

EFFECTS OF INTERVENTION ON UNDERGRADUATE PRE-SERVICE TEACHERS IN  
LITERACY EDUCATION

A Dissertation

by

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## Abstract

This study tracked the effects of guided questioning on the epistemological and pedagogical content knowledge over six weeks of six undergraduate pre-service teachers in literacy education in a university-based reading tutorial. This study was guided by three research questions: (a) how do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience, (b) what patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting, and (c) how does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?

The primary data collection tools used to collect data were interviews, observations, and collected artifacts. Shulman's (1987) model of Pedagogical Reasoning and Action was used by the researcher as a coding system to analyze the collected data.

In addition to this study's findings, there were changes in the undergraduate pre-service teachers' initial ideas about literacy instruction. Pattern changes of the undergraduate pre-service teachers' epistemological and pedagogical development and the effects guided questioning had on the undergraduate pre-service teachers' literacy instructional practices were also revealed.

The findings in this study suggest the need for teacher preparation programs to provide training for undergraduate pre-service teachers. As a result, novice teachers may enter the classrooms better prepared to teach reading.

Recommendations to further the understanding of the development of prospective teachers' epistemology and pedagogy for teaching reading may increase student success in learning to read.

## DEDICATION

Believe it and Make it Happen  
- Alma Williams

I dedicate this dissertation to my family: Andrew, Christopher, Adriana, Mom and Dad; Ginger,

Jeffrey, Johnny, Archie, Jonathan, Phyllis, Jessie, Jr., and Beverly.

You believed in me achieving this great accomplishment and the pride you have for me helped  
me complete my dream.

Thank you for your love and support.

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## CHAPTER I: INTRODUCTION

### **Background/Overview**

A report on our educational system, *A Nation at Risk* (1983), revealed to the country failures in our schools. This report heightened the awareness of the importance of reading, which ignited local, state, and federal reforms in our nation's public school system and resulted in the educational system's focus on ensuring that every child received a good education. The nation, then, took a comprehensive look at its schools to evaluate student performances and address the problem areas in our schools. The No Child Left Behind Act of 2001 (2002) shifted the nation's interest to the preparation of "high quality" teachers in an effort to have all students reading proficiently by 2013-2014. According to Valencia and Buly (2004), elementary classroom teachers are responsible for the reading instruction and achievement of every student. Because many students learning to read struggle, in part, due to inappropriate reading instruction (Snow, Burns, & Griffin, 1998), there is interest in examining how pre-service reading teachers are prepared to teach reading.

Researchers looking into the preparation of pre-service teachers to teach reading have encouraged a growing interest in the development of reading pedagogy among beginning teachers, as well as their ability to identify the needs of readers. According to Fuller, Brown, and Peck (1967), over time, new teachers move from focusing on their own personal needs to becoming more concerned with their students' progress and whether or not their students' needs are being met. Research on prospective teachers has revealed that many pre-service teachers did not involve themselves intensely with their students until their own security needs had been met.



According to Katz (1972), teachers go through a consolidation stage when they begin to focus on their students' instructional and personal needs. Gold (1996) found the, "Lack of self-confidence, conflicts between personal life and professional requirements, and inability to handle stress have undermined many otherwise promising teachers" (p. 562). Teachers who stay in teaching improve significantly during the first few years. However, many leave before this point due to low job satisfaction. While pre-service teachers often do have many hands-on experiences, often what is missing is systematic guided reflection to help them make sense of what they see (Zeichner & Liston, 1987).

In support of teachers' need to reflect upon a new job and responsibilities and its influences, Schön's (1983) concept of "reflection-in-action" combines the components of hands-on practice and reflection. Through critical reflection on their own and others' teaching, teachers engage in a continuing process of professional development and move forward in their thinking and practice. Teacher quality appears to make a difference in student achievement (Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005). According to the U.S. Department of Education (2010), student achievement is significantly influenced more by teachers than by any other factor in schools. However, there is limited research about the processes that teachers experience to develop expertise in learning to teach reading (Snow, Burns, & Griffin, 2005; Hoffman, 2004; Anders, Hoffman, & Duffy, 2000).

The current study addresses this limitation in research with the following three research questions:

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?

2. What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?
3. How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?

### **Effective Reading Instruction**

Preparing certified teachers with the content and pedagogical knowledge necessary to teach a wide range of literacy skills to an increasingly diverse student population is an issue confronting teacher education programs. The No Child Left Behind Act of 2001 (2002) requires each classroom to have “highly qualified” teachers, thus raising the bar to keep beginning teachers in the classroom in order to develop expertise. According to research, one in five teachers leave the classroom during the first three years of teaching (Kauffman, Johnson, Kardos, Liu, & Peske, 2002). Research reports that 29% of all novice teachers leave the classroom within three years (Watkins, 2005) and 39% of all novice teachers leave the profession within five years (Ingersoll, 2002). According to Ingersoll (2001), the teacher turnover rate in low-income schools is 50% higher than in higher-income schools. Teacher attrition in Texas costs the state at least \$329 million a year (Texas Center for Educational Research, 2000). Though the expense of teacher attrition is costly to the educational system, there is an even more detrimental effect on the students who enter the classrooms of novice teachers. According to Hitz and Roper (1986), the risks are too great to allow teachers to struggle during their beginning years in the hope that they will learn the necessary skills of teaching while on the job.

According to Moats (1999) in the Learning First Alliance and American Federation of Teachers (AFT)-sponsored document *Teaching Reading IS Rocket Science: What Expert Teachers of Reading Should Know and Be Able to Do*, teaching students to read is the most

fundamental responsibility of schools and teaching reading is a job for an expert. Effective reading teachers acquire considerable reading content knowledge and skills. Research shows that children are unlikely to succeed in school or in life if they do not learn the reading basics early on because they will experience difficulty mastering other skills and knowledge (Moats, 1999). Low reading achievement is a major problem in chronically low-performing schools. When so many students in the classrooms do not learn to read, public schools are not considered successful (Moats, 1999). According to Moats (1999), research indicates that effective reading instruction should consistently support these reading instruction components and practices:

- Direct teaching of decoding, comprehension, and literature appreciation;
- Phonemic awareness instruction;
- Systematic and explicit instruction in the code system of written English;
- Daily exposure to a variety of texts, as well as incentives for children to read independently and with others;
- Vocabulary instruction that includes a variety of complementary methods designed to explore the relationships among word structure, origin, and meaning;
- Comprehension strategies that include prediction of outcomes, summarizing, clarification, questioning, and visualization; and
- Frequent writing of prose to enable a deeper understanding of what is read (pp. 7-8).

The National Reading Panel Report (National Institute of Child Health and Human Development [NICHD], 2000) summarized decades of scientific research that emphasized five critical areas effective reading instruction: (a) phonemic awareness—the understanding that

spoken words are made up of separate units of sound that are blended together when words are pronounced, (b) phonics—a set of rules that specify the relationship between letters in the spelling of words and the sounds of spoken language, (c) fluency—recognizing the words in a text rapidly and accurately and using phrasing and emphasis in a way that makes what is read sound like spoken language, (d) vocabulary—words we need to know to communicate with others, and (e) comprehension—constructing meaning that is reasonable and accurate by connecting what has been read to what the reader already knows and thinking about all of this information until it is understood. Teachers who possess an in-depth understanding of these five fundamental parts of effective reading instruction are prepared to teach children to read using effective instructional strategies and materials.

According to Moats (1994), reading teachers lack an understanding of specific features in language such as (a) inflected verbs, (b) derivational suffixes, (c) phonemes, (d) schwa sounds, (e) consonant blends, (f) morphemes, and (g) spelling patterns used to represent sounds. At the same time, there is growing interest in the professional knowledge needed to teach reading instruction; for example, attention to teaching methods, student learning, and curriculum (International Reading Association, 2000; National Reading Panel, 2000). The need for teachers to have better training to teach reading, spelling, and writing should encourage action rather than criticism. Teacher preparation programs should feel obligated to provide teachers in training with a rigorous, research-based curriculum as well as opportunities to practice a variety of predefined skills and knowledge that must be a part of every teacher's reading instruction (Moats, 1999).

After 50 years of research on prospective teachers (Feiman-Nemser, 1990; Wilson, Floden, & Ferrini-Mundy, 2001) and 15 years of research on teacher preparation (Risko, Roller, Cummins, Bean, Collins-Block, Anders, & Flood, 2008), findings are still contradictory in

describing effective teacher education programs (Wideen, Mayer-Smith, & Moon, 1998).

However, the work of Darling-Hammond (1999) and Sanders and Rivers (1996) points out the importance of knowledgeable teachers and the impact their knowledge has on student success. Nonetheless, according to The National Reading Panel (NICHD, 2000) teacher education does affect prospective teachers' learning, even though there are limited studies in this area.

### **Scaffolding reflection in literacy education**

In the field of literacy education, there have been very few studies that have investigated the nature and role of reflection in teachers' literacy discussions. The research that has been conducted has indicated a need for further study of how teacher educators might develop the role of reflection (Zeichner & Liston, 1985). With this in mind, teacher educators can encourage pre-service teachers' experiences by creating for them a scaffolding of learning. Exploration of the role of reflection, scaffolding, shared reflections, and references to past, present, and future experiences would benefit all teacher educators (Bean & Stevens, 2002). Bean and Steven's (2002) study observed the role of scaffolded reflection with pre-service and in-service teachers in the context of a university-based reading course. This study also analyzed the pre-service and in-service teachers' reflections of and challenges to various education-oriented discourses (Bean & Stevens, 2002). The findings in Bean and Steven's (2002) study showed that the participants were able to formulate and articulate their personal belief systems, but were not necessarily equipped with the necessary skills to address more challenging issues or discourses of teaching, learning, and students. Reflection may have the potential to engage students in an analysis of their beliefs and practices (Anders et al., 2000; Risko, Roskos, & Vukelich, 1999).

### **Student Success**

Teacher and student interaction is a major factor of student success. Research shows that effective teachers have an effect on student achievement if a student has a “high quality” teacher year after year. Teacher effectiveness plays a role in student academic outcome. Studies suggest that a student who has great teachers year after year will experience continued growth and more success than a student who has had sequential years with less effective teachers (Hanushek, 2009; Sanders and Rivers, 1996). According to MetLife (2010), two-thirds of teachers report that more collaboration among teachers would significantly improve student achievement. A current study suggests that teachers learn from other effective teachers in their schools and are more likely to raise student achievement when they are surrounded by colleagues who are successful at improving achievement (Jackson & Bruegmann, 2009).

Many different approaches have been taken in research concerning the primary connection between student success and fundamentals of teaching. For the purpose of this study, three approaches valuable for connecting the act of teaching to student success include: (a) process-product research—using rating scales and classification systems to explore the common elements of teaching that are associated with student achievement gains; (b) competency-based or performance-based teacher education—focusing on what the learners were expected to do rather than their learning expectations; and (c) research concerning teacher thinking.

**Research on teacher thinking.** Early research explored teachers’ thinking and decision-making based on an analogy between teachers’ diagnosis and medical diagnosis (Barrows & Bennett, 1972; Elstein, Shulman, & Sprafka, 1978). The structure and content of teachers’ thoughts, and at times their cognitive processes, were the main focus of many of these studies. The major role of teachers was to diagnose children’s difficulties and progress and prescribe for them effective and appropriate learning tasks. Cognitive psychology theories influenced the

image of teachers which, in turn, was influenced by a communication information-processing model. Their influences led to a theoretical research framework focused on teachers' thinking under the assumption that teachers and doctors used similar processes in diagnosing (Fogarty, Wang & Creek, 1982; Marland, 1977; Morine & Vallance, 1975).

According to Kagan (1988), early models of teachers' decision-making processes implied a linear course of action similar to the models of diagnostic problem-solving in medicine. That is, the researchers' focus was on the cognitive process rather than on the more general knowledge which guided the practice of teaching in complex classroom situations (Clark & Peterson, 1986). Researchers in the field of teachers' cognition increased their efforts to identify teachers' problem-solving strategies (Kagan, 1988). The degree of differential knowledge and the rapid rate with which teachers must access knowledge shifted the focus on teachers' cognition to a wider concept of "teacher thinking" (Kagan, 1988). Teachers must make decisions in order to make meaning for themselves and for their students (Clark & Peterson, 1986), hence, the metaphor of teacher-as-physician giving way to the image of teacher-as-sense-maker or reflective professional (Schön, 1983). In 2001, Roskos, Vukelich, and Risko studied the importance of reflective thinking on the quality of teaching. Their recommendations included (a) understanding and discussing the perceptions of the reflections of pre-service teachers in relationship to observing their clients' literacy needs in the reading clinic, (b) discussing and developing effective ways to improve reflective practices, (c) identifying the dimensions of reflections as literacy researchers in the course of collaborating, and (d) expanding effective reflections and improving classroom literacy assessment and resulting instructional goals through a diversity of methods of research designs.

The comparison between expert and novice teachers in research demonstrates that the amount of knowledge and the ways experts organize their knowledge is different from that of novices (Berliner, 1987; Greeno, Glaser, & Newell, 1983; Larkin, McDermott, Simon & Simon, 1980; Leinhardt, 1983; Leinhardt, Weedman & Hammond, 1984). Shulman (1986a) emphasizes three types of content knowledge: (a) subject matter knowledge, (b) pedagogical knowledge, and (c) curricular knowledge. Shulman (1986, 1987) discusses the depth, development, and influence of teacher content knowledge and argues that classroom teachers' pedagogical content knowledge is continuously developing with experience. Alvermann (1990) stated that the knowledge of expert and novice teachers of reading rests on the assumption that through an awareness of their developing belief systems and practices, an improved knowledge base can be developed.

### **Statement of the Problem**

Pre-service teachers have preconceived ideas about teaching reading. According to Kagan (1992), the pre-service teachers' own experiences of how they were taught to read influence how they approach their professional literacy training. Kagan (1992) reported that unless universities make it a point to address pre-service teachers' preconceptions, those students are inclined to teach reading the way they were taught.

This study examined the developmental stages associated with the epistemological growth of six undergraduate pre-service teachers. It tracked changes in undergraduate pre-service teachers' epistemology over six weeks and related epistemological changes to their pedagogical decisions in a university-based reading setting. This study also established the six undergraduate pre-service teachers' initial ideas concerning teaching reading.



For the study, the researcher enlisted six undergraduate pre-service teachers in the Texas A&M University Corpus Christi course READ 3351: *Diagnosis and Correction of Reading Problems*; the undergraduate pre-service teachers were required to tutor reading in a university setting (see Appendix A for the course syllabus). Grossman (2005) defines the participation of the undergraduate pre-service teachers as “approximations of practice.” This experience allows prospective teachers to experiment with aspects of practice and to learn from those experiences. The researcher of this study was allowed to observe the participants as they shifted from a phase of learning content knowledge into a phase of acquiring pedagogical content knowledge. This transition of content knowledge was expected to influence change in teacher epistemology (Duffy & Atkinson, 2001; Shulman, 1987).

### **Purpose of the Study**

This study sought to examine undergraduate pre-service teachers’ initial concepts about reading instruction after participating in a university-based reading tutorial setting to determine if they recognized that they had developed expertise in teaching reading. This study also measured gains in undergraduate pre-service teachers’ ability to teach reading and acquire reading content knowledge of their own. Specifically, how well were they able to assess comprehension and word analysis after participating in a university-based reading tutorial setting? The study investigated the effect guided questioning had on the undergraduate pre-service teachers’ instructional literacy practices. Finally, the study sought to determine if a university-based reading tutorial setting provided the necessary support for undergraduate pre-service teachers to develop expertise in reading.

### **Research Questions**

This study was guided by the following research questions.

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?
2. What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?
3. How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?

### **The Lens of the Researcher**

**Professional background.** Twenty-three years prior to this study, I began my teaching career as an elementary teacher. I have taught grades ranging from first to eighth. My teaching career started with my first degree, a Bachelors of Science in Education with a minor in reading. My responsibilities included teaching in a self-contained second-grade classroom. After ten years of teaching, I began working on my master's degree in Curriculum & Instruction with a minor in reading in San Marcos, Texas at Texas State University. Upon graduation, I became a Texas certified Reading Specialist and Master Reading Teacher. I entered the doctoral program at Texas A&M University Corpus Christi seven years after receiving my master's degree. I continued working as an elementary classroom teacher while I took three courses a semester. I also decided to get my administrative certification after several years into the graduate program.

As an elementary teacher and educator, I hope this study contributes much needed information to the current research on the developmental stages of teacher epistemology. This study was influenced in part by research of Dolores Durkin (1979). Durkin reports in *What Classroom Observations Reveal about Reading Comprehension Instruction* the many misconceptions elementary teachers have about comprehension instruction. Through Durkin's (1979) study, we learned that elementary teachers thought that checking for understanding

through the use of comprehension questions is reading instruction. Content area teachers considered their time in class as an opportunity to focus on teaching content and not as a time to help students with reading comprehension.

Through my years of teaching, I noticed not only how teachers have struggled teaching English, reading, social studies, and science, but also that their students too struggled. As a result of these teachers' struggles, I sought to see how better preparing undergraduate pre-service teachers could encourage effective reading instruction for future reading teachers. After a semester of designing and tutoring reading instruction, the undergraduate students in this study experienced progress in some form in their epistemological development and pedagogical practices. This study was designed to capture this development of epistemology and pedagogy.

### **Limitations and Delimitations**

The limitations for this study include time, small sample size, trustworthy interview responses, and data interpretation. Explanations for limitations and delimitations are as follows:

This study included only six undergraduate students attending Texas A&M University Corpus Christi. The small sample of six participants does not allow this study to be generalized to a larger population.

All six participants were undergraduate pre-service teachers attending education courses at Texas A&M University Corpus Christi. Therefore, the participants of this study faced the possibilities of being influenced by the beliefs of the faculty at one given university course. The participants' epistemology could possibly have developed differently if they attended a different university.

During the interviews, the researcher was not able to guarantee that the participants were truthful when responding to the interview questions. The researcher explained the study's

purpose in great detail before each interview in order to build upon the participants' honesty and trust.

The selection process for participants could have caused limitations for the observations. It was expected to have six undergraduate students volunteer to participate. The researcher predicted that the undergraduate students who volunteered might have had more confidence than their peers. These undergraduate students' pedagogical decisions may have been different than their less confident peers. The criteria for the research sample included (a) students who were enrolled in the selected course, (b) students who were seeking a teaching certification, (c) students who had not completed field base experience, (d) students who had not completed nor were enrolled in student teaching, and (e) students who had not been previously enrolled in *Diagnosis and Correction of Reading Problems*. The results of this study could have been influenced by the selection criteria. Because only one section of READ 3351: *Diagnosis and Correction of Reading Problems* was observed, the knowledge and teaching methods of the instructor may have also influenced the participants' performances.

The participants' involvement in the research itself may have influenced or affected their epistemology due to their reflections or just being observed. For example, the participants were expected to discuss and reflect upon their pedagogical decisions during the interviews and small group discussions.

The findings in this study could be subject to different interpretations. The researcher recognized that there may be other ways to interpret, synthesize, and report this study's findings. In turn, the interpretations of this study could have been influenced by the views of the researcher and auditor.

### **Definitions of Terms**

*Collective case studies:* Multiple case studies where a researcher investigates numerous cases to study a phenomenon, group, condition, or event.

*Content knowledge:* What teachers need to know about a subject in order to teach it to others.

*Epistemology:* The nature of knowledge and “reality,” and the process of coming to know.

*Intervention:* An action that modifies a process or situation so as to improve function.

*Pedagogical content knowledge:* Teachers’ knowledge that extends past basic content knowledge and into the dimension of domain specific subject matter for teaching.

*Pre-service teachers:* Students enrolled in programs of teacher preparation.

*Program of teacher preparation or teacher preparation program:* Undergraduate or graduate programs that prepare students to become teachers.

*Reading course:* A class offered in a program of teacher preparation that focuses on the teaching of reading.

*Reading achievement:* The level of reading ability at which an individual is estimated to be functioning for instruction.

*Reading expertise:* The ability to progress from learning the basic elements of teaching reading, accumulating knowledge of how to teach reading, making decisions about what one is going to do, and reflecting on what is working based on one’s experience.

*Reading process:* (a) an act of reading taken as a whole, what happens when a reader processes text to obtain meaning; and (b) any of the sub processes, such as word identification or comprehension that are involved in the act of reading.

*Reading instruction:* The process of teaching children to read.

*Scaffolding:* In learning, the gradual withdrawal of teacher support, as through instruction, modeling, questioning, feedback, etc., for a student's performance across successive engagements, thus transferring more and more autonomy to the child.

*Teacher education or teacher preparation:* The preparation of pre-service teachers.

### **Summary of Chapter**

This chapter discussed the limited research on how pre-service teachers develop the expertise to teach reading successfully. Teacher preparation programs seem to be appropriate venues to teach pre-service teachers how to teach reading. However, there are many variations of content and experiences used to teach reading processes to pre-service teachers prior to student teaching. The role of college and universities in contributing to the goal of a “high quality” teacher for every classroom is significant. Hence, the examination of the content and structure of pre-service teacher preparation programs is essential.

Too many teachers do not return to the classrooms in which they taught the previous year. Every school day, a thousand teachers leave the teaching profession. Another thousand teachers change schools searching for better working conditions. Teacher attrition is costly for both the students who lose the value of being taught by experienced teachers and the schools and districts which must recruit and train their replacements. Therefore, in order to meet the national goal of providing an equitable education to children across the nation, it is crucial that efforts be focused on developing and retaining “high quality” teachers in every community and at every grade level (Alliance Excellence in Education, 2005).

This dissertation is organized into five chapters, a reference list, and appendices. Chapter 1 includes the statement of the problem, purpose statement, three research questions, and definitions of terms. The literature relevant to the study is discussed in Chapter 2 and includes a

historical look at reading teacher preparation, the content knowledge base of effective teachers, the knowledge development of reading tutors, the proposed paradigms of teacher epistemology, and the relationship between teacher epistemology and teacher practice. Chapter 3 explains the research setting, participant selection, procedures for data collection, procedures for data analysis, the role of the researcher, and the significance of the study. Chapter 4 presents a collection of the personal narratives, interview findings, and observation findings. Chapter 5 includes a discussion of the study's findings and supplies conclusions, implications, and recommendations for future research.

## CHAPTER II: REVIEW OF LITERATURE

### **Literature Review**

This study examined the effect guided questioning had on undergraduate pre-service teachers' epistemological and pedagogical content knowledge in literacy education. Expertise to teach reading is the capability to develop a clear understanding of the basic components of teaching reading, increasing knowledge of how to teach reading, making decisions about appropriate reading instruction, and reflecting on what is effective based on experience.

### **Organization of Chapter**

This chapter contains a review of literature related to researchers and issues significant in the preparation of future reading teachers and the knowledge required for teaching reading. It includes (a) a historical look at reading teacher preparation, (b) the content knowledge base of effective teachers, (c) the knowledge development of undergraduate students preparing to teach reading, (d) establishing paradigms of teacher epistemology, and (e) the relationship between teacher epistemology and teacher practice.

### **A Historical Look at Reading Teacher Preparation**

According to Smith (2002), between 1918 and 1924 there was not a specific specialization in the field of reading; however, there was an increase in interest toward improvement in preparation of teachers and a need for supervision. Development in the fields of psychology and pedagogy grew and these fields impacted the preparation of teachers (Korthagen, 2001; Monaghan, 2007). In the 1950s and 1960s, researchers studied student teaching experience and pre-service teacher education. Austin and Morrison (1961) published *The Torch Lighters: Tomorrows Teachers of Reading*, a seminal study on the preparation of teachers which drew attention to the central role of student teaching of teachers of reading.



The practice of student teaching experience is considered the heart of the teacher education program and the main integrating force in its operation according to college faculty, cooperating teachers, and students. Practice is the best instruction. The practice teaching program is the most influential experience prospective teachers are likely to have in college. Austin and Morrison (1961) used 371 surveys and a field study of 74 teacher preparation institutions across the country. A few of the questions asked during the surveys included:

(a) What are the objectives of the reading course? (b) What topics in the reading course receive the most emphasis? (c) Which of the concepts developed in the initial reading course are the most difficult for the students to grasp? (d) To what extent are theoretical information and practice teaching integrated? (e) How much emphasis is placed on specific instructional techniques, e.g. phonics? (f) To what extent are the latest research findings incorporated in classroom instruction?

