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## The Role of Critical and Collaborative Reflection with Experienced Teachers (via a Discussion Board) in the Professional Development of Novice Teachers

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**The Role of Critical and Collaborative Reflection with  
Experienced Teachers (via a Discussion Board) in the  
Professional Development of Novice Teachers**

**A Dissertation**

**Submitted to the Graduate Faculty of the  
University of New Orleans  
in partial fulfillment of the  
requirements for the degree of**

**Doctor of Philosophy  
in  
Curriculum and Instruction**

by

**Bridget Foss Hagan**

**B.S. Millsaps College, 2000  
M.S. Loyola University New Orleans, 2003**

**December, 2007**

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## ABSTRACT

The purpose of this interpretative qualitative study was to explore the role of critical and collaborative reflection in the professional development of novice teachers. This study addressed the research question: What role does critical and collaborative reflection with experienced teachers play in the professional development of novice teachers? Participants in this study were three novice (0-5 years of experience) elementary teachers and three experienced (more than 10 years of experience) elementary teachers.

Data were collected through interviews, an initial individual interview and a post focus group interview, written reflections submitted weekly for seven weeks by participants in response to researcher-provided prompts as well as the dialogical comments between participants in response to one another. The transcribed interviews and the teachers' reflections submitted via an electronic discussion board were coded and analyzed for content-related themes and levels of reflection. Matrices and rubrics were used to compare data across participants, interviews, discussion board reflections, and comments/dialogue. The data analysis process was inductive and holistic. Analysis of the data revealed emerging themes, categories, and patterns (Maxwell, 2005).

Findings were presented as a set of themes and a description of the teachers' levels of reflective writing in an effort to illustrate the evolution of these teachers' thoughts before, during, and after participation in the collaborative discussion board. Findings were validated through triangulation of data and member checks as well as comparing findings with existing theory (Maxwell, 2005).

Four themes, perspective, environment, teacher input, and resourcefulness, consistently emerged throughout the data. An expanded perspective was identified by these teachers as the overall benefit they reap from participating in critical reflection. The participants expressed that a supportive environment which fosters reflection and is conducive to change helps maintain professional growth and development and reduces feelings of isolation. Additionally, the participants wanted to be recognized as stakeholders who were included in the conception and planning of their professional development. The participants agreed that their past experiences combined with their personalities and current teaching environments often dictate the role reflection plays in their professional development.

To further analyze the data, two rubrics were utilized to identify instances within the responses which exemplified Dewey's (1933) reflective dispositions and van Manen's (1977) levels of reflection as well as levels of reflective writing based on research in the area of computer-mediated communications and teacher reflection. The findings were situated within recent research as well as within a comprehensive conceptual lens comprised of Schön's (1987) theory of reflective thought, Dewey's (1903) reflective dispositions and phases of reflection, and van Manen's (1977) levels of reflection. Implications for theory and practice as well as recommendations for further research were also discussed.

# CHAPTER I

## INTRODUCTION TO THE STUDY

### Purpose of the Study

The purpose of this interpretative qualitative study is to explore the role of critical and collaborative reflection in the professional growth and development of novice teachers. This study addresses the research question: What role does critical and collaborative reflection with experienced teachers play in the professional growth and development of novice teachers? In this study, I examined the role of critical and collaborative reflection, with experienced colleagues via a discussion board, as a professional growth and development tool for novice teachers within the elementary school setting. I analyzed the role of critical and collaborative reflection in the professional growth and development of novice elementary teachers through an analysis of novice and experienced elementary teachers': 1) initial interview responses, 2) discussion board submissions, and 3) focus group interview responses.

My motivation for exploring this topic is a strong belief that the teaching profession is stigmatized by a culture that does not place enough importance and worth in the job of teaching our children or enough faith and support in the individuals who have chosen to be teachers. Historically, the teaching profession has been underappreciated and regarded as undeserving of the rights and benefits of other professions (Darling-Hammond, 2006). Therefore, it is vital that we as educators provide an example to the greater community that emphasizes the importance of professional growth through continuing education in order to demonstrate how important and seriously we take our role as educators.

In my own experience as an elementary teacher for the past eight years, I have been disappointed in the professional growth and development experiences available to me. Rarely have I been asked for input about the content or type of professional growth and development I needed or desired. Often, the professional growth and development I received was presented by someone unaware of my school's philosophy, curriculum, or culture and unable to relate to the everyday experiences and concerns I brought to the discussion. Furthermore, most of the professional growth and development I received was disconnected from my everyday practice and was delivered as an isolated topic or skill. Only when I returned to graduate school did I feel that I was actively engaged again in professional growth and development. While going back to school has been a tremendous learning experience for me, I am determined to find a convenient way to bring innovative professional growth and development to teachers in the elementary school setting.

In this study, I chose to define novice teachers as those teachers with zero to five years of teaching experience as the lead teacher in an elementary classroom (grades 1<sup>st</sup>-5<sup>th</sup>). I chose to specifically explore the role of critical and collaborative reflection in the professional growth and development of novice teachers for several reasons. Novice teachers are in a unique position to speak to the educational community about the transitional period they are experiencing as they move from students to teachers. This critical time period, often labeled the induction phase, is essential to the formation, assimilation, and retention of new individuals into the education profession and as such there is a call for research that explores the ways in which a smoother transition for novice teachers can be fostered. Focusing on analyzing professional growth and

development provided to this specific population of teachers is essential. Thus, the goal of this study is to inform future professional growth and development experiences for novice elementary teachers.

In this chapter, I will present a statement of the problem to be addressed in this study, the theoretical framework on which this study is based, the methods that will be used throughout the study, a list of definitions of terms, the limitations of this study, and an outline of the remainder of this study.

### Statement of the Problem

Historically, the teaching profession has been underappreciated and regarded as undeserving of the rights and benefits of other professions. Consequently, now more than ever, teacher educators and all those responsible for the development of teacher candidates are charged with the responsibility of preparing teachers who are not only behavior management gurus and content knowledge experts, but teachers who are also armed with the skills and knowledge necessary to remain life-long learners and eminent professionals (Darling-Hammond, 2005). Teacher candidates as well as in-service teachers, despite the rise in awareness and commitment to professional growth and development, are not always presented professional growth and development opportunities in ways that are open to collaboration and input, and novice teachers often experience a mismatch between what they have been taught in their education courses and what they are experiencing in their classrooms.

Additionally, one of the most troubling aspects of recent educational history is the further devaluing of teacher input in curriculum and professional growth and development. Through an increase in prescribed and scripted programs, many teachers

are reduced to nothing more than vehicles that deliver information to students, instead of active participants in the learning process. Increasing demands for test scores and accountability measures contribute to the devaluing of teachers as professionals. And, despite the fact that research-based professional growth and development exhibits specific, recognized, effective characteristics, out-dated practices which are not aligned with research continue to be the norm for professional growth and development (Richardson, 2003). Researchers and educational experts agree that in order to produce school change, what is needed is a different way of accomplishing professional growth and development (Pierce & Hunsaker, 1996).

Building on the research in these areas and based on the current concerns previously identified, I have explored in my readings the construct of critical and collaborative reflection as a means of empowering and preparing novice teachers through professional growth and development activities. If we are to maintain highly-qualified, professional, and resourceful educators in our schools, it is essential that as new teachers develop pedagogical knowledge and classroom management skills they be given latitude for professional judgment and innovation (Sparks, 2004) through the implementation of reflective practices.

### Theoretical Framework

Critical reflection is just one of the many tools that can be incorporated into professional growth and development programs as a means of empowering teacher candidates to take charge of their professional growth and development in practice. One of the first educational theorists to initiate a conversation about teacher reflection was John Dewey (1909). According to Dewey, future teachers should be empowered to

improve upon conditions of their schools and the quality he believed to be most essential in reaching this goal was reflection. Dewey defined reflection as “an active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds supporting it and future conclusions to which it tends” (Dewey, 1933, p.6).

Schön (1987) proposed that professional practice was intrinsically linked with knowing or reflecting-in-action. His theory rejects the separation of theory and practice and promotes the continued discourse between professionals as a means of promoting reflective thought and professional growth. In essence, Schön promotes reflective thought as purposeful and grounded in logic. Teacher preparation literature emphasizes the reflective component of teacher education as essential to preparing highly effective teachers.

Killion and Todnem (1991) discuss the use of three types of reflection based on Schön’s work in their preparation of elementary teachers. Killion and Todnem identify novice and experienced teachers’ abilities to reflect using the terms: reflection-on-action, reflection-for-action, and reflection-in-action. They explain that reflection-on-action and reflection-in-action are reactive in nature while reflection-for-action is proactive. Reflection-in-action occurs during the act of teaching, while reflection-on-action occurs after an event or lesson and a teacher undertakes reflection-for-action to guide future actions. While all three types of reflection are powerful in their own right, it is important to emphasize that reflective practices are not linear, but spiraling in nature; each type of reflection is interactive and constantly in motion (Killion & Todnem, 1991).

Reflection in the literature is also discussed in terms of phases (Dewey, 1909), levels (van Manen, 1977), and dispositions (Dewey, 1909). According to Dewey,

nurturing reflective thought requires development of three essential dispositions: open-mindedness, whole heartedness, and intellectual responsibility. Additionally, Dewey (1909) described the reflective process as encompassing five phases: suggestions, problems, hypotheses, reasoning and testing (Loughran, 1996). Dewey emphasized that these levels may not occur in this particular order, but instead form a cohesive process of reflective thought. Suggestions, according to Dewey, are those ideas that first pop into your mind when thinking about a problematic situation, whereas, a problem is the whole picture or when we look at some issue from many angles. The hypothesis stage is the point when modes of action are considered based on observations and considering all the information available from multiple sources. Reasoning is thinking about the suggestions, hypotheses, and previous experiences as a way of linking the information gathered to form a course of action. Finally, testing is the phase when the hypotheses are put into action and the end results are examined for conclusive evidence (Loughran, 1996).

Dewey's process forms the basis of Loughran's (1996) work with pre-service teacher education students. In an effort to foster teachers who are thoughtful, purposeful and informed decision makers, Loughran (1996) states, "teachers must be taught to question their own actions, reconsider their knowledge and understanding in the light of experience, and use this to shape the way they approach helping their students to learn," and "they need to experience this as learners themselves in their pre-service teacher education programs if they are to adopt this approach in their own professional practice" (p.5-6).



van Manen (1977) also identified levels of reflective thought, however, his levels were described as successive and hierarchical. Reflection for van Manen (1977) includes a progression of thought from technical rationality to practical action, and then critical reflection. He concludes that ideally these levels would parallel the growth of a teacher from novice to experienced. Technical rationality, the least sophisticated of the three levels of reflection, is characterized by basic thoughts about the structure and organization of lessons and the classroom, whereas, practical action involves making specific classroom decisions based on pedagogical knowledge, curricula, and available materials. Finally, critical reflection, the third and highest level of reflectivity, includes questioning the moral and ethical concepts surrounding issues in the classroom. In analysis of the data collected during this study, all three areas of research were utilized in creating a comprehensive, conceptual lens for discussing the participants' interview responses and discussion board submissions.

## Methods

This dissertation study is a qualitative study in the interpretive design. This study explores the role of critical and collaborative reflection in the professional growth and development of novice elementary teachers through narrative and interpretive inquiry. Six participants were recruited to participate in the study, three novice elementary teachers (teachers with 0-5 years of teaching experience in the 1<sup>st</sup> through 5<sup>th</sup> grade) and three experienced elementary teachers (teachers with 10 or more years of teaching experience in the 1<sup>st</sup> through 5<sup>th</sup> grade). In previous research studies, the role of reflection in the professional growth and development of pre-service teachers who participated

collaboratively in a reflective discussion board has been explored; however, the research indicates a need for further inquiry on collaborative reflection with teachers of varying levels of experience (Nicholson & Bond, 2003).

In this study, each participant was asked to participate over a three month period in two interviews: an initial individual guided interview and a focus group interview, and in a collaborative discussion board. The initial interviews addressed the teachers' perceptions of the professional growth and development opportunities they have received thus far as educators as well as their concerns and hopes for future professional growth and development opportunities. Teachers were also asked to describe the current reflective practices they employ and any past experiences they have had with critical reflection. Interpretations of the novice teachers' understandings and conceptions of critical and collaborative reflection and the role of critical and collaborative reflection in their professional growth and development was gleaned from an analysis of the individual and focus group interview responses and the discussion board submissions.

During the eight week discussion board component of this study, all participants were asked to submit seven written reflections based on provided prompts via an electronic discussion board connected to the website [www.google.com](http://www.google.com). One prompt was available on each Monday for seven consecutive weeks, and participants were asked to respond to the prompt by the following Wednesday at midnight. The prompts were designed to solicit reflections based on authentic experiences in the teachers' classrooms. The discussion board was defined as collaborative, because each participant was asked to respond to and provide examples from current experiences in the classroom related to each prompt as well as read and respond to at least two other participants' reflections

throughout the week. Participants were not limited to their involvement in the discussion board, and dialogue among participants was encouraged. Each participant's responses were visible to all other participants and the researcher, but otherwise unavailable to others outside of the study. Each participant received a login username with a pseudonym and a password to ensure confidentiality.

The discussions and reflections were coded and analyzed for content-related themes and levels of reflective thought. Matrices were used to compare data across cases and within cases for participants, interviews, discussion board reflections, and comments/dialogues. Analysis of data, including interview transcripts and discussion board submissions, was ongoing throughout the study and the analysis process was inductive and holistic. I read and analyzed the data in an effort to locate emerging themes, categories, and patterns (Maxwell, 2005). The findings were validated through triangulation of data and member checks as well as comparing findings with existing theory (Maxwell, 2005).

In the concluding focus group interview, the participants were asked to describe their experience of participating in the discussion board. Questions for the concluding interview were derived from the responses to initial interview questions and the context of the discussion board submissions. Following an analysis of the interviews and the content of the discussion board reflections and discussions, I present my conclusions in chapter five with regard to the research question: what role does collaborative and critical reflection play in the professional growth and development of novice teachers?

### Importance of the Study

Research has shown that knowledge has a tacit dimension (Loughran, 1996). However, experience alone does not make understanding possible. Reflection is a tool that can be used to make the tacit explicit (Loughran, 1996). In this study, both novice and experienced teachers were asked to make the tacit explicit through critical and collaborative reflection over the course of eight weeks. As stated earlier, teachers have often been underestimated in their abilities to be resources to one another as well as largely unsupported in their efforts to promote a higher level of professionalism in the field of education. As a profession, we lose novice teachers daily for many reasons including the personal struggles they encounter when met with the complex realities of being a teacher. Therefore this study is an important opportunity to: 1) illuminate the possibility of critical and collaborative discussion via an electronic discussion board as a tool for professional growth and development of both novice and experienced teachers, and 2) add to the discussion on how to better ease the transition of students to teachers.

### Definitions of Terms

This section includes the operational definitions and terms used throughout this study.

**Reflective Practice:** Reflective practice has been defined as a disciplined inquiry into the motives, methods, materials, and consequences of educational practice, and reflective teachers are responsive to the individual educational and emotional needs of all of their students (Yost, Senter, Bailey, 2000).

**Critical Reflection:** Critical reflection can be defined as both a level of reflection as well as a type of reflection. Loughran (1996) defined critical reflection as “the

deliberate and purposeful act of thinking which centers on ways of responding to problem situations in teaching and learning” (p. 14), while van Manen (1995) defined critical reflection as the highest level of reflective thought. In this study, I will define critical reflection as a discussion or writing which addresses a teacher’s beliefs about education in light of his/her practical experiences, discourse with other teachers, readings, and collected knowledge of educational theories (derived from: Yost, Senter, & Bailey, 2000).

**Collaborative Discussion:** The discussion in this study is defined as collaborative, because each participant was asked to respond to, and provide examples from current experiences in her classroom related to each prompt as well as read and also respond to at least two other participants’ reflections throughout the week. Participants were not limited to their involvement in the discussion board, and dialogue among participants was encouraged.

**Professional growth and development:** Professional growth and development can include any and all programs that provide additional instruction or resources to teachers. Effective professional growth and development, according to Pierce and Hunsaker (1996), must include a common vision between teachers and administrators in order to create effective, long-term school change. This study examines the role of critical and collaborative reflection in the professional growth and development of novice teachers and, in this study, professional growth and development is defined by the researcher as the growth and development of adaptive expertise (Darling-Hammond & Baratz-Snowden, 2005; Darling-Hammond and Bransford, 2005).

Novice Elementary Teacher: Novice teachers are defined by the researcher as those teachers with 0-5 years of teaching experience as the lead teacher in a 1<sup>st</sup> through 5<sup>th</sup> grade classroom.

Experienced Elementary Teacher: Experienced teachers are defined by the researcher as those teachers with 10 or more years of teaching experience as the lead teacher in a 1<sup>st</sup> through 5<sup>th</sup> grade classroom.

Electronic Discussion Board: An electronic discussion board is an area on the Internet where individuals can post and save messages for others to read later. In this study the discussion board was linked to the website, [www.google.com](http://www.google.com) using the group discussions feature. Each participant was given a username and password to gain access to the discussion board.

Adaptive Expert: An adaptive expert has the skills necessary for reflecting on and inquiring into the everyday problems that arise when the inevitable collision of all those variables related to teaching and learning occurs. According to Darling-Hammond and Bransford (2005), adaptive experts continually expand the breadth and depth of their expertise as they become more and more efficient over time. Becoming an adaptive expert constitutes an openness to change. Teachers who are adaptive experts are innovative and dynamic.

Authentic Classroom Experiences: Authentic Classroom Experiences are those experiences in which a teacher is personally involved within the classroom or school.

### Summary and Overview

There are five chapters in this study. Chapter I is an introduction to the purposes, relevant literature, significance, and methods of this study. In this dissertation study,

three novice and three experienced teachers participated in two guided interviews: one individual interview and one focus group interview, and eight weeks of reflection via an electronic discussion board. The participants responded to provided weekly prompts as well as responded to one another. This study addresses the research question: What role does critical and collaborative reflection with experienced teachers play in the professional growth and development of novice teachers in their first or second year of practice?

In Chapter II, I will discuss in detail literature related to the topics: teacher preparation, teacher induction, professional growth and development, critical reflection, and computer-mediated communication. I will also present a case for the implementation of critical and collaborative reflection as a professional growth and development tool for novice teachers within the elementary school setting. I will examine the historical roots, theoretical basis, and pedagogical trends related to reflective practice as well as the past and current trends in professional growth and development.

In Chapter III, I will describe the specific methods which were employed and the design of this study. The recruitment of participants as well as data collection techniques and procedures will be described in this chapter. A description of the procedures to ensure confidentiality will also be included.

In Chapter IV, I will describe the research findings and analysis of data from each of the three data sources. I will discuss the relevant themes which emerged through content analysis of the data as well as my interpretations of the data. I will explain my findings in an effort to share the knowledge I have gained about reflection and professional growth and development from working with these teachers.

In Chapter V of this study, I will discuss the conclusions I have drawn from the findings, the implications for theory and practice, and recommendations for further research.



## CHAPTER II

### A REVIEW OF THE RELATED LITERATURE

#### Introduction

This review of literature begins by discussing some of the theories and issues that have contributed to a development of interest in critical and collaborative reflection within teacher preparation and professional growth and development. Education leaders and the public agree that high quality teachers are the key to boosting student achievement (Carini & Kuh, 2003), and research has clearly shown that a good teacher is the single most important factor affecting student learning-more important than standards, class size, or money (Geringer, 2003). Therefore, the preparation and professional growth and development of teachers is of the utmost importance if we are to support successful schools, students, and teachers. The problem remains, however, how to prepare and how to maintain high quality teachers in our classrooms? Professional growth and development through reflective practice has been found to be one key ingredient in creating and maintaining high-quality educators (Zeichner & Liston, 1987; Valli, 1992; Hatton & Smith, 1994; Fulton, Burns, & Goldenburg, 2001; Hough, Smithey & Everston, 2003; Whipp, 2003; Darling-Hammond & Bransford, 2005; Darling-Hammond & Baratz-Snowden, 2005; Schön, 1987). In this literature review, I will discuss the implementation of critical and collaborative reflection as a professional growth and development tool for novice teachers within the elementary school setting. I will examine the historical roots, theoretical basis, and pedagogical trends related to reflective practice as well as the past and current trends in professional growth and

development including the influence of technology on professional growth and development.

Reflection has become an integral part of the discussion about professional growth and development. “Proponents of a reflective orientation to professional preparation assert that learning to reflect on one’s practice enhances one’s capacity to deal with the complexities, uncertainties and ambiguities that characterize professional roles and responsibilities (Loughran, 1996; Fletcher, 1997; Valli, 1997)” (Sumsion, 2000, p.199). However, the specifics, on how to incorporate reflection into professional growth and development, are still under debate. Questions resound among teacher educators and researchers about which type of reflective practices to use, how much time should be spent reflecting, and for what purpose are we asking teachers to reflect? The effectiveness of reflection is also still under debate. In this review of the literature on reflection and professional growth and development, I will examine the following questions: 1) How are reflective practices currently cultivated within programs of teacher education and the elementary setting, and 2) What role does critical and collaborative reflection play in the professional growth and development of novice teachers?

The purpose of this review of the literature is to identify and summarize research and writings in the areas of critical and collaborative reflection and professional growth and development for novice elementary educators and to answer the question: how is reflection currently integrated into the professional growth and development experiences of novice teachers? In my review of the literature, I found many articles about reflection, but I had a more difficult time finding empirical research studies specifically focused on

cultivating reflective practice for novice teachers, which led me to believe that this facet of reflection still requires additional research and development.

### *Organizational Map*

This review of literature has four major areas, which are organized from general to specific. In part one, teacher preparation programming will be discussed as the umbrella under which both professional growth and development and specifically critical and collaborative reflection are nestled. Teacher preparation strategies, policies, theories of development, and curricula will be explored as well as the induction phase for novice teachers. The relationship between teacher preparation, reflective practice, and professional growth and development will also be examined.

In part two, I will discuss the research and literature on professional growth and development in two areas: 1) within teacher preparation for pre-service teachers, and 2) within continuing education for in-service teachers. In addition, I will explore the recent history of professional growth and development as well as the current trends in professional growth and development programming. Current research on the effects of specific professional growth and development methodology on the professional growth of teachers will also be discussed.

Critical and collaborative reflection, as a specific strategy for advancing professional growth and development in novice and experienced teachers, is discussed in part three. I will first discuss the history of reflection in education and then the development of reflective practices within professional growth and development for educators. I will also examine current empirical research findings, in the areas of collaborative and critical reflection. Specifically, research related to the research

question, what role does critical and collaborative reflection, between novice and experienced teachers play in the professional growth and development of novice teachers, will be examined.

In part four, I will address the influence and impact of technology on teacher preparation and professional growth and development, specifically as it relates to reflective strategies for both novice and experienced teachers.

## Part One: Teacher Preparation

### *Introduction*

Teacher preparation strategies, policies, theories of development, and curricula will be discussed in this section. The elements of effective teacher practicum experiences and the interaction between experiences and knowledge as a means of promoting professional growth during the teacher preparation phase will be explored. The relationship between teacher preparation, reflective practice and professional growth will also be examined.

### *Teacher Preparation*

Surrounding the issue of reflective practice within professional growth and development is the issue of teacher preparation, in general. How teachers are prepared; why teachers are prepared in certain ways; and why so many teachers report feeling under-prepared once they enter classrooms on their own, are just a few of the questions that frame this discussion about teacher preparation, professional growth and development and reflective practice. Many novice teachers are in the position of having recently completed their formal preparation for teaching. Generally, teachers who have been formally prepared are freshly acquainted with theories of education and current

research on best practices in education. They have also, oftentimes, recently completed a semester-long practical field experience under the supervision of their college professors and cooperating teachers and are in a “constant state of experiencing and processing information about teaching” (Romano & Schwartz, 2005, p.149).

However, a growing number of novice teachers have not completed formal teacher preparation programs before entering teaching. “Tens of thousands of new teachers, especially in low-income urban and rural areas, have had little or no exposure to basic information about children, curriculum, or schools” (Darling-Hammond and Bransford, 2005, p.1). These teachers vary greatly in the amount of experience and preparation they have received, and there are many reasons why teacher preparation for this population is often not taken seriously. According to Darling-Hammond and Bransford (2005), co-chairs of the Committee on Teacher Education for the National Academy of Education, our society simply does not invest seriously in the lives of children. This is evident in the way teaching is viewed as a simplistic act of information transmission. Additionally, many people underestimate the need for rigorous teacher training, including many state licensing systems, which continue to lower the standards for teachers entering the profession (Darling-Hammond and Bransford, 2005). Although “specifying what teachers need to know and be able to do is not a simple task” (Darling-Hammond and Bransford, 2005, p.5), it is essential if we wish to foster effective teachers.

Novice teachers, having recently entered the profession, are in a unique position to be vital informants to the teaching community about their needs and the preparation they have or have not received. However, with great demands placed on new teachers’

time, there is often little opportunity left for meaningful reflection (Babinski, Jones, & DeWert, 2001). This study was designed to provide novice teachers with an opportunity to authentically reflect on their transitional experiences as they attempt the sometimes daunting task of putting theory into practice.

### *Teacher Induction*

The importance of comprehensive, research-based, theory-driven, practical, teacher preparation cannot be overstated (Darling-Hammond & Baratz-Snowden, 2005). While formal teacher education programs vary widely in the content and practical applications they provide to future educators, all programs are responsible for preparing teachers before they are left to practice independently; thus, discussions among teacher educators about what and how to teach candidates is essential (Darling-Hammond & Baratz-Snowden, 2005). Unfortunately, there are several obstacles that stand in the way of a smooth induction for novice teachers. First, the myth that teaching is a profession that people are born into is an idea that works to take away from the importance of teacher preparation and professional growth and development (Darling-Hammond & Baratz-Snowden, 2005). This myth is often not only perpetuated by people outside of the field, but teacher candidates, as well. Second, teacher preparation curriculum and the literature on teacher development are often not aligned. Research on teacher development and professional growth emphasizes that teacher candidates not only need to acquire the knowledge base and skills necessary for teaching and learning, but also consistent opportunities to apply what they are learning, to analyze what happens, and to adapt their teaching for better results (Darling-Hammond & Baratz-Snowden, 2005;

Killeavy, 2006). While the recognized goal for novice teachers is professional growth and development, the question remains, what does it mean to grow professionally?

In an effort to answer this question and assimilate and summarize the empirical findings of research on the professional growth of novice teachers, Kagan (1992) examined forty learning-to-teach research studies looking for common themes concerning the evolution of novice teachers' professional growth. According to Kagan (1992), professional growth is defined as "changes over time in the behavior, knowledge, images, beliefs, or perceptions of novice teachers" (p.131). Based on her findings, Kagan presented, in narrative form, a model of professional growth in novice teachers. In her model, novice teachers change in at least five distinct ways as they grow professionally. First, novice teachers display an increase in their metacognitive abilities as they grow professionally. They become more aware of the prior knowledge and beliefs they possess about students and they recognize that through experiences in their classrooms this knowledge will change and adapt. Secondly, novice teachers' idealized notions about teaching and learning are consistently reconstructed based on authentic experiences with students in their classrooms, and this knowledge is also used to modify their images of themselves as teachers. Next, as novice teachers grow professionally their attention shifts from a focus on self to a focus on instruction and student learning. Confidence replaces insecurity, and additional time and energy become available for concentrating on student learning. Additionally, as novices develop and become more comfortable with their classroom routines these procedures become more automated and a shift from behavior management to instruction occurs. Finally, with exposure to a diverse array of situations in the classroom, novice teachers are able to better generalize and apply problem solving

techniques in certain contexts, and the thinking associated with problem solving skills becomes more multidimensional.

According to Romano and Schwartz (2005), “critical and collaborative reflective practices are professional growth and development tools that help to ease the transition from student to teacher” (p.149) and promote professional growth. This period of transition, often labeled teacher induction, is a critical time in a teacher’s career. Researchers also acknowledge that this crucial period has a long history of, and is often fraught with, isolation. Based on the traditional one-room schoolhouse model, teachers descend from a system of self-preservation instead of collaboration. Some teachers may even feel pressured to suffer through the trials and tribulations of being a new teacher alone, so as not to appear weak to their colleagues or superiors (Cady, Distad, Germundsen, 1998). During the induction phase, novice teachers are often seen as teetering between their dual roles of teaching effectively and learning to teach, and often these roles are not adequately or equally supported (Wildman, Niles, Magliaro, McLaughlin, 1989). “For novices, doing both effectively requires a great deal of time, effort, and resources (each of which may run out before the job is done)” (Wildman, et al., 1989, p.485).

