice Teacher Reflection**

Teachers critically reflecting on their own and using their reflections to improve their work as a teacher are practices often taught to preservice teachers during their preparation. Watts & Lawson (2009) defined critical reflection as the ability of teachers to be able to reflect on their practice in an acute way that will help them to actively improve their current practice. This reflection focuses on their judgments and decisions about a course of action or a future response. The level of guidance given to preservice teachers as they learn this important skill varies in every program. While some programs just ask preservice teachers to write or talk about their experiences, others provide a framework to follow. This discrepancy contributes to the vast
difference in reflective preparation that preservice teachers receive, and consequently the differences in reflective abilities of teachers in the field.

When working with 26 post-graduate students seeking teacher certification, Watts & Lawson (2009) began their reflective teaching instruction by asking the preservice teachers to simply reflect on their lesson implementations in their field placement classrooms. They then asked them to apply a rubric to these written reflections that was created by Ward & McCotter (2004). This rubric outlines the progression of reflective practice in teachers to their study of student teachers. Ward & McCotter (2004) explicitly stated that their rubric is a framework for the evaluation of reflection and should be used in teacher education programs to help students develop the skills of critical reflection. They created the rubric as a tool for the comprehensive assessment of reflection that encompasses the general principles of reflection, helps teachers visualize how reflection can improve their practice, and links the reflection to student learning (Ward & McCotter, 2004).

Watts & Lawson’s (2004) goal was to have their student teachers use the rubric to appraise their critical reflection in their own lesson evaluations. The rubric required the student teachers to describe the focus of their reflection, the process of inquiry about what they reflected on, and the changes that were made to their thinking based on the inquiry in four different levels: routine, technical, dialogic, and transformative. Routine reflections are simple statements without any deep thought or curiosity. Technical reflections look to solve specific problems but did not question the nature of the problems. Dialogic reflections discuss and consider the views of others. Transformative reflections question assumptions and purpose, and reveal deep thought about a problem or situation (Ward & McCotter, 2004). Watts & Lawson (2009) were able to see the preservice teachers’ opinion of their development of critically reflective skills when they
incorporated the rubric into their lesson evaluations, versus before the implementation when they were simply asked to reflect. Again, this was only the preservice teacher’s opinion of their reflective growth.

In the early instances, Watts & Lawson (2009) saw what they considered to be “low level” reflections. They described low level reflection as a routine type of reflection characterized by a narrow, egocentric focus, where teachers tend to blame others for inadequacies and fail to identify changes to their practice. They argue that this type of reflection may be more present in inexperienced teachers who are focused more on survival rather than improvement. Employing the rubric was a move to eliminate this thinking in the preservice teachers.

In the later reflections when the rubric was employed, the preservice teachers showed a broader and more sophisticated focus and inquiry, and indicated the need to change their practice. The focus of the rubric allowed the preservice teachers to more critically explore their thoughts in order to produce improvement through change. When comparing the two periods of reflection, Watts & Lawson (2009) were able to see a change away from reflections that focused on the self and used simple statements about effectiveness with no attempt to change their practice. In turn, Watts & Lawson (2009) concluded that the preservice teachers’ reflection became more sophisticated. Focus groups later showed that the preservice teachers felt the rubric enhanced their reflective abilities because it helped them to focus their thoughts. They shared that they valued the critical reflection the rubric allowed; it encouraged them to change practice and support effective learning in their students (Watts & Lawson, 2009). Because they found it to be so successful with their preservice teachers, Watts & Lawson (2009) began to contemplate the use of the rubric earlier in the teaching of reflective practice. But, they concluded that it
would be difficult to see the growth in the preservice teachers’ reflective abilities if they were given a rubric to follow from the very beginning. Using the rubric would make the reflective process very structured and guided because the student teachers would be working to make sure they meet the specified criteria on it when they reflected. They also may work harder at their reflections in order to fulfill the requirements of the rubric, not to further their reflective abilities. They also hypothesized that it might be important for the researchers (versus the preservice teachers) to use the rubric to determine the level of reflection and reflective growth in the preservice teachers.

Similar issues can arise when reflections are graded. In another study of preservice teacher analyzing their own reflective growth, Orland-Barak & Yinon (2007) asked their 16 preservice teachers in their teaching methods course to not isolate particular instances or teaching strategies they saw in their videotaped lessons from their field experience classrooms when writing reflections, but to rather look at patterns in their teaching and the different reactions they elicit at different times in the lesson. This multi-dimensional approach encouraged the student teachers to focus on what they perceived as relevant in their performance and the interactions that develop around their teaching and helped them connect theory to their practice. Orland-Barak & Yinon (2007) concluded that their preservice teachers’ reflections of their videotaped teaching showed that they exhibited very different reflective behaviors from the typical novice teachers. They reflected on how their behavior affected student learning and interactions, and hypothesized about how they could change their practice based on the quality of the participation of the students it elicited. They reflected on the gaps between their plans and their actions, and how to rectify this and be more successful in their teaching.
This is contrary to research that states that descriptive reflection was the most common type of reflection present in preservice teacher reflection. Orland-Barak and Yinon (2007) cited Hatton and Smith’s (1995) definition of descriptive reflection as providing a narration of what occurred in a teaching experience, with the student teachers contemplating the reasons for the events based on personal judgment or the reading of literature, and then hypothesized that their results showed that preservice teachers can reflect on their practice at a higher level than is typically only known to experienced teachers (Orland-Barak & Yinon, 2007). But, they admitted that the fact that the reflections were graded based on providing these criteria influenced the preservice teachers’ reflections and almost forced them to make sure they reflected better. The question of whether or not the preservice teachers’ reflections would have been as fruitful without any pressure of grading was considered. Orland-Barak & Yinon, (2007) also felt they should have conducted interviews with the teachers at the end of the experience to assess the full impact of their reflections Their conclusions were drawn solely from the written reflections that the preservice teachers turned in for a grade. A continued issue in reflection research studies is the lack of discussion with teachers about their reflections, and therefore conclusions from data can only be drawn from written reflections.

Certain research studies have asked both preservice and inservice teachers to focus specifically on moments in their teaching where they felt it was critical to analyze and reflect immediately and then continue their reflection in written format at the end of the school day. Griffin’s (2003) “critical incidents” and Romano’s (2006) “bumpy moments” were identified by their teachers as instances that they immediately reflected on in the moment, and then wrote about at the end of the school day. While these studies are similar, it is important to point out that
Griffin’s teachers were preservice teachers participating in a field experience the semester prior to student teaching, and Romano’s teachers were inservice elementary school teachers.

If the teachers chose to write about these specific moments, Romano (2006) asked her four teachers to document the knowledge and beliefs they brought to the reflective process. Griffin (2003) required her 28 undergraduate preservice teachers to take a position on the meaning of the incident and describe an action that could be or was taken to respond to the incident. Both groups of teachers’ reflective language and thinking, along with their growth and inquiry as a teacher because of the incident were studied. Romano (2006) found that the reflections did reveal the teachers’ knowledge and beliefs about classroom management, and specifically on how they felt the children should behave or what their response was to the management issues in the past. They evaluated their plan of action and contemplated its effect on the students. They even reflected on how they felt in the moment. Griffin (2003) found that the preservice teachers’ thinking about their teaching practices became more critical and reflective. They were able to look beyond themselves and the immediate situation to more contextual issues, and were then able to think of a response to the incident. She concluded that these reflective steps moved the teachers from concrete thinkers to alert thinkers. Both researchers concluded that reflecting on these specific moments in teaching promoted an increased awareness of the variables that impact teaching and learning (Griffin, 2003; Romano, 2006).

A major hindrance to these two studies was that conclusions were only drawn from analysis of the teachers’ written reflections. While both Griffin (2003) and Romano (2006) concluded that there was growth in the teachers, they acknowledged the lack of discussion with other teachers limited the teachers and the study’s conclusions. They both hypothesized that if the teachers in their studies were able to discuss the moments they identified in their written
reflections with other teachers, they would have had the opportunity to question their taken-for-granted assumptions and could see their practice through another teacher’s eyes. This dialogue could then have enhanced their reflective practice. They also acknowledged that it is also difficult to draw definite conclusions about reflective growth simply from viewing reflective journals over a period of time and deciding their quality increased with time.

This limitation was also present in Chitpin’s (2006) study where he asked his 28 preservice teachers enrolled in a reflective teaching course to only write reflective journals about their fieldwork teaching experiences. He was interested in his preservice teachers’ perception of their own reflective growth. The preservice teachers reflected on their own without any feedback, and then looked back at their own reflective process. Their growth was documented purely through their own recognition of their growth and experiences. The preservice teachers all stated that reflection played a large part in their teacher development because the journaling allowed them to reflect on their experiences and actions to determine what courses of action were the most effective in achieving their teaching objectives. They journaled about their concerns about teaching and challenges they faced, and then came up with tentative theories to overcome these issues. When they implemented their tentative theories, they further reflected on the process and their constantly-developing teaching practices (Chitpin, 2006).

Based on this teacher feedback, Chitpin (2006) hypothesized that when preservice teachers actively participate in reflection, it contributes more than just a learning experience for them about how to think about their work. The reflective practice also records the changes that preservice teachers experience as problem solvers over a period of time, which contributes to their personal and professional growth. While this may be true about reflection overall, it is very difficult to draw this conclusion from teachers’ statements about only their written reflections.
Each of these studies focused on helping preservice and inservice teachers progress in their reflective abilities to become critically reflective thinkers. The researchers asked the teachers to reflect in written form about teaching moments in their fieldwork teaching, and their analysis and subsequent actions were assessed. Questions of whether grading or providing reflection frameworks to follow would influence the level of effort put into the reflections were raised. And, a lack of discussion about written reflections also limited what conclusions could be drawn from them. A certain level of support, or “scaffolding,” might be necessary in order for the preservice teachers to obtain the full benefits of their reflective practice. Written reflection is also further enhanced with oral conversation between fellow preservice teachers in the same experiences. These conclusions, though, do not discount the fact that these researchers did find that structuring the written reflections somewhat helped the preservice teachers to reflect more deeply. This conclusion perhaps opens the door to explore what a more social form of structuring would do for preservice teachers’ oral reflections.

**Scaffolding Reflection and Reflective Thinking**

Scaffolding instruction as a teaching strategy originates from Lev Vygotsky’s (1978) sociocultural theory and his concept of the zone of proximal development (ZPD). In scaffolding instruction a more knowledgeable learner provides scaffolds or supports to facilitate another learner’s development. The scaffolds facilitate a student’s ability to build on prior knowledge and internalize new information. Various forms of scaffolding have been integrated into research studies of teacher reflection, and more research is necessary to fully understand the role of scaffolding. Scaffolding both preservice and inservice teachers in written and oral form helps them focus their reflections and provides explicit support in modeling reflective practice (Bean
Scaffolding of preservice teachers has been done by fellow preservice teachers as well as more experienced colleagues and teacher educators.

When studying 20 preservice teachers from a variety of subject disciplines who scaffolded each other in their reflection of their teaching experiences, Harford & MacRuaric (2008) sought to create a realistic and meaningful model where reflection is scaffolded over time. Their research study had student teachers tutor and mentor each other in their reflection process in order for them to achieve a higher level of reflective practice, and promote a culture of shared learning (Harford & MacRuaric, 2008). The student teachers videotaped their teaching and then reflected on the events in the videos as a group. The researchers found that this peer-videoing and reflecting process helped the student teachers develop skills that they then used in their classroom teaching, thereby bridging reflection and practice. The student teachers were able to view different teaching strategies and the impact they had on the students in the classroom. Harford & MacRuaric, (2008) concluded that the critical dialogue between the student teachers during these reflective meetings was found to be very impactful on their subsequent practice in the classroom. They did admit, however, that the use of the videotaping may have influenced the students’ engagement in the lesson and the student teacher’s teaching. Both parties knew they were being videotaped for later analysis. Harford & MacRuaric (2008) still considered the videotaping to be a powerful mechanism for conducting self-review and dialogue, but admitted that it should be used more often in an attempt to eliminate the influence of its presence on the participants.

Parsons & Stephenson’s (2005) study incorporated scaffolding with both peers and more experienced colleagues with their 22 early childhood preservice teachers. They studied the effect of collaboration with these two different groups of people on the preservice teachers’ reflective
practice. The preservice teachers were paired with one peer and one experienced colleague from their college, and were asked to discuss their experiences in their fieldwork classroom.

Parsons & Stephenson (2005) found that when the preservice teachers reflected with both groups, they engaged in a higher level of thinking that extended beyond a basic description of activities. The preservice teachers engaged in problem solving and found themselves more aware of their own learning in the classroom. They drew on their existing knowledge and learning and applied it to a new classroom situation, exhibiting a major characteristic of reflective practice (Parsons & Stephenson, 2005).

While the researchers could not definitely say that the preservice teachers would have taken the same reflective actions if they had been working on an individual basis, they did hypothesize that for the majority of them, the experiences of working in a partnership with a peer and a more experienced colleague allowed them to explore problematic areas and then take action. There was also some issue with some preservice teachers being unable to honestly discuss issue with their partners because of comfort level, but they felt they were still able to experience the reflective process (Parsons & Stephenson, 2005). This calls attention to the necessity of creating an environment of support and collaboration where preservice teachers feel comfortable enough to openly discuss their experiences. An environment of support and collaboration can be in the form of support groups, and support groups can provide scaffolding experiences for those involved.

DeWert, Babinski, & Jones (2003) asked new and experienced teachers to follow a problem solving process in online support groups. The group members included 12 first-year teachers (six elementary school, five middle school, and one high school teacher), four experienced teachers, and eight teacher education faculty members. The problem solving process
consisted of one of the teachers presenting a problem or concern in their practice to their support group. The group of teachers then defined the problem and discussed it from their multiple perspectives in an effort to possibly figure out what the cause of the problem might have been. The teachers then offered strategies and solutions, a plan of action was created, and then the original teacher implemented the plan and provided a follow-up report at a later date. The results of these online support groups were that teachers felt more supported in their teaching and were able to see situations from multiple perspectives. Many teachers responded with their own stories related to the problem the original teacher had posted. This validated that original teacher’s concern and allowed her to see the issue from other perspectives.

Dewert et al (2003) then focused their conclusions on the beginning teachers. The emotional support from the discussions particularly helped the beginning teachers feel less isolated in their own classrooms and increased their confidence as teachers. The beginning teachers felt they then had more enthusiasm for work and had increased reflection skills. From this positive feedback, DeWert et al, (2003) concluded that an online support community is an effective means of providing social, emotional, practical, and professional support for beginning teachers. Perhaps the online format (versus face-to-face discussion) allowed otherwise hesitant teachers to openly share their problems and issues and accept support and ideas from other teachers. But, it does require teachers to have knowledge of the online discussion board format and be comfortable enough with it to consider it an effective means of communicating and learning.

Each of these studies incorporated some level of scaffolding to the preservice teachers as they reflected on their experiences in their fieldwork. The scaffolding experience allowed them to hear other perspectives on their teaching and incorporate other teachers’ ideas and solutions.
into their work. Both written and oral scaffolding was used in these studies, and both proved to be helpful to the preservice teachers. Each study also provided a different type of supportive environment for the scaffolding to occur. The current research study had similar characteristics. It focused on providing an environment for scaffolding to occur between student teachers in the hopes that they would share their experiences, provide each other with feedback, and use what they learned in the scaffolded environment in their future teaching. However, a difference in this current study is that I chose to do minimal structuring of the group meetings to allow for a more emergent and exploratory study.

These studies are only the beginning of research in scaffolding of reflection in preservice teacher education, and many questions have arose about how to go about providing scaffolding to preservice teachers learning to reflect. But, the data does show that preservice teachers will learn about critical reflection through scaffolded activities in their teacher education courses. To be effective these scaffolded activities must be developmentally appropriate, field-based, provide a schema, and include some level of mentoring in purposeful writing and dialogue (Bean & Stevens, 2002). In order to be reflective practitioners, preservice teachers must be aware of and able to monitor their own thinking, understanding, and knowledge about teaching. Reflective practitioners are able to identify a situation in their practice where there is some doubt about how to proceed, and then be able to use reflective practice to contemplate and address the situation (Parsons & Stephenson, 2005). Preservice teachers who are effective reflective practitioners are able to see that although something in their teaching is being achieved in a satisfactory manner, there is always room for change or improvement. Preservice teachers who are not successful in their field placements are those who cannot identify these areas in their practice (Parsons & Stephenson, 2005).
Based on the data from these research studies about scaffolding teacher reflection as well as the above conclusions, researchers have offered suggestions to teacher education programs to help their preservice teachers in the reflective process. While each study had shortcomings that caused its findings to not be totally generalizable to all teachers, there are aspects of each study that show promise as an aide in helping preservice and inservice teachers to be better reflective practitioners.

The Role of Teacher Education in Promoting Reflective Practice

Teacher education programs must teach their preservice teachers how to develop higher order thinking skills and how to critically reflect. In learning these skills, preservice teachers learn how to problem solve as well as evaluate and reflect upon their performance (Watts & Lawson, 2009). Teacher educators must devise methods that encourage preservice teachers towards a reflective stance of deliberation and action where they inquire about their actions and think critically about their practice. Teacher educators also need to devise a way to track the progress of their preservice teachers in their self-directed professional development (Hoover 1994).

Teacher educators know that simply providing opportunities for teachers to reflect is insufficient because the reflection may not be productive. It is important that they guide preservice teachers’ development of decision-making skills by providing opportunities for them to reflect on authentic teaching experiences (Griffin, 2003). Teacher educators must create tasks that promote productive reflection, which generally fosters teachers thinking about how to develop and demonstrate a more complex view of teaching (Davis, 2006). But, as we have seen from a portion of the research, student teachers are not always involved in authentic reflective experiences. And as student teachers, their reflection tends to be graded or at least evaluated in
some way, which hinders the authenticity and does not accurately represent their daily reflective abilities or practice (Harford & MacRuaric, 2008, Orland-Barak & Yinon, 2007, Watts & Lawson, 2009). And finally, teacher educators tend to routinize the reflective process in a way that also makes it less authentic (Jay & Johnson, 2002). Teacher education programs must find a balance between guiding their preservice teachers in their quest to become reflective practitioners, and allowing the authenticity of the reflection process to occur. Mentors, reflective guidance, and various reflective assignments are all necessary in order to effectively teach reflective practice, but how to use them appropriately and in balance with each other is still undefined.

Davis (2006) used the findings from her analysis of 25 preservice elementary school teacher’s written reflections to offer suggestions for teacher education programs. The preservice teachers wrote their reflections about their experiences in the practicum component of their methods course. Davis (2006) began her analysis by distinguishing between productive and unproductive reflection in her study of preservice teachers. Productive reflection consisted of the integration of ideas about the many aspects of teaching such as the learners and learning, knowledge of the subject, instruction techniques, and assessment. This type of reflection is analytic, and therefore meaningful and productive for the reflector. Unproductive reflection was mainly descriptive and lacked analysis. Without support and opportunities to practice reflection, preservice teachers mostly engaged in unproductive reflection (Davis, 2006). She analyzed preservice teachers written reflections to see what specific things they were focusing on when they wrote about their teaching concerns. She also identified what aspects of productive reflection they included, emphasized, and integrated when they reflected on these specifics from their own teaching, and then to what extent they engaged in analysis of their own teaching when
completing these reflections. Davis (2006) found that her preservice teachers included ideas about the learners, and integrated ideas about assessment and subject matter knowledge into their reflections, thought they did not specifically emphasize them. These were considered productive reflections because of their level of thought and analysis.

Again, though, these findings were drawn purely from analysis of written reflections. While Davis (2006) could conclude that the written reflections were productive by identifying specific criteria they included, she could not draw any conclusions about the preservice teachers’ ideas and the integration of them because of her lack of conversation with the preservice teachers about what they wrote.

From these findings, though, Davis (2006) was able to offer recommendations for teacher education programs. She suggested that teacher education programs who are teaching their preservice teachers to reflect should encourage the preservice teachers to move beyond description, and consider the learners, the learning process, and the content when reflecting on their teaching experiences. The reflections of her preservice teachers allowed her to see into their thinking and then consider ways to guide them towards complete productive reflection (Davis, 2006). Again, though, other reflective opportunities beyond writing journals are necessary to thoroughly meet this criterion.

Lee (2005) found that his secondary math education preservice teachers had preferences towards different reflection formats, which cause them to produce different levels of reflection based on whether they preferred written or oral formats. His suggestion for teacher education programs was to create various opportunities and climates to reflect, and to not focus on one specific approach. Unfortunately, there is not a clear definition of reflection and explicit criteria to assess the quality of preservice teachers’ reflective thinking, therefore creating issues with
implementing reflective activities in teacher education programs (Rodgers, 2002). The complexity of reflection makes it difficult to teach (Jay & Johnson, 2002). It is of utmost importance that a framework for reflection and assessment of reflection be created in teacher education programs.

Teacher educators also struggle with the balance between scaffolding students in their reflective process and simply giving them specific steps to follow. Reflection is an evolving concept and becoming a reflective practitioner takes time and practice. Teacher educators must provide many reflective opportunities in their coursework and in a variety of instructional contexts in order to fully shape their preservice teachers into reflective practitioners. In doing this, reflective practice has the potential of creating effective teaching (Jay & Johnson, 2002). Jay & Johnson (2002) suggest further study into the evaluation of reflective practice to understand how preservice teachers use reflection as a part of their emerging and developing teaching practice.

In general, the suggestions from researchers for teacher educators lie in providing opportunities for preservice teachers to reflect, and then scaffolding them in the reflective process. Leaving the preservice teachers to simply reflect on their teaching experiences will produce unproductive reflection comprised of simple description and very little analysis. And while it is clear that these reflective opportunities must be vast and varied, it is unclear what balance of the different reflective opportunities (written, oral, with peers, in a discussion group) is the most effective. It is also clear that scaffolding the reflective process by identifying what the preservice teachers reflect on and analyzing how they reflect gives teacher educators a baseline for the preservice teachers’ reflective abilities. They can then guide the preservice teachers towards more in-depth analysis and further reflection of their teaching experiences. What is
unclear is when and for how long we should scaffold the preservice teachers, and what types of scaffolding are the most effective. In analyzing the research on preservice and inservice teacher reflection, it is clear that while different reflective practices have been employed with both groups of teachers and they do reflect on their practice, there is not a clear picture how effective these practices are in molding these teachers into effective reflective practitioners. It is also unclear as to what reflective practices influence the work of teachers more, and how to teach them to perform these practices well. The reflective practices of the teachers of Reggio Emilia, Italy may provide American teacher educators with some answers.

**The Reggio Emilia Approach to Teacher Reflection**

The Reggio Emilia Approach and the schools of Reggio Emilia, Italy can be valuable to American educators because they give us further information about *how* to reflect. The Reggio Emilia Approach is a theoretically driven approach to practice; it has not been empirically proven that this is what teachers do. This is because empirical research has not been done in the schools, but rather observers and implementers of the approach have written and created other forms of media describing what occurs in the schools. These people have provided a description of an ideal and of what the approach says teachers should be doing. American teachers can learn from the approach and the reflective practices that the designers of the approach hope that teachers will do on a daily basis.

As part of their job requirements, Reggio teachers write daily documentations of the work in the classroom, including the children’s ideas and learning experiences. They also collect evidence such as artifacts and documentation of the children’s work, ideas, and talk. They are then asked to bring these documentations to their weekly teacher meetings (Edwards, Gandini, & Forman, 1998). The collaborative process in these meetings is a major part of the job of teachers
in Reggio Emilia. The meetings are set up for the teachers to discuss what is happening in their classrooms, what they are planning for their classrooms, and reflect together on their overall teaching experiences. They are asked to use their written reflections, artifacts, and documentations along with their social conversation to reflect on their work with the children in their classroom, and make decisions about planning and instruction. The social aspect of these meetings is meant to allow the teachers to reflect more deeply on their work and make decisions with the help of their fellow teachers’ input. In following this model of reflective discussion and analysis, it is hopeful that new ideas and conclusions are reached and the teachers take the knowledge and ideas created in the group back to their teaching and planning.

When Reggio teachers were asked about the influence of these meetings, many stated that they are highly beneficial to them and their work, and enhanced their reflection of their teaching and the children’s work. They also directly affect how they plan, teach, and interact with the children in their classroom. In essence, it reshapes the teachers’ pedagogy (Edwards, Gandini, & Forman, 1998).

Teachers in Reggio Emilia schools gather a great deal of data in the form of documentation and artifacts from their classrooms. This data includes teaching materials, the children’s work, and written and photographic documentation of the teaching and learning occurring in the classroom. These data are meant to be an important part of the teachers’ reflective practice. Teachers are asked to collaborate with other teachers to analyze and interpret the materials, and use these extended reflections to guide their practice. By engaging in this collaboration in order to use the data to inform their teaching, the teachers’ previous ways of knowing and believing are meant to be challenged. While being challenged, their thinking is hopefully supported and new perspectives, knowledge, and beliefs are created (Hewett, 2001).
By reviewing their documentations and artifacts, they can make modifications and adjustments to the learning experiences in the classroom, the materials, and their teaching strategies. This review and analysis is another form of reflective practice, and its purpose is to allow the teachers to make informed decisions about the most appropriate ways to support children’s development and learning (Katz, 1998).

The concept of “revisiting” is also prevalent in Reggio Emilia schools. The teachers often find that they frequently come back to a topic or a conversation later with new insights and ideas. This extended conversation provides further enlightenment and builds on prior information and conversation. By participating in revisiting, teachers can learn to view a task, representation, or practice from multiple perspectives. In essence, revisiting can allow the teachers to take their reflection to a higher level (Moran, 1998).

It is important to recognize that there has not been empirical research done on the practices of the teachers of Reggio Emilia, but rather descriptions of what observers have seen when they have visited the schools, and what the designers of the approaches have documented in the media to share with the world. Because of this more “descriptive” framework (rather than documented research findings), it is more challenging to put into practice. These realizations, though, should not take away the desire for teacher educators to educate and help prepare teachers, and make use of some of the reflective practices that are attributed to the Reggio approach. This work can begin by giving novice teachers opportunities to reflect often and reflect well. They must be provided with opportunities to reflect on their own and then bring their reflective thoughts to group meetings where they can create zones of proximal development with their fellow novice teachers. In these zones the novice teachers can rehash their teaching experiences, and listen to and learn from each other. Specifically, in student teaching
experiences, the student teaching supervisor can use these reflective conversations to instill the ideals of the Reggio philosophy and the role of the teachers as their student teachers work in classrooms and prepare to enter the teaching profession.

It is also important to recognize that the Reggio schools, while influential all over the world, are relatively private about having people observe or research. Therefore, it is not possible to say what actually goes on, but it is the case that the theory of what goes on is valuable in thinking about what American teachers might need to develop as reflective practitioners.

In taking all of these facets into account, I believe that the intricate levels of reflective practice that are described as occurring in Reggio Emilia schools are a model for teachers in the United States to follow. But, they are difficult to recast in American schools, where the teaching and learning environment is so different. Perhaps the answer lies in the practice of experienced teachers. By reviewing research comparing their work to that of novice teachers, we may be able to see how to guide novice teachers to more closely resemble their more experienced colleagues who are more versed in reflective practice.

**Research Comparing Experienced and Novice Teachers**

Within the research on teacher cognition and teacher planning, specific research has been conducted to study the differences between experienced and novice teachers. The findings from this research pool inform the current study of reflective teacher practices. The goal of this research study was to provide novice teachers with opportunities that will make them better reflectors. This increase in skill can help to move them towards the behaviors and thinking of experienced teachers. In this section I will highlight research focused on comparing experienced and novice teachers’ thinking, planning, and instruction as a means of differentiating their reflective abilities. This difference is an important theme in this research study. It can be argued
by analyzing this area of research that a goal of student teaching seminar supervisors is to move
the student teachers from a novice to an experienced reflector. While not all experienced teachers
are good teachers and good reflectors, they have the opportunity to be these types of teachers
through their large amount of experience in the teaching field.

**Problem Solving and Decision Making**

Researchers have argued that the cognitive schemata of experienced teachers are more
elaborate, complex, interconnected, and easily accessible than that of novice teachers.
Experienced teachers have a larger and more integrated repertoire of facts, principles, and
experiences to draw upon when they engage in planning, reflection, and other forms of
pedagogical reasoning (Borko & Livingston, 1989). Novice teachers, on the other hand, have
less elaborate, connected, and accessible schemas (Borko & Livingston, 1989). Therefore, their
planning, reflection, and reasoning are not as strong. When solving classroom problems,
experienced teachers are able to consider both obvious and underlying causes, while novice
teachers only consider the surface features and behavior (Peterson & Comeaux, 1987).

In their study in a laboratory preschool, Hill, Yinger, and Robins (1983) discovered that
the preschool head teachers guided their two early childhood student teachers’ work in
determining their priorities and purposes for planning, procedures for instruction, and how they
allocate their time and energy. The head teachers were found to make more complex and
imaginative connections between curriculum objectives and the materials and activities. They
observed the children at work, and then used this information in their planning (Hill et al, 1983).
The student teachers were guided in making these same connections, but were unable to do it on
their own. This study’s findings adhere to the hypothesis that novice teachers have a less
complex cognitive schema to use when planning, and that they must be guided in reflective practice.

This level of cognitive schema influences how teachers deal with and then reflect on classroom situations. Peterson and Comeaux’s (1987) study investigated whether differences existed between novice and experienced high school teachers in their recall and analyses of problem events during interactive teaching. They found that the experienced teachers participated in more extensive reflective practice than their novice colleagues because they could recall more classroom events and could rely on their knowledge of the principles of learning and teaching more than novice teachers. The experienced teachers made more statements that reflected knowledge and analysis of classroom teaching and learning, participated in higher-order thinking, and exhibited a greater amount of knowledge about classroom teaching and learning. The novice teachers did not provide rationales for their decisions and could not elaborate on their viewpoints of classroom situations. The expertise of these experienced teachers was recognized as a reason for this higher level thinking, and it allowed them to more extensively reflect on their work and make decisions based on these reflections.

Thoughts About and Influences on Their Planning

Beyond studying the actual decision making and actions of experienced and novice teachers, it is important to delve into their thoughts about what influences their planning, teaching, and reflection. Borko and Livingston (1989) analyzed the thinking and actions of two secondary and one elementary student teacher and their cooperating teachers, and found that much of the experienced teachers’ reflections of their teaching focused on students’ understanding of the material that was taught. When teaching, these teachers worked from mental scripts that were outlines of their instructional plan and were influenced by their prior
reflections of their teaching. They then filled in these outlines with their interactive teaching that responded to student performance (Borko & Livingston, 1989). The novice teachers, on the other hand, participated in predominantly short term planning of how to cover the content in the lesson and present it effectively to the students. They were unable to predict where students would have difficulty so they could effectively alter their teaching, and had trouble maintaining the direction of the lesson when students asked questions or commented on the content (Borko & Livingston, 1989). The only commonality between experienced and novice teachers was about student participation and active involvement in the lesson. Both sets of teachers wanted this to occur and be positive, but they went about how to elicit it in very different ways (Borko & Livingston, 1989).

Based on their study, Borko and Livingston (1989) concluded that experienced teachers plan and initiate instruction more quickly and efficiently than novices because they can access their existing schemas of content and pedagogical knowledge from past teaching experiences. These schemes of knowledge provide a framework for what information is relevant to use in planning and what decisions they need to make to be effective teachers. Their reflective practice is more detailed and developed. Novice teachers have less developed and less elaborate schema because of their lack of experience and limited knowledge of content and pedagogy. Their schemas are still developing with every lesson they teach, so they are unable to determine what information is relevant and are less responsive to cues during teaching. Their reflective practice is less detailed and mature (Borko & Livingston, 1989).