(Austin & Morrison, 1961, p. 3).

This study attracted interest in student teaching and its importance in preparing reading teachers. Austin and Morrison's (1961) findings included suggestions for specific course offerings for pre-service teachers and a need for field and practicum experiences. The findings revealed that nearly all colleges and universities required one course in reading and more emphasis was given to primary reading skills than intermediate reading skills. This study also introduced student teachers' need for more experienced teachers, which is noticed in present-day student teaching experiences.

The second reading study of Austin and Morrison (1963) *The First R: The Harvard Report on Reading Elementary School* also addresses student teaching and its role with the objective to explore what beginning and experienced teachers valued in their teacher-preparation

program. As in the first study, the importance of student teaching was evident, but in most undergraduate programs not enough attention was given to the teaching of reading. Change was needed on the content covered and with the methods of preparation. According to Smith (2002), the significance of this study was its influence in increasing standards with respect to reading preparation in many colleges and universities.

A decade and a half later, Morrison and Austin returned to their original study with *The Torch Lighters Revisited* (1977) investigation. This study noted that not enough attention was given to their previous study's recommendation regarding the recruitment, training, and certification of cooperating teachers, a factor considered crucial to the success of the traditional-craft concept of reading teacher education. Two important recommendations from the follow-up study were the requirements of more courses and more courses taught in field-based settings.

In a review of pre-service teacher education, Anders, Hoffman, and Duffy (2000) discussed Austin and Morrison's studies (1963, 1977), and stressed some questions that were not addressed, such as "What goes on in reading teacher preparation?" "How are they being taught?" and "With what effects?" Austin and Morrison (1961) suggested twenty-two recommendations. One recommendation was that the senior faculty should have a more active role in instructing pre-service teachers; a second called for three semester hours in reading. Austin and Morrison (1961) concluded that many programs provided inadequate attention to reading instruction.

Since the end of the 19<sup>th</sup> century, pre-service reading teacher education has been greatly influenced by the apprenticeship model of teaching, known as the traditional-craft concept of teacher education (Russell and Korthagen, 1995; Alvermann, 1990; & Zeichner, 1983). A principle premise of this model was that novices develop an awareness of what composed good reading practices by observing master teachers. The focus of the traditional-craft model shifts

from mentoring novices to helping experienced teachers refine their craft. Here, the apprenticeship was not one of simply observing new paradigms for teaching reading or refining old ones (Alvermann, 1990). In this model, a master reading teacher provided the pre-service teacher with demonstration of good reading practices that could provide instructional support during organized tutoring sessions. This instructional support acknowledged in Austin and Morrison (1961, 1963) and Morrison and Austin (1977) is still exercised in student teaching today. In reference to instructional support during tutoring sessions, Wanda Hedrick (1999) examined the effects of tutoring by pre-service teachers. Most of the pre-service teachers previously had two or more courses on teaching reading. The pre-service teachers in this study tutored an at-risk student for one and one-half hours twice a week for ten weeks at an elementary school. The pre-service teachers made instructional decisions based on informal reading assessments, observations, and collaboration with other tutors and/or the professor. The students made significant gains in reading with the one-on-one tutoring, but because the focus of the study was on the reading achievement of the students, there were no measures of the pre-service teachers' gains in their ability to teach reading.

In the 1920s, teacher preparation university-based reading clinics were established at many major universities. With the influence of educational psychologist Grace Fernald, the first clinic for remedial instruction, The Clinic School, was developed at the University of California in 1921. Physician and pioneer in the identification of dyslexia, Samuel T. Orton, also founded a clinic at the University of Iowa. Williams S. Gray founded a clinic at the University of Chicago (Morris, n.d.).

In the 1950s, a series of elementary content area courses were available for reading teachers. The reading teachers were also assigned to take two general courses in pedagogical methods (Monroe, 1952).

In the 1960s through the late 1970s, the process-product approach was popular. The primary methodology used in research on teaching has followed the process-product paradigm (Shulman, 1986). Researchers use this approach in attempting to determine the relationship, if any, that exists between the process (teacher behavior) and the product (student achievement). Brophy and Good (1986) summarize the research on teacher effects stemming from the process-product approach. Their findings indicated that student achievement is positively related to

- The quantity and pacing of instruction;
- The opportunity to learn the content covered;
- Emphasis by the teacher on academic instruction as a major part of his/her own role, expectations of mastery for students, and allocation of time for curricular activities;
- Certain classroom management techniques, such as creating engaging time, good preparation, “witness,” smooth pacing, consistent accountability, and clarity about how to get help;
- Appropriate level of difficulty for the instruction, continuous progress at a high success rate, effective diagnosis of learning needs and prescription of learning activities, monitoring of progress and continuous practice, and integrating new learning with prior learning;
- Material structured to help facilitate memory and understanding of each part as related to a coherent whole when giving information;

- Redundancy and review of material as in a sequential structure;
- Clarity of presentation;
- Enthusiasm;
- Correct answers elicited through questioning 75% of the time;
- Clearly asked questions;
- Wait time (three seconds or more) after questions; and
- Acknowledgement of correct responses with overt feedback; noting wrong answers clearly (pp. 360-364).

Among many other contributions from the process-product research tradition, Walberg (1986) also discussed results of his “review of reviews” of research on teaching. He stated despite problems with methodology and “an odd tendency to select correlational studies and exclude experiments for review,” statistics with significant relationships were found in five broad teaching constructs positively associated with student learning: cognitive stimulation, motivational incentives, pupil engagement in learning, reinforcement, and management and classroom climate.

In the 1970s, competency-based education was a popular approach training reading teachers. The practice of competency-based reading teacher education required students to demonstrate proficiencies in specific and observable skills associated with the effective teaching of reading. This approach focused on what the learners were expected to do or what they could do rather than their learning expectations. The educational goals during this educational movement advocated precise measurable descriptions of knowledge, skills, and behaviors students should possess at the end of a course study (Richards & Rogers, 2001). This approach was outcome-

based instruction and was adaptive to the changing needs of students, teachers, and the community (Schenck, 1978). Competency-based education was an approach that emphasized life skills and evaluated mastery of those skills according to the learner's performance (Savage, 1993). Competencies consist of the essential skills, knowledge, attitudes, and behaviors required for effective performance of a real-world task or activity (Mrowicki, 1986). Competency-based education programs included the following:

- Specific, measurable competency statements;
- Content-based on learner goals (outcomes/competencies);
- Continuation in program until demonstration of mastery;
- Variety of instructional techniques and group activities;
- Application of basic skills in a life skills context;
- Texts, media, and real life materials geared to targeted competencies;
- Immediate feedback on assessment performance;
- Pace of instruction to learner needs; and
- Mastery demonstration of specified competency statements (Weddel, 2006).

Modules were frequently the instructional vehicles for helping students meet the specified list of competencies (Alvermann, 1990). Modules typically contained a pre-assessment, several learning activities, and a post-assessment. Many reading facilities across the United States developed instructional modules that took into account pre-service and in-service teachers' professional needs, learning styles, and learning rates.

In the 1990s, interest in reading teacher preparation shifted from effective reading practices to the knowledge reading teachers need in order to be effective in teaching reading

(Risko, et al., 2008). More recently, The International Reading Association (IRA) developed and published *Standards for Reading Professionals-Revised 2010*, replacing the 2003 edition, which included lists of teacher competencies considered essential for meeting the instructional needs of all students in reading. The standards expectations for recently graduated reading professional require:

- Candidates understand the theoretical and evidence-based foundations of reading and writing processes and instructions;
- Candidates use instructional approaches, materials, and an integrated, comprehensive, balanced curriculum to support student learning in reading and writing;
- Candidates use a variety of assessment tools and practices to plan and evaluate effective reading and writing instruction;
- Candidates create and engage their students in literacy practices that develop awareness, understanding, respect, and a valuing of differences in our society;
- Candidates create a literate environment that fosters reading and writing by integrating foundational knowledge, instructional practices, approaches and methods, curriculum materials, and the appropriate use of assessments; and
- Candidates recognize the importance of, demonstrate, and facilitate professional learning and leadership as a career-long effort and responsibility (pp. 35-37).

These set standards provide criteria for developing and evaluating reading professional preparation programs requiring teachers to be effectively trained, with emphasis on the necessary knowledge, skills, and dispositions for effective teaching practices.

### **The Content Knowledge Base of Effective Reading Teachers**

Learning how to teach reading requires content and pedagogical knowledge along with the skills appropriate to the complex processes of reading; this requires development over time. Pre-service education should provide prospective teachers with the background knowledge about the nature of the reading process, written language structure, various methods of teaching reading, and how to assess students' reading abilities.

United States' laws require that quality teachers be placed in every classroom to deal with the concerns of reading (U.S. Department of Education, 2002). Research agrees that effective teachers of reading are knowledgeable, strategic, adaptive, responsive, and reflective. The federal No Child Left Behind Act of 2002 mandated no less than a "qualified teacher" (U.S. Department of Education, 2002). New teachers start their first year full of hope and idealism and then they are faced with a reality different from their expectations (Veeman, 1984). The first year teacher was expected from the first day of school to assume full duties of an experienced teacher. These expectations included providing instruction, management and care for students with different needs, and employee responsibilities. New educators were challenged to be accepted by and gain the trust of parents, fellow teachers, and school administration.

Teacher education programs are often blamed for many teachers being unprepared for their roles. According to Wideen et al. (1998), in a traditional model of teacher education, the beginning teacher received the theory, skills, and knowledge about teaching through university coursework; applied and practiced this knowledge in a field setting in the schools; and determined how to integrate it all. Hughes, Packard, and Pearson (2000) conducted a study that aided pre-service teachers in gaining ideas for teaching reading and developing ideas about themselves as teachers of reading. The investigation entailed investigating pre-service teachers' use of hypermedia and video cases to learn about literacy instruction. The researchers believed



that teacher preparation programs needed an instrument to bring the context of actual classrooms for pre-service teachers to view, analyze, and critique theoretical perspectives; hence, a set of videotaped cases was supplied in this study to help the pre-service teachers observe reading being taught in an authentic classroom setting.

Hughes et al. (1997) previously used existing videotaped cases displaying reading strategies used in successful classrooms from the Center for the Study of Reading (CSR) video series. The participants were pre-service teachers enrolled in a reading methods course. The videotaped cases showed the pre-service teachers' exemplary teaching approaches to engage students who were from diverse cultural, linguistic, and intellectual backgrounds. The video series developed the Reading Classroom Explorer (RCE). The RCE provided a combination of theory and practice, connecting pedagogy with the difficulties of teaching reading via technology.

After observing the videotaped cases, the participants were able to discuss the cases relevant to what they were learning about teaching reading in the methods course. The purpose of the study was to better understand how pre-service teachers made sense of the videos and hypermedia in relation to their experiences in coursework and field-based observations. The study was exploratory, not experimental; hence, their results suggested possible relationships between experiences and learning, rather than influential conclusions about causes of student knowledge, skills, and character. Because the participants' experiences were limited to media and hypermedia, they did not have the experience of working with students.

According to Moats (1999), a core curriculum for teacher preparation must be divided the four areas:

- Understanding knowledge of reading psychology and development;

- Understanding knowledge of language structure which is the content of instruction;
- Applying best practices in all aspects of reading instruction; and
- Using validated, reliable, efficient assessments to inform classroom teaching (p.16).

Pearson (2001) believed teachers need to teach phonetics, phonology, morphology, semantics, syntax, and text structure, so they need to know what these essential basic elements are and how each affects their students' learning. The need for teachers to have better training to teach reading, spelling, and writing should encourage action rather than criticism. Teacher preparation programs should feel obligated to provide teachers in training with a rigorous, research-based curriculum and opportunity to practice a variety of predefined skills and knowledge that must be a part of every teacher's reading instruction.

According to Shulman (1987a, 1987b), codifying the emerging knowledge and actions of experienced and inexperienced teachers can lead to a knowledge base that is grounded in what he calls the "wisdom of practice." One problem in studying the development of reading teacher expertise was pointed out by Berliner (1986), who said the potential for confusing expertise with experience is great, especially as the terms are used interchangeably in the research literature. In studies of the development of reading teacher expertise, there is the tendency to overlook differences in the results obtained from policy-capturing studies (Shulman, 1986) and those obtained from studies conducted in naturalistic settings.

Required content area literacy courses usually introduced vocabulary and comprehension strategies to pre-service content teachers with the expectation that future teachers would select

strategies for future teaching contexts (Bean, 1997). Doubt has been raised by various researchers about these expectations; others have documented the resistance of pre-service teachers to the use of strategies promoted in content area literacy courses (Fox, 1993; Hollingsworth & Teel, 1991; Wilson, Konopak, & Readence, 1993).

Fox (1993) found that student teachers replaced the collaborative model promoted in their university methods classes with more teacher-centered approaches. Wilson, Konopak, and Readence (1993) presented a case study that showed their student teacher adopted a traditional text-based approach modeled by his cooperating teacher and did not use any of the content area literacy strategies introduced in the course. Control and efficiency turned out to be the seal of good teaching.

Hollingsworth and Teel (1991) showed in their detailed case study of secondary pre-service teachers' beliefs and practices after completing their foundations of teaching secondary reading course that the pre-service teachers experienced problems implementing reading strategies in mathematics and science due to the infrequent use of the texts by their cooperating teachers. In reality, the workplace and its routines apparently do not coincide with the university course models introduced to pre-service teachers due to a lack of attention on the culture and pedagogical content focus of secondary schools (O'Brien, Stewart, & Moje, 1995). Content area literacy strategies and the university courses in which they are demonstrated has created an idealized, decontextualized setting where small-group collaboration and creative application of strategies appeared easier than it really was (Bean, 1997).

Four influential factors emphasized by current theories of how pre-service teachers build beliefs and practices about teaching include (a) discipline-based theories about learning, (b) the culture of the classroom and cooperating teacher's style, (c) reflection on pre-service

experiences, and (d) one's personal biography as a filter for reflection on teaching experiences (Bean & Zulich, 1992). However, the cooperating teacher's influence has often outweighed the influences of the other three factors. If a strategy contradicted a teacher's style, it was not adopted. Classroom research and current theories of teachers' beliefs and practices have shown that although content area literacy courses offer a rich range of vocabulary and comprehension strategies, other factors minimized their applications (Bean, 1997).

Shulman (1987) suggested the following category headings if teacher knowledge could be organized into a handbook, encyclopedia, or some collection format for knowledge:

- content knowledge;
- general pedagogical knowledge, with special references to those broad principles and strategies of classroom management and organization that appear to transcend subject matter;
- curriculum knowledge, with particular grasp of the materials and programs that serve as “tools of the trade” for teachers;
- pedagogical content knowledge, that special amalgam of content and pedagogy that is uniquely the province of teachers, their own special form of professional understandings;
- knowledge of learners and their characteristics;
- knowledge of educational contexts, ranging from the workings of the group or classrooms, the governance and financing of school districts, to the character of communities and cultures; and
- knowledge of educational ends, purposes, and values, and their philosophical and historical grounds ( p.227).

This type of knowledge must be included in teacher preparation.

Studies seeking to identify connections between teachers' content knowledge and student achievement are still needed (Ball, Lubienski, & Mewborn, 2001; Begle, 1979). Teachers need to know content in ways different from the way it is taught and learned in university and college courses. In the 1980s, Lee Shulman and colleagues shared the concept of "pedagogical content knowledge" and presented a new way of thinking about the nature and role of the content knowledge needed for teaching (Shulman, 1986, 1987; Wilson, Shulman, & Richert, 1987).

All teachers, not just reading teachers, should have specialized content knowledge. According to Shulman (1986), through the process of planning and teaching specific content, teachers would develop subject matter knowledge. A crucial aspect of teacher's knowledge development in these early years was the development of knowledge of how to teach their subject matter. Shulman saw this growth as an integral form of content knowledge.

Another kind of content knowledge is pedagogical content knowledge. This knowledge goes beyond content knowledge. Pedagogical content knowledge refers to the most frequently taught topics in one's subject area. Some examples of pedagogical content knowledge include analogies, illustrations, examples, explanations, and demonstrations. Teachers develop these representations and other alternative forms of representation from research and practice. Pedagogical content knowledge also includes an understanding of what makes the learning of specific topics easy or difficult.

University teaching practices that help students learn to apply pedagogical knowledge should provide explicit explanations and examples, demonstrations of practices, and opportunities for guided practice of teaching strategies in practicum settings with pupils (Risko, Roller, Cummins, Bean, Block, Anders, & Flood, 2008). Very few studies in the field of literacy

education have explored the nature and role of reflection in teachers' literacy discussions (Risko et.al, 1999).

Exploring the role of possible elements of reflection, such as scaffolding, shared reflections, and references to the past, present, and future experiences would help all teacher educators. Grossman and McDonald (2008) stated that research on teaching over the past 50 years has shifted to looking at teaching behaviors, decision-making, teacher knowledge, reflection and dispositions from a previous focus on teacher characteristics—i.e. enthusiasms or authoritarianism. Looking at teaching in this manner has influenced how we think about teacher preparation.

### **The Knowledge Development of Undergraduate Students Preparing to Teach Reading**

The teaching and learning processes are affected by different cognitive variables in which student learning approaches, epistemological beliefs, and reflection being among the most important. Two of the most important learning approaches (Biggs, 1987a; Marton & Säljö, 1976) and Schommer's (1988) original work concerning epistemological beliefs during the past 20 years generated a substantial gathering of research evidence. According to Cano (2005), there was an increase of interest in the study of students' approaches to learning and their epistemological beliefs within the one framework. Additional research interest focused on Mezirow's (1977, 1991, 1998) perception of reflective thinking within the framework of student learning approaches which had played an influential part in the teaching and learning profession, coining terms such as "reflective practice," "reflective practitioner," and "critical thinking." The idea of reflective thinking, or what is commonly referred to as "reflective practice," "reflective practitioner," idea first originated from the works of John Dewey (1933). Dewey defined reflective thinking as "active, persistent, and careful consideration of any belief or supposed

form of knowledge in the light of the grounds that support it and the conclusion to which it tends” (p.9).

Epistemology is a branch of philosophy that is concerned with the nature of knowledge and justification of beliefs (Edwards, 1967). There are numerous ways epistemology is identified by educational psychologists. Personal epistemology can be divided into three major groups: (a) a developmental perspective— is “a structure in which individuals construe the nature and origins of knowledge, of value, and of responsibility in a sequential and logical process” (Perry, 1970); (b) a system of personal beliefs—is made up of more than one belief, and the beliefs within the system are more or less independent (Schommer-Aikins, 2002); and (c) an alternative concept—includes “epistemological theories” (Hofer & Pintrich, 1997) and “epistemological resources” (Hammer & Elby, 2002). The epistemological beliefs in learning and academic development initial interest started with Perry’s (1970) works which, for the past 10 to 15 years, has materialized as an active research topic (Schraw & Sinatra, 2004). The works of most authors in relation to epistemology involved investigating late adolescents and young adults using complex, time-consuming instruments that involved production tasks and/or interviews, and trained observers to evaluate those beliefs (Cano, 2005). Schommer (1994), however, suggested a quick, simple self-report questionnaire that allowed researchers to study individuals in less time. In addition, Schommer (1994) also offered a more quantified yet simplistic notion of epistemology by promoting the view that individuals have multiple beliefs about the nature of knowledge and learning, and that these beliefs exist as a multi-dimensional system or more or less independent beliefs. Schommer’s (1994) identified the following four dimensions of epistemological beliefs, ranging from naïve to sophisticated:

- structure of knowledge (ranging from isolated bits to integrated concepts);

- stability of knowledge (ranging from certain to evolving);
- speed of learning (from quick or not at all to gradual); and
- ability to learn (ranging from fixed at birth to improvable (Schommer, 1994a, 1994b; Schommer-Aikins & Hutter, 2002)).

Although the perspectives on epistemology vary, researchers typically observe individuals' epistemic beliefs, "including beliefs about the definition of knowledge, how knowledge is constructed, how knowledge is evaluated, where knowledge resides, and how knowing occurs" (Hofer, 2001).

### **Research Establishing Paradigms of Teacher Epistemology**

A one-on-one teaching or learning situation is considered the most effective method of instruction by many (Bloom, 1984; Cohen, Kulik & Kulil, 1982; Juel, 1996; McAuthur, Stasz & Zmuidzinas, 1990; Pinnell, Lyons, Deford, Bryk & Seltzer, 1994; Wasik & Slavin, 1993).

Tutoring experiences for pre-service teachers are generally part of most teacher education programs (Roller, 2001). According to International Reading Association (IRA) 2003, tutoring experiences seem likely to be an important element in the most successful preparation programs.

Teachers rarely have the opportunity to work with children one-on-one for substantial periods of time. Documented changes, however, occur in teacher's belief about learning when they have this opportunity (Pinnell, Lyons, Deford, Bryk, & Seltzer, 1994; Woolsey, 1991). This section discusses a few studies which explore the impact of tutoring programs on the learning of pre-service teachers (Hedrick, 1999; Hedrik, McGee, & Mittag, 2000).

Hedrick (1999) examined 11 pre-service teachers to explore the effects tutoring had on pre-service teachers throughout one year. During the year, the pre-service teachers were in their



senior year and were enrolled in a course that required one-on-one tutoring at an elementary school. The study was designed to answer the question, “Will accelerated reading progress in third, fourth, and fifth graders be demonstrated after one year of one-on-one tutoring by pre-service teachers?” Teachers in the elementary school identified students who were at-risk for failing and would benefit from one-on-one reading instruction. The tutoring sessions were twice a week for one and one-half hours during a ten-week semester. The pre-service teachers were encouraged to use specific reading assessments to modify the reading instruction. *The Basic Reading Inventory: Pre-Primer Through Grade Twelve and Early Literacy* (Johns, 1977) was used to identify the students’ beginning and ending reading levels; informal reading assessments, observations, and collaboration with the other tutors and/or the professor were used to make instructional decisions. The pre-service teachers used email three times during the semester to discuss any progress or problems. The study centered on the reading achievement of the students being tutored in a one-on-one tutoring experience with a pre-service teacher. The findings showed the students being tutored did benefit from the one-on-one tutoring and made significant gains in their reading; however, gains in the pre-service teachers’ teaching ability were not measured.

Another study by Hedrick, McGee, and Mittag (2000) was used to help pre-service teachers make connections between theory and practice while tutoring one-on-one with students who were at-risk for failing reading. The researchers used a qualitative approach to establish the beliefs, attitudes and perceptions of pre-service teachers regarding the elementary students. The sources of data included were three open-ended email surveys that asked for pre-service teachers’ responses to interview-formed questions the researchers created (e.g. give a description of the student you are tutoring), video-taped focus group sessions, solicited and unsolicited

posted e-mail from the pre-service teachers (pre-service teachers were asked added communication concerning their tutoring experience, concerns, problems, questions, and/or comments). Documentation was collected of pre-service teachers' practical experiences and preconceived ideas about teaching at-risk students during one-on-one tutoring sessions, and their experiences of making connections between theory and practice. The findings in the study suggested that the pre-service teachers experienced improvement in their teaching practices and recognized the social and emotional needs of their students. The practical experience helped the pre-service teachers make the connection between the instructional strategies previously learned in other course work with the activities also learned with this course.