Learning to teach is a highly individualized process, related to personal values, beliefs, expectations and situations, which takes time and the support of understanding colleagues (Wildman et al., 1989). Interaction with colleagues, during the induction phase, can play a crucial role in beginning teacher development by “easing the stress caused by the enormous uncertainty inherent in beginning teaching; providing criteria against which beginning teachers can judge their progress; and reducing the work load by



offering time-saving suggestions and sharing materials” (Wildman et al., 2001, p.478).

Despite a long history of isolation, in the more recent past a movement toward collaboration and reflection in teacher induction has emerged. As our classrooms and schools have changed, most teachers find themselves working within expansive buildings with a multitude of colleagues (Killeavy, 2006).

Likewise, there have been many changes in the standards and expectations for new teachers. New teachers are expected to come prepared with “knowledge, dispositions, and performance capabilities enabling them to reflect on their instructional strategies and interactions with students” (Cady, Distad, Germundsen, 1998, p. 459).

And, as the standards and accountability measures have increased, there has also been an increase in the emphasis on teacher reflection and collaboration (Killeavy, 2006).

Through non-evaluative, non-threatening conversation, teachers can share and reaffirm one another’s experiences and fine-tune their own practice. According to Maureen Killeavey, the director of the National Pilot Project on Teacher Induction in Dublin,

New teachers require interactions with many teachers to form networks, learn to analyze and reflect on practice, solve problems of practice, form healthy relationships with students and parents, appreciate the breadth and depth of the curriculum, receive helpful feedback, hear multiple perspectives, and understand their roles and responsibilities towards the school as a whole, as well as toward the profession. (p.173)

Promoting the development of reflective practices to ease the transition of new teachers into the profession was emphasized in a study conducted by Babinski, Jones, and DeWert (2001). In their study, twelve beginning teachers participated in an online forum

with mentors, university faculty, and each other to discuss professional problem solving. The researchers collected 394 online responses, which they coded into five categories based on their function. They found that the content of the replies consisted primarily of fostering a sense of community and providing advice. They also found that participating in the community helped to reduce new teachers' feelings of isolation and provided them with support and encouragement. The results suggest that teachers are interested in discussing a wide range of topics, and beginning teachers have a broad array of questions and concerns about teaching that they will discuss online if given the opportunity (Babinski, Jones, & DeWert, 2001). Additionally, the beginning teachers and faculty served different roles in the online community with faculty assuming an expert role by encouraging deeper reflection, offering opinions, and asking probing questions. Overall, the researchers considered the project a success as far as it provided first-year teachers with a means to engage in meaningful professional dialogue and reflection.

Likewise, in a research project conducted by Cady, Distad, and Germundsen (1998), reflective practice groups were implemented in an effort to support teacher induction. The project was part of a teacher induction grant in a large suburban school district and brought together new and experienced teachers eight times throughout the school year to reflect on and share difficult situations involving students and life in their classrooms. The reflective practice groups were led by teacher education faculty members from universities in the surrounding area and a ten step agenda was provided by the researchers and followed at each meeting. Throughout the project, the teachers consistently used the group meetings to help them problem solve issues related to student behaviors. Seventy-six percent of the participants agreed that participating in the

reflective practice groups made them feel more connected and supported by their district and, while the group meetings did not eliminate problems within the teachers' classrooms, they provided an outlet for processing those experiences and minimizing negative impacts. Ultimately, the project helped the novice teachers to increase their sense of self efficacy, challenged them to think critically, and contributed to greater job satisfaction.

The job of preparing teachers is a difficult one that requires thoughtful, research-based planning on how best to teach both the knowledge and the practical skills needed for teachers to be successful in their classrooms. In addition to a myriad of knowledge, skills and dispositions that are necessary for teachers to be successful in the classrooms they enter, preparing highly qualified teachers for our nation's schools requires preparation that includes opportunities for teacher candidates to acquire the tools necessary to become life-long learners and "adaptive experts" (Darling-Hammond & Baratz-Snowden, 2005).

### *Adaptive Experts*

An adaptive expert has the skills necessary for reflecting on and inquiring into the everyday problems that arise when the inevitable collision of all those variables related to teaching and learning occurs (Darling-Hammond and Bransford, 2005). Each school, each classroom, and each child is a complex organism that cannot be treated identically. Adaptive experts are teachers who have been provided with opportunities to develop the tools necessary to adjust to a variety of situations. Strategies that require teachers to analyze learning such as case studies, critical reflection, and collaborative methods are particularly useful in getting beginning teachers to think about student learning and

practice being adaptive experts (Darling-Hammond & Baratz-Snowden, 2005).

Authentic experiences provide the substance needed to reflect on, and learn from, the practice of becoming an adaptive expert. Becoming an adaptive expert is the foundation of this study. Through initial teacher preparation and continuing professional growth and development, novice teachers can be exposed to the tools necessary to become adaptive experts.

According to Darling-Hammond and Bransford (2005), adaptive experts continually expand the breadth and depth of their expertise as they become more and more efficient over time. Becoming an adaptive expert constitutes an openness to change. Teachers who are adaptive experts are innovative and dynamic. In contrast, routine experts are efficient, but not flexible or innovative (Darling-Hammond & Baratz-Snowden, 2005; Darling-Hammond and Bransford, 2005). Teachers who are routine experts may be efficient in eliminating problems, but are less likely to be in-depth problem solvers or life-long learners. “Ultimately, teacher educators need to continuously create spaces within teacher education programs that are dedicated to discussing the crucial role of reflection with beginning professionals” (Mueller & Skamp, 2003). This study examines the role of critical and collaborative reflection in the professional growth and development of novice teachers and, for the purposes of this study, professional growth and development will be defined as the growth and development of adaptive expertise (Darling-Hammond & Baratz-Snowden, 2005; Darling-Hammond and Bransford, 2005).

## Part Two: Professional growth and development

### *Introduction*

I will discuss in this section the research and literature on professional growth and development within continuing education for in-service teachers. The recent history of professional growth and development and the current trends in professional growth and development are also explored in this section. Current research on the effects of specific professional growth and development methodology on the professional growth of teachers as well as the connection between teacher preparation and professional growth and development will also be discussed.

### *Professional growth and development*

Professional growth and development of in-service teachers is inherently related to the preparation teacher candidates receive before entering the profession. Professional growth and development for educators comes in many forms and is presented in a variety of settings and contexts. Although the teaching profession, in the past, has often been underappreciated and regarded as undeserving of the rights and benefits of other professions in the United States, in the last half-century teachers have celebrated great gains in the development of professional organizations, standards, publications and professional growth and development programs. (Gess-Newsome, et. al, 2003; Darling-Hammond, 2005). Consequently, now more than ever, teacher educators and all those responsible for the development of teacher candidates are charged with the responsibility of preparing teachers who are not only behavior management gurus and content knowledge experts, but teachers who are also armed with the skills and knowledge

necessary to remain life-long learners and eminent professionals (Darling-Hammond, 2005).

Despite the rise in awareness and commitment to professional growth and development, teachers are not always presented professional growth and development opportunities in ways that are open to collaboration and input; and they often experience a mismatch between what they have been taught in their courses and what they are experiencing in their classrooms (Darling-Hammond, 2005). In 1996, the Teacher Education and Professional growth and development Goal of the National Education Goals stated: “By the year 2000, the nation’s teaching force will have access to programs for the continued improvement of their professional skills and the opportunity to acquire the knowledge and skills necessary to instruct all American students for the next century” (Le Tendre, 1996, p.291). Over ten years later, this goal still remains a concern.

### *The History*

Many teachers can recall when professional growth and development was more commonly referred to as *teacher in-service or training*. Teacher in-services often included meetings that were scheduled at the beginning of each school year when teachers gathered to review topics, usually chosen by the administration, with the intent of increasing teachers’ knowledge base (Gess-Newsome, et. al, 2003; Schlager & Fusco, 2003). In my experience, the scene at these in-service meetings was often one of disinterest, boredom, and frustration. Teachers were rarely asked what they wanted or needed to know and follow-up support was rarely implemented (Gess-Newsome, et. al, 2003). These short-term workshops have been shown to have a limited effect in changing teachers’ practices, knowledge or beliefs because they are rarely linked to

experiences in the context of the classroom (Gess-Newsome, et. al, 2003). Additionally, other traditional modes of professional growth and development- workshops, institutes, courses, and conferences- share many features that are commonly criticized in the literature as being ineffective in fostering changes in classroom practice or increasing teachers' knowledge base (Garet, Porter, Desimone, Birman, & Yoon, 2001).

However, in 1983, *A Nation at Risk* was published, the words “restructuring” and “reform” became a prominent part of educational vocabulary, and *teacher in-service* was replaced with *professional growth and development* (Pierce and Hunsaker, 1996).

Teacher in-service is a term that equates teaching with technical work and follows the logic that if teachers are trained in specific skills they will in turn be able to perform those skills successfully. The term professional growth and development, on the other hand, recognizes teachers as capable, responsive and in a constant state of learning and developing (Gess-Newsome, et. al, 2003). With this change in vocabulary came the need to define professional growth and development. According to Schalger and Fusco (2003), “professional growth and development is a career-long, context-specific, continuous endeavor that is guided by standards, grounded in teachers’ own work, focused on student learning, and tailored to the teacher’s stage of career development” (p.205).

Many researchers and educational experts agree that in order to produce school change, what is needed is a different way of accomplishing professional growth and development (Pierce & Hunsaker, 1996). New forms of professional growth and development differ from traditional professional growth and development in several ways, including: often taking place during the school day; enabling activities of longer

duration; encouraging collective participation; and being more responsive to teachers' learning-styles, needs, and goals (Garet et al., 2001). According to the research conducted by Pierce and Hunsaker (1996), there are six axioms about professional growth and development, which result in long-term substantive change:

First, professional growth and development, which results in improved practice, should be generated on an individual school basis (Goodlard, 1984; Wood, 1989). Second, a school culture supportive of improved practice and professional growth is basic to successful professional growth and development (Cadwell, 1989; Crandall, 1983). Third, long-term change takes time and is the result of long-term professional growth and development (Deal & Kennedy, 1982; Sizer, 1984; Saphier & King, 1985). Fourth, teacher ownership is essential in keeping momentum in the reform movement (Merenbloom, 1984; Sly, 1992; Wood, 1989). Fifth, professional growth and development that does not improve student outcomes is not important (Caldwell, 1989; Merenbloom, 1984; Sly, 1992). Finally, professional growth and development should be designed in a way in which outcomes can be clearly stated and measured (Sparks, 1994). (p. 101)

Despite all the rhetoric on professional growth and development, one of the most troubling aspects of recent educational history is the further devaluing of teacher input (Gess-Newsome, et. al, 2003). With the increase of prescribed and scripted programs, many teachers are reduced to nothing more than information transmitters. Increasing demands for test scores and accountability measures contribute to the devaluing of teachers as professionals. With the devaluing of teacher input, the rise in teacher accountability, and the increase in teacher shortages, a cultural dilemma is at hand.



Dennis Sparks (2004) accounted in his work the dangers of devaluing teacher input and relying on mandated and scripted curriculums as they relate to professional growth and development. He described two professional growth and development tiers. He described the first tier as a system that promotes development of a professional community and the exercise of professional judgment. This tier requires complex, intellectual behaviors and engages teachers in cycles of action and reflection. The second tier of professional growth and development is built on mandates, scripted teaching, monitored compliance and simplistic thinking. This tier two type of professional growth and development not only stifles teacher input, but also creates an aversion to professional learning. Likewise, because this type of professional growth and development is often forced on teachers who work with high-need students, it has long-term deleterious implications for poor and minority students (Sparks, 2004; Darling-Hammond & Bransford, 2005).

Despite the fact that research-based professional growth and development exhibits specific, recognized, effective characteristics, out-dated practices, which are not aligned with research, continue to be the norm (Richardson, 2003). According to Virginia Richardson (2003), a twenty-year veteran of professional growth and development programs and a researcher on the topic, most kindergarten through twelfth grade professional growth and development is derived from the short-term transmission model and pays little attention to what is already going on in the classroom, school or school district; offers little opportunity for dialogue; and provides no follow up. However, when professional growth and development is aligned with research, Richardson (2003) found that it displays the following characteristics:

It should be school-wide, long-term with follow-up, encourage collegiality, foster agreement among participants on goals and visions, have supportive administration, have access to adequate funds, materials, outside speakers, substitute teachers, develop buy-in among teachers, acknowledge participants' existing beliefs and practices and make holistic use of outside facilitators or staff directors. (p.401)

Consequently, if professional growth and development is to be successful, teachers must be allowed to take charge of their own professional growth (Gess-Newsome, et. al, 2003).

*Teacher inquiry.* One such method that is aligned with the research on effective professional growth and development is a reflective practice called teacher inquiry. For many years, teachers have been pegged as stagnant and unwilling to change (Richardson, 2003). This view propagated the idea that outside forces needed to come in and induce change in teachers. However, there is considerable research that indicates that teachers change all the time (Richardson, 2003). Since teachers change all the time, the inquiry method focuses on identifying how teachers make their decisions to change elements in their classrooms. The inquiry approach is rooted in a constructivist theory of learning. “This theory states that individuals create their own understandings based on the interactions of what they know and believe with the phenomena or ideas in which they come in contact” (Richardson, 2003). The inquiry approach to professional growth and development supports the idea that teachers have expertise and they also have questions, problems and dilemmas. Through structured meetings, collaborative planning, and peer monitoring, teachers are able to take ownership of their professional growth and

development by developing action-based, research driven responses to current pressing concerns within their classrooms and schools (Richardson, 2003).

*Action research.* Action research is another significant trend in professional growth and development which empowers teachers to become researchers within their classrooms. Action research is an authentic, hands-on technique for problem solving within the classroom which dates back to the 1930s, but has received considerable attention again in the last fifteen to twenty years (Norlander-Case, Reagan, & Case, 1999). “Action research is concerned with the development, implementation, and evaluation of solutions to real, immediate problems and concerns that classroom teachers face every day in their professional life” (Norlander-Case, Reagan, & Case, 1999, p.43). Action research emphasizes and promotes reflective practice, collaboration, the improvement of the overall school environment, and teacher empowerment or voice and is therefore generally recognized as a worthwhile and valuable endeavor (Norlander-Case, Reagan, & Case, 1999).

Much can be gleaned from the research on teacher inquiry and action-research. In each instance, highly effective professional growth and development of pre-service and in-service teachers is linked to teacher empowerment. Building on the research in these areas and based on the current concerns previously identified, I have explored in my readings the construct of critical and collaborative reflection in teacher education as a means of empowering and preparing novice teachers through professional growth and development activities. I believe if we are to maintain highly qualified, professional and resourceful educators in our schools it is essential that as new teachers develop

pedagogical knowledge and classroom management skills that they be given latitude for professional judgment and innovation (Sparks, 2004).

### Part Three- Critical and Collaborative Reflection

#### *Introduction*

In this section, critical and collaborative reflection as a specific strategy for advancing professional growth and development in novice and experienced teachers is discussed. I will first discuss the history of reflection in education and then the development of reflective practices as professional growth and development tools within teacher education.

#### *The Theoretical Foundation*

One of the first educational theorists to initiate a conversation about teacher reflection was John Dewey (1909). According to Dewey's (1909) early vision of teacher education expressed in his seminal work, *How we think*, future teachers should be empowered to improve upon conditions of their schools, and the quality he believed to be most essential in reaching this goal was reflection. Reflection is essential most simply stated because, "teacher education programs cannot address every student and every situation that prospective teachers may encounter" (Norton, 1999, p.401). John Dewey's reflective practice is one strategy for teaching prospective and in-service teachers to adapt their practices to diverse situations (Ethell & McMeniman, 2000).

Dewey defined reflection as "an active, persistent, and careful consideration of any belief or supposed form of knowledge in light of the grounds supporting it and future conclusions to which it tends" (Dewey, 1933, p.6). According to Dewey, nurturing reflective thought requires development of three essential attitudes or dispositions: open-

mindedness, wholeheartedness, and intellectual responsibility. Open-mindedness implies a willingness to consider multiple ideas and practices, and wholeheartedness is the willingness to devote oneself emotionally, physically, and mentally to solving problems that arise, whereas intellectual responsibility requires the reflective thinker to consider all the consequences of any proposed plan of action (Norton, 1999).

Reflective thought is different than simply thinking about an issue or idea because it constitutes a consequence. According to Hatton and Smith (1994), reflection can be seen as an active and deliberative process, which addresses practical problems with ample time for thought and deliberation before proposing solutions. Schön (1987) proposed that professional practice was intrinsically linked with knowing or reflecting-in-action. Schön rejected the separation of theory and practice and promoted the continued discourse between professionals as a means of supporting reflective thought and professional growth. According to Schön, there is a consecutive order to reflective thought that leads to a proper outcome, which relies on all previous steps in the process of thinking. In essence, reflective thought is purposeful and grounded in logic, and an expert practitioner is able to reflect-in-action and on-action through a series of revisions to their personal constructs of teaching and learning while engaged in practice (Schön 1987).

### *The History*

Today, basically any profession you can imagine has an accompanying program of study at a college or university, however, universities were not always places that promoted, or were even interested in, the development of practical professional knowledge (Darling-Hammond & Brandsford, 2005). At the end of the nineteenth

century, modern universities were derived from a positivist approach that placed the highest value on research and the production of new knowledge. The idea of universities taking on the work of both knowledge production and the practice of knowledge by professionals was an unforeseen and ill-desired notion for many intellectuals (Schön, 1987). Many intellectuals believed professional education was subservient to theoretical learning and fought ferociously to keep the two schools separate. The battle to exclude professional practice in the university structure was eventually lost during the 1950s as everything became professionalized (Schön, 1987). Only then did universities begin to accept knowledge in practice as an integral part of the learning process; however, initially the best and most appropriate practices were identified by learning communities as sterile, scientific, and controlled. These constructs propagated a generation of professionals who were trained and educated to avoid the sticky complicated research of authentic situations and instead identified any professional research with the scientific method and controlled variables, and practice with complexity and confounds.

In universities, the theory of technical rationality prevailed. Technical rationality as defined by Schön (1987) describes professional knowledge as:

...the application of science to the adjustment of means to ends, which leaves no room for artistry...No room for these indeterminate zones of practice--uncertainty, situations of confusion and messiness where you don't know what the problem is. No room for problem-setting which cannot be a technical problem, because it's required in order to solve a technical problem. No room for the

unique case which doesn't fit the books. No room for the conflicted case where the ends and values in what you're doing are conflicted with one another.

With no room for artistry and no support for professional decision making, it was not until the mid-eighties that educational researchers such as Zeichner (1985), Schön (1987), and van Manen (1987) began a discussion in the literature on the need for reflective practice in professional growth and development and teacher education. They discovered, while developing routines and observing best practices did help teachers attend to the many recurring events and issues in the classroom, it was the unique situations, Schön's (1987) *indeterminate zones of practice*, that were essential to the professional growth and development of teachers.

### *The Practice of Critical Reflection*

Critical reflection is just one of the many tools that can be incorporated into professional growth and development programs as a means of empowering teacher candidates to take charge of their professional growth and development in practice (Walkington, Christensen, & Kock, 2001; Zeichner & Liston, 1987). With this in mind, a curriculum that promotes reflective thought and professional growth for educators must promote activities that connect theory to practice. Reflective practice has been defined as a disciplined inquiry into the motives, methods, materials, and consequences of educational practice, and reflective teachers are responsive to the individual educational and emotional needs of all of their students (Yost, Senter, Bailey, 2000). Reflective teachers "question aims and actions; and constantly review instructional goals, methods, and materials" (Yost, Senter, Bailey, 2000, p.401). According to Yost, Senter, and

Bailey (2000), there are two very important elements necessary for critical reflection to occur. First, teachers must be given supervised practical opportunities to have experiences that will serve as the foundation of their reflections. Second, teachers must acquire a meaningful knowledge base of pedagogy, theories of learning and social, political, and historical foundations to which they can connect their experiences. Shulman (1987) notes that it is essential to actively engage students in connecting theory to practice in order for new teachers to develop a rationale for their teaching practices.

Critical reflection has been identified as one of the primary missions of teacher education programs and the professional growth and development of educators (Yost, Senter, and Bailey 2000). The problem, however, lies in the transference of reflective practices learned during the formal preparation phase to practical application for teachers within the classroom. Teacher education programs generally have two main learning contexts. One involves the on-campus university classes, which focus on theoretical and pedagogical knowledge of curriculum, learning strategies, and behavior management, and the second is school-based practicum experiences. Once in the field, the two contexts of learning often do not interact, and once graduated, novice teachers can have an even more difficult time adjusting to the demands of their new careers. While teacher educators are committed to providing effective pre-service training, once teachers graduate and enter the field, often an apprenticeship of observation takes over (Darling-Hammond & Baratz-Snowden, 2005; Darling-Hammond and Bransford, 2005). Teacher candidates and novice teachers begin to emulate their supervising teachers or colleagues. Many pre-service and novice teachers have been observed reverting to traditional methods of educational experiences that they had experienced as students, despite the efforts of



teacher educators to encourage and expose new teachers to alternative methods and philosophies of education. Additionally, teacher educators are not constantly present in the schools where practicum experiences take place, and often supervising teachers are not informed or educated in how to guide their student teachers (Ethell & McMeiniman, 2000). Furthermore, novice teachers are often left to their own devices once the hectic school year begins, and not every school has a formal mentoring program in place for new teachers (Hatton & Smith, 2006). Therefore, it is essential that strategies be implemented which promote the interaction between theory and practice as an essential component of the professional growth and development experiences provided to novice teachers. These new teachers must be provided opportunities and a structure for implementation in order for this to occur.

Some benefits of critical and collaborative reflection that researchers have found include the cognitive and emotional support these opportunities provide teachers outside of the classroom (Nicholson & Bond, 2003). Learning-to-teach literature emphasizes the reflective component of teacher education as essential to preparing highly effective teachers. It is not enough for teachers to learn methodology and observe expert teachers; they must discuss and collaborate with these teachers to understand and learn from the complex thoughts that underlie what and why expert teachers do what they do (Baker, Burman, & Jones, 1989; Bolin, 1988, 1989; Dewey, 1904/1974c.; Diamond, 1988; Ethell & McMeniman, 2000; Grossman, 1989; Kane, 1993; Roth, 1989; Stones, 1992; Zeichner, 1986). Researchers found, however, that there are several influences hindering reflection including: a lack of commitment to teaching or reflection, an attitude of perceived knowing, and a perception that the environment was unsupportive of reflective practices

(Sumison, 2000). As reflective practices are introduced to prospective and novice teachers, it is important that these concerns be addressed in the way that reflective practices are implemented, structured and supported.

### *Critical Reflection in Many Forms*

Critical reflection is a strategy that provides both novice and experienced teachers the opportunity to connect theory and practice. One goal of critical reflection is to induce disequilibrium in the teachers so accommodation will occur. The constructivist model of critical reflection does just that by emphasizing individual meaning making. Teachers are encouraged to discuss and address their beliefs about education in light of their new found practical experiences, discourse with other teachers, readings, and collected knowledge of educational theories. The goal is to promote tension so that teachers begin to look at dilemmas from a variety of viewpoints (Yost, Senter, & Bailey, 2000). One way to promote the interaction of theory and practice and to avoid the mere apprenticeship of observation is to implement a structure for reflective practice for both novice and experienced teachers.

Laying the groundwork during teacher preparation can be a very powerful tool for creating strong future practitioners. Many researchers agree the process of inquiry can nurture reflective practice (Yost, Senter, & Bailey, 2000). Loughran (1996) discusses the use of reflective practices with his pre-service teachers and emphasizes the importance of teachers being “thoughtful, purposeful and informed decision makers who question their own actions, reconsider their knowledge and understanding in the light of experience, and use this to shape the way they approach helping their students to learn” (p.14). Teacher educators and administrators strive to prepare teachers who are reflective thinkers, and

who can challenge the dominant order, and according to prominent researchers in the field, “what distinguishes more productive teachers from less productive ones may not be mastery of a knowledge base, rather, it may be tied to the relationship between university based research and one’s own knowledge (Lytle & Cochran-Smith, 1992)” (Yost, Senter, & Bailey, 2000, p. 44). While it may seem easier for over-burdened administrators to choose less effective, off-the-shelf professional growth and development programs, it is essential that teacher educators develop and maintain school cultures that stimulate teachers’ intellectual capacity and professional judgment and maintain collegiality (Sparks, 2004).

The number one sentiment I have gleaned from the research on reflective practices and professional growth and development of teachers is the importance of structure and prompting as a means of enhancing and supporting reflection (Jin, 1996). In a study conducted by teacher educators, Baker and Shahid (2003), at Austin College, student teachers were required to respond to nine prompts over the course of their nine week practicum experience. They found through several variations of their project’s design that “requiring students to respond to prompts rather than submit unstructured weekly journals has had an observable, positive impact on the quality of reflections” (p.11). The prompts were learner-centered and helped stimulate the teachers’ thoughts on instructional issues. The student teachers, more so than in unprompted reflections, began to think deeply about effective teaching practices and their responsibility for their students’ progress. The researchers concluded that engaging pre-service teachers in guided reflection about their teaching experiences helped them learn to be reflective

practitioners, which is a skill they hope these teachers will transfer to their professional repertoire (Baker & Shahid, 2003).

I believe that researchers have only begun to explore the possibilities of reflective practice's effects on professional growth and development. Research must continue to illuminate the most effective tools, methods and practices of reflection in order to bring to the forefront the need for a greater emphasis on reflection not just for those who are learning to teach, but those currently teaching. I do not believe there should or will be one model for reflection, but I do believe we can learn to be more effective in our use of reflective practices so that they do not become idle practices to fill requirements, but substantial components of becoming more effective and ever-evolving educators.

#### Part Four- Technology Enhanced Professional growth and development

##### *Introduction*

Examining the role of critical and collaborative reflection with experienced teachers in the professional growth and development of novice teachers is the purpose and goal of this study. Therefore, for many reasons utilizing technologically enhanced communication tools was an appropriate choice. In the design and implementation of this study, research in the area of technology in teacher preparation and professional growth and development was examined closely.

##### *Technology and Professional growth and development*

Liebermann (1995) argues that over the last twenty years the teaching community has developed a wealth of resources for teacher preparation and professional growth and development, but as Barnett (2006) surmises, this knowledge has not been well

distributed to the larger community in the past due to constraints in information sharing. For those of us concerned with professional growth and development, “the challenge is finding ways to create a pedagogical shift, leading teachers from viewing learning as passive to active, and shifting instructional strategies from the didactic delivery of information to creating a context that supports learning, including an active and social environment that promotes change” (Gess-Newsome, et. al, 2003, p. 329). Information technology provides greater potential for sharing information by eliminating the time and distance constraints that previously limited teachers to brief and sporadic experiences of professional growth and development (Barnett, 2006). Lock (2006) concurs, but emphasizes the importance of a shift in thinking from the transmission model to a community model of professional growth and development as the core issue related to the success or failure of technology enhanced communications.

According to Riding (2001), the context in which teachers are working is undergoing political, educational, and social changes, which require a change in the type of professional growth and development teachers are receiving. Traditional in-service training is “too fragmented, unproductive, inefficient, unrelated to practice, and lacking in intensity and follow-up” (Riding, 2001, p. 283), and has proven to be ineffective in changing teachers’ practices or classrooms. In an effort to improve traditional in-service training, specific characteristics have been identified as part of effective professional growth and development. Effective professional growth and development, according to Riding (2001) should be: “ongoing; include opportunities for individual reflection and group enquiry into practice; be school based and embedded in teacher work; be collaborative and allow teachers to interact with peers; be rooted in the knowledge base

of teachers; and be accessible and inclusive” (p.284). Teacher online networks and discussion groups are one way these effective characteristics can be supported in professional growth and development.

Online networks allow teachers to meet, share, and reflect on their practice in collegial ways, and teacher online communities, according to Lieberman (2000), provide teachers with opportunities to discuss real problems, work collaboratively, and communicate more effectively with a wider, more diverse range of colleagues. There are several factors that make online communication particularly useful in creating teacher networks, including: 1) supportive of inter-group communication; 2) can be asynchronous and therefore do not require participants to meet at the same time, 3) allow time for reflection before making a response; 4) are text-based and allow for more structured communication; and 5) can be saved for future reference (Riding, 2001).