Fogarty, Wang, and Creek’s (1983) impetus for their study of experienced and novice teacher reflection was to work towards developing a methodology for describing competent classroom teaching performance and analyzing components of competent classroom decision-
making. They hoped to use their findings to improve preservice and inservice teacher training programs. Fogarty, et al (1983) studied three experienced and five novice elementary school teachers to see the differences in their use of performance cues, instructional actions and the relationship between those actions and student performance cues, their instructional goals and their prior instructional knowledge. They found that experienced teachers used more prior knowledge, had a larger variety of instructional goals, and used a larger variety of instructional actions while teaching. Their instructional actions in response to student cues were also more complex. Novice teachers failed to implement a large variety of instructional actions in response to student performance cues, and identified that they did not use prior knowledge when planning and instructing, because they felt they did not have any. Experienced teachers responded to lack of student involvement or incorrect student responses by altering their instruction to elicit attention and understanding. Novice teachers attempted to just manage and retain the student’s attention in these situations. While this is focused on the teaching of the experienced and novice teachers, their ability to reflect on their prior teaching experiences (or lack thereof) did affect their decision-making in the classroom.

These findings reveal that novice teachers are working to reach the level of reflective practice of experienced teachers. As their experience grows, their reflection will get better, which will allow them to plan quicker and more effectively. This higher level of reflective practice will allow them to anticipate student response and be able to draw on past experience to effectively respond to it. The research emphasizes the major difference between the two groups of teachers, but not how the novice teachers become or can become an experienced reflective teacher. The current research study provided novice teachers with this opportunity in an attempt to answer this question.
Studying Teacher Thinking

Another way of comparing experienced and novice teachers is to study their thinking during the preactive, interactive, and postactive stages of planning to see where experience has the most influence on thinking and decisions, as well as how extensively they reflect on their practice during each stage. By interviewing and videotaping the teaching of five elementary student teachers and their five cooperating teachers, Westerman (1991) studied their thinking and decision making. She found that the experienced teachers performed a cognitive analysis of the learning task and planned based on the students’ current knowledge, the knowledge they would be expected to retain from the learning experience, and how the specific students learned best. They integrated students’ prior knowledge, continually checked for understanding, and used student behavior cues to direct the lesson. The novice teachers did not participate in this same level of reflective practice because they did not have this knowledge and awareness. They mainly used the curriculum guidelines as the basis for their linear lesson planning, and were unable to integrate student cues into their lesson.

Westerman’s (1991) study showed the vast cognitive differences between experienced and novice teachers, which contributes to their different level of reflective abilities. These different reflective abilities caused them to have very different teaching experiences and successes in these teaching experiences. Experienced teachers had a more comprehensive view of the classroom, more experience to draw upon when planning and implementing their lessons, and were able to use student input and cues to accommodate student needs and reframe the lesson to be successful. Novice teachers, on the other hand, had a limited view of the classroom and simply planned, implemented, and evaluated their lessons. They had difficulty receiving and applying student input and cues into their implementation, and considered a successful lesson to
be one where the objectives were met and the students behaved. Experienced teachers were able to use information gained from the lesson planning and implementation in their future planning, while novice teachers could not make this connection.

When considering all of these different studies of experienced and novice teachers, the same general conclusions have been made. When planning and implementing instruction, experienced teachers use more prior knowledge, have a larger variety of instructional goals, and use a larger variety of instructional actions during instruction. Their instructional actions in response to student cues are also more complex, and they are able to more effectively analyze classroom teaching and learning. Therefore, experienced teachers have a greater amount of knowledge about classroom teaching and learning because of their experience, and have the ability to use all of this information to extensively and thoughtfully reflect on their practice, and then use these reflections to inform their work.

Novice teachers, on the other hand, have less developed and less elaborate schema because of their lack of experience. They have limited knowledge of content and pedagogy, and their cognitive schemes are less elaborate and still developing with every lesson they teach. Therefore, their reflective practice is less mature and developed, and they have difficulty using their reflections to inform their teaching.

While this may seem like obvious conclusions, the reflective practice of both groups of teachers needs to be studied further. While these skills will most certainly be different for both groups of teachers, how do they impact their work in the classroom? While we cannot give the novice teachers the past teaching experience of experienced teachers, can we guide their thinking to move towards a more advanced level of decision making and behavior? Is this level of reflection and thinking even possible for teachers without prior teaching expertise? All of this
work begins when preservice teachers are placed in student teaching experiences, which is the final step in their teacher education before seeking employment as a teacher. This research study gave student teachers reflective opportunities that worked to move them to a more advanced level of reflective practice, possibly that of an experienced teacher. The findings from this study can begin to fill the gap in understanding what levels of reflection and thinking novice teachers are capable of doing if given the right guidance. An understanding of what this experience entails and the reflective experiences that are available to the student teachers while they participate in student teaching is necessary.

**Student Teachers and Student Teaching Experiences**

In addition to designing effective learning experiences and environments, teachers must also be lifelong learners. They must be willing to engage in conversation and reflection that will challenge their assumptions about teaching and learning (Nguyen, 2009). This role as a lifelong learner begins when teachers are students in teacher education programs, and especially when they are participating in their student teaching experience.

**Preservice Teachers and the Student Teaching Experience**

Student teachers change what they know and believe about teaching during their student teaching experience, as they hopefully participate in meaningful interactions with different situations in the learning environment. These interactions along with their thoughts while teaching make up their practical knowledge. Changes in their practical knowledge indicate that they are learning, and the nature of these changes is considered the student teachers’ professional development (Schepens, Aelterman, & Van Keer, 2007).

Professional development is described as the set of formal and informal learning experiences that teachers accumulate throughout their teaching careers (Schepens et al, 2007).
Student teachers can have learning experiences as inservice teachers in their student teaching experience, which will allow them to participate in some level of professional development. They can have opportunities to question and change their professional thinking and acting by interacting with influential people and participating in important teaching and learning experiences. These critical interactions and experiences could then serve as learning opportunities when they are paired with individual or collective reflection (Schepens et al., 2007).

Reflective thinking is essential to identifying, analyzing, and solving the variety of complex problems that comprise classroom teaching. Reflective thinking comes in many forms and occurs at different times during teaching. While student teachers commonly participate in reflection-on-action and reflection-in-action in their student teaching experiences, Killion & Todnem (1991) suggested that they participate in a more proactive type of reflection: reflection-for-action. This reflection is the desired outcome of the previous two types of reflection. Reflection-for-action adheres to the role of lifelong learner and asks the student teachers to use their conversations and reflections of their teaching experiences to become better teachers.

**Types of reflective practice.** Reflective practice for student teachers has come in the form of reflective journals, reflective interviews, peer observation conferences, and group seminar meetings (Collier, 1999). Each format provides a unique opportunity for the student teachers to translate their thoughts and ideas about their teaching experiences into discussion and analysis.

Reflective journals clarify and extend student teachers’ thoughts and concerns. They can be used to encourage student teachers’ increasing awareness and self-assessment of their attitudes and beliefs that were evolving throughout the experience. Reflective interviews provide an opportunity for the student teachers to orally reflect on their impressions of their teaching
experiences, as well as their specific planning and instruction. Student teachers can also observe each other, take narrative notes, and then participate in peer observation conferences. These conferences can allow student teachers to listen to and discuss different perspectives on their teaching methods and the subsequent outcomes. Finally, group seminars can support collaborative reflection between the student teachers. Themes such as reflection, perceptions of effective teaching, and debriefing of their student teaching experience with discoveries about themselves and teaching are just some of the possible foci of these group seminars (Collier, 1999).

After providing these varied reflective opportunities to her four elementary student teachers, Collier (1999) concluded that reflective practice is a unique and individual developmental process. She found that the majority of student teachers reflect in a descriptive and technical way, and functioned from a reactive versus proactive stance. They are very subjective in their perceptions of the student teaching experiences, and when they were given the opportunity to write and speak reflectively, they became very aware of the sound and character of their own voice (Collier, 1999).

This descriptive and reactive stance is understandable considering where the student teachers are in their professional careers. During their student teaching experience, student teachers are making the difficult transition from college student to teacher who is still a learner. While they are assuming a more professional role as a teacher in a classroom, they are still learning how to be a teacher. Collier’s (1999) recommendations for teacher education lie in teaching the student teachers to self-monitor themselves and their actions and beliefs by acknowledging them through reflective practice. This ability allows them to be the active, critical, and progressive thinkers that are necessary to learn from their student teaching
experience (Collier, 1999). Teacher education programs must teach preservice teachers to look at reflection as a constant metacognitive experience where they can and should confront their frustrations, misperceptions, excitement, and reservations about teaching.

This research study attempted to give student teachers this opportunity through interactive discussion groups. They were asked to think metacognitively about their student teaching in order to acknowledge and confront what they are experiencing, and think more deeply about it in order to understand it better. In the current study I added new types of reflective practice to Collier’s (1999) list based on the Reggio Emilia approach. It was my hope that the addition of these new practices to those that she has found successful would be able to further inform teacher education practices.

**Student Teaching Seminars and Supervising Student Teachers**

Student teaching seminars are informal settings where student teachers discuss their teaching experiences in their field-based classrooms, their attempts at linking theory to practice, and their teaching experiences. Student teaching supervisors listen and help the student teachers to discuss, collaborate, and develop solutions to problems and issues that arise in their student teaching experiences (Ullrich, 1992).

**The role of student teachers in their seminars.** Student teachers are typically asked to play an active role in their student teaching seminars. They can share their personal and professional concerns in their student teaching seminar and participate in group problem solving. By taking a leadership role in these problem solving discussions, they can lead discussions that explore the inquiry and skills they are encountering in their teaching and experiences (Ullrich, 1992).
Student teaching seminars are also supposed to raise critical questions about current schooling practices and encourage student teachers to discuss and then implement changes in their classrooms (Ullrich, 1992). But if student teachers are expected to critically examine their beliefs and practices, and refine them based on rigorous analysis in their seminars, then they must be personally independent. They must have a strong sense of personal autonomy in order to propose, defend, or make changes in their classrooms (Ullrich, 1992). This autonomy must be fostered with guidance from the student teaching supervisors. Leaving the student teachers to reflect and discuss on their own without this guidance does not produce effective seminars (Ullrich, 1992). This leads to the important role of the supervisor.

**The role of the supervisor.** During student teaching seminars, both student teachers and their supervisors must engage in practice-based reflective study of the process of teaching and learning (Titone, Sherman, & Palmer, 1998). Supervisors must not just help student teachers solve problems, but instead must offer personalized feedback on their reflective journals (Spalding & Wilson, 2002). Student teachers’ reflective journals serve as a permanent record of thoughts and experiences, provide a means of establishing and maintaining a relationship with supervisors, provide a safe outlet for personal concerns and frustrations, and act as an aid to internal dialogue (Colton & Sparks-Langer, 1993 in Spalding & Wilson, 2002). For the supervisors, the journals act as a window into the student teachers’ thinking and learning, provide a means to maintain a relationship, and serve as dialogical teaching tool (Spalding & Wilson, 2002). Supervisor feedback in this relationship helps student teachers to become more reflective.

During their student teaching experience, student teachers continuously change what they know and believe about teaching as they participate in meaningful interactions with different
situations in the learning environment. Their ability to reflect on these interactions and receive feedback on their thoughts and analysis comprise their professional and personal development into a teacher. The student teaching experience along with the student teaching seminar should provide opportunities for this reflection and analysis to be explored and discussed and for both student teachers and supervisors to provide feedback that will extend the student teachers’ thinking. This research study worked towards this goal. Student teachers were asked to reflect in a multitude of ways, and their reflections were explored in a group meeting environment with myself as an experienced teacher and teacher educator and fellow student teachers as supports and mentors in the reflective process. This study extended beyond the traditional reflective practices of written reflections and discussions of teaching experiences, and incorporated reflective experiences from a region known for emphasizing the importance of teachers being strong reflective practitioners.

Conclusions

In this literature review, I have discussed literature and research relevant to the topic of teacher reflection on their practice, and then how this information is relevant to student teachers’ reflective practice during their student teaching experiences. Specifically, I have discussed research on teacher reflection and the role and reflective practices of the teachers of Reggio Emilia, Italy; the differences in the practices of experienced and novice teachers; and the student teaching and student teaching seminar experiences. The theories of John Dewey and Lev Vygotsky framed these discussions.

In reviewing these areas of educational research, it is clear that while reflection is taught and employed in teacher education programs and with practicing teachers, there is not clear framework for how to teach reflection and how to mold preservice teachers into effective
reflective practitioners. And while the practice of experienced and novice teachers differ, there isn’t any guidance on how to guide preservice teachers towards experienced teachers’ reflective behavior. The student teaching experience and student teaching seminars attempt to explore the practice of the preservice teacher in an experienced teacher’s environment, but no conclusions are made about what would make these experiences influential in the growth of a preservice teacher. The teachers of Reggio Emilia offer a glimpse of what a preservice teacher could do to help answer these questions, but only in the role of a practicing teacher’s work. How do teacher education programs take all of this information from research on teacher practice and reflection, and the model of a reflective practitioner in the Reggio teachers, and teach preservice teachers to always reflect, and more importantly, always reflect well? This research study attempted to begin to answer this question by employing various reflective practices with student teachers, and then exploring their relevance and their impact on student teacher practice and reflection.
Chapter 3:
Methodology

The purpose of this research study was to explore what happens when I implemented several inter-connected reflective experiences with student teachers. I studied their participation in the reflective practices as well as my practice as a teacher educator, specifically as a facilitator of the reflective practices. As the focus of this study was on my own practice and how I might better prepare preservice teachers to be effective reflective practitioners, I chose to use qualitative procedures and practitioner inquiry to guide the design.

Practitioner Inquiry

Practitioner inquiry is an extension of teacher and action research. It is defined as organized and intentional study by teachers of their own classroom practice (Cochran-Smith and Lytle, 1993). This type of research supports the development of knowledge within specific contexts of practice and is especially suited to work-based learning. (Cochran-Smith & Lytle, 1993). Teacher inquirers seek to change and reflect on their practice by posing questions, collecting data to gain insights to answer their questions, and analyzing the data along with reading relevant literature. They then make changes to their practice based on the new understandings they develop during inquiry and share their findings with others (Yendol-Silva, 2003).

In this practitioner inquiry study I used multiple qualitative research methods in order to do a study that was practical, interpretive, and grounded in the lived experiences of the student teachers and myself as a teacher educator (Marshall & Rossman, 2006). I will use the findings from this study to improve my teaching and my preservice teachers’ learning, as well as to inform the practice of other teacher educators. Therefore, my practice as a teacher educator was
the site for the inquiry in this study, and the questions that framed the study emerged from my
day-to-day practice and the reflective practice of the past student teachers I have worked with
(Cochran-Smith & Lytle, 2009).

This research study fell into two of the categories of practitioner inquiry that Cochran-
Smith and Lytle (2009) discuss. As a “teacher research” study, I as a teacher researcher worked
in the inquiry community of my student teaching supervision and seminar. In this teaching
environment I examined my own assumptions about student teacher reflective practice and
reflective practices in general, and developed knowledge about these concepts by posing
questions and gathering data. Using the term “the scholarship of teaching,” this study was a
sustained inquiry into my own teaching of reflective practice to student teachers, and their
learning to be reflective practitioners (Cochran-Smith & Lytle, 2009).

In keeping with practitioner inquiry, I used multiple qualitative data sources (written
reflection, recordings of group meetings, documents, recordings of one-on-one conversations and
interviews) to document my student teacher’s participation in the reflective experiences, and to
also document my own participation and the types of questions and changes to my thinking that
arose throughout the study (Cochran-Smith & Lytle, 2009). The data was then used to examine
what some best practices might be for supporting student teachers in their reflective practice. The
knowledge generated from this study will alter my own practice as a teacher educator in the
future. However, while the findings are to be used primarily in my own practice and in my own
teacher education program, it is my hope that they will inform other teacher educator’s practice
(Cochran-Smith & Lytle, 2009).

Cochran-Smith and Lytle (2009) have stated that this type of research study and the role
that I took as the practitioner researcher can blur the boundary between inquiry and practice
because both are happening together. This was particularly true in this research study since I inquired about the practice that occurred at that moment. While this may be considered a professional dilemma in the research world, it was also a place to develop new kinds of knowledge about how teacher educators educate preservice teachers. As a teacher educator I am able to question and analyze my practice as it is occurring as well as after the moment has passed, and then draw conclusions.

**Research Questions**

Drawing on techniques of practitioner inquiry, this study answered the following research questions:

1. What happens when I, as a teacher educator, use a series of interconnected reflective experiences with a group of student teachers?
   a. How do the student teachers respond to each of these reflective pedagogies?
   b. How do the different reflective pedagogies interact with each other?

2. How does the reflective activity change over time?
   a. In what ways do the student teacher’s individual reflections change over time?
   b. Does the reflective activity of the group change over time? If so, how?

3. What role do I as the facilitator play in supporting student teacher reflection?

4. From the vantage point of the participants, do the reflective strategies support them in their student teaching?

**Participants**

The participants in this study were a convenience sample of four student teachers purposefully selected because they were seeking dual certification in Early Childhood (birth – grade 2) and Childhood (grades 1-6) education, were entering their student teaching semester,
and were assigned to me for supervision. In order to prevent the student teachers from thinking that they had to participate in the study to please me and/or meet the requirements of the program, they were informed that they could drop out of the study at any time without penalty to their student teaching or student teaching seminar grade. If they chose to drop out of the study, they would have still continued to send me daily written reflections as a requirement for their student teaching. But, they would not have attended the group meetings or the interview, and their daily reflections would not have been included in the analysis. All of this information was given to the student teachers in a consent form that they signed before the research study began (see Appendix A). No student teachers chose to drop out of the study.

**Role of the Researcher**

I am currently the Early Childhood Program Coordinator and professor of teacher education at Dominican College, where this study took place. I was the supervisor for the four student teachers who participated in the research study. I chose to implement some of the reflective practices utilized by the teachers in Reggio Emilia, Italy in this study because they emphasize collaborative reflection. The teachers in Reggio schools are asked to constantly document the learning and action that occurs in their classrooms, and then bring that information to weekly meetings with their fellow teachers. The teachers use the information from the meetings to extend their pedagogy, add to their teaching, and alter the planning of experiences in their classrooms. As a teacher who utilized these reflective practices and participated in meetings inspired by those that occur in Reggio, I benefited greatly from them. They made me a more reflective and successful teacher by teaching me to use various reflective practices along with conversations with fellow teachers to reshape the planning, teaching, and learning that occurred in my classroom. This study explored if this work is possible in a traditional teacher education
program and in non-Reggio schools. While the environment was not the same as a Reggio school, the reflective practices were imitated as closely as possible.

Therefore, because I was the former professor and student teaching supervisor for the four student teachers participating in the research study, and I have a close connection to the Reggio Emilia approach where the reflective experiences were taken from, I did have some bias when performing this research study. I had a prior relationship with the student teachers and I had opinions about their abilities as students. While this may have influenced my beginning perception of their work and reflective participation, I did not have opinions about them as teachers because this was the first time I am saw them as a teacher and then as a reflective practitioner.

To combat these biases, I performed specific reflexive practices. I used a researcher journal to write about my feelings and perceptions after the pedagogical teacher discussion groups. I discussed my group meetings with a colleague twice during the data collection to gather her perceptions of what occurred during the meeting. I also used a peer reviewer to review my data, analyze it, and draw her own conclusions using the same coding schemes and analytical processes that I used. This allowed me to see if she drew different conclusions and then if our conclusions were different because of my bias and prior experiences with the student teachers and the Reggio approach. I believe that these reflexive practices lessened my bias and gave me a more open view of the data during analysis.

**Context of the Research Study**

The student teachers participated in a 15 week student teaching experience: Five weeks in Kindergarten, five weeks in a first, second or third grade, and five weeks in a fourth, fifth or sixth grade. The study took place during the first ten weeks of the 15 week student teaching
experience, and it encompassed their first experience and half of their second experience. The reason for only using the first ten weeks is because the seminar days during this time period were uninterrupted and provided an excellent time period for our pedagogical teacher discussion group meetings.

As part of their student teaching, students were observed once in each of their experiences, and were asked to gradually take over all of the classroom planning and instruction by the end of their five week placement. Each week on Wednesdays they met for their Student Teaching Seminar, where they learned about various aspects of the teaching career.

The Intervention

In this research study, the student teachers participated in the following reflective practices: Daily written reflections, one observation conversation and corresponding written reflection, weekly pedagogical teacher discussion group meetings, and the sharing of documentations and artifacts.

Daily Written Reflections

Written reflection is the most common form of reflection that student teachers are expected to do and was a required part of the student teaching program at Dominican. The student teachers were asked to write a reflection each day after school had ended. They began one Microsoft Word document at the beginning of the week and then each day added the new reflection to the end of the document, titling the beginning of the page with their name and the date. The format for these written reflections was open-ended in terms of what they could write about. Providing a framework or guiding questions to aid in the reflective process has been shown to stifle preservice teachers’ reflections (Orland-Barak & Yinon, 2007; Watts & Lawson,
2009). One of the goals of this research study was to examine this type of open-ended reflection in relation to more guided and/or social reflections.

**Student Teaching Observation and Conversation**

During the 10 week student teaching experience I observed each student teacher teach one lesson. This lesson was anything they chose in the curriculum. After they taught their lesson, the individual student teacher and I met to share feedback. I first asked them to share their thoughts about the teaching experience. After they finished sharing, I gave my feedback in the form of “strengths” and “suggestions.” The student teachers were then asked to write their usual written reflection for the day, but this time it answered the questions “What did I do?” “Why did I do it?” “How can I do it better?” This was the only written reflection that was guided, because it was a requirement for their student teaching experience to write their observation day reflection in this manner.

**Weekly Pedagogical Teacher Discussion Group Meetings**

Every week, the four student teachers met with me for a one hour pedagogical teacher discussion group meeting. These group meetings were socially oriented, and the student teachers sat around a table in comfortable chairs in an atmosphere set up for conversation (Marshall & Rossman, 2006). The meetings began with a student teacher sharing an experience from her classroom or with me asking a question. Throughout the meetings, student teachers talked whenever they had something to share or to respond to a question from me or their peers. The students were not required to talk, although every student teacher talked in every meeting.

**Documentations and artifacts.** The student teachers were asked to bring documentation and artifacts from their student teaching experience to all of the meetings. They were given a sheet at the first meeting that described examples of documentation and artifacts, and these
descriptions were based on the Reggio Emilia approach and how the practitioners in that region describe them (see Appendix B). Throughout the data collection, the student teachers brought photographs of their classroom and the children working and playing, pieces of student work, and resources from their teaching. The student teachers were then asked to use the group meetings to collaborate with each other to analyze and interpret the materials, and then use these discussions to guide their practice and possibly make modifications and adjustments to their teaching strategies and lesson planning.

**Role of the facilitator/researcher in the pedagogical teacher discussion groups.** The purpose of the pedagogical teacher discussion groups was to establish and facilitate a discussion, not interview the student teachers. It was important that the student teachers develop a sense of community and reciprocity in order to fully participate in these group discussions (Marshall & Rossman, 2006). My goal was to create a relaxed and supportive environment where the student teachers could share their differing opinions and points of view with the goal of increasing their knowledge of teaching.

As the facilitator, I believed that my job was to encourage the student teachers to talk about their shared experiences in the student teaching experience. I did this by providing conversation starters based on the written reflections, responding to the student teachers’ participation with further questioning and active listening, and acknowledging their input while at the same time inquiring about their further thoughts and ideas based on the conversation topic. I worked to model interactive reflective discussion and to scaffold them to do the same. My goal was to eventually have them “take the lead” in the discussion and analysis, so there were instances where I remained silent and let the student teachers interact with each other. I never had to “force” any of the student teachers to talk, but as a way to facilitate participation, I
sometimes directed one or more questions at a certain student teacher or brought up a theme that came from her written reflection as a way to facilitate conversation. Since one of my research questions was to examine my role, what I have described above is what I entered the group meetings planning to do, my discoveries about my role will be elaborated on in Chapter 4.

Data Collection

This practitioner inquiry research study was a systematic and intentional inquiry into student teachers’ participation in reflective experiences and my own participation as a teacher educator in facilitating them. In following practitioner inquiry design, I gathered and recorded information and documented the student teachers and my participation in the reflective experiences in a planned and orderly way (Cochran-Smith & Lytle, 1993). Four data sources informed this study: Printouts of each student teacher’s daily written reflections, observation conversation transcripts and the corresponding written reflections, transcripts of the weekly pedagogical teacher discussion group meetings paired with document summary forms and transcripts of the final interviews.

Printouts of the Daily Written Reflections

The student teachers sent me a Microsoft Word document on Tuesday evening that consisted of their daily written reflections from the past Wednesday through Tuesday. The daily written reflections from each student were placed in order by date and each week was clipped together. They were then filed in a folder with her name labeled on the front. The full reflection from each day was used as data in this research study. This method of logging the data and labeling it by student teacher and date kept it organized and ready for analysis (Marshall & Rossman, 2006).
Audio Recordings of the Observation Conversation and Copy of the Corresponding Written Reflection

The conversation with each student teacher after her observation was audio taped and transcribed the evening of the observations. When transcribing the conversations, I put my input in bold so that it will stand out during data analysis. A copy of the transcript was placed in each corresponding student teacher’s folder next to her written reflection from the observation lesson.

Audio Recordings of the Pedagogical Teacher Discussion Groups

Each pedagogical teacher discussion group meeting was audio taped and transcribed the evening of each meeting. The transcriptions were the main data source collected from the weekly group meetings; the other data source was the weekly document summary forms. The transcriptions allowed me to see the student teachers’ point of view about their student teaching experiences, responses to each other’s experiences, and their reasons for and explanations of their documentations and artifacts. Along with this information specific to each student teacher, the dialogue also provided me with information about the group process and interactions, and about my own actions as a facilitator. A copy of each week’s transcript was colored-coded by student teacher, saved in a file with the audio recording, and printed out. When transcribing the group meetings, I put my input in bold so that it stood out during data analysis.

Researcher journal. Since I as the researcher was the primary instrument of data collection and analysis, it was essential for me to participate in reflexivity (Merriam, 1998). I kept a researcher journal and each week after the meeting, I wrote my own reflections about certain aspects of the meetings that stood out to me, and certain roles I felt I had taken. After transcribing each week’s meeting, I would write further reflections in my researcher journal as well as describe a specific role I decided to take in next week’s meeting. This new role was
based on questions that I had, reflective behaviors I wished to model, or specific student teacher reflections that I felt deserved more time. After receiving the student teachers’ written reflections the day before the next meeting, I sometimes added additional notes or reflections to guide me in my role for the meeting the following day (Maxwell, 2005). 

This journal allowed me to complete some preliminary analysis of the group meetings by giving me a place to write down my ideas before I forgot them. These memos allowed me to put my thoughts into a written form that allowed for examination and interpretation (Maxwell, 2005). By writing about my thoughts on the how the group went as well as my participation, I was able to note changes in these areas. It was also an avenue for me to reflect on my own about what I was learning from the research study, what ideas I had as the weeks progressed and what successes and failures of my own that I discovered. See Table 1 for a summary of my weekly reflections and my ideas for the next meeting from my researcher journal.

**Documentations and Artifacts/Document Summary Form**

The specific pieces of documentation and artifacts provided an additional group of data that I linked to the student teachers’ verbal conversations. I collected all of the artifacts the student teachers brought and color photocopied those that they wanted to keep. I then labeled each document and artifact with the corresponding student teacher’s name. Finally, I created a document summary form for each pedagogical teacher discussion group meeting to connect the document/artifact with the student teacher and their oral conversation in the group meeting (Marshall & Rossman, 2006). I also connected any written reflection information to the document/artifact on the same form. The documentations and artifacts and the document summary forms were both the primary data sources from this reflective practice. See Appendix C for the document summary form template.
<table>
<thead>
<tr>
<th>Week</th>
<th>Reflections about the Meeting</th>
<th>Ideas for Next Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 – 9/8</td>
<td>Incorporated D/A into conversation on their own</td>
<td>Need to ask more about them – their role, what they would do, how it affects their teaching</td>
</tr>
<tr>
<td>3 – 9/15</td>
<td>Taking turns talking Taking turns bringing notes with them</td>
<td>Used some key points of WRs this week to guide discussion - will continue this</td>
</tr>
<tr>
<td>4 – 9/22</td>
<td>They explained why they bring notes (would they do this if this was a more “casual” meeting?) They explained why they bring notes (would they do this if this was a more “casual” meeting?)</td>
<td>My role as a guide is very apparent…note-taking so they can remember what they want to share in group Amanda revisited a topic 3 times…WR, group meeting, and then WR again – start with this and ask her to continue/share new reflections</td>
</tr>
<tr>
<td>5 – 9/29</td>
<td>Starting with Amanda was successful – began an in-depth conversation about testing They interrupted/interjected with their own ideas more today, so I was able to be quiet more</td>
<td>Writer’s Workshop discussed in-depth by 2 student teachers – going to lead with D/A and see if that expands the WW discussion</td>
</tr>
<tr>
<td>6 – 10/6</td>
<td>D/As were pieces of work from kids…reflected on how they kids did, participation level, how they modified it, the meaning behind it – very in depth discussion I did a lot of “active listening” – wasn’t planned but their talk guided my role a bit this week</td>
<td>They are taking on more responsibility in the group after I model/facilitate. Ask them: What is the purpose of the group? What are you getting out of this? Started to challenge assumptions and rethink expectations this week – bring this up next week to facilitate further reflection like this</td>
</tr>
<tr>
<td>7 – 10/13</td>
<td>Stated that the group meetings are helpful and important – WR don’t do their “reflections justice” WR just discuss a few aspects of their day or a description of one experience…meetings bring out the real, in depth reflection</td>
<td>Seeing even more importance in my role to guide, model, facilitate Ask them about failures/mistakes</td>
</tr>
<tr>
<td>8 – 10/20</td>
<td>Failures/mistakes didn’t happen because Stephanie shared her difficult placement and the rest of group began to offer empathy and suggestions to her Stephanie’s reflection in the group changed from “terrible kids” to why they might be having difficulty, what she has tried, and what she can do next – her shift</td>
<td>Ask them about failures/mistakes</td>
</tr>
</tbody>
</table>
was because of her continued reflection throughout the meeting and the “support” of her fellow student teachers. The group was an important part of Stephanie’s reflective practice today.

| 9 – 10/27 | Immediate inquiry and support to Stephanie. Asked about failures/mistakes and they all talked about who they blame first (and then later after more extensive thought). Very supportive of each other and their struggles. Asked to continue to meet in the same format even though data collection was over. | None – last meeting |
Transcripts of the Final Interviews

Each student teacher participated in a standardized interview during the tenth week of the study. Standardized interviewing was an effective strategy for this study because I wanted the same kind of information from each participant. All of the student teachers answered the same questions, so the comparability of the responses was increased (Patton, 2002). Each student teacher met with me alone for approximately fifteen minutes.

The final interviews allowed me to get feedback on the influence of the reflective practices on the student teachers’ reflections and their subsequent teaching during the student teaching experience. I also asked them about my role in their reflective experiences. I chose to conduct individual interviews versus another focus group in order to give the student teachers the opportunity to share their feelings about their experiences in each aspect of the research study on a one-on-one basis. The entire study asked them to “share the floor” with their fellow student teachers and engage in conversation and as well as listen to each other’s ideas and experiences. A personal final interview gave them the opportunity to talk without having to listen to or balance their thoughts and ideas with another person. Each individual student teacher’s perspective on the reflective experiences had the opportunity to be revealed (Marshall & Rossman, 2006). The final interviews were audio taped and I transcribed each one individually. I then printed each student teacher’s interview transcription and filed it at the end of her folder. The transcription of the conversation was the main source of data from the interviews. See Appendix D for the interview questions.