Fang and Ashley (2004) studied 28 pre-service teachers' building of professional knowledge, skills, and insights during their field-based reading block which consisted of nine hours a week. The pre-service teachers tutored students who having reading difficulties. There were three parts of the reading block. The first part was for three weeks; it presented theory in language, learning, and teaching. The second part was also for three weeks; it presented literacy assessment instruction. Finally, the third part, which was for eight weeks; it presented strategies that could help increase students' reading capability. The pre-service teachers had previously taken one basic reading methods course. The students assigned for tutoring were identified as at-risk for failing reading by their classroom teacher. The tutoring sessions were two times a week for 45 minutes. Other than the instructors' lectures on assigned readings about theory and practical concerns in language, learning, and teaching, the pre-service teachers also received help from the instructors in planning and applying their reading lessons. The instructors also provided feedback to the pre-service teachers after observing their tutoring sessions. The researchers thought pre-service students would benefit from and be more reflective if they observed each

other tutoring; therefore, two pre-service teachers alternated tutoring one child. Other sources of data collected included the instructors' observation notes about the pre-service teachers' tutorial sessions and discussions, surveys, interviews, journals, case study reports, and beliefs-into-practice papers. The findings of the study suggested that the pre-service teachers' knowledge, skills, and insights about reading education demonstrated considerable development. The pre-service teachers' confidence as reading teachers increased as did their understanding of why some students experience difficulty in learning to read.

### **The Relation between Teacher Epistemology and Pedagogical Practice**

Lyons (1990) argued that the kind of learning that occurs in the classroom is a function of the joint intersection of teachers' and students' ways of knowing. A critical problem with epistemology is the epistemological assumptions or "ways of knowing" developed by students. Lyons (1990) suggested that the epistemological dimensions of teachers' thoughts were comprised of their conceptions of themselves as knowers, their assessment of their students' epistemological stances and the resulting expectations that they form about student learning, and their conceptions of the nature of the disciplinary knowledge they have to teach and the way in which they believed it ought to be taught. According to Edwards and Mercer (1987), teachers were often engaged in mulling over the value of transmitting knowledge and covering material superficially as opposed to engaging students in in-depth inquiry in fewer topics. Lyons (1990) concluded:

In a unique process, the teacher joins the students in encountering a body of data and in interpreting it, a co-joint activity constructing meaning and potentially new knowledge. These tasks involve special challenges that concern how to examine and approach knowledge, a view of one's discipline, an assessment of students,

and interactions with students, who, in turn, have unique views of knowledge and ways of knowing (p. 172).

Lyons (1990) essential thought was the need to theorize the relationship between schooling and opportunities for personal and social transformation, perhaps much like Freire (1970, 1989) has made with the premise that schooling engages people with their reality so that they might act to transform it. In Freire's 1970 seminal work, *Pedagogy of the Oppressed*, he created the term *banking* in reference to the influence on student teachers regarding cooperating teachers as being transmitters of information or knowledge.

Researchers have been drawn by the relationship between teachers' epistemic beliefs and their pedagogical beliefs. According to Pajares (1992), many researchers agreed that teachers' epistemic and pedagogical beliefs usually relate to each other. Hofer and Pintrich (1997) argued that "beliefs about learning and teaching are related to how knowledge is acquired, and in terms of the psychological reality of the network of individuals' beliefs, beliefs about learning, teaching, and knowledge are probably intertwined" (p.116).

The remainder of this section, which can be a model that can also be applied to reading instruction, discusses further Paulo Freire's theories about the nature of knowledge and introduces an intellectual tradition that underlies the concept of ethnomathematics. According to Freire (1982),

Knowledge is continually created and re-created as people act and reflect on the world. Knowledge, therefore, is not fixed permanently in the abstract properties of objects, but is a process where gaining existing knowledge and producing new knowledge are "two moments in the same cycle" (as cited in Frankenstein & Powell, 1994).

Parallel to the knowledge reading teachers must acquire to provide “high quality” teaching of reading in the classrooms, mathematicians, too, must exhibit high quality instruction in order to improve students’ math skills. Mathematic educators portrayed mathematics as a body of knowledge that was a European male domain. This pedagogical practice has discouraged and distanced students, people of color, and women from engaging in mathematics (Frankenstein & Powell, 1994). In a French mathematics education study, the following question was asked of a seven-year old: “You have 10 red pencils in your left pocket and 10 blue pencils in your right pocket. How old are you?” When he answered: “20 years old,” it was not because he didn’t know that he was *really* seven, or because he did not understand anything about numbers (Frankenstein & Powell, 1994). According to Pulchalska and Semadeni (1987), it was because “the ‘social contract’ between mathematics students and teachers stipulates that “when you solve a mathematical problem...you use the numbers given in the story...Perhaps the most important single reason why students give illogical answers to problems with irrelevant questions or irrelevant data is that those students believe mathematics does not make any sense” (p.15).

In a contemporary context, Frankenstein (1989) found the astonishment of working-class adult students in the United States when they learned that the decimal point was the same as the point used to write amounts of money. Similarly, in England, Spradbery (1976) worked with 16-year-old students who failed consistently to master any aspect of mathematics beyond elementary. After considerable amounts of “remedial” teaching, they finally left school. In their spare time, the same students kept and raced pigeons applying mathematical skills that were a natural part of their stock of commonsense knowledge, such as weighing, measuring, timing, using map scales, buying, selling, interpreting timetables, devising schedules, calculating, probabilities and averages (p.237).

According to Frankenstein & Powell (1994), the mathematical knowledge established in the activity with adults handling money and the students racing pigeons was Freirean in the sense that it was not fragmented from the knowledge of each of these activities; rather, it was created and re-created in praxis. However, the academically enforced disjuncture between “practical” and “abstract” mathematical knowledge contributed to students feeling that they do not understand or know any mathematics. Similarly, with reading academics, the “practical” and “abstract,” too, cause students to feel that they do not comprehend what they are reading. Students are expected in reading to develop higher level literacy skills in order to make connections, identify the main ideas, infer, summarize, and compare and contrast. Learning these skills may require rigorous instructions. However, the achievement of teachers’ knowledge in math and reading and the ability to choose learning situations relevant to the students should impact their instructional decisions which, in part, should have a positive influence on their students’ learning.

### **Summary of Chapter**

This chapter was organized included a brief historical look at reading teacher preparation, the content knowledge base of effective teachers, the knowledge development of undergraduate students preparing to teach reading, research establishing paradigms of teacher epistemology, and the relationship between teacher epistemology and teacher practice. The basis for this study was built upon the assumption that pre-service teachers enter the classroom to teach reading with initial ideas concerning teaching reading. These initial ideas and beliefs were formed from their own experiences of how they learned to read and their limited experiences teaching reading.

## CHAPTER III: METHODOLOGY

### Organization of Chapter

This chapter observes the methods used to collect and analyze the data for this study. The chapter is organized into the following eight parts: (a) research design and rationale, (b) researcher's role, (c) research setting, (d) participants, (e) procedures for data collection, (f) procedures for data analysis, (g) data validation, and (h) ethical considerations.

### Research Design and Rationale

This qualitative research study consisted of multiple case studies. The unit of analysis is an event, a program, an activity, or more than one individual. The data collection forms include using multiple sources, such as interviews, observations, documents, and artifacts. The data analysis strategies involve analyzing data through description of the case and themes of the case as well as cross-case themes. The written report consists of developing a detailed analysis of one or more cases (Creswell, 2007).

The premise of this paper was based on Stephanie Ann Grote-Garcia's dissertation research, *Epistemology of Undergraduate Preservice Teachers in a Tutorial Setting: Transitioning Content Knowledge into Pedagogical Content Knowledge in Literacy Education* (2009). Grote-Garcia's study confirmed the claims of Kagan's (1992) report that pre-service teachers tend to teach reading the way they were taught unless their university course work makes a direct attempt to address their preconceptions (Grote-Garcia, 2009). Grote-Garcia's study involved undergraduate pre-service teachers in the Texas A&M University Corpus Christi (TAMU-CC) READ 3351 course *Diagnosis and Correction of Reading Problems*. This study attempted to address one of Grote-Garcia's recommendations for future studies which dealt with the following question: "What methods of training are most effective in advancing the

epistemology of undergraduate pre-service teachers?” Most importantly, what can teacher-training programs at the universities do to better prepare undergraduate pre-service teachers to teach with a more sophisticated epistemology?

One approach taken to address this question was to change the time of the tutorial sessions. Previously, the pre-service teachers met at the beginning of the class period, then tutored for 75 minutes. For this study, the pre-service teachers tutored for the first 75 minutes, so the course instructor could follow up with an explicit intervention, guided questioning, the whole group could discuss what went well with their lessons and what they could do differently for the following week’s lessons. Tutoring was already a component of the READ 3351 course. The specific instructor intervention, guided questioning, was the modified component of the course.

The purpose for allowing the undergraduate pre-service teachers in this study to reflect with their course instructor immediately after their tutorial sessions was to help the undergraduate pre-service teachers evaluate the effectiveness of their lessons, which in turn, allowed them to discuss how they planned to modify their instructions to better meet the needs of their young readers. Grote-Garcia (2009) also noted that the undergraduates in her study did not initially exhibit Shulman’s (1987) activity of *transformation*, and this affected their *instruction*. According to Shulman (1987), *transformations* require some combination or ordering of the following processes:

- (1) preparation (of given materials) including the process of critical interpretations, (2) representation of the ideas in the form of new analogies, metaphors, and so forth, (3) instructional selections from among an array of teaching methods and models, and (4) adaptation of these representations to the general characteristics of the children being taught, as well as (5) tailoring the



adaptations to the specific youngsters in the classroom. These forms of transformation, these as aspects of the process wherein one moves from personal comprehension to preparing for the comprehension of others, are the essence of the act of pedagogical reasoning, of teaching as thinking, and of planning—whether explicitly or implicitly—the performance of teaching (p.16).

This study used a qualitative research design to trace the early epistemological stages (Shulman, 1987) of six undergraduate pre-service teachers performing the role of reading tutors within a university-based tutorial setting. Capturing the patterns of the undergraduate pre-service teachers' early teaching practices could help universities increase their understanding about undergraduate pre-service teachers' knowledge about teaching reading and areas in their preparation courses where improvement is needed. This study also investigated the pre-service teachers' selections of appropriate materials in order to identify their epistemological developmental stages. Children's literature provides effective resources for reading instruction, but other materials can be used such as flash cards, manipulatives, poetry, and student generated writing.

Data collection procedures included formal interviews, observations, documents, and artifacts, which were organized and analyzed in multiple case studies. The data collected were used to address three research questions:

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?
2. What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based tutorial setting?

3. How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?

Teacher education programs should be designed to prepare pre-service teachers to teach reading in the classroom. Pre-service teachers ought to be allowed to reflect and discuss their tutoring experiences under the supervision of a professor in a required methods course. The planned discussions in this study provided added support for the undergraduate pre-service teachers so they could receive immediate feedback and suggested strategies from the course instructor that could be implemented during their next tutorial session. The assumption in this study was that this immediate feedback and ability to work in groups and reflect on their experiences was crucial in improving pre-service reading teachers' epistemological and pedagogical awareness for teaching reading.

The rationale for studying inexperienced undergraduate pre-service teachers tutoring reading rested on the fact that they lack actual experience teaching reading. Lee Shulman (1987a) presented an argument in three areas of teaching: (a) content, (b) character, and (c) sources for a knowledge base of teaching. Shulman laid out broad categories of knowledge needed for teaching and later put his focus on categories that dealt with content and pedagogical knowledge. This study was designed according to Shulman's (1987) theory of Pedagogical Reasoning and Action. Shulman (1987) suggested that there was a process of transformation that an individual teacher experiences in developing the ability to reason about pedagogy. Shulman's Pedagogical Reasoning and Action included the following six activities:

1. Comprehension—the process of understanding subject matter.

2. Transformation—the process of reconfiguring subject matter knowledge for teaching. Preparation, representation, selection, adaptation, and tailoring are the five sub-processes involved in this process.
3. Instruction—the aspects of active teaching discovery or inquiry.
4. Evaluation—the assessing of student and teacher accomplishments.
5. Reflection—the critical analysis of one’s teaching performance.
6. New comprehension—the process of understanding new subject matter.

This study uses Shulman’s (1987) six activities to categorize the undergraduates’ pedagogical decisions and organize them into smaller units for examination. In order for the researcher to trace the undergraduates’ epistemological development in the many stages of pedagogical reasoning, all of the pedagogical decisions related to the *comprehension* activities were examined together, while all the pedagogical decisions related to *reflection* were examined together. The purpose of this study was to understand how the undergraduate pre-service teachers and their thoughts about reading instruction develop in all six of Shulman’s (1987) activities.

### **The Researcher’s Role**

The primary collection tool for this study was the researcher. The researcher put forth every effort to remain neutral throughout the collecting and analyzing of the data. The researcher did not play any part in the undergraduate pre-service teachers’ pedagogical decisions and attempted to analyze all data equally. The researcher disassociated her previous experience as a reading teacher in order not to have any influence on the findings. In the effort to exclude any interference, the researcher documented all relevant discussions and collection of any written

communication between the undergraduate pre-service teachers and herself. This documentation was collected as artifacts.

### **The Research Setting**

This study focused on six undergraduate pre-service teachers enrolled in an education course offered by Texas A&M University Corpus Christi (TAMU-CC), READ 3351: *Diagnosis and Correction of Reading Problems*. The course syllabus is in Appendix A. At the time of this study, the island campus of TAMU-CC, which is designated as a Hispanic Serving Institution (HSI) due to its location on the Gulf of Mexico and on the cultural border with Latin America, enrolled approximately 10,000 students.

### **Participant Selection**

The participants in this study consisted of six undergraduate pre-service teachers enrolled at Texas A&M University in Corpus Christi (TAMU-CC). The process of the selection of all participants is discussed in the following two sections.

**Selection of pre-service teachers.** Six undergraduate students currently enrolled in READ 3351: *Diagnosis and Correction of Reading Problems* offered at Texas A&M University Corpus Christi (TAMU-CC) were the primary participants. First, participants were identified through a two-step process incorporating a survey (Appendix B) and a pretest (Appendix C). During the first week of the spring 2012 semester in READ 3351, the researcher screened all students with a survey (Appendix B) based on the criteria:

- Students who were seeking a teaching certification.
- Students who had not completed or were currently enrolled in student teaching.

- Students not previously enrolled in READ 3351: *Diagnosis and Correction of Reading Problems*.
- Students who were willing to complete three interviews, fill out the checklists, have their tutoring sessions videotaped, and have their work examined.

The researcher sought participants who had not participated in, nor were currently participating in courses that required them to teach reading. The researcher looked for participants who had not completed any courses requiring them to teach reading, because they would not be at the same experiential stage as the others. The six participants represented different specialized areas of certification: two were seeking Early Childhood-6 certification (EC-6), one was seeking EC-6 Bilingual certification, two were seeking Special Education certification, and one was seeking Middle School 4-8 certification. Table 1 provides the demographics of the undergraduate pre-service teachers.

All students in the READ 3351 spring 2012 course were administered a pretest that consisted of 10 questions taken from the TExES / ExCET Preparation Manual, 2011 (Appendix C). The questions covered content knowledge. The test was re-administrated only to the six selected participants during the last week of the study in order to measure growth in their reading content knowledge.

Table 1

*Demographics of Selected Undergraduates*

Pseudonym	Ethnicity	Age	Class Standing	Certification Area
Amelia Hinojosa	Hispanic	21	Junior	Interdisciplinary Studies, Special Education K-12
Bess Dickerson	Black	21	Junior	Math 4-8
Janice Kay	White	21	Junior	Special Education Bilingual
Nydia Gomez	Hispanic	20	Junior	Generalist
Naomi Banks	White	38	Junior	EC-6
Adriana Alvarez	Hispanic	34	Junior	EC-6 Reading

**Informed Consent for Participants**

The TAMU-CC Institutional Review Board (IRB) granted permission for this study. Informed consent for the participants was provided by the researcher (Appendix D). To protect the participants, the following practices were included (a) all participants were given an oral and written description of the study when invited to participate, (b) all participants were provided informed consent letters to sign, and (c) aliases and identification codes were used in place of the actual names of participants in the reports of the study. Additionally, all participants were informed that: (a) they could withdraw from the study at any time, (b) participation or nonparticipation in the study would not affect their grades, and (c) there would be opportunities for the participants to review their transcribed interviews for accuracy.

**The Lens of the Participants**

Six undergraduate students studying to become teachers were selected to participate in this study. All six participants were enrolled in the same section of a reading course titled *Diagnosis and Correction of Reading Problems* (The syllabus for this course is in Appendix A). This course was of particular interest to this study because the undergraduate students were required to tutor reading within a university-based setting. The length of the course was 16 weeks; however, only eight of these weeks required the undergraduate students to tutor a young reader. Only six of these eight tutoring sessions were video-recorded for this study.

### **Participants' Literacy Experiences**

This section discusses background information of the tutors. The descriptions provided serve as an introduction to the participants. Information on each participant was generated through conversations with the researcher and *The Getting to Know You Interview* questions (Appendix F). The following includes questions asked during the interviews: (a) *How did you learn to read?* (b) *Do you have any experiences teaching reading?* (c) *What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher?* (d) *What knowledge does a child need for reading?* and (e) *What materials are effective for teaching reading?* Pseudonyms are used to identify each participant.

**Amelia Hinojosa.** Amelia Hinojosa was a 21-year-old undergraduate seeking a Bachelor's degree in Interdisciplinary Studies, Special Education K-12, at Texas A&M University Corpus Christi. She was very family oriented and came from a close family. She believed that it is good to have a background with a family that will be your support system under any circumstances. She has always enjoyed going to school. Amelia has always liked reading and thought teaching reading would be a challenge for her because she felt that she did everything right academically and was aware that not all students shared that same passion

toward their education. She believed that it is difficult to get students to do what is needed academically to succeed, and she thought this challenge would be difficult for her to identify with because as a student she never neglected her schoolwork.

Amelia's mother taught her how to read when Amelia was very young. Amelia was the only one who knew how to read in her daycare. She attended grades kindergarten through third grade at the Early Childhood Development Center (ECDC) elementary school located at Texas A&M University Corpus Christi. Before attending the ECDC, Amelia remembered her mother frequently reading to her and her little brother. She remembered writing with big thick pencils on large pads of paper. She recalled her mother writing words with dashes, and she and her brother would write the words by tracing the dashes. Amelia's mother went through the sounds with her and her younger brother and showed them how to put the sounds together to make a word.

Amelia decided to become an elementary teacher after her brother was diagnosed with Asperger's Syndrome when he was in high school. After his diagnosis, Amelia's family learned that his elementary teachers had noticed that he had problems, but instead of going to the school administration about them, they modified instruction for him in the classroom. Amelia thought that because she was specializing in special education, it would be better for her to be at the elementary level, which she referred to as being "at the root of the problem." Her experiences with teaching reading included helping her mother teach her little brother. During the time of this study, Amelia was the nanny of a five-year-old boy. When he was learning to read, she would practice the strategies she learned in her courses with him.

Before her participation in this study, Amelia had taken READ 3320: *Principles and Practices of Reading Instruction, Grades EC-6*. She felt that she knew many of the things she needed to know in order to prepare her for this class; for example, she was familiar with running



records, assessments, different strategies, and lesson plans that would help her with ideas for her tutoring sessions. In her READ 3320 course, the professor shared a lot of his personal experiences with her class, which she believed helped her relate to what she was currently learning in this course. She thought very important skills a reading teacher should possess in order to be an effective teacher were patience and the understanding that not all children are going to be at the same level. She was aware of the fact that what works for one student may not necessarily work for every student. Amelia also believed that teachers needed to be able to understand what a struggling reader or student is going through. She was concerned about the fact that because she was a good reader, she might not understand what a child struggling to read would be experiencing. She was hopeful that her experiences with the boy she was helping to learn to read and helping her brother with his struggles with reading would be beneficial to her through this tutoring experience. Amelia thought the experience children needed for reading included having books in the home and having parents reading to them because if the children saw both parents reading it would help them become interested in reading. Amelia also attended a literacy summit before this interview and before beginning her tutoring sessions. At the literacy summit, Amelia was told that novice teachers should share with others what is going on with them, and it helped Amelia to hear others' good and bad experiences.

**Bess Dickerson.** Bess Dickerson was a 21-year-old student at Texas A&M University Corpus Christi seeking her Bachelor of Science degree, specializing in 4-8 Math. She described herself as being outgoing, laid back, well-rounded, and quiet at times because she liked to observe things. She said she learned to read at school, but her parents provided her with the *I Can Read* books and others like *Amelia Bedelia*, *Bargain for Frances*, and *Zac's Alligator*. Bess decided to become a teacher because she likes both children and teaching. She remembered

being in math class in middle school and not understanding what she was doing. When she asked her teacher for help, she was told to “read it until she got it.” At that point in time, Bess decided to become a math teacher. As a math major, Bess did not think that she needed to take any reading classes. Because she was required to take the READ 3351 course, however, she realized that reading would be helpful with the word problems.

Bess’s experience with teaching reading included working with her younger nephews and cousins. She commented that they know more about songs on the radio than reading books and spelling their names. She helped them with their workbooks from school. In her prior course work, Bess learned that context clues were very helpful for testing; for example, in determining the definition of unknown words in a passage. She thought a reading teacher should possess patience because “some kids don’t learn as fast as other kids. You have to sit them down and help them and have patience and the willingness to help. Some people just give up after a certain amount of tries.”

Bess claimed that in the process of becoming an effective teacher one learns to differentiate instruction for students because everybody learns at their own pace; for example, some children can spell words better than others or read better than others. Bess said the knowledge children need for reading is probably phonics. They have to learn how to put words together and sound them out. The materials effective for teaching reading include books, whiteboards, and markers. Children can use markers to draw or write and have a “ton of fun.” Video games like *Leap Frog* are interactive for children and capture their attention.

**Janice Kay.** Janice Kay was a 21-year-old seeking her Bachelor of Science in Special Education. She was adopted when she was eleven years old, but had endured a difficult childhood beforehand, continually being sent from one place to another. After her adoption, she

attended a “normal” school, made friends, and played sports. During her senior year, she was president of the Spanish club, vice-president of her class, and captain of the volleyball and basketball teams. She was awarded a track scholarship, but an injured knee prevented her from participating on the track team. Janice attended her first year of college in San Angelo where she studied nursing until it became too difficult for her. She became involved with a summer church camp as a counselor until her mother moved her to Corpus Christi to live with her. Janice also has two boxers that she loves very much.

With everything that went on early in her life, Janice does not remember how she learned to read. She decided to become a teacher because of her love of reaching out to people. She had always wanted to work with children. That is why she originally wanted to be a pediatric nurse, but finally realized that she did not want to work with sick children. Her desire was to work with children who had special needs. While Janice was in high school, she volunteered to work with the special education students because she said seeing them happy always brightened her day. She enjoyed helping the blind and deaf children mount on horses.

Janice had no experience teaching reading. She enjoyed reading to her little cousin, but had never tutored reading. In her prior course work, she was, however, provided explanations and asked, “How would you do this with a child?” As far as skills a reading teacher should possess and what makes a reading teacher an effective teacher, Janice felt that a reading teacher should have more than one reading strategy. She believed that there should be one-on-one experiences and getting to know the students. She also thought an effective teacher needs a lot of patience and should be open-minded. She realized that it was going to take years of working with students, along with a lot of failing and learning, in order to be an effective reading teacher. She said beginning teachers should stay in the company of good teachers, including some of the

professors that trained them in school and get as much help as they can, so they can learn what it takes to be an effective reading teacher. According to Janice, “There’s always going to be changes, so you’re always going to be learning.”

The knowledge she thought a child needed for reading included understanding the basics by learning phonics and phonemic awareness. Janice believed that the material effective for teaching reading was the book *Teaching Children to Read*, a book from one of her courses. Regretfully, she sold her copy of this book back to the bookstore, but is planning on buying it back because it helped her a lot. She also credits her Bader book [*Reading and Language Inventory*, 2009] for helping her with this READ 3351 course. Janice liked the idea of having her sessions recorded for this study and wouldn’t mind viewing them herself. She compared viewing herself tutoring to sports. She said, “You really don’t get the big picture until the coach sits you down and like watch a game.”

**Nydia Gomez.** Nydia Gomez was a 20-year-old seeking a Bachelor of Science degree for Bilingual and Generalist EC-6. She was originally from California. Neither one of her parents were educated. They did not make it past elementary school. Nydia was the first one in her family to attend college. Family was her priority and then school. She learned to read through an ESL class. When she started school, she did not know English because Spanish was the primary language spoken at home. Nydia was also a struggling reader. She was not motivated to read and did not like to read because no one ever really showed her how to read in a way that would make her love reading.