In this study, computer-mediated technology was implemented to enhance critical and collaborative discussion and reflection among novice and experienced teachers as a means of promoting professional growth and development. As access to technology has increased, so have the many opportunities to implement various forms of technology-enhanced communication strategies, tools, and techniques to facilitate communication (Barnett, 2006; Hough, Smithey, Everston, 2003). Online learning has developed out of this surge in technical developments and accessibility, and the opportunity to discuss with other colleagues via the Internet has caused a revolutionary change in the way we view collaboration and communication (Romano & Schwartz, 2005; Barnett, 2006). And, according to Hough, Smithey, and Eveston (2003), “a primary goal driving the formation

of these electronic teacher communities is the desire to facilitate teacher reflection” (p. 483).

Over the last decade, many teacher educators have become dissatisfied with traditionally available professional growth and development, and as a result have chosen to turn to collaborative learning communities as way to facilitate reflection on and discussion of teaching practices among pre-service teachers (Barnett, 2006). Schlager and Fusco (2003) report that, “researchers and reform advocates consistently cite participation in *communities of practice* as an integral factor in achieving effective sustainable professional growth and development systems” (p.206). Communities of practice are part of a theory, which was derived to explain the process by which novices in a field become acquainted with the language and procedures of that field (Hough, Smithey, Everston, 2003). In the communities of practice literature, group reflection is recognized as an approach in which questions of practice and commonly shared problems anchor teacher discussions (Lieberman, 1996), and more and more the models for communities of practice are moving to virtual space using computer-mediated communication (Hough, Smithey, Everston, 2003).

According to Lock (2006), an online learning community is a group of people with common goals, ideas, or values who come together for support and learning. Preece (2000) adds that an online community consists of people who interact socially, have a shared purpose, follow shared policies for interaction, and have a computer system that supports their interactions. For beginning teachers who may be struggling to find their place in their field of practice, online discussions can play a vital role in providing a space for them to share stories and ask questions (Romano & Schwartz, 2005).

Asynchronous discussion boards can bring teachers together who otherwise would have never encountered one another and through interaction with one another possibly reduce the feelings of isolation reported by many new teachers (Hough, Smithey, Everston, 2003).

Computer-mediated communication, online learning communities, and technology enhanced communities of practice are just a few of the names appropriated to the new techno-savvy forms of professional growth and development. No matter the name given, technology enriched professional growth and development has both its documented advantages and disadvantages, and researchers have found that attention to certain issues and strategies can help enhance communication and make these online communities work more successfully.

In 2004, a national summit was convened to address the topic of online professional growth and development. At this summit, hosted by Blackboard [a discussion board website company], over 130 people gathered to discuss teacher retention, leadership development, and highly qualified teacher provisions in relation to how online strategies could be implemented to address these issues. Several key points can be gleaned from these discussions. First, online professional growth and development, unlike traditional continuing education programs, has the potential to create communities of practice, which extend well beyond the initial gathering of educators (Pittinsky, 2005). While traditional continuing education has the advantage of bringing educators together in dynamic face-to-face discussions, a disadvantage can be that once the session disbands so does the community of support. Through a combination of traditional and online professional growth and development, educators can remain



connected as they return to their own schools, and the support of communities of practice can be extended (Pittinsky, 2005). Secondly, online professional growth and development has positive implications for teachers in rural or large urban communities. In rural communities, access to professional growth and development has in the past been constrained by issues of both time and money. To acquire needed professional growth and development often teachers in these areas travel several hours to the nearest professional growth and development center or university. Additionally, teachers in large urban areas suffer from similar constraints as sprawling school districts create widely distributed resources for teachers (Pittinsky, 2005). The convenience of online learning for professional growth and development allows for greater access for these teachers.

Online professional growth and development can also benefit new teachers as it allows them access to the wider community and a broader system for support (Pittinsky, 2005). With attrition rates near fifty percent in the first three years of teachers' careers, new teachers are a specific valuable segment of the population in need of accessible professional growth and development. Research has found that new teachers consistently desire to be part of a professional learning community, and communications technology offers teachers opportunities to form relationships with people within and across schools as well as to "share high-quality, relevant, and current resources to address problems, generate ideas, and improve both content knowledge and instructional skills" (Fulton, Burns, & Goldenburg, 2005, p. 298). While networked communities cannot replace face-to-face relationships, communication technologies can connect new teachers with multiple resources for the support they need during beginning teaching. Likewise, because novice teachers' needs develop over time, online supports provide ongoing

developmental options for the various stages of experiences they encounter across their first few years of teaching (Fulton, Burns, & Goldenburg, 2005).

On-line communities are, however, not without their constraints. A study conducted in response to the goals set forth by the U.S. Department of Education Preparing Tomorrow's Teachers to Use Technology (P3) grant, explored the use of multiple forms of technology tools, including an online discussion board, for eliciting new teacher reflection. In this study, Romano and Schwartz (2005) found that the ten beginning teachers who participated chose online communication as the least helpful in engaging them in reflective thought. The researchers found that inconsistent and sporadic participation made it difficult for these teachers to maintain a meaningful dialogue, which may have contributed to their low ranking of this tool. The beginning teachers cited that often the online discussion board was used as a place to vent frustrations instead of as a productive work place. A collective lack of experience was also cited as a detriment to the use of online communication among beginning teachers. Finally, access problems were reported as preventing some participants from actively engaging in the online tool. In response to these concerns, the researchers suggest that the online discussions be adapted in four ways, "they should require more frequent participation; include mentor teacher collaboration; have categories for discussion, and include communication with teachers out-of-state" (Romano & Schwartz, 2005, p.161). These suggestions were given as adaptations that may increase the utility of online discussions as a viable option for new teacher professional growth and development.

In this study, an asynchronous discussion board was created to engage six novice and experienced teachers in the act of critical and collaborative reflection. An

asynchronous discussion board can be defined as a threaded discussion board where participants are allowed to post messages, read, and reply to colleagues at a time that is convenient for them (Waltonen-Moore, et al., 2006). The use of a collaborative discussion board as a means of enhancing critical reflection is rooted in both sociocultural and constructivist learning theories. Socio-cultural learning theories describe knowledge as socially constructed within the context and cultures in which it is used (Whipp, 2003). Through community activities such as dialogue and collective problem solving, novice teachers have the chance to discuss problems with other teachers of varying levels of expertise. “A socio-cultural view of learning suggests that prospective teachers can best learn how to critically reflect on their practice in social contexts where they have the opportunity to discuss practical problems with other teachers of greater or lesser expertise” (Whipp, 2003, p. 322). Social constructivists add that meaning-making is a process of constructing meaning from a teacher’s experiences and interpreting those experiences in dialogue with their colleagues (Lock, 2006). Teachers can articulate their problems and consider them through a variety of perspectives which helps them to work toward an inquiry stance of teaching, and as Hargreaves (2003) stated, “a strong professional learning community is a social process for turning information into knowledge” (p.170).

The discussion board used in this study allowed participants to communicate online with peers in various locations. The use of asynchronous versus synchronous communication was chosen for several reasons. First, asynchronous communication allowed participants to participate at a time which was convenient to them. Secondly, asynchronous communication provided the participants with time to be reflective in

hopes that they would utilize this opportunity to think critically before engaging in discussions with their peers (Waltonen-Moore, et. al, 2006). Additionally, “the use of networked communities of inquiry provide a forum where teachers can work in online collaborative, collegial spaces investigating ideas, engaging in pedagogical conversations, sharing resources and expertise, reflecting on practice and providing support” (Lock, 2006, p. 670).

### Conclusion

The areas of teacher preparation, professional growth and development, critical and collaborative reflection and specifically the use of technology for professional growth and development form the foundation on which this study was built. In this review of the literature, these areas of research are best considered in relation to one another. Teacher preparation does not and should not happen in isolation. Therefore, the preparation that teachers receive before beginning to teach on their own is inherently related to their beliefs, perceptions and openness to future professional growth and development and specific professional practices such as critical and collaborative reflection. If, as I suggest, a goal of teacher preparation is the development of adaptive expertise, then critical and collaborative reflection should be considered a potential tool for professional growth and development.

In the following chapter, I will describe the methodological stance and procedures implemented throughout this study. I will discuss in detail the use of individual interviews, discussion board submissions, and a focus group interview as data collection devices. I will also discuss the qualitative data analysis procedures, which were utilized

in developing emerging themes related to the role of critical and collaborative reflection in the professional growth and development of novice teachers.

## CHAPTER III

### METHODOLOGY

#### Introduction

The purpose of this interpretative qualitative study is to explore the role of critical and collaborative reflection in the professional growth and development of novice teachers. This study addresses the research question: What role does critical and collaborative reflection with experienced teachers play in the professional growth and development of novice teachers in their first or second year of practice? In this study, I examined the role of critical and collaborative reflective exercises, with experienced colleagues via a discussion board, as a professional growth and development tool for novice teachers within the elementary school setting. I analyzed the role of critical and collaborative reflection in the professional growth and development of novice elementary teachers through an analysis of novice and experienced elementary teachers': 1) guided interview responses, 2) reflections in response to researcher-provided prompts on an electronic discussion board, 3) additional between-participant dialogical submissions to an electronic discussion board, and 4) focus group interview responses.

I chose to explore the role of critical and collaborative reflection in the professional growth and development of novice teachers for several reasons: 1) Much like their students, each teacher is unique; there is no one-size-fits-all professional growth and development program that will address the diversity of experiences that each teacher brings to the table; 2) teachers are often underutilized as resources for one another; and 3) the link between research and practice is essential to professional growth. Therefore, this study was designed to analyze the role of critical and collaborative reflection in the

professional growth and development of novice teachers with hopes that the findings may inform future professional growth and development experiences for elementary teachers.

I have focused on novice teachers because of the unique stressors about which novice teachers can inform the teaching community. Novice teachers are often assigned to the most difficult schools with the most challenging children, with very little support (Burns, Fulton, & Goldenburg, 2005). Frustrations quickly drive teachers out of the profession, with one third of new teachers leaving within three years and almost half of all new teachers leaving the profession within five years (Burns, Fulton, & Goldenburg, 2005). The cycle of teacher turnovers has significant effects on the teaching and learning community, including: 1) diminishing teacher quality, 2) driving teacher shortages, and 3) undermining the teaching community's cohesiveness and continuity. In this situation students and teachers lose (Burns, Fulton, & Goldenburg, 2005). Therefore, it is essential to focus on professional growth and development provided to this specific population of teachers.

One identified problem novice teachers encounter as they begin their careers is the inconsistent transference of reflective practices learned during formal preparation to practical application within the classroom (Ethell & McMeiniman, 2000). Research also indicates that reflective practices must be structured and organized if they are to be effective in promoting professional growth (Nicholson & Bond, 2003). When reflection becomes unstructured, some criticisms include: 1) teachers focus merely on logistical issues, 2) contextual factors in school-based environments are ignored, 3) shallow thoughts unaccompanied by action are displayed, and 4) teachers fail to reflect in a systematic or intentional way (Dawson, 2006). This study was designed to address these

criticisms by promoting critical reflection for novice teachers that is structured, collaborative, and tied to authentic classroom experiences. When critical and collaborative reflection is systematically implemented into professional growth and development, researchers have found that teachers benefit from the cognitive and emotional support these opportunities provide them outside of the classroom (Nicholson & Bond, 2003). With this in mind, this study entails implementing professional growth and development exercises, via an electronic discussion board, that promote reflective thought and professional growth for educators through prompted reflections and dialogue between the participants based on authentic classroom experiences.

### Research Design

This study is a qualitative study in the interpretive design, exploring the role of critical and collaborative reflection in the professional growth and development of novice elementary teachers through narrative and interpretive inquiry. Six participants were recruited to participate in the study. Three novice elementary teachers (teachers with 0-5 years of teaching experience in kindergarten through 5<sup>th</sup> grade) were recruited as volunteers for the study, as well as three experienced elementary teachers (teachers with 10 or more years of teaching experience in kindergarten through 5<sup>th</sup> grade). Previous research has explored the role of reflection in the professional growth and development of pre-service teachers who participated collaboratively in a reflective discussion board; however, research indicates a need for further inquiry on collaborative reflection with teachers of varying levels of experience (Nicholson & Bond, 2003). However, the research is undecided on how novice teachers can best access and learn from their experienced colleagues. Therefore, this study differs from previous studies by examining



the role of critical and collaborative reflective practices in the professional growth and development of novice teachers in collaboration with their experienced colleagues (Ethell & McMeniman, 2000).

### *Recruitment of Participants*

Participants were recruited as teacher volunteers using advertisements, chain sampling, and scripted phone calls (See Appendix A). Participants were recruited specifically as volunteers from parochial, private, and public schools. The informants participated in this study on their own time outside of their places of employment. The first group of three participants, the novice teachers, was comprised of teacher volunteers who currently have 0-5 years of experience as the primary teacher in an elementary (grades K-5<sup>th</sup>) classroom. The second group of three participants, the experienced teachers, included teacher volunteers who have more than ten years of experience as the primary teacher in an elementary (grades K-5<sup>th</sup>) classroom.

All interested participants were called or e-mailed by the researcher; the first six participants who met the criteria for enrollment were asked to participate. The requirements for participation were years of experience and career placement in an elementary school (grades K-5) classroom. While initially I had hoped to recruit teachers from various types of schools, public, parochial, and private, after much effort the participant pool consisted of only parochial and private school teachers. Considering the intention of the study and my understanding that this would be an intimate look at how these particular teachers perceive the role of reflection in their professional growth and development, it did not seem detrimental to the design of the study to have teachers from only two institutional types.

After meeting the requirements for participation, I set an initial interview time with each participant. When each participant arrived, I reviewed the informed consent form (See Appendix A) with the participant, in addition to discussing the participatory expectations. All consent forms were read aloud, and I answered any questions from the participants before initiating the interview. The project procedures were also discussed at this time and a handout (See Appendix B) was distributed to each participant with instructions for accessing the discussion board. The discussion board was located on the internet as a private group discussion board connected to the website [www.google.com](http://www.google.com).

The participant expectations were discussed with each participant and posted as follows on the discussion board for the entirety of the study:

Welcome! Thank you for participating in this discussion board. Over the course of eight weeks you will be asked to reflect and respond to prompts that will be posted each Monday on the discussion board. All prompts should be responded to by the following Wednesday at midnight. You are also being asked to read and respond to at least two other participants' responses by the following Saturday at midnight. There will also be a provided section on the discussion board for communicating with other participants about topics of your choice. You have been provided a pseudonym for this discussion board to ensure your confidentiality. Therefore, in your reflections, responses and communications on this discussion board you may not use your name, students' names, or any other identifying information. Thank you for adhering to these guidelines and participating in this research study.

All participants were given e-mail reminders to respond to the new post each week on Monday, and each participant was given my contact information so that she could contact me if she had trouble accessing the discussion board.

### *Description of Participants*

#### *Three novice teachers*

The three novice teachers in this study were all new teachers at the same school, but not in the same grade level. In an effort to keep their identities confidential, the teachers were not told that I had asked the other participants to take part in this study until I conducted the final focus group interview. I assured each of the novice teachers that I would not discuss their participation with anyone within or outside of our school, and that I would attach pseudonyms to their comments and responses to protect their confidentiality. However, as the discussion board portion of this study was nearing completion I began to think that a final focus group interview would be more beneficial than individual final interviews. Therefore, I contacted each participant individually and asked for their permission to conduct a focus group interview. I explained that they were in no way obligated to participate and that I would understand if they were uncomfortable with the idea of a group meeting, which would compromise their anonymity. All of them agreed to participate without reservations.

I am also a teacher at the same school with the three novice participants, which is how I gained access to these teachers. I initially began searching for novice teachers outside of the school in which I work, but was unable to find willing participants. This year, my school had an unusual amount of new faculty members due to the transitional period following Hurricane Katrina. I decided to begin contacting these novice teachers

to see if they might be interested in participating in this study. After about a week of e-mailing and visiting each of the new teachers' classrooms, three of the teachers agreed to participate. The teachers were anxious to help me with my study, and I was eternally grateful for their willingness to share their time and experiences with me.

The school in which the three novice teachers and I teach is an all-girls, independent, parochial school. This school is part of a network of independent schools throughout the city in which it is located. The school is also part of an international network of schools which were founded by an order of Catholic nuns. It is set on a beautifully landscaped campus with historic buildings and unique architecture. The school has predominately Caucasian student and teacher populations. The students generally come from high socioeconomic status families and the school has a wealth of resources for both the teachers' and students' use. It is divided into four sections: the pre-school (2 year olds-kindergarten), lower school (1<sup>st</sup>-4<sup>th</sup>), middle school (5<sup>th</sup>-8<sup>th</sup>), and upper school (9<sup>th</sup>-12<sup>th</sup>) with approximately 800 students distributed throughout the four sections and on two different campuses. The teachers who agreed to participate in this study all work on the same campus, which houses both the pre-school and lower school.

*Kathy.* The first teacher I interviewed, Kathy (pseudonym), currently teaches first grade. Kathy is an energetic, talkative young teacher. She is Caucasian, in her mid-twenties, and newly married. Kathy grew up in the city in which she teaches and has never lived anywhere else. She moved to our school after teaching in another parochial school for three years. Kathy began teaching as a pre-kindergarten assistant before she finished her bachelor's degree in elementary education. She received her bachelor's degree from a medium-sized public university in the area in which she teaches. When

Kathy graduated, she applied for and was certified to teach elementary education, grades kindergarten through eight.

After student teaching at a public school during the fall semester of 2003, Kathy began teaching 6<sup>th</sup> grade at a large parochial school in January for a teacher who had left mid-year due to illness. Kathy knew that she preferred to teach younger students, so she asked to be moved and began her first full year as a lead teacher teaching kindergarten. She taught one more year of kindergarten before making the decision to move to our school. Her second year teaching kindergarten was not a complete school year however due to Hurricane Katrina and the subsequent delay of school until November, 2005. Kathy said during her interview that she chose to make a change that year, because both her husband and her mother worked in different capacities at the school at which she had been teaching and she felt she needed some space of her own. Now, Kathy is teaching first grade and says that she loves it and plans to return next year.

*Susan.* The second participant I interviewed was Susan (pseudonym). Susan currently teaches kindergarten, which is part of the pre-school section at our school. Susan is very easy going and has a great sense of humor. She is Caucasian, in her mid-twenties, and also newly married. Susan received her bachelor's degree from an Ivy League school in the Northeast. Her school did not offer an education degree on campus so she had to commute to a cooperating sister school. Upon graduation, she was certified in kindergarten through eighth grade. Susan was very disillusioned by her student teaching experience, which she says was horrendous, so she decided to put off her teaching career for a year and a half after she graduated. Susan worked as a caterer's assistant before deciding to go back to teaching. She began teaching second grade at a

private independent school for her first year of teaching and then was assigned to teach first grade when Hurricane Katrina hit her city. She taught for about a week and a half before the storm. Following Hurricane Katrina, Susan was let go by her school in December of 2005 due to a dip in enrollment and then rehired in February of 2006 when enrollment surged back up to a greater capacity. Susan was not thrilled with the way her school handled the crisis and began searching for a new job for the following school year. She was hired to teach at our school, which is also the school she attended as a child, in her current position of kindergarten teacher. Susan said during the interview that all of her old teaching friends laugh at her because she always said she would never teach kindergarten again and now she does, and she loves it.

*Julie.* Julie (pseudonym) is a fourth grade teacher at our school. She is Caucasian, in her late twenties, married, and expecting twins. Julie began teaching as a second career choice. Her original degree was in business from a large public university. After graduating, Julie worked for a year in advertising sales where she said she made great money, but absolutely hated what she was doing. Her mom and aunt/godmother are both over twenty year veterans of teaching and as Julie said in her interview she had grown up watching and helping them her whole life, so it just seemed natural to want to be a teacher. Julie was certified through a post-baccalaureate program at a medium sized university while she worked as a kindergarten teacher at a public elementary school and then a parochial school. She said that she felt that working and taking classes at the same time was very beneficial.

After teaching for a year in the public school system, Julie moved to a parochial school to teach kindergarten for two more years, while she finished her certification

requirements. Her third year of teaching was also complicated by Hurricane Katrina, and she was asked to teach a very large class with over 30 kindergarten children from November to the end of the year. Julie decided to apply at our school, because she was attracted to the smaller class sizes. Julie was slated to teach second grade this year, but was suddenly told she would have to teach fourth grade about a month before school started. Originally, Julie said she was not at all happy about such a drastic move, but has now come to really enjoy teaching fourth grade and plans to teach it again next year.

### *Three Experienced Teachers*

Searching for experienced teacher participants proved easier than finding novice teacher volunteers. Having taught for the last eight years in three different schools, I decided to begin networking to recruit some experienced teachers for this study. I called and emailed many of my previous colleagues and also posted a flyer for the study (See Appendix A) in several schools. This is how I found Sharon, Mary, and Rebecca (pseudonyms).

*Mary.* I met Mary for the first time at her school. The school in which she teaches is a small private school that specializes in supplemental instruction and accommodations for students who need additional learning support. The exterior of Mary's school is very grand, set in historic buildings with beautiful landscaping. The school is a maze of smaller buildings connected by awnings. It took me a while to find the right entrance to the school. When I did find my way in the main entrance, I was greeted with children's art work and pictures adorning the walls of the entrance way. In the stairway, I began to look around and I am sure I appeared lost so when I ran into Mary it was quite obvious that I was a visitor. Mary laughed when she saw me, because

she had been running around looking for me too. With a coffee mug in her hand and wearing a long skirt and jean jacket, Mary led me to the faculty room which was large and cozy. I could tell Mary felt quite comfortable in her surroundings, because she welcomed me to sit down as if I had just arrived at her house for dinner.

When I first met Mary in the stairwell of her school, I was initially struck with a feeling of comfort and welcome. Mary has a certain air about her that is very calming and relaxing. Mary is laid back, but completely in control. She's a veteran teacher with 11 years of experience. She's the type of teacher students love, because she is compassionate and caring, but tough and structured. Mary said she always wanted to be a teacher, but the road to her desired career was not an easy one.

Three years into the bachelors' program in elementary education at a large public university Mary decided to follow her heart and quit school to marry her college boyfriend. They moved home together, got married, and had a baby boy. Mary thought there was no need to work at this time and no reason to go back to school, because she loved being a full-time mom. About five years later, Mary got a divorce. She says she thought all of a sudden, what in the world am I going to do? So, she went back to school. She finished the degree that she had started several years before and found the program at the school near her home more rigorous than her previous school, but also better. She says she never would have thought she would be glad to be back in school.

Mary's son is now 16 years old and she's been teaching for 11 years. Mary's first teaching assignment was in a public school where she taught for four years. Her first teaching assignment was directly across the hall from her best friend's classroom, who she says was instrumental in guiding her through her first year of teaching. After



teaching for four years in the public school system, she switched to the private school where she is teaching today. Mary has taught many subject areas including reading, writing, math, history, and language arts and she has taught grades 4<sup>th</sup> -8<sup>th</sup>. Currently, she teaches four math classes and a writing lab. Mary also tutors students after school and is a big voice at her school for developing a mentoring program for new teachers. Mary says she loves working with new teachers and really enjoys the mentorship relationship, which is the reason she was initially drawn to participating in this study. After meeting Mary, I was convinced that she loves teaching and her students. Being a parent, however, has been the most wonderful learning experience of her life.

*Sharon.* Sharon and I met for the first time on her front porch. Sharon is a soft-spoken mother of three. She has a daughter and son who are twins and in the first grade and another daughter who is three. When Sharon asked me to come inside her house, one of the first few things I noticed, in the midst of her perfectly decorated living room, was the smell of fish sticks baking in the kitchen, a pair of brightly colored feather boas on the floor, and the sound of two girls giggling and yelling from the other room. Sharon's life happily revolves around her kids. She loves being a mom.

Sharon is very unassuming. She speaks quietly and deliberately and reminds me of some my favorite teachers from when I was young. Sharon has been teaching for the last fifteen years and says she has always wanted to be a teacher ever since her kindergarten teacher took a special interest in her. Sharon's kindergarten teacher took her out to visit the old spaghetti factory in her town when she became a big sister for the first time. This memory has stayed with Sharon her whole life and shaped her desire to be a compassionate and understanding teacher.

Sharon says she has the dream job, and they treat her very well at her school. Sharon's school is a co-ed private school with a population of students who are primarily of high socioeconomic status. The school is fairly large with approximately one thousand students ranging from pre-kindergarten to senior high school. The school is situated on 11 acres in the middle of the city and is well known for its programs of excellence in academics, sports, and the arts. The school population is also known for being both racially and religiously diverse.

Over the years, Sharon has taught children from as young as two years old to as old as sixth grade, and currently she teaches second grade students. However, Sharon did not always think teaching was going to be the right career for her. Lifelong plans to become a teacher came to a screeching halt for Sharon following a rather unpleasant student teaching experience. Sharon's student teaching experience began in a large public school in the south. The first half of the semester Sharon taught second grade students and really enjoyed it, but in the second half of the semester Sharon was given a class of 36 sixth graders to teach in a portable trailer behind the main building of the school. She said she remembers that her students' hormones were raging, they had no supplies, the physical space was crowded, and several of the children had significant learning and behavior problems. The experience was so miserable for Sharon that she took a year and a half off and became a flight attendant. Sharon enjoyed flying overseas and in the states, but she decided to return to teaching one day when she realized that the best thing about being a flight attendant was passing out the Mickey Mouse ears. She missed the children.

*Rebecca.* Rebecca is a young mom who recently had her third baby girl. I met Rebecca at her school, which is located in a small residential neighborhood in the middle of the city in which we all live. Rebecca was born and raised near her school and has rarely ever left the city for very long. She says she thinks she always wanted to be a teacher, but when she started teaching first grade twelve years ago she had no idea she would be teaching the same grade for 11 years. All but one of Rebecca's twelve teaching assignments has been in the first grade, and despite the fact that she says she loves teaching she admitted that sometimes she feels stuck. After completing her first four years of teaching, Rebecca spent some time moving around and teaching in both a private and public school, but she eventually returned to her first school assignment.

Rebecca teaches at a parochial school that has seen a lot of changes in the last year and a half, since Hurricane Katrina. When Rebecca began teaching twelve years ago, her first job was in the school where she is currently teaching. Back then, she says, the school was a mirror of the real world, very multicultural and wonderful. The student population was approximately forty percent African American, fifty percent Caucasian, and ten percent Hispanic, and a majority of the students lived in the areas surrounding the school. However, since Hurricane Katrina, the student population has changed significantly. Many of the students in the neighborhood were displaced due to the storm and many parochial schools around the city were closed due to the severity of damage they received. Now, the student population consists of children who commute to school from all over the city. Rebecca says parents find her school convenient, because it is located close to the downtown business district and has an after-school care program. Due to the changes in the city, the school is no longer attracting a multicultural student

population. The school is now predominately African American. Rebecca says it is not a question of better or worse, it is just that the school is different.

Rebecca has a bachelor's degree in elementary education as well as a master's degree in curriculum and instruction with a concentration in reading. She is certified to teach kindergarten through eighth grade. Rebecca remembers her student teaching experience and her well-experienced cooperating teacher fondly. She says this teacher really helped her develop a lot of confidence in her teaching abilities. Rebecca and her cooperating teacher had a great relationship and method for communicating throughout her student teaching experience. They would write each other notes in a composition notebook before and after Rebecca would teach a lesson, and they would use these notes to discuss her progress and growth over time. Rebecca credits her positive experience to the support she received from this teacher. She also believes that her transition from student to teacher was eased by her involvement and familiarity with her school due to her working as a substitute teacher and assistant at the school before starting full time.

This year has been a particularly challenging year for Rebecca. She was pregnant and delivered her third child in the fall and she also has a toddler and a first grader. This is the first time Rebecca has had a child in the same grade that she is teaching and she said she has to admit that it is exhausting at times. Rebecca did not mention until the end of our first meeting that many of her students have experienced great loss of both life and property in the last two years. She was also very reserved in speaking about the effects these losses have had on her students' day to day behaviors and fears. Rebecca chose to participate in this study despite the many challenges she has endured this year because she believes reflecting and growing as a professional are important, and she hoped to

learn how to look at teaching in a new way through this process. I am very humbled by Rebecca's quiet strength.