Data Analysis

Researchers need to be able to organize, manage, and retrieve the most meaningful part of their data (Coffey & Atkinson, 1996). A variety of analysis strategies were used to achieve
this goal and to answer the research questions. The printouts of the student teachers’ written reflections, transcripts of the observation lesson conversations and corresponding written reflection, transcripts of the pedagogical teacher discussion group meetings, documentations and artifacts and the corresponding document summary forms and transcripts of the final interviews were analyzed individually and in relation to one another in order to understand and describe the reflective activities, to explore the reflective growth of the student teachers and to examine my participation in the reflective experiences. The data analysis occurred in three phases.

**Phase 1: Ongoing Data Analysis during Data Collection**

Preliminary data analysis was ongoing during data collection. Throughout the ten week data collection period, I read the daily written reflections, transcribed the pedagogical teacher discussion group meetings and observation conversations, and completed the document summary forms. After the transcriptions were typed out, I color coded the conversations by participant and bolded my input so that I was able to quickly refer back to the transcript during analysis (Coffey & Atkinson, 1996). Each participant was assigned a color that carried with them throughout the data analysis. As I completed this work with the data, I wrote notes in my researcher journal. These notes contained my thoughts and ideas about what I was reading, hearing, and transcribing. They also helped me gather my ideas and thoughts to bring to the weekly pedagogical teacher discussion groups.

**Phase 2: Organization of Data**

Data display is a key element of the analytical process. The data must be accessible for both reading and exploring (Miles & Huberman, 1994). During the ten weeks of data collection, I organized the data by type and each type was placed in order from week one to week ten. Two data types were organized together. The transcripts from the observation conversations were
placed after the corresponding written reflection since they were connected reflective experiences. The folders with the documentations and artifacts and the corresponding document summary forms were placed with the corresponding pedagogical teacher discussion group transcript so that I was able to easily access the document or artifact that was referred to in the transcript. This process of organizing and displaying the data allowed me to quickly find, pull out, and cluster the segments of each piece of data. I was then able to work within the data to abandon, change, re-sort, and rename data and then transfer each piece of data into new forms (Miles & Huberman, 1994).

**Organization of the documentations and artifacts and document summary forms.**

Each week after each documentation and artifact was either collected or photocopied and noted in the document summary form by student teacher, I filed them in a folder labeled for each week. I then connected the pieces to the student teachers’ daily written reflections (Column A) and their dialogue from the pedagogical teacher discussion groups (Column B). I then put the document summary form in the corresponding week’s folder with the documentations and artifacts. By the end of the data collection I had completed a document summary form for each week and filed it in a folder with its corresponding documentations and artifacts.

By then end of this phase, I had all of the data organized by type. This initial organization of the data provided the starting point for my analysis and provided the flexibility to reorganize the information during the analysis process. For example, when looking for the interactions between the reflective activities I was able to regroup the data to include all data sources for a given week. Similarly when examining a one specific reflective practice, I was able to regroup the data from it in order from the first week to the last week.

**Phase 3: Coding, Sorting and Memoing about the Data**
After the ten weeks of data collection ended and the data was organized, I analyzed the data through a coding, sorting and memoing procedures. This was done by research question - since each question examined a different aspect of the data set, each question required different procedures (See Table 2 for a layout of each research question and what data was analyzed in order to answer it). I read each research question and sub-questions, and then coded and sorted the data in a manner that allowed me to answer those specific questions. When I moved on to the next question and sub-questions, I re-sorted and re-coded. During this process, I was able to gradually reduce the data, place it into manageable groups, and analyze each type based on the research question and sub-questions I was attempting to answer (Marshall & Rossman, 2006). Each time I coded the data, I coded it into “chunks.” By coding the chunks, I brought the data together based on a common property or element. The codes linked the information to a particular idea or concept; each code was a tag assigned to a line or group of lines that captured the meaning of the specific categories I chose (Coffey & Atkinson, 1996). By coding the data into specific chunks, I was able to identify the meaningful data from each of the larger groups of data. Overall, this type of organization allowed me to pull out and cluster segments of each piece of reflective data for relating to my research questions (Miles & Huberman, 1994). This analytical process is described by Maxwell as connecting information to find relationships that connect statements and events within a context into a coherent whole (2005). After coding, I developed themes based on the main idea of each research question, and then analyzed the themes to answer the research question.

Throughout this process, whenever I organized each pile of data, I always laid out the pieces of data from left to right beginning with the first week’s set and ending with the last week’s set. By the end of this phase, I had coded and sorted each piece of data based on each
<table>
<thead>
<tr>
<th>Research Question</th>
<th>Daily Written Reflections</th>
<th>Transcripts of the Pedagogical Teacher Discussion Group Meetings</th>
<th>Documentations and Artifacts/Document Summary Forms</th>
<th>Transcripts of the Observation Conversations and Corresponding Written Reflection</th>
<th>Transcripts of the Final Interviews</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What happens when I, as a teacher educator, use a series of interconnected reflective experiences with a group of student teachers?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1a. How do the student teachers respond to each of these reflective pedagogies?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1b. How do the different reflective pedagogies interact with each other?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. How does the reflective activity change over time?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a. In what ways do their individual reflections change over time?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2b. Does the reflective activity of the group change over time? If so, how?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. What role do I as the facilitator play in supporting student teacher reflection over time?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>4. From the vantage point of the participants, do the reflective strategies support them in their student teaching?</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
research question and sub-questions, and memoed about each group of coded and sorted data.

1. **What happens when I, as a teacher educator, use a series of interconnected reflective experiences with a group of student teachers?**

   a. **How do the student teachers respond to each of these reflective pedagogies?**
   
   b. **How do the different reflective pedagogies interact with each other?**

   That data that was analyzed to answer this research question and sub-questions were the daily written reflections, transcripts of the pedagogical teacher discussion groups, and observation conversations and corresponding written reflections. The analysis procedures for this research question and sub-questions focused on descriptions of the reflective experiences, the student teachers’ participation in the experiences, and then how the experiences interacted with each other.

   All of data was analyzed in the same manner, but individually. First, I read through and organized the content of each group of data into broken-up bits of information, or “chunks.” For the daily written reflections, chunks were identified as writing or talking about a particular topic that the student teacher thought about when reflecting on the teaching day. The end of a chunk was identified by a change in the focus of the reflection without a clear transition or connection to a previous reflection (Ward & McCotter, 2004). Any entry describing an experience in their student teaching classroom with the children or their cooperating teacher was considered reflective. The quality of the reflection was not important at this phase of the data analysis. This liberal definition allowed me to pull as many chunks as possible from the written reflections (Ward & McCotter, 2004).

   For the transcripts of the pedagogical teacher discussion groups, chunks were identified as talk on a particular topic. The end of a chunk was identified by a change in the focus of the
conversation to a new topic (Ward & McCotter, 2004). Anything that the student teachers discussed that described an experience in their student teaching classroom with the children or their cooperating teacher was considered reflective. Again at this point I was not analyzing for the quality of the reflection.

For the observation conversations and corresponding written reflections, the chunks were identified as the student teacher giving written or oral feedback about her lesson, particularly how the lesson went or her teaching in the lesson.

I then coded the chunks from each of the reflective experiences. These codes were my “organizational categories” that I used as my “bins” for sorting the reflective entry data for analysis (Maxwell, 2005). These categories were chosen based on what I have witnessed student teachers writing and talking about in reflections in the past, and what the literature on teacher reflection says is good reflection (Collier, 1999; Davis, 2006; Jay & Johnson, 2002; Hoover, 1994; Orland-Barak & Yinon, 2007). I also discovered emergent codes from the data. See Table 3 for the codes and emergent codes and their descriptions.

I then organized each coded pile of data by week, and then read the data from beginning to end. As I read, I wrote out my interpretations in memos. These memos allowed me to immediately make sense of the data and write my analysis of each student teacher’s reflective activity immediately after reading and interpreting the data (Maxwell, 2005). I first looked at what the student teachers reflected on based on the codes. I then analyzed how they reflected on those specific experiences.

2. How does the reflective activity change over time?
   a. In what ways do the student teacher’s individual reflections change over time?
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT</td>
<td>Description of an experience where they do not mention their teaching</td>
</tr>
<tr>
<td>TB</td>
<td>Description of a teaching experience where they identify specific teaching behaviors</td>
</tr>
<tr>
<td>TBW</td>
<td>Description of a teaching experience where they identify specific teaching behaviors and why they used them</td>
</tr>
<tr>
<td>TBWA</td>
<td>Identifying specific teaching behaviors and why they used them and then either:</td>
</tr>
<tr>
<td></td>
<td>- Analyzing if their strategy for using the behavior was effective and why OR</td>
</tr>
<tr>
<td></td>
<td>- If the behavior was not effective, be able to identify why and offer alternatives</td>
</tr>
<tr>
<td>ER</td>
<td>Discussing the similarities and/or differences between their expectations and reality</td>
</tr>
<tr>
<td>Daily Written Reflection/Pedagogical Teacher Discussion Group Transcript Emergent Codes</td>
<td>Description</td>
</tr>
<tr>
<td>AHM</td>
<td>“Ah ha” moment – Realization that they didn’t have before/learned something new from an experience</td>
</tr>
<tr>
<td>OT</td>
<td>Commenting on another teacher’s behavior or teaching (either their cooperating teacher or another student teacher in the group)</td>
</tr>
<tr>
<td>Observation Conversation and Corresponding Written Reflection Emergent Code</td>
<td>Description</td>
</tr>
<tr>
<td>ME</td>
<td>Either mention of my feedback or incorporation of my feedback into their own reflection</td>
</tr>
</tbody>
</table>
a. Does the reflective activity of the group change over time? If so, how?

In order to answer this research question and sub-questions, I re-coded the written reflections and pedagogical teacher discussion group transcripts. I also analyzed the document summary forms, though not through coding and sorting procedures. The observation conversations/written reflections were not included in this part of the analysis because there was only one of them per student teacher, so no change over time existed.

Both the daily written reflections and the pedagogical teacher discussion group transcripts were analyzed in the same manner and in connection with each other for this part of the analysis. Once again, I read through and organized the content of each group of data into broken-up bits of information, or “chunks.” For this research question and sub-questions, the chunks were comprised of content from more than one day’s reflection in any of the written reflections and the pedagogical teacher discussion group transcripts, or from any combination of the two formats. The key here was that the student teacher wrote about or talked about a particular topic in more than one week and possibly in more than one reflection format over those weeks (Ward & McCotter, 2004). After identifying these chunks, I then focused on how the student teachers’ reflections changed over time, not so much on what they actually reflected on. I coded for both the “what” and “how” change using these codes and descriptions. See Table 4 for a summary of these codes.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTO</td>
<td>Wrote about it/talked about it more than once but nothing new was added/reflect on</td>
</tr>
<tr>
<td>MTO-ED</td>
<td>Wrote about it/talked about it more than once and new explanations or descriptions were added (no new reflection)</td>
</tr>
<tr>
<td>MTO-EDFR</td>
<td>Wrote about it/talked about it more than once and not only were new explanations or descriptions possibly added, but the student teacher reflected further/deeper on the experience</td>
</tr>
</tbody>
</table>
After I completed this coding procedure, I organized the data in two ways. I began with my analysis of the group and then moved to the individual student teachers. To analyze the reflective activity of the group over time, I kept the data organized by week. For the individual student teachers, I organized the data by student teacher. For both analyses, I read through the coded chunks, paying particular attention to the group or individual student teacher’s participation, changes in that participation, and what might be influencing the change. I wrote my feelings and interpretations on a sheet I placed after each week’s group of data. During this memoing process, I was sure to look back at the previous week’s interpretations and memos.

When answering this research question and sub-questions, I guided my interpretations and memoing by asking myself the questions "How is this text different from the preceding text?" "What kinds of things are mentioned in both?" and “What connects these reflections to each other?” “How did the reflections change?” These questions helped me to focus on any extending thinking or analyses by the student teachers, which signified a change in their reflective practice. My focus was how the student teachers reflected and what the change in their reflection looked like in terms of their participation. What they actually reflect on was not of primary importance as much as their actual reflective actions and words, and how they changed over time.

**Documentations and artifacts/document summary forms.** For this analysis, I read through the document summary forms and analyzed the corresponding documentations and artifacts for each week, beginning with the first week and ending with the last week. As I read and analyzed the pieces the student teachers brought, I discovered that as the weeks progressed, there was a change in how they used their documentations and artifacts in the group conversations. This change was closely tied to the change in the group meetings overall.
I then went back to the pedagogical teacher discussion group transcripts and indicated with a yellow highlighter where a student teacher incorporated a documentation or artifact into the meeting. While I did put the specific student teacher’s words about the documentation/artifact from the pedagogical teacher discussion group meeting in the document summary forms, I did not put the entire conversation from the meeting. Therefore, this re-reading and highlighting procedure was necessary to get the full idea of how the documentations and artifacts were used in the conversations. Next I re-read the highlighted parts from the first week to the last week and memoed about them and how they changed as the weeks progressed. Finally, I drew conclusions about the change in the choice and use of the documentations and artifacts from week to week.

3. What role do I as the facilitator play in supporting student teacher reflection?

In order to answer this research question, I analyzed the daily written reflections, the observation conversation transcripts and the corresponding written reflections and the pedagogical teacher discussion group transcripts. I analyzed all three sets of data in the same manner for this analysis. I worked with the already-coded data from the first research question, and focused on the bold parts that indicated my participation, as well as my silences. My analysis focused on my input or a mention of me or my input by a student teacher, and how this input connected to the student teacher’s oral and written words. For each group of data, I memoed my thoughts on my role next to each of the bold pieces of data.

The daily written reflections were an unstructured reflective practice done totally on their own by the student teachers. After attempting to analyze this group of data for my role, I realized that I was unable to do this because this was a reflective practice that didn’t have any influences from me. I concluded that this based on the fact that I found no mention of me in the written reflections, and I was unable to memo about my role in the data. I then analyzed the observation
conversations for what dialogue came from my feedback. When analyzing the corresponding written reflections, I looked for where my input in the observation conversations appeared in their written reflections.

When analyzing the pedagogical teacher discussion group transcripts, I decided to re-code them for the types of “talk” that I participated in. When coding for talk, I discovered that the majority of my participation in the group meetings was me responding to the student teachers’ oral reflections after listening to their talk. My responses were predominantly either asking a question or providing direct feedback.

I then began to analyze and memo about not only what types of questions I asked and what feedback I provided, but also what kind of dialogues and reflections from the student teachers these different types of talk produced. The student teachers’ talk clued me in as to how my participation might have effected their reflection and the rest of the conversation, either positively or negatively. This memoing process allowed me to write my analysis of the data and perceptions about my role and participation in the student teacher’s reflective practice immediately after reading and interpreting the data. It also allowed me to be able to make sense of each group of data in a new way; with my role and influence in mind (Maxwell, 2005).

During this analysis I also looked back at my researcher journal to supplement this memoing because I made notes weekly of my feelings about the group meetings, and utilized a peer reviewer. A fellow colleague in early childhood education reviewed a section of the data and provided her feedback both about my conclusions and about how she interpreted the data.

4. **From the vantage point of the participants, do the reflective strategies support them in their student teaching?**
In order to answer this research question, I used the data from the final interviews to describe how the teachers felt the reflective strategies supported them in their student teaching. The interview asked the student teachers for input about the pedagogical teacher discussion groups because this was the largest part of the intervention, the influence of all of the different reflective opportunities on their student teaching experience and my role as a facilitator. Using the words of the student teachers, the interview transcripts were used to draw conclusions about the experience of each of the student teachers through each of the reflective experiences and their influence on her student teaching experience, as well as to supplement the written reflection and pedagogical teacher discussion group transcript data already in the folders (Marshall & Rossman, 2006).

After I transcribed the four interviews, I began by reading each student teacher’s interview transcript individually. I read through each one and highlighted with a yellow highlighter any quotes that stood out to me. I then wrote memos next to these quotes. Next I looked at all of the highlighted material across all four of the interview transcripts and memoed about commonalities in the student teachers’ answers to the questions. I also looked for differences in their answers. These memos helped me to write my own reflections of the student teachers’ answers as well as make any connections to my own conclusions about the reflective practices (Maxwell, 2005). Based on these memos I drew conclusions about the student teachers’ feedback about their participation in the reflective practices. I also noticed where these conclusions were both similar and different from my own conclusions about the student teachers’ participation.

Phase 4: Answering the Research Questions
When I completed coding, sorting, and memoing all of the data by research question, I looked across the memos and wrote overall conclusions in a separate memo about the student teachers’ participation and then my role in each of the reflective practices. I then looked across these memos to see any similarities in my conclusions. Next, I developed two themes about the student teachers’ participation in the reflective experiences based on these conclusions: The dominance of descriptive reflection and social conversation extending the reflection. I then created a theme based on my role: The critical role of the facilitator. In this theme I discussed the description of what my role looked like in each of the reflective practices, and an analysis of its effectiveness. Finally, I looked back at my memos from the interview data, and found key pieces of data that supported my conclusions about the three themes. I added that information to my analysis and descriptions.

**Reliability and Validity**

Patton (2002) states that validity and reliability are two factors that qualitative researchers must be concerned about while designing a study, analyzing results, and judging the quality of the study. I used several methods to ensure both the reliability and validity of this research study and its findings.

**Reliability**

When a quantitative researcher can ensure reliability in his or her work, the work is credible, authentic and rich with facts (Shank, 2006). Reliability in a qualitative research study can be demonstrated by methods such as asking for clarification and following-up when unsure of certain facts. Researchers should verify facts and information with other people and look at multiple data sources to ensure accuracy (Shank, 2006). In order to meet these criteria, I performed three different procedures. First, I met with a fellow professor of teacher education in
my division twice during data collection and shared the transcripts and my corresponding reflections about the pedagogical teacher discussion group meetings. I asked her to look at the data, listen to my explanation of what occurred and what I thought of it, and then offer her opinion. My words came from my researcher journal where I took notes after the meetings. I wrote down notes from these conversations to supplement my own reflections. My colleague concurred with my interpretation of the data and offered her own view about what is shared in her weekly student teacher meetings. She shared that she focuses her weekly meetings on a specific topic, and that it was interesting to see what the conversations looked like from my meetings where there was not a specific focus every week.

Second, given I conducted research on my own practices, I utilized a peer reviewer (Cochran-Smith & Lytle, 2009; Maxwell, 2005). I provided a fellow professional in early childhood education with my coding scheme and a selection of my data, and asked her to analyze the data and draw her own conclusions. I then asked her to compare and contrast her conclusions with my own to see if they are similar or different. We came to similar conclusions about the data, and she was also able to provide me with feedback about my analysis. She encouraged me to look deeper at the pedagogical teacher discussion group data to examine the moments where the reflections went deeper. When I did this, I was able to more clearly see the differences in the extended reflections from the student teachers.

Finally, I was prepared to perform a member check if I needed clarification on any piece of data (Maxwell, 2005). I did not feel that I had to do this.

Validity

Patton (2002) stated that reliability is a consequence of the validity in a study. Validity is when a researcher is able to exhibit the credibility of a research project from the data collection
through data analysis to the final written report (Merriam, 1998). The validity of this research study was ensured through the triangulation of the information from all of the data sources: Written reflections, pedagogical teacher discussion group transcripts, and documentations and artifacts with the summary forms, observation conversations and the corresponding written reflections, and interviews. Triangulation strengthens a study by using several kinds of methods or data (Patton, 2002). Triangulation enabled me to identify consistencies and/or contradictions, and to ensure the validity of the findings I generated (Merriam, 1998). Specifically, I was able to see consistency in a student teacher’s reflections across the data sources, and where their feedback contradicted with my own conclusions.

I also wrote my analysis through the words of vignettes, so I used extensive quotations from the daily written reflections, weekly pedagogical teacher discussion group transcripts, observation conversations and corresponding written reflections and final interviews to describe my conclusions. The use of extensive quotations also ensures validity because it is the exact words of the participants to draw conclusions versus summaries of what they said that may include some bias or interpretation by me (Ratcliff, 1995).

A third way I established validity was by describing the examples of practice that I implemented in this study in great detail to allow the community of teacher educators in the United States to judge them for their trustworthiness and usefulness (Cochran-Smith & Lytle, 2009). There is also a question of the ability to generalize the data, data analysis, and findings to all teachers and teacher education programs. To combat these criteria, I worked to ensure “process validity” by using appropriate and adequate research methods and inquiry processes, and “dialogic validity” through the discussions with my colleague (Cochran-Smith & Lytle, 2009). Cochran-Smith & Lytle (2009) also argued that when practitioners act as researchers in
inquiry studies, they generate knowledge that is usable beyond the context of their research study. One of my goals in this research study was to use my findings to provide guidance for teacher educators on how to teach preservice teachers to be effective reflective practitioners.
Chapter 4

Findings

This chapter will discuss my analysis of, and conclusions about, the student teachers’ reflective practice throughout this research study, and my involvement with, and influence on, their practices. Through my journey collecting and analyzing the data, I have been able to decipher between what is and is not reflective practice, and what influences it to occur. I have also drawn distinct conclusions about the role of a facilitator in student teachers’ reflective practice, and how that role can fulfill, and then quickly fall short of its duties.

Specifically, the findings presented in this chapter answer the following research questions:

1. What happens when I, as a teacher educator, use a series of interconnected reflective experiences with a group of student teachers?
   a. How do the student teachers respond to each of these reflective pedagogies?
   b. How do the different reflective pedagogies interact with each other?
2. How does the reflective activity change over time?
   a. In what ways do the student teachers’ individual reflections change over time?
   b. Does the reflective activity of the group change over time? If so, how?
3. What role do I, as the facilitator, play in supporting student teacher reflection?
4. From the vantage point of the participants, do the reflective strategies support them in their student teaching?

This chapter presents a response to these questions based on my analysis of the following reflective practices: Daily written reflections, transcripts of the pedagogical teacher discussion group meetings, and transcripts of the observation conversations and corresponding written
reflections. Information from the document summary forms, as well as the student teachers’ feedback from the final interviews, was integrated into the analysis and discussion where appropriate.

I will begin with a discussion of the most dominant type of reflection by the student teachers: descriptive reflection. I will then discuss how the sociality of the group environment in the weekly meetings encouraged the student teachers to extend their talk beyond basic descriptive reflection. It is in this discussion that I will highlight the use of the documentations and artifacts by the student teachers. In order to further support these conclusions, I will also discuss specific relationships that occurred between the reflective practices, and the change over time of the individual student teachers and the group’s participation in each of the reflective practices. After these two major dialogues, I will discuss my role as facilitator of these experiences, as well as how the student teachers perceived my role throughout the data collection.

The Dominance of Descriptive Reflection

According to research on teacher reflection, descriptive reflection is the lowest level of reflection (Watts & Lawson, 2009). A low level reflection is a “routine” type of reflection where teachers write or talk from a very narrow and egocentric focus. Researchers argue that this type of reflection may be more present in inexperienced teachers who are focused more on survival rather than improvement (Watts & Lawson, 2009). This is not too far from the description of a student teacher who is in the classroom as the role of a teacher for the first time.

The student teachers in this study were no exception. The analysis of the data revealed that the majority of the participants’ written and oral reflections were descriptive; they primarily provided a narration of what occurred in a teaching experience. As descriptions, they generally
did not include critical, or even basic, questioning of what they did or why they were doing it. Occasionally the student teachers interrupted their descriptions to contemplate the reasons for their instruction and student success/failure based on their own opinions or judgment (Hatton & Smith, 1995). These contemplations showed a move towards extending their reflections beyond simple description, but did not change the reflections enough to consider them analytical or more transformative. While there were obvious stylistic differences between the different student teachers’ daily journals and oral conversations in the group meeting, the type of analysis they did were very similar. The majority of the student teachers’ reflections were describing what they did each day both instructionally and in managing the classroom. In these entries and conversations, each student teacher described her instructional decisions, and how a lesson or activity went from beginning to end. Sometimes they provided a brief reason for a decision or an expectation for student performance based on a personal opinion or experience with the children. Overall, there was no analysis of the learning experience or discussion of student participation.

**Describing their Teaching**

A large portion of the student teachers’ reflections simply described their teaching. In Amanda’s written journal, she provided a step-by-step description of a lesson she taught:

*I started out with the morning news. I summarized in a few sentences things that we would be doing throughout the day. I read it out loud and then had the students come up and find letters and circle them. I did this because it lets me see which children know their letters and which ones don’t* (Amanda, Week 6).

This description ended with a sentence explaining very briefly why the student teacher made the teaching decisions she described. While explanations can be an important part of reflective practice, these explanations were most often just a phrase that was mentioned after they described what they did, and it did not appear to compel the student teachers to think more deeply about their practice or the curriculum.
In the pedagogical teacher discussion group meetings, describing their teaching entailed a student teacher sharing her idea or strategy, and one or more of her peers responding briefly with a description of her own. For example, when discussing communication between school and home, Kim and Alison engaged in a brief sharing of ideas:

1. KIM - We send a note home. Like if someone is struggling with something, we know from conferences and when we do stuff in class. We always write on a post-it please work on...
2. ALISON – Yup that’s what we do...always writing anecdotal notes.
2. KIM – And we put it in their planner to go home and their parents should see their planner (Week 5).

One difference in the discussion groups was that one student’s description sometimes sparked an idea in another student. For example, Alison responded to what Kim does in her classroom:

Sometimes I wish they did it in Kindergarten. Like an agenda that the parents have to sign. Even if it just says do the alphabet today. Practice one to ten. Where you see the parents signed it you know that the parents worked with them. They don’t do that in Kindergarten but I wish they did where the parents have to sign off on something (Alison, Week 5).

Alison considered Kim’s idea, and her response revealed a contemplation of how it might work in her classroom. In this example, the dialogue allowed Alison to think of something to say based on what Kim shared. It was not a deep thought about her teaching or a procedure in her classroom, but rather a simple desire to do something similar to Kim’s strategy.

**Contemplating the Causes of their Teaching Decisions**

Other similar descriptive reflections included a short reason for the particular type of instruction that they chose to perform, and then some contemplation of the causes of their teaching decisions. A collection of these entries and conversations moved beyond a description of their teaching to reflect on the fact that the children understood the concept, so they chose to implement new teaching strategies based on that fact. They also offered a reason for the new teaching strategy, which was based on new expectations for the children.
In a written reflection, Amanda wrote that based on her observation of the children’s success with a word stretching strategy she had taught them, she chose to alter her teaching strategies the next time, and add new facets to the learning process:

*Today I continued the word stretching process that I introduced yesterday. The children are doing really well with it and I’m really excited that they have grasped the concept. I followed the same routine I did yesterday: picking words to stretch, letting the children stretch it out with me, and writing the sounds down. This time though, I told them that I wanted them to write words or letters without a teachers help. I wanted them to really try to sound out a word on their own and write down exactly what they heard* (Amanda, Week 7).

In an observation conversation, Kim began to extend her descriptive reflection to talk about why she chose specific teaching strategies:

*I thought I did really good with having the kids interact with the board up front and having them come up. I really tried to call on a variety of different students because sometimes I just call on the students that are like this* [holds hand up high]. *Like R is one that is really intelligent but she’s always raising her hand and I kind of call on her sometimes because she is raising her hand. But this time I feel like I did call on a variety of students. I try to get them all involved. And then the white boards…they love working with them and holding them up. We use them all of the time* (Kim, Observation Conversation).

This dialogue shows Kim giving an evaluation of a part of her lesson that she thought was successful. In her evaluation, she talked about why she used a specific teaching strategy (calling on more students to get them all involved), and the tools that helped to make it successful (the white boards).

In the pedagogical teacher discussion group meetings, these more evaluative conversations were usually about classroom management. The student teachers had varied opinions about this topic that they openly shared in the group. What was interesting about these discussions was that they shared their opinions and sometimes disagreed, but they stayed with description instead of analyzing what they were each doing. There was no evidence of these
disagreements by the student teachers impacting on each other, or questioning of their own
thinking by virtue of listening to each other.

For example, Amanda began a conversation about classroom management by describing
the behavior issues and management strategies she used in her Morning Meeting:

_We have this group of boys like 5 of them and they’re best friends and they hang out
outside school and they went to preschool together. I don’t know why they put them all in
the same class but they’re terrible. And they all sit together. Now I have like one over
here one over there. They are all separated. And like if I turn my back for one second
they all get in a group together. So I send one away from the rug and the other away from
the rug. It’s just like a mess. By the time I finish the morning routine it’s like 20 minutes
over (Amanda, Week 5)._

When Amanda finished, Alison immediately said, “Mine don’t do that” (Alison, Week 5).
Amanda turned to her, and Alison continued:

_My class...they distract but they like to hear how good they are doing. I’ll say I like how
so-and-so is sitting so everyone all of the sudden will start. I’m like I’m not going to call
on you until I see you sitting like a pretzel. Oh you’re listening, you’re raising your hand,
you’re following directions. And they’ll all start doing it. They want to be told they are
doing good (Alison, Week 5)._

Alison’s description was very different from Amanda’s experience, and even provided a
teaching strategy that helped her to manage the children. Amanda listened to Alison, but did not
respond positively or negatively. Even though description in the discussion groups sometimes
included parallel yet opposite descriptions, it did not seem to propel the student teachers to think
about their own work differently.

**Decisions about future instruction.** There were also some moments when the student
teachers made a choice about their future instruction after contemplating the causes of their
teaching decisions. These entries showed the student teachers reflecting-in-action and then
writing about it, as well as reflecting-on-action while they wrote their reflection (Schon, 1983;
1987; 1991). For example, in her reflection Kim first acknowledged the students’ struggles, and
contemplated a possible reason for them: “I had the students work on a capitalization worksheet. I was surprised they did not know to capitalize proper nouns. I think that the students were getting confused with proper nouns and common nouns” (Kim, Week 7). She then continued by using her recognition of this outcome to plan her future instruction:

So I decided that on Monday I would give out a worksheet for the students to complete on picking out proper nouns and common nouns from a letter. They will have to put the common nouns in one box labeled common nouns and the proper nouns in the one labeled proper nouns. This will be a good way to assess who knows the difference between the two, even though we have done a few lessons on this (Kim, Week 7).

Critiquing the Students

Throughout the daily written reflections, one of the primary activities was to immediately critique the students and their academic and behavioral performance from that particular day. When the student teachers entered the weekly meeting, the discussions did not seem to challenge these critiques. Overall, the student teachers had a tendency to describe how the children exceeded their expectations when they showed skills that surprised the student teachers, and failed to meet expectations when they did not show skills that the student teachers were sure they could. These surprises challenged the student teachers’ assumptions about the children in their classrooms, and perhaps of all children of that age.

For example, when Amanda was working with a group in math she stated, “I was surprised at how many of the students in the group…picked up the material quickly. Usually the students in this group take a while to grasp things” (Amanda, Week 9). When working with two different children one-on-one, she stated, “I was happy and a little impressed that she caught on so fast. It usually takes a while for her to grasp a topic” (Amanda, Week 7). While doing letter assessments with her Kindergarteners, Alison was surprised that two skills did not correspond with each other for some of the children: “All we did was see which uppercase and lowercase
letters they were able to identify. I was surprised how many of the children would recognize uppercase letters but couldn’t do the same with lowercase” (Alison, Week 6). And while doing math assessments, she was surprised that even when she provided resources, the children could not use them effectively: “We asked the students to write the numbers one to ten. They were allowed to look at the number charts all over the room from their seats. I couldn’t get over how many of the students weren’t able to write the numbers one to ten” (Alison, Week 6).