Nydia’s decision to become an elementary teacher was based on her desire to make a difference with children. She had no previous experience teaching reading, but she had made some classroom observations. In her prior course work, Nydia learned the five pillars of reading,

how they intertwined, and what affect they have on each other. She stated, "...reading really is major in anything we do." As far as skills a reading teacher should possess, Nydia thought that a reading teacher really needed to know her students and what affects their learning because if they don't like to read, they're not going to want to do other things. Nydia also stated, "You have to know their level and how to work with them because not all students learn the same way." She believed that an effective teacher should know multiple strategies to give every student what they need, so they can learn what they need to learn. The process of becoming an effective teacher, according to Nydia, was first getting to know the students and their likes and dislikes because if students don't like what they are reading, they're not going to be interested. They must be given materials that they are interested in learning and, at the same time, incorporated in a way where they can be taught from things relatable to them.

Nydia said children should be knowledgeable about vocabulary and have fluency in reading. They should know the basic concepts of a cover, the setting, how to read from left to right, inferencing, what to do when they stumble upon a word, like using decoding skills, how to use context clues, pictures, and the meaning behind what is being read. Then, this learning can be taken to another level, so they can analyze what they are reading and relate it to themselves. Effective materials for teaching reading should include books that are on different levels. One has to make sure that every student has something to read that is interesting to him. One also needs strategies and multiple teaching techniques that will interest all learners.

**Naomi Banks.** Naomi was a 38-year-old mother of three: a 20-year-old, 10-year-old and a three-year-old. She was seeking her Bachelor of Science in EC-6 Generalist. She had been in college for two-and-a-half years. She remembered being a struggling reader herself and being in resource classes. Her mother used to read to her all the time. She credited her mother for

teaching her to read. She decided to become an elementary teacher because her very own children were so vastly different. Her oldest son had Attention Deficit Disorder (ADD) and always struggled in school. Her middle son was gifted, but had Attention Deficit Hyperactivity Disorder (ADHD). Dealing with the challenges her children were faced with, Naomi noticed that there was a need for someone to be a voice for all children no matter how they learn. She had no prior experience teaching reading besides working with her own children. She had practice with administering evaluative assessments in her previous course work where she learned that children of the same age may not necessarily be on the same reading level.

Naomi believed that an effective reading teacher understood that not all children saw everything they were reading the same. She thought that every reading teacher should have patience and not just focus on the strugglers, so that none of the students would have low performance. Naomi thought that the process of becoming an effective teacher included and meeting a lot of different teachers and seeing what you thought would work for you. According to Naomi, in order for children to read, they needed to be knowledgeable of the alphabet and phonics. She also stated that all materials were effective for teaching reading; for example, good books, activities of students' interests, and journals, so they can reread what they have written. The classes that Naomi had already taken brought to her attention what teachers needed to know and what teachers had to endure. She felt the more experience the better—especially during her first experiences with actually tutoring one-on-one with a student.

**Adriana Alvarez.** Adriana was a 34-year old seeking her Bachelor of Science EC-6 degree with a specialization in reading. She was a military wife with three children. Even though she was a full-time student, she was very active with her children and their extracurricular activities. She was not employed, but her children's sports kept her busy. Adriana learned to read

from her mother. Her mother did not work, so she often took Adriana to the library along with Adriana's aunts and cousins. She did not remember any specifics on how she learned to read, but she did remember that she could recite *Green Eggs and Ham* from hearing it repeatedly. Adriana enjoyed working with children and decided to become an elementary teacher. Initially, she wanted to be a nurse, so she could help somebody in one way or another, but her father and many of his brothers and sisters were teachers. This influenced Adriana to become an educator. She enjoyed helping children and having an impact on their lives. Her only experience with teaching reading was working with her own children with their sight words, spelling, and phonics. In her prior reading course, she learned the five pillars of reading and many strategies to do before, during, and after reading. She also learned how to assess students with informal reading inventories and administer running records.

Adriana thought that an effective reading teacher had patience because not every student will be at the same level. Effective teachers were receptive to the different types of students, adjusted their teaching accordingly, and had profound content knowledge in their area. Adriana believed that a reading teacher needed to know what he or she was doing first in order to be able to teach it, and that a child needed patience and dedication so as not to give up and to become an effective reader. It was helpful if children already had an early start in reading at home before starting school; in fact, any kind of preparation before starting school was a plus for them. Adriana believed that effective materials for teaching reading included audio tapes with phonics, videos, technology, and flash cards.

### **Procedures for Data Collection**

The researcher was the primary data collection tool for this study. She collected data through three sources: interviews, observations, and artifacts. The researcher used a field notes

journal to function as a means of testing her interpretations. These multiple sources were used to establish validity referred to by qualitative researchers as triangulation (Foreman, 1948) and created an audit trail (Guba & Lincoln, 1981), which was a way for independent judges to confirm the findings.

### **Timeline of Study**

The collection of data lasted eight weeks. Six participants were identified and administered *The Getting to Know You Interview* (Appendix E) during the first week of the spring 2012 semester (the first week of data collection). During the second, third, and fourth weeks of data collection, the observations and videotaping of tutoring sessions of each of the participants began. Each undergraduate participant had three semi-structured interviews: *The Getting to Know You Interview* (Appendix E), *The Learning Through Experience Interview* (Appendix F), and *The Making Connections Interview* (Appendix G). All interviews were audio-recorded, a total of six tutoring sessions were videotaped. Before each tutoring session, each participant was given a checklist of instructional reading strategies (Appendix H) used by either the participants or the young reader. The tutors filled out this checklist after the tutoring session, which was collected by the researcher.

The second interview, *The Learning Through Experience Interview* (Appendix F), was completed in the fourth week. This was the midpoint for data collection. The participants completed three more tutoring sessions during the fifth, sixth, and seventh weeks of data collection, and the checklist and post-tutoring interventions continued. The final interview, *The Making Connections Interview* (Appendix G), was collected after the completion of all six tutoring sessions in the seventh week of data collection. During the eighth week, the undergraduate participants took a posttest (Appendix C-identical to the pretest) to compare the



mean scores to see how much, if any, the undergraduate pre-service teachers' pedagogical content knowledge had developed.

The guided questioning intervention occurred immediately after each tutorial session. The tutors returned to the class where they were divided into groups of six and discussed their successes and concerns about their tutoring experiences. The researcher provided the course instructor with a menu of guided questions from which to choose, depending on which intervention the group as a whole needed based on the course instructor's observations. Table 2 includes the guided questioning topics that were discussed after the six tutoring sessions. During the whole group intervention with the course instructor, the researcher observed only the group with the study participants by making anecdotal notes in her field notes journal of the discussions, responses, and reactions of the group. The other undergraduate pre-service teachers in the READ 3351 class were not subjects of the research during the whole group discussions. Each tutoring session was held once a week during the first 75 minutes of class. Each whole group discussion intervention was held for 10 minutes in class after the tutorial session. The researcher made observations of the participants' interactions and discussions during the small group sessions.

Throughout the eight weeks of data collection, the researcher viewed the participants' videotaped tutoring sessions, reviewed their reading instructional strategies checklists, and questioned the undergraduates about their epistemological growth and pedagogical experience. Descriptions of the researcher's and participants' conversations were written in the researcher's field notes journal, which was viewed by the researcher and securely stored each day. Table 2 illustrates the timeline for this study.

Table 2

*Timeline for the Study*

Week	Administration of Data Collection Tools	Guided Questioning Topics
One	Survey, pretest, and <i>The Getting to Know You Interview</i>	N/A
Two	First videotaped tutoring session, Reading Strategies Checklist, Group Reflections, and Intervention	Phonics/Phonemic Awareness What activities do you use to help your student develop phonics and phonological skills?
Three	Second videotaped tutoring session, Reading Strategies Checklist, Group Reflections, and Intervention	Comprehension Discuss how you check for reading comprehension?
Four	Third videotaped tutoring session, Reading Strategies Checklist, Group Reflections, Intervention, and <i>The Learning Through Experience Interview</i>	Vocabulary Explain how you teach vocabulary.
Five	Fourth videotaped tutoring session, Reading Strategies Checklist, Group Reflections, and Intervention	Genre How do you use different genres such as fiction, nonfiction, and poetry with your student?
Six	Fifth videotaped tutoring session, Reading Strategies Checklist, Group Reflections, and Intervention	Writing How do you use writing instruction complement your reading instruction?
Seven	Sixth videotaped tutoring session, Reading Strategies Checklist, Groups Reflections, Intervention, and <i>The Making Connections Interview</i>	Fluency What are some ways you develop fluency with your student; specifically speed, automaticity, and prosody?
Eight	Posttest	N/A

**Interviews**

According to Dexter (1970), an interview is a “conversation with a purpose” (p. 136). As outlined in the research methodology, the following three semi-structured interviews were conducted: The Getting to Know You Interview (Appendix D), The Learning through Experience Interview (Appendix E), and The Making Connections Interview (Appendix F). All six of the undergraduate pre-service teachers participated in all three interviews. A total of 18

interviews were collected. Each interview was audio-recorded and later transcribed. The transcribed interviews equaled 113 pages, double-spaced.

The interviews were used to trace the changes of undergraduate pre-service teachers' initial ideas about literacy instruction from the beginning to the end of their experiences. These interviews answered the research question: *How do undergraduate pre-service teachers' initial ideas about literacy instruction change from the beginning to the end of their tutoring experience?* The interviews were also used to trace patterns in the undergraduate pre-service teachers' epistemological and pedagogical development, answering the research question: *What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?*

## **Observations**

Shulman (1987) recognized essential relationships between how teachers conceptualize knowledge and how they teach. In an attempt to acquire and understand these relationships, six observations were planned for all six undergraduate pre-service teachers; however, only 33 observations were completed due to the absences of the young readers—the study had three sessions not recorded. The total videotaped tutoring sessions equaled 29 hours and 45 minutes. The observations served the purpose of examining one of the three research questions: *How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?* The tutoring sessions were videotaped once a week over a six-week period. While the researcher was videotaping, she asked the undergraduate pre-service students to state the date, their two-letter initials, the sequential order of the tutoring session (first, second, etc.), the objectives of the lesson, and the rationale for their lesson before beginning each tutorial session. Following each lesson the undergraduate pre-service students

were asked to reflect on what they learned from their acts of teaching reading, what worked well, and what they would do differently if they were to reteach that lesson.

### **Artifacts**

Many types of qualitative data, such as interviews, observations, and documents are collected to improve programs, solve problems, or explain what happened, must be turned into results (LeCompte & Schensul, 1999). For this specific study, 33 lesson plans were collected as the physical evidence of literacy instruction. Each of the collections of lesson plans were labeled with the participants' initials and divided in a heavy duty binder; the date of collection and the initials of the participants were written on the collected artifacts. The collected artifacts were also grouped in accordance with the six participants.

### **Field Notes Journal**

In addition to the three interviews, the participants discussed their pedagogical decisions with the researcher during their whole group intervention. Notes from these discussions were written by the researcher in the field notes journal. These notes assisted the researcher in understanding the undergraduate pre-service teachers' pedagogical reasoning. The researcher's notes were written in a spiral journal and consisted of 26, doubled-sided, handwritten pages.

The field notes journal was also used for other purposes in supporting the researcher's findings. The researcher documented comments made by the undergraduate pre-service teachers before or after interviews or tutoring sessions. The spiral field notes journal was stored inside a three-ring binder along with the collected artifacts.

### **Procedures for Data Analysis**

A triangulation of data was used to develop a foundation of a thick description and understanding of interpretations of the participants' perceptions (Geertz, 1973). One hundred

and thirteen pages of interview transcriptions, 29 hours and 45 minutes of videotaped tutoring sessions, and 33 collected artifacts served as primary data sources. The interviews served the purpose of addressing two of the three research questions: (a) *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?*; and (b) *What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?* The observations addressed one of the three research questions: *How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?* The researcher's interpretations were examined with the notations written in the field notes journal and the collected artifacts. Furthermore, the field notes journal served the purpose of capturing the informal discussions between the researcher and the six undergraduate pre-service teachers with the intent of gathering the reasoning behind their instructional decisions.

**Analysis of the interviews.** The interviews were analyzed by three different processes. The analysis process for the audio-recorded interviews began with the researcher transcribing all 18 interviews. In the first analysis, the researcher searched for accuracy of the undergraduates' observed ideas. In the second analysis, she searched for the undergraduates' preconceived ideas of literary instruction. In the third analysis, she searched for patterns of epistemological and pedagogical growth within the undergraduate pre-service teachers' spoken words. The notes for the first audio-recorded interview were printed on green paper, the second interview notes were printed on pink paper, and the third interview notes on yellow paper. These three different colors of paper served as a coding system which assisted the researcher during the data analysis. The colored paper allowed the researcher to identify with ease the interviews transcriptions as either

*The Getting to Know You Interview, The Learning Through Experience Interview, or The Making Connections Interview.* Each interview was reviewed and coded for accuracy and for a true reflection of the tutors' ideas about reading instruction. As a result, the researcher was able to quickly identify progressive patterns within and between the undergraduates' interviews.

**Interview checking.** The first step in analyzing the interviews involved checking the interviews for accuracy. This process was initiated by photocopying all 18 interviews and grouping them according to the participant who was interviewed. The six participants independently examined copies of the interview transcriptions for accuracy; all six participants agreed that the transcriptions were accurate and reflected their ideas about reading instruction.

Shulman's (1987) theory of Pedagogical Reasoning and Action was used as the coding system for analyzing the interviews. After the researcher checked the interview transcriptions for accuracy, the interviews were analyzed in order to identify some answers to the following research question: *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience?* This process began with the researcher grouping all interviews into six piles according to with the undergraduate pre-service teachers who were interviewed. Then, each pile of interviews was sequentially organized in six piles of green, pink, and yellow paper. This process aided the researcher in organizing the data for data analysis.

Next, the researcher read each pile of interviews twice. With the first reading of the interviews, the researcher was simply familiarizing herself with the interviews. She was not reading to identify the *comprehension, transformation, instruction, evaluation, reflection, and new comprehension* activities within Shulman's (1987) Model of Pedagogical Reasoning and Action. For the second reading, the researcher read the undergraduate pre-service teachers'

interview responses and determined which of Shulman's (1987) activities was reflected by the responses.

In determining which of Shulman's (1987) activities the responses reflected, the researcher encountered a problem: an overlapping of identification was discovered among the activities. Therefore, the researcher color-coded each of the Shulman's (1987) activities with a different map color in order to properly categorize them all in the correct activities. Each time one of Shulman's activities was identified, the researcher color-coded the activity by underlining it with a different map color to separate it from all other identified activities. Each identified activity was written in the left-or right hand margins of each identified response. After each response within the undergraduate pre-service teachers' interviews was appropriately categorized within Shulman's (1987) activities, the researcher recorded each response on a matrix grouped with the identified Shulman (1987) activities of Pedagogical Reasoning and Action. This step aided the researcher in identifying which participant made that response. The researcher enlarged a matrix for each interview; therefore there were three enlarged matrixes. There were seven columns; six columns represented the six participants, and the far left column listed the six activities within Shulman's (1987) Model of Pedagogical Reasoning and Action. Figure 1 illustrates the matrix used to analyze the interviews.

	Amelia Hinojosa	Bess Dickerson	Janice Kay	Nydia Gomez	Naomi Banks	Adriana Alvarez
Comprehension						
Transformation						
Instruction						
Evaluation						
Reflection						
New Comprehension						

*Figure 1.* Matrix Used To Analyze the Interviews. The participants' responses to the interview questions were recorded on the matrix.

The researcher used each point of intersection on the matrix to represent a unit of meaning. Due the number of pages of transcribed interviews, the researcher was concerned about fitting all of the responses on the enlarged matrixes. Therefore, the researcher used phrases to record the important information gathered.

After identifying the undergraduate pre-service teachers' responses according to Shulman's (1987) activities, the researcher continued analyzing the interviews with Taylor and Bogdan's (1984) process of *discovery* to address two of the three research questions: *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?* and *What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?* This process of *discovery* included the researcher detecting important ideas, concepts, and experiences. Each unit of meaning was read by the researcher, who highlighted major phrases, words, and information within the data; this allowed the researcher to identify the undergraduate pre-service teachers' main concepts about



literacy instruction in each of Shulman's (1987) activities. This assessment addressed the research question: *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?*

During the final analysis of the interviews, the researcher assessed each column of the matrix to identify possible answers to the question: *What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?* In order to find answers for this research question, the researcher used the information in the phrases already gathered and highlighted in the matrix to find patterns of development. The responses provided in the matrix were assessed by the researcher. During this analysis, the researcher assessed each column with the following questions: (a) *How did the undergraduate pre-service teachers' beliefs about literary instruction change from the first interview to the second interview*, (b) *How did the undergraduate pre-service teachers' beliefs about literary instruction change from the second interview to the third interview*, and (c) *What were the main patterns of change within each unit of meaning for that particular undergraduate pre-service teacher?*

The researcher wrote the answers to the first two questions on sticky notes and placed them to the bottom of the third interview matrix under each undergraduate's column. These patterns written on sticky notes were then compared to discover if all six of the undergraduate pre-service teachers experienced the same patterns of epistemological and pedagogical development. These written patterns were compared among the six undergraduate pre-service teachers to discover whether or not they experienced the same epistemological and pedagogical development. This procedure aided the researcher in discovering answers to the research

question: *What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?*

**Analysis of the Observations.** The 33 videotaped tutoring sessions were used to address the research question: *How does intervention affect the instructional literacy practices as undergraduate pre-service teacher experience epistemological growth?* This assessment had two phases of analysis. During phase one, the researcher viewed the videotaped tutoring sessions while tallying frequencies of the undergraduate pre-service teachers' instructional practices. The duration of their instructional practices were also recorded. The researcher used an observation form (Appendix I). Many of the categories from Phelps & Schillings (2004), *The Language Arts Log*, were used on the observation form.

**Phase one.** The videotaped tutoring sessions were analyzed by the researcher using an observation form (Appendix I) in order to investigate the following research question: *How does intervention affect the instructional literacy practices as undergraduate pre-service teacher experience epistemological growth?* The observation form included the different areas of literacy instruction and observational categories similar to *The Language Arts Log* (Phelps & Schillings, 2004) and the time spent on these areas. During phase two, the researcher re-examined the patterns discovered within the interviews and looked for evidence of the re-examined patterns within the literacy instructional choices made during the tutoring sessions.

The researcher also reported frequencies of the types of questions asked by the undergraduate pre-service teachers. The question-answer relationships of Raphael (1982, 1986) were used to categorize the questions asked by the undergraduates. There were four types of Raphael's (1982, 1986) question-answer relationship categories: (a) *Right There*—question and answer wordings are the same, (b) *Think, Search and Find*—question and answer wordings are in different parts

of the book, (c) *Author and Me*—question using existing knowledge and text clues for answer, and (d) *On My Own*—question and answer comes from existing knowledge without using the text.

The process for this analysis involved the researcher viewing all six of the tutors' first tutoring sessions and tallying each tutor's reading instructions' frequencies on the observation form (Appendix I). In order to protect the participants' identities, the researcher's identification method included the first and last name initials of the undergraduate pre-service teachers. Each observation form was numbered according to the dates of the observations.

Prior to viewing the videotaped tutoring sessions, the researcher collected and read all six of the tutor's lesson plans in order to make note of what each tutor was identifying as comprehension instruction, word analysis instruction, and writing instruction. After that, the researcher viewed each videotaped tutoring session using the clock on the video recorder to record how much time was spent on the three instructional areas each time the tutors moved from one instructional area to the next. The researcher used the following questions to conduct her data analysis:

- What type of text did the undergraduate use during instruction? (e.g., informational text, decodable text, patterned language text);
- What prompts did the undergraduate use when the young reader did not recognize a word? (e.g., the undergraduate pre-service teacher corrected the student's error, the undergraduate pre-service teacher modeled the correct answer, the undergraduate pre-service teacher prompted the student to sound out the word);

- What instructional strategies did the undergraduate use to increase the young reader's reading comprehension? (e.g., activate prior knowledge, preview vocabulary, make personal connections);
- How did the undergraduate pre-service teacher have the student demonstrate his or her understanding of the text? (retelling, extension project);
- What materials did the undergraduate pre-service teachers use for word analysis instruction? (e.g., flashcards, manipulatives);
- What instructions did the undergraduate provide for word analysis? (e.g., counting phonemes, blending phonemes, phonics instruction); and
- What instruction did the undergraduate provide for writing? (e.g., generating ideas for writing, editing instruction, think aloud of his or her own writing).

***Phase two.*** The researcher used the frequency data and the duration to understand which teaching strategies were being commonly used by the tutors and how they changed throughout their tutoring experiences as evidence of epistemological growth. To continue this analysis process, the researcher re-visited the matrix to examine connections among the data recorded from the interviews and the data noted from the observations. At this point, the researcher focused on each undergraduate pre-service teacher individually by viewing one column at a time. The researcher re-visited each undergraduate's initial ideas about teaching reading recorded on the matrices and the sticky notes. The researcher explored individually all six undergraduates' recorded data on the matrices and their individual observation sheets searching for pedagogical decisions and instructional materials that would provide information related to each of their individual patterns of epistemological growth. As patterns of each

undergraduate pre-service teacher were discovered by the researcher between the data on the matrixes and the observation forms, she wrote the identification code on the observation forms.

The researcher searched each undergraduate's individual observation forms for evidence that showed epistemological growth. Additional notes resulting in any conflicts were written on a sticky note and added to the matrix. This analysis process continued until the researcher completed searching all six undergraduates' data recorded on the matrixes and on the observation forms in the same manner. The process enabled the researcher to determine whether or not the undergraduate pre-service teachers' responses during their interviews supported or conflicted with their pedagogical practices observed. The researcher was able to observe if there was a change in the undergraduates' instructional practices and whether or not their content knowledge increased. Most importantly, the process made it possible for the researcher to evaluate patterns displayed in the undergraduates' interviews and observations.

**Analysis of artifacts.** In the beginning of this study artifacts were collected in order to support the researcher's assertions made during the analysis of the interviews and observations. The collected artifacts included 33 lesson plans, which the undergraduate pre-service teachers completed and used to guide their tutoring sessions. The first and last name initials of each undergraduate were written on all artifacts collected.

While viewing the videotaped tutoring sessions, the researcher used the lesson plans to help her identify the areas in which the undergraduate pre-service teachers were teaching, such as comprehension instruction, word analysis instruction, or writing instruction. The lesson plans also guided the researcher in identifying whether or not the undergraduates' lessons in all three areas were effective or ineffective.

**Analysis of the field notes journal.** After the interviews and observations were analyzed, the researcher read her field notes journal twice. The researcher read the field notes journal the first time to become familiar with the recorded information. The researcher read the journal the second time to search for patterns and/or clues which would support her findings. Any specific statements of patterns and/or clues were highlighted in the field notes journal. Any added notes of the researcher in support of the highlighted patterns and/or clues were written in the left margin. The following specific questions guided the researcher during the second reading of the journal:

- Were there any patterns?
- Were there any experiences recorded that supported repeated words, phases, practices, and topics in the data?
- Were there any recorded experiences during the interviews that support any ideas stated or actions taken by the interviewees?
- Was there any promising subject matter in the recorded experiences?
- Were there other recorded experiences that uncovered some returning phenomenon in the data?

The answers to these questions were reported as findings in Chapter Four and used for discussions in Chapter Five.

### **Data Validation**

This study required numerous measures of data validation for the interviews and observations. The researcher's claims were supported by the measures taken while providing validation. Each interviewee was provided a printed transcription of all three of their individual

interviews and was asked to read for accuracy of their spoken words and complex ideas. The researcher reassured each interviewee that any misconceptions about their actual ideas about literacy instruction would be corrected. All six undergraduate pre-service teachers agreed that the transcribed interviews recapped their ideas and beliefs about teaching reading.