### Data Collection

In this study, interpretive research was implemented in an effort to better understand these six teacher participants' perspectives on the role of critical reflection in their professional growth and development. According to Merriam (1998), in interpretive research "education is considered to be a process and school is a lived experience" (p. 4). Therefore, in this interpretive qualitative study the role of critical and collaborative reflection as a process of professional growth and development was explored through narrative and interpretive inquiry.

Clandinin and Connelly (2000) define narrative inquiry as a way of understanding experience, and Merriam (1998) explains that interpretive inquiry is interested in understanding experiences from the perspectives of the participants. One of the key assumptions in narrative and interpretive inquiry is that qualitative researchers wish to understand the way in which individuals construct meaning about their lives and experiences (Merriam, 1998). This type of research places the researcher as the primary instrument of data collection, and the results of interpretive research are thick, rich descriptions (Lincoln & Guba, 1981). In my research, I did not seek to create a theory, but instead have tried to understand the process of reflection and the perspectives of both novice and experienced teachers on the role of this process in their professional growth and development through multiple forms of data collection.

### *Interviews*

In this study, each informant was asked to participate over a four month period in two interviews- an individual pre-interview and a final focus group interview- and a collaborative discussion board. I decided to use a guided interview format for collecting initial data from the participants. According to Patton (2002), “the purpose of interviewing is to allow us to enter into the other person’s perspective....with the assumption that the perspective of others is meaningful, knowable, and able to be made explicit...to gather their stories” (p. 341). I used the guided interview format to remain focused and consistent while separately interviewing all six of the participants (Patton, 2002). The initial interviews addressed the teachers’ perceptions of the professional growth and development opportunities they have received thus far as educators as well as their concerns and hopes for future professional growth and development opportunities. Teachers were also asked to describe the current reflective practices they employ and any past experiences they have had with reflection. Interpretations of the novice and experienced teachers’ understandings and conceptions of critical and collaborative reflection and the role of critical and collaborative reflection in their professional growth and development were gleaned from an analysis of the pre-interviews, focus group interview, and the discussion board transcripts. The initial interview questions are provided below.

In the concluding focus group interview, the participants were asked to describe their experiences throughout the eight week discussion board component of this study. This aspect of the research design emerged as a result of earlier findings from the study; such emergent design is in keeping with an interpretive approach to research (Lincoln &

Guba, 1985). Therefore, I contacted each participant individually and asked for their permission to conduct a focus group interview. I explained that they were in no way obligated to participate and that I would understand if they were uncomfortable with the idea of a group meeting, which would compromise their anonymity. All of them agreed to participate without reservations. I decided to conduct a final focus group interview instead of individual final interviews for several reasons. First and foremost, during my initial data analysis, I came to the conclusion that many of these teachers participated regularly and were very interested in informal reflective methods, specifically reflection that involved communicating and collaborating (i.e. teacher talk) with their colleagues. Based on this finding, I really wanted to observe teacher talk in action. Secondly, as Patton (2002) explains, focus groups are conducted in a social context in which participants are asked to consider the views of others in light of their own perspectives. I hoped that by conducting a focus group interview the participants would be able to shed some light on how, why, and if their shared experience of participating in a collaborative discussion board affected their professional growth and development. Questions for the concluding interview were derived from the participants' responses to initial interview questions and the context of the discussion board submissions. The focus group interview was intentionally conversational in nature; therefore some questions were spontaneously developed based on the responses of participants and the flow of the conversation. The guiding questions for the focus group interview are also listed below.

#### *Initial-Interview Protocol*

1. How long have you been teaching and what brought you to teaching (how did you know you wanted to be a teacher)?

2. Describe for me your current teaching assignment and any past teaching experiences you have had to this point.
3. Describe your teacher preparation/training experience. How prepared did you feel when you began teaching on your own? What emotions do you recall as you reflect on your first few weeks as a teacher?
4. During your teacher preparation phase, what reflective methods, if any, were you taught or asked to participate in?
5. In your classroom, how do you stay educationally current?
6. Give an example of a time when you had to make a change in your classroom (setting, teaching style, method of instruction or behavior management technique). What initiated the change, what was your thinking process or method of instituting the change and what was the outcome?
7. What is your definition of reflection (as it relates to you and your current teaching assignment)? What do you think it means to reflect on your practice? Do you think reflection is a useful professional growth and development tool, why or why not? What impedes you from reflecting on your practice as a teacher? When do you reflect? How do you reflect? What do you reflect about?



8. Describe the types of professional growth and development activities or experiences you have had since beginning teaching.
9. In an ideal situation what type of professional growth and development would you like to receive?
10. In what ways do you collaborate with other teachers?

*Focus Group Interview Protocol*

1. What was your experience as a participant in this study? What could have made the overall experience for you better? What could have made participating more beneficial to you?
2. Is story-telling as a way of reflecting more interesting or more intriguing to you than just responding?
3. What do you think you did gain from the experience? I know there are ways we would change it but what did you gain from the experience?
4. I'm going to ask you all again even though I asked you each individually, what is your definition of reflection and has it changed at all? Do you all think there are levels of reflection?

5. Does reflection or should reflection play a role in your professional growth?
6. Do you see a connection between reflection, professional growth and development, and teacher empowerment?
7. If a goal of teaching is to improve ourselves, what can be done to achieve this goal?
8. What do teacher education programs really need to teach new teachers before they enter the classroom? Do you think it might be beneficial to have some sort of encouragement of discussion groups in teacher education programs?
9. Do you think that the discussion board would have worked better if I had been more involved as a moderator sort of summarizing things and clarifying things as you went along or would that not have made a difference?
10. What does it mean to be a life long learner?

#### *Discussion Board Submissions*

During the eight week discussion board component of this study, all participants were asked to submit seven written reflections based on provided prompts via an electronic discussion board. One prompt was available on each Monday for seven weeks, and participants were asked to respond to the prompt by the following Wednesday (two days later) at midnight. The prompts were designed to solicit reflections based on

authentic experiences in the teachers' classrooms. All prompts were derived from the National Academy of Education's 2005 publication, *A Good Teacher in Every Classroom*, which was edited by Linda Darling-Hammond and Joan Barataz-Snowden.

The discussion board was defined as collaborative, because each participant was asked to respond to, and provide examples from current experiences in her classroom related to each prompt as well as read and also respond to at least two other participants' reflections throughout the week. Participants were not limited to their involvement in the discussion board, and dialogue among participants was encouraged. Unfortunately, the participants did not fully adhere to this portion of the instructions, and communication between the participants was fairly sparse. Each participant's responses were visible to all other participants and the researcher, but otherwise unavailable to others outside of the proposed study.

Due to the open nature of the discussion board, participants may have felt at risk of being judged by others about their responses to the provided weekly prompts. To minimize the risk to each participant, pseudonyms were assigned as login usernames for the discussion board. Also, to encourage collegiality the researcher discussed with all participants the importance of professional conduct in all interactions on the discussion board. The discussion board prompts are listed below.

#### *Discussion Board Prompts*

Week One: Why did you become a teacher? What makes you want to keep teaching? Describe one interesting event that happened in your classroom or with your class last week, why was it interesting and what did you learn?

Week Two: According to the National Academy of Sciences report *How People Learn: Brain, Mind, Experiences, and School*, beginning teachers need to understand the constructive nature of knowing-the fact that we all actively attempt to interpret our world based on our existing skills, knowledge and developmental levels. This means that teachers need to understand what students already know and believe and be able to build bridges between students' prior experience and new knowledge. This includes anticipating student misunderstandings in particular areas so that they can be addressed. Do you agree with these statements, why or why not? Provide an example from your classroom where knowing the existing skills, knowledge or development levels of your students was particularly relevant.

Week Three: What do you think encourages children to become and remain engaged in their own learning? Give a specific example from your own teaching experience related to encouragement or motivation.

Week Four: Why is it important to be flexible in teaching? Describe some experiences you have had while teaching that required you to be flexible (Try writing about a recent classroom experience).

Week Five: Think back to when you were a student teacher. How have you grown or adapted as a teacher since that point? Why have you changed? How has your teaching philosophy changed over the months or years? How does your philosophy effect your everyday interactions within your classroom? Be specific.

Week Six: Many new teachers struggle with the “problem of complexity” when they begin teaching. This term relates to the idea that teachers are required to perform multiple tasks at the same time, make countless decisions throughout each day, and instruct and assess a variety of students who are of varying learning styles and abilities. What strategies have you developed to deal with the complex nature of teaching? Give an example of a time in your class when you felt like things were very complex. How did you adjust to deal with the complexity?

Week Seven: Tell a story. Take this opportunity to think about and reflect on one of your favorite teachable moments, an experience with a class or child that was significant to your development, or a great lesson you taught or learned. Then explain why you chose the story you chose to tell. Why is it significant to you?

## Data Analysis Procedures

### *Introduction*

In analysis of the data collected during this study, three areas of research were utilized in creating a conceptual lens for discussing the participants’ interview responses and discussion board submissions. Reflection, in the literature, is discussed in terms of phases (Dewey, 1909), levels (van Manen, 1977), and dispositions (Dewey, 1909). According to Dewey, nurturing reflective thought requires development of three essential dispositions: open-mindedness, whole heartedness, and intellectual responsibility. Open-mindedness implies a willingness to consider multiple ideas and practices and whole-heartedness is the willingness to devote oneself emotionally, physically, and mentally to

solving problems that arise, whereas intellectual responsibility requires the reflective thinker to consider all the consequences of any proposed plan of action (Norton, 1999). Additionally, Dewey (1909) described the reflective process as encompassing five phases: suggestions, problem, hypothesis, reasoning and testing (Loughran, 1996). Dewey emphasized that these levels may not occur in this particular order, but instead formed a cohesive process of reflective thought. Suggestions, according to Dewey, are those ideas that first pop into your mind when thinking about a problematic situation, whereas, a problem is the whole picture or when we look at some issue from many angles. The hypothesis stage is the point when modes of action are considered based on observations and considering all the information available from multiple sources. Reasoning is thinking about the suggestions, hypotheses, and previous experiences as a way of linking the information gathered to form a course of action. Finally, testing is the phase when the hypotheses are put into action and the end results are examined for conclusive evidence (Loughran, 1996).

Van Manen (1977) also identified levels of reflective thought; however, his levels were described as successive and hierarchical. Reflection for van Manen (1977) includes a progression of thought from technical rationality to practical action, and then critical reflection. He concludes that ideally these levels would parallel the growth of a teacher from novice to experienced. Technical rationality, the least sophisticated of the three levels of reflection, is characterized by basic thoughts about the structure and organization of lessons and the classroom, whereas, practical action involves making specific classroom decisions based on pedagogical knowledge, curricula and available

materials. Finally, critical reflection, the third and highest level of reflectivity, includes questioning the moral and ethical concepts surrounding issues in the classroom.

The initial interview discussions and reflections were coded and analyzed for content-related themes. Matrices were used to compare data within and across cases for participants, interviews, discussion board reflections, and comments/dialogues. Analysis of data, including interview transcripts and discussion board submissions, was ongoing throughout the study. The analysis process was both inductive and holistic. I read and analyzed the data in an effort to locate emerging themes, categories, and patterns (Maxwell, 2005). The findings were validated through triangulation of data and member checks as well as comparing findings with existing theory (Maxwell, 2005).

Following an analysis of the interviews and the content of the discussion board reflections and discussions, I present my results in chapter four of this dissertation with regard to the research question, what role does collaborative and critical reflection play in the professional growth and development of novice teachers. Participation in the study was strictly voluntary and there was a token \$20 thank you gift certificate provided to each participant at the conclusion of the study.

### *The Initial Individual Interviews*

I interviewed each teacher at a time and a location that was convenient for her. All but one of the participants asked me to come during one of their breaks at their school, and I tape-recorded our conversations. Using a list of pre-planned questions as a guide, I asked each of the teachers to describe her current and past teaching, reflection, and professional growth and development experiences. All of the teachers seemed relaxed and eager to participate in the interview. After completing each interview, I

labeled the tapes and placed them in a safe location until I had time later to transcribe them. I transcribed the three novice teacher interviews first and printed out the transcripts so that I could look at all three interviews at the same time. I decided to first analyze the novice teacher interviews as a distinct group and then the experienced teacher interviews before I compared the two groups. The novice teachers' interview responses were coded and analyzed for content-related themes. I began by first reading, rereading, and then analyzing the data in an effort to locate emerging themes, categories, and patterns (Maxwell, 2005). I printed each interview and initially read all three interviews in their entirety one after another before coding or highlighting any emerging themes. After reading all three interviews, I developed a list of initial codes (See Appendix C) that I would use to identify categories related to certain themes throughout the interviews as I read through them each for a second time. I did not try to limit the codes at this point, but instead recorded all key words that I found to be significant to the topic or recurring throughout the interviews. As I read through each individual interview and marked my initial codes in the margins, I also made notes on a separate sheet of possible codes that I might want to add on my next read through. I labeled each list of codes with the interviewee's name (See Appendix C) so as not to be confused about which interview had spawned which codes. These codes are included in Chapter 4 to identify the source of each finding.

I chose to read through each interview on its own and create individual word lists for each participant, because it was important to me to honor the similarities, differences, and unique perspectives of each teacher before trying to compare and contrast them with one another. In addition to coding the interviews, I also made anecdotal notes in the



margins including possible follow-up or clarifying questions that I would like to ask the participants. It made sense to organize my analysis by groups before merging the data sets together, because my research question focuses on novice teachers primarily and experienced teachers secondarily.

Next, I copied the interviews with my codes written on them on different colored pieces of paper: Kathy on pink, Susan on purple, and Julie on blue. I then cut up the interviews and stacked them in different piles based on the categories in which I had clumped the codes. I had to clump the codes/words into categories because I noticed that I had multiple codes for the same comments (See Appendix C). I then stacked the text slices into piles based on which category they fell into. First, I piled them according to each individual interview so that I could get a better idea of the emphasis of each participant's interview. Then I merged the piles across interviews.

I was then able to look holistically at how the categories specifically relate to the research question. After completing an initial analysis of the three novice teachers' interviews, I began to analyze the three experienced teachers' interview responses. I followed the same format as listed above. I began by reading and rereading all three interviews in their entirety first before beginning initial coding. I wrote anecdotal notes in the margins of the interviews documenting my first thoughts, reactions, and questions. I then read each interview individually making note of any and all key terms that struck me as interesting or significant and labeled the lists according to each participant. After completing a list for each interviewee, I compared the list in an effort to find similarities and differences that may indicate categories of interest. Once I created a set of categories, I reread each interview highlighting the data that corresponded with each

category in a different color. I added this extra highlighting step in the process of data analysis for the experienced teachers' interviews because I was having a difficult time conceptualizing important streams of thought across all three interviews. The veteran teachers' comments were more diverse and complex than the novice teachers' comments, which was why this additional step was warranted. This step helped me to look more closely at the data before splicing it into segments or categories.

Next, I copied the interviews with my codes written on them on different colored pieces of paper: Mary on blue, Sharon on grey, and Rebecca on white. I then cut up the interviews and stacked them in different piles based on the categories in which I had clumped the codes. I then stacked the text slices into piles based on which category they fell into. First, I piled them according to each individual interview so that I could get a better idea of the emphasis of each participant's interview. Then I merged the piles across interviews. Additionally, for the experienced teacher interviews I wrote narrative memos for each participant. I wanted to narrow the categories I had developed through coding. By writing narrative memos, I was able to further synthesize the data and identify four main emerging themes from the interviews.

I chose to make this very specific plan to give myself a structure to follow so that I would give all of the collected data sets equal attention. Following a consistent pattern in my analysis helped me to stay focused and true to the data. I did all initial analysis of the interviews before conducting the final focus group interview in order to guide the process of further data collection. This ended up being an important decision because my initial analysis influenced me to change my original design of the study.

I had originally planned to conduct both pre and post individual interviews; however, following my analysis of the interviews I realized that what was lacking in my original design was interaction between the participants so I chose to conclude my data analysis with a final focus group interview. I hoped to gather from the focus group interview a sense of the participants' feelings about how interaction could have been fostered throughout the study.

### *Discussion Board Responses*

Following the pattern adopted for analyzing the interview responses, I chose to analyze the discussion board responses first as a group of novice teachers and then experienced teachers before comparing the two groups' responses. As I began reading each prompt in chronological order for each group, I realized that by analyzing the responses in groups instead of collectively I was disrupting the natural flow of the discussions and interactions among participants. Therefore, I decided to analyze all of the participants' responses sequentially as they naturally occurred through the participants' use of the discussion board.

The discussion board component of this study was designed to involve the participants in a shared experience with critical and collaborative reflection. Consequently, while the prompts were related to specific aspects within the teachers' classrooms, the process was also equally important to me. Therefore, I decided to analyze both the content and process of reflection in light of the conceptual framework previously described. I initially coded for content specific themes and then created and used two rubrics (Appendix D) to identify key ingredients in the participants' responses. The first rubric includes two main sections based on Dewey's (1909) three dispositions

essential for reflective thought, and van Manen's (1977) levels of reflection. I read each response first looking for instances of the three reflective dispositions Dewey defined as essential to nurturing reflective thought: open mindedness, wholeheartedness, and intellectual responsibility. Next, I read the responses to determine the level of reflective thought based on van Manen's research. I looked for instances where participants' reflective thoughts showed signs of technical rationality, practical action, and critical reflection. I then created a within case chart for each participant and recorded what I had found for each of their seven responses (Appendix D). I used this information to look holistically at the participants' responses throughout the discussion board component of this study.

In addition to this rubric, which focused primarily on the content of the participants' discussion board responses, I also chose to use a second rubric to analyze the levels of reflective writing evident in each submission. This rubric was derived from a variety of similar rubrics used in past research with computer-mediated communication. Computer-mediated communication makes possible person-to-person or person-to-group communication by means of computer networks (Hawkes & Romiszowski, 2001). Researchers have found that technology tools provide a structure for teacher reflection and professional discussions about the work of teachers (Romano & Schwartz, 2005). In a study conducted by Hawkes and Romiszowski (2001), the professional growth and development of 28 practicing teachers in 10 Chicago suburban schools was explored over the course of two years. The purpose of this study was to examine the role of computer-mediated collaborative dialogue in the development of critical reflection as a viable professional growth and development option. The researchers developed for this study a

seven point rubric to analyze the data collected based on Simmons, Sparks, Starko, Pasc, Colton, and Grinberg's (1990) taxonomy for assessing reflective thinking. In this rubric, low levels of reflective thought are characterized as those responses which merely describe events and appear disconnected from the observer, whereas higher levels of reflective thought richly describe events and attempt to tie them to theory or principles of teaching.

In a later study conducted by Hough, Smithey, and Everston (2004), a similar rubric was developed to analyze teachers' submissions to an asynchronous discussion board over the course of three years. The thirty-five elementary teacher participants in this study submitted online messages, which were later analyzed using a seven point scale of reflection. Level one of the scale corresponds to, "communications that are largely social and unrelated to practice, while level seven of the scale corresponds to highly reflective explanations of teaching that are theory based, consider the context, and consider related moral, ethical, or political issues" (p. 362).

Based on these rubrics I developed a five point scale of reflective thought for use in analyzing the discussion board submissions from both the novice and experienced teachers. I chose to reduce the number of levels from seven to five because of the smaller number of participants and range of responses in this study. The rubric I developed begins with level one reflective thought, which is described as responses including no description of a classroom event and unrelated to practice and continues through level five (Hawkes & Romiszowski, 2001). Level five reflective thought includes those responses that describe classroom events and experiences using pedagogical terms, related theories and principles of teaching, and consider contextual factors including

moral, ethical, or political issues (Hough, Smithey, & Everston, 2004). The full rubric can be found in Appendix D of this study.

### *Focus Group Interview*

A focus group interview was scheduled at the completion of the discussion board portion of this study. According to Vaughn, Schumm, and Sinagub (1996), “the goal of a focus group interview is to create a candid, normal conversation that addresses, in depth, the selected topic” (p. 4). In this study, the focus group interview was used to verify my initial findings and analyses of the individual interviews and discussion board submissions as well as to obtain input from the participants about their shared experience. There were several factors that contributed to my decision to change the design of the study following the initial interviews and discussion board portion. After conducting the initial interviews and reading the discussion board submissions, it became clear that the participants enjoyed face-to-face communication with their peers and I hoped to understand their shared experience more fully by participating in a focus group discussion with these teachers. Additionally, in my initial analysis I realized that these teachers may have benefited from meeting at the onset of the study. They may have been more likely to participate in collaborative ways if they were able to connect with one another in person before participating in the discussion board. Since, starting the project over was not an option a final focus group was implemented to allow the teachers to provide input to me about their experiences.

An assumption of focus group interviews is that “the researcher can gain insights through listening to participants use their own words and expressions to communicate an experience” (Vaughn, Schumm, & Sinagub, 1996, p. 17). The focus group interview was

held in the conference room at the school where I work. The interview was tape recorded and later transcribed.

The transcript was then analyzed using the same method as used in analyzing the individual interviews. I first read and reread the focus interview transcript while recording anecdotal notes in the margins of the transcript. I then reread the interview and recorded key words or phrases that seemed relevant or interesting in relation to the research question. I grouped the key words into categories and reread the transcript again while coding chunks of text for each category. Finally, I highlighted each category with different colors and then sliced the text selections according to category. I was then able to arrange the slices according to category in an effort to understand or elicit broader themes within and across the categories of data.

#### Strength of the Study

Qualitative research has a unique set of strategies and standards in place for determining the trustworthiness of a particular study. Attention to and efforts made to ensure credibility, transferability, dependability, disclosure of researcher biases, and adherence to ethical concerns are all important aspects of qualitative research that helped to strengthen this study (Merriam, 1998).

#### *Credibility*

Merriam (1998) states that in qualitative research an underlying assumption is that reality is “holistic, multidimensional, and ever-changing” (p. 202). Therefore, in this study credibility is related to how well the research findings match the reality of the participants and how they interpret the world and their experiences. Several strategies

were implemented in the design, data collection, and analyses process to enhance the credibility of this study. First, I used the method of triangulation by collecting multiple sources of data; individual interviews, discussion board submissions, and a focus group interview were used to enhance the trustworthiness of this study. Triangulation helps establish credibility by producing a holistic understanding and plausible explanations about the phenomena being studied based on multiple perspectives or data sources (Mathison, 1988). Secondly, throughout the study I used member checks to ensure that the findings were consistent and plausible by returning to the participants and asking them to read and confirm my initial and final data analyses (Merriam, 1998). I also used peer debriefing when I asked several of my colleagues to read and respond to my emergent findings.

### *Transferability*

In this study, the participants were purposefully chosen in an effort to understand their particular experiences with a phenomenon and the role of reflection in their professional growth and development. I agree with Erikson (1986) and have adopted the stance that the general lies in the particular. By looking in depth at a particular situation, we can apply what we have learned to similar situations we encounter in the future (Merriam, 1998).

### *Dependability*

Lincoln and Guba (1985) suggest that the terms “dependability” or “consistency” be used to describe reliability in qualitative research. This means that instead of expecting the research findings to be replicable, other researchers should be able to agree



that “based on the data the research findings make sense” (Merriam, 1998, p. 206). In this study, dependability was enhanced through triangulation and the use of an audit trail. An audit trail (See Appendix E) is a method of recording the processes by which data were collected and analyzed so that others may retrace the trail that the researcher followed, in order to produce the recorded findings related to a particular set of data (Merriam, 1998).

### *Researcher Subjectivity*

Related to this study, two of my biases are: 1) I believe there is a lack of preparation and resources available for novice teachers for dealing with the realities of teaching, and 2) teachers are commonly overlooked as possible internal resources for one another. In an effort to maintain participant driven interviews, I have made efforts to monitor my biases by asking the participants open ended questions and by refraining from leading their responses in a particular direction. Whenever possible I also returned to the participants and asked for additional clarification about their responses when I was unclear about how to interpret them. An awareness of these biases has also caused me to be vigilant in my efforts to remain open to the possibility that some teachers have experienced and can speak positively about their teacher preparation experiences and the resources that have been made available to them. Additionally, some schools may have professional growth and development programs in place which exemplify the research-based characteristics of effective professional growth and development mentioned in chapter two of this study.

I am also aware that my current position as a teacher in a private school may affect my subjectivity. While I have taught in other schools in the past, the majority of my time spent teaching has been either in parochial or private schools. In general and in this study in particular, I do not want to pretend to understand the intricate details of other local school systems or the experiences of teachers in the various local school districts in which I am not involved. While I believe ultimately all teachers can find common ground to discuss common concerns that run throughout all schools, I must be keenly aware that my experience and the experiences of teachers in other schools might be very different. I do not ever want to assume that I understand fully what another teacher's day to day life is like in his or her school. I also want to be careful not to assume that I can somehow relate better to a teacher who teaches in a school similar to the one in which I teach. It would be unfortunate for two reasons: 1) I may assume too much and think that I know how a teacher feels about something by comparing her feelings to mine, and 2) I may assume that I cannot relate in any way to a teacher that teaches in a school that is dissimilar to my own and therefore alienate those teachers. I have tried to monitor my subjectivity by being up front with all participants in my study about my feelings and my experiences as a teacher. I explained to the participants that at times I would need to ask them to clarify what they had said or affirm my summaries and analyses to make sure that I am writing clearly and honestly about their experiences and thoughts.

Finally, a subjectivity that I noticed in this particular study was that I am a proponent of professional growth and development for all teachers and I am studying a particular professional growth and development tool: critical reflection via an electronic discussion board, but I had to be careful about being impartial. I think it is wise for me to

make sure that I am not putting an optimistic spin on my findings, because I do not want to assume this tool is successful in helping teachers grow professionally. I had to be vigilant about discussing the role of critical reflection in the professional growth and development of novice teachers honestly, which may mean that it plays no role at all. I have tried to monitor this subjectivity by calling the participants and doing member checks to validate my analysis as well as consistently returning to the data for confirmation of my findings. It was important to return to the words of the participants and not to make sweeping statements that are not based in fact.

### *Confidentiality and Consent*

All interviews took place at a location of convenience for each participant and were audio tape-recorded by the researcher. After completing the interviews, the audio tapes were transcribed and coded by the researcher. All transcripts and audio tapes were stored in a locked file cabinet in the office of the researcher and only the researcher has access to the files. The discussion board on which the participants submitted their reflections was open to all participants. Each participant was assigned a login screen name and password. The screen names were assigned as pseudonyms. While participants discussed and participated cooperatively in dialogue via the Internet discussion board, only the researcher had access to the list of screen names attached to each participant and these identities will not be made public to any others outside of the project. The list of screen names, identifying information (actual names of the participants), and initial passwords will also be kept in a locked file cabinet. Participants were instructed during the initial interview to refrain from using their students' names or any other identifying information about their schools or colleagues. Participants'

reflections, comments or discussions via the discussion board were all downloaded, printed and coded. All printouts were also housed in the locked file cabinet. All results are reported with strict confidentiality and no participant names or identifying information are provided in this report. Participants also signed an informed consent letter that details the importance of confidentiality among the participants about the information shared on the discussion board. All participants were made aware through the letter of informed consent that although confidentiality of the subject matter in the discussions cannot be guaranteed due to the nature of an open discussion board, identities are confidential. Consent letters are housed in the locked file cabinet. All files, printouts, consent letters, coded transcripts, and audio tapes will be kept for 7 years and then destroyed.

A focus group interview was added to the design of the study by the researcher following the participants' initial interviews and participation in the discussion board. All of the participants were contacted and asked if they would be willing to participate in a focus group interview while acknowledging the fact that they would no longer have anonymity with the other participants. They were given the option to participate and were informed that their choice would not comprise the study. All of the participants agreed to participate.

### Conclusion

The purpose of this interpretative qualitative study was to explore the role of critical and collaborative reflection in the professional growth and development of novice teachers. In this chapter, I have described the ways in which this study was designed and implemented, as well as the procedures which were used to analyze the collected data

toward this purpose. I have also introduced and described the six participants. In the following chapter, I will describe, explain and provide my interpretations of the data collected throughout this study in an effort to share the insight I have gained about reflection and professional growth and development from working with these teachers.

## CHAPTER IV

### RESEARCH FINDINGS AND ANALYSIS

#### Introduction

I began this study with the belief that teachers deserve professional growth and development that fosters their creativity, feeds their passion for learning, and is authentically rooted in everyday classroom experiences. I chose to examine the role of critical and collaborative reflection in the professional growth and development of novice teachers, because I hoped to gain a greater understanding of the way the teacher participants in this study conceptualize reflection and its potential as a tool for professional growth and development.