While these are all examples of ways the students were surprised by the children, there also appear to be limitations to what they were seeing. These reflections show that the student teachers’ academic expectations were almost all about skill; they were based on narrow definitions of what the children were learning. None of the student teachers commented on the children’s ability to think critically, be curious, or ask questions. To them, learning was mastering a skill. The process of learning was not something that any of them contemplated or connected to learning. So while being surprised is a key part of reflection, the student teachers appeared limited in what they could see and, therefore, what assumptions were and were not challenged.

Overall, these specific descriptive reflection examples demonstrate that the level of reflection of the students remained primarily low level. There were ways that the student teachers sometimes moved beyond their basic descriptions of their experiences to provide a reason for their teaching decisions and contemplate the outcomes of those decisions. These reasons were typically centered around their own opinions about instruction, or a decision they made about instruction based on student performance, as opposed to focusing solely on the students’ participation. Unfortunately, when they did focus on the students’ participation it was primarily to critique or evaluate the students’ skills, not to contemplate the broader
developmental context. However, by beginning to reflect about, and contemplate why, they did what they did, they were starting to move beyond basic description, and participate in the reflective process of reviewing and contemplating their teaching day.

**Social Conversation Extending the Reflections**

While description was the primary type of reflection in this study, at times the student teachers began to move beyond basic descriptions. These reflections primarily occurred when the student teachers were in the presence of each other and me in the pedagogical teacher discussion group meetings, and therefore in the next section I will examine the impact of the social environment on the student teachers’ reflective practices.

In order to demonstrate the impact of the group environment, I analyzed moments when the student teachers wrote about experiences in their daily written reflections and then talked about the same experiences in the group meeting. This analysis revealed that when a topic was present in both reflective practices, the oral reflection almost always extended the written reflection. The information in the dialogue went beyond what was in the written reflection. Based on my analysis, I concluded that even when others did not comment directly on what the student teacher was saying, the sociality of the group meetings allowed the student teachers to extend their descriptions to include more actual reflection. Examples of these extensions come from both the overall conversations in the pedagogical teacher discussion groups as well as those that incorporated the use of documentations and artifacts.

For example, in Table 5 Stephanie’s written reflection talked about releasing the butterflies (lines one through nine) and that she had read an interactive storybook to the children after the release that ended with an art activity (lines nine through 13). In the pedagogical teacher
<table>
<thead>
<tr>
<th>Written Reflection</th>
<th>Pedagogical Teacher Discussion Group Conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. STEPHANIE - Once the meeting was over a few of the children noticed that a few of our butterflies have emerged and were ready to be released outside. We had 6 girl butterflies and 5 boy butterflies. (You can tell by the spots on the wings if they are male or female. Males have spots on their wings.) The entire class went outside to let the butterflies go. [CT] put a butterfly on each of the children’s heads and we took pictures. It was really cute and the children loved it! I read an interactive story book about the life cycle of the butterfly. The children loved the interactive story book! Once the book was finished the students were able to draw their own versions of the life cycle of the butterfly.</td>
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Table 5

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discussion group meeting, Stephanie again addressed the releasing of the butterflies (lines one through six), and that she had read the interactive storybook to the children (lines eight through 12). What was different in this reflective practice was that her description of the interactive storybook led to a much more detailed description of the corresponding activity (lines 12 through 21). It was in this detailed description that Stephanie described her cooperating teacher’s negative reaction to the children’s work. Stephanie’s oral reflection revealed her discomfort with her cooperating teacher’s response to the children’s work. In giving a more extended description, she began to get to the heart of her problems with her cooperating teacher. Stephanie’s example shows that, at times, the oral reflections elicited more description and brought out more emotional feelings from the student teachers that were not present in their written reflections. The breakdown of the activity, and especially Stephanie’s negative reaction to her cooperating teacher’s response to the children, that was shared in the group meeting was not mentioned in her written reflection.

This relationship between the student teachers’ written and oral reflections may begin to provide evidence that there might be a value to the written reflections, even if what is initially written is not very deep. Based on the student teachers’ participation in this study, written reflections seem to allow a student teacher to put her ideas, feelings and experiences on paper. Then, in providing the group meeting environment to talk about these facets, the student teachers could choose to engage in an extended or deeper conversation about what they wrote about.

In addition, during the course of the study, another more student driven form of written reflection emerged that seemed to support the students in their reflective practices. Three of the four student teachers wrote notes to bring to the weekly meetings. These notes were completely voluntary, and emerged out of the activity, rather than being suggested by me. When I inquired
about the notes at the beginning of week four’s meeting, they shared that they wanted to ensure that they remembered specifically what they wanted to share with each other and me in the meetings, so they created their own versions of daily written reflections to help them. For example Alison stated, “It’s just for me so I don’t forget. It’s like sometimes I’ll feel the whole day’s a blur and I’m thinking what do I have to tell her? So I’ll write it down” (Alison, Week 4). They shared that if they wrote about something in their daily written reflection that they wanted to make sure they shared in the group meeting, they wrote it down on a separate sheet of paper. They then brought the notes to the meeting. They also sometimes wrote the notes at school before writing their written reflections, and those notes helped them in that reflective process as well. This independent choice to write another version of a written reflection for their own reference raises the question of the difference between reflections that student teachers choose to do as opposed to ones they are required to do. The student teachers may have felt more freedom and were less constrained when writing their notes versus their required daily written reflection. It also seems that the student teachers in this study thought more positively about their own notes than their required daily written reflection. They all stated that they had difficulty getting their ideas down effectively in the required daily written reflection, but spoke positively about how helpful their own notes were.

The Social Impact of Continued Participation in the Meetings

The pedagogical teacher discussion group meetings were supposed to provide an opportunity for the student teachers to use oral discussion and the sharing of documentations and artifacts to frame and reframe their teaching experiences. The goal for the groups was to see if the sociality and the facilitation of discussion supported deeper reflection. While the student teachers did primarily participate in descriptive reflection where they simply shared ideas and
opinions with each other, there were moments when the group’s social conversation provided an opportunity for the student teachers to reflect beyond description. They listened to each other’s reflections and sometimes related to them, and came together as a group to reflect a little deeper about certain experiences.

As I looked across the weeks of group dialogue, I discovered that as the group became more cohesive and active, this led to slightly deeper reflections. But, it also produced an environment where the student teachers sometimes supported each other in inappropriate or immature thinking about both their teaching and the children in their classrooms. While the student teachers did use the meetings to talk, listen and support each other, the dialogues also revealed that they tended to feed off each other’s assumptions rather than challenge them. They listened to each other and engaged in conversation, but were unable to change each other’s opinions about certain aspects of teaching and the children. As their comfort level grew, so did the ways that they agreed with and fed off each other. Ironically, while being more comfortable with each other is a positive outcome, it also seemed to have this more concerning result.

As the weeks progressed, there was more dialogue between the student teachers, and more ideas were shared amongst them. When the meetings began, the student teachers would often wait for someone to finish talking, and then talk about their own experience. Statements such as, “are you finished?” and “oh, are you done?” were often heard before a new student teacher began to speak.

Then as the weeks continued, the student teachers started to give more descriptive and sometimes deeper reflections of their own experiences. This was a gradual shift from brief back and forth interactions such as this:

1. **AMANDA** – We do a lot of graphing. We graph everything.
1. **ALISON** – We do a lot of graphing too.
1. AMANDA – I did a graph of their birthdays yesterday.
1. STEPHANIE - We graphed what color you are wearing.
1. AMANDA – I’ve done like five graphs already (Week 3).

To more involved conversations such as this:

1. ALISON - They all get points and I guess when the table has enough points they get a prize. And everyone wants points. She does a lot of good stuff. She has secret walker. She’ll pick someone and won’t tell them and if they are good in the hallway at the end of the day she’ll announce them and they get to pick something. She has all different things that they can choose from. I feel like it’s the way she manages them that they want to be told that they are doing something good.
1. AMANDA - We have a ticket system. Whenever they are doing something right we do the positive reinforcement I like how you’re sitting and then they get a ticket. However many # of tickets they get like a free homework night or something. And then they have on the board an ice cream cone. And every time the class is good they get a scoop of ice cream and once they get up to 10 scoops the class has an ice cream party. I don’t know how they are going got get that though.
1. KIM – I feel like we didn’t have to do any of this w/ my 3rd grade.
1. ME – Was there any kind of management?
1. KIM – They were just naturally like a good class. Good listeners from the 1st day...having to reward them every so often. We just didn’t have to do that. If they all did their homework they got marbles. If someone did extra credit or something they got a prize (Week 8).

The group nodded in acknowledgement of Kim’s different experience, and Stephanie then took the opportunity to share her classroom’s management plan. She said, “My class has a ticket system” (Stephanie, Week 8). This simple statement led to an extended problem-solving discussion by the entire group about what type of ticket system would be successful in Stephanie’s classroom.

Stephanie explained that the children are given tickets when they behave, and that the tickets are taken away when they misbehave, and she does not think it is a successful process because the children rarely earn tickets and, if they do, they lose them very quickly. Kim offered her suggestion about how to revise the process to make it more successful:

*I feel like with your tickets either you take them away forever or you give them tickets for the littlest things. I feel like maybe you should talk to her about because then the kids who aren’t getting tickets will get tickets for the littlest things. Like keep being a little bit
harder on the kids who have a lot of tickets but then be easier on the ones who don’t have tickets so when they get one they’ll be like ‘oh look I got a ticket - maybe I’ll behave’ (Kim, Week 8).

Stephanie acknowledged Kim’s idea, and seemed to contemplate it. She then shared a specific example of why she felt the process should be revised. Again, Stephanie was contemplating the reasons for the children’s lack of success, and how that can be rectified. She explained, “Today a kid who doesn’t normally get a ticket got one but then he lost it by the time I left. So within an hour they had a ticket and then lost a ticket because he pulled a chair out from under a kid and he fell” (Stephanie, Week 8). Her next reflection revealed how she was recognizing the children’s reactions to the behavior management plan in the classroom, and how it emotionally affected them:

But from their reaction you can tell that these tickets mean everything to them. She showed them what was in the bucket so they can be excited about getting a prize. Some are like I’m going to get a ticket and I’m going to pick this prize. So when that kid lost the ticket it was like his world ended (Stephanie, Week 8).

This evoked empathetic recognition from the rest of the student teachers, and after a few seconds of thought, Alison inquired about the specifics of the process: “How does she do the ticket thing...does she have a chart that goes along with the ticket or does she just hand them out...how does she keep track” (Alison, Week 8)? Stephanie immediately responded, “She hands them out and they put them in their zip-loc bag. They write their name and she initials it. And then on her piece of paper she’ll mark the tickets with the kid’s name” (Stephanie, Week 8). Alison then offered her own suggestion based on her own student teaching classroom, and a small dialogue developed between them:

I saw this work with the Kindergarten class that I am in...they did this right before I left. She had a chart for the tickets like a ticket chart and the kids have to mark when they got a ticket so when the kids lose a ticket now you have to go up there and take away your ticket. Just something that they see...I mean I know it’s not K but... (Alison, Week 8).
Stephanie then appeared to reject Alison’s idea, citing her cooperating teacher’s behavior:

1. **STEPHANIE** – *She doesn’t trust them to do that I think.*
2. **ALISON** – *Well she just keeps track herself to show them their responsibility for their tickets - keeping them and earning them. So they see it* (Week 8).

Even though Stephanie appeared to reject Alison’s idea because of her perception of her cooperating teacher, Alison still continued, and provided additional information that may help Stephanie make it successful in her own classroom. The entire conversation about the ticket process showed the group contemplating ways to make the strategy successful for Stephanie. They drew on their own experiences with similar strategies and came to conclusions about how it might best be implemented. The key finding from this type of dialogue was that the student teachers related to each other and interjected into the conversation with an idea or a different opinion. At times this created a discussion focused on problem solving, and revealed disagreements about strategies and instructional choices.

The changes in the group’s participation in the pedagogical teacher discussion group meetings occurred as the student teachers had more experiences in their classrooms, and could then begin to relate to each other’s experiences. Their increasing comfort in the group meeting also contributed to their increased interaction. The following discussion highlights the different types of reflection that were present in the group meetings as this change in the group’s participation occurred.

**Having More to Say: The Impact of the Group Environment**

One type of deeper reflection that occurred in the group meetings occurred when the initial student teacher who began the discussion went deeper with her reflection. A collection of these extended reflections appeared to occur when I asked the student teacher a question. These examples will be discussed in the section of this chapter that focuses on my role in the student
teachers’ reflective practices. The following examples are those where the student teachers extended their own reflection without any input from me or another student teacher. In my analysis of these conversations, I discovered that in talking in the group, the student teachers sometimes realized that they had more to say.

When talking about the one-on-one conferences she has with individual children each morning, Kim excitedly shared how important she felt the conferences were, and how she will definitely incorporate them into her own classroom. As she performed more of the conferences, she had more realizations about what she could learn about the children from the conferences. She began by stating, “It’s funny how much you learn from conferencing with them” (Kim, Week 3). She then went on to describe a specific conference she had conducted that day that completely reaffirmed the importance of them:

_There’s one kid C, he is so quiet even when you look at him he won’t talk to you. When you ask him a question out loud in the room he wouldn’t talk. But he talks to his friends and he talks to you one on one but he won’t talk in front of the class. He has a high DRA score but [CT] thought since he didn’t talk much she might have to lower him a group because if he’s not talking we won’t know if he’s comprehending it. So she had him read to her and when she asked questions he talked so much and told her everything he was interested in. So she said he can be in the high group_ (Kim, Week 3).

In a later meeting, Kim discussed the one-on-one conferences again, and this time she shared that she had really learned that teachers must adjust their teaching strategies to adhere to what children “know and don’t know” (Kim, Week 7). She then shared a specific teaching decision based on this realization:

_We do math minute where they have a minute to do each column. We time them. We say go stop and circle the ones they didn’t get to do and we move on to the next column. J started to cry when we were doing it and I felt bad because he knows it but his fingers don’t move as fast as the other children. So we said ok J we’re not going to time you. So when I’m doing it with the other students he is at his desk and he has his own timer and he times how long it takes for him to complete a column. And he writes the time at the bottom. We’re hoping he’ll improve every time he does it. But time just stresses him out_ (Kim, Week 7).
In this example one can see how the student teachers were able to further expand their reflections in the group meetings. They were sometimes able to extend their thinking about a topic to incorporate ideas about their teaching, and what they were learning about the children in their classrooms. Another example of a student teacher expanding her own reflection, without any questioning from people in the group or connections to other reflections as a catalyst, was when Amanda introduced a hands-on and interactive strategy for spelling words. Her reflection was longer and more detailed than the previous example.

Amanda began her reflection by sharing, “Yesterday was the first time they wrote the entire time. It was the first time I introduced the word stretching…they are having more fun with [writing] because they are really trying to write the word” (Amanda, Week 6). She then went on to describe the strategy she introduced, as well as her expectations for its use and for the children’s writing work:

_I wrote 3 words on the easel. I wrote it just the way they spelled it because I wanted them to see they don’t need help. The whole goal today was that you can write something without an adults help. So if there isn’t a teacher nearby you can still write I still want to see some letters. But use the words stretching in your mind or say it out loud. So today we did it as a class_ (Amanda, Week 6).

She then shared the example of what she had done with the children that day, and wrote on a sheet of paper to share with the group: “We did the word flower. We stretched it out 3 times and they came up with f l w r and I wrote flwr” (Amanda, Week 6). She then shared what her final thoughts were to the children before she sent them to write at their seats: “I said, ‘When you are writing at your seat it doesn’t have to look like this but these are some of the letters you can use. Because those are the sounds that you hear’” (Amanda, Week 6). She then paused for a second and excitedly said, “And they wrote the whole time” (Amanda, Week 6).
Amanda then continued by explaining that the children needed more time to write because, “Now that they are sharing the stories [and] they are more motivated to write” (Amanda, Week 6). She also said that because she found that so many children wanted to share their writing, she had to respond with a new teaching strategy: “Today they were like ‘can I share?’ So we made a list today of when they would share so now they have it drilled in their brain ‘I’m sharing on Friday’” (Amanda, Week 6).

Amanda’s reflection highlighted her thoughts about the effects of her instructional decisions on the children’s learning and participation. It included descriptions of her teaching and the examples she used, and then moved beyond description to contemplate the success of the spelling strategy based on the fact that the children were enthusiastic, involved and successful during the writing period. She brought this topic up on her own because she wanted to share the experience with the group. Amanda’s reflection went deeper and deeper as she talked, and it was her own enthusiasm about the success of the experience that carried her there. Her extended reflection began when she first said that the introduction of the strategy was the cause of the children’s extended writing, and then continued when she explained that the addition of the sharing time provoked the children to write more and to be more motivated to write.

A Student Teacher Catalyzing Another’s Thinking

Another portion of these extended reflections revealed that one student teacher could act as a catalyst for another student teacher’s thinking and subsequent reflection. The first student teacher did this by making a definitive statement about a specific topic, and then her peer responded and extended the conversation.

In an early group meeting when Stephanie was talking about her Kindergarten children, one of her descriptions elicited a deeper reflection from her peer. This was a quick conversation,
but represented a student teacher listening to her peer and drawing a deeper conclusion about what she heard. Stephanie shared with the group that the children were unable to complete an activity because they did not have all of the knowledge necessary to be successful. She explained that her cooperating teacher, “... said circle the color – rainbow purple, with the purple crayon, rainbow blue with the blue crayon. And they were not comprehending it. Half of the kids didn’t know their colors” (Stephanie, Week 4). Stephanie then shared how she responded on the spot in an attempt to curb student difficulties: “So I wrote on the Smartboard red with the red pen, blue with the blue pen and the kids then looked up board and said oh red is red...” (Stephanie, Week 4). Alison immediately responded, “Because you modeled it for them” (Alison, Week 4). Alison took Stephanie’s example and thought beyond the struggles of the children that Stephanie was sharing to identify the strategy that actually solved the problem.

A longer example involving more student teachers was a conversation about children with different abilities. Kim began the discussion, but another student teacher took it further. Kim began by sharing that “Even the smart kids you have to keep enriching them. They are done with something...and you have to give them something [else]” (Kim, Week 9). Her peers immediately agreed that they each had children in their classroom who understood quickly and were finished before the majority of the class. Alison and Stephanie, who participated in deeper reflections about the topic, dominated the rest of the conversation.

Alison responded saying, “You don’t want to leave the kids out that know it and get it quickly and you still have to work with the ones that aren’t getting it” (Alison, Week 9). She then continued and her comments revealed a common frustration of teachers –making sure you get to every child. Her peers overwhelmingly responded “yes yes” (Amanda, Kim & Stephanie, Week 9) to her words:
You feel like you’re being pulled in different directions. You want to pay attention to the ones that are done and want that extra enrichment and you want to make sure that you are not neglecting the ones that aren’t getting it yet. So it is kind of like which way do I go? If I could split myself in two…of course it’s impossible (Alison, Week 9).

Alison took Kim’s statement and extended it further to include deeper contemplation about responding to children, and the difficult position of teachers.

Stephanie then joined the conversation and provided her own deeper reflection about the topic. She shared a specific example from her classroom where she discovered that when she broke her group of second graders into small groups, the struggling learners, and even the children who exhibited behavior problems, were much more successful. She was very adamant about the fact that these children were successful because they were brought into a small group setting, stating, “The minute I take the small group of five kids that I do reading with they are perfect” (Stephanie, Week 9). She then continued by identifying a child that she spoke of often as a large behavior problem in the whole class setting. She saw a completely different child in her small reading group:

He’s perfect when he’s in my group. He’s silent. He’s paying attention. He’s always asking questions. He sat down on the rug with me and I gave him a clipboard and he was like ‘I’m a detective I have a clipboard.’ So he was really interested and he sat there and I didn’t have to speak to him even once (Stephanie, Week 9).

Stephanie’s extended reflection was almost a response to Alison’s statement about a teacher’s struggles. She provided an example from her own teaching of how she tackled this problem.

A final example occurred when Amanda labeled her experience with a particular student as a “failure” of hers, and then Kim provided the extended thought about the experience. This extended thought was actually in disagreement with Amanda’s instructional choices. In giving this alternative view, Kim was able to look deeper into the ramifications of Amanda’s decisions and reflect beyond a description of the experience. This is also an example of a disagreement
where the student teachers listened to each other, but were not as open to each other’s ideas.

Amanda listened to Kim but also defended her choices.

Amanda began the conversation by sharing her experience with a child during writing time:

*I have this one kid. He hates writing – absolutely hates it. And he has trouble getting out his ideas so it’s really difficult for me to try to get his ideas flowing because if I say something that becomes his idea and he’ll want to write about it. So I’m having a hard time trying to put a barrier up like I’m giving you an example and you have to think of something. Instead of him just taking my ideas* (Amanda, Week 9).

She continued by describing her most recent experience with him where she offered him a list of words to use as a resource to decide on a poem topic. Amanda reflected that she “*couldn’t decide if he just didn’t want to do it and he was staring at the paper because he wanted me to think he didn’t know what he was doing or he really didn’t know what he was doing*” (Amanda, Week 9). She then proceeded to describe her interaction with him:

*So I sat down next to him and I was like put your finger on any one that interests you and he said costumes. So then I said let’s write the first line I said I want you to write the first line and he wrote on Halloween costumes can be whatever. And I said ok I’m going to give you a second line that I would write in my poem and you can use you know based on what you hear to write the rest of your poem. He wrote exactly what I said. So I was like ok I’ll give you that second line and you write the rest of your poem. And he just wouldn’t. So I had to literally sit there and …try to feed him clues to get him to think about what he actually does. And he was like ‘I give up’* (Amanda, Week 9).

She ended her description of the experience with her feelings about it:

*So it’s just so difficult because I don’t want to be sitting there and say why don’t you write about this and he just writes what I say. But if I don’t feed him anything he will just sit there the entire time and not write anything* (Amanda, Week 9).

Kim was listening intently, and then sat back and said, “*I would just let him sit there*” (Kim, Week 9). This was the beginning of Kim’s deeper reflection about the experience and the disagreement between the two student teachers. Amanda turned to her and Kim continued:

“*Everyone else is going to have a poem that they wrote and he’s not. He’s going to see that. I*
just feel like he’s just not using his brain” (Kim, Week 9). Amanda immediately began to defend her decisions: “He’s going to get tested because there is something going on. So it’s like he’s there and then he’s not there and then he doesn’t want to work and then he can’t work. It’s a mix of all of these different things” (Amanda, Week 9). I then asked her if she knew if he either couldn’t do or wouldn’t do the work, and she responded that “He gives me all of these mixed signals” (Amanda, Week 9).

Even though Amanda defended her decision, Kim stuck to her stance and their conversation continued:

1. KIM – I would have let him sit there for that though. I really would have.
1. AMANDA – Yeah I guess so. I just don’t want him to be left behind. Like if he really can’t do it I don’t want to let him sit there and he really can’t do it.
1. KIM – Because in three weeks when you’re gone and then he will…I feel like the teacher would not wait for him.
1. AMANDA – Well we have the assistant that would work with him.
1. KIM – Oh.
1. AMANDA – It’s not just me.
1. KIM – So she’s probably done it since the beginning of the year so now he is expecting you to (Week 9).

In this dialogue, Kim felt comfortable enough to challenge Amanda’s decisions, and in doing so she extended her own reflection about the situation. Amanda listened to Kim’s opinion and responded by defending her decision and explaining her reasoning behind it. Her reflection began to extend when she addressed the possibility that the child may not be able to complete the work because of an academic deficiency, which was very different from her frustration at his non-participatory behavior. But she did not go deeper with this thought, nor did the group do so. Kim’s extended reflection perhaps provided Amanda with an alternative strategy she could use when working with the child. But, in providing this alternative strategy, Kim was unable to change Amanda’s thinking about the situation. In these dialogues, while the student teachers
catalyzed each other’s thinking, and sometimes extended this thinking, they rarely were able to change each other’s thinking.

The Whole Group Extended their Reflection

A final portion of these extended reflections were the most involved and the deepest by the group as a whole. In these conversations, not only did more than one student teacher participate in the discussion, but the dialogue also seemed to help the whole group reflect more deeply. This theme encompassed two topics: Kindergarten testing and children’s knowledge entering Kindergarten. I chose to group by content because there were multiple conversations about both topics, and it was in these conversations that the group collectively extended their reflection. I also came to different conclusions about each group of conversations.

There were moments when I was an active member of this extended group reflection, most often by asking pertinent questions. When this occurred, my participation did have an effect on the group’s extended reflection in a positive manner. While some of the dialogues in this section include my involvement, my participation in these conversations will be discussed more fully in a later section of this chapter.

Kindergarten testing. The first major topic that showed the whole group extending their reflection was about Kindergarten testing. The conversations surrounding this topic revealed that the group meeting environment gave the student teachers an outlet to share their emotional responses to the stresses of teaching in the current climate of testing. This emotional outlet, though, provided an opportunity for the student teachers to feed off each other’s frustrations, and not reflect more deeply about their job. The two main players in these discussions were Stephanie and Amanda, who had a common experience of administering the tests; once they
realized that they were administering the same test and having similar experiences, their oral reflections became more involved and interactive, and the support for each other began.

In the first week that the tests were discussed (Week 4), Stephanie began the conversation by describing her experience proctoring the test. She stated, “Today was torture for me because the kids were not understanding it” (Stephanie, Week 4). She then explained the children’s struggles and lack of understanding of the test content. She shared that when she was able to provide them with an example, they were more successful. Upon listening to Stephanie’s struggles, Amanda chimed in with her own reflections of the same testing that she was administering in her Kindergarten classroom. This was the beginning of these two student teachers questioning common practices, specifically the testing process. They always provided specific examples to clarify their uncertainty with the tests, and the examples provided a bridge between their experiences.

Amanda responded to Stephanie’s reflection by stating, “It’s really unfair” (Amanda, Week 4). Stephanie immediately turned to her and engaged her in a conversation about the testing. Below is the conversation between Stephanie and Amanda:

1. **STEPHANIE** – You saw it?
1. **AMANDA** - I gave it to the kids. I was looking at it and it’s just like S said. It has 3 pictures. And we did endings – did you do endings?
1. **STEPHANIE** – Yeah – that was terrible too.
1. **AMANDA** – Yeah so the beginning sounds have to match and the ending sounds have to match and tomorrow we’re doing the rhyming.
1. **STEPHANIE** – They did not get the endings at all.
1. **AMANDA** – They are tortured sitting there looking at the papers and they are like sounding out the words and are like t t but they can’t figure out which picture has a t in it. I felt so bad. I just wanted to be like – pick that one. I just had to walk away.
1. **STEPHANIE** – I was like try your best. I had kids who were hysterically crying. One boy was pulling his hair and I was like don’t pull your hair. We had a kid that got so nervous that he fell off the chair and I don’t know if he passed out. I was watching him and I thought he was breathing very funny. And he fell and the teacher was like ok I think we should stop this for today (Week 4).
What stood out the most in this dialogue was Amanda’s input about her own experience. She actively listened to Stephanie’s description of her experience, and then interjected to affirm Stephanie’s frustration and used specific evidence from her own classroom to do so. The key finding here are how these two student teachers spoke to each other. They helped each other give expression to something, and it bordered on feeding each other’s upset feelings about the testing. Their conversation was an affirmation of their frustration that the test was unfair, and of how upset they were.

I then asked the group how they would administer these types of tests, reminding them that teachers need to assess the students’ abilities so they can plan their instruction accordingly. Kim immediately responded, “I think it’s easier one-on-one...like colored laminated pictures...something like we may have done in our early childhood courses and maybe they can pick the picture up” (Kim, Week 4). The other student teachers agreed with her idea, but her mention of the pictures reignited Stephanie and Amanda’s conversation about another aspect of the test that they found unfair. This directly related to Kim’s comment about the pictures. This conversation was very similar to their first one where they helped each other give expression to their opinions about the flaws of the test:

1. STEPHANIE – And it’s bad because the pictures are really little.
1. AMANDA – Really little.
1. STEPHANIE – Did you see the one with the picture of the three slides?
1. AMANDA – Yup.
1. STEPHANIE – And one was a picture of the boy at the bottom of the slide, and one was of a kid almost at the bottom, and one was of a kid at the top.
1. AMANDA – It was deceiving.
1. STEPHANIE – It was really deceiving. I got tripped up on it at first. And some kids picked the one where the kid was almost at the bottom and not the one with the kid off the slide at the bottom.
1. AMANDA – And the one they picked the kid was technically off the slide.
1. STEPHANIE – But he was not on the slide and the other kids was almost at the bottom of the slide, so it was really deceiving (Week 4).
Again, the two student teachers found commonalities in their experiences, and engaged in a dialogue about their frustration.

The next week (Week 5), the conversation about the Kindergarten testing continued, but this time it focused on the fact that the student teachers could not help the children. Stephanie and Amanda’s conversation once again revealed commonalities in their experiences and frustrations. What stood out in these conversations was that they immediately related to each other again, even when the subject surrounding the tests was different than the week before.

To begin the conversation, Amanda stated, “I was just so frustrated. I was so frustrated because...I just wanted to hug the kids. Because they were so annoyed with themselves because like they couldn’t understand it and couldn’t understand why they weren’t understanding it” (Amanda, Week 5). She also shared that some of the children “were looking at [the test] like ok I have this and I should know it but I don’t know it so what do I do? And you’re my teacher and why can’t you help me” (Amanda, Week 5)? Stephanie then responded with her own similar experience:

They were really getting upset and a few cried because they just didn’t want to do the test and they had one page left and they were like I don’t want to do it anymore, do I have to, why are you making me do this? And I’m like sorry we’re almost done. And every question they were like how many more how many more? And they were just not having it (Stephanie, Week 5).

Amanda then responded and got even more specific about this contradiction:

They weren’t making the connection that it was a test and they had to focus on their own work and they couldn’t yell out and ask for help, which is all the things we said...you know if you have a question raise your hand and we will help you or if we’re not there just wait a second or ask a friend. So they’re like what did you put? And we’re like sh! I was just so annoyed. I felt so bad for them (Amanda, Week 5).

Amanda was upset that the children felt almost “abandoned” during the test, and at the same time annoyed that it was occurring at all in the classroom. She continued to reflect that the
children got so frustrated that they “were saying [the test information] out loud and we were like ‘you can’t say it out loud you know you have to be quiet.’ They were flipping through the pages and coloring it…it was just a mess. A mess” (Amanda, Week 5). Stephanie concurred with her frustrations by stating, “During the test they kept looking to me like is this right is this right? And I’m like ‘I can’t tell you. Do your own test.’ And I saw that they were getting frustrated and it was making me frustrated” (Stephanie, Week 5). Amanda then added, “I just felt like some of the questions were so unfair” (Amanda, Week 5). This conversation almost looks like it could be one person talking—that’s how in sync Stephanie and Amanda were with their reflections of the children’s behavior during the test. Together they provided more information and more emotion to their dialogue.