The observations were also analyzed in the same manner. The researcher collected and viewed all lesson plans prior to viewing the videotaped tutoring sessions to observe the activities the undergraduate pre-service teachers identified as comprehension instruction, word analysis instruction, and a writing instruction. The researcher recorded the amount of time spent on the three areas and recorded the type of text, prompts, instructional strategies, and demonstrations used for each of the three areas.

Observation audits were used to check for accuracy with the observations. This process began with a training session with a doctoral candidate and proceeded through three audits. A training session was held with the researcher and the doctoral candidate on using the observation form and a frequency tally sheet for Raphael's (1982, 1986) categories for question-answer relationships. The auditor was a doctoral student enrolled in the Curriculum and Instruction Ph. D. program at Texas A&M University Corpus Christi, Texas. The training was an hour in length. An agreement of 100% was reached between the auditor and the researcher as they discussed and agreed in coding the data. Miles and Huberman (1994) called this process between the researcher and the auditor as check-coding. The three videotaped sessions were randomly selected. There were no disagreements between the researcher and the auditor.

### **Ethical Considerations**

Texas A&M University Corpus Christi University research protocol required the researcher to apply for permission from the University's Institutional Review Board. Written permission to conduct the study was obtained on August 3, 2011.

Confidentiality was strictly maintained during the duration of the study. The participants were assigned pseudonyms during the interviews and observations process that were later used in the transcripts and subsequent data analysis. There have not been any documents produced by the study that have indicated who participated in the study.

The researcher also included the following procedures in the study to protect the participants: (a) all participants were given an oral and written description of the study during the invitation to participate in the study, (b) an informed consent letter was presented to all participants to sign, and (c) pseudonyms and identification codes were used in all reports of the study in place of actual names. Additionally, all participants were informed that (a) they could withdraw from the study at any time, (b) participation or nonparticipation in the study would not affect their grades, and (c) to verify the accuracy of all interviews, the participants would be provided the opportunity to participate in member checks.

### **Summary of the Chapter**

This chapter described the methodology and data collection and analysis for this study. The researcher used Shulman's (1987) six activities of Pedagogical Reasoning and Action as categories to examine and explore the following three research questions:

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutorial experience?
2. What patterns can be seen in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading tutorial setting?



3. How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?

As is traditional in qualitative research, the researcher was the primary collection tool during the current study. The researcher used interviews, observations, and artifacts, which were later organized and analyzed as multiple case studies. The purpose of the interview questions was to allow the six undergraduate pre-service teachers to reconstruct their beliefs, viewpoints, and information of their tutoring experiences. All 18 interview transcriptions were analyzed for any emerging patterns or themes. The 33 observations of the undergraduate pre-service teachers' instructional practices were analyzed with the use of measures of duration and frequencies. The researcher used collected artifacts to aid her in analyzing the observations and a field notes journal to support her findings. Findings from this study contribute to body of knowledge related to the development of reading teachers' epistemological and pedagogical beliefs for teaching reading.

## CHAPTER IV: RESULTS OR FINDINGS

### Organization of Chapter

The researcher was the primary data collection tool for this study. Three sources were used for collecting the data—interviews, observations, and artifacts. The researcher kept a field notes journal as a means of testing her interpretations. This chapter includes the findings of the study and is organized into four parts: (a) the findings of the interviews, (b) observation frequencies, (c) artifacts observations, and (d) the field notes journal observations. The following three research questions were used to investigate the findings:

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience?
2. What patterns of development are observed in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting?
3. How does intervention affect the instructional literacy practices as undergraduate pre-service teachers experience epistemological growth?

### Interview Findings

The findings of the interviews are discussed in this section. The researcher began the analysis process of the interviews with the transcribing of all 18 interviews. These transcriptions totaled 113 typed, double-spaced pages. All six participants completed the three interviews—*The Getting to Know You Interview*, *The Learning Through Experience Interview*, and *The Making Connections Interview*. The researcher used Shulman's (1987) activities—*comprehension*, *transformation*, *instruction*, *evaluation*, *reflection*, and *new comprehension*—as a way to track for epistemological and pedagogical growth and development within the participants.

The interview analysis process consisted of four phases. These phases began after the completion of the transcribing the interviews. Phase one of analysis involved checking the transcriptions of the interviews for accuracy of the participants' responses. Because the importance of this process helped with the accuracy of the transcripts, each participant was provided a printed copy of their interviews to read so they could make any corrections to depict their true ideas about literacy instruction. All six participants agreed that their beliefs and ideas about reading instruction were correctly reflected.

**Research question one.** Phase two of analysis investigated the following research question: *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience?* To identify the undergraduate pre-service teachers' initial ideas about literary instruction and how it changed from the beginning to the end of their tutoring experience, the researcher used Shulman's (1987) six activities to categorize sections of the undergraduate pre-service teachers' interviews. For further analysis, the interview comments of the undergraduate pre-service teachers were organized on a matrix, as displayed in Figure 2.

	Amelia Hinojosa	Bess Dickerson	Janice Kay	Nydia Gomez	Naomi Banks	Adriana Alvarez
Comprehension						
Transformation						
Instruction						
Evaluation						
Reflection						
New Comprehension						

*Figure 2.* Matrix Used to Analyze the Interviews. The matrix was used to organize all three interview comments of the undergraduate pre-service teachers.

The researcher developed a unit of meaning for each individual undergraduate based on the point of intersection between the six undergraduate pre-service teachers' names and Shulman's six activities. Taylor and Bogdan's (1984) *discovery* process was used to identify a large array of possible significant experiences, ideas, concepts, and themes that appeared within each unit of meaning. The following findings are reported accordingly as they occurred in each of Shulman's (1987) six activities.

***Comprehension.*** The first activity discussed by Shulman (1987) is *comprehension*, which refers to the understanding of the purposes, ideas, and structures of the subject matter within and outside the discipline. This activity identifies the basic need of subject content knowledge. For example, a reading teacher needs to have knowledge of children's literature, such as the difference between the structure of fiction and nonfiction books.

The initial idea of teaching reading dealt with the skills or content knowledge that the undergraduate pre-service teachers believed effective reading teachers needed to possess. All six of the undergraduate pre-service teachers were asked, *What skills do you think a reading teacher*

*should possess and what makes a reading teacher effective?* The responses of all of the six undergraduates to this question dealt with the characteristics of effective teachers: patience, knowledge of students, and open-mindedness. The undergraduate students made statements that not all students learn at the same level or are performing at the same level; however, the undergraduates demonstrated the lack of knowledge of content a reading teacher must possess to be an effective reading teacher. The following information expands on these findings.

*Amelia Hinojosa.* In the initial interview, Amelia shared that her younger brother was diagnosed with Asperger Syndrome when he was in high school. When asked, “What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher?” Amelia commented, “What works for one student will not work for every other student, so if you have ideas, you have to take the time to understand what that child might be going through.”

Amelia demonstrated epistemological growth throughout the six tutoring sessions; during guided questioning, she learned to focus on the academic needs of her young reader (i.e., building fluency) and identify the skills she needed to teach and the activities that could be used. The evidence suggests that as Amelia experienced epistemological growth, she learned how to focus more on what her young reader needed to learn and less on the fact that her young reader had a reading disability; however, she did not identify any specific areas of content knowledge that a reading teacher should possess.

*Bess Dickerson.* Initially, during the first interview, when asked, “What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher?” Bess commented that an effective reading teacher should be willing to help. She did not mention any specific strategies that could be taught. Throughout the six tutoring sessions, as Bess

demonstrated epistemological growth, she learned during guided questioning how to identify topics and include activities in her lessons which would help her young reader with comprehension. During the final interview, Bess stated, “When I started out, I wasn’t really quite sure how to put the lesson plan in order... Now, every little template we had is completely filled with comprehension, fluency, main idea, plots, and endings.” The evidence suggests that Bess began to learn how to write a completed lesson plan, but she did not identify any specific areas of content knowledge needed by a reading teacher.

*Janice Kay.* Initially, when asked, “What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher?” Janice said that reading teachers needed to be open-minded and have multiple reading strategies. She was aware that students needed to understand the basics for reading (i.e. phonemic awareness and phonics), but she was not sure how to identify exactly what level students should be on in order to show that they were ready to begin reading. As Janice demonstrated epistemological growth throughout the six tutoring sessions, however, she became frustrated because she was not sure what the next step was to help her young reader’s reading. Janice commented,

Some students just have problems, or teachers really aren’t hitting notes well enough or what the problem is because my kid knows phonics, and he can sound it out, but, he gets to /ou/, and he’s completely lost. So, I don’t know if the teacher hits it or not, or there’s really more that can be done.

As she listened to the guided questioning discussions about the different activities others were doing to teach reading, she identified different approaches and activities to teach her young reader. The evidence suggests that Janice had gained more confidence in identifying the skills

her student needed to work on, but she was not able to identify specific areas of content knowledge that should be possessed by reading teachers.

*Nydia Gomez.* Nydia expressed more in-depth skills a reading teacher should possess as well as what makes a reading teacher an effective teacher. Nydia explained,

I think a reading teacher really needs to know her student. She needs to know what affects them... their learning because they don't like to read... You really have to know their skills. You have to know their level. You have to know how to work with them because not all students learn the same way, so you have to know multiple strategies to give every student what they need, so they can all learn what they need to learn.

Throughout the six tutoring sessions, Nydia demonstrated epistemological growth, she learned during the guided questioning how to write less broader or general lesson plans to more specific plans addressing skills that needed targeting. The evidence from Nydia's statements suggests that she believed that reading teachers have specialized knowledge, but she did not identify specific areas of content knowledge that should be possessed by reading teachers.

*Naomi Banks.* Naomi, who was once a struggling reader herself, shared that all three of her own children learned differently. Her oldest son had ADD and always struggled in school and her middle son was gifted but had ADHD. When asked, "What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher," she commented, "I think a reading teacher should understand that not all children see everything they're reading the same. I think every reading teacher should not just focus on the strugglers."

Naomi thought that effective teachers should learn from others by knowing a lot of different teachers and becoming aware of their perspectives and what they thought works. Throughout the course of the study, Naomi demonstrated epistemological growth; she learned

more about her young reader's needs, how to adapt to those needs, and learned through the guided questioning how nonfiction books could help her young reader become more involved with her reading. The evidence suggests that initially, Naomi's personal experiences influenced her ideas about skills an effective reading teacher should possess. However, she was not able to identify specific areas of content knowledge effective reading teachers should possess.

*Adriana Alvarez.* When asked, "What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher," Adriana commented,

Not every student will be at the same level... You have to be receptive to the different types of students you will have in your classroom and be able to adjust your teaching according to that. So, I think having a wide variety of knowledge of different strategies you could use to benefit everybody.

Throughout the six tutoring sessions, Adriana demonstrated epistemological growth; she learned that reading can be incorporated into any subject (i.e., science and social studies) because it not just about the act of reading. Students can learn about a subject or topic while they are reading. The evidence from Adriana's earlier statements suggests that she had expressed specific skills in connection to what makes an effective reading teacher, but she did not identify specific categories of content knowledge that reading teachers need to possess to be an effective reading teacher.

The responses of all of the six undergraduate pre-service teachers throughout the course of the study provided evidence of epistemological growth. However, due to their lack of reading content knowledge and teaching experiences, they were not able to explain in detail their choices of reading strategies and how those strategies could help their young readers learn.



To further explore the undergraduate pre-service teachers' initial ideas about literary instruction, they were all asked, *What knowledge does a child need for reading?* The following discussion elaborates on these findings.

*Amelia Hinojosa.* Amelia said that a child needs to be knowledgeable about books at home, and they should see reading as something that their parents do. Amelia commented, "I think having books in the home is a good idea to get them aware of what books are. I think seeing their parents read is a good idea because...they are mostly with their parents...if they see them reading, maybe that'll get them interested in reading."

*Bess Dickerson.* Bess had not taken any reading courses nor had any experiences in teaching reading prior to taking this course. Bess's response about what knowledge a child need for reading was simply "Probably phonics...learn how to put words together and sound them out."

*Janice Kay.* Janice responded that a child needs to understand the basics depending on how old they are. In other words, older students were expected to have been taught phonics, but not all upper elementary students have mastered phonics. She went on to say, "I guess they will start as young as they say they need to start learning phonics, phonemic awareness and stuff. It's difficult to say on what level at what point."

*Nydia Gomez.* Nydia answered this question in much greater depth than the other undergraduate pre-service teachers with the following comments,

They need vocabulary...fluency...how to read a book, you know, the basics concept of a cover, settings, how to infer from it, how to read from left to right.

They need to know if they stumble upon a word...skills, so they can decode that word.

They need to know how to use context clues, how to use pictures. They really just need to

know how to make the most out of a book...how to really read it, understand it, not just know what it says, but know...like really understand what the meaning behind it is. And...I guess take the learning to another level, so they analyze what they are reading and relate it to themselves. And, then they'll be able to understand it at a whole other level.

*Naomi Banks.* Reading was not an easy task for Naomi because she was a struggling reader in school, so she said understood the challenges struggling reading students encounter. Therefore, the knowledge Naomi mentioned that a child needs for reading included them being taught the alphabet and phonics. She added, "They need the basics in order to get better at reading."

*Adriana Alvarez.* Adriana said she believed that a child needs patience and dedication for reading. As far as knowledge, she commented,

It does help if they already have an early start in reading with parents at home or grandparents before they start school because it is very important. Any kind of preparation they can have before school starts is a plus for them.

***Transformation.*** The second activity discussed by Shulman (1987) is *transformation*, which occurs when teachers manipulate the subject matter and transform the comprehension content knowledge somehow prior to being taught. An example of the *transformation* activities is reading teachers selecting children's literature based upon their students' interests or instructional reading level. During the interviews, there were statements made expressing an awareness of understanding the needs of the young readers by the undergraduate pre-service teachers—with the exception of Bess. In addition, all of the participants realized that not all students enter a grade level reading on that grade level; however, none of the undergraduates

manipulated the subject matter and transformed it in any specific way in order to address the young readers' individual needs. The pedagogical reasoning changes the researcher observed throughout the course of the study are discussed in the following sections.

*Amelia Hinojosa.* Amelia learned how to plan her lessons based on the needs of her young reader by using nonfiction children's literature her young reader's interests. Due to the suggestions of the course instructor during guided questioning, Amelia also transformed the selections of children's literature based on the young reader's interests because these texts helped Amelia teach what needed to be taught with greater ease. Even though Amelia became conscious of the selections of books to use with her young reader, she did not discuss how the subject matter could be manipulated to help her young reader learn.

*Bess Dickerson.* Bess said she learned some of what teaching reading entailed and made the connection between reading and math. She learned of the necessity for teaching reading and vocabulary in other subjects, but she did not show evidence of teaching based on her young reader's needs or discuss how she would manipulate the subject matter to help her young reader learn.

*Janice Kay.* Janice planned her lessons around her young reader's needs. She scaffolded instruction for her young reader when he was having difficulty by reading aloud to him and guiding him through activities. During Janice's earlier tutoring sessions, she focused mostly on researching activities other teachers used, but she neglected to search for activities or children's literature that addressed her young reader's interests. As Janice included nonfiction books on topics of her young reader's interest suggested by the course instructor during guided questioning, she observed a change in his attitude and his enthusiasm to discuss the content and write about the facts learned. At the end of Janice's tutoring experience, she said she noticed how

her young reader reacted to the text and how he participated more in the discussions, but she did not discuss how she would manipulate the subject matter to help her young reader learn.

*Nydia Gomez.* Nydia learned that she could use books on topics of her student's interest in order to provide background knowledge to enable her to read on grade level. She learned that there were many resources she could use to get ideas for multiple activities to help her young reader improve her reading, but Nydia did not discuss how she would manipulate the subject matter to help her young reader learn.

*Naomi Banks.* Naomi said she realized that teaching reading included being not only interactive with her young reader, but also that she needed to focus on meeting the young reader's needs by working on skills the student needed. However, Naomi did not discuss how she would manipulate the subject matter to help her young reader learn.

*Adriana Alvarez.* Adriana said she believed that she began to write better lesson plans and had learned which skills to focus on throughout the course. She, too, mentioned that she found a lot more resources, different games, or strategies that she could use to help her young reader build upon her reading skills, but she did not discuss how she would manipulate the subject matter to help her young reader learn.

***Instruction.*** The third activity discussed by Shulman (1987) is *instruction*, which includes the organization and management of the classroom, such as offering clear explanations and descriptions, assigning and checking work, and effective interaction with students through questioning and probing, answering and reacting, and praising and correcting. For this activity, reading teachers may include modeling the thinking processes used when reading different genres. To address the undergraduate pre-service teachers' ideas about materials needed for effective reading instruction, the researcher asked the question, *What are effective materials for*

*teaching reading?* The undergraduates' responses to this interview question were examined to find words or phrases which represented their ideas about literacy instruction. The following discussion and direct quotes expand on these findings.

*Amelia Hinojosa.* Before the second interview, Amelia had opportunities to make observations in some classrooms, so when asked during the second interview what effective materials were needed for effective reading instruction, Amelia stated, "I think having posters on the wall and having a print rich environment, so children see text all over the place, and know that words are important... teacher-made posters that relate to the reading."

*Bess Dickerson.* By the second interview, Bess said she learned that books were not the only materials needed for teaching reading. During the second interview, when asked what effective materials were needed for effective reading instruction, Bess stated,

Books, whiteboards, and markers to draw or write...then, they have a ton of fun. Video games like *Leap Frog*... Kids like interactive things to get their attention. But, now the kid I have wants to read, so now I need books, and she likes to play games. So, I make little reading games...I've learned that I need everything—need a book corner, a refreshing corner where they can do book buddies and go over little vocabulary if they need to.

*Janice Kay.* By the second interview, Janice said she was frustrated and unsure about which materials to use with her young reader. When asked what effective materials were needed for effective reading instruction, Janice stated,

My Bader [*Reading and Language Inventory* (Bader & Pearce, 2009)] is helping me a lot right now. I don't like too many of the teacher workbooks that help you. I just like the college books because they're trying to help us to use stuff and explain a lot...I

understand that you're supposed to follow a certain curriculum, but I feel like I would probably just keep going and keep hitting hard on stuff they don't understand... Stuff that's really fun and what I've seen other people use in their lesson plans—graphic organizers, charts, word wall. I try to be creative... If I could keep you interested and do stuff, I figured that you just need to change it all up a little bit and have different materials.

*Nydia Gomez.* By the second interview, Nydia said she was overwhelmed with the numerous elements that need to be included in each reading lesson. When asked what effective materials were needed for effective reading instruction, Nydia stated,

For teaching reading, wow, that's a tough one. I think a lot of things because in any lesson that you teach you use reading, so material-wise interesting books that are on different levels... you'll have students that are advanced... you'll have students that are a little behind, so you'll need materials for everyone. You need to make sure that in the event that every student has something to read interesting to him, but at the same time you need to make sure you have the materials to help that student that's lagging behind, so they can learn and move forward as well. They've broaden a lot because all the other students bring in different things, and I just think, 'Oh, wow! I would have never thought of doing that?' So, it's really shown me how there's not just like one set way. You just can't just look at it... okay, I'm going to do a worksheet, and then 'No!' it has to be balanced. There has to be interaction. There has to be independent reading. There has to be guidance. There has to be you modeling. It's just a little bit of everything to make it a balanced kind of lesson plan that fits your child. I've learned that it's not about worksheets. ..I really try to incorporate very hands-on activities—things that will keep

her interested. I did not do the same activities any two times. I always try to change it up because she's a little girl, so attention span is really short. So, effective materials, I think it's just manipulatives—colorful, bright things that grab the student's attention, but that really hit that area that you're trying to teach.

*Naomi Banks.* Naomi said she has always had a dislike for worksheets, so when asked what effective materials were needed for effective reading instruction, Naomi stated,

All materials are effective for teaching reading. I mean even from writing, you know, good books and things they are going to be interested in...I think journals are really effective. I mean writing journals...then reading back what they've written...just things like that...a lot of materials. I think that interacting more with the student, and I understand you can't do that when you're teaching twenty-two kids or more. I always thought that children were interested in fiction books, but I've learned that actually you can get them a lot more involved in nonfiction...which is truly opposite of, you know, I just thought fiction would be fun, but having done both—the nonfiction part of it seemed to engage her more.

*Adriana Alvarez.* By the second interview, Adriana said she discovered a lot of more resources, games, and strategies for teaching reading. When asked what effective materials were needed for effective reading instruction, Adriana stated,

Um, let's see...books...maybe audio tapes with phonics...even video, I mean technology nowadays can be incorporated into anything...um, flashcards. There was a little like book flap kind of game that she really liked. So, I'm trying to find stuff that's fun and interesting rather than just, you know, worksheets. I did use a couple of Dinah Zikes [foldables]...I find those a little bit more effective because they're more engaged in it.

There's tons of materials and tools out there we can use. It's just a matter of finding them...the web is full of ideas and now you have blogs that teachers put out that you know, so you can get ideas for lessons from them. So, I think it's a lot of information; it's just you have to know how to find it.

Throughout the course of the study, all of the undergraduate pre-service teachers learned through guided questioning with the course instructor about using nonfiction books and choosing children's literature on topics interesting to their young readers; however, as they experienced epistemological growth, their choices of materials throughout the course of the study changed in their literary practices. Nonetheless, none of the undergraduate pre-service teachers provided in depth explanations about the choice of materials they used and how these materials helped their young readers learn. Table 3 shows the key words or phrases verbalized by the undergraduate pre-service teachers during the interviews.



Table 3

*Key Words from the Undergraduates' Ideas of Literacy Instruction*

Undergraduates	Interview One	Interview Two	Interview Three
Amelia Hinojosa	posters print rich environment	teacher-made posters	interactive reading materials
Bess Dickerson	books whiteboards markers	books games voc. refreshing corner	book corner game corner video games
Janice Kay	<i>Bader</i> college books	curriculum	graphic organizers charts word wall
Nydia Gomez	leveled books interesting books	balanced lesson plans interactive materials	hands-on activities manipulatives colorful, bright things
Naomi Banks	books writing journals	interactive materials	nonfiction books
Adriana Alvarez	books phonics audio tapes technology flashcards	more resources games Dinah Zike's [foldables]	teachers' blog

***Evaluation.*** The fourth activity discussed by Shulman (1987) is *evaluation*, which includes checking for understanding and misunderstanding that a teacher conducts while teaching interactively; the teacher engages in formally testing and evaluating to provide feedback and grades. An example of a teacher performing at this phase may include a reading teacher using running records to assess the student's reading ability and to evaluate his or her own teaching. To address the undergraduate pre-service teachers' ideas about effective instruction, the researcher asked the following questions: (a) *What is the process of becoming an effective teacher?* (b) *Throughout the six tutoring sessions, how did your*

*teaching change?* and (c) *Describe your development as a reading teacher as it occurred through the six tutoring sessions.* The direct responses of undergraduate pre-service teachers to these questions are included in the following section.

*Amelia Hinojosa.* By the third interview, Amelia said she learned a lot more about her young reader's needs and what she needed to learn, so when asked to describe the process of becoming an effective teacher and her development as a reading teacher, Amelia commented,

Um, well of course taking the classes here is important, and hearing other peoples' experiences and what went right and what went wrong—that helps a lot. The main thing was sharing with other teachers or other people what is going on with you...and getting the experience, too... I learned a lot more about what she needed, so I tried harder to accommodate what she needed to learn into what we're doing in our lessons... When I was putting all my things together that we had done for the past sessions, I notice how my activities had changed and how involved they'd become and how creative they were.

*Bess Dickerson.* By the third interview, Bess said she recognized that teaching reading is different than teaching math. She learned that her young reader had specific instructional needs, so when asked to describe the process of becoming an effective teacher and her development as a reading teacher, Bess commented,

Just doing for different students because everybody learns at a different pace. Like some can spell words better than others. Some can read better than others, and some are totally ahead of anything... Students still need the support and encouragement, but they want more instead of just giving them a worksheet to keep them busy or to refresh their memory... I'm doing a good job making sure the student is able to learn. It wasn't in my plans to be a reading teacher. I just wanted to be a math teacher. When I first got this

class, and we had to get all those books. I was like I'm not teaching the kids to read... just some math problems. All I need to know is some symbols and numbers. Then, again, they have TAKS [Texas Assessment of Knowledge Skills] test and STAAR [State of Texas Assessments of Academic Readiness] test where they have to be able to read the problems and know what words like sum and multiply mean. So, it's different.