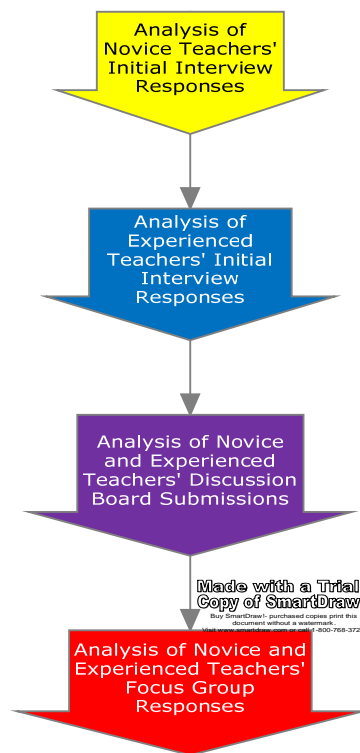
Through content analysis of the participants' interview responses and discussion board submissions, several common themes and threads emerged from their individual stories, which when examined collectively created a larger picture of the role of critical reflection in the lives of these teachers. While these themes are not intended to be generalized to the larger population, they do shed light on particular areas of interest in teacher education and development. In the following sections, I describe, explain and provide my interpretations of the data I collected throughout this study in an effort to share the knowledge I have gained about reflection and professional growth and development from working with these teachers.

#### *Organizational Map*

My findings are organized in the manner in which I analyzed the data. First, I discuss the themes that emerged after analyzing the novice teachers' initial interviews, which occurred before the discussion board component of this dissertation study. Then, I

describe my initial findings from the experienced teachers' first interviews, which also were conducted before the start of the discussion board component. My intention is to illustrate the evolution of these teachers' thoughts before, during, and after participation in the collaborative discussion board. Following an analysis of the interviews, I discuss the emerging themes and findings from the discussion board responses. I then describe my findings from the focus group interview, which was conducted several weeks after the conclusion of the discussion board component. Finally, I discuss my conclusions as I looked holistically at the data for both the novice and experienced teachers.

Figure 1. The Data Analysis Process



## Initial Interviews with Novice Teachers

### *Introduction*

According to qualitative portraitist, Lawrence-Lightfoot (1997), developing emergent themes is the first step in the researcher's analytic process, and these emergent themes represent a researcher's initial attempts to bring order and interpretive insight to the data. I found several common threads or themes in the interview responses of each of the three novice teacher participants in this study. The four themes that emerged from my analysis of the initial novice teacher interviews are: experience and exposure, the nature of reflection, environment, and resourcefulness. The first theme, experience and exposure, illustrates that these teachers base much of their professional confidence on their past experiences and exposure to the teaching world. The second theme, the nature of reflection, explores how these teachers share, discuss, and communicate to solve problems and make changes in their classrooms based on both formal and informal reflections and evaluations of their experiences or lessons within the classroom. Environmental factors, the third theme, also have a significant impact on the role of reflection for these novice teachers. When these teachers' environments support reflection, they tend to have positive attitudes about their teaching experiences and their ability to change, grow and improve their professional practices. However, when these teachers' immediate colleagues are not collegial or the environment is not supportive, they draw upon other resources to make these changes possible and usually are not deterred from doing what they intuitively know is best. Generally, these teachers reflect informally and internally when external communication is thwarted. Finally, the fourth theme, resourcefulness, encompasses both the internal and external resources from which



these teachers draw as they grow professionally within the teaching community. All three of the novice teachers recognized that they have moved and continue to move from less to more confident as their external and internal resources have developed. External resources varied for each teacher, but included such concepts as support, guidance and advice from peers, colleagues, mentors, and administrators as well as participation in professional workshops, conferences, share-fairs, and group discussions. Internal resources were largely based on personal experiences and observations of and within the teaching realm. These teachers mentioned the importance of enthusiasm, involvement, a good attitude, interests, and a desire to improve and continue to learn as major influences or internal resources from which they draw. Additionally, external resources reinforce these novice teachers' internal feelings and in a best-case scenario, these teachers interact, discuss, and reflect with their colleagues in collegial and cooperative ways. In the following sections, I will explain and describe these four themes in greater detail.

### *Experience and Exposure*

The participants in this study defined the role of reflection in their daily lives in different ways based on a combination of their previous experiences and their current situations. For Kathy, reflection was defined in two realms: the here and now, and the past. Kathy recalled that during her teacher preparation she was called on to reflect in more formal ways. She was asked to do “a lot of writings, reflections, portfolios, journaling” (II-K, ln. 283-285), which she considered all “very useful to get you really thinking about what you were doing” (II-K, ln. 285-287), but she said now she finds “that you don’t really journal as much, it is more of discussions” (II-K, ln. 288-290). Kathy also emphasized how important collegiality and collaboration were in making

communication and reflection possible and defined her current reflections as mostly problem solving. Her notion of reflection was highly connected to self-evaluation.

Susan, on the other hand, was very confident in her decision to forgo formal reflective methods. Susan defined reflection as “thinking about what was done, did it go well, what made it go well, what could have made it better and what should be thrown out” (II-S, ln. 1148-1199). She was very direct about her opinion that written reflection or assigned reflection was “b.s.” (II-S, ln. 962), her reason being that as a child she had a particularly difficult experience involving reflection. In second grade, Susan and her classmates were given a journal and were told that they could write their personal and private thoughts in the journal. This sounded like a good idea to Susan, who comes from a big and busy family, until she found out that she was then supposed to turn the journal in each week to be read by her teacher. So, Susan explained, “I’ve been sort of anti-journals ever since I was very young” (II-S, ln. 1049-1050), and she continued, “I still have this thing where I don’t want to write down my personal and private thoughts and have people read them at their leisure. It’s sort of something I’ll do internally” (II-S, ln. 1050-1055). Julie agreed with Susan that some methods of reflection are more effective than others. According to Julie, reflection is “just looking back on the day about how things went in the classroom and thinking about how I can improve” (II-J, ln. 743-745). Julie recalled the experiences she had during her teacher preparation phase and found that discussing experiences in the classroom face-to-face was much more helpful than “writing the papers and reflecting online” (II-J, ln. 397-398). Her explanation for her preference was, “that’s just the way I am” (II-J, ln. 405).

Susan's explanation about her past experiences made me think that, perhaps as with most things, the way teachers choose to reflect is highly connected to their personalities. While Kathy is a "talker since birth" (II-K, ln. 1339), Susan seemed quieter and more introspective and described herself as non-confrontational, and a listener. I also noticed that the teachers' current situations and relationships with their immediate colleagues related to the type of reflection they practice. Kathy and Julie love their teams and enjoy meeting with them each week because they feel like their voices are heard, while Susan complains that her voice is rarely ever heard. Kathy and Julie therefore advocated group collaboration and discussion while Susan emphasized internal thinking as reflection.

As I mentioned earlier, Kathy began her teaching career as an assistant in a pre-kindergarten classroom. Kathy remembers being "very nervous" (II-K, ln. 200) during her first few weeks as a new teacher assistant. She felt young and inexperienced, but she quickly was able to "really get a good grasp [of teaching] by working with someone who had taught for 15 years" (II-K, ln. 144-146). Kathy's student teaching experience was also fantastic, and she had a great cooperating teacher. The principal at this school made teacher development a top priority and provided a variety of professional growth and development opportunities to the entire faculty each week. These positive experiences as well as her involvement in and around the school where she would eventually begin teaching helped to ease Kathy's transition from student to teacher. In my conversations with her, she was very aware of how helpful these experiences were to her smooth beginning as a teacher and said that she thought, "if I would have gone into a new situation that would have been more of a challenge" (II-K, ln. 185-187).

Julie's beginning teacher experiences were similar to Kathy's in several ways, and also quite different. Julie felt very comfortable in her kindergarten classroom when she first became a teacher because she had spent much of her life helping her mom with her kindergarten classes. Julie explained that observing her mom over the years was what really helped to make her comfortable with teaching. She continually returned to this idea throughout her interview and even advised other new teachers to make observing a priority. Julie, like Kathy, began teaching mid-year, which she thought was difficult. She also began teaching at the same time that she began taking classes toward her certification. Julie had never taken an education course until she started teaching, but she said, "I wasn't scared about teaching at all. I was actually very excited about doing it" (II-J, ln. 216-218). She did however have some concerns and worries about the children and the school in which she would be teaching. She was worried particularly for the safety of her students. She described the school as very rough and explained that her classroom was added on mid-year, because of overcrowding which meant that she was not located in the same building as the other kindergarten classes or her mentor. Her classroom was located in the fourth and fifth grade hall, and she often had to "shield her little ones from physical fights" (II-J, ln.116-117). Despite these obstacles Julie credits her mom, her mentor, and concurrently taking courses and teaching for easing her transition into teaching. Having a supportive colleague or mentor-type figure is a common ingredient in both Kathy and Julie's experiences. They both acknowledge these beginning experiences as giving them an increased sense of security and independence, which allowed them in the future to make changes in their classrooms for the good of their students.

Susan did not have quite as collegial an experience during her student teaching and as a result she actually chose to pursue another career after graduating instead of teaching. Susan described her student teaching experience in a kindergarten classroom as crazy and is still quite surprised that she is teaching kindergarten again. Susan did return to teaching after taking a year off, and despite another tumultuous year following Hurricane Katrina, she has continued to remain dedicated to teaching. Susan said she keeps teaching because she loves the children and “watching the light bulb turn on” (II-S, ln. 1408). The experiences these novice teachers have had form the foundation for their reflections and inform their decisions and interactions with their colleagues and students.

### *The Nature of Reflection*

The nature of reflection was another significant emergent theme throughout the novice teachers’ initial interviews. Generally, these teachers said they reflect internally or through discussions with their colleagues. Additionally, a recurring theme among all three teachers was the evaluative nature of their reflective thoughts. The three teachers mentioned that they reflect to improve as a teacher or to improve some specific aspect in their classroom. These novice teachers reflect in an effort to: 1) solve problems; 2) make accommodations; 3) assess and evaluate lessons, problems, programs, behaviors, and strategies; 4) make changes in personal teaching styles, lesson plans, curriculum design, etc.; and 5) think logistically about how to apply professional knowledge practically in their classrooms. After reflecting on a lesson, a day, or a year these teachers think back and decide when and where to make adjustments and accommodations in their practice so that they can improve both personally and professionally. The whole process is evaluative with reflection as the impetus or tool for identifying areas in need of change.

Most of these teachers focused on the practical application of reflection. They reflect to actively engage themselves in the process of improvement. Kathy explained that she likes to reflect with the other first grade teachers. She said, “The other two first grade teachers, the three of us, plan together every week...so, it’s kind of more discussion based” (II-K, ln.291-296). She added, “it’s nice when you are able to sit down with people who are open to reflecting or open to making a change and saying, ‘you know what that just didn’t work, how can we do this better...how can we change, how can we do something different’” (II-K, ln.694-709). Similarly, Julie said, “I’m always trying to improve my teaching practices. So, I guess it’s a way to review yourself and think about what you can improve and what you can change for the better” (II-J, ln.740-753). These teachers also associated new situations or teaching positions with reflective thought. When something is new or unfamiliar, reflection is much more evident. Susan described her thinking process when she said, “...like when they [her kindergarten team members] throw me a whole bunch of papers and ideas. I’ll write them all down and then I’ll go and think about them and how I’m going to do it, if I’m going to do it, cause I say what’s the educational value to it and that’s how I throw some things out the window” (II-S, ln.672-678). Reflection as a tool or practical, evaluative process was reiterated throughout each of the novice teachers’ interviews.

### *Environment*

Another theme that was evident throughout all three participants’ interview responses was the influence of a collegial and risk-free environment in the amounts, types, and levels of reflective thought experienced by the participants. Kathy’s previous experiences were in both collegial and non-collegial environments. When Kathy began

teaching kindergarten for the first time, she was one in a team of four kindergarten teachers at her school. Kathy's philosophy did not match any of her colleagues and she had a very difficult time finding her place among the faculty at her school, because none of the teachers worked well together. Finally, Kathy said she just decided to stop trying to fit in with any of the teachers and started doing what she thought was best for the students. Luckily, she was supported by her principal and the parents of her students. Now, at her new school Kathy just loves working with her team and says, "I've seen the other side and I'm really appreciative of being able to sit down and having your voice heard" (II-K, ln. 927-930). She repeated throughout her interview how much she enjoys planning as a team and how important conversing with her colleagues is to her, both personally and professionally. She explained that when something is not working it is such a relief to be able to talk to a colleague and realize they are having the same struggle or they struggled with this concept before and have a great new way to teach this concept.

Susan admitted in her initial interview that generally her immediate colleagues are not very open to change or innovation and that at first this was very frustrating. She explained that she tries to share with her team, but that generally they want to continue to use the same curriculum they have always used. To illustrate her point, Susan told a story about being a new teacher in a new school, with which I think many new teachers can relate. She explained,

I just think some things are dumb and at the beginning of the year being new here and being new with people and the curriculum I didn't know what my wiggle room was, and so by October I had a conversation with a second grade teacher and she said they [the other kindergarten teachers] just do too much; don't even

try to keep up with them. And, that inspired me to say, no, it's ok for me not to do what they're doing. So, I kind of started testing the waters. (II-S, ln. 392-403)

Inspired by her peer, Susan had a conversation with her principal, and she told her "flat out what I thought about it [the curriculum]" (II-S, ln.590). To Susan's surprise, she was immediately supported in her efforts to make changes in her classroom. While Susan does not have the best relationship with her immediate colleagues, she was able to find another colleague to talk to and she summoned the strength to do what she thought was best for her students.

Just like Kathy, the predominant goal for both Susan and Julie was to do what as best for their students. With the support of some of her peers and the administration, Susan was able to start branching out and trying her own ideas in the classroom. Susan said one of the reasons she wanted to find more interesting and inspiring work for the students was because she had observed many different classrooms and teaching styles and therefore she felt that she had been exposed to different ways of teaching and she knew that there was more than one right way to teach kindergarten. Julie added to the conversation that reflection is possible and needed when you want to improve or motivate your teaching. She too gets a lot out of the discussions with her colleagues and administrators, but she also relies on her ongoing internal reflection. Environmental factors consistently played a role in the stories the three novice teachers shared affecting the amounts, types, and levels of reflective thought experienced by the participants.

### *Resourcefulness*

These teachers, when initially asked to describe their previous professional growth and development experiences, identified external resources as their predominate



means for professional growth and development. I noticed that they all began by speaking about places they had been or experts they had heard speak on specific topics. I labeled these experiences as external, because they either involved leaving the school or having an outside expert come into the school. Collectively the novice teachers mentioned attending and participating in workshops, conferences, share-fairs, expert topical speakers, professional organizations, and education courses. Speaking about her previous experiences, Julie said, “I’ve been to a lot of things, because I’m always signing up for stuff” (II-J, ln. 854-855), and when Susan was asked to describe some professional growth and development experiences she had had since starting teaching she answered with, “one of the better workshops that I went to was Project Read” (II-J, ln. 1297-1298). Kathy responded similarly in her own interview when she said she had been to, “different workshops, hands-on workshops or workshops where they give you lots and lots of ideas” (II-K, ln.982-983).

One of my biases, as I mentioned earlier, is a belief that teachers are commonly overlooked as possible internal resources for one another; therefore, I tried to monitor my bias by asking participants to not only describe their previous professional growth and development experiences, but also to describe what type of professional growth and development that they have found to be personally most beneficial to their growth as professionals. In addition to their initial recall of past professional growth and development experiences, all three participants agreed that discussions with colleagues and peers were ideal. Julie said, “I really use my teachers that I work with, and my mom now teaches fourth grade so I call her and I ask her for different ideas...” (II-J, ln. 493-497). Kathy concurred and said, “I think that teachers are the best resource to say please

help me or I'm going to pull my hair out... I find even if it's not us sitting around as a group, I am bouncing it off of someone else in the lunch room" (II-J, ln. 968-977). Susan also added to this theme of teachers as a resource by saying, "I think getting together and just talking to people and hearing different ideas is even more valuable than sitting and listening to somebody..." (II-S, ln. 1311-1319). Teacher talk, collaboration, collegiality, group discussions, and observations or exposure to the teaching realm all contributed to these teachers' tool bags of professional resources from which they draw.

### *Conclusion*

In conclusion, four major themes emerged from the novice teachers' initial interviews. First, the importance of past experiences and exposure within the teaching realm plays an integral part in the way these novice teachers make decisions and interact with their colleagues, students, and their students' parents. Additionally, these experiences form the foundation for critical reflective thought on the part of these novice teachers. A second theme which emerged throughout the initial interviews was the evaluative nature of reflection. These teachers reflect primarily to solve problems and make changes in their classrooms, which is a pragmatic and practical response to teaching. The third theme emphasized the importance of environment on each teacher's preference for a particular type of reflective thought and the amount and depth of their reflections. Finally, the theme of resourcefulness was also evident in each of the teacher's interviews. The support of colleagues and other external resources as well as internal resources played a significant role in the way these teachers defined and practiced reflection. All four of these emerging themes helped me to begin to visualize

the role of critical and collaborative reflection in the professional growth and development of these novice teachers.

### Initial Experienced Teacher Interviews

#### *Introduction*

In this study the novice teachers were the main focus; however, integrating experienced teachers in a collaborative environment was a significant and purposeful choice I made based on previous research studies, which support the interaction of experienced and novice teachers in defining and enhancing the role of critical reflection in the professional growth and development of novice teachers. In these initial interviews, I hoped to glean from the experienced teachers not only a sense of their experiences as teachers, but also their perspectives as they looked back on their own growth from novices to experienced teachers. Four major themes emerged as I analyzed and synthesized the initial interview responses of the three experienced teachers. These themes are: perspective, an environment conducive to change, reflection as a process of growth, and resourcefulness.

Mary, Sharon, and Rebecca, the three experienced teachers in this study, acquired a broader perspective of teaching through an increase in their personal and professional roles over time. With this increase in perspective came greater confidence to make changes in their classrooms. In addition, an environment that is conducive to change is necessary if these teachers are to consider reflection a worthwhile practice. All three teachers described reflection as a process that has helped them to develop and grow professionally, which also aids them in successfully managing the complexities of their classrooms. Finally, the fourth theme, resourcefulness, includes two facets. First, these

teachers were motivated to participate in this study because they wanted to be resources to others, and they hoped to reach out to novice teachers as a way of giving back to the community at large. Secondly, these teachers as part of their practice consistently call on or seek out various resources within their own communities for both personal and professional support and guidance. In the following sections, these themes will be discussed and described in greater detail.

### *Perspective*

A theme which emerged during my initial analysis of the experienced teachers' individual interviews was the idea of perspective. The experienced teachers, much more so than their novice counterparts in this study, discussed the ways in which they rely on a variety of personal and professional roles to broaden their perspective of teaching. For example, each of the three experienced teachers made a point to emphasize the importance that being a parent has had on their role as a teacher. Being mothers of school-aged children, specifically, gave them a new appreciation and perspective toward teaching. They explained that they not only could relate better to the parents of their students, but they also got a hands-on, intimate look into the everyday triumphs and struggles of students from their point-of-view, and experiences with their own children affected the way these teachers viewed their students. A broader perspective was also connected to the confidence these teachers felt about making changes in their classrooms. The more exposed they were to other teachers, students, and ways of teaching and the greater number of personal and professional roles they assumed, the more confident they were in their ability to make changes in their classrooms.

Mary recalled that being a novice teacher was overwhelming and oftentimes it seemed as if she was not accomplishing her goals. Mary's personal experiences with her own son made her more aware of what other teachers were doing and the ways these teaching practices affected her own child informed her practice with her students. Mary said, "I think having my own child go through school-I am very much aware of what other teachers are doing and how they're doing what, you know" (II-M, ln. 409-413). Mary began to use her personal experiences to inform her professional practice by reflecting on both her relationship with her son and her relationship with her students. One example Mary shared demonstrates how she used multiple perspectives to evaluate a situation in her classroom.

Mary had been teaching for six years when she was asked to become a middle school math teacher at her school. While this was her sixth year teaching, it was also her first year in this position. She was new to the material and the children. So, she followed the rules. After the first assessment of the new school year, Mary realized that her students had really bombed their test on graphing. She was disappointed and her students were upset, too. She watched the rest of the semester as her students struggled to raise their grades from this one bad test. She decided, then and there, based on her past experiences and knowledge of her students' weaknesses in this area that she would begin the next year with chapter two instead of chapter one. She said, "I mean, I think it was just a process of me thinking it through and my first year teaching math I just did what I was suppose to do, chapter one, and then just realizing that and thinking and looking at the kids. I just switched it around" (II-M, ln.589-594). Mary was able to assess the situation and take a variety of variables into consideration, including her prior knowledge

of her students' abilities and their emotional well-being, and make a change that was in both her students' and her best interest.

Mary explained that in times of transition it is difficult to make these kinds of changes, but given a year of experience, her role as a mother, and her ability to evaluate the situation from multiple perspectives, she had the confidence to make a change in the curriculum (II-M, ln.664-671). She further elaborated that taking liberties with the curriculum was not something she had felt comfortable with when she first began teaching this subject, but over time she has become much more flexible and confident (II-M, ln.653-658). Now, she allows the children to be her guide whenever possible and she says that reflecting is an important part of this process.

Sharon confirmed that she thought more experienced teachers have had a greater amount of time to develop or take on multiple roles in their personal and professional lives. These roles help inform their practice by giving them multiple perspectives with which to view teaching. Sharon explained that being a parent really opened her eyes to the progression of skills taught over the years. Additionally, Sharon recognized her various experiences as a teacher working in a variety of schools and grade levels helped to broaden her overall perspective of teaching and she acknowledged feeling very lucky to have had these opportunities. Sharon explained,

I think like in our whole lower school, I think we need to look at who teaches what and when they teach it, because I think we have a lot of great activities and themes but we need to reshuffle them around because I noticed from switching grades and also from being a parent you know like, symmetry, I can say remember in pre-kindergarten when you did this activity and in kindergarten and

first grade we did this, so you can't tell me we didn't spend time on this or that you didn't learn this because I taught it to you. (II-Sh, ln.654-671)

This year, Sharon specifically enjoyed following her class from first to second grade because she was really able to get to know the children and their ability levels as well as have insight into what they should already know and be able to do.

Rebecca, on the other hand, has taught for almost as long as Sharon, twelve years, but she admitted during her interview that sometimes she feels stuck and stagnant, because eleven of her twelve years have been in the same grade level (II-R, ln.12-13). In Rebecca's current teaching assignment, she has very little interaction with other teachers outside of first and second grade and often wishes that she had a better understanding of the scope and sequence of her school's curriculum across all of the grade levels. Lack of variety seems to keep Rebecca feeling frustrated in her current position. Although Rebecca never admits verbally her frustrations, they were quite evident in my observations of her body language and the tones of her voice.

The experiences shared by these teachers help to illustrate the many variables involved in describing a teacher as experienced. Defining an experienced teacher is often accomplished by simply recognizing the number of years a person has taught. A teacher has a certain number of years of experience; therefore, she must be an experienced teacher. This sort of esoteric use of the term "experienced" does not explain the true value of experience. Experience is more than just years. While these teachers all have taught over ten years, two of the three teachers have taught in multiple grade levels and at multiple school sites. Exposure to varying grade levels and schools has enhanced their years of experience and helped them develop a broader perspective of education and

teaching. Sharon, Rebecca, and Mary repeatedly recognized throughout their interviews that through a variety of experiences they were able to better understand learning as a continuum or cycle.

### *Environment*

As I listened to the three experienced teacher participants discuss the experiences they have had over the years, specifically in the area of professional growth and development, the importance of an environment which is conducive to change and innovation repeatedly emerged from the data. None of the teachers overtly made a connection between their schools and their ability to grow professionally, but it became quite obvious that their environments dramatically shaped the professional growth and development they received and the empowerment they felt to reflect on and make changes in their classrooms.

Rebecca's school is structured quite differently than both Mary and Sharon's schools. When I asked Rebecca to think of a time when she made a change in her classroom and what prompted this change, she explained that she would have to share a story about a time when she made a behavior management change in her classroom, because generally she does not make changes to the way she teaches. When I probed her a little further she said, "typically, just because here they pretty much expect you to follow the books and go from start to finish...., I don't ever change, because that is what is expected here" (III-R, ln. 479-484). She continued to explain that the school was rigid and traditional. Throughout my conversation with Rebecca, we kept circling around the idea that teacher input and innovation were simply not supported at her school. Rebecca described a typical faculty meeting at her school. She said,



We have a faculty meeting every week, and last week it was a little bit of business in the beginning and then we were supposed to break up into our groups, 1<sup>st</sup> and 2<sup>nd</sup> meet together...so we break up into our age groups and they give us something to talk about and we are supposed to come up with ideas...normally we just chat, but if you finish early you get to leave, which is terrible, but that's what everybody does. (II-R, ln.739-754)

Rebecca's environment is not conducive to reflection or professional growth. When I asked Rebecca what she thought educators might say if they were asked what keeps teachers from reflecting, she said, "...you probably get stagnant in what you are doing or you think oh it's worked every year or maybe you don't want to acknowledge your mistakes..." (II-R, ln.648-652). Rebecca agreed to participate in this study because she was hoping that it would help her to really stop and think about what she was teaching, but I understand now that this was a difficult task, due to it being mostly an abstract practice and not something she felt comfortable practically applying in her classroom.

On the opposite end of the spectrum, Mary and Sharon raved about their schools and spoke without prompting about the freedom and autonomy they were afforded. Sharon said her school was a "dream job" and that her administration really treated her well (II-Sh, ln.109-110). She spoke about being free to come up with new and interesting ways to approach the curriculum and offered insight into the flexible nature of planning at her school. The teachers work together collaboratively and new ideas and innovation are a welcome and expected part of the school environment. Sharon explained, "...when you share your idea with someone else, a lesson that particularly worked well, then they

can implement your idea, if something is wrong you can fix it, and if it works well, share it and let someone else have a success, too” (II-Sh, ln. 459-465).

Mary also talked about sharing ideas when she spoke of the brainstorming sessions she has had with colleagues and the open door policy at her school (II-M, ln. 853-854). Mary said,

I think going to other teachers is wonderful, like I needed to think of something to do with one of classes this week because everything is real screwy-lewy because they are going on a field trip and I am not seeing them every day and I have this one little day tomorrow where I was like what do I do with them because we’re about to go on a holiday and I want to do this and she [the computer teacher] and I brainstormed together and came up with this great graphing in Excel sort of thing... and I can do it and wrap it up and finish it and send them on their holiday but I needed somebody to help me. I knew where I was going I just didn’t know how to get there. (II-M, ln.844-863)

Mary illustrated in her stories the freedom she has been given to let the children guide her instruction. The environment for these two teachers supports teacher input and empowerment. They have the support of their administrators and colleagues to take chances and try new things, which is a dramatically different situation than the one in which Rebecca is working. Their environments, consequently, have a significant impact on the utility of reflection for these teachers.

### *The Process of Reflection*

Throughout the experienced teachers’ initial interviews, the process of reflection was consistently defined in various and distinctive ways. Mary defined the process of

reflection as looking back or taking a pause for thinking. Generally, she is not able to do this while she is in the act of teaching, but instead prefers to rewind or think back over her day whenever she can find a spare moment because she believes hindsight is 20/20 (II-M, ln759-761). She explained,

When you're doing it [teaching], you're not really thinking. You're doing and a lot of times in a classroom with kids all coming at you from different angles, you just do what you can do and there is only so much you can do, but afterward if you stop and pause for a minute and think back ...you can see the good things, the things that weren't so good and the things you might want to change..." (II-M, ln.737-748)

Sharon and Rebecca also described reflection as a way of looking back; however, they both narrowed the definition to specifically looking back on a lesson as a way of evaluating what worked and what did not work.