The conversations about the Kindergarten testing covered a wide range of reflections, including the process, their frustrations, and the success or lack thereof from the students. The dialogue between the student teachers, which included their responses to each other’s talk and each student teacher’s intermittent inclusion of her experiences, is what seemed to produce more extended reflections. This extension occurred as a group as they debated the facets of this important topic. It was also clear that the student teachers “fed off” each other when discussing the frustrations that came from their experiences, and built on each other’s conclusions about their practice. Using my experience of actually being present in these meetings, listening and watching the dialogues, as well as my analysis of the transcripts, I concluded that the student teachers left these discussions supported in their feelings, and with some new opinions and ideas about what is an appropriate and inappropriate way to assess Kindergartener’s knowledge and skills. Kim’s suggestion and Amanda’s example from her classroom provided the groundwork for their thoughts about authentic assessment.
Kindergartener’s knowledge and skills. The other topic that revealed the group extending their reflections was the student teachers’ discussions about what knowledge and skills they felt children should have when they entered Kindergarten. These discussions were sparked by three of the four student teachers being in a Kindergarten classroom, where they found that there was a wide range of knowledge and skills present in the children. They were generally baffled by the fact that some children did not have certain skills that others did. They talked about specific children’s academic and social behaviors, and used those experiences to form their opinions about what children should know when entering Kindergarten. Each student teacher provided her own perspective about the knowledge and skills of Kindergarteners that was based on her experiences with the children in her current classroom. And none of them wavered from their perspective as the conversations evolved. Much like the conversations between Stephanie and Amanda about the Kindergarten testing, the student teachers found commonalities in their experiences, and used the conversations in the group to share and compare them.

These conversations revealed the ways in which the student teachers fed off of each other, and confirmed their critical perceptions of kindergartners. It seemed that reflecting socially did not necessarily produce more informed reflections from the student teachers, but instead seemed to exacerbate their backward thinking. These conversations also revealed something similar to the written reflections: The student teachers seemed to equate learning with knowing things, rather than being a good learner who is curious, asks questions, and takes risks. To them, learning is an acquisition of knowledge and skills.

Talk about the expected knowledge of Kindergarten children began with the student teachers sharing specific observations of the children, and their shock at what they did not know. Stephanie was the first to talk about the discrepancy in the skills of the children in her classroom.
She shared that she could tell that three children didn’t go to preschool because they were unable to complete a specific task:

*Everyday they have to come in and write their name just to see what letters they are using, all capitals, you know. And most of them use all capitals but the ones that can’t even write hold their pencil with the fist and just make gigantic scribbles and sometimes make letters* (Stephanie, Week 3).

In the next meeting, Alison began to talk about her own classroom and stated:

*A lot of them didn’t go to preschool. Some don’t even know colors. We’re doing patterns and we’ll ask what are the colors, like red, blue. Yesterday we made pattern strips so we did yellow and green – those colors. It can get a little frustrating because when you’re counting with them they can’t even tell you what number. So we have to go get the strip and show them the numbers* (Alison, Week 4).

These statements showed that the student teachers found commonalities in their experiences, which they used to form what they discovered to be very similar opinions of the children. As the facilitator, this was my first clue into what the student teachers thought the children should be able to do when they get to Kindergarten. I was also starting to see how easily they “fed off” each other when it came to judgments about the children.

Stephanie’s expectations and strong opinions were present again in another meeting when she continued to discuss the children in her classroom:

*We have a few others that didn’t go to preschool and they are not on the same level. We have a few that can write sentences and they’re reading little storybooks. And some of them just flip through the pages. They don’t even take a second to just try to read. They just look at the pictures and then put the book back. You can just tell they are not at the same level. They can’t even hold the pencils. We tried using the thick pencils and they are still holding it like this and stabbing the paper when they are writing* (Stephanie, Week 6).

Alison then disagreed with Stephanie, revealing the first difference of opinion about this topic: “I understand them not getting the title page because when parents read a book they don’t go ‘this is the cover of the book this is the title page of the book.’ They don’t they just start reading” (Alison, Week 6). She then acknowledged, though, that some children don’t even
know where a book starts, which is something she thought they might know: “Some of them don’t even know where to start. I heard my teacher say alright now where do we start and some of them didn’t even know that we start here” (Alison, Week 6).

Alison’s reflections then shifted to look much like Stephanie’s, representing more of the ways the student teachers “fed off” of each other. She began to reflect on the deficiencies of the children, beginning with a definitive statement about the class as a whole: “I really feel like it’s a transition class. I really don’t feel like some of them are ready for Kindergarten. Some of them are getting better but I don’t know… I love them I enjoy being with them but some are just not grasping it” (Alison, Week 6). She then provided a specific example to represent her frustrations: “We’ve been doing the Hip Hop alphabet…they all know the song but you point to the letter and they don’t know” (Alison, Week 6).

In response to these different opinions, I then asked the student teachers what they thought children should know coming into Kindergarten. Stephanie immediately responded to my question:

They should know some stuff before coming in. Because some of my kids are so off. Some are learning and absorbing everything and some are so behind. And if it continues through the whole year they are going to move up to 1st grade and be behind everybody else (Stephanie, Week 6).

What was interesting about Stephanie’s response was that she went back to talking about the students’ learning behaviors, and did not answer my question. Perhaps my question was too general, and I should have been more specific about what particular skills and knowledge the student teachers felt the children should have. This more specific question may have caused Stephanie to go beyond “some stuff” in her response. But, her response led to extended reflection by the group when Kim quickly disagreed with Stephanie, and provided the first comment that hinted towards the fact that maybe these children don’t need to “know” anything when they get
to Kindergarten. Kim stated, “I feel like when we were younger these concepts were taught in Kindergarten then. Now they are expecting so much” (Kim, Week 6). She then related the Kindergarten situation to her own experience in her student teaching classroom: “Even in 3rd grade they are expecting almost too much from them and it is hard for us to expect them to do these things” (Kim, Week 6). I asked her if she, as a teacher, felt that it was too much for the children. She continued to reflect:

Yes I think it is. I think I didn’t do this in 3rd grade I didn’t do this in Kindergarten. I think I learned these concepts in Kindergarten. Because preschool was all about fun and playing. I feel like they expect everyone to go to preschool because parents work. They expect everyone to go to a daycare or preschool and I feel like they are walking in the door for Kindergarten and they are expecting too much. We feel like they should know these things so we expect them to know these things (Kim, Week 6).

This was the first student teacher to say that perhaps the expectations were unreasonable. At that moment, Alison somewhat agreed with Kim, but then related her response back to the children in her current classroom:

I agree with her. I observed preschool and when they would read they would introduce you know this is the front cover. I feel they should be introduced but they shouldn’t be expected to know this. I even think that telling kids the spine of the book in Kindergarten they might not really know that especially my kids they wouldn’t know that. I’m lucky if they know what the back cover of the book is (Alison, Week 6).

The first part of Alison’s statement resembled Kim’s reflections (perhaps the kids don’t need to know the concept), and the last sentence resembled Stephanie’s reflection (her children don’t know much to begin with). This example revealed an interesting aspect of the discussion groups. At times the student teachers seemed to combine each other’s opinions when talking. And, even if their opinions differed, they almost started to sound like each other.

In discussing Kindergartener’s knowledge and skills, the reflection of the group was extended to become more detailed as the student teachers shared their experiences, frustrations and opinions. Different opinions were shared, though this occurred within the parameters of the
sharing of similar experiences. It seemed as though they “fed off” each other’s annoyance at
certain children’s lack of skill, and then thought of a child in their own classroom that also
fulfilled the description. The group discussion seemed to reinforce rather than challenge what I
saw as the student teachers’ inappropriate expectations. Because of this, the group reflection did
not necessarily raise the level of dialogue, but instead seemed to “egg it on.” Intermittent
suggestions of too high expectations or social skill issues overpowering academic deficiencies
were present in the conversations, but were very limited. Kim’s suggestion that expectations
were too high did have an impact on the conversation, but not enough to move her peers away
from the stance that the children are lacking and that’s a problem.

Conclusions about the Pedagogical Teacher Discussion Groups

Based on my analysis of the pedagogical teacher discussion group transcripts, I was able
to draw some conclusions about the social environment and the student teachers’ participation.
The group conversation and environment allowed the student teachers to reflect beyond
description about their experiences, listen to each other’s reflections and sometimes to relate to
them, and come together as a group to reflect deeper about certain experiences. The student
teachers came to the meetings ready to talk about what they were teaching and what they were
learning from their student teaching classrooms, and together they talked, listened, and supported
each other. While these positive outcomes did exist, I also concluded that the student teachers
tended to feed off each other’s assumptions rather than challenge them. They listened to each
other and engaged in conversation, but were not able to have an impact on each other.

While overall the student teachers were very positive about the reflective experiences
they participated in during the study, they particularly felt that the pedagogical teacher discussion
groups were the most beneficial to them. Specifically, they emphasized that the groups provided
a great deal of support during their student teaching experience. When describing the overall feeling of the groups, Stephanie labeled them as “refreshing” because she could talk openly about her experiences (Stephanie, Final Interview). Amanda commented that they were always very “open and relaxed” (Amanda, Final Interview). Alison was more specific, saying that “talking with the other girls, hearing what we all had to say, experiences and what we were going through” was what supported her the most in her student teaching experience (Alison, Final Interview). Kim’s answer was similar, responding “Definitely you guys. We got to reflect together about what works and doesn’t work,” when I asked her who or what supported her in her student teaching experience (Kim, Final Interview). Amanda specifically stated that the group meeting supported her because when she “heard something didn’t go well with [a fellow student teacher] she would remember it when [she] went to teach the same topic and would switch it around” for her instruction (Amanda, Final Interview).

Similar to Amanda’s comment, the other student teachers shared that they enjoyed coming each week to talk about their experiences, and they felt they could help each other work through tough experiences. Kim said, “We helped each other. Like if someone had something that was going wrong, we helped them fix it. I loved to come here – to reflect together” (Kim, Final Interview). Alison shared that, “We all fed off of each other. If someone was having a bad experience, we were like ‘why don’t you try this’” (Alison, Final Interview). Amanda felt there was a lot of “give and take” in the conversations, and that she was happy we could meet privately in our own room versus in a large, loud lecture hall like the rest of the student teachers had to do each week with their supervisors (Amanda, Final Interview). Stephanie shared that if there was a problem being discussed she would “give [her] honest advice” (Stephanie, Final Interview).
It was also evident that the student teachers felt that the group meetings impacted their teaching in their classrooms, as well as their confidence in that work. Alison said, “Oh definitely” when I asked her if the pedagogical teacher discussion group meetings had an impact on what she did in the classroom. She continued saying, “Ideas, techniques that I heard I thought, ‘I’m going to try that when I go back into the classroom.’ I came with notes. I always kept a stack of artifacts to bring in” (Alison, Final Interview). Kim said, “As the weeks went on I felt more comfortable” (Kim, Final Interview). She felt that the group meetings allowed her “to talk more about her feelings versus just what [she] did and why. [She] got to think about the things they said might have gone wrong,” which left her more confident and gave her more to bring back to her teaching the next day (Kim, Final Interview). Amanda emphasized that she felt “stronger because she was getting ideas. It was a self-esteem boost when someone would say that I had a good idea. I felt good about that” (Amanda, Final Interview). She would then continue to use those strategies and techniques in her teaching. Stephanie felt that the group felt “like a family,” and that she could talk and get positive advice (Stephanie, Final Interview). She shared that she even sought out her fellow group members outside of the weekly meeting because of the comfort and support they offered her in the meetings. This was especially apparent in her second placement. She shared, “You all have given me a lot of confidence. By [the other student teachers] saying ‘oh you can do this’ and giving me advice has helped me a lot. I see that they are understanding what I am going through and keep a positive environment” (Stephanie, Final Interview).

A final piece of the pedagogical teacher discussion groups was the sharing of the documentations and artifacts that the student teachers brought to each meeting. While this sharing was part of the weekly meetings, they were a reflective practice all in their own. The
student teachers’ use of them in their social conversation also contributes to my conclusions about the influence of social conversation in their reflective practice.

**Documentations and Artifacts Expanding the Discussion to Reflection**

The student teachers’ sharing and integration of documentations and artifacts in their conversations in the group meetings offers further evidence of social conversation providing an opportunity for more extended reflection. They brought a wide variety of documentations and artifacts to the meetings, including photographs of the children working and playing, examples of the children’s work, and hands-on resources that they used in their instruction. Looking across all of the discussions that involved documentations and artifacts, I discovered that the use of them deepened the dialogue. The student teachers chose documentations and artifacts that were from the experiences they wrote about in their daily reflections. They then integrated the pieces into the conversations in the group meeting. I also discovered that when a student teacher chose to talk about a documentation or artifact that she mentioned in her written reflection in the group conversation, and brought that documentation or artifact to the meeting, her oral reflection was a much more extended reflection than the written reflection. The social conversation provided a forum for the student teachers to participate in extended description and reflection with their documentations and artifacts.

In either level of interaction, the documentations and artifacts were key players in the student teachers’ oral reflective practice. The pieces supported the student teachers’ oral reflections, and allowed them to reflect deeper about the experience and its outcome. In some instances, if the student teacher did not have the documentation or artifact in front of her, it would have been difficult to understand what she was describing.
For example, often the student teacher’s use of her documentations and artifacts in the pedagogical teacher discussion group meeting allowed her to provide much more detail and opinion about an experience in her classroom. It also sometimes caused another student teacher to extend her reflection of the experience (see Table 6). For example, when Stephanie wrote about a coloring experience in her daily reflection, it was a simple description of what the children had to do. Her final comment in lines 12-14, “Most of the children had a hard time doing this activity” was the only indication that it may not have been successful (Stephanie, Week 4).

When Stephanie entered the group meeting, she shared the artifacts from the lesson with the group from the very beginning of her dialogue, and used them to describe the activity (lines one through 25) (see Appendix E). This oral description of the experience, though, was very different from the description in her written reflection. It was focused on the activity being difficult for the children to understand. She continually pointed to the artifact as she talked. Stephanie also extended her reflection of the activity in lines 22-25 to describe what teaching strategies she had performed to rectify some of the problems. And finally, her oral reflection also caused one of her peers to look deeper into the experience and draw conclusions. Alison viewed the artifacts, listened to Stephanie, and then pointed out that Stephanie had modeled a skill for the children, which then allowed them to be successful at the activity (line 26). Both Stephanie and Alison’s reflections were extended when Stephanie was given the opportunity to talk about her experience with the artifact as a guide.

**Use of documentations and artifacts over time.** I also discovered that as the weeks progressed, there was a change in how the student teachers used their documentations and artifacts in the group conversations. This change was closely tied to the change in the group
<table>
<thead>
<tr>
<th>Stephanie</th>
<th>Rainbow poem/coloring paper</th>
<th>A</th>
<th>Quotes from Daily Written Reflections</th>
<th>B</th>
<th>Quotes from PTDG Transcript</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>We introduced “The Rainbow Song”</td>
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<td>1. STEPHANIE- So this is what we did. And I</td>
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<td>2.</td>
<td>today to the children which taught the</td>
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<td>2. thought this was difficult for the kids</td>
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<td>3.</td>
<td>children about the rainbow and colors.</td>
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<td>3. because it goes with a song and the song</td>
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<td>4.</td>
<td>The Rainbow song was sang on the rug</td>
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<td>4. starts with rainbow purple but the kids have</td>
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<td>5.</td>
<td>and once we finished that we had an</td>
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<td>5. to color in their rainbow backwards, but the</td>
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<td>6.</td>
<td>activity for the children to complete.</td>
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<td>6. kids colored purple at the top, then blue, then</td>
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<td>7.</td>
<td>The rainbow song was put onto a</td>
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<td>7. green. It is the wrong way of the rainbow,</td>
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<td>8.</td>
<td>worksheet for the children to complete</td>
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<td>8. but the song is very deceiving because it</td>
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<td>9.</td>
<td>with a rainbow underneath it. The</td>
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<td>9. goes rainbow purple rainbow blue.</td>
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<td>10.</td>
<td>children had to color in the rainbow and</td>
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<td>10. ME – so you think the kids would color in</td>
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<td>11.</td>
<td>circle the word of the color with the</td>
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<td>11. the order they remember from the song…is</td>
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<td>12.</td>
<td>correct color crayon. Most of the</td>
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<td>12. there an example of the rainbow?</td>
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<td>13.</td>
<td>children had a hard time doing this</td>
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<td>13. STEPHANIE – No there was no example.</td>
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<td>14.</td>
<td>activity.</td>
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<td>14. She just said to the kids – they knew the song</td>
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<td>15. because we had been doing it all week –</td>
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<td>16. color in your rainbow and then – this is the</td>
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<td>17. other part that the kids were really stressed</td>
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<td>18. out about. She said circle the color – rainbow</td>
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<td>19. purple, with the purple crayon, rainbow blue</td>
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<td>20. with the blue crayon. And they were not</td>
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<td>21. comprehending it. Half the kids didn’t know</td>
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<td>22. their colors. So I wrote on the Smartboard</td>
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<td>23. red with the red pen, blue with the blue pen</td>
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<td>24. and the kids then looked up board and said</td>
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<td>25. oh red is red…</td>
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<td>26. ALISON – Because you modeled it for them.</td>
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meetings overall. As the student teachers began having more teaching experiences and began talking with each other more in the meetings, their documentations and artifacts, as well as their conversations about them, were more fruitful.

In the first meeting, it was clear that the student teachers did not know how to most effectively use their documentations and artifacts in their oral reflections, and they were also getting used to the group meeting environment and figuring out how to interact with each other. Beginning in the second meeting (week three), and continuing until the culmination of the meetings, the documentations and artifacts became more purposeful because they were actual materials from their teaching. The student teachers also integrated them into their descriptions of their teaching experiences, rather than relating to them as an afterthought. They showed their peers what the examples they were talking about looked like, or how they used them in the classroom.

For example, Kim implemented a hands-on learning device for learning place value, and brought it with her to a meeting in order to effectively explain how it worked and how the children used it in their work (see Appendix F). When she began to describe the lesson, she immediately brought out the documentation/artifact and referred to it as she talked. She began by stating, “We’ve been working on place values and we did this kite activity. This is my artifact. We did the thousands and I did different ones for all of the kids” (Kim, Week 3). She then pointed to the different parts of the kite as she explained its components: “They had to write standard form, expanded form, and word form from the place value they have here” (Kim, Week 3). Next she showed her example on the other side of the artifact and compared it to what the children did with their own kite:

“So mine was 1224. So I did different ones for kids and they had to figure it all out. I wrote the numbers on all of the kites and they wrote the rest. It’s funny because she told
them that a hyphen goes between 20 and 4, so I asked them and they all screamed out…they know. They know it belongs there” (Kim, Week 3).

Finally, she explained and modeled how she used the kite to help them understand the expanded form concept: “I cover the second part and have them look at it and say what is this – I – its 1,000” (Kim, Week 3). She reflected that this worked well to give the children a visual of the math concept, and that the kite was a tool they would continue to use in the classroom. In this example, Kim’s reflection was descriptive, but it was extended with her use of the artifact. She used it to model her teaching strategies and examples that she used in the lesson. It also gave the group a clear picture of what the lesson looked like.

Alison began another meeting by sharing, “I brought the letter assessment. A lot of our kindergarteners don’t know the alphabet. They can sing the song but they can’t recognize the letters. So I brought this in” (Alison, Week 6). She then indicated to the sheet that contained the alphabet in upper and lower case letters. She pointed to the sheet and said:

_We didn’t do the sound – we just did the uppercase and lowercase. We do them individually…a lot of them got the uppercase because when they write their name most of them write in uppercase. But then when they would try to look at the lowercase…a lot of them would get the uppercase A but they wouldn’t get the lowercase a_ (Alison, Week 6).

Alison’s description covered the reasons for the assessment, as well as the successes and failures of the children. While her reflection was just beginning to extend, it sparked one of the conversations amongst the student teachers about the differing abilities of the children in their classrooms that I have previously discussed. So, the group extended their reflection based on Alison’s sharing and description of her artifact. Alison also returned to her artifact once more during the meeting when she talked about other instances where the children had shown a lack of alphabet knowledge. She said she noticed that when the children sang the alphabet song in Morning Meeting, “[Some] know the song but you point to the letter and they don’t know”
(Alison, Week 6). She reemphasized the need for the assessment to truly find out what the children knew in a one-on-one format.

During this same meeting, Amanda pulled out a sheet of paper and shared, “Yesterday in the afternoon we did some graphing for math and we were doing it with apples” (see Appendices G and H) (Amanda, Week 6). She then pointed to the sheet and said, “So we made a graph of red, yellow, and green apples” (Amanda, Week 6). Next she brought out additional materials and said, “And they each had a baggie of the different colored apples in them” (Amanda, Week 6). She then used them to model what she had done with the children, and shared additional sheets from the activity:

> It looks like a regular graph and it had the color words at the bottom and they had to take the apples out of the bag and stack them. And for this sheet [indicated to a different sheet] whichever had the biggest amount, they had to color it in and the smallest and I thought it was really cool she made biggest big and the smallest really tiny [held up the sheet and indicated to these parts] so that they would know and for the challenges they had to do how many apples they had in all so they had to count (Amanda, Week 6).

Amanda’s reflection is a strong example of a student teacher actively using her artifacts to explain and reflect upon teaching experiences. She pulled out different pieces from the lesson as they came up in her description, and modeled their use for the group as she talked. Alison’s example, on the other hand, was a looser correlation between her artifacts and her oral reflection. The artifacts that Alison brought with her gave her a topic to share in the group, and she did indicate them as she talked, but the actual pieces did not have a major impact on the conversation or her own reflection of the assessment.

In the final meeting, Kim also provided a very extensive reflection using documentations and artifacts that did not involve any input or reflection from the rest of group. She began by sharing her feelings about a lesson, and I asked two clarifying questions to get her to be more specific:
1. KIM – Today I did a math lesson... I felt like we did just too much. It was just... like the kids were ok but it was almost like too much for them to do at one time because they are so little and they shouldn’t have to sit there that long. So I felt like that was kind of a bomb.

1. ME - Did you realize it in the middle of the lesson?

1. KIM – Oh yeah and then you feel horrible...you just want to get it over with.

1. ME – What specifically did you have them do that was too much?

1. KIM – We’re working on number 0-5, 1,2,3 was today. So today I had them... each row on the carpet is a different color red, orange, green. Each row I had them one row I had them clap 3 times and one row I had them do 2 jumping jacks, the other row I had them do something else. And each row that did it got to go up and get their crayons and go to their working seats. So I thought that was a good transition for them to get used to the numbers. Not that they don’t already know them b/c they do. Then we went to our working seats and I showed them this (Week 9).

At this point, Kim brought out the math worksheets that she had done with the children and began referring to the different parts as she talked (see Appendices I and J). She brought a blank set and a completed set from one child. The completed set showed the modifications that she had done to the lesson. She then began to talk and point to the sheets, adding in her feelings about the process throughout her reflection:

We were coloring each one with 3 squares red and 2 squares blue. But I felt like... we wanted to see how well they would follow directions. So I just told them how to do it at one time and then we just watched them do it. But I felt like we should have said everyone color the ones with 3 squares red. And then after they finished that, color the blue and then the one. They followed the directions and they did it but some work faster than others so some were done coloring before others. But I felt like we should have said color all the red ones, then color all of the blue ones (Kim, Week 9).

Kim then explained that for this part of the lesson, she was following her cooperating teacher’s procedures. She then turned to the next set of sheets and began to talk about the part of the lesson where she had input on the procedure and the children’s work:

Then I had them do this... this is the math curriculum. And it’s confusing because these are already shaded but the kids don’t know the word shaded and they wanted you to color over this but they were like it’s already colored. And I’m like jesus (Kim, Week 9).

She then referred to the “modified” sheet. In this dialogue she showed the original work, and then what she had changed in the lesson intermittently:
I had them draw one red worm and then they colored that one in red and then I had them draw 2 worms and they colored that one in and then draw three and color in the three green. And then I had them count ok how many red ones, 1, ok color in one over here. Then how many blue, color the blue. Then we flipped it over and did this [indicates to sheet] (Kim, Week 9).

Just to clarify her input, I asked her if what she had just described was her idea. She said yes and then continued to talk: “Because it was with counters. It doesn’t have it in the directions so I had them just color one red and then we colored the red box” (Kim, Week 9). To clarify once I again I then asked her, “So you saw that it was kind of failing right there so you said ok let me switch this up?” Kim’s reflection continued, and included more detail and reference to the sheets:

Yes. And then in the end we had six worms all together in here and they were the different colors. And then on this side the three are done and they wanted them to go over the shaded ones and they were again like well it’s already colored. We just went over it I said in #1 how many worms on that row. I’d call on one and they’d say two, and I’d say and that’s why they colored two green boxes. So I did that for each one of these. And then I let them do each one on their own. I said color in the amount of boxes for how many worms there are. So we did that for each of those. And it was fine they got it. And it was just almost...that was confusing the worm thing and then they were kind of all confused (Kim, Week 9).

This extended reflection of her teaching experience showed Kim relying heavily on her artifacts to demonstrate the progression of both the lesson and her thoughts about modification throughout the experience. Her very specific and step-by-step description and analysis of the math lesson was effectively communicated to the group because she was able to refer to each part on the sheets as she talked. It also allowed her to clearly describe the experience because the work was right in front of her, and answer my clarifying questions efficiently and with evidence from the artifacts.

**Conclusions about the use of the documentations and artifacts.** After analyzing the student teachers’ choice and use of documentations and artifacts in the group meetings, I was able to draw some conclusions about the influence of them on the group’s reflective practice, as
well as the value of utilizing documentations and artifacts in the student teacher meetings in this study. Within the context of the meetings, the student teachers used the documentations and artifacts to correspond with their oral descriptions, and that utilization sometimes extended their reflections and/or the reflections of the group. As they referenced the piece in their description and oral reflection, myself and the other student teachers examined what they presented. Together the group collaborated with each other to analyze and interpret the materials, and use the data to inform their oral reflections. At times the individual student teacher’s reflection was extended, and at other times a different student teacher or the whole group’s reflection became deeper. When this occurred, the student teachers created their new perspectives, knowledge, and beliefs together (Hewett, 2001).

This has led me to conclude that there is great value in asking student teachers to use these documentations and artifacts in their talk about their experiences. I found their reflections to still be descriptive, but they also included moments where they were very specific to the process of the learning experience, the children’s performance, and the value of using the piece in teaching. Extended reflections occurred from the original student teacher’s reflection as well as from the group, and there were also moments when the student teachers made connections to their own work based on the oral reflection and document/artifact sharing of their peers. Perhaps it was the visual display of the work that caused them to recall something in their classroom that looked similar, or covered the same content but looked different. In using the documentations and artifacts, the other student teachers went beyond just listening to their peers describe and reflect on their experiences; and they were also able to examine their peers’ documentations and artifacts to further their understanding of what was being described and analyzed. And, in asking student teachers to provide some piece of documentation or artifact from their teaching, this
additional reflective practice helped them to reflect beyond pure description as well as provided additional resources for the rest of the group.

The student teachers also felt that bringing the documentations and artifacts each week allowed them to see what their peers were describing, and that their peers chose pieces that stood out to them as important in their classroom experiences. Stephanie shared that she chose “important things we did in the classroom. Things that stood out to me. What kids like or what they had difficulty with” (Stephanie, Final Interview). Amanda said she chose “something either interesting or that didn’t work. I didn’t take into account if I made it or not. What would be interesting enough to talk about here so that it benefited the meeting? I didn’t just pick a random thing” (Amanda, Final Interview). Alison said she chose pieces that she could “share with others” (Alison, Final Interview). These answers reveal that the use of the documentations and artifacts as a means for enhancing the group’s oral reflective practice was apparent to the student teachers. Alison also added that “it was helpful to show me what [the other student teachers were] doing or talking about” (Alison, Final Interview). This answer showed that there was a value in the student teachers using a documentation or artifact in their descriptions and reflections of their experiences. It made their words easier to understand.

The Critical Role of the Facilitator

This section presents an analysis of, and conclusions about, my role as a facilitator in each of the following reflective practices: Daily written reflections, observation conversations and corresponding written reflections, and the pedagogical teacher discussion group meetings. As Davis (2006) suggested, teacher education programs who are teaching their preservice teachers to reflect should encourage the preservice teachers to move beyond description, and consider the learners, the learning process, and the content when reflecting on their teaching
experiences. As the facilitator of the student teachers’ reflective practices in this research study, this was the role that I was working to fulfill. My goal was to encourage the student teachers to participate in productive reflection with my scaffolding as a guide. Productive reflection consists of the integration of ideas about the many aspects of teaching such as the learners and learning, knowledge of the subject, instruction techniques, and assessment. This type of reflection is analytic, and therefore meaningful and productive for the reflector. Unproductive reflection is mainly descriptive and lacking analysis (Davis, 2006). As Davis (2006) pointed out, without support and opportunities to practice reflection, preservice teachers mostly engage in unproductive reflection. My role in this research study was to try and provide the important support and opportunities, and hopefully lead the student teachers in the direction of productive reflection. The following section presents a description of what my role looked like, and an analysis of its effectiveness.

On Their Own: A Lack of Structure in the Written Reflections

The written reflections were done in isolation by the student teachers, and were a reflective practice that I did not overtly influence. I found no mention of me in the written reflections, and I provided no direction or feedback to the written reflections. My role in the written reflections was more covert. The student teachers were writing them for me to read and I was the person responsible for giving them credit for their writings as part of their student teaching grade. This was probably the reason why all four of them wrote one for each day, never skipped a day, and always emailed them to me on time. The credit was not for the content; it was purely for their submission of the written reflections.

My analysis of the student teachers’ participation in the daily written reflections over time led me to the previous conclusion. The written reflections overall were very descriptive of
their teaching experiences, with some level of reflection about the outcomes of their teaching at different points. Often they just wrote that a lesson was successful, or that the students experienced success. When they wrote about failures, there was some level of contemplation about the causes, and it usually focused on lack of student performance. Both the length and format of each of the student teacher’s daily written reflections was consistent throughout the data collection process. There was a slight shift in the types of reflections the student teachers’ wrote as they taught more. As the data collection progressed, each of the individual student teachers became more evaluative of their teaching and their experiences, and wrote more from the perspective of a teacher, not an observer. There was no evidence, though, that this shift occurred because of any influence from me. Their increasing responsibility in the classroom seemed to be the catalyst for the change in writing.

For example, Amanda’s written reflection format was often a description of the day’s activities, with intermittent explanatory sentences about how she felt about an activity. As the data collection progressed, these intermittent sentences became more evaluative, and focused on how successful or unsuccessful a lesson was based on student participation. Here is an excerpt from one of Amanda’s reflections from the first week of data collection. I have indicated the explanatory reflective sentences by highlighting them:

“Today we did a lot of “All About Me” activities. During morning meeting we had the children sit in a circle and pass a ball around. When it was their turn to hold the ball they had to tell everyone in the class their name, and something that they love to do, or anything in general about themselves. This was cute because after the long weekend of the children being away from school it kind of “re-broke” the ice. After that we had them draw another portrait of themselves and they glued their pictures on a piece of tin foil, and then glued that on a mirror made from construction paper. It was cool to see how everyone perceived themselves. Some students took it very literally and made the picture look like them (same color eyes, hair, etc.) while other students gave themselves pink hair or giant ears. We also practiced writing a little bit today. The children picked a topic and then wrote a sentence about it. This is where I saw more inventive spelling. Inventive
spelling is very intriguing to me because it really shows you how the child is thinking of the word in their head” (Amanda, Week 3).

Now here is an excerpt from one of Amanda’s reflections from the end of the data collection with the same indicators:

“Today I introduced an alphabet chart to the children for them to use as a tool for their writing. I want the children to become more independent in their writing, and that includes figuring out what the letters they want to write look like. They each got a chart and it has every letter, upper and lowercase, as well as a picture that starts with that letter. I told the children that if they need help writing a letter they could look at the chart. For example, if they wanted to write the word book, but they forgot what the letter “B” looks like they could look at the chart, find the picture of the “bear” and then look at the letter “B” on the chart. This actually worked really well with the children. They felt really independent and they wrote more letters on their papers because of it. They didn’t ask the teachers for as much help because they felt that they had everything they needed in front of them to help them complete their story. The children keep this chart in their writing folders for them to use whenever they are writing” (Amanda, Week 7).