*Janice Kay.* By the third interview, Janice said she believed that teaching reading would get easier for her as she continues to learn more about reading. When asked to describe the process of becoming an effective teacher and her development as a reading teacher, Janice commented,

It made me think a little bit more. It made me understand what kids actually need to sit there. Even though it was six weeks, it was enough to be like I need to work on this. Then, you have to teach yourself that or teach ways to do it because I would look it up, and it would be for this grade level...so, how do you simplify it down to their grade level? How do you find activities for them to do? How do you tie it in to whatever they need to learn?...I think I'm more knowledgeable...I went in here not knowing what was going on and it kind of stressed me out...I don't feel like I have enough time to teach the kid anything, and there's so much that needs to be done. I feel like it's going to take years. I don't feel like someone is ever going out their first three years as some God gifted teacher. I think it's going to take a lot of work and a lot of students coming in and out. It's going to take a lot of failing, a lot of learning what you don't need to do, probably some falling on your face, but I feel like keep some good people around you maybe some of your professors that helped you in school. In all, get as much help as you

can and just learn. There's always going to be changes, so you're always going to be learning.

*Nydia Gomez.* By the third interview, Nydia said she recognized that teaching reading was “hard.” When asked to describe the process of becoming an effective teacher and her development as a reading teacher, Nydia commented,

I think first is getting to know your students—bottom line. You have to know their likes/dislikes like we've been told multiple times—if your student doesn't like what they're reading, they're not going to be interested. So, you have to give those materials that they are interested in learning, and at the same time incorporate that in a way where you can teach them from the things that they are learning and make it relatable to them, so they would want to learn. My teaching started very broad...it was very general. Now that I know my student...where she's struggling...what she lacks when she reads...and I found the patterns...now I can focus on that...Now I know what to target.

*Naomi Banks.* By the third interview, Naomi said she learned that there were a lot more tools for teaching reading than she thought. When asked to describe the process of becoming an effective teacher and her development as a reading teacher, Naomi commented,

I guess learning from others. Um, all the teachers I have talked to since...in the classes I have taken, when you have to interview teachers, and that kind of thing have all had like a different perspective...getting out there knowing a lot of different teachers is a good way to become a good teacher and seeing what you think works. Doing it your way by what you've learned... I have more experience. I guess I could say now when I step into a classroom, I'll have an idea of how to tackle the task. I'll know okay I need to assess my students, and I need to build off of what they don't know and teach them and get

them to the level that they need to be at. So, I know that I can bring in multiple activities because there's lots of resources I've learned...I'm more aware of what it takes to be a reading teacher. I learned more about what a student needs or my student needed...something I learned about my teaching is that you have to adapt to them [students]. I think that the experience with actually working with the student has really made me grow better...to teach in a teacher-student setting really helped me to understand what it takes.

*Adriana Alvarez.* By the third interview, Adriana said she did not think that her feelings about teaching reading changed, so when asked to describe the process of becoming an effective teacher and her development as a reading teacher, Adriana commented,

Um, I guess having a strong knowledge of your content area. I mean if you're going to be teaching reading, you need to know what you are doing first in order to be able to teach it. So, I think that's very important. I used more resources as I went along. I looked for different strategies I could do that I could help improve my lesson plans. Lesson plans were a challenge at first because we didn't really know how to prepare one...or how to incorporate poetry into it...or how to do guided reading or what kind of questions to ask. I learned that questions can be asked during the reading.

Throughout the course of the study, the undergraduate pre-service teachers revealed that they did not *evaluate* their young readers' learning, but they were concerned about the effectiveness of their lessons. There was no evidence of the undergraduate pre-service teachers evaluating the mastery of any of the skills taught.

**Reading instructional strategy checklist.** The researcher required each undergraduate pre-service teacher to fill out a reading strategy checklist (Appendix E) after each of the six

tutoring sessions. At the completion of each lesson, the undergraduate pre-service teachers were asked to check all of the reading strategies applied before, during, and after their reading instruction. The purpose of the reading strategy checklist was to encourage the undergraduate pre-service teachers to *evaluate* the strategies used for that lesson. The researcher observed that often the undergraduate pre-service teachers checked reading strategies that were not applied during their tutorial sessions. This observation possibly signifies the participants' misunderstanding or uncertainty of the listed strategies. The following columns in Figure 3 list the reading strategies on the reading instructional strategy checklist:

Before Reading	During Reading	After Reading
<ul style="list-style-type: none"> <li>• Activate prior knowledge</li> <li>• Brainstorming</li> <li>• Building fluency</li> <li>• Decoding skills</li> <li>• Discuss author/illustrator</li> <li>• Introduce new vocabulary</li> <li>• Model oral reading</li> <li>• Model think-alouds</li> <li>• Picture walks</li> <li>• Predictions</li> <li>• Preview text</li> <li>• Preview vocabulary</li> <li>• Relate personal experiences</li> <li>• Sight words</li> <li>• Other</li> </ul>	<ul style="list-style-type: none"> <li>• Brainstorm</li> <li>• Choral reading</li> <li>• Cloze passages</li> <li>• Echo passages</li> <li>• Engaged student with text</li> <li>• Foldable</li> <li>• Graphic organizers</li> <li>• Guided reading</li> <li>• Highlighting</li> <li>• Pictures for sequence</li> <li>• Post-it strategy</li> <li>• Predictions</li> <li>• Scaffold</li> <li>• Side notes</li> <li>• Other</li> </ul>	<ul style="list-style-type: none"> <li>• Build a story</li> <li>• Build/make words</li> <li>• Compare/contrast</li> <li>• Generate writing ideas</li> <li>• Guided writing activities</li> <li>• Make a book</li> <li>• Model summarization</li> <li>• Recall story</li> <li>• Recall story in writing</li> <li>• Retell story events</li> <li>• Review predictions</li> </ul>

*Figure 3.* Reading Instructional Strategy Checklist. This figure illustrates the list of before, during, and after reading strategies listed on the checklist provided for each participant during each tutoring session.

**Reflection.** The fifth activity discussed by Shulman (1987) is *reflection* which is achieved when the teacher thinks back at the training and learning that has taken place, and recreates or

recalls the experience, the emotions, and the achievement. This set of processes is referred to as learning from experience. An example of what this may look like in a classroom setting is a reading teacher reflecting upon the students' reactions to a selection of children's literature or their performance during a read aloud. After filling out the checklist previously mentioned (Appendix E), each participant was asked to self-reflect on what went well with their lesson and what they would do differently. Due to time restrictions, these self-reflections were not shared among the undergraduate pre-service teachers or with the researcher. The purpose of this self-reflection was to encourage the undergraduate pre-service teachers to reflect on their lessons in order to improve their pedagogical reasoning and to better plan for the next lesson. The undergraduate pre-service teachers were asked to describe their confidence in their ability to teach reading on a scale of one to ten. The purpose of asking them to rate themselves allowed the researcher to evaluate if their confidence had any influence on their ideas of reading instruction. The undergraduate pre-service teachers' self-ratings are shown on Table 4 which displays the six undergraduate pre-service teachers' self-ratings during the three interviews. The self-ratings reflect the confidence each undergraduate pre-service teacher had on a scale of 1 to 10 of their abilities to teach reading at that moment. The following is a summary of the reflections shared.

Table 4

*Undergraduates' Self-Ratings*

Undergraduate	Interview One	Interview Two	Interview Three
Amelia	5	6.5	7
Bess	9	8	9.5
Janice	3	4	5
Nydia	5	7	9
Naomi	7	8	8
Adriana	8.5	9	9

With the exception of Bess and Adriana, the undergraduate pre-service teachers ranked themselves higher in each of the three interviews in Table 4. The mean, median, and mode scores also support an increase in confidence according to all three interviews as displayed in Table 5.

Table 5

*Measures of Self-Confidence*

	Mean	Median	Mode
Interview One	6.25	6	5
Interview Two	7.08	7.5	8
Interview Three	7.92	8.5	9

*Amelia Hinojosa.* Amelia reflected mostly on the reactions of her young reader to the activities for each lesson. Amelia assessed her young reader's achievement based on her performance with the activities planned. For example, because her young reader did so well with



predictions and reading the easy leveled book used, Amelia's focus was to move on to something different the following week. Amelia was open to suggested activities from her young reader that she did in her class at school. So, at the suggestion of the young reader, they made vocabulary cards. Similarly, the young reader wanted to take a flip book activity she did during their tutoring session to share with her teacher at school. Amelia reflected on her young reader's reaction to spelling and decided that it needed to be addressed at their next tutoring session. Amelia learned that students could also experience difficulty with fun activities. She saw that her young reader was having difficulty with writing and determining the most important parts of a story. For the next lesson, Amelia worked on putting the young reader's thoughts on paper before assigning her student to write the happenings of her story. As Amelia reflected on the tutoring sessions' writing lessons, she wanted to make the final writing lesson more fun, so she determined a way to incorporate some facts from the children literature that had been used in the previous tutoring sessions. Amelia had her young reader make up a story using any of the facts learned during the previous five weeks. Amelia said she recognized how writing and reading complemented each other and how her modeling reading and writing helped her student have a successful last session. Overall, Amelia left the last tutoring session feeling pleased with its outcome and hoped to use these ideas from these lessons in her future classroom. Amelia left the course with a positive attitude about learning what worked and what didn't. In Amelia's own words, "This really helped us for our future careers because we actually got to see what it would be like to develop lesson plans and see them in action."

*Bess Dickerson.* Bess said she was surprised to learn that student enjoyed reading and that her young reader frequently visited the public library. This surprised her because she believed that most students liked to use technology for reading while her young reader not only

loved to read books, but also read for pleasure and chose to stay inside and read. Bess said she had a lot of fun working with her young reader because of the reader's willingness to learn something new. Bess stated, "You have to find things that pertain to what we are doing, so she won't get bored."

*Janice Kay.* Taking this course was stressful and rewarding according to Janice Kay. Not knowing what to expect was very frightening and difficult, and the fear of failing her young reader were some major concerns of this undergraduate pre-service teacher. She was terrified about administering the assessments incorrectly or causing him stress. Her first lesson plan gave her understanding about where she needed to start, but also helped her realize how much work and help was needed on such a short amount of time. As the weeks passed, Janice had learned what her young reader was struggling with and what needed to be taught. She experienced an increase in her confidence, which caused her to feel that the tutoring she was providing was worthwhile. She felt that her student was doing well and learning, which made her feel a great sense of pride. Janice enjoyed this class because it helped her learn things such as testing students and knowing what to try and teach them. Janice commented, "I learned to hit specifics and tie in a lot of different activities in each lesson plan. I really enjoyed these weeks, and it has probably been one of the most beneficial classes I have had."

*Nydia Gomez.* Throughout this experience, Nydia said she learned a lot as a student and a future teacher. She realized that reading may be difficult to teach, but it is a fundamental area. Nydia believed that reading is the basis for everything else, which is why reading teachers need to make sure their instruction and activities are appealing to all students. Nydia appreciated taking this class and working with her young reader. Because her plans were to be a bilingual teacher, she was glad that her young reader was ELL (English Language Learner). Nydia shared,

I look forward to getting out in the field and making use of all the strategies that I have learned in this class...I know that I have grown and improved, but still I have many things to learn before I graduate. This has been far one of the most helpful classes that I have taken. I enjoyed all the work that had to be done because it taught me so much.

*Naomi Banks.* Overall, Naomi said she enjoyed this experience of working one-on-one with her young reader. She learned a great deal about teaching children to read by getting the chance to apply her learned strategies with an actual student. Her young reader had limited vocabulary, so Naomi tried to address this matter in her future lesson plans by teaching her how to use context clues. She learned to use more nonfiction books because her young reader enjoyed them and was more interested and focused during the reading. She believed that this experience will be helpful to her in the future because she is more knowledgeable about how to see and respond to what students might be struggling with. She stated,

Throughout this experience, I have become more familiar with the different reading strategies, and I believe that it has helped me find different ways to teach to students with problems in different areas. I believe that is crucial to understand students' different limitations in order to teach them how to read as well as have the best outcomes.

*Adriana Alvarez.* Time management was a challenge for Adriana. Her young reader struggled with comprehension and had some difficulties with sequencing and unfamiliar vocabulary. Amanda thought that teaching reading was "tough." She had to assess her young reader, create lesson plans and change them up if she saw that she had other needs in areas not planned for in order to get her young reader to learn. Adriana commented,

I think this course was helpful because getting feedback from the course instructor really helped me improve. With teaching, you can't just do it one way. There's always room for

improvement, and new information, new lessons, strategies, so it just keeps building and building and building.

***New comprehension.*** The sixth activity discussed by Shulman (1987) is *new comprehension*, which includes the new knowledge learned by the teacher through teaching. This may include knowledge concerned with purpose, content to be taught, students, or of the processes of pedagogy. *New comprehension* separates novice teachers from the master reading teachers. An example of this activity is the discussion of a variety of children's literature with young readers. The reading teacher, at this point, is knowledgeable of the students' reading preferences. The following information expands on what the undergraduates learned from tutoring a struggling reader.

*Amelia Hinojosa.* Amelia said she has learned that it's easier to plan reading lessons for one student because it is individualized. In a group there may be students that will have a lot of different needs at different reading levels. She believed that teaching reading is not easy, but it is the most important thing to teach, so it makes sense that you have to work harder to get students to read.

*Bess Dickerson.* Taking this course from the view point of a math major, Bess said she has learned that teaching reading is much different than math. Bess also learned comprehension has to be a focus in teaching reading, which could include activities like read-alouds and games. Initially, Bess thought that reading just involved students reading texts, but later discovered that she had to follow a lesson plan template that included poetry, phonics/spelling, vocabulary, read-aloud, guided reading, writing, and a take home book. Bess became knowledgeable to the fact that kids enjoy reading and was surprised when her young reader told her that she goes to the library and gets excited when she gets free books.

*Janice Kay.* Janice said she learned that teaching reading is not easy. She experienced writing lesson plans that did not go well for her young reader because the text was either too hard or during the lesson she discovered other problems that needed to be addressed but she was not prepared for them. Janice also learned that her time with her student was limited and saw how much help the young reader actually needed. Teaching reading required a lot more thought and planning than she anticipated. She had to determine what to do to get her young reader to want to sit during the session, so she could teach him.

*Nydia Gomez.* Nydia also said she thought that teaching reading was hard. She learned teaching reading required assessing students in order to know which areas they needed help with and what skills they were lacking, so would know where to start to build their reading. Once Nydia got to know her young reader and what areas she was struggling in, she saw patterns in her young reader's reading that guided her on what she needed to focus on. Therefore, her lessons changed from being too broad or general and more focused on targeted areas that needed to be addressed that would help her young reader learn.

*Naomi Banks.* Having never interacted with another student besides her personal children, Naomi said she learned that she had to adapt to her young reader and her needs. She also discovered that she needed to be familiar with the children's literature chosen to use during tutorials to make sure she knew the pronunciation and meaning of the words being read—especially the nonfiction books. Naomi also learned that there were different ways to teach young readers to read and there were different ways to read.

*Adriana Alvarez.* Managing time was something Adriana said she found challenging for her since she had so much to cover during the tutorial sessions. She realized that she had to try to figure out what she needed to focus on more to help her young reader learn. Adriana learned how

to use more resources and try different strategies to improve her lesson plans that specifically met what she was looking for in order to write more elaborate lessons.

**Research question two.** A third phase of analysis was also used to analyze the undergraduate pre-service teachers' interviews. The purpose of this phase of analysis explored the second research question: *What patterns of development are observed in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting?* In order to answer this research question, the researcher examined the undergraduate pre-service teachers' initial ideas of teaching reading and compared them to the undergraduate pre-service teachers' ideas during the second and third interviews. The researcher used the units of meaning of the matrix to assist in exploring these patterns. The researcher used the following two questions to conduct her investigation:

1. How did the undergraduate pre-service teachers' initial concepts about literacy instruction change from the first interview to the second interview?
2. How did the undergraduate pre-service teachers' initial concepts about literacy instruction change from the second interview to the third interview?

The researcher observed four patterns of change which occurred between the first and second interview. The first pattern observed in this study was related to the undergraduate pre-service teachers' concerns and insecurities about *what* to teach. This pattern is supported by the research of Fuller and Brown (1975) which found that novices' teaching progressed in three stages: (a) survival concerns, (b) teaching situation concerns, and (c) pupil concerns. The final stage occurs when novice teachers focus on "concerns about recognizing the social and emotional needs of pupils" and meeting their instructional needs (Fuller & Brown, 1975, p. 37). Initially, all of the undergraduate pre-service teachers were concerned about this being their first time to tutor and

they did not know where to begin. Each of the six undergraduate pre-service teachers was looking forward to working with their children yet felt overwhelmed because they wanted this experience to be a positive one for their young readers. They were concerned about not knowing what to expect and terrified about giving assessments because they did not want to administer them incorrectly. During the first interview, the majority of the undergraduate pre-service teachers said they were concerned about what to teach and how to teach it because this was their first time tutoring reading. A majority of the undergraduate pre-service teachers also had an idea of the fundamentals of reading and strategies that could be used, but they were not comfortable with choosing the skills to be taught or writing lesson plans for struggling readers.

The second pattern observed in this study was the undergraduate pre-service teachers' concerns about *how* to teach the young readers to be better readers. This pattern was explained in Lidstone and Hollingsworth (1992). In their longitudinal study of the first four years of teaching, three stages of cognitive attention were discovered: (a) management focused, (b) subject/pedagogy, and (c) student learning focused. During their early stages of teaching, novice teachers began their teaching with the "rote knowledge of pedagogy." In other words, a beginning teacher recognizes the concept, but does not use it, uses it poorly, or has superficial understanding of its use. The second stage involved routine processing in which the concept is applied, but superficially or only in specific contexts. The final stage was comprehensive knowledge, in which the beginning teachers' beliefs were integrated with teaching performance, application the understood concepts across contexts, and the ability of cognitive space to attend to student needs.

Lidstone and Hollingsworth's (1992) study saw that beginning teachers have knowledge of pedagogy at the beginning stages of their teaching developments, but it took them four years of

teaching to begin to differentiate for varying student needs. In similar manner, the undergraduate pre-service teachers of this study had the desire to use pedagogical practices that were modeled by their course instructors or classroom teachers they interviewed for past courses, but the majority of the undergraduate pre-service teachers did not know where to begin or what to do with that learned pedagogical knowledge. For example, Adriana found writing lesson plans a challenge. She said, “Because we [undergraduate pre-service teachers] didn’t really know how to prepare one [a lesson plan], how to incorporate poetry, how to do guided reading, or what kind of questions to ask.” One particular undergraduate pre-service teacher did call attention to the concepts taught in her previous coursework in which her pedagogical practices reflected conflicting practices. For example, Janice commented that she didn’t like too many of the teacher workbooks that were available. She understood that she was expected to follow a certain curriculum, in this case the state standards, but saw that her student lacked fluency. She decided to use activities she had learned in her previous coursework. Her difficulty with the pedagogical reasoning was reflected in the fact that her student was frustrated with the activities. Janice’s lack of cognitive concepts at this point in her pedagogical learning affected her reasoning for continuing with the activity. She believed that her college textbooks provided her with the reading activities and her instructional needs for the tutoring sessions. Janice also believed that the teacher workbooks and curriculum will help her when she is teaching in an actual classroom.

The third pattern observed after the researcher reviewed and compared the first two interviews dealt with comprehension. The undergraduate pre-service teachers struggled with teaching comprehension. Their difficulties with teaching comprehension could be related to the undergraduate pre-service teachers’ choice of appropriate children literature, and the young readers’ inability to answer questions about the text. The undergraduate pre-service teachers’



initial concepts about teaching reading had changed by the second interview. The undergraduate pre-service teachers' focus shifted from their being nervous and overwhelmed to frustration because their young readers were not responding to the texts as well as expected. Therefore, the undergraduate pre-service teachers realized they had to find activities that would be more engaging to the young readers.

Durkin's study (1979), *What Classroom Observations Reveal about Reading Comprehension Instruction*, demonstrated that teachers' idea for teaching comprehension during reading instruction consisted of students reading passages while the teacher listened first and then asked questions. The undergraduate pre-service teachers performed similar practices during their tutoring sessions. They believed that the young readers had to read a book in its entirety without any interruptions, and they were there to listen. A majority of the undergraduate students asked questions about the text after the young reader completed the text. During the second interview, the majority of the undergraduate pre-service teachers said they realized that they needed to model good reading and use a variety of strategies to help build the young readers' comprehension.

The fourth pattern observed by this study was concerned with the undergraduate pre-service teachers' pattern of development of their pedagogical reasoning in each of Shulman's (1987) six activities. The researcher found that the undergraduate pre-service teachers' lack of application of their pedagogical reasoning in certain of Shulman's (1987) six activities. The undergraduate pre-service teachers did not follow a specific order of development in applying pedagogical reasoning. For example, during the undergraduate pre-service teachers' initial interviews, the researcher did not see any evidence of Shulman's (1987) *transformation* activity. None of the undergraduate pre-service teachers addressed how they would manipulate known

subject matter to help the young readers learn the subject matter. The major finding of this study was that the undergraduate pre-service teachers lack of ability to transform subject matter.

The next section summarizes the findings for the following research question: *What patterns of development are observed in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting?* The findings are organized into four different categories of growth: (a) *patterns connected to common pedagogy*, (b) *patterns connected to reading epistemology*, (c) *patterns related to reading instruction*, and (d) *patterns purposely reflecting Shulman's (1987) Model of Pedagogical Reasoning and Action*. The observed patterns of epistemology growth, which were connected to common pedagogy, were as follows:

- The undergraduate pre-service teachers moved forward from being overwhelmed about what to teach and how to teach it to later gaining trust in their beliefs focusing on meeting the instructional needs of their young readers; and
- The undergraduate pre-service teachers changed from believing that teaching reading involved rote teaching of their pedagogical knowledge to applying concepts of teaching reading geared to specific contexts.

In addition to patterns concerning common pedagogy, the researcher also found patterns of growth about reading epistemology. These observed patterns were as follows:

- The undergraduate pre-service teachers moved from fun hands-on activities to planning activities that addressed specific concepts that their young readers needed to know; and
- The undergraduate pre-service teachers improved on teaching information that required mastery;

In addition to patterns pertaining to common pedagogy and reading epistemology, the researcher also found patterns of growth pertaining particularly to reading instruction. These observed patterns were as follows:

- Initially, the undergraduate pre-service teachers' interviews emphasized some characteristics of an effective teacher, such as knowing their students and their needs, being open-minded to the fact that not all students learn at the same rate, and having the willingness to help;
- In earlier interviews, the undergraduate pre-service teachers expressed the importance of students being exposed to books before entering school and upon entering school;
- The undergraduate pre-service teachers also stated in earlier interviews the importance of knowing the basics such as phonemic awareness and phonics ;
- In later interviews, the undergraduate pre-service teachers expressed more specifics with reading instruction, which included sounding out words, decoding skills, vocabulary, fluency, and comprehension;
- In relation to comprehension instruction, the undergraduate pre-service teachers revealed in later interviews the need to know the young readers' interests, more teacher modeling of good reading, and more hands-on activities and interacting with the texts; and
- The undergraduate pre-service teachers' initial ideas about effective materials needed to teach reading also changed. Initially, the undergraduate pre-service teachers included books, posters, writing journals, whiteboards, and markers as appropriate instructional reading materials. In later interviews, the undergraduate pre-service reading teachers

included games, interactive materials, graphic organizers, manipulatives, teacher blogs, and websites as other appropriate instructional reading materials.