Each teacher explained that they practiced both formal and informal methods of reflection and all three teachers described their introduction to reflective methods as taking place during their undergraduate teacher preparation courses. These teachers were generally asked in their classes to either reflect on an assigned reading or lesson they had conducted during field experiences. Rebecca mentioned that during her student teaching semester she and her cooperating teacher exchanged a double-entry notebook (II-R, ln.377). Either the cooperating teacher or Rebecca would record notes and questions to discuss with one another in the notebook while the other one was teaching a lesson. Later, when the lesson was over, they would either respond in writing or sit down and discuss what they had observed during the lesson. Rebecca found this to be a productive

and helpful way of formally reflecting, but not something she has ever been in the position to continue (II-R, ln.386-391). Mary only remembers being asked to reflect in one of her classes and most of those reflections she said were written responses to assigned class readings. Mary said, “First, it was kind of a pain, but then it was kind of good. It was more effective than just a lecture or taking notes” (II-M, ln.315-322). She also said that she thinks these reflective activities better prepared her for teaching, because they forced her to pause and really think about what she was learning. Sharon had a similar experience with formal reflection. She said that she did not really appreciate it at the time as much as she does now, but if she had the choice she would always choose informal reflection over formal writing, because she likes networking (II-Sh, ln.302-307).

Informal reflection for these teachers includes, first and foremost, teacher talk. All three teachers advocated for teacher-to-teacher interaction and communication as the number one way that they like to reflect. They liked talking to their colleagues when it is unforced and authentic. These teachers are most likely to talk to other teachers in their grade level or subject area, because they can receive immediate feedback and share or brainstorm ideas. When these teachers are alone, they like to reflect internally on their lessons in an evaluative manner. They look for the good and the bad in the lessons they have taught and try to learn from their mistakes. Rebecca said, “If you are reflecting you can figure out what you’re doing wrong and help someone else not make the same mistake ...” (II-R, ln.580-584). These teachers also like to share their success with others and hope to work as a team with their coworkers. Sharon specifically mentioned the idea of working together with colleagues to lessen the workload and she agreed that reflection

is very important because without reflection there would be no room for advancement. The process of reflection, though unique to each teacher, was consistently referred to as a viable and important component of these teachers' daily practices.

### *Resourcefulness*

#### *Resources to others*

According to the experienced teacher participants, teacher preparation classes and specifically reflective practices taught during teacher training do not adequately prepare new teachers for the realities of teaching. One way that these experienced teachers recognized that they could give back to the teaching community and contribute to the novice transition process was by being resources to other teachers through both informal and formal mentoring. Mentoring, according to Mary, is an essential piece of the collaborative process. Mary said,

I wish they gave us more time to meet informally with other teachers that we feel comfortable with. I like mentoring, I think that's very important and I've been a big voice here trying to get the administration to see that our new teachers are coming in and they need an experienced teacher, not that we know everything because we don't...I think that our new teachers need mentors and an experienced teacher that they feel comfortable with to go talk to in an informal way. (II-M, ln.1017-1044).

Mary tries to be a big voice for mentoring at her school because ultimately she hopes to pass on her good fortune to others. Teaching she says is a team practice, and as such, experienced teachers should take the part of mentors to novice teachers, which is one of the reasons why Mary agreed to participate in this study. Rebecca agreed with Mary and

also chose to participate in this study in an effort to help novice teachers. Rebecca explained that she hopes reflection means, “that if you are reflecting you can figure out what you’re doing wrong and help somebody else not make that mistake or praise someone and say oh gosh that’s a good idea and I can do that too” (II-R, ln.578-584). Sharon reiterated this idea by focusing on the importance of sharing expertise with her co-teachers. She said, “When you share your idea with someone else, a lesson that particularly worked well than they can implement your idea, if something is wrong you can fix it and if it works well, share it, and let someone else have a success, too” (II-Sh, ln. 459-465).

#### *Being resourceful*

For these teachers, being resourceful includes attending formal workshops, meetings, classes and conferences as well as informal teacher collaboration and sharing. However, these teachers reported that external resources such as formal meetings, speakers, and other outside resources often seem out of touch with the reality of real children in real classrooms. Mary explained that she much prefers to talk to other teachers who are able to give her practical advice than outside experts, and she welcomes any opportunity to collaborate or brainstorm with her colleagues. She said, “When it comes to an expert talking, sometimes, it seems like pontificating after a while and I think, ok whatever, when was the last time you were in a classroom with real children who didn’t take their medicine or whose parents are getting a divorce” (II-M, ln.960-966). The most valid form of professional growth and development, for Mary, is teacher-to-teacher communication. Rebecca and Sharon agreed that they rely on their colleagues for advice and assistance. Rebecca said, “I talk to my co-teacher a lot and since we

actually give tests and grades in first grade if I grade a test and they all got a D or whatever then I go and talk to her and ask what do we do, did your kids do this poorly and then we go back and teach it again and go from there” (II-R, ln.661-670). Being resourceful is a skill that these teachers are very familiar with, and collaboration and sharing among colleagues is a priority.

### *Conclusion*

Through an analysis of the experienced teachers’ initial interview responses, four emerging themes were identified: perspective, environment, the process of reflection, and resourcefulness. The experienced teachers in this study rely on a variety of personal and professional roles to provide them with multiple perspectives with which to view teaching. This broader perspective of teaching allows the teachers more confidence and multiple ways of viewing problems and issues in their classrooms. Additionally, an environment conducive to change and innovation plays a significant role in these teachers’ perceptions of reflection as a worthwhile practice. Mary, Sharon, and Rebecca also described the reflective process as both a personal and interpersonal practice which has been helpful to their professional growth and development. Finally, these teachers recognized fellow colleagues, mentors, family, and friends as resources within their own communities for both personal and professional support and guidance. In the following section, I will compare the findings for both the novice and experienced teachers’ initial interviews.

### *Comparing the Novice and Experienced Teachers’ Responses*

Two themes consistently emerged within both the novice and experienced teachers’ initial interview responses. First, a supportive and collegial environment, which

is conducive to change and innovation, is essential to the development of reflective practices as a means of professional growth and development. Both the novice and experienced teachers recognized the important role that their past and current environments play in their development as well as their overall satisfaction in the workplace. Secondly, when teachers have supportive peers, they communicate, share, plan, and evaluate in collegial ways that promote reflection as a means of professional growth and development. The resources within these teachers' environments considerably affect the ways in which they choose to communicate with their colleagues and participate in professional activities. However, if external resources do not exist teachers reflect internally instead of communicating with others. These two themes, a supportive environment and resourcefulness, significantly impact the utility of reflection as a tool for professional growth and development. Without support structures and accessible external and internal resources, reflection may seem useless and impractical. In the following section, I continue to analyze these teachers' responses to an electronic discussion board in an effort to clarify the role of reflection in the professional growth and development of these teachers.

### The Discussion Board Component

#### *Introduction*

The discussion board component of this study was designed to allow participants to interact in a shared experience involving critical and collaborative reflection. Each week for seven weeks, the participants were asked to read and respond to the researcher-provided prompt and to one another. The prompts addressed such issues as assessing prior knowledge, motivation, flexibility, complexity theory, teaching philosophies, and



favorite teachable moments. The prompts were designed to encourage the teachers to reflect on certain topics and also tie their reflections to their recent classroom experiences. In addition, the teachers were asked to read and respond to at least two other participant's responses throughout the week to encourage collaboration and communication. Although the prompts used in this study were related to specific aspects within the teachers' classrooms, it was the process that was of particular interest to me.

The nature of the discussion board as collaborative, and the purposeful inclusion of experienced teacher participants led me to decide that analyzing the responses collectively would be most beneficial to the cohesive presentation of my findings. Three of the guiding questions used throughout my analysis of the discussion board responses were: 1) What themes emerge from the content of the teachers' responses; 2) How do these teachers use reflection as a tool for their professional growth; and 3) Why do these teachers reflect in certain ways? Through content data analysis, six themes emerged from the data. These themes are: perspective, student empowerment, environment, differentiated instruction, success, and resourcefulness.

In addition to content analysis, I also used two rubrics to further analyze the responses provided by the participants. The first rubric was designed to help identify instances within the responses which exemplified Dewey's (1933) reflective dispositions and van Manen's (1977) levels of reflection. These research areas were used as conceptual lenses with which to view all of the data that was collected for this study. In addition to this rubric, I also chose to use a second rubric to analyze the levels of reflective writing present in each submission. The second rubric was based on several rubrics used in previous research on teacher reflection and computer-mediated

communication. Conclusions gleaned from these rubrics will be reported in chapter five of this study.

A total of 48 postings were collected from the discussion board for this study. Of the six participants, two responded to all seven of the prompts and only four participants responded to other participants. Approximately sixty-eight percent of the postings were from the novice teachers with 15 of the 48 postings originating from the experienced participants. Additionally, thirteen comments were made in response to other people's postings and of those thirteen, twelve were written by the novice teacher participants. A chart displaying participation for each prompt and instances of participants responding to one another is located in Appendix D following this study.

### *Content Analysis of the Discussion Board Responses*

#### *Perspective*

Through content analysis of all postings and participants' responses to one another, six themes emerged from the discussion board. The first theme that I will discuss is perspective. In their responses, the teachers discussed their perspectives about teaching and learning as developing over time. These teachers mentioned on multiple occasions how they have learned to relax and adapt their teaching to the "big picture". The "big picture" can be described as a teacher's ability to see both teaching and learning as part of a continuum or cyclical process. Kathy wrote, "I came to the realization that what I am teaching this year will be one teeny, tiny part of what they [her students] learn in their lifetimes...This week I finally came to the realization that they are going to continue to work on this for many years to come" (P1-K1, p.1). Having a greater perspective was also connected to how these teachers developed their teaching practice

based on multiple experiences. By observing and working with other teaching professionals, these teachers were able to gain a wider perspective of teaching overall, and perhaps more specifically, determine the type of teacher they wanted to be. Susan described her experiences since student teaching and their effect on her evolving perspective when she wrote,

I have worked with a number of different personality types since then [student teaching], some more difficult than others. I learn best by observing so, my experiences in many different classrooms with many different people and routines have opened my eyes to all sorts of things. It has helped me to say, 'I would like to be more/less like this' about many different situations. (P5-S1, p.13)

### *Empowerment*

The second theme which emerged from the participants' responses was the issue of empowerment or ownership. An emphasis on promoting student empowerment and ownership was evidenced throughout the responses of these teachers. Kathy wrote, "I have found a few times in my short teaching career, that there are some topics that you wouldn't think that kids would know a lot about. Then they blow you away with their prior knowledge" (P2-K1, p.6). Mary agreed with Kathy and added that she tries to encourage her students to take leadership positions in her classroom when they are knowledgeable about a topic. She wrote, "In a simple classroom setting they [the students] like to feel involved and responsible for their learning. They also like to be seen as someone who can offer help with the process" (P3-M1, p.8). Susan also agreed and wrote, "One thing that I think is important is for children to have ownership over their learning. By telling them what to do all of the time, it makes them think they are

doing things only because the teacher said so. When students are part of the decision making and planning process, I think they are much more interested and involved” (P3-S1, p.9). Sharon also discussed instances in her classroom which have been very positive because of student participation and motivation. She explained that she would never think of some of the ideas her student come up with, but they seem to work. She wrote, “It has been a win-win situation. I would have never come up with a pizza party for learning math facts, but the kids were so excited. I guess when you find that motivating factor you can accomplish so much more. The kids really enjoyed taking ownership for their learning” (P3-S1, p.10).

### *Environment*

The third theme which emerged was the importance of environment in how and why these teachers reflect. Not only did environmental factors shape the reasons why these women became teachers, but the environments they have worked in and continue to work in shape their understanding of teaching and learning. Several of the teachers in this study chose to become teachers because members of their families are or were in the teaching profession. Kathy, Mary, Sharon, and Julie all have mothers and/or grandmothers who were teachers, and Rebecca and Susan both credit wonderful experiences with past teachers for influencing them to become teachers. These early experiences shaped these teachers’ conceptions of not only the type of teacher they would like to be, but also what they thought it would be like to be teachers. Kathy wrote, “I remember specific teachers and how they would get excited about the material that they were teaching. I have always wanted to be that kind of teacher-although that does not always happen” (P1-K1, p.1). Rebecca agreed, “I became a teacher because I had great

teachers when I was in school. I loved going to school. I still remember special days I had in school and the learning that went along with it. I wanted to become a teacher that could have the same impact on my students” (P1-R1, p.2).

Throughout different stages of their lives these teachers recall that influential people within their environments have made a difference in their development. Susan explained that during her student teaching experience her cooperating teacher allowed her the freedom to make mistakes and how much this impacted her evolution as a teacher. Susan wrote,

Most importantly though, she [the cooperating teacher] let me start off thinking that I knew everything and let me realize on my own that I needed help...I think this is an important evolution that everyone moves through and I happened to be in an environment that supported me, which I think has had a big effect on me today. I hope someday to be as great a teacher as she was. (P5-S1, p.13)

Environmental factors have had a significant impact on these teachers’ development, and their past experiences powerfully influence the ways in which they create environments for their students’ learning. This is evident in Kathy’s reasoning for setting up her classroom in a child-accessible way. She wrote,

I was lucky enough to work with a teacher who pointed out that kids can do almost anything you ask them to do, if you teach them how to do it. So in my class I have always tried to foster an environment of independence. This is evident in my classroom when you look around and see that everything the kids will need is at their level. I don’t ever hand paper to them or reach something off

of a high shelf. I don't ever have to put things away for them. Everything is accessible so they can be independent. (P5-K1, p.14)

### *Differentiated Instruction*

The fourth theme that emerged from the discussion board responses was differentiated instruction. Throughout their responses, these teachers discussed various ways in which they adapted lessons for specific children, situations or classes, and also why they chose to make specific changes to their instructional practices. Julie explained, "I believe that education is ever changing and teachers may always improve their craft. This philosophy is ever present in my classroom because I don't always teach the same lessons every year and I try to teach to the interests and strengths of particular classes" (P5-J1, p.14). Mary described her growth as a teacher as connected to her ability to differentiate instruction when she wrote,

I survey my kids and then their needs and where they are sorta helps me develop the plan. My kids guide me more now than when I first started. Back in the day, I thought I had to have all the answers. I now see myself more as a guide to help them get what they need to succeed. (P4-M1, p.13)

These teachers also recognized how important flexibility was to their teaching. They gave several examples of moments in their classrooms when things were either going very well or not going well at all, and how they made adjustments to their plans, accordingly. Susan said, "They were having so much fun that we spent over an hour and didn't do anything else in the morning. I think that this was probably a more valuable learning experience for the girls than anything else I could have planned" (P4-S1, p.12). While Julie wrote, "There are many reasons to be flexible in teaching. I have found that

a teacher may find out right in the middle of a lesson that the particular lesson is not working. She made to throw in the towel and start over again using a different strategy” (P4-J1, p.11). Kathy and Mary both explained similar situations when they had to rethink their approaches to teaching. Mary said, “I was teaching and realized that my students totally forgot their integer rules. To go on and try to do these multi-step equations would have been useless. We stopped and revisited the integer rules and they practiced a little bit. The next day we went back and the equations made sense” (P4-M1, p.11).

Teachable moments like these are evidence of the professional decision making that these teachers engage in each day.

These teachers’ determination to plan instruction that is not only interesting and fun, but also rooted in the individual strengths and weaknesses of their students and classes constitutes what Schön (1987) defines as “reflection-for- action.” Julie wrote, “Teachers should always observe, assess, and reflect on the developmental appropriateness of different classroom activities and assignments...teachers also have the responsibility to make lessons and activities interesting...Teachers should incorporate new ideas based on the interests of their class” (P3-J1, p. 8). And, Rebecca explained, “If you can find something that catches the students’ attention, you are set. This can be time consuming, but it’s worth it.” (P3-R1, p. 9). Susan also added, “I think we need to challenge ourselves to come up with both new and different ideas as well as realize the best way for different students to learn” (P1-S1, p. 2).

### *Success*

The fifth theme that emerged from the content of the discussion board was success. Not only do every day successes in the classroom make teaching worthwhile for

these six teachers, but their experiences also inspire them to keep teaching. These teachers identified their ability to help children overcome challenges, both academically and personally, and making a difference in the life of a child as some of the most rewarding aspects of their jobs. This was most evident in the stories elicited from the seventh prompt of the discussion board, in which the teachers were asked to recall their favorite teachable moment. While I am not surprised that these were the richest and most detailed responses I collected, given their positive nature and direct connection to authentic experiences in the classroom, I do believe these teachers' responses shed light on their true passions and the qualities they hold dear as they reflect on teaching and learning. The stories these women shared were chosen for many different reasons, but whether purposefully chosen for this reason or not, were truly inspirational. All five of the six teachers who responded to the final prompt on favorite teachable moments told a story about a child who overcame an obstacle to succeed in some way. I have chosen to share the story Susan told as an example of their success.

Susan began her story by saying, "I had a great moment today with a child in my class" (P7-S1, p.18). Susan's story is about a little girl in her kindergarten class. This little girl is deathly afraid of many things including the elevator. On a special day at school when the kindergarten celebrates what they call "Backwards Day," an activity was planned for each of the classes to ride the elevator upstairs instead of taking the steps. Susan explained that this was just one of the many activities that they had been doing for years on "Backwards Day," and most of the kids thought it was fun. On the morning of "Backwards Day" Susan pulled her student aside, anticipating her reaction, and told the little girl that she did not have to ride the elevator if she did not want to, but that she



would walk with her up the steps instead. Despite Susan's explanation, the little girl started crying. She was so scared, and she kept repeating that she did not want to ride the elevator. So, Susan took her up the stairs and really did not give it much more thought until the end of the day when the little girl pulled her aside and asked if she could ride the elevator down to carpool. Susan was shocked. This little girl had been thinking about this moment all day and although she was still visibly scared and shaking, she had decided to try to conquer her fear. Susan said, "We went down and as the doors opened, I could see her breath a sigh of relief. She did it and I was so proud of her...I picked this story because this is a child that I have often felt that I have been unable to reach...and the fact that she looked at me for support, then was able to actually face her fear makes me proud of her" (P7-S1, p.18). This story speaks volumes about the kind of teachers these women are, and the enormous depth and range of their teaching abilities.

### *Resourcefulness*

The final theme that emerged from the content of the discussion board was resourcefulness. These teachers discussed being resourceful as both a personal tool and an interactive part of teaching. Being resourceful sometimes means being open to new ideas and seeking them out. Sharon wrote a story about her students "getting stuck" during a vocabulary exercise. Her students were unable to find all the words they needed in the dictionaries they were using. She wrote, "Right after the lesson I walked into the other second grade class. The teacher had the kids looking up vocabulary words too, but her kids were using the Internet instead of a regular dictionary. They didn't run into the same trouble we had. I immediately went back to my room to share my latest news" (P1-Sh1, p.3).

Being resourceful can also include teacher sharing and collaboration. An interesting comment made by Julie opened up a conversation about teacher resourcefulness that demonstrated the different approaches some teachers take. Julie responded to Sharon who had written how much she enjoyed working with the same class for two years,

I can see how it would be nice to teach one class for two years...Sometimes I feel like teachers can learn from each other from year to year to year about students and their parents (when moving with your class is not an option). When I taught kindergarten, I would make a portfolio for each student I taught from the beginning of the year to the end...I was so eager to give the first grade teachers my portfolios so that they could better understand their students. To my surprise, the first grade teachers didn't want the portfolios. They said they wanted to find out about the students on their own. I guess I can see the argument from both sides. (P2-J3, p.7)

To which Susan responded, "I could understand if the teachers didn't want to hear what the students were like behaviorally, but I think it would be neat to see the portfolios and the beginning of the year to see where they started" (P2-O2, p.7). This dialogue between the participants is one of the few interchanges I collected that displays these teachers' collaborative effort for understanding. It also demonstrates the complicated dynamics involved in working with teachers who have various perspectives on a given topic. Being resourceful sometimes means working collaboratively with other teachers and sometimes requires solo expeditions into the unknown.

Mary equated being resourceful with developing experience over time and relying on her own personality. She wrote,

I also find that as I have become more confident and secure in myself professionally, I am more willing to be open and flexible. I think that I have a reputation as a tough teacher subject-wise, but I am also reasonable and understanding. I'm also a mom and I try to teach my kids the way I'd like my child to be treated. I also think that as I have gotten older I realize a good dose of common sense is very helpful in the classroom. (P5-M1, p.13)

Susan agreed that her own personality helps her deal with the complexities of the classroom. Being resourceful has a powerful impact on the way these teachers grow professionally to the extent to which they rely on a variety of types of internal and external resources including: personal, familial, collegial, and academic supports.

### *Conclusion*

Through an analysis of the content of the discussion board responses for the novice and experienced teachers, six themes emerged: perspective, student empowerment, environment, differentiated instruction, success, and resourcefulness. These six themes when examined together help to paint a picture of the role of reflection in the professional growth and development of novice teachers. The themes remind us that a variety of factors contribute to the role of reflective practices in these teachers' professional growth and development. These themes also help to answer the questions: how, why, when, and about what do these teachers reflect? The six themes that emerged from the discussion board responses reinforce several of the findings from the initial

interviews, which in turn help to bring greater clarity to a developing picture of the role of reflection in the professional growth and development of novice teachers.

The three themes that have consistently emerged through both the initial interviews and the discussion board submissions are: perspective, environment, and resourcefulness. While the theme of perspective was initially identified in the experienced teacher interviews, it was continued in the discussion board responses by both the experienced and novice teachers. Perspective was identified as contributing to the ways in which these teachers create a frame of reference for their reflections. Through past experiences with other teachers and in a variety of environments, these teachers gained a broader perspective of teaching in general, and a more specific understanding of their beliefs about teaching and learning. Environmental factors also played a significant role in the types and depth of reflection in which these teachers participated. Throughout the initial interviews and discussion board responses the teachers described the effects of their environments on their professional growth and development. Environments, which are structured in ways that support teacher growth, are open to teacher input, innovation, and empowerment. These environments foster teacher development by acknowledging professional expertise and allowing for teachers to evoke their professional latitude in making decisions within their classrooms. In a supportive environment, both personal and professional resources are plentiful. Colleagues are supportive and collegial, and teacher dialogue is common and expected. In an environment which does not support teacher input and innovation, teachers must rely upon personal or external resources for support. Teachers can experience success in these environments, but the path is much more difficult and requires a substantial amount

of personal determination and resilience. In chapter five, I discuss the use of two rubrics which were used to further analyze the discussion board responses in light of previous literature and research in the area of critical and collaborative reflection.

### Focus Group Analysis

A focus group interview was conducted several weeks after the completion of the discussion board component of this study in mid-June, 2007. I chose to conduct a final focus group interview in hopes that the participants would be able to shed some light on how, why, and if their shared experience of participating in a collaborative discussion board affected their professional growth and development. My analysis of the focus group responses confirmed previous findings.

I learned that the participants recognized a sense of camaraderie and appreciated the opportunity to relate with other teachers during their shared discussion board experience. Even though the teachers who participated did not regularly collaborate or dialogue with one another, the participants' willingness to share their thoughts and experiences helped to create a sense of community among the participants. The participants also cited the feedback they received from the other participants as an important incentive for their continued involvement in the study. Additionally, writing and sharing their responses with the group allowed the participants to reflect on their work and think positively about their accomplishments. All of the participants agreed that they rarely receive positive feedback from their students, parents or administrators, and they realized that sharing their stories and accomplishments with their peers was a supplemental form of support and motivation that they craved. The support and feedback

these participants experienced acted as an incentive, to not only continue to participate in this project, but also to have a more positive attitude about teaching and learning overall.

In addition to the support these teachers experienced, the participants also identified gaining greater perspective as an incentive for participation. Throughout the interview, the participants emphasized teacher sharing as a way to gain a broader perspective about teaching and learning and they linked this additional perspective directly to the way they evaluate and change practices in their classrooms and the ways they think about teaching.

This study was not without its obstacles. Time constraints, lack of participation, environmental factors, and technological problems were identified as some of the obstacles, which deterred participation and limited the scope of professional growth within this study. There were additional aspects related to the use of a technology-based discussion board, which were identified as obstacles. Several of the teachers shared that their experience may have been more beneficial if the discussions had been face-to-face instead of on an electronic discussion board. Time was also a major obstacle for several of the participants. Additionally, personal preferences weighed heavily on the participants' evaluations of the benefits of this study.

Despite these obstacles, the six teacher participants in this study recognized several positive aspects of their shared experience. They mentioned the opportunities this discussion board afforded them to collaborate, share, and interact with teachers from outside their schools as positive outcomes of their participation. In addition, they also recognized that they experienced personal growth and an increase in their confidence to make changes in their classrooms and evaluate their practice. And, despite a low level of

interaction between participants, it seems that benefits generally attributed to collaboration are present in this study.

The importance of allowing and encouraging teacher input in creating and implementing professional growth and development cannot be overstated. Throughout the focus group interview responses, each teacher emphasized, on more than one occasion, the important role their preferences, personalities, and interests play in their willingness to participate in professional growth and development. This study explored one specific method of reflection; however, there are many additional modes of reflection, several of which the participants in this study mentioned and advocated. In addition to technological means of reflecting, the participants discussed the use of face-to-face discussion groups, mentoring programs, internal reflection, informal teacher talk, story-telling, decision making, and problem-posing strategies as means of reflecting about teaching. These methods were closely linked to the teachers' personal preferences, personalities, past experiences, and current teaching environments.

In the final focus group interview, the participants helped to bring clarity to my developing vision of the role of reflection in their professional growth and development. The focus group interview allowed the participants to talk about their collective experience and clarify my emerging findings about the role of reflection in their professional growth and development. It also had the culminating effect of coming full circle from initial interview responses through participation in the discussion board to a final review of participants' experience. In the following chapter, I examine these findings in reference to the larger body of literature and previous research on the topic of critical reflection.

## CHAPTER V

### SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

#### Introduction

“Proponents of a reflective orientation to professional preparation assert that learning to reflect on one’s practice enhances one’s capacity to deal with the complexities, uncertainties, and ambiguities that characterize professional roles and responsibilities” (Sumison, 2000, p.199). The purpose of this interpretative qualitative study was to explore the role of critical and collaborative reflection in the professional growth and development of novice teachers. Three novice and three experienced teachers participated in this study and three data collection methods, initial interviews, discussion board responses, and a focus group interview, were implemented. These methods yielded data, which when analyzed, displayed several emerging themes related to the research question: What role does critical and collaborative reflection play in the professional growth and development of novice teachers?

#### *Organizational Map*

In this chapter, I have organized my discussion of the relevant findings around three major areas. First, I discuss the initial conclusions I was able to draw from the participants’ individual interview responses. Through their responses to initial interview questions these teachers helped to clarify and answer the research questions: 1) How are reflective practices currently cultivated within programs of teacher education and the elementary setting, and 2) What role does critical and collaborative reflection play in the professional growth and development of novice teachers?



Secondly, I discuss the four themes which consistently emerged throughout the initial interviews, discussion board submissions, and the final focus group interview. These themes were: perspective, environment, teacher input, and resourcefulness. The themes I have chosen, and the interpretations of the data which I have made, constitute only one of many possible interpretations of this set of data. I acknowledge that many alternative interpretations could be produced from this data set.

In the third discussion section, I utilize three areas of research: 1) Schön's (1987) theory of reflective thought, 2) Dewey's (1909) reflective dispositions and phases of reflection, and 3) van Manen's (1977) levels of reflection, to create a comprehensive conceptual lens with which to discuss the participants' interview responses and discussion board submissions. I will also discuss the use of two rubrics to further analyze the discussion board submissions. The first rubric was used to analyze the content of the submissions to the discussion board, and the second rubric was used to analyze the level of reflective writing. Additionally, I will address the use of computer-mediated communication as professional development.

Finally, I have also included in this chapter the implications I have drawn from these findings, limitations and delimitations that emerged during the study, and my recommendations for further research.

#### Part One: Initial conclusions

This study originated because I wanted to know more about the role of reflection in the professional growth and development of novice teachers. Over the years, I had read and heard "the buzz" about critical reflection in teacher education, but rarely had I encountered it in the workplace. Additionally, as a novice teacher the professional

growth and development I had been exposed to generally involved attending specific workshops or conferences to listen to expert speakers on different education topics, not developing reflective practices. Over time, I became increasingly curious and wanted to understand why there seemed to be such a disconnect between the emphasis on reflective practices in teacher education programs and the professional growth and development being offered to novice teachers. I kept asking myself, what am I missing?

Therefore, my first goal in this study was to learn what role, if any, reflection played currently in the professional growth and development of these participants? First and foremost, I learned through my initial interviews with these teachers, that reflective practices were being implemented, to some degree or another, by all of the teachers who participated in this study. Oftentimes, the term reflection was replaced with another label, such as planning or teacher talk, but despite this change in vocabulary there was much evidence that these teachers were reflecting throughout their day-to-day activities. The reflective practices they did participate in were often mislabeled by the teachers because they did not resemble the traditional or formal practices they had been taught during their teacher preparation. All of the teachers recalled being taught formal reflective methods, such as journal writing, portfolio development, and responding to educational literature, during their teacher preparation, but in their current positions they consistently preferred informal methods of reflecting. Therefore, the reflective practices they were currently implementing had adapted and changed into this more informal style.