Amanda’s second written reflection is more of an evaluation of what happened in her classroom and why she chose certain strategies. In this reflection she is talking more like a teacher. This is a different voice than her the first reflection, where she wrote more simply about things that were interesting to her.

Based on this analysis, I concluded that the consistency and lack of change in the written reflections can be attributed to the student teachers not finding it to be the most beneficial reflective practice out of those implemented in the study. Both during the data collection and in their final interviews, the student teachers shared that there were challenges in writing the daily reflections because they had so much to share. Stephanie shared that the written reflections “don’t do justice” for what she was able to share with the group (Stephanie, Final Interview). Alison shared that when writing it was “hard getting it out word for word” (Alison, Final Interview). I can hypothesize that this perception of challenge could have influenced how well
the student teachers “reflected” in their written reflections. They struggled with getting all of their thoughts on paper, and this struggle may have dominated the process.

The written reflections were the only reflective practice where I did not play an active dialogic role. On the other hand, I had a clear role as a dialogue partner in the observation conversations and corresponding written reflections, as well as the pedagogical teacher discussion group meetings.

Providing Direct Feedback

Observation Conversations. My role in the observation conversations was to listen to each student teacher’s thoughts about her lesson, and then provide my own feedback in the form of strengths and suggestions. This role was determined by our division of the college as part of the criteria for the observations of the student teachers. Therefore, I entered these conversations more as a supervisor of their student teaching, and less as a researcher. I was also more directive as a facilitator in this reflective practice (versus the pedagogical teacher discussion groups for instance) because I had to give my input and respond to the student teachers’ input.

I discovered that when I shared my strengths and suggestions with the student teachers, I was very directive in offering new ideas of my own based on what I observed. My role as an evaluator provided the student teachers with opportunities to make small discoveries about their practice. In taking on this structured evaluator role, I was able to push the student teachers to begin to strategize about their teaching.

I found that my input provided the student teachers with new information that they had not previously considered. For example, during our conversation, Alison had a realization about part of her lesson based on a suggestion I gave her. When talking about her display of materials I said, “And you wrote the number of how many next to it. You should also do some sort of dots or
something for the amount so the kids can make the connection between the number and the amount.” Her response revealed her realization: “I didn’t even think of that. That makes sense...when we do the number cards I have them do that” (Alison, Observation Conversation).

In her realization, she was also able to make a connection as to how she could use the strategy I suggested in other lessons. I then continued, “Make sure you do the number of the objects and make sure all of the kids count with you. I think it was a great way to do it, like the human graph. Start with their lives and things they have collected...their experiences.” Alison then had a smaller realization, and acknowledged my input as appropriate by saying, “Their experiences. So true” (Alison, Observation Conversation). My input appeared to expand Alison’s thoughts about the lesson she had just taught. My feedback provided her with a different teaching strategy to use, and she acknowledged and appeared to understand this strategy, based on her use of it in other teaching experiences.

Overall, my role in the observation conversations was to evaluate what the student teachers did in the lesson I observed. It appears that when I was more directive, the student teachers seemed to make use of my feedback, and made small discoveries about their practice.

**Corresponding written reflection.** The evening of their observation, the student teachers wrote their written reflection and answered the questions: What did I do? Why did I do it? How can I do it better? My role as an evaluator continued, as I discovered that there were parts of the student teachers’ answers to question three that incorporated my feedback from the observation conversation. The student teachers were not directed to include my feedback; they were just told to write what they thought they could do better the next time they taught the lesson.
Stephanie, for example, only echoed what I said when answering question three. Her response to this question was short and simple:

*If I was to change anything about my lesson I would change some of my management skills. There was one child in the room who constantly was disrupting the class and it caught my attention. Next time I would ignore him a little more instead of calling him out every time he misbehaves* (Stephanie, Observation Written Reflection).

Part of my feedback to her was to not point out every time a certain child was off-task or distracting. I told her that he might be thriving on the attention; so ignoring him might diffuse some of the disruptive behavior. Kim’s response was also just one of my suggestions:

*So if I had to do this lesson again, I would not only follow all of the math so I know it is right, but I would also write their ideas for the math journal on the white board so that they could visually see it* (Kim, Observation Written Reflection).

Part of my feedback to her was to check the students’ math, and write on the large board whatever she had the students write in their math journals. Both Stephanie and Kim only wrote this information in their response to question three.

Alison’s response, on the other hand, showed the combination of her ideas and my suggestions from our conversation, but no deeper reflection. In the conversation referenced previously, I said, “You should also do some sort of dots or something for the amount so the kids can make the connection between the number and the amount.” In her answer to question three, Alison incorporated my feedback:

*I then counted out with them how many the row had. I then wrote the number next to the labeled picture that was at the front of the line. This was so the students could see and recognize the number. However I also should have made number dots too for the students who have trouble recognizing numbers* (Alison, Observation Written Reflection).

In this reflection, Alison echoed what I said. She did not add any deeper reflection of her own about the change in the teaching strategy.
Amanda, on the other hand, also took one of my suggestions into account when writing her written reflection, but provided an extended reflection of why this suggestion might be successful:

One of my suggestions was to switch up the alphabet cards and to only use a few at a time. This is a great idea that I will start using because it lets the children really associate the letters with the sounds they make. By doing the alphabet in order all the time it becomes repetition and even though the children may be saying the letters in order doesn’t mean that they know them, it might just be memorized (Amanda, Observation Written Reflection).

Amanda’s reflection shows her incorporating ideas from me into her individual reflection, and beginning to think about the reasons for this instructional choice. She also continued her response to include her own thoughts about her future teaching of the lesson that did not incorporate my feedback:

I wouldn’t have the children repeating as much. I feel that since it’s the fourth week of school already the children should have a chance to speak on their own. This lets me see if they really know what is being said, or if they are just copying what I’m saying (Amanda, Observation Written Reflection).

My role in the observation written reflections was only present in the part of the reflection that asked the student teachers to write about what they would do better the next time they taught the lesson. This role was directly connected to the oral feedback that I gave the student teachers in the observation conversation. At times my feedback was all the student teachers wrote in their response to question three, while at other times my feedback was integrated with their own ideas about the next time they would teach the lesson. While I cannot be certain that my feedback definitely changed the student teachers’ thinking about the lesson and will have an impact on their teaching the next time they teach the lesson, I can say that they at least listened to, and considered, my ideas.
Overall, my role in the observation conversations and corresponding written reflections was to provide feedback and listen. At times this feedback triggered new thoughts and ideas from the student teachers, or complimented the ideas they already had. The student teachers were then able to take my feedback and either incorporate it with their own ideas to produce an extended reflection of their lesson, or just use it for their extended reflection. This kind of social reflection (supervisor and student teacher) is very prevalent in teacher education since all student teachers are observed, and traditionally meet with their supervisor after their observation to talk about the lesson. The findings from this study did not reveal any new ideas about these conversations, but they did reveal my role as someone giving direct feedback and advice on their practice based on a direct observation of their practice. This more directive role may be necessary in group meetings as well. In an effort not to be evaluative during the discussion groups, perhaps I was actually less active and directive. It also seems that in writing a focused written reflection, the student teachers were forced to think beyond description and simple evaluation.

My Role as an Active Facilitator

When analyzing my role in the pedagogical teacher discussion group meetings, I found that I acted as an active facilitator who often responded to the student teachers’ oral reflections after listening to them talk. I continually participated in active listening, and my responses were predominantly in the form of providing direct feedback or asking a question. I worked to understand what the student teacher was saying, and responded directly to her words. This active listening was an attempt on my part to participate in the conversation, but also to allow the student teacher and her talk to take center stage by specifically responding to her opinions, feelings and ideas. I also discovered that these different types of talk produced different responses from the student teachers. These different responses clued me in as to how my
participation might have affected their reflection and the rest of the conversation, either positively or negatively. I discovered that I provided direct feedback 50% of the time, and asked questions the other 50% of the time. In the following section I will provide examples of these two kinds of responses, and examine their impact on the reflective practices of the students.

**Listening and Giving Feedback.** In analyzing my role in the pedagogical teacher discussion group meetings, I concluded that I provided direct feedback 50% of the time. My feedback communicated my understanding of what they actually said. My feedback was often validations, support or identification of connections between the student teachers’ experiences. These different types of talk elicited different dialogues and reflections from the student teachers.

**Validating the student teachers’ input.** At times my comments were purely a validation of the student teachers’ pedagogical decisions, particularly those that were based on their opinions about instruction and young children’s learning. This validation was meant to show them that I acknowledged their opinions as appropriate and correct. The student teachers responses to my validations were positive, and they seemed to continue their oral reflection with a bit more confidence.

For example, when Alison was talking about the importance of relating content to the children’s lives, I stated, “I think the senses are very relevant to their lives so they make sense. They are not abstract so the kids get it and can relate to it immediately.” This validation elicited a positive response from Alison, and she said,

_Yup. We would say what do you think they are doing in the picture? (Referring to the book) and we would write underneath. Or they would write because some of them are trying to write. A boy, he’ll write a couple of letters. He’s emergent. So they’ll tell us I’ll write and we wrote underneath (Alison, Week 7)._ 

In response to my question, Alison continued to discuss exactly what she had done in her lesson. While I do not think my comment had a major impact on her oral reflection, it did provide her
with validation from me that her thoughts about how to teach the children were correct and appropriate. I found this to be generally true for all of the student teachers when I validated them. They recognized my validation, and then continued with their reflection to describe more of the experience.

Supporting the student teachers in their work. In validating the student teachers, I also sometimes provided support by reminding them of the positive impact they were having on the children in their classrooms, even when they felt they were struggling. My support seemed to help the student teachers recognize and verbalize the positive things they were doing in their classrooms. In the following example, Stephanie was able to identify successes and the best ways to work with the children on her own to some degree, and then even more so when she was supported in conversation by me and her fellow student teachers. The supportive talk caused her to talk more positively, and also reminded her of strategies that worked. She made a point to use the strategies she found successful as often as possible in this classroom.

When Stephanie was sharing her frustrations with her second placement, I worked to keep her positive, and reminded her of the good she was doing in the classroom. In week eight she shared how successful small group work was with the children, but would often quickly add that once they returned to large group work, the children “were acting like themselves again,” meaning they were not paying attention (Stephanie, Week 8). In response to her reflection I said, “Ok well take your success though” and then asked, “Now what do you think you have to do? What’s your next step?” This helped to refocus her back to her successes and the need to use them again. She responded with the management aspects of the small group lesson that she used to keep the children’s attention and produce positive interactions: “I’m just going to have to try to keep incorporating that in I guess so they used to it. It was the first time that heard it so they
were like it’s a secret? I know a secret. So they were excited about it” (Stephanie, Week 8). I often said comments similar to these to keep her positive, such as, “You’re not negative like that so don’t think like that. So something worked...so...” By me reminding her that something worked, my leading of her to “finish my sentence” was an effort to get her thinking about what her next steps would be to continue her success. This would get her to talk about the most fruitful parts of the lessons that she found to be the most successful with the children.

Stephanie validated my conclusions about the impact of my support when she shared at the end of week eight’s meeting that the group meeting was a positive place for her to discuss her teaching. This was very different from the negative classroom environment that her cooperating teacher had created. Upon hearing this, I made sure to incorporate positive statements whenever it was appropriate. Her fellow student teachers also began to model these statements by stating, “I’m glad they listen to you” (Kim, Week 9) and “Keep doing what you’re doing because it’s working” (Alison, Week 9) when Stephanie reflected. This last statement perhaps shows that the student teachers recognized my supportive talk, and emulated it with each other.

**Identification of connections between the student teachers’ experiences.** Active listening also allowed me to identify and point out the different strategies that the student teachers were using with the same content. I did this so that I was clear on what they were doing, and so they could hear each other’s instructional decisions, and perhaps have something new to try in their classrooms. In the following conversation, my statements and questions brought to the forefront the different strategies occurring in their classrooms, and how successful they found them. The conversation also gave them different ideas to try with their children when they returned to their classroom.
After listening to a conversation about what Amanda, Alison, and Stephanie did with the high frequency words they were teaching the children, I realized that they all were doing different things. In order to clarify their different teaching techniques, and alert them to the different strategies being shared in the group, I stated, “So you do more of connecting the words in text (AMANDA and STEPHANIE) and you are doing it more with the writing (ALISON)?” The three student teachers nodded their heads to affirm my reflections. I then asked, “Do you find success in the things that you are doing?” Stephanie then responded:

*I feel like they can identify the words more. Like when I’m doing the Morning Message and there is an I they will say ‘oh I can see a popcorn word!’ And like yesterday when we had book buddies, they were all running up to us saying ‘I saw a popcorn word!’ It’s easier for them to identify the word and they are learning the word (Stephanie, Week 7).*

Amanda added, “That’s the way I feel too. Even when we are not learning and if they are reading on their own I hear them pointing them out” (Amanda, Week 7). I then responded, “So that seems to be working that you are having them identify it (ALISON) and you are having them use it (AMANDA and STEPHANIE).” Alison responded, “Yes,” and then began to talk about another aspect of the ELA content that the children were finding success with (Alison, Week 7).

Later in the conversation, the student teachers shared their artifacts with each other that involved their work with the high frequency words as a way of comparing their different strategies.

Without my input, the student teachers might still have shared with each other, but probably would have not recognized how they were all doing the same types of practice with different activities and strategies involved. I was able to draw this conclusion from my analysis of the data as well as data from the final interviews. In their final interviews, the student teachers shared that they enjoyed hearing what their peers were doing instructionally with the same material they themselves, were working with, and that they sometimes took those ideas back to their classroom. Stephanie specifically stated that she used the alphabet song that Alison used in
her classroom with her children because it elicited a different type of response and actions from the children that she thought they would learn better from.

**Questions.** In continuing to analyze my role in the pedagogical teacher discussion groups, I found that I often asked different types of questions in response to what the student teachers were saying. There were two specific types of questions that fell under this category: Clarification questions and personal opinion questions. These two different types of questions elicited very different responses from the student teachers, and appeared to vary in their effectiveness at taking the conversation deeper.

**Clarification questions.** In my analysis, I discovered about 50% of my questions were attempts to clarify what a student teacher had said. These clarification questions either asked for more information, or were more “demanding” and required them to think deeper about what they were reflecting about. Specifically, I discovered that I asked informational and demanding clarification questions throughout the group meetings.

**Informational clarifying questions.** A portion of my clarification questions seemed to encourage the student teachers to be more detailed in their descriptive reflections. For example, when Alison shared how she introduced centers to the children in her Kindergarten classroom, she shared photographs of the children playing in two centers to correspond with her statement that she had introduced centers to the children that day. I was unsure if she had introduced all of the centers or only the two in the photographs, so I asked, “So you only did a few centers?” Alison replied affirmatively, and then expanded on her reflection: “Yes. *Yesterday was the science center; the math center is always open. They did playdough today and dramatic play was open yesterday*” (Alison, Week 2). After a brief pause, Alison continued with a more extended description of how that worked and the children’s participation in the centers:
They all love that one kid came out ‘I’m a postman’ and had the whole outfit on. It was cute. Today dramatic play wasn’t open. We introduced the blocks. Everyone wanted to do the blocks. We introduced the sand table. Everyone wanted to do the sand table. The only thing that she does differently is that snack time is going to be a center. I’ve never seen before so I want to see how that’s going to…she says she finds it works easier (Alison, Week 2).

While it’s not possible to know what she would have said without my question, my clarifying question appeared to produce additional information from Alison about the center experience, including children’s reactions to each other’s participation.

At other moments my clarifying questions, while only asking for information, appeared to push the student teachers to give a more personal account of their experience by going beyond facts to share their feelings. For example, when Stephanie talked about the first time the butterflies came out of their cocoons in her classroom, my clarifying question elicited a personal reflection not related to the butterflies. She shared that all of the children were very excited to see them come out, and they all went back to their desks to draw their interpretations of the butterflies emerging. In order to expand her reflection to include her teaching, I asked her, “What did you do while they were drawing the pictures?” She responded, “I had the picture of the butterfly in the Smartboard so they could look at it and the life cycle was next to it and we had a butterfly song in the background” (Stephanie, Week 3). As with Alison, my question seemed to encourage her to keep talking. She picked up on her own comment about the song, and ended up talking about her cooperating teacher’s incorporation of music in the classroom, and her own participation with the children in singing:

She’s really amazing...every activity we have has music to it – everything. Like she makes these songs up to and records her voice on the Smartboard. She has a good voice and she says Stephanie it’s your turn and I’m like ‘oh my goodness.’ The first day I started singing the kids were silent and just staring at me like what? Why is she singing like that? I said I’m sorry I can’t sing. So they all laughed at me and then they got over it. So today I actually did the whole morning. The calendar and the lunch count with them. And then we sang a few songs and we do the Macarena because we do that every day. And it’s
really cute but really embarrassing because all of the teachers come in and say Stephanie is doing the Macarena! (Stephanie, Week 3)!

In this reflection, Stephanie ended up sharing some personal feelings about her cooperating teacher’s style, and Stephanie’s own experience teaching the children. While there is no way to know for sure if she would have talked about her own singing without my question, it did appear that by being asked a simple question, she was encouraged to keep talking. Prior to this, I and the rest of the group were unaware that she was worried about “performing” at her cooperating teacher’s level when singing with the children, or that she had taught the entire morning complete with all songs and dances.

At other points my clarification questions appeared to support the student teachers to go beyond describing the children’s behaviors to discussing teaching strategies. In another reflection from Stephanie, she said that some children did not cut, but rather tore their paper during a cutting activity. I asked her if this was acceptable for the activity. Stephanie replied that, “It was ok for their first cutting activity” (Stephanie, Week 3). She then added, “But some of the kids... started playing with the scissors” (Stephanie, Week 3). I then asked her, “What did you do?” She shared that she, “Took the scissors away” (Stephanie, Week 3). I then asked, “Was there a conversation about what the scissors were for and how to use them?” This led Stephanie to explain that her cooperating teacher had modeled how to cut with a styrofoam hand. She then proceeded to show us what the modeling looked like with her own hands. The other student teachers were actually very interested in seeing how to model cutting for children, and intently watched Stephanie’s demonstration. None of us had ever seen the use of scissors demonstrated in this way to children. Her reflection ended with her sharing that the children seemed to have forgotten about this when they got their scissors, and that she was going to reintroduce the scissors next week when the children might handle them better.
In this instance, my clarification questions were about Stephanie’s teaching decisions in response to the children’s behavior. My questioning may have encouraged her to model one of the teaching behaviors for her peers. But my question also moved her away from reflecting on the children’s behavior and what to do when the children played with something she didn’t expect, and instead moved her to more description about strategies and procedures. This was something that happened at several different points. My tendency to ask clarification questions seemed to keep the conversation on the level of description, rather than moving it to a deeper look at assumptions.

An instance where my questions asked a student teacher to be more specific about children’s work was when Amanda was explaining the children’s writing behaviors in her classroom. After she had provided a brief reflection about the children participating in writing time, I asked, “What did they write?” and “What was their writing?” to get her to talk more specifically about the children’s actual work. These questions caused Amanda to describe some of the children’s writing:

We had them draw a picture. We have a heart map with five parts and on the first day of school they had to write five things [or] pictures in each part of the heart and that would be like the ‘go to’ if they didn’t have anything to write about. So they get their heart map and they can look at the pictures and they can write and look at it and then draw or write. But she wanted to walk around and look to see if what they were drawing really matched what they were saying. And then we would help them write it and help them write parts of the sentence (Amanda, Week 3).

I then continued to ask questions in response to her talk, and Amanda provided more information about the writing going on in her classroom:

1. **ME** – And you wrote in your reflection that you thought the inventive spelling was really intriguing.
2. **AMANDA** – Yeah because everyone’s doing it. It’s not even that this one is trying to spell so he’s doing it they are all just writing and writing and writing and it’s so cool. Like there’s letters everywhere.
3. **ME** – And can you kind of read some of it? Kind of figure it out?
1. AMANDA – Some of them are really good and you can see how they got the words. Because they were sounding it out but others are just like EVVVVEE…but then if you say what does this say they actually say to you what is in the picture. It’s cool.
1. ME – Do they let you write under it what it actually says?
1. AMANDA – Some of them. Some of them are like ‘don’t touch it its mine’. And others are like ‘ok you can write it’ and we are like how can we rephrase this (Amanda, Week 3).

An unexpected outcome of my questions was that they revealed Amanda’s excitement and extensive thought about the children’s writing work, and led to her describing examples of the children’s work to the group. This example revealed that in addition to getting the student teachers to talk more about their teaching, my clarifying questions produced more extensive description of the kids’ work, and also their excitement about it. However, even here I am aware that my clarifying questions did not encourage Amanda to look more deeply at her beliefs and assumptions about children’s writing development.

Demanding clarifying questions. In my analysis, I discovered that there were moments when I asked more demanding clarifying questions, and the student teacher went deeper with the observations she made. For example, when Alison shared that her cooperating teacher told her she was doing a better job extending the children’s ideas, I asked her to think about why she was doing this. This clarifying question elicited a more thoughtful response, as well as a specific example to clarify her reflection. I asked her to clarify why she thought she was now extending with the children. She responded, “I think I’m getting more comfortable. The kids know me” (Alison, Week 4). She then provided a specific example, and explained what was different about this interaction: “When I get down on their level with them and ask them face to face. How come you like that fruit? Does everyone like strawberries? I’ll have them raise their hand” (Alison, Week 4). She then compared this teaching to her previous limited strategy: “Like when I first did it I would ask what’s your favorite fruit and she’d be like strawberries. And I’d be like ok. What’s your favorite vegetable?” (Alison, Week 4).
In this case my clarification question extended Alison’s reflection beyond just an acknowledgement from her cooperating teacher of a teaching strategy, to her identifying reasons why she was doing it, and then sharing a specific example with the group. She also compared it to her prior teaching strategy which she now recognizes was limited.

In other discussions, my more demanding questions appeared to provoke the student teachers to think more about their feelings about a situation they were dealing with in their classrooms. In week six, when Amanda and Stephanie were discussing their frustrations with the Kindergarten testing, I asked a few questions to ensure that I understood their stance, and what exactly was frustrating them. For example, when they were sharing the limitations on the help they could give the students during the test, I asked questions such as, “*Those are the strategies that you would normally do with them*?” and “*So you say you can’t do that now because it’s a test*?” They both then explained that the children were upset because they could not receive the help during the test that they were accustomed to during regular learning experiences. I also made another important clarification by asking, “*So you were frustrated because the kids were frustrated*?” in the hope of revealing where the root of their frustrations were. They both then reflected on their anger at the extremely negative experience the test was for the children, and how they were very frustrated because the children were frustrated with a task that they felt did not contribute to their learning.

Kim joined in the conversation and said, “*That’s just so unfair*” (Kim, Week 6). I responded, “*Ok, why*?” This question caused Kim to also reflect emotionally about the effect of the tests on the children:

*"I feel like to put a little kid through that...to make a child do that is torture. You know what I mean? Kindergarten is supposed to be about fun, playing, learning, like...but they're not. They are not learning anything from that. You’re torturing them to find out what they know. You’re literally pulling teeth* (Kim, Week 6).*
In this instance, my question perhaps gave Kim an opportunity to connect her feelings to Stephanie and Amanda’s frustration, and emulated their expressions of anger at the testing process.

In this example, in response to my questions, the student teachers, who had previously just been complaining about the tests, revealed that the main source of their frustration was the fact that the children themselves were frustrated, and they had to witness it and deal with it. It also provided an opportunity for Kim, who had previously been silent on the topic, to join in the conversation when she provided her own emotional response to the tests. These examples demonstrate times when my demanding questions provoked multiple students to give more thoughtful reflections.

The clarification questions that I asked in the group meetings were meant to elicit more information from the student teachers. I often got a literal response, where the student teachers only provided the exact information about the experience I had asked for. There were some moments, though, when I was able to get information beyond a simple answer to my question. Sometimes the student teachers appeared to take the question as a suggestion to keep speaking, and they elaborated on their initial description. In other instances, they moved beyond mere description to provide a personal reflection, personal opinion or emotional response. Not surprisingly, I noticed that I garnered a different response from clarifying questions that asked for information, and from those that asked “why” or “how come.” In those instances my questions often took the students deeper into a reflection of their practice. Unfortunately, I discovered that I rarely asked these “why” questions.

**Personal opinion questions.** The other 50% of my questions were questions that asked the student teachers to give their personal opinion on a topic. These questions looked something
like, “What do you guys think about that?” In retrospect I believe I asked these questions because I wanted the student teachers to start to form opinions about teaching and learning, and express them to encourage more discussion. I also wanted to encourage the student teachers to perhaps disagree with each other and provide different opinions. In response to these questions the student teachers did provide their opinions, and engaged in further conversation about the topic. At times their ideas conflicted, and they engaged in a short back-and-forth dialogue about the topic.

In the first group meeting (week two), there were moments where I asked a personal opinion question, and the conversation did not expand beyond a brief answer to my question. The fact that it was the first meeting, and that the student teachers were becoming accustomed to the group meeting environment, might be why the conversation did not expand further. When Stephanie commented on how disorganized the books were in her Kindergarten classroom, I asked the other student teachers what they thought the effect of the disorganization was on the children’s interaction with the library area. Kim responded, “I think it would throw them off” (Kim, Week 2). Alison then briefly stated what bins of books there were in her classroom, and Kim did the same. The group reflection on this topic then ended because Stephanie began sharing how she went to another Kindergarten classroom for lunch, and saw how it was more organized than her classroom. I was able to get some opinions and personal experiences from my question, but not anything extensive. I would have liked to hear more about what they thought the effect of disorganized library areas was on children’s interaction with the books. But, I let the conversation take the path of Stephanie’s new reflection. In thinking back to this first group meeting, I believe that I, too, was getting used to the group meeting environment. I wanted the student teachers to talk as much as possible without my input “inhibiting” what they had to say,
so that they would become comfortable in the environment. So, at a moment where I probably should have interjected and worked to expand the conversation into a deeper reflection, I kept quiet to let them talk.

There were also moments where the student teachers’ answer to my personal opinion questions revealed their true feelings about a topic. I then realized that my assumptions about their feelings were wrong. For example, Alison reflected in the first meeting that she was looking forward to seeing snack as a center because she had only experienced it as a large group experience. At the next meeting, she reflected that it had happened as a center that day. She said that it went ok, but that, “You have to remind them ‘did you have snack yet?’” which was trying on a teacher who was trying to work with other children at a center (Alison, Week 3). She then stated, “I like how I’ve seen it done in other kindergartens where we all eat together” (Alison, Week 3). When she did not reflect more, I asked her, “Why do you like that?” Her reflection then became more personal, and focused on the social development of the children as a class: “It just brings the Kindergarten class back together. They can sit with their friends” (Alison, Week 3). I was unaware that her desire to have snack as a class was because of the social aspect of it. From her reflection I assumed that it was more of an organizational problem with making sure the children had their snack while simultaneously working with other children.

When the student teachers’ responses challenged my assumptions about how they felt about a situation in their student teaching classrooms, it was because my question got them to talk and explain further. Without my question, I would have continued to assume the wrong information. Moments like this one with Alison reminded me to always ask for a student teacher to tell me why they felt a certain way whenever I thought that I had already decided how they might feel based on their talk.
The topic of the Kindergarten testing was deliberated often in the group meetings, and became more detailed as the student teachers conducted more of them in their classrooms. I allowed the student teachers to talk a great deal during these conversations, because they conducted detailed discussions with each other about their experiences proctoring the tests, how the children reacted to the testing experience, how the children performed, and the overall merits of the tests themselves.

In week four, after a few conversations about the tests and the testing process, I decided to inject a question to get at the student teachers’ opinions. I asked, “What’s the point of these tests?” Both Amanda and Stephanie simply responded, “It’s an assessment” and did not expand their answer any further (Amanda and Stephanie, Week 4). They then continued to discuss specific testing items with each other that they had both conducted. I did not interject again at this point, but instead made the decision to let them continue their interactive conversation. In hindsight, I realize that I should have asked them to share what they thought the tests were for, and what they might provide in terms of information about the students. I could have worked with the examples they were sharing with each other, and asked them the point of them. I did not have an answer in mind when I asked this question; I simply wanted to know what purpose the student teachers thought the tests served. Perhaps this lack of expectation also contributed to me letting the conversation fade. I also realized during my analysis of this data that this was a big question for me to ask of the student teachers; a big question about a big topic. In my continued analysis of this group of data, I looked to see if I had asked more of these “big” questions during the pedagogical teacher discussion group meetings. I found that I did one more time when this topic came up again that same week.
When the topic came up in week four’s meeting again, I attempted to rectify my previous error of letting the conversation fade. This new conversation was centered once again on how awful the entire testing experience was. In an attempt to shift the conversation, I asked, “So let me ask you guys…obviously we all find these tests a bit silly, but there is a purpose behind them. How would you do it?” I asked this type of question to perhaps get the student teachers to make some decisions about what they would do differently to assess the skills that the tests are meant to assess. I felt it was time to stifle the complaining a bit, and decide what to do differently. All four of the student teachers agreed that one-on-one assessments would be more effective than whole class test-taking. Their responses also focused on using hands-on manipulatives such as pictures and letters to ascertain if the children understood letters, sounds, and the connection between pictures and letters. Kim specifically suggested that the teachers use, “…colored laminated pictures. Something like we may have done in our early childhood courses and maybe they can pick the picture up” (Kim, Week 4). This clued Stephanie and Amanda into a specific aspect of the tests that contradicted this idea. Stephanie stated, “It’s bad because the pictures are really little” and Amanda responded, “Really little” (Amanda and Stephanie, Week 4).

Stephanie then initiated a conversation with Amanda about a specific aspect of the test, where the pictures were small and very “deceiving” (Stephanie, Week 4). I thought this aspect of the conversation was beginning to take the same form as the others, so I asked Amanda, “What do you think? How would you do this?” She began her response by sharing a struggle of an ESL student, but then began to change her reflection. She stated, “But we’re actually doing one-on-one and that’s actually what I brought to show you” (Amanda, Week 4). She then shared the one-on-one assessments she was doing with the children, and reflected about how much she felt the children could show and she could learn about them skill-wise from these assessments. The
other student teachers examined her artifacts, and acknowledged how much more information she could gain from this assessment versus the standardized tests.

In this instance, my questions took the conversation in a direction that had the student teachers starting to analyze specific aspects of the tests that they did not feel were appropriate, and suggest specific examples that would be more appropriate. It was a small step away from the previous conversation where they just expressed anger and frustration at the testing process. My questioning even appeared to encourage Amanda to reflect about and share artifacts that represented the one-on-one testing that the group agreed was a more authentic assessment of the children’s skills. In this instance, as opposed to the previous example, I asked a follow up question, and this question provided the more detailed reflection that I was hoping for.