In addition to patterns concerning reading instruction, the researcher also found patterns of growth pertaining particularly with Shulman's (1987) Model of Pedagogical Reasoning and Action activities—*comprehension, transformation, instruction, evaluation, reflection, and new comprehension*. The observed patterns were as follows:

- The undergraduate pre-service teachers lack of application in their pedagogical reasoning in all of Shulman's (1987) six activities;
- The undergraduate pre-service teachers did not engage in all of Shulman's activities which impacted their instructional activities; and
- The undergraduate pre-service teachers' inability to manipulate subject matter to improve their young readers' reading performance.

**Pre-and posttest scores.** The researcher measured their knowledge of reading instruction with a pre-and posttest that included ten questions out of the TExES / ExCET Preparation Manual (2011). During the first week of the study, the pretest was also used in selecting six undergraduate participants for the study. The researcher used the pretest to measure the undergraduates' content knowledge in phonics instruction and comprehension instruction. The comparison between the pretest and posttest supported the researcher's finding that not all of the undergraduates' content knowledge developed at the same rate. Throughout the course of the study, there were no differences in the content knowledge of reading with three of the undergraduates; one undergraduate had an increase in their content knowledge of reading

instruction and two undergraduates had a decrease in their content knowledge of reading instruction. Table 6 shows the scores of the pretest and posttest.

Table 6

*Pretest and Posttest Scores*

Undergraduates	Pretest	Posttest	Difference
Amelia Hinojosa	60%	60%	0
Bess Dickerson	80%	80%	0
Janice Kay	60%	70%	10
Nydia Gomez	100%	70%	-30
Naomi Banks	80%	70%	-10
Adriana Alvarez	80%	80%	0

**Research question three.** A fourth phase of analysis was also used to evaluate the undergraduate pre-service teachers' interviews. This analysis explored the third research question: *How does intervention affect the instructional literacy practices of undergraduate pre-service teachers as they experience epistemological growth?* A major factor in this study was changing the course instructional and tutorials times. Tutorials were already a course requirement and were held during the last 75 minutes of class. For this study, tutorials were changed to the beginning of the class, so the undergraduate pre-service teachers could reflect on their teaching practices and discuss concerns with the course instructor immediately after tutorials. Before the tutorial sessions began, the course instructor and the researcher developed a guided questioning menu which included questions that addressed reading instructional practices that could support the undergraduate pre-service teachers write effective lessons for the

following week. During each tutorial session, the course instructor observed the undergraduates for patterns of instructional concerns and referred to the guided questioning menu during whole group discussion afterwards. The course instructor identified the instructional practice of concern to the whole group and provided descriptions and examples. In small groups, the class reflected and shared their experiences with that specific instructional practice. The researcher sat with the six participants of the study to record their discussions but did not participate in the group discussions. The following reading instructions were consecutively discussed during the guided questioning with the course instructor:

1. Phonemic awareness and phonics: What activities do you use to help your student develop phonics and phonological skills?
2. Comprehension: Discuss how you check for reading comprehension.
3. Vocabulary: Explain how you teach vocabulary.
4. Genre (fiction/nonfiction/poetry): How do you use different genres such as fiction, nonfiction, and poetry with your student?
5. Writing: How does your writing instruction complement your reading instruction?
6. Fluency: What are some ways you develop fluency with your students; specifically speed, automaticity, and prosody?

The types of instruction provided by the undergraduate pre-service teachers after the course instructor's guided questioning intervention were also tabulated. The most common increase of instruction applied after the guided questioning was the comprehension instruction. The researcher categorized the following reading instructional strategies with the comprehension instruction:

- Modeling the correct answer;

- Prompting the young readers to sound out words;
- Discussing the text during and after reading;
- Making personal connections to what was read;
- Activating prior knowledge;
- Making predictions;
- Prompting the young readers to use the context;
- Prompting the young readers to use pictures; and
- Asking comprehensive questions during and after reading.

There was also an increase in vocabulary instruction and the use of nonfiction genre after the course instructor's guided questioning intervention. The frequencies of the areas of reading instruction of concern that were addressed by the course instructor with the undergraduate pre-service teachers in this study after each guided questioning are shown in Tables 7.1 to 7.6. Table 7.7 combines the six weeks to show the frequencies of the reading comprehension instruction of all six undergraduate pre-service teachers after the guided questioning intervention.

Table 7.1

*Frequencies of Instruction after Intervention Applied by Undergraduate Amelia*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	13	2	2	--	0	0
Comprehension	3	4	6	--	21	17
Vocabulary	1	0	0	--	0	0
Nonfiction	0	0	1	--	2	2
Fiction	3	2	1	--	1	1
Writing	2	0	2	--	10	11
Fluency	0	0	0	--	0	0

\*-- represents student's absence



Table 7.2

*Frequencies of Instruction after Intervention Applied by Undergraduate Bess*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	1	5	4	--	3	7
Comprehension	15	0	2	--	10	8
Vocabulary	0	0	0	--	1	2
Nonfiction	0	0	1	--	0	2
Fiction	1	2	2	--	3	2
Writing	2	4	0	--	3	5
Fluency	0	0	0	--	0	0

\*--represents student's absence

Table 7.3

*Frequencies of Instruction after Intervention Applied by Undergraduate Janice*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	1	4	2	19	1	0
Comprehension	27	28	11	42	24	34
Vocabulary	0	0	0	2	0	1
Nonfiction	2	0	0	2	1	2
Fiction	1	2	3	1	2	1
Writing	0	2	0	1	0	2
Fluency	0	0	0	0	0	0

Table 7.4

*Frequencies of Instruction after Intervention Applied by Undergraduate Nydia*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	31	3	5	12	8	1
Comprehension	18	6	24	55	5	10
Vocabulary	0	0	0	0	0	0
Nonfiction	0	1	1	1	1	1
Fiction	3	1	2	2	1	1
Writing	4	2	2	2	19	1
Fluency	0	0	0	0	0	0

Table 7.5

*Frequencies of Instruction after Intervention Applied by Undergraduate Naomi*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	3	1	0	1	0	0
Comprehension	11	28	36	48	31	28
Vocabulary	0	0	0	0	0	7
Nonfiction	0	0	1	1	2	1
Fiction	2	1	1	1	1	0
Writing	0	0	2	1	0	0
Fluency	0	0	0	0	0	0

Table 7.6

*Frequencies of Instruction after Intervention Applied by Undergraduate Adriana*

Intervention	Weekly Frequency of Action					
	1	2	3	4	5	6
Phonics/Phonemic Awareness	2	37	27	--	5	0
Comprehension	20	8	20	--	52	28
Vocabulary	1	0	0	--	5	1
Nonfiction	1	1	1	--	2	1
Fiction	2	1	1	--	1	0
Writing	2	8	4	--	3	0
Fluency	0	0	0	--	0	0

\*--represents student's absence

Table 7.7

*Frequencies of Instruction after Intervention Applied by All of the Undergraduates*

Guided Questioning Instruction of Concern	Frequency	
	First Three Weeks of tutoring	Last Three Weeks of tutoring
Phonics/Phonemic Awareness	143	57
Comprehension	336	413
Vocabulary	4	17
Genre (fiction)	31	18
Genre (nonfiction)	10	21
Writing	57	58
Total	581	584

To address the issues about time management, the course instructor provided the suggested times for each of the reading instruction activities: (a) poetry—five minutes, (b) phonics/spelling—ten minutes, (c) guided reading—twenty to thirty minutes, (d) writing—ten to fifteen minutes, (e) vocabulary—five to ten minutes, (f) listening comprehension—ten to fifteen minutes. The undergraduate pre-service teachers were also instructed by the course instructor to ask questions as they were reading to their young readers. In order for the researcher to explore if the guided questioning had any affects on the undergraduate pre-service teachers' instructional practices, all six undergraduate pre-service teachers were asked the following questions during the final interview:

- How did you find the whole group reflection after each tutoring session beneficial?
- How did you find the guided questions provided by the course instructor after each tutoring session beneficial?
- How do you think it made a difference in your instructional planning to have the tutoring sessions earlier during the class, so the group could meet afterwards with the course instructor to reflect?

The undergraduate pre-service teachers, other than Amelia, thought the guided questions asked by the course instructor helped their understanding about what was expected of them in their lesson plans. Amelia, at the time, did not think these guided questions supported what she was covering with her young reader. Her response revealed her underdeveloped pedagogical reasoning abilities. The pre-service teachers also said that the reflection groups helped provide them with instructional ideas, especially if their young readers were either experiencing the same reading problems or on the same reading level. Overall, the majority of the undergraduate pre-service teachers believed that they benefited greatly from having the group discussions immediately after each tutoring session. The undergraduate pre-service teachers' responses to these questions are in the following section.

*Amelia Hinojosa.* Throughout the course of the study, Amelia attended a literacy summit and visited local classrooms to get ideas from reading teachers and to learn more about teaching reading. When asked if the course instructor's guided questioning provided her with ideas to improve her reading instruction, Amelia commented,

I like that we had the reflection at the end...I learned a lot from the other people and the different things they were doing. I think I learned more about what they were doing

afterwards than before, and that helped. I had no idea the questions coming from the teacher was from a pattern she had noticed with everybody. I'm not joking...that pattern had nothing to do with me. I feel like and the questions almost had nothing to do with me ever...I think that if we could have talked about everything instead of that one question, it would have been better...to reflect on the lesson as a whole what worked and what didn't instead of the questions...obviously they pertained to everybody else that other pattern that she saw in fact that everybody else was working on...I don't know why I was different.

*Bess Dickerson.* Bess said she had no idea what to expect when teaching reading before taking this course. When asked if the course instructor's guided questioning provided her with ideas to improve her reading instruction, Bess commented,

You can learn what to do the next time if you have a student...like at the beginning we showed her [course instructor] our lesson plans and kind of talk about it, and then we get with the student and do it. Then, when we reflect as a group, you can go over it. Like... people would have the same leveled child as yours and you see what they did so... see if you want to do that next time to see if it will help your kid...[the guided questions were helpful] because sometimes if you say group...talk...we'd probably just look at each other...that's good she asked because people are shy to ask a question out loud...feel like they should know the answer already.

*Janice Kay.* Janice said she was challenged to find children's literature and activities that would encourage her young reader to read and write. Janice said she realized that she still had a lot to learn about teaching reading, so when she was asked if the course instructor's intervention provided her with ideas to improve her reading instruction, Janice commented,



That's where I did most of my learning. Looking up stuff didn't really didn't help. It didn't help me visualize it or see it, and sitting in with the group ...and listen to the same problems...you could figure out how to make it...fit your grade level. I take that into other classes now and bounce off ideas...I try to get more creative with it, so it was a huge help. It probably saved me just the same. It [the guided questions] makes you think a little bit more...it's a little more in depth...I reflect on the question and ask 'How can I help the student do this? How did he do this? What kinds of ways can I teach him to do this?' I have to sit...and think...got to figure out exactly what you're going to do with it. I loved it [the way the course was set up with the tutoring session first followed with whole group reflection and guided question discussions]. It's been pretty helpful. Probably the most helpful class I've had so far...except for my phonics class.

*Nydia Gomez.* Nydia said she always thought that effective teaching was student-centered. She learned that she needed more than worksheets to improve her student's to reading. When asked if the course instructor's intervention provided her with ideas to improve her reading instruction, Nydia commented,

I think the way it was set up is the most effective way, and it gives us the most benefit because there's times when you'll tutor your child and then something will happen. But, then you go back into the class and talk about it, and you reflect as a class...and think oh, okay, I can change this for next week...or, I can improve this area or okay this is too much. I can cut it off here. If we did it [reflection or group discussion] before [tutoring] it wouldn't be as helpful because we wouldn't know what went right what went wrong...this way we could communicate as a class and help each other out. We get ideas from each other and you can plan a better a lesson plan for the following week. I think

that's another reason why as a class we kept improving...because we would reflect together...we knew okay, we did this not in the best way, but we can make it better. So, I think the way we did the class was probably the most beneficial for us. It [guided questions] helped us because we paid attention to it [skill of concern discussed with the course instructor]...we focused on things that were important instead of just letting it go. I loved this class...the way it was set up. We were tired by the end, but we learned a lot, and we benefited. We learned from our mistakes...and from things we did right. Her [course instructor] feedback helps us know rather we're on the right tracks or we're completely missing the ball. I don't think she should change anything about the course.

*Naomi Banks.* Naomi said she learned more about what her student needed and about different ways to teach reading throughout the course of the study. When asked if the course instructor's intervention provided her with ideas to improve her reading instruction, Naomi commented,

I just think what's helped me to develop is being around other people who discuss our tutoring sessions afterwards. That has really helped me to develop more ideas and understand that they're kind of going through the same thing and you learn from them...I think the reflection is huge. That has really helped to hear what the other, my peers, had to say about what they were using and what they were learning and how their child was. So to get ideas from them has really helped. ..and, to be able to go back and talk to my instructor...this is what we did...'What should I do next time?' It just gives you a little bit of extra because in the other classes you just...it's a lot of book learning...presentations. It's the feedback that's very helpful. It helped [guided questions]

definitely. There were things I was missing and she [course instructor] would come back and say...put this in...you've all got to focus on this...that definitely helped.

*Adriana Alvarez.* Adriana said she learned how to use more resources and different strategies to help her young reader improve her reading by the last tutoring session. When asked if the course instructor's intervention provided her with ideas to improve her reading instruction, Adriana commented,

I took the feedback from [course instructor] and tried to improve the lesson plans on what specifically she was looking for instead of just being vague on the lesson plans...try to elaborate more. It's been a challenge, but having feedback it's what really kind of helps me improve... Each time we have class any kind of feedback that [course instructor] can provide might help me improve is something that I'm looking for...instead of just saying fluency...“Well, how are you going to do fluency?” I take that information and say, “Okay, well, I need to specifically put how I'm going to work with fluency?” What kind of things specific. Never doing lesson plans before, it was kind of a challenge to... put it down. Without practice on writing it down is a challenge...sometimes translating it [for ELL student], so I think that's helped me develop. It is important to reflect on what you've done, so you can improve...so you can prepare for the next. So, with those kinds of reflections I think it does help. It only helps you add more to your knowledge.

### **Observation Findings**

The researcher used the 33 videotaped tutoring sessions to investigate the following research question: *How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience?* Thirty-three observations analyzed totaling 29 hours and 45 minutes of instructional time. In addition to

providing instruction, the undergraduate pre-service teachers were also required to use Bader *Reading and Language Inventory* (Bader & Pearce, 2009) to identify their student's instructional reading level. This assessment was administered during the first week of tutoring which was not included in the 29 hours and 45 minutes of observations.

The study of the observation findings had two phases of analysis. During phase one, the researcher watched each of the videotaped tutoring sessions while recording the frequencies of the undergraduate pre-service teachers' instructional practices and the duration of their instruction in three different areas of literacy instruction: comprehension, word analysis, and writing instruction. An observation form was used by the researcher to record the frequency and duration data (Appendix I). Raphael's (1982, 1986) categories of question-answer relationship were used by the researcher to report frequencies of the types of questions the undergraduate pre-service teachers asked their young readers. During phase two, the researcher revisited the patterns found in the interviews and searched for evidence of those same patterns in the observation data. For the purpose of analysis, the individualized observations were also divided into two three-week periods. The analysis process and the phase one and phase two findings are explained in the following section.

**Phase one.** The following questions listed on the observation forms were used by the researcher to chart frequency data while viewing the tutoring sessions:

- What type of text did the undergraduate use during instruction? (e.g., informational text, decodable text, patterned language text);
- What prompts did the undergraduate use when the young reader did not recognize a word? (e.g., the undergraduate pre-service teacher corrected the student's error, the

undergraduate pre-service teacher modeled the correct answer, the undergraduate pre-service teacher prompted the student to sound out the word);

- What instructional strategies did the undergraduate use to increase the young reader's reading comprehension? (e.g., activate prior knowledge, preview vocabulary, make personal connections);
- How did the undergraduate pre-service teacher have the student demonstrate his or her understanding of the text? (retelling, extension project);
- What materials did the undergraduate pre-service teachers use for word analysis instruction? (e.g., flashcards, manipulatives);
- What instructions did the undergraduate provide for word analysis? (e.g., counting phonemes, blending phonemes, phonics instruction); and
- What instruction did the undergraduate provide for writing? (e.g., generating ideas for writing, editing instruction, think aloud of his or her own writing).

To assist in data analysis, the following two categories were used to divide the undergraduate pre-service teachers' reading instruction:

- Prompts to encourage word identification
- Instruction to increase comprehension

Prompting the young readers to sound out words, use the context, or use pictures could provide opportunities to identify words they may otherwise choose to skip are effective, but providing unknown words to young readers without encouraging them to sound out words, use the context, or use pictures is ineffective in building independent successful readers. The undergraduate pre-service teachers in this study were not instructed to prompt their young readers, but the

researcher made observations to record which if any prompting were applied. In this study, six different word identification prompts were used by the undergraduate pre-service teachers. The most common prompt for word recognition consisted of the undergraduate pre-service teachers correcting the students' errors: the students were told the correct word by the undergraduate pre-service teachers. During the first three weeks of tutoring, the undergraduate pre-service teachers used this prompt 55.91% of the time. The use of this prompt decreased to 44.64% the last three weeks of instruction which was effective for the young readers because as the use of this prompt decreased, the undergraduate pre-service teachers' use of encouraging the young readers to sound out words, use the context, or use pictures increased. In Grote-Garcia's (2009) study, the most common prompt used by her undergraduate pre-service teachers dealt with sounding out unknown words. During the first three weeks of tutoring, her participants used this prompt 65% of the time, but during the last three weeks of tutoring there was a decrease of her participants prompting their young readers to sound out unknown words to 44.66% (Grote-Garcia, 2009).

The second most common prompt for word identification consisted of the undergraduate pre-service teachers encouraging the students to sound out unknown words. During the first three weeks of tutoring, the undergraduate pre-service teachers used this prompt 21.82% of the time. During the last three weeks of tutoring, the use of this prompt increased to 25.55% of the time. There was also an increase of the undergraduate pre-service teachers' use of other prompts during the last three weeks of instruction, such as (a) the undergraduate pre-service teachers modeled the correct answer, (b) the undergraduate pre-service teachers prompted the students to use the context, and (c) the undergraduate pre-service teachers continued to prompt the students to use the pictures. In Grote-Garcia's (2009) study, the second most common prompt used by her undergraduate pre-service teachers for word identification dealt with simply telling their

young readers the unknown words. During the first three weeks of tutoring, her participants used this prompt 28.75% of the time, but during the last three weeks of tutoring there was an increase of her participants telling their young readers the unknown words to 44.66% of the time (Grote-Garcia, 2009). Both study groups' participants increased in providing the unknown words to their young readers, but Grote-Garcia's (2009) participants' increase was much more significant than the participants in this study. Relatively the researcher of this study did not see the growth anticipated such as the use of more effective prompting by the undergraduate pre-service teachers concerning comprehension. The frequencies of undergraduate pre-service teachers' behaviors in this study are shown in Tables 8.1 to 8.6. Table 8.7 combines the first three weeks and the last three weeks to show the frequencies of the prompts for word recognition of all six undergraduate pre-service teachers.

Table 8.1

*Frequencies of Prompts for Word Recognition Instruction for Undergraduate Amelia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	2	12	32	3	--	5
Tutor modeled the correct answer	0	0	0	1	--	1
Tutor prompted the student to use the context	1	0	1	5	--	0
Tutor prompted the student to sound out the word	0	0	3	1	--	0
Tutor prompted the student to use the picture	1	0	2	3	--	1
Tutor ignored the error	0	0	0	0	--	0
Other: Vocabulary building	1	0	0	0	--	0
Other: Reviewed Vocabulary	1	0	0	0	--	0
Total	6	12	38	13	--	7

\*-- represents student's absence



Table 8.2

*Frequencies of Prompts for Word Recognition Instruction for Undergraduate Bess*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	0	0	0	--	0	0
Tutor modeled the correct answer	0	0	0	--	0	4
Tutor prompted the student to use the context	0	0	0	--	0	0
Tutor prompted the student to sound out the word	0	0	0	--	0	0
Tutor prompted the student to use the picture	0	0	0	--	0	0
Tutor ignored the error	0	0	0	--	0	0
Other	0	0	0	--	0	0
Total	0	0	0	--	0	4

\*-- represents student's absence

Table 8.3

*Frequencies of Prompts for Word Recognition for Undergraduate Janice*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	1	1	1	1	7	8
Tutor modeled the correct answer	0	3	0	2	0	3
Tutor prompted the student to use the context	1	0	0	0	0	0
Tutor prompted the student to sound out the word	0	20	6	10	1	14
Tutor prompted the student to use the picture	3	3	1	0	1	0
Tutor ignored the error	1	0	0	0	1	0
Other: ignored student's frustration	4	0	0	0	0	0
Other: made quilt book	1	0	0	0	0	0
Other: discussed what student liked about the story	1	0	0	0	0	0
Total	12	27	8	13	10	25

Table 8.4

*Frequencies of Prompts for Word Recognition for Undergraduate Nydia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	1	0	4	5	0	0
Tutor modeled the correct answer	2	0	1	2	0	0
Tutor prompted the student to use the context	5	0	1	1	0	0
Tutor prompted the student to sound out the word	1	3	13	9	0	4
Tutor prompted the student to use the picture	3	1	0	6	0	0
Tutor ignored the error	3	0	0	0	0	0
Other	0	0	0	0	0	0
Total	15	4	19	23	0	4

Table 8.5

*Frequencies of Prompts for Word Recognition for Undergraduate Naomi*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	9	25	33	32	23	10
Tutor modeled the correct answer	1	1	1	7	1	1
Tutor prompted the student to use the context	0	0	0	1	0	0
Tutor prompted the student to sound out the word	1	0	0	3	0	0
Tutor prompted the student to use the picture	0	0	0	0	0	0
Tutor ignored the error	1	2	0	0	0	3
Other: discussed vocabulary	0	0	0	0	0	7
Other: recalled facts from text	0	0	0	0	0	2
Total	12	28	34	43	24	23

Table 8.6

*Frequencies of Prompts for Word Recognition Instruction for Undergraduate Adriana*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Tutor corrected the student's errors	1	1	0	--	2	4
Tutor modeled the correct answer	0	0	0	--	5	2
Tutor prompted the student to use the context	5	0	3	--	10	3
Tutor prompted the student to sound out the word	0	1	0	--	11	2
Tutor prompted the student to use the picture	0	0	2	--	0	5
Tutor ignored the error	0	0	0	--	0	0
Other: how to use table of contents or glossary	1	0	0	--	0	0
Other: discussed vocabulary during reading	0	0	0	--	4	0
Other: discussed author's purpose	0	0	0	--	2	0
Total	7	2	5	--	34	18

\*--represents student's absence

For the purpose of analysis, the undergraduate pre-service teachers' frequencies of prompts for word recognition were collapsed into the following chart:

Table 8.7

*Frequencies of Prompts for Word Recognition for All Undergraduates*

Instruction	Frequency of Action	
	First Three Weeks of tutoring	Last Three Weeks of tutoring
Tutor corrected the student's errors	123	100
Tutor modeled the correct answer	9	29
Tutor prompted the student to use the context	17	20
Tutor prompted the student to sound out the word	48	55
Tutor prompted the student to use the picture	16	16
Tutor ignored the error	7	4
Total	220	224

The second category of reading instruction included focused on increasing comprehension. There were 201 behaviors used to increase the young readers' reading comprehension skills. These frequencies are shown in Tables 9.1 to 9.6. Table 9.7 combines the first three weeks and the last three weeks to show the frequencies of the instruction for comprehension of all six undergraduate pre-service teachers.