I also learned that many factors contribute to how, when, where, why, and with whom these teachers reflect. First, the teachers explained and emphasized that both their personal and professional experiences play an important role in forming the foundation

for their reflections, and that these experiences help to inform their decisions and interactions with their colleagues and students. The more these teachers had been exposed to other teachers, students, and ways of teaching, and the greater number of personal and professional roles they assumed, the more confident they were to make changes in their classrooms and to see teaching and learning as part of a cyclical process. These findings correspond with Kagan's (1992) summary of the evolution of novice teachers' professional growth. Kagan found that through exposure to a diverse array of situations in the classroom, novice teachers were better able to generalize and apply problem solving techniques.

These teachers also emphasized the importance of a supportive environment which was conducive to change. The environments in which these teachers worked dramatically affected the professional growth and development they received and the empowerment they felt to make changes in their classrooms. Additionally, their current environments played a significant role in whether or not these teachers' informal reflections included collaboration with their immediate colleagues. Those teachers who felt supported and accepted by their colleagues advocated group sharing and teacher talk while those who felt silenced by their co-workers opted for internal reflection.

The teachers also reiterated throughout their initial interviews how they used reflection to evaluate their teaching practices. They discussed that they reflect because they want to improve some aspect in their classroom. Reflection is seen as a tool for identifying areas in need of change and developing ways to accommodate and adjust their practices. When these teachers have supportive peers, they communicate, share, plan,

and evaluate in collegial ways that promote reflection as a means of professional growth and development.

When asked to identify their past professional growth and development experiences, all of the teachers began by listing external activities such as workshops, speakers, conferences and training sessions. However, as reflection relates to professional growth and development, they all agreed that ideally they prefer to have, and gain the most from, professional discussions with their peers. While reflection may not look the same as it did during their teacher preparation, it still plays a significant role in the professional growth and development of these teachers.

#### Part Two: Emergent Themes

After discussing their current experiences, I gathered the teachers together to participate, via an electronic discussion board, in an experience which provided them with the opportunity to reflect critically and collaboratively on their practice. Following this shared experience, I asked the teachers to discuss again the role of critical reflection in their professional growth and development.

#### *Perspective*

Throughout this study, an expanded perspective was identified by these teachers as the overall benefit they reap from participating in critical reflection. Through both internal and collaborative reflective methods, the participants were encouraged to think in new and different ways about teaching and learning. A broader perspective was also related to the participants' ability to grow and change their personal constructs about teaching and learning through reflection on their practice. According to Peter Silcock (1994), "a perspective is not only a viewpoint...it means seeing one thing in terms of

another”, and “reflection means more than to scan, or access; it means to unite, cognitively, temporally, and spatially disparate elements” (p. 277). Researchers within the communities of practice literature concur that “documenting beliefs and perspectives as one goes about one’s profession is a way of expanding the capability of memory alone and assists in the reenactment and reconstruction of experience, which is at the heart of reflective thinking” (Wesley & Buysee, 2001, p.115). An emphasis on gained perspective is also in alignment with Schön’s (1983) descriptions of reflection. For Schön (1983), “reflection not only exploits the tacit, integrating it with conscious activity, but reshapes it progressively within new perspectives to deal with the moment to moment dilemmas which characterize teaching” (Silcock, 1994, p. 278). Additionally, Kagan (1992) defined professional growth as “changes over time in the behavior, knowledge, images, beliefs, or perceptions of novice teachers” (p.131). The teachers in this study recognized that the exposure they received to other teachers’ perspectives was beneficial to their own growth and development as teachers.

### *Environment*

The second major theme which emerged consistently throughout the findings is the need for a supportive environment which fosters reflection and is conducive to change. A supportive environment can be defined by both people and policies. Teachers who are able to work together in collegial and cooperative ways help maintain an environment that supports professional growth and development and reduces feelings of isolation, and administrative or school wide policies, which support teacher empowerment, professional decision making, and reflective practices are necessary in creating an environment in which teachers feel safe to grow and change. According to

Schön (1987), continued discourse between professionals is an essential component which supports reflective thought and professional growth. Additionally, the learning-to-teach literature cites interaction with colleagues as an integral part of the induction phase for new teachers (Wildman et al., 1989). Interaction with colleagues can play a crucial role in reducing feelings of isolation and increasing the retention of new teachers by easing the stress inherent in beginning teaching, reducing the work load, and sharing resources and suggestions (Wildman et al., 1989, p. 478).

Additionally, research in the area of computer-mediated communication suggests that some teachers do benefit from and are supported in their efforts to reflect when they participate in asynchronous communication with other teaching professionals (Maher & Jacob, 2006). In this study, six teachers with varying levels of experience and backgrounds were gathered together to participate via a discussion board in critical and collaborative reflection. While some of the teachers were currently teaching in the same school, all of the teachers came to the study with unique perspectives and previous experiences in teaching. The environments these teachers had experienced in the past as well as their current teaching assignments played a significant role in their approach to teaching and reflection. Both the people and places they had encountered over the years also influenced their definitions of and openness to reflection and professional growth and development.

In previous research, several influences which hinder reflection were identified, including a perception by teachers that their environment was unsupportive of reflective practices (Sumison, 2000). Therefore, providing teachers with supportive environments, such as computer-mediated communities, where they can reflect with their peers on their

educational concerns, needs, and accomplishments can potentially provide teachers with the support they need to grow professionally.

### *Teacher input*

Teacher input is another vital factor which plays a role in sustaining worthwhile professional growth and development. The teachers in this study want to be recognized as stakeholders who are included in the conception and planning of professional growth and development. Their personal preferences, past experiences, current environments, and specific professional and personal needs play a significant role in the professional growth and development these teachers both need and want. According to Pierce and Hunsaker (1996), teacher ownership is an essential ingredient in professional growth and development which results in long-term, substantive change. Unfortunately, the devaluing of teacher input continues with increases in mandated, prescribed and scripted programs. And, as Sparks (2004) suggests, the danger of devaluing teacher input is that it creates an aversion to professional learning and stifles creativity, which both have serious implications for students.

### *Resourcefulness*

Finally, external and internal resources and the ability to be resourceful were significant themes throughout this study. Colleagues, mentors, administrators, friends and family members are just a few of the external resources that these teachers call upon for support and guidance in their teaching. In addition, past experiences, specifically past courses or professional growth and development activities in which they participated, also inform these teachers' practices and willingness or openness to seek out additional professional growth and development opportunities. These experiences combined with

each teacher's personality and current teaching environment often dictate the role reflection plays in their professional growth and development. According to Richardson (2003), when professional growth and development is aligned with research it encourages collegiality and collaborative planning and allows teachers to take ownership of their own learning. Additionally, Yost, Senter, and Bailey (2000) found that reflective teachers are resourceful in their efforts to "question aims and actions; and constantly review instructional goals, methods, and materials" (p. 401). Researchers in the area of computer mediated communication agree that effective professional growth and development should be ongoing, collaborative, and allow teachers to interact with their peers (Riding, 2001). Online communities can provide these types of opportunities by allowing teachers to work collaboratively, and communicate more effectively with a wider, more diverse range of colleagues (Liebermann, 1995).

### Part Three: Conclusions through the lenses of a conceptual framework

#### *Schön's theory of reflective thought*

In the introduction to this study, I identified three areas of research, which I utilized in creating a comprehensive conceptual lens for discussing the participants' interview responses and discussion board submissions. First, Schön's (1987) theory of reflective thought, which rejects the separation of theory and practice and promotes the continued discourse between professionals as a means of promoting reflective thought and professional growth, was used to analyze the novice teachers' responses. These teachers reiterated throughout their interviews an emphasis on the importance of collegiality and collaboration with their colleagues as an integral part of their professional



practice. The teachers that I interviewed discussed what Schön (1987) would call reflection-on-action. They described their reflection as a way of reviewing or evaluating their practice in retrospect. Julie defined reflection as a way “to improve my teaching practices...to review yourself and think about what you can improve and what you can change for the better” (II-J, ln. 740-745), while Kathy explained, “I think right now the most reflection that I do is discussion with other teachers...to say ok this is what we did and this did not work...just thinking to ourselves that next year we gotta try things differently...” (II-K, ln. 609-618).

The experienced teachers reiterated these points throughout their interviews and emphasized the importance of the perspective they gained through a variety of personal and professional roles. When these teachers interact with their colleagues to plan, share, and support one another in what Schön (1987) would call reflection-on-action, they, much like the novice teachers in this study, described their reflection as a way of reviewing or evaluating their practice. Mary described teaching as a fluid and complex activity. She said that she is constantly pulled in multiple directions, and she spends a lot of her teaching time interacting with students to solve problems and answer questions; therefore, reflection is usually something she waits to do after the fact [reflection-on-action].

Mary and Sharon also discussed the idea of reflecting collaboratively when they discussed planning with their colleagues for future lessons. These brainstorming sessions, as Mary called them, are what Schön (1987) describes as reflection-for-action. However, Mary and Sharon had differing opinions about Schön’s process of reflection-

in-action. While Mary reported feeling too involved in the complexity of the classroom dynamics to reflect during instruction, Sharon discussed “tweaking” her lessons as she teaches, because she often has the opportunity to teach different small groups the same lesson multiple times in one day. Due to this opportunity, Sharon gets the chance to reflect while teaching on what she might change or adjust for the next group.

Both the novice and experienced teachers expressed that their current reflective practices are mostly informal and in the forms of oral communication with their colleagues or internal thinking. Additionally, when these teachers defined reflection, they spoke of being taught formal reflective practices during their teacher training such as journaling, portfolio development, online discussion boards, and responses to assigned readings; however, they all agreed that currently they practice more informal methods of reflection. Susan and Julie both mentioned that they still receive and enjoy reading professional journals or books about teaching, while Kathy said she learns a lot more from hands on activities or discussions. All of the teachers agreed that in the best case scenario they would like to reflect as a team with their colleagues through discussions. Schön’s (1987) theory of reflective thought is rooted in this type of collaborative interaction between professionals.

#### *Dewey’s reflective disposition*

Comprising the second area of research in my conceptual lens is Dewey’s (1909) belief that nurturing reflective thought requires the development of three essential dispositions: open-mindedness, wholeheartedness, and intellectual responsibility. Open-mindedness implies a willingness to consider multiple ideas and practices and

wholeheartedness is the willingness to devote oneself emotionally, physically, and mentally to solving problems that arise, whereas intellectual responsibility requires the reflective thinker to consider all the consequences of any proposed plan of action (Norton, 1999). All of the novice participants displayed signs of open-mindedness in their ability and interest in evaluating, improving, and refining their practice. These teachers also spoke with conviction about their willingness to become better, to do things differently, and to think about what they've done and how it can be improved or revitalized. The teachers did not speak specifically to the idea of intellectual responsibility, but they were also not asked any questions that might have alluded to this topic so it is impossible to comment on their ability to do so.

The three experienced teachers, however, displayed attributes of all three dispositions described by Dewey in their interview responses. Mary explained in her interview that experience has taught her to be more flexible. She said,

...the biggest lesson about teaching is being flexible, let the children be your guide, ...I'll look at where we left off and I'll look at where I want to go this week and I'll have a loose idea of where I want to be on Friday and sometimes I'll get there...but you never know, you can't stick to a rigid schedule. (II-M, ln. 1108-1130)

Mary's open-mindedness and child-centered attitude is evident throughout everything she says and does. Sharon also discussed the flexible attitude and openness she brings to teaching when she described the teamwork nature of her planning and instruction.

Rebecca, on the other hand, expressed a style of teaching that was less open to change and innovation, which mirrors her school environment.

Rebecca did, however, emphasize the importance of a whole-hearted approach to teaching when she discussed the goals she and her fellow teachers had set at the beginning of the year. It was obvious through her explanation of these goals that an “ethic of care” (Gilligan, 1982) was being taken into consideration with respect to the children she taught. Rebecca explained,

We did set some goals for this year and we did say we wanted to work on building community and making respectful choices, it was more of a personal growth for the children...a lot of these children don't see their parents a lot because they're working...so we talked about what they can do to help one another...you know like how to treat a friend. (II-R, ln. 846-865)

Additionally, Rebecca added when asked what advice she would like to give new teachers, “Be compassionate to the children and just keep balance” (II-R, ln. 963-964).

Sharon's emphasis on being resourceful and working as a team exemplified what I think it means to have a disposition of intellectual responsibility. Sharon described her reflective process as, “time to sit back and say let me replay that lesson in my head, what worked, what didn't work...then you can always just grow” (II-Sh, ln. 409-413) and “if you can team up or plan together and divide the work with people in your grade level I think that helps, get everyone together and throw out ideas and say let's run with this idea and that idea...and share the workload” (II-Sh, ln. 755-762). Although this veteran teacher was not asked a specific question to elicit reflection at the level of intellectual

responsibility, her response to a question about her reflective process does, I believe, indicate the type of intellectual responsibility Dewey described.

Additionally, Dewey (1909) described the reflective process as encompassing five phases: suggestions, problems, hypotheses, reasoning and testing (Loughran, 1996).

When these teachers reflect, either privately or collectively, their focus is usually devoted to problem solving, making accommodations, evaluating, or creating a change in their classrooms. These teachers' past experiences play a significant role in determining how they approach reflection and their confidence and ability to stand up for what they believe in against colleagues who have different philosophies about how and what to teach.

Having exposure to the world of teaching before beginning to teach on your own was identified as a significant component of teacher development by the participants.

In addition, these teachers said that ideally professional growth and development allows new teachers to interact with their colleagues through collaborative discussions, which enable them to gain greater perspective about their teaching. Consequently, if the environment is conducive, then reflection occurs more readily. Mentor or mentor-like relationships were also identified as ways to help new teachers by acting as external resources for communication and problem solving. Additional resources included support, guidance and advice from peers, colleagues, other teachers outside of their school, and administrators as well as professional growth and development activities such as attending professional workshops, conferences, share-fairs, and group discussions. These resources reinforce internal feelings of confidence and competence and in a best case scenario, teachers interact and reflect with their colleagues in a collegial and cooperative way.

### *van Manen's levels of reflection*

Reflection for van Manen (1977) includes a progression of thought from technical rationality to practical action, and then critical reflection. He concludes that ideally these levels would parallel the growth of a teacher from novice to experienced. Technical rationality, the least sophisticated of the three levels of reflection, is characterized by basic thoughts about the structure and organization of lessons and the classroom, whereas, practical action involves making specific classroom decisions based on pedagogical knowledge, curricula and available materials. Finally, critical reflection, the third and highest level of reflection, includes questioning the moral and ethical concepts surrounding issues in the classroom. For the novice teachers in this study, the first and second level, technical rationality and practical action, were present throughout their interview responses; however, the third level, critical reflection, was not as easily identifiable.

Likewise, in the interviews with the three experienced teachers, a mix between technical rationality and practical action was demonstrated in most of their responses. These teachers spoke fairly holistically in their interviews about the structure and organization of lessons, which van Manen defined as a technical rationality level of thought. In several instances, the teachers explained incidences from their classrooms and experiences they had based on pedagogical knowledge, curricula and available materials, which would be described as the practical action level of reflective thought. Little support for a critically reflective level of thought was evident in these initial interviews. While both Mary and Rebecca alluded to and discussed the importance of

teaching the whole child, they did not reflect specifically on issues in the classroom in light of moral and ethical concepts.

### *Rubric One: The Content*

To further analyze the discussion board responses, I designed a rubric to help identify instances within the responses which exemplified Dewey's (1933) reflective dispositions and van Manen's (1977) levels of reflection. First, I read each response looking for instances of the three reflective dispositions Dewey defined as essential to nurturing reflective thought: open mindedness, wholeheartedness, and intellectual responsibility. And, since Dewey's reflective dispositions are not mutually exclusive, some of the responses were recorded as demonstrating more than one disposition (See Appendix D). The most prevalent disposition demonstrated throughout the responses was wholeheartedness, which was identified in 17 of the 35 original responses to the researcher provided prompts, followed by 11 responses which were coded as demonstrating an open-minded disposition, and 7 responses which were coded as demonstrating intellectual responsibility.

Next, I read the responses to determine the level of reflective thought based on van Manen's research. I looked for instances where participants' reflective thoughts showed signs of technical rationality, practical action, and critical reflection. Utilizing this information I created a within case chart for each participant and recorded what I had found for each of their seven responses (Appendix D). I was able to then use this information to look holistically at the participants' responses throughout the discussion board component of this study. In the following sections I will discuss these findings in greater detail.

### *Dewey's Three Essential Dispositions*

In Dewey's (1933) book, *How We Think*, the concept of reflective teaching is discussed in great detail. According to Zeichner and Liston (1996), "Dewey makes an important distinction between action that is routine and action that is reflective. According to Dewey, routine action is guided primarily by impulse, tradition, and authority" (p. 9), and there are three essential dispositions which are integral to reflection that is not routine: open mindedness, wholeheartedness, and intellectual responsibility.

*Open mindedness.* In the responses collected for this discussion board, each of the six participants, some more than others, reflected in ways that demonstrate an open-minded disposition toward teaching. "Teachers who are open-minded are continually examining the rationales that underlie what is taken as natural and right, and take pains to seek out conflicting evidence" (Zeichner & Liston, 1996, p.10). In one of her responses, Sharon shared a story which demonstrated her open-minded attitude toward accepting student suggestions. She wrote,

My class likes to come up with class challenges...during math checkups the class met their minute goal two days in a row. One of the rowdy boys in my class called out, 'Hey, we should get a pizza party'. I told them they would need to meet their goal more than two days to get a pizza party. Well eight days have gone by and the entire class has consistently met their goal.... (P3-Sh1, p.10)

Julie also described an experience in her classroom when being open-minded made a significant impact on the way she chose to approach a lesson. Julie had decided to teach her students about space, but instead of assuming a starting point on her own she



involved her class in preparing the lesson by assessing their background knowledge. She wrote,

I already knew my students' general existing skills and developmental levels but what I didn't know was how much they knew about space. So, I decided to use a "Know and Wonder" chart to find out what they knew...I was amazed...I was able to teach them so much more than I had originally thought I would. That was one of the most successful units I ever taught. (P2-J1, p.6)

An open minded disposition requires teachers to think purposefully about the decisions they make in their classrooms and how each decision affects student learning and development.

*Wholeheartedness.* Having an open-minded disposition is one essential ingredient of reflective thought, additionally; a whole-hearted disposition is also seen as contributing to the overall reflective nature of teachers. "Teachers who are whole-hearted regularly examine their own assumptions and beliefs and the results of their actions and approach all situations with the attitude that they can learn something new...and they make deliberate efforts to see situations from different perspectives" (Zeichner & Liston, p.11). The teachers who participated in this study most notably showed the disposition of wholeheartedness throughout their discussion board responses.

As Mary explained, sometimes it is the non-academic moments when teachers feel they make the most difference. She wrote,

There was a girl in my class that just felt I had it out for her and didn't like her, so she called me the other "witch" word. Of course I found out...It took her two weeks, but she showed up today. We really talked and we both realized we had

the wrong impression of one another...I walked back to my room and realized I do so much more than just teach math. We as teachers can and should teach more than academics. We have an opportunity to teach life lessons that these kids will take forward with them beyond their time with us. (P1-M1, p.1)

Wholeheartedness in reflection is connected to the theme of perspective that emerged during content analysis of the discussion board responses. A teacher with a wholehearted disposition is open to innovation and change because she acknowledges the learning process as fluid and evolving.

*Intellectual Responsibility.* The third disposition described by Dewey is intellectual responsibility. “Responsible teachers ask themselves why they are doing what they are doing in a way that goes beyond questions of immediate utility to consider the ways in which it is working, why it is working, and for whom it is working” (Zeichner & Liston, 1996, p.10). And, reflective teachers who adopt this disposition think about their teaching in broader terms to determine if the results are good, not just if the objectives are being met (Zeichner & Liston, 1996). The majority of the teachers’ responses in this study did not achieve this type of reflective thought. Their responses, in general, were focused primarily on specific lessons and their objectives, planning processes, and evaluations of those lessons. However, there were a few instances in which some of the teachers reflected with an intellectually responsible disposition. In several of the comments shared by Susan, a breadth and depth of thought about teaching and learning was evident. For example, when asked to describe an interesting event that happened in her classroom this week, Susan went above and beyond the simple retelling of an event to think reflectively about teaching. She wrote,

Yesterday, we did a funny project where the girls drew themselves and wrote fun facts or other information about themselves around the picture...Times like this remind me that there is so much creative energy within, but we as teachers just need to provide an outlet. By only doing “workbook work” and not allowing creative expression we are stifling them. While of course it is important for students to learn the curriculum at school, there are so many ways for them to do that. (P1-S1, p.2)

### *van Manen’s Levels of Reflection*

In addition to examining the dispositions evidenced in the participants’ responses, I also chose to utilize the research conducted by van Manen (1977) to examine the levels of reflective thought present throughout the participants’ discussion board responses. van Manen’s levels of reflective thought encompass three hierarchical rungs: 1) technical rationality; 2) practical action; and 3) critical reflection.

*Technical Rationality.* The first of van Manen’s levels of reflective thought, technical rationality, “concerns the effective application of skills and technical knowledge in the classroom setting. Here, reflection is confined to analyzing the effects of strategies used” (Yost, Sentner & Forlenza-Bailey, 2000, p. 39). This level of reflection was prevalent throughout the participants’ responses due to their emphasis on reflection as an evaluative tool. Many of the teachers’ responses emphasized the technical aspects of planning, implementing, evaluating, and revising instruction. Of the 35 original responses to prompts, ten were labeled as demonstrating this level of reflection. The technically rational level of reflection is considered the lowest level in

van Manen's hierarchy. Examples of participants' comments which represent this level of reflective thought include,

As far as academics, I had fun with my fifth grade introducing probability and fairness of spinners and dice...it is amazing how much more than can learn when you catch their interest with hands on activities. [Mary] (P1-M1, p.2)

Last week, I wanted to introduce fractions, so we did the plate thing. 1 whole, then cut another in half, etc...We talked about equal parts and how to write fractions correctly. So that was our math for the day, but later we were walking in from recess and one little girl said, 'I don't want to do math today.' My response was we already did it. I think learning can be fun and sometimes the kids aren't even aware they are learning. [Rebecca] (P1-R1, p.3)

*Practical Action.* The second stage in van Manen's hierarchy, practical action, "involves reflection about the assumptions underlying a specific classroom practice as well as the consequences of that practice on student learning. This level of reflection implies that teachers are assessing the educational implications of their actions and beliefs" (Yost, Sentner & Forlenza-Bailey, 2000, p. 39). Fourteen of the original thirty-five responses were coded at this middle level in van Manen's hierarchy, as the teachers explained their motivation for teaching certain ways and how their past experiences inform their practice. Some examples of participants' comments that demonstrate this level of reflective thought include,

I think children get excited about learning that they find ‘useful’. If it is meaningful I find that they are more willing to participate in the activities.

[Kathy] (P3-K1, p.9)

I think that grouping students by ability helps a lot when doing reading and writing (or really almost anything). While there are pros and cons to both sides, I find that this gives the higher group an opportunity to excel and gives you time to help the little ones with what they really need. [Susan] (P6-S2, p.17)

*Critical Reflection.* The third stage defined by van Manen (1977), critical reflection, “entails questioning the moral and ethical dimensions of decisions related, directly or indirectly, to the classroom situation. At this level of reflection, teachers make connections between situations they encounter and the broader social, political, and economic forces that influence those events” (Yost, Sentner & Forlenza-Bailey, 2000, p. 39). This level of reflection is similar to Dewey’s (1933) disposition of intellectual responsibility. Only four of the six participants reached this level of reflective thought. All three of the novice teachers and Mary, one of the experienced teachers, reached this level of reflection in their responses.

Those teachers’ submissions which demonstrated this level of reflection were interested and concerned with teaching and learning in the grander scheme of things. Examples of responses that used this type of reflective thought included,

I think that my teaching philosophy has been molded by each of the people that I have worked with and that comes out daily in how I interact with the children,

approach conflicts they are having, and approach learning as a whole. If nothing else, I am more relaxed. (Susan) (P5-S1, p.13-14)

I have also had experiences where working with a particular teacher helps me to realize exactly what I don't want to do in the classroom. I think that the most important thing an educator can do is understand what type of teacher they want to be and work toward that goal. (Julie) (P5-J3, p.14)

### *Rubric Two: Levels of Reflective Writing*

#### *Introduction*

A second rubric was used in the analysis of the discussion board responses to further clarify the levels of reflection present in the participants' written responses. This rubric is based on previous research in the area of computer-mediated communications and teacher reflection. This rubric (see Appendix D) begins with level one, which is described as responses including no description of a classroom event and unrelated to practice and continues through level five, which includes responses that describe classroom events using pedagogical terms, related theories, and principles of teaching, and consider contextual factors including moral, ethical, or political issues (Hawkes & Romiszowski, 2001). A within participant display (see Appendix D) was created to record the levels of reflective thought present in each of the participants' responses. In an effort to create greater reliability in the use of this rubric, I read and labeled each of the responses on two separate occasions and then reexamined my choices when there were conflicting scores.

### *The Levels*

Based on my interpretation of the rubric and the participants' responses, I found no responses which correspond with level one. Level one is described as responses including no description of a classroom event and unrelated to practice. I was not surprised that none of the responses were labeled level one, because each prompt specifically requested the teachers to include authentic classroom experiences in their responses, which they did. And, since the teachers did not use the discussion board for unsolicited dialogue or chatting, all responses were related to the teachers' classrooms or experiences. Forty-eight submissions to the discussion board were collected in this study, 35 of which were original responses to the provided prompts and 13 were responses to other participants. In labeling the levels of reflective writing, I decided to focus on the thirty-five original responses, because these submissions involved all of the participants.

The prompts which elicited the highest overall level of reflection for all participants were the first, fifth, and seventh prompts. Upon review of all of the prompts, I noticed that these three prompts, in particular, solicited stories instead of opinions. The first prompt asked the participants to share why they became teachers and what makes them keep teaching, and the fifth prompt asked them to think back to their student teaching experiences and describe how they had grown or adapted as teachers since that point, while the final prompt asked them to share their favorite teachable moment. Perhaps, the format and type of reflection play a role in the level of reflective thought achieved by participants.

All three of the novice teachers reflected at a similar average level. Kathy, Susan, and Julie's average level of reflection fell between levels three and four on the rubric.

Level three responses include descriptions of events or experiences which are described using pedagogical terms and rationale or tradition or personal preference, while level four responses have the added component of contextual factors. In general, the three novice teachers' responses were based on their current or past classroom experiences. These teachers related their experiences to similar past experiences, theories of education, instructional practices, and pedagogical terminology. In addition, these teachers included both abstract and particular references in their writing, and they often included specific classroom experiences to support their personal views of teaching and learning. For example, Julie wrote, "Assessing students' background knowledge is very important. Without this information where would a teacher begin?...My personal experience with background knowledge is a scenario that took place in my kindergarten classroom" (P2-J1, p. 5-6). Susan also shared how her personal experiences aid her professional understanding. She wrote, "As this [the problem of complexity] relates to the classroom- I find that I am most productive and effective when I have a lot to do and deal with at once. My own personality helps me deal with the complexities of the daily routine and demands" (P6-S1, p.16-17).

The levels of reflection achieved by the experienced teachers corresponded with my findings from the first rubric. Two of three experienced teachers' responses, Sharon and Rebecca's, were at a lower level of reflection than the other participants. Their average level of reflection fell between levels two and three of the rubric, while Mary, the third experienced teacher, had the highest average level of reflection of all the participants. Level two responses describe events and experiences in lay terms, generally unattached to classroom experiences, while level three responses include descriptions of



events using pedagogical terms and rationale or tradition or personal preference. For example, Sharon wrote in response to the second prompt about accessing students' background knowledge, "I totally agree that understanding what your students know helps to guide the exploration into new material" (P2-Sh1, p.6). As discussed earlier, there are several factors that may have contributed to the experienced teachers' lower levels of reflection, including a lack of time, technical difficulties and a lack of environmental support.