The only meeting that I led off with a question was the final one. I asked the student teachers to focus on themselves, and share with the group when they thought they had “failed” at something. I explained further that I wanted their opinion on a moment in their student teaching experience where they felt they had failed in any aspect of the classroom. Alison shared a moment when she realized she didn’t have enough children come up to the board to actively participate in a learning exercise. Stephanie shared a moment when she forgot questions she wanted to ask the children. What occurred next in the conversation was interesting. The student teachers all very quickly started to reflect on whom or what was to blame for the failure. In the conversation that ensued, I interjected with a few small questions to keep the conversation going and give all of the student teachers a chance to identify who they blamed. I did this because I did not expect them to take the conversation in this direction, and I wanted to encourage them to talk more in order to see, perhaps, why they had quickly moved to blame.
The conversation about blame began when Alison shared, “And I always think it’s me. That’s how I am. I think it’s a little of both” (Alison, Week 9). Kim then responded, “Like sometimes when the kids aren’t listening well or like you said you think it’s them if the kids aren’t following just the way you do it” (Kim, Week 9). To respond to both Alison and Kim’s point of blame I asked, “Do you find that you say to yourself ‘I’m not doing this right?’” Alison immediately responded, “That’s my first thought. That’s just me” (Alison, Week 9). Kim’s response to my question was much more involved. She said, “Kind of like in my mind I’m like I should have done it this way and I don’t know why I didn’t think of that before. It’s kind of like a learning process you know for the next time I should do it this way because this is what works and this is what didn’t” (Kim, Week 9). I asked Kim if she always made a note of these thoughts, and she said yes. The conversation seemed to stop here, so I turned to Amanda and Stephanie and asked, “Where does the blame go?” Stephanie then responded, “I think at first I do blame the kids because that’s your first instinct. You have this thing that you want to go a certain way and then...my reading example I wanted to read the book. I reviewed it. I had questions in my head and then they all just exploded in front of me and it’s their fault they aren’t listening and I can’t get through this. Then you think in your head ok I could have handled it a different way (Stephanie, Week 9).

I then began to ask, “So your second thought is...” and Stephanie interrupted and said, “Your second thought is me but the first thought is definitely them” (Stephanie, Week 9).

In analyzing my role in this particular conversation, I discovered that it was shaped by the student teachers’ dialogue. I responded to their statements about their failures and who/what they blamed, and shaped my subsequent questions around their responses. I also responded to the fact that they quickly moved to identifying the reasons for the failure. But while I did ask questions that got them thinking, I didn’t take the conversation to a more extended reflection of their moments of failure and how they did or could respond. One possibility to get them to go deeper
and be more reflective would have been to ask them what they do when they realize that they have failed at something. What happens next in their instruction? Kim did say that she makes a note of her failure for future reference, and this may have been a good time to ask this follow up question. Another possibility would have been to ask them to think about what they could do instead of fixing blame. Is there something else to do in those moments that could rectify the failure without having to specifically point out who or what was at fault? And finally, I think I could have shared what I do when I feel I have failed. Maybe this would have given them something to remember when it happens to them again. Therefore, while I was happy to hear them take the conversation a step further with sharing their next thoughts after they realize they have failed, there were definitely opportunities to extend it to contemplate what happens after that realization.

And finally, I questioned the student teachers about what they did in the classroom to respond to children with different skills. I decided to question them about this because they often reflected about the differing abilities of the children in their classrooms, and how they were surprised that some children did not have certain skills. In week six, Alison said that some children in her class, “Don’t even know where to start” when interacting with a book (Alison, Week 6). This was in response to Amanda talking about how she was doing the “Concepts of Print” assessment with her Kindergarten children. Recognizing that the topic of this conversation was familiar, I decided to ask the group about solutions. I said, “Do you change your instruction? I mean what do you change in the classroom once you realize this?” Alison responded that she will work longer with a child that needs help, and Kim shared that she altered instruction to add more practice in the form of games. Amanda then engaged in a dialogue with me that allowed me to inquire further about her personal choices:
1. AMANDA – I felt that going into Kindergarten some students would know their alphabet and some wouldn’t, but I didn’t know it would be such a drastic span. Like I have some kids that can read almost...well not read but recognize some words. And then there are some others who don’t even know their sounds. I didn’t think that gap would be so big. But it’s huge in my classroom.

1. ME – Did that change how you go about...how you thought you were going to be teaching these kids? The things you were going to be doing with them?

1. AMANDA – Yeah in a way. I have to definitely repeat what needs to be done more. They all get it it’s just some that need that extra push. Ok what am I doing how do I do this? I didn’t think it was going to be so drastic like that (Week 6).

I then asked another question of the group, and Stephanie’s response signified what the student teachers had been communicating for many meetings:

1. ME – What do you think about that? Do you think it’s not a big deal or they’ll catch up or if they are behind?

1. STEPHANIE – I think they are way behind (Week 6).

My role in these conversations was to get the student teachers to move beyond annoyance or disbelief at their students’ lack of skill, and to problem-solve like a teacher. It was meant to change their attitude about the discrepancy in the skills of the children they teach. In response to my questions, the student teachers somewhat reflected on what they do in the classroom to respond to children with different abilities, but not with full acknowledgement that this was a necessary part of teaching, and that it is ok that the children have different abilities.

It is clear that I used a great deal of questioning in the pedagogical teacher discussion group meetings. This was a role that I knew I would take since I wanted to understand the student teachers’ reflections of their experiences as thoroughly as possible, and I wanted them to share them with each other with as much detail as possible. What I discovered in my analysis was that I only rarely asked a question that got at their assumptions about teaching and learning and children. When I did accomplish this task, I usually did not follow-up with another question or comment that would ask them to question their assumptions.
Based on my realizations about the shortcomings in my questioning, I would still argue that questioning should be a significant part of a facilitator’s role in group discussion meetings. Specifically, the more demanding a question is (such as asking “why”), the more likely the student teachers will be to provide a more thoughtful response. But the facilitator has to be ready to ask follow up questions when necessary. This role relates well to Vygotsky’s idea of how people learn. The facilitator should be ready to act as the more capable peer, and ask questions as a way of scaffolding the student teacher’s learning in the current zone of proximal development (Vygotsky, 1978). I discovered in my analysis that there were times where I realized after the fact that I should have asked more questions to keep them reflecting, and therefore failed at the role of the more capable peer. Perhaps the student teachers would have shared more if I had engaged them in these interactions.

In retrospect I think that I was cautious of becoming too involved in their reflective practice; I wanted them to talk and interact together. While they did accomplish this task, they probably could have done it even if I had provided more input. In order to encourage more debate and discussion about differing opinions, I think that I needed to explicitly state the different opinions, and ask the student teachers to defend the merits of their opinion and respond to each other openly and honestly. I discovered that I took a smaller and less-obvious version of this role. Because of this, it seems that my passivity allowed the student teachers to support each other in practices and ideas that were both wrong and detrimental to being a good early childhood teacher. Their judgments of children’s behavior, knowledge and learning were not always appropriate, and my lack of interjection perpetuated these inappropriate thoughts.

Conclusions about My Role as an Active Facilitator
In general, my active listening was meant for the student teachers to hear that I was listening to them and responding directly to their talk (versus just waiting my turn to share my own idea). My responses were different based on what the student teachers were reflecting about, or what type of response I thought they needed to hear. My active listening was also meant to model the type of interactive conversation that I wanted them to have in the meetings. I worked to really listen to what they were saying, and then respond to their actual talk versus just giving my opinion on the topic. My goal was for the student teachers to really listen to each other, instead of waiting to talk. At times I heard the student teachers emulating my active listening strategies with each other, which does give some recognition to the strategy and that my modeling of it may have been recognized.

In my analysis of my role as a facilitator in the pedagogical teacher discussion group meetings, I discovered that, for the most part, I typically acted as cheerleader for the student teachers by recognizing their work in their student teaching classrooms. I also acted as the person in the group meetings who tried to keep the conversation going, though I discovered that there were many moments where I fell short of this role. I worked to ask clarifying questions that were mostly fact based, and only occasionally asked a question that required deeper thought and analysis from the student teachers. Sometimes my talk caused the student teachers to provide more detail, or provide another level of their reflection (emotional feelings for example) that was not present in their original reflection. There were other times, though, where it did not cause their reflection to expand in any way.

After my analysis I discovered that these were moments where I should have asked more questions, or at least talked more to see if there was a possibility of the reflection becoming more detailed or thoughtful. My role could have been more questioning and demanding. While at
times I think it was important for me to be silent and let the student teachers question and talk with each other, I do think that if I was more active in my own talk, I could have produced more group talk, and extended reflection from the student teachers. I also could have challenged their inappropriate assumptions about children’s behavior and learning.

In their final interviews, the student teachers used the words “mentor,” “facilitator,” and “supporter” when describing my role in the pedagogical teacher discussion groups. Alison shared, “You never spoke for us” (Alison, Final Interview). She said that I “[facilitated [the meeting] and questioned, and had us feed off one another. You didn’t have to pry anything out of us. No one felt embarrassed to talk about bad things” (Alison, Final Interviews). Amanda said I was:

There for us when we have a problem or need suggestions. You also did a good job of letting us go out on our own. You guided us but let us go do our thing in the meeting and in our student teaching. This was important because it let us mold into a teacher more. Let us decide for ourselves (Amanda, Final Interview).

Kim said that I “didn’t have to do much to get us to talk about how we were feeling” (Kim, Final Interview). Stephanie said I was “good to have because there isn’t another opportunity to do this and that I gave my honest opinion” (Stephanie, Final Interview). Overall, all four of the student teachers felt that I guided them to a certain point, until they could talk or reflect together on their own. I was always there for advice or information, but the way that I sometimes stepped back and let them take the lead affected their development as a teacher. For example, Amanda stated, “You were there. Even in discussions you started with something, but then you let us go. I think that’s really good” (Amanda, Final Interview).

In analyzing the student teachers’ responses, what I found the most interesting and contradictory to my own thoughts was that they all talked about how my participation in the group meetings was exactly what they wanted and needed, because I allowed them to talk and I
did not dominate the conversation. They felt they were able to “reflect” well because I let them talk. Based on my analysis of my role, I concluded that I should have jumped into conversations more, asked more questions to get the student teachers to reflect further and deeper, and been more interactive overall, instead of sitting back and letting them talk. I concluded that if I had done more of these behaviors, the student teachers would have reflected deeper, and about more aspects, of their student teaching experiences. I also concluded that they very rarely “reflected,” but instead participated in mostly description, with some extensions to small reflections at times.

But according to the student teachers’ answers, they thought my role was just right. I can hypothesize that because this was their first participation in a pedagogical teacher discussion group, they did not have the experience of reflecting in a group, so they did not know what to expect. They also felt it was a positive social/emotional environment for them to talk in, which allowed them to take more ownership of the meetings and the conversations that occurred in them. My role as a “mentor,” “facilitator,” and “supporter” was perhaps all that they needed to feel supported. It is also clear that they do not know what “reflection” is, considering they all felt that all of the conversations in the group meetings were moments where they reflected about their practice.
Chapter 5
Discussion

Following a brief summary of the findings, I will present a discussion of the value of social conversation in promoting student teacher reflective practice as well as the use of documentations and artifacts as important contributors to this socially-constructed reflective practice. I then discuss the important role of the facilitator in these social conversations. The chapter concludes with recommendations for research and practice for teacher educators and an examination of the limitations and significance of this study.

Research Summary

Through my analysis of the student teachers’ participation in the different reflective practices implemented in this study, I was able to draw conclusions about what situations and interactions elicited extended reflections from the student teachers, and which ones did not. I was also able to see how my role as the facilitator appeared to influence these different outcomes.

As a whole, the student teachers mostly participated in written and oral descriptive reflection, where they provided a narration of what occurred in a teaching experience. Some of these reflections extended beyond simple description to include a short reason for the particular type of instruction that they chose to perform and then some contemplation of the causes of their teaching decisions. Other extensions showed the student teachers questioning their teaching after noticing the children’s participation. There were also moments when the student teachers wrote about how the children had surprised them by either being able to accomplish something that they had originally thought they would have had difficulty with or conversely when they could not do something they thought that they should be able to. These reflections appeared to challenge the student teachers to rethink their assumptions about children’s actions and learning,
however not always in a way that was valuable for their teaching. These different extended reflections were brief and there were not many of them, but their presence did show some contemplation about why a lesson turned out as it did.

While there was a great deal of purely descriptive writing and talk by the student teachers, there are several pieces of evidence that the sociality of the pedagogical teacher discussion groups appeared to extend their reflections. Specifically there seemed to be a value in social conversation between student teachers; it encouraged them to talk more and share more ideas. First, there were moments where a student teacher wrote about an experience in her daily journal and then spoke about it in that week’s group meeting. In many of these cases, the oral reflections were an extension of the written reflections and provided more information. Second, as the conversation evolved and interaction occurred, the student teachers’ reflections sometimes began to move beyond description to some level of analysis of the situation. This transition to more extended reflections appeared to be in response to the group environment, particularly the interactions between me and the student teachers.

I also discovered the value of the student teachers bringing documentations and artifacts from their classrooms to the pedagogical teacher discussion group meetings. The student teachers brought a wide variety of documentations and artifacts to the meetings, including photographs of the children working and playing, examples of the children’s work, and hands-on resources that they used in their instruction. They integrated the pieces they brought into their descriptions and extended reflections, and provided their peers with a visual to coincide with whatever they were talking about. The student teachers found this practice very valuable in working to understand each other’s experiences. It was also clear that as the student teachers began having more teaching experiences and began talking with each other more in the meetings,
they brought more interesting and useful documentations and artifacts to the meetings. In incorporating the documentations and artifacts in their oral reflections in the group meeting, the student teachers provided information beyond what they had written in their written reflection. The use of the documentations and artifacts with their dialogue were key factors in these extended reflections.

When analyzing my role in the reflective practices, I became aware of what and how much influence I had on the student teachers’ reflections. Overall, it was clear that when I was not directly part of the student teachers’ reflections, they were not deep and remained primarily descriptive. It was in the observation conversations was when my role was most directive. I listened to each student teacher’s feedback about her lesson and then provided my own feedback in the form of strengths and suggestions. I discovered that this more directive role provided an opportunity for the student teachers to take my feedback and make connections to their teaching and draw conclusions right there on the spot. They also all integrated some of the feedback that I had given them in the observation conversation that day into their answer to the question “How can I do it better?” in their corresponding written reflection, which further emphasizes the impact of me providing direct and specific feedback.

My role in the pedagogical teacher discussion groups was critical. On the one hand, it appeared to be the catalyst to the teachers doing deeper reflection, but the analysis also revealed that I did not take full advantage of my influence. The majority of my participation involved me responding to the student teachers’ oral reflections after listening to their talk. These responses were predominantly in the form of asking a question or providing feedback. I worked to understand what the student teacher was saying and responded directly to her words, rather than just waiting for my turn to talk and responding with my own ideas. Through the different types
of questions and feedback I gave, the student teachers were sometimes able to extend their reflections beyond description or minimal analysis. What I concluded, though, was that my role was not as strong and as influential as it needed to have been in these weekly meetings. There were times when I should have not been silent, but instead continued to question or extend the conversation in order to elicit deeper reflections from the student teachers. I discovered that I rarely asked deeper questions and that often my questions just solicited further description. These shortcomings in my role impacted the group’s ability to extend their reflections beyond description.

And finally, the student teachers’ feedback about the reflective practices they participated in provided some insight into what effect the study had on their student teaching experience and their reflective practice. The student teachers found great value in the pedagogical teacher discussion groups, and considered writing the daily reflections to be the only challenge to their participation. They also all viewed my role as a facilitator very positively, which somewhat conflicted with my own conclusions that I did not do as good of a job as I should have. Their feedback also revealed some similarities to my findings, such as the noticeable shift in the group meetings after week three. A major limitation, though, of the interviews was that I did not provide support for the teachers to expand on their answers. The student teachers stuck to answering the questions I asked, and did not extend their answers to provide any further insight. I too stuck to the questions while in the interview, thereby not encouraging them to talk further.

**Discussion**

**The Value of Social Conversation**

Vygotsky argued that learners reconstruct their understanding of the world in a social manner through collaborative processes with their peers (Tudge, 1992). The pedagogical teacher
discussion group meetings provided a social world in which the student teachers had the
opportunity to coordinate their ideas and work towards the shared goal of better understanding
their student teaching experiences. Previous research on teacher reflection that has advocated for
the use of discussion groups to promote reflection has thought of these groups as structured
reflective experiences (Davis, 2006; Griffin, 2003; Romano, 2006). In this study I worked to
create more open-ended and less-structured groups as a way to facilitate the open and
collaborative social world of which Vygotsky spoke (Tudge, 1992). The meetings were meant to
provide an open area of communication that gave the student teachers the opportunity to share
and negotiate ideas, expand beyond their own perspectives to view their experiences from a
variety of perspectives and come to new understandings of the experiences they talked about.

Based on the findings, the value of the group environment and social conversations
seemed to be that they got the student teachers talking further and sharing ideas. In talking and
sharing, they did provide each other with new ideas and information, but also often struggled to
go beyond pure description. It was also challenging for them to not be influenced by the ideas of
others. It was clear that sometimes their ideas just supported each other’s misconceptions or
victimization. Therefore, the student teachers did not consistently participate in deep reflection
while in the group meetings. But the possibility of deeper reflection occurring was visible.

Creating and Working in the Zone of Proximal Development

Vygotsky attributed the benefits of collaboration to the mutual involvement by the
learners, the equality of the relationship between them when in a collective group, and the
motivation of them to collaborate based on their shared understandings. In particular, when
learners of mixed knowledge levels interact in collaboration, they are able to communicate on a
level where they are able to understand and share with each other (Tudge, 1992).
While the findings show that the conversations in the meetings were not extensively reflective, there was evidence that the student teachers used the meetings to collaborate in conversation about their experiences. They also exhibited a motivation to participate together in dialogues by coming prepared with notes to guide their talk, and were engaged in the conversation at all times both verbally and non-verbally. This collaboration allowed them to share ideas, support each other’s thinking, and sometimes completely disagree with each other. It became clear from these disagreement conversations, however, that the student teachers did not have the ability or the desire to deeply question their assumptions that were revealed in their descriptive writing and talk. The conversations such as Alison and Amanda’s about classroom management and Amanda and Kim’s about Amanda’s struggles with a student also showed that while they felt comfortable sharing and listening to each other’s conflicting ideas, they in no way had a desire to adopt them or contemplate them in a way that would change their thinking about the topic.

The activity of discussing and then sometimes debating and problem solving that occurred in the pedagogical teacher discussion group meetings showed the student teachers and myself creating and working in the zone of proximal development (Vygotsky, 1978). The social conversations in the meetings were the important interactions and communications that created the zone. As one student teacher shared her experience and her peers or me asked questions and provided our own input, the zone was created. Each type of reflection that occurred in the group meetings provided some new knowledge to the student teachers, and was a creation of a zone of proximal development. Even the simple sharing of ideas and opinions that I found occurred most often gave the student teachers more information to contemplate then they had when the meeting started. The student teachers did reach some new level of understanding about the work they
were doing in their student teaching classrooms in these conversations, though not nearly as high a level as what could have occurred (Tharpe & Gallimore, 1988).

The student teachers were also often reciprocal in their interactions by building off each other’s dialogue to share their own experiences. While I was present and involved as a facilitator, there were reciprocal interactions that did not require extensive involvement from me because the student teachers were able to quickly find commonalities in their experiences. The conversations about the Kindergarten testing showed this student teacher-initiated reciprocity, particularly the dialogues between Stephanie and Amanda about their shared experiences administering certain parts of the tests. Stephanie and Amanda began the discussions by expressing their frustration at the testing experience and the tests themselves. Over a few meetings this initial conversation evolved into more detailed discussions involving all of the student teachers that focused on specific aspects of the tests and testing procedures, as well as contemplations about alternative assessments that might be less traumatizing for everyone involved.

These conversations were also examples of the student teachers feeding off each other’s frustrations and sometimes not participating in actual problem solving, but rather just complaining. They built off each other’s negative dialogue, and sometimes even sounded like one person talking. From these conversations the student teachers did come to some cooperative understanding about the fact that they all felt negatively about the testing experience, but not the level of understanding that previous literature advocates for. A cooperative understanding is meant to provide new ideas and understandings, and to advance participants’ thinking about the topic (Goucu, 1993; Tudge & Rogoff, 1999). The student teachers in this study did not seem to
move forward in their thinking, but instead cooperatively agreed that they didn’t like something and would do it differently. What they would actually do was never really contemplated.

In my analysis I also made discoveries and drew conclusions about the moments when I was a participant in the creation of and work in the zone of proximal development. I will discuss these ideas in the section on my role as a facilitator later in this chapter.

The Apparent Value of the Combination of Written and Oral Reflection

The social conversations in the pedagogical teacher discussion group meetings were not the only time the individual student teachers reflected about their experiences. The student teachers began their reflection-on-action about their teaching experiences when they wrote their daily written reflections (Schon, 1983; 1987; 1991). When writing about their teaching experiences each day, the student teachers began the process of “making meaning” about their experiences that Rodgers (2002) felt Dewey emphasized. At this point in the reflective process, they had a certain level of understanding about their experiences from that day. Amanda wrote about the ELA lessons she did with the children, and commented on how they participated and if she thought the strategies she taught them worked. Stephanie wrote about how fun or appropriate a lesson was based on her opinion of the content or procedures. Alison wrote about the children’s participation in the activities she created for them. Kim wrote about the lessons that she taught or experiences in the classroom where she learned something about the students. The written reflections overall were very descriptive of their teaching experiences, with some level of reflection about the outcomes at different points. Often they just wrote that a lesson was successful or that the students experienced success. When they wrote about failures there was some level of contemplation about the causes, and it usually focused on a lack of performance
from their students. They then entered the weekly meetings and often discussed the experiences that they wrote about.

Using both written and oral reflections allowed me to see the difference in how the student teachers wrote versus how they talked. It also allowed me to see what reflective practices benefited the student teachers the most, and what reflective practices caused strain. The student teachers all shared that they had difficulty getting their thoughts down on paper in an organized manner and appropriate length. They felt that the written reflections did not “do justice” in providing an appropriate format for them to reflect about their teaching day. The weekly meetings gave them the opportunity to thoroughly express their thoughts and reflect on their teaching experiences. What was interesting was that three of the four student teachers began bringing notes with them to the meetings to help guide them in what they wanted to talk about. They wrote down the key experiences from each day in these notes. So while the daily written reflection was not something they found beneficial, they created their own version of it as a guide for their oral reflections in the meeting. This unexpected practice by the student teachers led me to think that perhaps written reflections are most valuable to student teachers when they are self-chosen instead of assigned.

The Value of Incorporating Documentations and Artifacts into the Conversation

I was also able to observe the value of student teachers utilizing documentations and artifacts to contribute to the social conversation that occurred each week in the meetings. Very much like the data that Reggio teachers collect, the data collected by the student teachers to bring as their documentations and artifacts to the pedagogical teacher discussion group meetings included teaching materials, the student’s work, and written and photographic documentation of the teaching and learning occurring in the classroom. Hewett (2001) stated that the dialogue and
analysis that occurs when teachers incorporate documentations and artifacts into their oral
reflections is meant to change their thinking and support the creation of new perspectives,
knowledge, and beliefs. Based on the visuals they are able to see and explore, teachers are
supposed to return to their classrooms to make modifications and adjustments to the learning
experiences, the materials, and their teaching strategies (Katz, 1998). Wheelock (2000) argued
that samples of student work provide the most compelling evidence of student learning and
understanding. Student work can also offer clues to the ways teachers can sharpen their practice
to improve student achievement or change about their curriculum and teaching practice to raise
the quality of work.

There was evidence in the pedagogical teacher discussion group data that the student
teachers began to converse about their documentations and artifacts at a level that allowed them
to begin to recognize these facets. For example, they reviewed Stephanie’s photographs of the
disorganized centers to affirm her belief that they were not appropriate and helped her decide on
some organization strategies. They explored Kim’s math sheets to understand and affirm her
instructional changes. They studied Alison’s writing prompt cards and corresponding examples
of student work to see how she integrated the high frequency words with writing. And they
analyzed Amanda’s examples of student writing to recognize inventive spelling and discuss its
necessity. In their interviews they shared that they used the extended reflections that came from
the documentation and artifact sharing to guide their practice.

Throughout the data collection, the student teachers presented their documentations and
artifacts as a way to further describe and emphasize certain aspects of their experiences in their
student teaching classrooms. They collaborated with their fellow student teachers to analyze and
interpret the materials. As they talked and described, the student teachers began to exhibit the
changes in thinking and knowledge that Hewett (2001) described, as well as make plans to use the information gained from the conversations to alter what they did in their student teaching classrooms (Katz, 1998). In viewing each other’s documentations and artifacts, the student teachers were able to more clearly understand each other’s descriptions as well as make decisions about the use of the pieces in their own classrooms. The student teachers exhibited the beginnings of the extended thought that Reggio Emilia teachers have when using documentations and artifacts in their social reflective conversations, which perhaps indicates the need to incorporate these types of concrete tools for helping students reflect and support each other (Hewett, 2001; Katz, 1998).

A specific example of a student teacher using documentations and artifacts to support her reflection was when Kim was describing the string of math work that she had done with her Kindergarteners, and how she had modified some of the work based on her conclusion that it was a bit overwhelming for the children. She shared the workbook sheets with the group, and showed how she had modified an activity. She provided a blank workbook sheet to show the original assignment, and then a student’s completed work to show the modification. Having the math work with her while she reflected on her teaching experience gave her something to refer to as she spoke, and also provided the group with a visual of the different aspects of the math lesson that she was describing. The work was especially important in this instance because Kim had chosen to modify some of it while she was teaching. She was able to show what the sheets originally required the children to do, and then her modification. Without the math work, we would have had to visualize the work she was describing, and would not have been able to participate in a complete reflective experience with Kim.
Little, Gearhart, Curry, & Kafka (2003) stated that teachers can learn something from paying attention to students’ work and their experiences. Based on my analysis of the student teachers’ conversations using their documentations and artifacts, they began to contemplate children’s learning and thinking and review the pieces in relation to their learning goals. The previous example involving Kim is also a strong example of this learning. Little, Gearhart, Curry, & Kafka (2003) also emphasized that it is important for teachers to not do this in isolation, but rather with other teachers. This collaborative analysis fosters teacher learning and builds a supportive professional community. Teachers will gain deeper knowledge about student thinking as well as develop their professional identities as teachers (Kazemi, 2004). The weekly group meetings were collaborative and based on the student teachers’ feedback, were a supportive learning community for them.

In week seven, I asked for the student teachers’ feedback on the use of the documentations and artifacts. They all agreed that it was exciting and interesting to see what resources each other used in their classrooms. They also stated that the documentations and artifacts allowed them to really “see” what their peer was talking about. Each other’s words were clearer because of the pieces. These responses validated my conclusions about the positive effect of the documentations and artifacts on the student teachers reflective practice in the pedagogical teacher discussion group meetings. Based on the student teachers’ use of them in this study, I have concluded that they can be an important factor in the reflective practice that can occur in social conversations between student teachers. Previous research has discussed teachers analyzing student work in order to better understand their students’ learning and to inform their practice (Kazemi, 2004; Little, Gearhart, Curry, & Kafka, 2003; Nidus & Sadder, 2009; Wheelock, 2000). It also appears that this can be a valuable practice for preservice teachers.
When integrated into student teacher discussion groups the artifacts appear to provide a concrete tool for helping students reflect and support each other.

The findings also suggest the need for a more experienced teacher or “coach” to help preservice and novice teachers effectively analyze student work in order to inform both their teaching and their development as a teacher. While the artifacts and documentation were useful, it was in conjunction with my support that the teachers learned to make use of them. Nidus & Sadder (2009) developed formative coaching with inservice teachers, which is a collaborative process of examining student work and other formative data to bridge the gap between professional development and actual classroom practice. A formative coach guides teachers in using student work to determine the course of instruction, curriculum, and their own professional development. This formative coaching would lend itself well to a student teacher meeting where there is an active facilitator. The active facilitator could work collaboratively with the student teachers to analyze the documentations and artifacts and draw conclusions about the students, the lesson, and their future instruction.

Glimpses of More Sophisticated Reflection

In each of the meetings the group conversation showed glimpses of shifting from mere descriptions to more of a guided participation amongst the student teachers and me. Rogoff (1991; 1993) stated that guided participation between teachers produces more analysis and deep thought about the experiences being discussed. This study extended Rogoff’s (1991; 1993) idea of guided participation to include an active facilitator, because it became clear that the student teachers could not think and talk in this way on their own. Through the questioning and input from me as well as their peers, the student teachers began to contemplate success and failure, student involvement, and future teaching strategies. In the acts of talking and sharing, the student
teachers’ expressed themselves to each other and listened to each other’s descriptions of their experiences, though they did not always adopt each other’s ideas as their own. The discussion between Kim and Amanda about Amanda’s interaction with the child who would not write on his own is a clear example of this open-mindedness. Amanda respectfully listened to Kim and engaged in a dialogue with her about the way to handle the child, but did not show signs of adopting Kim’s strategies when the conversation ended.

When the conversations in the meetings were more detailed and involved, the student teachers also began to show signs of metacognition (Parsons & Stephenson, 2005). Specifically, the discussions about Kindergarten testing and the knowledge of children when entering Kindergarten produced a small amount of this type of thinking. When discussing the Kindergarten testing, the student teachers began to show an awareness of their own beliefs about how the children should be assessed, and that it conflicted with the testing format. When discussing the knowledge of the Kindergarten children, their expectations for the children were revealed as they shared examples of specific children not having skills that they assumed they would have when entering Kindergarten.

These expectations also revealed the “holes” in the student teachers’ thinking that Dewey (1933) emphasized. It was clear to me that some of the student teachers had expectations that were not appropriate for children entering Kindergarten. Kim’s challenge to reconsider what knowledge children should have when entering Kindergarten and Alison’s refusal to accept assigned seating for Kindergarten children showed that they too might have seen the “holes,” and seemed to respond to these limitations in thinking. Their input also revealed varied opinions and alternative views about the topic. But, while there was some awareness of their general feelings about assessment and minimal challenge to inappropriate expectations, the conversations about
kindergarten conveyed all of the student teachers’ lack of sophistication about the pressures on kids and teachers. And, as a whole they showed very little shift in thought and understanding throughout the course of the conversations. Specifically, their opinions about children being behind and not ready for Kindergarten based on a lack of certain skills were still strong when the conversations ended. These findings reveal the lack of sophistication in guided participation when it occurs only between inexperienced student teachers and seemingly an inexperienced facilitator. There was not deep thought or analysis about the children or their assumptions about them, and as the facilitator I failed to provide the opportunities for this type of dialogue (Rogoff, 1991; 1993).

The student teachers also participated in “revisiting” as the pedagogical teacher discussion group meetings progressed. They frequently came back to a topic or a conversation from a prior meeting with new insights and ideas (Moran, 1998). The topics of Kindergarten testing and the knowledge and skills of Kindergarten students were revisited numerous times in the weekly meetings. As the conversations about the testing and the knowledge continued, new experiences were discussed and newly created expectations and opinions were revealed and debated. This occurred because of the student teachers continued experiences with this group of children in their student teaching classrooms. The social conversation of the group provided the environment to talk about them. Amanda also frequently revisited her ELA instruction to share new strategies she implemented with her students and the new skills they were exhibiting in their work. And, the support of Stephanie in her second placement carried over into a second meeting where she shared her teaching and management triumphs and the group discussed her latest teaching and social experiences with the children. This frequent revisiting allowed the student teachers to view these practices and ideas from multiple perspectives.
Moran (1998) suggested that revising allows teachers to take their reflection to a higher level. Based on this study I would argue that once again, an active facilitator needs to help make revisiting valuable. The student teachers in this study did expand their knowledge and understandings through revisiting, but it was at a very low level and it sometimes just served to further confirm their current thinking. Any move to a “higher level” of reflection that did occur was because of my input, and there were many moments where this shift was small.

Overall, the student teachers’ dialogues revealed some levels of guided participation, metacognition and revisiting. The levels were revealed to be low, though, because of the lack of sophistication in the student teachers’ thoughts and analyses of their experiences, as well as a lack of a strong active facilitator to foster deeper conversations.