Mary, the third experienced teacher in this study, had a different level of involvement in the study than Sharon and Rebecca. Mary's average level of reflection was between level four and five. As described earlier level four reflections include descriptions of events or experiences which are described using pedagogical terms and rationale or tradition or personal preference, and contextual factors, while level five responses include consideration of relevant moral, ethical, or political issues. While Mary responded to only five of the seven prompts indicating that she too may have had external factors which affected her ability to participate fully in the discussion board, she also had several intrinsic motivations for participating in this study which may have affected the level of reflection she achieved in the responses she did submit. As a non-traditional student, Mary indicated in her initial interview that she had a strong desire to give back to the teaching community in repayment for all the support she had received as a new teacher. Mary also had in the past had a personal interest in and advocated for a new teacher mentor program at her school. These motivating factors may have contributed to the higher level of reflection Mary achieved in her writing. Perhaps, her own convictions and personal interests in the topic of professional growth and

development and specifically supporting new teachers allowed Mary to access deeper levels of reflection in her writing.

Important to note is that very few participants reached level five in their reflective writing. The description of level five in this rubric includes attention given to moral, political and ethical issues, which corresponds with both Dewey's (1933) definition of intellectual responsibility and van Manen's (1977) description of critically reflective thought. Consistently, when analyzing the data through each of these research lenses, the participants were more apt to reflect in terms of immediate concerns within their own classrooms instead of looking at teaching and learning from a more global perspective.

#### *The Use of Computer-Mediated Communication*

In this study, an asynchronous discussion board was created to engage six novice and experienced teachers in the act of critical and collaborative reflection. For many reasons, utilizing technologically enhanced communication tools was an appropriate choice for this study. As discussed in Chapter two of this dissertation, information technology provides greater potential for sharing information by eliminating the time and distance constraints that previously limited teachers to brief and sporadic experiences of professional growth and development (Barnett, 2006). In this study, computer-mediated technology was implemented to enhance critical and collaborative discussion and reflection among novice and experienced teachers as a means of promoting professional growth and development.

However, as also discussed earlier, computer-mediated communication has both its documented advantages and disadvantages. While the participants identified many of the aforementioned benefits of participation in the discussion board portion of this study,

they were also eager to share their comments and advice about possible alterations to the discussion board format. Some ideas which emerged during the focus group interview included; using a mixed-methods approach of both face-to-face and computer-mediated communication; identifying each participant's level of teaching experience (novice versus experienced) at the onset of participation; and eliciting more interaction among participants.

These suggestions resonate with the literature which says that while traditional continuing education has the advantage of bringing educators together in dynamic face-to-face discussions, a disadvantage can be that once the session disbands so does the community of support. Through a combination of traditional and online professional growth and development, educators can remain connected as they return to their own schools, and the support of communities of practice can be extended (Pittinsky, 2005). Additionally, in previous research conducted by Romano and Schwartz (2005) with novice teacher, the researchers found that inconsistent and sporadic participation made it difficult for these teachers to maintain a meaningful dialogue, which may have contributed to their low ranking of computer-mediated communication. Likewise in this study, collaboration among participants was limited.

In response to these concerns, the researchers suggest that the online discussions be adapted in four ways, "they should require more frequent participation; include mentor teacher collaboration; have categories for discussion, and include communication with teachers out-of-state" (Romano & Schwartz, 2005, p.161). These suggestions along with site specific accommodations which address the individual needs and wants of the

participants involved may increase the utility of online discussions as a viable option for new teacher professional growth and development.

### Contradictions to Previous Research

Previously, researchers have found that the initial reflections of many novice teachers focus on the technical dimensions of teaching (Hatton & Smith, 1995). In this study, however, both the novice and experienced teachers' responses were coded as follows: approximately 29 percent of the responses were on the technically rational level, 40 percent constituted the practical action level, and 31 percent of the responses displayed a critically reflective level. Despite previous research findings, in this study, the novice teachers' responses displayed a critical level of reflective thought more frequently than the experienced teacher participants' responses. Additionally, two of three experienced teachers' comments never displayed a critical level of reflection. There are several possible explanations or interpretations of this finding.

First, the novice teachers overall participated more frequently and in greater detail than the experienced teachers. This could be due to eagerness on their part, a sense of responsibility to me, the researcher and their colleague, or their affiliation with an environment that is conducive to participation in professional growth and development activities. The novice teachers may also have had more time or energy to participate, while the experienced teachers may have assumed greater responsibilities in their personal and/or professional lives that did not allow for them to participate as regularly as their novice counterparts. Greater participation may have contributed to the novice teachers' comfort in reflecting more deeply throughout the study. Additionally, their eagerness to please me, more flexible time schedules, and greater experience with

technology may have contributed to their success in achieving greater levels of reflection more often than the experienced teacher participants.

### Implications for Theory

The purpose of this study was to examine the role of critical and collaborative reflection in the professional growth and development of novice teachers. In the theoretical framework for this study, I discussed Dewey's (1933) belief that nurturing reflective thought requires the development of three essential dispositions: open-mindedness, wholeheartedness, and intellectual responsibility. In this study, however, the teachers' responses and submissions to the discussion board primarily represented only two of these three dispositions, open mindedness and wholeheartedness. There are several possible reasons why the teachers in this study may have exhibited an open-minded and whole-hearted disposition more frequently than an intellectually responsible one. Perhaps, individuals who are open-minded and whole-hearted may have a greater tendency to choose teaching as a career. This caretaker mentality that is often seen in people who choose social service oriented careers may be well developed before these individuals decided to pursue teaching. Secondly, because intellectual responsibility involves a more global view of teaching and learning it is in contrast with the current prescribed and scripted view of education. Many teachers feel forced to meet standards that require them to accomplish short-term goals, while in contrast teachers with an intellectually responsible disposition view teaching and learning in broader terms. Teachers with this disposition ask themselves questions about accessibility and equality in education and work toward creating a more just system of education. The implication inherent in these findings is that our teacher education and professional growth and

development programs may need to do a better job of developing and fostering an intellectually responsible disposition.

Additionally, in the research conducted by van Manen (1977), three levels of reflection were identified. In this study two of the three levels, technical rationality and practical action, were displayed in all of participants' reflections, while the highest level, critical reflection, was not reached by two of the participants. There are several possible reasons why two of the three experienced teachers did not reach this level. Sharon, who participated least in the discussion board, often responded briefly and she mentioned in two of her submissions that she was stressed and overwhelmed at work. Perhaps, Sharon had not anticipated the amount of time it would require to participate in this study, or her personal and professional obligations may have changed since agreeing to participate. Rebecca, on the other hand, explained during the final focus group interview that she felt like she had been unable to contribute as much as everyone else, because of technical problems and time constraints at her school. Additionally, Rebecca made it clear in her interview that she was expected to follow the program with little deviation at her school. Perhaps, these external factors made deeper reflection less feasible for these teachers. Creating an environment which supports reflective practice is at the root of these issues. Teachers must be encouraged to participate in reflective practices, and implementing reflective practices must be seen as a valuable part of their professional growth and development if teacher buy-in is to occur.

Additionally, I found that the teachers reflected at a deeper level when asked to relate stories about their teaching. Considering the fact that we are all resident experts when we communicate stories about ourselves, it is not surprising that prompts which

solicited narratives were written with more depth. Narrative discourse is often the way in which people share their beliefs, goals, and inner most feelings. It is logical then to conclude that when these teachers were asked to tell stories of their own experiences, they were able to reflect at a higher level. An emphasis on narrative discourse and narrative reflection may be a helpful way to introduce reflective practices to novice teachers.

### Implications for Practice

In relation to practical issues, the findings imply that while reflection is a part of these teachers' repertoire of skills it is not generally a formal or prescribed part of their professional growth and development. When reflection does take place it is generally informal and takes the form of teacher-talk or internal thinking. The teachers in this study identified several variables which are important to the success of reflection including a conducive, supportive environment; collegial and cooperative peers; and exposure to a variety of teaching situations and perspectives.

Past experiences within the realm of teaching play an integral role in the way these teachers make decisions and interact with their colleagues, students, and their students' parents. Therefore, a continued emphasis on providing teacher candidates with a variety of opportunities for field experiences throughout the teacher preparation process is essential. These experiences provide the content for reflections. Additionally, exposure to a variety of teaching styles and school cultures which provide multiple perspectives with which to view teaching and learning allows novice teachers to observe theory in practice.

Exposure to a variety of teaching styles should also be extended to include exposure to a variety of both formal and informal reflective practices. More often than not, teachers are taught formal reflective practices during their teacher preparation coursework, and due to the lack of support for these types of practices in the workplace, reflection is often seen as an idle practice, not part of continuing education and professional growth and development. For example, while speaking with Kathy, I realized that she was concerned that perhaps one form of reflection was more valuable than another or that she felt like she was no longer “really” reflecting, because she had moved from written to oral reflective methods. Indeed exposure to a variety of both informal and formal reflective practices may better prepare teachers for the realities of the work place.

Throughout this study, the importance of collegial and cooperative communication among teachers was also identified as an essential ingredient in fostering reflective practices. In order to reduce feelings of isolation and increase retention of novice teachers, something must be done to promote cooperation among colleagues. Teachers must see the benefits of working together and be given opportunities to meet with and know teachers with varying levels of experience. Mentoring programs, informal gatherings, and meetings which address teachers’ immediate needs and wants must be at the forefront of planning for professional growth and development. Communication skills, small group meetings and community building activities should also be integrated within the professional growth and development agenda.

Finally, when teacher input in the planning of professional growth and development is ignored, teachers’ attitudes are at best apathetic in regards to professional



growth and development. However, teachers who are confident in their abilities and feel empowered professionally are willing to take risks in their classrooms, while successfully balancing their students' and their own interests. Effective teachers are generally not afraid to empower their students because they have designed the classroom and their lessons so that they promote interaction between the students and the curriculum. Teachers who strictly abide by a certain agenda and process of teaching or whose environment is not supportive of innovation may be unwelcoming to student input and collaboration. These teachers may be afraid to steer away from their current course, while effective teachers are more likely to empower their students to provide input and create new paths in which knowledge can grow and develop (Darling-Hammond, 2005). For example, in Rebecca's school, change and innovation were not supported, therefore, participating in this study was a difficult task, due to it being mostly an abstract practice and not something she felt comfortable practically applying in her classroom.

#### Limitations and Delimitations

Although there were both limitations and delimitations inherent in the design of this study, two limitations and a delimitation also emerged during the study. The first limitation is related to the types of school sites from which the participants were selected. Although I had hoped to solicit participants from public, private, and parochial schools, the only participants who volunteered were from private and parochial schools, in spite of extensive efforts on my part to solicit participants from public school sites.

The second limitation that emerged was related to the dialogue among participants via the discussion board. As part of the research design, I requested that all participants respond not only to each discussion board prompt but also to at least two of

the responses of other participants for each prompt. However, this did not happen. Instead, only four participants responded to the comments made by other participants. Because participants did not adhere to the research design as planned, there was little dialogue among participants to analyze.

The delimitation that emerged was related both to the second limitation as well as to comments made by the participants on the discussion board. Even though participants did not respond as requested to the comments made by other participants, they all expressed a desire for more face-to-face interactions with colleagues. These two contributing factors caused me to change the research design near the end of data collection. Instead of engaging participants in final individual interviews, I chose to ask them to participate in a concluding focus group interview. The focus group interview allowed face-to-face interactions among study participants as well as providing dialogue among the participants for me to analyze. These two limitations and the delimitation that emerged during the study also have implications for further research.

### Recommendations for Further Research

This study addresses the call for research on critical reflection with teachers of varying levels of experience. In this study, novice and experienced teachers participated in a collaborative discussion board, which provided them with a structured opportunity for critical reflection. The teachers in this study, however, were not made aware of each other's experience levels. In future research, a study in which the participants were cognizant of each other's experience levels may be intriguing as a way to examine the roles teachers adopt in relation to one another. Additionally, in response to previous research, the participants were asked to respond to researcher-provided prompts each

week for eight weeks. The findings indicated that teachers responded in greater depth when prompted for narrative submissions. Future research may benefit from investigating the use of more open-ended, participant-originated prompting which encourages narrative discourse.

The participants in this study suggested that they may have benefited from meeting one another or introducing themselves via the discussion board before responding to the provided prompts. In this study, introductions were not encouraged in an effort to maintain confidentiality; however, in future research, fostering community among the participants before, during, and following critical reflection via the discussion board could inform the research in interesting ways. Technology also played a role in creating both benefits and limitations for the participants. Suggestions include future research which mixes face-to-face meetings with computer-mediated communication to further investigate the development of critical friends groups. Likewise, due to the limited scope of a study of only six teachers, further qualitative studies would be beneficial in developing the research on critical reflection using computer-mediated communication.

An overall benefit of the study recognized by the participants was the exposure to multiple perspectives. In this study, five of the six teachers worked in private schools. Future research may benefit from including a more diverse set of participants from a variety of school types. Longitudinal studies would also add to the research. These could include studies of first year teachers and their mentors over the course of a year utilizing similar methods as those used in this study, investigations of a single school's faculty over the course of a year including focus group meetings and discussion board

components, or a study which involves novice teachers from around the country or world in discussions via the internet of their shared induction experiences.

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## APPENDIX A

Consent Form

IRB# 06jan07

Department of Curriculum and Instruction

Reflection and Professional growth and development of Novice Teachers

Statement of Informed Consent

Investigator: April Bedford, Ph.D.

Co-Investigator: Bridget Foss

504-280-6607

You are invited to take part in a research study. Before you decide to be in this study, you need to know the risks and benefits. This consent form tells you about the study. If you have any questions, please ask Bridget Foss and she will answer them. Signing this form means that you agree to be in this study.

**Why are you doing this study?** The purpose of the Reflection and Professional growth and development of Novice Teachers Study is to better understand the role of collaborative and critical reflection in the professional growth and development of novice elementary teachers. Dr. April Bedford is in charge of this study. She is an Associate Professor in the Department of Curriculum and Instruction at the University of New Orleans.

**What will be involved in participating?** Your participation will involve: 1) interviews, 2) written reflections, and 3) written responses to other participants' reflections, submitted to a discussion board over the course of eight weeks. The study will take place during the months of March, April and May. The researcher will schedule an initial interview with you before beginning the discussion board component of the study, and then a final interview after the completion of participation in the discussion board. The discussion board component of this study will involve your submission of written reflections in response to provided prompts on an open electronic discussion board over the course of eight weeks. During the eight weeks, on each Monday morning a new prompt will be made available for viewing on the discussion board and you will be asked to submit a written reflection in response to that prompt by the following Wednesday at midnight. You will also be asked, by the end of each week, to read and respond to at least two of the reflections provided by other participants.

All interviews will be audio tape-recorded and transcribed by the researcher. The discussion board on which you will be submitting your reflections is open to all participants. Each participant will be assigned a login screen name and password. The

screen names will be assigned as pseudonyms. You will be discussing and participating cooperatively in dialogue via the Internet discussion board, however, only the principal and co-investigators will have access to the list of screen names attached to each participant and these identities will not be made public to any others outside of the project. Although confidentiality of the subject matter in the discussions can not be guaranteed due to the nature of an open discussion board, identities will remain anonymous. Participants' reflections, comments or discussions via the discussion board will be downloaded and printed each week. At the conclusion of the study the discussion board will be closed allowing no one to access the contents and all contents will be erased by the UNO server. At the completion of the project all results will be reported with strict confidentiality and no participant names or identifying information will be provided.

**What are the risks to me as a participant?** Due to the open nature of the discussion board, participants may feel at risk of being judged by others about their thoughts and reflections to the provided weekly prompts. To minimize the risk to each participant, pseudonyms will be assigned as login usernames for the discussion board. Also, in the spirit of collegiality all participants will be informed of and encouraged to use professional conduct in all interactions on the discussion board. A list of professional expectations for this study will be provided to each participant. We do not foresee any additional risks to you other than a possible breach in confidentiality. To protect against this risk we ensure that your tapes and transcripts are held in the offices of the Department of Curriculum and Instruction and that only the principle and co-investigator have access to them. Please contact Dr. Richard Speaker (504-280-6607) at the University of New Orleans for answers to questions about this research, and your rights as a human subject.

**What are the benefits to me as a participant?** You may really like being in this study. You may develop a deeper understanding of your teaching philosophy as well as you may enjoy the support of peers in a collegial learning experience which could provide you with an opportunity to grow professionally. Additionally, sometimes people find participating in an interview to be beneficial insofar as it gives them a chance to talk about things that matter to them.

**Are there other options for being in this study?** No. You may choose not to be in the study or quit the study at a later point in time. Your participation is voluntary. Even if you agree to participate and sign this form, you do not have to do anything you do not want to do. You may ask any questions regarding the research, and they will be answered fully.

**What if I have questions later?** Call Bridget Foss or Dr. April Bedford at 504-280-6607.

By signing this consent form you are agreeing to participate in the Reflection and Professional

Development of Novice Teachers Study. You also agree that the study has been explained to you and your questions have been answered. You do not give up any of your legal rights by signing this informed consent form. You will receive a copy of this signed consent form.

---

Participant's First and Last Name (Print)

Date

---

Participant's Signature

I have carefully explained the nature of the study, 'Reflection and Professional growth and development of Novice Teachers Study' to the above named participant.

---

Researcher Obtaining Consent

Date



## Calling both **Experienced** and **Novice** Elementary Educators

### Reflection and Professional growth and development of Novice Teachers Study

**What:** A research study is being conducted to examine the role of critical and collaborative reflection with experienced colleagues in the professional growth and development of novice elementary teachers.

**Who:** Teachers with zero to two years of experience as elementary (1<sup>st</sup>-5<sup>th</sup>) teachers and teachers with more than two years of experience as elementary teachers are needed.

**When:** The study will involve two interviews and participation in a discussion board over the course of ten weeks.

**Why:** While no monetary compensation will be provided, possible benefits include a deeper understanding of your teaching philosophy as well as the support of peers in a collegial learning experience that could provide you with an opportunity to grow professionally.

Please, contact Bridget Foss at [befoss@uno.edu](mailto:befoss@uno.edu) if you are interested in participating.

\*This research study is being conducted under Dr. April Bedford, Chair of the Department of Curriculum and Instruction in the School of Education at the University of New Orleans

## Phone Script

Please use this script when calling to recruit teachers in the Reflection and Professional growth and development of Novice Teachers Study

Hi! Is [teacher's name] there?

\* If no, say is there a good time for me to call him/her?

\*record time

\*Say, Thank you. Can you just tell her that Bridget Foss from UNO called? She can reach me at 280-6607.

\*If yes, continue

Hi, [teacher's name] this is Bridget Foss from the University of New Orleans. I am conducting a study under Dr. April Bedford titled, Reflection and Professional growth and development of Novice Teachers. I am calling to ask if you might be interested in participating as [an experienced teacher/novice teacher] in this study which will analyze the role of critical and collaborative reflection in the professional growth and development of novice.

Do you have a few minutes for me to explain the study to you?

\*If no, say: Is there a good time for me to call you back?

\*Record time

\*Say, Thank you I'll call then

\*If yes then say,

The purpose of the Reflection and Professional growth and development of Novice Teachers Study is to better understand the role of collaborative and critical reflection in the professional growth and development of novice elementary teachers. The study includes both experienced and novice teachers because I have an interest in analyzing the role of critical reflection in the professional growth and development of novice teachers when they are provided with an opportunity to collaborate and reflect with teachers of varying levels of experience.

If you decide to be in this study, I will set up an initial interview time and place with you so that you can answer some questions about your teaching experiences and professional growth and development. The initial interview should take about an hour and a half. The study also involves your participation in an electronic discussion board. Do you have access to a computer with the Internet?

\*If no say, I am so sorry but without Internet access you will not be able to participate fully in the study, but Thank you very much for your interest.

\*If yes say, the discussion board portion of the study will involve you in reflecting and responding to prompts once a week for eight weeks. You will also be asked to read some other participant's submissions and respond to them.

After the eight weeks, I will set up a time with you to conduct a follow-up interview which last about an hour and half.

Do you have any questions?

Would you like to participate?

\*If no, try to find out why?

\*If Yes, set up an interview time and location.

When we meet for the interview I will review everything that we will be doing and have you sign a consent form. If you have anymore questions I can answer them then and if you decide you would rather not participate, that's fine.

1. Set up time
2. Verify Place

Thank you so much for doing this! I'm looking forward to meeting you. See you [time and place and date]. If you have any questions you can me at 280-6607.

## APPENDIX B

### HOW TO USE THE DISCUSSION BOARD

Go to [www.google.com](http://www.google.com)

Click on the word “**More**”

Click on the word “**Groups**”

In the upper right hand corner click on “**Sign In**”

Type in your entire email address and password:

Your **email address** for this study is: three\_participant@yahoo.com

Your **password** is the word: **reflection**

Click on the words SIGN IN

A new screen will appear

On the right hand side of the screen under the heading **MY GROUPS** click on the underlined title “**Reflection and Professional growth and development**”

You are now on the discussion board!!!

Click on the word “**Discussions**” on the right hand side of the page.

On this page anything that is underlined is a link to a new discussion.

Under the word **TOPIC** you can click on anything that is underlined.

Start by clicking on **WELCOME** to read my introduction.

Reply to it as a practice:

1. Click **Reply**

2. Type “Hello”

3. Click **Send**

(Your reply will appear after a couple of minutes so don't panic.)

To return to where you were before with all the topics either click the **BACK BUTTON** at the top of your page which is a backwards arrow or just click on the word **DISCUSSIONS** on the right hand side of your page.

Next Click on **Prompt One**

Then click on **REPLY** and begin typing your response.

Don't forget to click **SEND** when you are finished typing.

Every time you come back to the discussion board just click on the word Discussions and then click on the most recent prompt and reply to the posting.

You can also look back at what you wrote and what other participants wrote by simply clicking on the topic and scrolling down the page to read what has been posted. Then click reply to respond to the other participants.

## APPENDIX C

### First Read through Code List

Prior or Past Experience: PE

Open-Mindedness: O

Non-Open-minded: NO

Emotion: E

Metaphor: MET

Collaboration: Co

Teacher Talk: TT

Mentor: M

Kathy:

Exposure: Expos

Experience: Exp

Team work: TW

Colleagues/Collegiality: Col

Routine: R

Not Routine: NR

Think: Th

Transition: TR

Observation: Ob

Accommodation: Ac

Assessment: As

Cooperation: Coop

Flexibility: Flex

Communication: Com

Informal: In

Change: Ch

No change: NOch

Problem Solve: PS

Support: Sup

Reassurance: Re

Philosophy: Ph

Conflict: Con

Receptive: RC

Sharing: Sh

Reinforcement: Rein

Voice: Vo

Resourceful: RF

Outsource: Out

Life Long Learner: LLL

Attitude: A

Interest: In

Recommendation:

Attention:

Interaction:

Susan:

Pressure:

Independence:

Choice:

Passion or Enthusiasm:

Intuition:

Conform:

Non-Conform:

Advice:

Confidence:

Inspiration:

Practical/hands-on:

Insecurity:

Instincts:

Self-Monitoring:

Time:

Julie:

Isolation:

Family Connection:

Practical Application:

Guidance:

Transition:

Evaluate:

Interaction:

Written:

Formal:

Informal:

Resources:

Internal:

Mandatory:

Match:

Philosophy:

Involvement:

## Code List Two: Clumped Codes

Why do they reflect?

To Problem Solve

Accommodate

Assess

Evaluate

Change

Practical Application

When routine is broken or during a transitional period

Emotions

Move from Insecure to Secure

First:

Insecurity

Pressure

Conflict

Isolation

Mandatory or Forced Interaction or reflection

Conform

Second:

Choice

Independence

Confidence

Instincts

Intuition

Positive-Reinforcement

Flexibility

Voice

Best Case Scenario for Professional Growth and Development through Reflection:

Interaction

Collegiality

Cooperation

Open-mindedness

Receptive

Collaborate

Share

Communication

Teacher Talk

Discussion

Teachers use their INTERNAL and EXTERNAL RESOURCES to help make reflection and professional growth possible:

Internal:

Passion

Enthusiasm

Involvement

Interest

Inspiration

Attitude

Philosophy matches school's or colleagues' philosophies

Life Long Learner

External:

Family connection

Past Experiences --- Observations or Exposure

Support

Guidance

Mentor

Reassurance

Recommendations

Advice

Outsource

# APPENDIX D

Name Mary	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing
1	√				√						
2	N / A										
3	√			√					√		√
4	√							√			
5			√		√						
6	N / A										
7			√		√						
Name Sharon	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing
1		√			√			√	√		
2					√						
3		√		√							√
4	N / A										
5	N / A										
6	√										
7	N / A										
Name Rebecca	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing
1	√				√						
2	√	√						√			
3	√			√							
4	√										
5	n/ a										
6	n/ a										
7					√			√			
Name Kathy	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing
1					√					√	
2	√			√			√				
3		√									
4		√		√							
5			√		√						



6	n/a											
7			√		√							
Name Susan	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing	
1		√			√	√						
2		√							√	√		
3		√		√		√						
4		√		√		√				√	√	
5		√	√	√	√				√	√	√	
6		√	√		√					√		
7			√		√							
Name Julie	T R	P A	C R	Open- mindedness	Whole Heartedness	Intellectual Responsibility	Suggestions	Problems	Hypothesis	Reasoning	Testing	
1		√	√									
2		√		√	√	√			√	√	√	
3	√	√			√					√		
4		√										
5	√		√	√	√	√				√		
6				√		√					√	
7	n/a											

### Rubric for Assessing Reflective Thinking in Discussion Board Responses

Levels	Descriptions	Examples
Level One	responses including no description of a classroom event and unrelated to practice	
Level Two	events and experiences are described in layperson terms, generally unattached to classroom activities	
Level Three	descriptions of events or experiences is described using pedagogical terms and rationale of tradition or personal preference	
Level Four	descriptions of events or experiences is described using pedagogical terms and rationale of tradition or personal preference and includes contextual factors	
Level Five	responses that describe classroom events and experiences using pedagogical terms, related theories and principles of teaching, and consider contextual factors including moral, ethical, or political issues	

(Based on the rubrics developed by Hawkes & Romiszowski, 2001; Hough, Smithey, & Everston, 2004)

Participants	Prompt 1	Prompt 2	Prompt 3	Prompt 4	Prompt 5	Prompt 6	Prompt 7
Kathy	3	3/2	2/2	2	4	na	5
Susan	5	3	4	4	4/3/2	2/3	5/2
Julie	4	4/3/4	3/2/3	3	4/3/3	4	4
Mary	5	na	4	2	5	na	5
Sharon	4	2	3/2	na	na	2	Na
Rebecca	2	3	2	2	na	na	3

Rubric Two: Assessing levels of reflective thought in discussion board responses

## APPENDIX E

### Audit Trail

S: Susan  
Sh: Sharon  
K: Kathy  
J: Julie  
M: Mary  
R: Rebecca

II-S: Initial Interview Susan  
II-Sh: Initial Interview Sharon  
II-K: Initial Interview Kathy  
II-J: Initial Interview Julie  
II-M: Initial Interview Mary  
II-R: Initial Interview Rebecca

For the discussion board analysis, responses were labeled according to the prompt they were posted under. For example, a response to prompt one would be labeled P1. The responses were also labeled to identify the author of the responses and if the response was their first, second or third response to the prompt. For example, if Kathy responded to Prompt Two and it was her second submission to that prompt, it would be labeled P2-K2, followed by the page number which I had assigned to the printed manuscripts.

FG-S: Focus Group Susan  
FG-Sh: Focus Group Sharon  
FG-K: Focus Group Kathy  
FG-J: Focus Group Julie  
FG-M: Focus Group Mary  
FG-R: Focus Group Rebecca

## Vita

Bridget Foss Hagan is a native of New Orleans, Louisiana. She earned her Bachelor of Science degree in Elementary Education from Millsaps College in Jackson, Mississippi in 2000 and was awarded her Masters of Science degree from Loyola University, New Orleans in 2003. She earned her Doctorate of Philosophy in Curriculum and Instruction from the University of New Orleans in 2007. Bridget's research areas of interest include teacher education, professional growth and development, critical reflection and technology integration.

Bridget has taught elementary education for eight years and currently teaches fourth grade. Additionally, she is an adjunct professor in the Department of Curriculum and Instruction at the University of New Orleans. Bridget is currently a peer reviewer for the *Journal of Children's Literature*, the journal of the Children's Literature Assembly of the National Council of Teachers of English, and a member of the International reading Association.