**Changing the Perception of Novice Teachers’ Reflective Practice**

Based on my analysis, I concluded that the social environment and conversation in the pedagogical teacher discussion group meetings provided the student teachers with an opportunity to begin to exhibit reflective behaviors that are traditionally beyond that of a novice teacher. Research comparing experienced and novice teachers has consistently concluded that novice teachers’ reflective practice is less-detailed and mature and they have difficulty using their reflections to inform their teaching (Borko & Livingston, 1989; Fogarty, Wang, and Creek, 1983; Peterson & Comeaux, 1987; Westerman, 1991). While the student teachers in this study did not exhibit the deep thought and analysis of experienced teachers, when guided appropriately they were able to provide more detail and begin to use what they discussed in the group meetings to inform their teaching. This guidance came from me as a facilitator. But, it was clear that even with support from me, it was still hard for the student teachers to reflect more deeply.
As the facilitator of the meetings, my active listening and then subsequent questioning and feedback provided a certain level of support that allowed the student teachers to begin to extend their reflections to this more experienced level. They all struggled with going beyond description and often fed off each other’s ideas, but with this support, they all at some point did participate in extended reflections. There was also evidence in the observation conversations of the student teachers thinking deeper about their teaching, such as Amanda’s recognition of her over-use of echoing with the children. This possibility of student teachers being able to reflect well if provided the appropriate experiences and support in those experiences begins to disprove previous research on novice teacher practice, which argues that novice teachers are always unable to reflect well (Borko & Livingston, 1989; Fogarty, Wang, and Creek, 1983; Peterson & Comeaux, 1987; Westerman, 1991).

The student teachers in this research study were also sometimes able to determine what information was relevant and were responsive to student cues during teaching. This finding continues to contradict research about novice teachers that states that they cannot think in this manner because of their lack of experience (Borko & Livingston, 1989). In certain conversations the student teachers reflected about instances where the students struggled and why they felt this occurred, and they were able to identify strategies and resources that they implemented that were successful and they would use in their future teaching. Kim’s reflection of her math lesson towards the end of the data collection as well as Amanda’s numerous reflections about the ELA strategies that she implemented show that this type of thinking is possible with novice teachers. Neither Kim nor Amanda were able to reflect in this deeper way on their own. I asked questions and their peers verbally interacted with them, and these actions gave Kim and Amanda the opportunity to continue their reflections beyond their initial description. And once again, the
conversations about the Kindergarten testing showed Stephanie and Amanda responding to student cues and contemplating student frustrations and failures based on what knowledge and abilities they had and what the test expected them to have.

While the student teachers were in the infancy of their teaching career and had limited experience and knowledge (Borko & Livingston, 1989), their work in this study does show that when they were guided appropriately in their reflective practice during their student teaching experience, they could participate in conversations that move beyond simple description. The student teachers’ overall reflective practice was not always very detailed and mature, but they did have moments where they thought beyond description to consider why and what implications their teaching decisions had on the learning experience. Stephanie’s extended reflection in the group meeting about the coloring activity showed her reconsidering the teaching strategies and structure of the activities as well as the children’s level of understanding of the key concepts because they exhibited both frustration and a lack of success. This extended reflective practice came because of the interactive and collaborative nature of the weekly meetings, where the dialogue allowed the student teachers to think differently about their teaching and their student teaching classrooms (Borko & Livingston, 1989; Westerman, 1991).

Based on these conclusions, I have determined that the social environment and the student teachers’ trust in each other as partners in the student teaching experience motivated them to talk in the weekly pedagogical teacher discussion group meetings (Goucu, 1993; Tudge & Rogoff, 1999). Each student teacher shared during the meetings as well as in their final interviews that the pedagogical teacher discussion groups were a place of support and comfort, and a place where they could talk freely and openly about what they were experiencing in their classrooms. They all emphasized their desire to help each other through the tough times, and to
remember each other’s successes so they could implement something similar in their own classrooms. This motivation to collaborate was based on their shared understandings of what they were all experiencing as student teachers (Tudge, 1992). I can also conclude that their ability to shift beyond just their motivation to talk to actually analyze their experiences could only happen when I was an active facilitator.

In summary, while I have concluded that there is great value in social conversation and that the student teachers in this study benefited from the opportunity to participate in this type of interactive talk, it is also clear that providing the social opportunity for student teachers to just talk about their experiences is not enough. A strong and active facilitator is the key component of these conversations. This facilitator must not just model deeper reflection, but also engage the student teachers in it through demanding and extending questions and comments.

**The Facilitator as an Active Participant**

As the facilitator of the pedagogical teacher discussion group meetings, I acted as the pedagogical director found in the Reggio Emilia schools. I set up the meetings in order for the student teachers to discuss what was happening in their classrooms, what they were planning for their classrooms, and reflect together on their overall teaching experiences. While the directors in Reggio Emilia are involved in the conversations, they often allow the teachers to take the lead, draw their own conclusions and make their own decisions about their past and future teaching experiences (Edwards, Gandini, & Forman, 1998).

I discovered in this research study that I could not take this less-involved role when facilitating similar groups with student teachers in the United States. The student teachers in this study were not able to effectively reflect and discuss their experiences without some sort of guide. The majority of the times when I gave the student teachers the opportunity to guide
themselves or stopped at one question and let them continue in the hopes that they would ask each other more, their reflections stayed fairly routine. They talked in a descriptive manner about their experiences without a great deal of deep thought, or simply shared that something didn’t work or the students did not understand a concept or a skill (Ward & McCotter, 2004).

Previous research advocating for the use of discussion groups as a reflective practice have not emphasized the role of the facilitator, especially not an active one (Davis, 2006; Griffin, 2003; Romano, 2006). The findings from this research study indicate that perhaps an active facilitator is the key factor in the structuring of discussion groups if we want student teachers to have more than a descriptive conversation. This active facilitator must act as a teacher working in the student teachers’ zone of proximal development. Vygotsky stated that in this learning process, the student must be active, the teacher must be active and the learning environment which they have constructed must also be active (1926;1991). While I did act as the teacher Vygotsky advocated for, and organized the social environment of the group meetings and worked to create a context for learning where the student teachers could engage in conversation and debate, I took a far less active role than was necessary. In my analysis I concluded that I failed to continually engage the student teachers in conversations that encouraged and facilitated their learning (Vygotsky, 1926;1991). I sometimes guided and directed the student teachers’ participation in the conversations with questions and feedback, but not nearly enough to produce frequent extended reflections.

When I did take on the more guiding role, the student teachers’ reflective practice was extended. This guided reflection in the zones of proximal development involved me as a facilitator actively working with information that is just beyond each student teacher’s current preferred system of problem solving and scaffolding them to reflect deeper (Holzman, 2009;
Reiman, 1999). This guiding role included continual active listening as well as scaffolding and modeling of different types of talk, which Vygotksy emphasized as important in learning (Tharpe & Gallimore, 1988). When I actively listened and then responded to the student teachers’ talk, I used my knowledge of teaching to relate to the situations they were talking about and then responded in order to assist them in reaching a higher level of understanding about their practice. I validated Alison’s choice of incorporating the senses into her teaching by sharing how relevant a topic it was to the children, and she then provided more information about the teaching experience. I supported Stephanie by responding directly to the successes she identified, and reminded her when she began to talk negatively that those successes existed and are practices she should continue. I connected Alison, Amanda and Stephanie’s work with high frequency words so that they could see that they were working with the same concept, but just using different strategies to communicate the knowledge to the children. Overall, this type of participation from me helped to create conversations that worked to discuss problems the student teachers saw in their classrooms, which gave them an opportunity to shift their reflections to become more technical. But without my continued questioning and feedback, they often did not reflect deep enough to question the nature of the problems or really try to solve them (Ward & McCotter, 2004). So while my questioning and feedback produced extended dialogues from the student teachers, I also discovered that once I stopped talking, they stopped talking. I can hypothesize that the impact of my shortcomings as an active facilitator was that the student teachers did not reflect deeply or extend their reflections as often as they could have.

Based on my conclusions about my own participation as a facilitator in this research study, I drew conclusions about the necessity of the role of a facilitator as being an active one. First, active listening is important regardless of whether a facilitator chooses to verbally respond
after actively listening or just continue to listen and let others talk. Active listening allows the facilitator to intently listen and understand the student teacher’s reflection, and decide how and if to appropriately respond. Second, the facilitator must lead the interactive part of the conversation. If a facilitator is silent in order to let the student teachers ask the questions and provide alternate opinions, the conversation will most likely stall. This study revealed that the student teachers couldn’t conduct this type of conversation without guidance. And finally, the role of the facilitator is a hard one. You want to give the student teachers a chance to talk openly and honestly, and not interject too much for fear of stopping their train of thought and eventual reflection. The student teachers in this study specifically said that they appreciated that I did this often. But, a facilitator’s job is to model interactive conversation, and to do this you must interject and not always stay silent. Finding this balance is a difficult task, and one that I found especially difficult.

Based on my experience, I also concluded that it does not appear to be easy for the facilitator to remain reflective of her practice even while helping the teachers to learn to reflect. I was unaware during the data collection that I was falling short of my duties as a facilitator and teacher of reflective practice, especially in the pedagogical teacher discussion group meetings. When I thought I was giving them room to talk, I was really losing an opportunity to expand the conversation. I don’t think I knew how to be the best facilitator possible when I conducted these meetings, and more than that, I did not know how to reflect on my own practice. I failed to ask follow up questions, disagree with the student teachers, or expand a conversation through my own talk enough of the time. Because of this, some conversations stalled. These findings suggest that the facilitators need support as well in their own reflective practice. This support could be a colleague to talk about the meetings with and discuss how active (or inactive) the facilitators
were in the dialogues. Based on this discussion and analysis of the meetings, the two professionals could then discuss how the facilitator could possibly take on a stronger role as the teacher that Vygotsky advocated for (1978).

**Implications for Future Research and Practice for Teacher Educators**

This study acted as a first step in the further study of reflective practice and how preservice teachers use reflection as part of their emerging and developing teaching practice (Jay & Johnson, 2002). The findings from this research study suggest that the student teachers’ participation in each of the reflective practices helped them to develop their reflective and teaching practice in different ways. The findings can be used to foster new teaching strategies for teacher educators as well as suggest future research. Since this study was a practitioner inquiry study, my suggestions for future research and practice are intertwined. Teacher educators can change their practice of teaching and facilitating student teachers to reflect, and at the same time study the process and the outcomes to further the research pool on preservice teacher reflection.

Numerous research studies about student teacher reflective practice had student teachers only writing written reflections (Chitpin, 2006; Davis, 2006; Griffin, 2003; Lee, 2005; Romano, 2006). The researchers who conducted these studies all acknowledged that a lack of discussion with other teachers limited the teachers’ reflective practice and growth in this area, as well as the study’s conclusions. If the teachers were able to discuss the moments they identified in their written reflections with other teachers, they would have the opportunity to question their taken-for-granted assumptions and could see their practice through another teacher’s eyes (Chitpin, 2006; Davis, 2006; Griffin, 2003; Lee, 2005; Romano, 2006). This discussion would create those very important zones of proximal development that I witnessed developing each week.
But as I learned from my own participation in this study, this joint performance cannot occur without an active facilitator. Each week a zone of proximal development was created as the student teachers shared their experiences and discussed them with each other. This zone was extended the more I participated in the conversations. Next steps for teacher educators could be to create student teacher discussion groups where there is an emphasis on the active role of the facilitator, and then study the student teachers’ reflective practice. Facilitators must also focus on asking the kinds of questions that get at the student teachers’ assumptions so that they can be recognized, discussed, and debated.

Unfortunately, a major problem is that many student teaching supervisors are not aware of what it takes to be an active facilitator and both they and their student teachers don’t know how to create zones of proximal development in their meetings. Instead they may just share their experiences or commiserate or empathize with challenging situations. Emphasis must be placed on how the student teachers and their supervisors interact. This social reflection can become guided reflection in the zones of proximal development. The interactive conversations are jump-started by the student teachers’ experiences, and then as a group they discuss, disagree and problem-solve to further each student teacher’s reflective practice.

The second part of the conversations must be assisted by an active facilitator, though, in order for it to happen effectively. These conversations involve working with information that is just beyond each student teacher’s current preferred system of problem solving. Thus the word guided in guided reflection implies that there is active discussion by more capable others or co-learners of a person's zone of proximal development or current preferred ways of solving complex problems (Rogoff, 1991;1993). The question then arises of how these facilitators will learn to become “active” facilitators. They too must be supported as participants in the meetings,
and continually reflect on how well they are performing their role as facilitators. Essentially the facilitators need to simultaneously have the same type of experience that they are working to provide for their student teachers. They need an active facilitator of their own with whom they can discuss their experiences in the student teacher group meetings. These dialogues can then assist the facilitators in their own reflective growth. A fellow leader of student teacher meetings or a colleague in education can possibly fulfill this role.

Davis (2006) argued that teacher education programs who are teaching their preservice teachers to reflect should encourage the preservice teachers to move beyond description. The student teachers in this research study began this process by responding to questioning and feedback from me as the facilitator and then eventually their peers in the group meetings. This finding suggests that the supervisors of the student teachers must be actively involved in the reflective practices as much as they can. They must interject with questions and respond to the student teachers descriptions with active listening techniques. The findings from this research study show that this will begin to move the student teachers beyond description to more extended reflections of their experiences.

And, while the observation written reflections were a very small group of data, they did show that perhaps structuring specific written reflections for student teachers might encourage them to extend beyond description into deeper reflections about their practice. What I concluded from the observation written reflections is that the format of the questions encouraged the student teachers to move beyond description. In answering the question “How can I do it better?” the student teachers were required to write about why they chose certain teaching strategies instead of just writing about what they did. When the student teachers were forced to write about what they would do differently the next time they taught the lesson to answer question three, they all
wrote some version of an extended reflection that went beyond description and explanatory statements. This conclusion contradicts previous research about written reflections that states that providing a framework or guiding questions to aid in the reflective process stifles preservice teachers’ reflections (Orland-Barak & Yinon, 2007; Watts & Lawson, 2009). Perhaps in certain situations like observation lessons, a structured format is appropriate. Instructing student teachers to answer the why question might be very beneficial in getting them to extend their reflections.

A Plan for Teacher Educators

Student teachers must be given varied reflective opportunities, and there must be a balance of these different reflective opportunities (written, oral, alone, and with peers). It is also important to identify what the student teachers reflect on and analyze how they reflect in order to establish a baseline for the student teachers’ reflective abilities. Based on this research study, I have created a framework for student teacher reflective practice. Table 7 explains the types of reflective practice that should be implemented, when and how often they should be implemented, and the specific constructs that are important to emphasize and encourage for each one.

The final aspect of this framework is the role of a student teaching supervisor as an active facilitator in the student teachers’ reflective practice. Based on my own experience as the facilitator in this research study and the subsequent discoveries about this role, I can provide guidance for future facilitators. Table 8 describes the roles of an active facilitator in the student teachers’ reflective practices.

Role of the active facilitator. I will now discuss how a facilitator can fulfill these roles adequately. First, it is important to acknowledge the appropriateness of the student teacher’s decisions and oral reflections in order to promote an environment of support and trust. It is also important to acknowledge developmentally appropriate practice so that the student teachers
Table 7
*Implementation Guide for Student Teachers*

<table>
<thead>
<tr>
<th>Type of Reflective Practice</th>
<th>When/How Often</th>
<th>Constructs of Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Unstructured</em> Written Reflections</td>
<td>At the end of each day of student teaching</td>
<td>Student teachers should be asked to write about their experiences of the day – it is important to make these open-ended in order to see exactly <em>what</em> they reflect about and <em>how extensive</em> the written reflections are.</td>
</tr>
<tr>
<td><em>Structured</em> Written Reflections</td>
<td>Once per week about an experience the student teacher has in the classroom where they were an active participant</td>
<td>Answers the questions: <em>What did I do? Why did I do it? How can I do it better?</em> This structured reflection forces the student teachers to move beyond description.</td>
</tr>
<tr>
<td>Student Teacher Notebook</td>
<td>Voluntary and should be brought to each weekly meeting</td>
<td>Student teachers should be encouraged to carry a notebook with them each day and write down anything they want to remember. Ask them to bring the notebook to the weekly meetings and to use their notes in the meeting if they wish.</td>
</tr>
<tr>
<td>Group Meetings</td>
<td>Once per week</td>
<td>Student teachers should be asked to share their experiences from their classrooms. As they share, the faculty supervisor should act as a facilitator of reflective behaviors (see below for this explanation).</td>
</tr>
<tr>
<td>Documentations and Artifacts</td>
<td>Brought to each weekly meeting</td>
<td>Student teachers should be asked to choose pieces from their classroom that they feel are important to share with their peers to better <em>explain/represent</em> what they are planning to talk about. Examples such as the ones I gave to my student teachers before this study began should be shared to give them a general idea, but otherwise their choices should be anything they want. The role of the facilitator is similar to that of the group meeting as a whole (see below for this explanation).</td>
</tr>
</tbody>
</table>
Table 8
The Role of the Facilitator in the Student Teacher Reflective Practices

<table>
<thead>
<tr>
<th>Reflective Practice</th>
<th>Role of the Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unstructured</strong> Daily Written Reflections</td>
<td>Read them and determine any specific reflections that should be brought up in the group meeting for discussion. Notice where the student teachers extend their reflections so that you can point it out and use questioning in the group meeting to take it even further.</td>
</tr>
<tr>
<td><strong>Structured</strong> Daily Written Reflections</td>
<td>Use these reflections as a starting point for a group meeting. Point out when (and if) the student teachers wrote the extended reflections that the questions require, and work to extend the group as well as the individual’s reflection of the lesson.</td>
</tr>
</tbody>
</table>
| Weekly Group Meetings | Be an active facilitator by performing the following behaviors in every meeting and scaffold the student teachers do them on their own:  
  • *Initiate discussion* by asking specific student teachers to share an experience, or bring up a specific experiences from a written reflection that you found interesting  
  • *Model* active listening, interrupting, questioning and providing direct feedback  
  • *Scaffold* the student teachers in performing the above skills by contributing additional information when they attempt to perform them, or add to their attempt with a further extension of the skill |
| Documentations and Artifacts | Notice *when* the student teachers bring them out to share and note *how* they use them in their oral reflections. Model the group meeting strategies discussed above with the pieces to show the importance of them as an extension of the student teachers’ oral reflective practice. |

know they made a good decision, and hopefully they will incorporate it into their overall teaching pedagogy. On the contrary, the facilitator must also recognize when a student teacher’s decisions and practice is not appropriate or could have been extended. The facilitator should use active listening to respond to and ask questions about the student teacher’s decisions and thoughts, and guide them to explain why. The goal should be to get the student teachers to acknowledge their limited assumptions or decisions, and then the group can work to guide them towards a more appropriate decision. I discovered in this research study that I did not do this enough, and the student teachers left the meeting unchallenged and unchanged in their narrow
thinking. With this goal in mind, there are specific tasks of a facilitator that I will now describe based on my own experience and the findings from this research study.

In my analysis of my active listening, I discovered that there were many moments where I should have kept doing the “active” part of the listening. I also should have continued to question the student teachers further instead of stopping at my original question. At times I let the student teachers talk and take the conversation in whatever path they chose, and I should have refocused them and inquired more about their answers to my inquires in an attempt to expand the reflection. Therefore, if the student teachers begin to move away from a topic when you feel a continued discussion could benefit the group, redirect them back to the original reflection topic. Ask them for specific reasons and opinions that can the conversation further, or extend the reflection to reflection-for-action by asking them what they would do the next time based on the outcomes of their teaching.

As a facilitator, you want the student teachers to form opinions about teaching and learning and express them to encourage more discussion. You can encourage this conversation by asking more challenging and demanding questions in order to get the student teachers to give more thoughtful reflections. By asking these “why” questions, you may also encourage them to disagree with each other and provide different opinions. Challenging the student teachers to explain “why” might prove to be very beneficial for everyone involved. It is then important to ask follow up questions to encourage the student teachers to further reflect and perhaps elicit a deeper and more detailed reflection. Do not be afraid to insert your own invalidation or challenge for them to rethink their opinions.

And finally, if a facilitator asks specific questions about the children’s actual work, the student teachers may then reflect on different aspects of this work and feel inclined to share those
examples with the group. It may also encourage them to bring more examples of the children’s work to the meetings as their documentations/artifacts because they are able to see how it makes their oral reflections easier to share and their fellow student teachers were interested in viewing them.

The goal for student teacher reflective practice development should be active participation in each of the above reflective practices. In doing this, the student teachers will participate in reflection-for-action, which adheres to the idea of teachers continually learning throughout their career. When the student teachers participate in this type of reflection, they are using their conversations and reflections of their teaching experiences to become better teachers (Killion & Todnem, 1991). The student teachers should also eventually perform the roles of the facilitator with each other. In this occurring, the student teachers will get the most out of both their student teaching experience and the reflective practices that they participate in. They will also look at reflective practice as a constant metacognitive experience where they are able to confront their frustrations, misperceptions, excitement and reservations about teaching (Collier, 1999).

While my recommendations for practice and research are intertwined for teacher educators, there are other research ideas that came from this study that someone who is strictly a researcher could explore. Future research by an outside researcher could be done on the active facilitator. The group facilitator’s behaviors and talk as she takes on the role of the active facilitator in a student teacher discussion group meeting could be analyzed for its constructs and subsequent outcomes. This would perhaps remove the bias of a teacher educator acting as both the facilitator and the researcher.

**Limitations and Significance of the Study**
The limitations of this study lie in the fact that I studied my own student teachers and my own practice as a student teaching supervisor. I knew the student teachers very well because I was their professor for their four early childhood education courses, so this did influence how I viewed them and analyzed their participation in the study. But, while my relationships with these students are limitations, I also consider them strengths. This study is a study of my own practice as a teacher educator. I wanted to discover and define new ways of teaching preservice teachers how to reflect on their practice. I know how I taught them to reflect and the reflection experiences that I gave them throughout their teacher education courses. That work has led them to be the student teacher that they were in this study, and their skills in reflection have been present in their work up until they began their student teaching and participation in this research study. In this study I staged an “intervention” of new and integrated reflective experiences, and then analyzed the changes in their reflective practice. I was able to clearly see and define the changes in their reflective practice because I know what they did before the research study. I was able to draw stronger conclusions about their skills because I had clear and specific work to compare it to.

This study is also significant to the field of teacher education because we do not know what reflection truly looks like, or how to teach it to preservice teachers. By implementing specific reflective experiences with student teachers, and then studying their impact on the individual student teachers as well as the group of student teachers as a whole, I was then able to suggest reflective practices that can be successful with student teachers, and then how teacher educators can go about implementing them with their preservice teachers. The findings from this research study could be the first step in clarifying what reflective practice looks like, and how it can be taught.
During my analysis I also discovered a limitation in the final interviews. The student teachers were not descriptive in their answers. They simply answered the question and then waited for the next one. They were positive and thoughtful, but their answers did not expand beyond the question’s parameters. I concluded that this occurred because I was not a very good interviewer. I too just stuck to the questions I needed to ask, and did not ask any follow-up questions. If I asked follow-up questions or asked the student teachers to give me more information, then the interviews would have provided more information and subsequently more data for me to analyze and draw conclusions about their perspectives on their participation in the reflective practices.
References


Appendix A

Consent Form:
“Analyzing Student Teacher Reflective Practices”

You are invited to participate in a dissertation research study that is being conducted by Jennifer Kaywork, who is a doctoral student in the Graduate School of Education at Rutgers University. The purpose of this research study is to explore your growth as a reflective practitioner during your student teaching experience. Each student teacher under Jennifer Kaywork’s supervision that is pursuing dual certification in Early Childhood/Childhood Education will be asked to participate in the study. Your participation will entail daily written reflections, participation in weekly pedagogical teacher discussion groups, and a final interview.

There are no foreseeable risks to participation in this study. The daily written reflections and weekly pedagogical discussion groups will serve as two of your requirements for student teaching and student teaching seminar. The interview will be completed during the scheduled weekly pre-seminar meeting time that you are required to attend. Your participation is required from September 1st through November 3rd, 2010.

This research is confidential. Confidential means that the research records will include some information about you, such as your first name only. I will keep this information confidential by limiting individual's access to the research data and keeping it in a secure location. The research team and the Institutional Review Board at Rutgers University are the only parties that will be allowed to see the data, except as may be required by law. If a report of this study is published, or the results are presented at a professional conference, only group results will be stated, unless you have agreed otherwise.

If you have any questions about the study procedures, you may contact Jennifer Kaywork at (845) 848-4088 or at jennifer.kaywork@dc.edu. If you have any questions about your rights as a research subject, you may contact the Sponsored Programs Administrator at Rutgers University at:

Rutgers University Institutional Review Board for the Protection of Human Subjects
Office of Research and Sponsored Programs
3 Rutgers Plaza
New Brunswick, NJ 08901-8559
Tel: 732-932-0150 ext. 2104
Email: humansubjects@orsp.rutgers.edu

You will be given a copy of this consent for your records.
Sign below if you agree to participate in this research study:

Subject ________________________________________ Date ______________________

Principal Investigator ______________________________ Date ______________________
Teachers in Reggio Emilia schools gather a great deal of data from their classrooms. This data is teaching materials, the children’s work, and documentation of the teaching and learning occurring in the classroom. These data are at the core of the teachers’ reflective practice. This reflective practice comes in collaboration with other teachers to analyze and interpret the materials, and use these reflections to guide their practice. By engaging in this collaboration in order to use the data to inform their teaching, the teachers’ previous ways of knowing and believing are often challenged. While being challenged, their thinking is also supported and new perspectives, knowledge, and beliefs are created. The teachers value this inquiry and brainstorming, and they allow them to reenter their classrooms with new provocations (Moran, 1998). The student teachers will be asked to bring one or more pieces of data from their classrooms to each seminar meeting in order to contribute to the discussion. It is my hope that this work will allow them to emulate the reflective practice of the teachers of Reggio Emilia described above. The following descriptions will be given to the student teachers at the first pedagogical teacher discussion group meeting so that they have an idea of what they can bring to the meeting. The will not be limited to data that falls into these categories. They will also be given the above description of data collection in Reggio Emilia.

**Artifact:**
Any material that you used for instruction in a lesson you taught or co-taught with another teacher. Examples of artifacts are materials you used to convey the information to the students—PowerPoints, Smartboard lessons, or information sheets. You are not limited to these examples.

**Documentation:**
Documentation of student work for a lesson you taught or co-taught OR photographic or written documentation of students actually participating in work for a lesson you taught or co-taught. Examples of documentations are student work and photographs or written transcriptions of students working and/or talking while working— all from a lesson you taught or co-taught. You are not limited to these examples.
Appendix C

Document Summary Form

Week # ______  Date# __________________

<table>
<thead>
<tr>
<th>Student Teacher Name</th>
<th>Document/Artifact</th>
<th>A Quotes from the Pedagogical Teacher Discussion Group transcript that correspond with the document/artifact</th>
<th>B Quotes from Daily Written Reflections that correspond with the document/artifact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Teacher #1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Teacher #2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Teacher #3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Teacher #4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix D

Final Interview Questions:

1. Looking back over the past nine weeks tell me what you feel supported you while you were student teaching.
2. How would you describe the learning environment of the pedagogical teacher discussion groups? Did this change from week to week? If so, how?
3. What has most impressed you about the pedagogical teacher discussion groups, either positively or negatively?
4. What did you not like and/or find most challenging about the pedagogical teacher discussion group meetings?
5. Do you feel like the pedagogical teacher discussion groups had an impact on what you did in the classroom? On your daily written reflections? If so, how?
6. Describe my role in the pedagogical teacher discussion groups.
7. How did you choose your documentations/artifacts?
8. What influence did the reflective strategies of daily written reflections, weekly group meetings, and bringing in documentations and artifacts from your classroom have on your student teaching experience?
Appendix E

Stephanie – Rainbow Song Sheet

Rainbow purple
Rainbow blue
Rainbow green and
Yellow too
Rainbow orange
Rainbow red
Rainbow smiling overhead.
Appendix F

Kim – Math Manipulative

Standard Form

1,224

Place Value

One thousand two hundred twenty-four

Expanded Form

1,000 + 200 + 20 + 4
Appendix G

Amanda – Math Sheet #1

Which apple color has the **BIGGEST** quantity?

| red | yellow | green |

Which apple color has the **smallest** quantity?

| red | yellow | green |

*** How many apples do you have in all? _____ ***
# Appendix H

**Amanda – Math Sheet #2**

---

## Apples, Apples

Apples juicy, apples round,
On the tree or on the ground.
Apples **yellow**, apples **red**.
Apple pie and juice and bread!
Apples crunchy, apples sweet,
Apples are so good to eat!

<table>
<thead>
<tr>
<th>Red Apples</th>
<th>Yellow Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Red Apples</th>
<th>Yellow Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7 8 9 10</td>
<td>1 2 3 4 5 6 7 8 9 10</td>
</tr>
</tbody>
</table>
Appendix I

Kim – Math Sheet #1

Directions: In each exercise have children count the worms. Then have them color over the boxes to show how many worms.

Topic 4 • Lesson 1
Appendix J

Kim – Math Sheet #2

Directions: In each exercise have children count the worms in each group. Then have them color the correct number of boxes to show how many.
JENNIFER KAYWORK, ED.D.
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drjennkaywork@gmail.com

EDUCATION
Rutgers University, New Brunswick, NJ
Ed.D. in Elementary/Early Childhood Education 2011
Dissertation: “Analyzing Student Teacher Reflective Practice”

Virginia Tech, Blacksburg, VA
M.S. in Family and Child Development 2001
Thesis: “Children Teaching and Learning in Peer Collaborative Interactions”

University of Georgia, Athens, GA
B.S.Ed. in Elementary and Early Childhood Education/Child and Family Development 1999

AWARDS
Pacini Scholarship, St. John’s University 2008
Graduate Assistantship, Virginia Tech 1999 – 2001
Hope Scholarship for Excellence, University of Georgia 1995 – 1999

TEACHING EXPERIENCE
Dominican College, Orangeburg, NY
Professor/Early Childhood Program Coordinator 2006-Present
Developed, coordinate and teach both the Early Childhood certification program and the Educational Technology program

Early Childhood Education Consultant 2007-Present
Consultant to New Jersey language-immersion preschool and New York private preschools in the areas of curriculum, classroom, teacher and overall program development

Adjunct Professor – William Paterson University/Kean University/Montclair State University, NJ 2005-2007
Instructor for courses in child/family development, early childhood, elementary and special education

Instructor of Early Childhood Education – Essex County College, Newark, NJ 2002-2003
Instructor for courses in early childhood education and the CDA certificate, co-developed AAS degree and Alternate Route programs, developed checklist for field experience work and courses in educational technology and creative activities in early childhood education

Infant, Toddler and Preschool Teacher – Virginia Tech Child Development Laboratory 1999-2001
Head Teacher – organized curriculum and classroom schedule within the Reggio Emilia philosophy, supervised undergraduate students in their fieldwork and conducted qualitative research studies
PUBLICATIONS AND PAPERS

“Literacy Development in the Early Years” – Morrow, 2008
Contributor to text

“Teaching as Inquiry: Rethinking Curriculum in Early Childhood Education” – Hill, Stremmel & Fu
Master’s thesis research published in text

Virginia Association for the Education of Young Children
Presented research on sibling relationships at home and school/the dynamic workings of a teacher/child/student negotiated classroom

National Association for the Education of Young Children
Presented research on the inner workings of a child development laboratory school

MEMBERSHIPS

NAEYC
PAEYC

Executive Board Member of the following Advisory Boards: Dominican College, SUNY Rockland, Head Start of Rockland, Campus Fun and Learn Center (SUNY Rockland)