Table 9.1

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Amelia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	2	1	2	0	--	1
Made predictions	3	0	0	0	--	1
Previewed vocabulary	0	1	0	0	--	0
Made personal connections	3	2	0	1	--	1
Stopped and discussed text	3	0	1	0	--	4
Visualization	1	0	0	0	--	0
Advanced organizers	1	0	0	0	--	0
Analyzed and evaluated	1	0	0	0	--	0
Specific skills	0	0	0	0	--	0
Other	0	0	0	0	--	0
Total	14	4	3	1	--	7

\*-- represents student's absence

Table 9.2

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Bess*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	0	0	0	--	1	0
Made predictions	0	0	0	--	0	1
Previewed vocabulary	0	0	0	--	1	2
Made personal connections	0	0	0	--	1	0
Stopped and discussed text	0	0	1	--	7	0
Visualization	12	0	0	--	0	0
Advanced organizers	1	0	1	--	1	1
Analyzed and evaluated	0	0	0	--	0	0
Specific skills: Antonyms	0	0	0	--	0	1
Other: Story elements	0	0	0	--	0	1
Total	13	0	2	--	11	6

\*-- represents student's absence



Table 9.3

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Janice*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	0	0	0	0	1	0
Made predictions	5	1	3	1	4	1
Previewed vocabulary	0	0	0	0	0	0
Made personal connections	2	0	0	4	3	1
Stopped and discussed text	2	0	0	23	6	5
Visualization	0	0	0	0	0	0
Advanced organizers	0	0	0	1	1	1
Analyzed and evaluated	0	0	0	0	0	0
Specific skills	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	9	1	3	29	14	8

Table 9.4

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Nydia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	1	0	1	1	0	0
Made predictions	1	0	0	9	0	0
Previewed vocabulary	0	0	0	0	0	0
Made personal connections	1	0	0	1	0	0
Stopped and discussed text	0	0	2	8	0	0
Visualization	0	0	0	1	0	0
Advanced organizers	0	0	1	0	0	0
Analyzed and evaluated	0	0	0	0	0	0
Specific skills: Inferring	0	0	0	1	0	0
Other	0	0	0	0	0	0
Total	3	0	4	21	0	0

Table 9.5

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Naomi*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	0	0	0	0	0	0
Made predictions	0	0	0	0	0	0
Previewed vocabulary	0	0	0	0	0	0
Made personal connections	0	0	0	1	0	0
Stopped and discussed text	0	0	0	0	0	14
Visualization	0	0	0	0	0	0
Advanced organizers	0	0	0	0	1	0
Analyzed and evaluated	0	0	0	0	0	0
Specific skills	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	0	0	0	1	1	14

Table 9.6

*Frequencies of Strategies for Comprehension Instruction for Undergraduate Adriana*

Instruction	Frequency of Action					
	1	2	3	4	5	6
Activated prior knowledge	0	0	0	--	2	1
Made predictions	0	1	5	--	3	1
Previewed vocabulary	0	0	0	--	1	1
Made personal connections	0	0	0	--	0	0
Stopped and discussed text	7	0	4	--	1	1
Visualization	0	0	0	--	0	0
Advanced organizers	0	1	1	--	0	0
Analyzed and evaluated	0	0	4	--	0	0
Specific skills: using glossary	0	1	0	--	0	0
Specific skills: morals	0	0	1	--	0	0
Other: unknown words vocabulary list	1	0	0	--	0	0
Other: sticky notes of misread words	0	1	0	--	0	0
Total	8	4	15	--	7	4

\*-- represents student's absence

For the purpose of analysis, the undergraduate pre-service teachers' frequencies of strategies for comprehension instruction were collapsed into the following chart:

Table 9.7

*Frequencies of Strategies for Comprehension Instruction for All Undergraduates*

Instruction	Frequency	
	First Three Weeks of tutoring	Last Three Weeks of tutoring
Activated prior knowledge	7	7
Made predictions	19	21
Previewed vocabulary	1	5
Made personal connections	8	13
Stopped and discussed text	20	69
Visualization	13	1
Advanced organizers	6	6
Analyzed and evaluated	5	0
Total	79	122

Word analysis instruction was another requirement of the undergraduate pre-service teachers. The time spent on word analysis instruction was approximately five hours and 52 minutes, or 18.74% of time spent tutoring. A comparison of the instruction strategies used by the undergraduate pre-service teachers for word analysis instruction during the six tutoring sessions, demonstrated that there was an increase with the strategy “that connected to reading materials.” There was a decrease in the following strategies: isolated words, isolated sounds, manipulatives, alphabetic principle, and sight words. The undergraduate pre-service teachers’ individualized attempts to teach word analysis frequencies are shown in Tables 10.1 to 10.6. Table 10.7

combines the first three weeks and the last three weeks to show the frequencies of the word analysis skills of all six undergraduate pre-service teachers.

Table 10.1

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Amelia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	2	0	0	0	--	0
Isolated words	3	2	1	0	--	0
Used manipulatives	0	0	1	0	--	0
Connected to reading materials	1	0	0	0	--	0
Alphabetic principle	0	0	0	0	--	0
Counted phonemes	0	0	0	0	--	0
Counted syllables	0	0	0	0	--	0
Blending phonemes into nonsense words	0	0	0	0	--	0
Sight words	0	0	0	0	--	0
Structural analysis	2	0	0	0	--	0
Other: spelling of vocabulary	3	0	0	0	--	0
Other: misspelled words in writing	2	0	0	0	--	0
Total	13	2	2	0	--	0

\*-- represents student's absence

Table 10.2

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Bess*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	1	1	0	--	0	6
Isolated words	0	1	1	--	1	1
Used manipulatives	0	1	1	--	1	0
Connected to reading materials	0	0	1	--	1	0
Alphabetic principle	0	1	0	--	0	0
Counted phonemes	0	0	0	--	0	0
Counted syllables	0	0	0	--	0	0
Blending phonemes into nonsense words	0	0	0	--	0	0
Sight words	0	0	0	--	0	0
Structural analysis	0	0	0	--	0	0
Other: shared new words added on list and discussed meaning	0	1	0	--	0	0
Other: homophones	0	0	1	--	0	0
Total	1	5	4	--	3	1

\*-- represents student's absence

Table 10.3

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Janice*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	0	0	0	1	0	0
Isolated words	0	3	1	12	1	0
Used manipulatives	0	0	0	1	0	0
Connected to reading materials	0	0	0	4	0	0
Alphabetic principle	1	1	0	1	0	0
Counted phonemes	0	0	0	0	0	0
Counted syllables	0	0	0	0	0	0
Blending phonemes into nonsense words	0	0	0	0	0	0
Sight words	0	0	0	0	0	0
Structural analysis	0	0	0	0	0	0
Other: read orally Fry's Phrases	0	0	1	0	0	0
Total	0	4	2	19	1	0



Table 10.4

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Nydia*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	13	2	1	0	3	1
Isolated words	7	0	1	10	3	0
Used manipulatives	1	0	1	1	1	0
Connected to reading materials	1	0	1	1	1	0
Alphabetic principle	5	1	0	0	0	0
Counted phonemes	0	0	0	0	0	0
Counted syllables	0	0	0	0	0	0
Blending phonemes into nonsense words	0	0	0	0	0	0
Sight words	0	0	0	0	0	0
Structural analysis	4	0	0	0	0	0
Other: word families	0	0	1	0	0	0
Total	31	3	5	12	8	1

Table 10.5

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Naomi*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	2	0	0	0	0	0
Isolated words	4	0	1	1	0	0
Used manipulatives	0	0	0	0	0	0
Connected to reading materials	0	0	0	0	0	0
Alphabetic principle	0	0	0	0	0	0
Counted phonemes	0	0	0	0	0	0
Counted syllables	0	0	0	0	0	0
Blending phonemes into nonsense words	0	0	0	0	0	0
Sight words	0	0	0	0	0	0
Structural analysis	3	1	0	0	0	0
Other	0	0	0	0	0	0
Total	9	0	1	1	0	0

Table 10.6

*Frequencies of Attempts to Teach Word Analysis Skills for Undergraduate Adriana*

Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Isolated sounds	0	11	14	--	2	0
Isolated words	2	21	12	--	1	0
Used manipulatives	0	2	1	--	1	0
Connected to reading materials	0	0	0	--	1	0
Alphabetic principle	0	1	0	--	0	0
Counted phonemes	0	0	0	--	0	0
Counted syllables	0	0	0	--	0	0
Blending phonemes into nonsense words	0	0	0	--	0	0
Sight words	0	0	0	--	0	0
Structural analysis	0	1	0	--	0	0
Other: made -ing flip book	0	1	0	--	0	0
Total	2	37	27	--	5	0

\*-- represents student's absence

For the purpose of analysis, the undergraduate pre-service teachers' frequencies of attempts to teach word analysis skills were collapsed into the following chart:

Table 10.7

*Frequencies of Attempts to Teach Word Analysis Skills for All Undergraduates*

Instruction	Frequency	
	First Three Weeks of tutoring	Last Three Weeks of tutoring
Isolated sounds	47	7
Isolated words	60	30
Used manipulatives	8	5
Connected to reading materials	4	8
Alphabetic principle	10	1
Counted phonemes	0	0
Counted syllables	0	0
Blending phonemes into nonsense words	0	0
Sight words	0	0
Structural analysis	11	0
Total	140	51

Writing instruction was provided for approximately seven hours and five minutes, or 23.94% of the total time. Tutors spent significantly more time in reading and word analysis than they did in writing instruction. A comparison of the instruction strategies used by the undergraduate pre-service teachers attempts to teach writing from the first three weeks to the last three weeks of tutoring showed that there was an increase in frequency in the following strategies: (a) editing—word use, grammar, or syntax, (b) revision—elaboration, (c) writing

forms or genre, (d) tutor used student's own writing during instruction, (e) tutor described what the student did well in his/her writing, (f) teacher read student's paper aloud to student so he/she could determine if it made sense, and (g) tutor commented on how the student could improve his/her writing. The individual frequencies of the undergraduate pre-service teachers' pedagogical options are shown in Tables 11.1 to 11.6. Table 11.7 combines the first three weeks and the last three weeks to show the frequencies of these pedagogical options of all six undergraduate pre-service teachers.

Table 11.1

*Frequencies of Attempts to Teach Writing for Undergraduate Amelia*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	3	0	4	1	--	1
Organized ideas for writing	1	1	2	1	--	0
Literary techniques or author's ideas	0	0	0	0	--	0
Writing forms or genres	0	0	0	1	--	0
Revision – elaboration	0	0	0	0	--	0
Revision – refining or reorganizing	0	0	0	0	--	0
Editing – capitalization, punctuation, or spelling	0	2	0	2	--	2
Editing – word use, grammar, or syntax	0	0	0	1	--	1
Tutor did a think-aloud of own writing	0	1	1	0	--	0
Tutor used student's own writing during instruction	1	1	0	1	--	2
Tutor used published author's writing during instruction	1	1	0	0	--	0
Tutor took dictation from student	0	1	0	0	--	0
Tutor commented on what student wrote	0	1	0	1	--	1

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Tutor described what the student did well in his/her writing	0	0	0	0	--	1
Tutor commented on how the student could improve his/her writing	0	0	0	0	--	2
Tutor provided a writing or proofreading guide/dictionary	1	0	0	0	--	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	0	2	--	1
Other: isolated spelling	2	0	0	0	--	0
Other: read aloud the books they each made	0	0	1	0	--	0
Total	10	8	9	10	--	11

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\*-- represents student's absence

Table 11.2

*Frequencies of Attempts to Teach Writing for Undergraduate Bess*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	1	1	0	--	1	1
Organized ideas for writing	0	0	0	--	0	1
Literary techniques or author's ideas	0	0	0	--	0	0
Writing forms or genres	0	0	0	--	0	1
Revision – elaboration	0	0	0	--	0	0
Revision – refining or reorganizing	0	0	0	--	0	0
Editing – capitalization, punctuation, or spelling	0	0	0	--	1	0
Editing – word use, grammar, or syntax	0	0	0	--	0	0
Tutor did a think-aloud of own writing	0	0	0	--	0	0
Tutor used student's own writing during instruction	0	1	0	--	0	2
Tutor used published author's writing during instruction	0	0	0	--	1	0
Tutor took dictation from student	0	0	0	--	0	0
Tutor commented on what student wrote	1	0	0	--	0	0



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Tutor described what the student did well in his/her writing	0	0	0	--	0	0
Tutor commented on how the student could improve his/her writing	0	1	0	--	0	0
Tutor provided a writing or proofreading guide/dictionary	0	0	0	--	0	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	0	--	0	0
Other: tutor shared her story while student wrote hers	0	1	0	--	0	0
Total	2	4	0	--	3	5

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\*-- represents student's absence

Table 11.3

*Frequencies of Attempts to Teach Writing for Undergraduate Janice*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	0	0	0	0	0	0
Organized ideas for writing	0	0	0	1	0	0
Literary techniques or author's ideas	0	0	0	0	0	0
Writing forms or genres	0	0	0	0	0	0
Revision – elaboration	0	0	0	0	0	0
Revision – refining or reorganizing	0	0	0	0	0	0
Editing – capitalization, punctuation, or spelling	0	0	0	0	0	0
Editing – word use, grammar, or syntax	0	0	0	0	0	0
Tutor did a think-aloud of own writing	0	0	0	0	0	0
Tutor used student's own writing during instruction	0	0	0	0	0	0
Tutor used published author's writing during instruction	0	0	0	0	0	1
Tutor took dictation from student	0	0	0	0	0	0
Tutor commented on what student wrote	0	1	0	0	0	0

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Tutor described what the student did well in his/her writing	0	0	0	0	0	0
Tutor commented on how the student could improve his/her writing	0	0	0	0	0	0
Tutor provided a writing or proofreading guide/dictionary	0	0	0	0	0	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	0	0	0	0
Other: illustrated what student does on a rainy day	0	1	0	0	0	0
Other: copied sentences from text	0	0	0	0	0	1
Total	0	2	0	1	0	2

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Table 11.4

*Frequencies of Attempts to Teach Writing for Undergraduate Nydia*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	0	1	1	0	3	0
Organized ideas for writing	0	0	0	0	0	0
Literary techniques or author's ideas	0	0	0	0	0	0
Writing forms or genres	0	0	0	0	0	0
Revision – elaboration	0	0	0	0	0	0
Revision – refining or reorganizing	0	0	0	0	3	0
Editing – capitalization, punctuation, or spelling	1	1	0	0	3	0
Editing – word use, grammar, or syntax	0	0	0	0	3	0
Tutor did a think-aloud of own writing	0	0	0	0	0	0
Tutor used student's own writing during instruction	1	0	0	0	3	0
Tutor used published author's writing during instruction	1	0	0	0	0	0
Tutor took dictation from student	0	0	0	0	0	0
Tutor commented on what student wrote	1	0	0	0	1	0

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Tutor described what the student did well in his/her writing	0	0	0	0	1	0
Tutor commented on how the student could improve his/her writing	0	0	0	0	1	0
Tutor provided a writing or proofreading guide/dictionary	0	0	0	0	0	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	1	1	1	0
Other: used pictures from student's library book	0	0	0	1	0	0
Other: used story hat for comprehension questions	0	0	0	0	0	1
Total	5	2	2	2	19	4

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Table 11.5

*Frequencies of Attempts to Teach Writing for Undergraduate Naomi*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	0	0	1	0	0	0
Organized ideas for writing	0	0	0	0	0	0
Literary techniques or author's ideas	0	0	0	0	0	0
Writing forms or genres	0	0	0	1	0	0
Revision – elaboration	0	0	0	0	0	0
Revision – refining or reorganizing	0	0	0	0	0	0
Editing – capitalization, punctuation, or spelling	0	0	1	0	0	0
Editing – word use, grammar, or syntax	0	0	1	0	0	0
Tutor did a think-aloud of own writing	0	0	0	0	0	0
Tutor used student's own writing during instruction	0	0	1	0	0	0
Tutor used published author's writing during instruction	0	0	0	0	0	0
Tutor took dictation from student	0	0	1	0	0	0
Tutor commented on what student wrote	0	0	0	0	0	0

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Tutor described what the student did well in his/her writing	0	0	0	0	0	0
Tutor commented on how the student could improve his/her writing	0	0	1	0	0	0
Tutor provided a writing or proofreading guide/dictionary	0	0	0	0	0	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	1	0	0	0
Other	0	0	0	0	0	0
Total	0	0	7	1	0	0

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Table 11.6

*Frequencies of Attempts to Teach Writing for Undergraduate Adriana*

Pedagogical Options Used During Writing Instruction	Weekly Frequency of Action					
	1	2	3	4	5	6
Generated ideas for writing	0	5	0	--	1	0
Organized ideas for writing	1	0	0	--	1	0
Literary techniques or author's ideas	0	0	0	--	0	0
Writing forms or genres	0	1	0	--	0	0
Revision – elaboration	0	0	0	--	0	0
Revision – refining or reorganizing	0	0	0	--	0	0
Editing – capitalization, punctuation, or spelling	1	1	2	--	0	0
Editing – word use, grammar, or syntax	0	0	0	--	0	0
Tutor did a think-aloud of own writing	0	0	0	--	0	0
Tutor used student's own writing during instruction	0	0	1	--	0	0
Tutor used published author's writing during instruction	0	0	0	--	0	0
Tutor took dictation from student	0	0	0	--	0	0
Tutor commented on what student wrote	0	0	1	--	0	0



Tutor described what the student did well in his/her writing	0	0	0	--	0	0
Tutor commented on how the student could improve his/her writing	0	0	0	--	0	0
Tutor provided a writing or proofreading guide/dictionary	0	1	0	--	0	0
Tutor read student's paper aloud so student could determine effectiveness	0	0	0	--	0	0
Other: used pictures student wrote about	0	0	0	--	1	0
Total	2	8	4	--	3	0

\*-- represents student's absence

For the purpose of analysis, the undergraduate pre-service teachers' frequencies of attempts to teach writing were collapsed into the following chart:

Table 11.7

*Frequencies of Attempts to Teach Writing for All Undergraduates*

Pedagogical Options Used During Writing Instruction	Frequency	
	First three weeks of tutoring	Last three weeks of tutoring
Generated ideas for writing	17	8
Organized ideas for writing	5	4
Literary techniques or author's ideas	0	0
Writing forms or genres	1	3
Revision – elaboration	0	0
Revision – refining or reorganizing	0	3
Editing – capitalization, punctuation, or spelling	27	8
Editing – word use, grammar, or syntax	1	5
Tutor did a think-aloud of own writing	2	0
Tutor used student's own writing during instruction	6	8
Tutor used published author's writing during instruction	3	2
Tutor took dictation from student	2	0
Tutor commented on what student wrote	5	3

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Tutor described what the student did well in his/her writing	0	2
Tutor commented on how the student could improve his/her writing	2	3
Tutor provided a writing or proofreading guide/dictionary	2	0
Tutor read student's paper aloud so student could determine effectiveness	2	5
Total	75	54

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The researcher also recorded the types of questions asked by the undergraduate pre-service teacher before, during, or after, reading. Of all of the questions asked, the *Right There* questions (Raphael, 1982, 1986) were used most frequently totaling 73.17% of all questions. The frequency did not decrease; however there was an increase of the higher level of questions. The six undergraduate pre-service teachers' individualized frequencies of the four types of questions are shown in Tables 12.1 to 12.6. Table 12.7 combines the first three weeks and the last three weeks to show the frequencies of the four types of questions of all six undergraduate pre-service teachers.

Table 12.1

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Amelia*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Asked <i>Right There</i> Questions	4	0	0	6	--	0
Asked <i>Think, Search, and Find</i> Questions	0	1	3	1	--	3
Asked <i>Author and Me</i> Questions	0	0	0	0	--	0
Asked <i>On My Own</i> Questions	0	0	0	0	--	0
Total	4	1	3	7	--	3

\*-- represents student's absence

Table 12.2

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Bess*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Asked <i>Right There</i> Questions	2	0	0	0	0	0
Asked <i>Think, Search, and Find</i> Questions	0	0	0	0	0	0
Asked <i>Author and Me</i> Questions	0	0	0	0	0	0
Asked On My Own Questions	0	0	0	0	0	0
Total	2	0	0	0	0	0

Table 12.3

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Janice*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Answered <i>Right</i> <i>There</i> Questions	9	0	0	6	0	0
Answered <i>Think</i> , <i>Search</i> , and <i>Find</i> Questions	2	0	0	0	0	1
Answered <i>Author</i> and <i>Me</i> Questions	0	0	0	0	0	0
Answered <i>On My</i> <i>Own</i> Questions	0	0	0	0	0	0
Total	11	0	0	6	0	1

Table 12.4

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Nydia*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Answered <i>Right There</i> Questions	2	2	1	5	4	6
Answered <i>Think, Search, and Find</i> Questions	1	0	0	5	1	0
Answered <i>Author and Me</i> Questions	0	0	0	1	0	0
Answered <i>On My Own</i> Questions	0	0	0	0	0	0
Total	3	2	1	11	5	6

Table 12.5

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Naomi*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week5	Week 6
Answered <i>Right</i> <i>There</i> Questions	0	2	0	4	4	3
Answered <i>Think</i> , <i>Search</i> , and <i>Find</i> Questions	0	0	2	0	2	0
Answered <i>Author</i> and <i>Me</i> Questions	0	0	0	0	0	0
Answered <i>On My</i> <i>Own</i> Questions	0	0	0	0	0	0
Total	0	2	2	4	6	3



Table 12.6

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by Undergraduate Adriana*

Types of Questions Asked	Frequency					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Answered <i>Right There</i> Questions	6	1	0	--	13	6
Answered <i>Think, Search, and Find</i> Questions	0	1	0	--	0	4
Answered <i>Author and Me</i> Questions	0	0	0	--	0	0
Answered <i>On My Own</i> Questions	0	0	0	--	3	0
Total	6	2	0	--	16	10

\*--represents student's absence

For the purpose of analysis, the undergraduate pre-service teachers' frequencies of the types of questions (Raphael, 1982, 1986) asked were collapsed into the following chart:

Table 12.7

*Frequencies of the Types of Questions (Raphael, 1982, 1986) Asked by All the Undergraduates*

Types of Questions Asked	Frequency	
	First Three Weeks of tutoring	Last Three Weeks of tutoring
Answered <i>Right There</i> Questions	29	58
Answered <i>Think, Search, and Find</i> Questions	10	17
Answered <i>Author and Me</i> Questions	0	1
Answered <i>On My Own</i> Questions	0	3
Total	39	79

**Phase two.** The objective of analyzing the observations in the second phase addressed the second research question: *What patterns of development are observed in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting?* This question required the researcher to re-examine the undergraduate pre-service teachers' patterns of epistemological and pedagogical development. The following patterns of epistemological and pedagogical development were observed: (a) the undergraduate pre-service teachers learned that effective materials needed to teach reading required other texts like nonfiction because they were more interesting and engaging, (b) the undergraduate pre-service teachers improved in developing effective lesson plans as their content knowledge increased through the processes of reasoning based on the needs of the learner, (c) the undergraduate pre-service teachers realized the importance of reading comprehension and acquired an awareness of reading strategies and practices to use before, during, and after reading, (d) the undergraduate pre-service teachers improved on modeling good reading and interacting more with the text, and (e) the undergraduate pre-service teachers gained experience in using multiple resources to gain reading content knowledge.

These changes in epistemology and pedagogy of the undergraduate pre-service reading teachers' were reflected in their instruction. The primary changes in instruction were the undergraduate pre-service teachers' focus on the needs of their young readers and the delivery and quality of their comprehension instruction. The following epistemological and pedagogical procedures reflected the undergraduates' developed perceptions about comprehension instruction.

- During the beginning stages of the tutoring sessions, students' only interaction with the text consisted of reading aloud a complete chapter or text with little teacher-student

interaction. The undergraduate pre-service teachers came to understand that reading comprehension was not the act of reading straight through from the beginning of the book to the end. The undergraduate pre-service teachers soon learned that if all they were going to do were read-alouds, then the young readers were not motivated to read or interested in the text;

- Due to the lack of experience and the lack of reading content knowledge at the beginning, the tutors did not know what to do to make this experience for the children purposeful and interesting. Throughout the course of the tutoring sessions, the tutors learned more about the young readers' interests, and they were able to plan effective lesson plans, model good reading, and become more involved with the text;
- During the early observations, the undergraduate pre-service teachers struggled with asking comprehension questions during or after the read alouds. The types of questions asked were Raphael's (1982, 1986) *Right There* questions, in which the answer is in the text. There was an increase in the *Right There* questions after the undergraduate pre-service teachers were informed by the course instructor that they could ask comprehensive questions throughout the reading of the text. As they got more comfortable asking questions, the amount of questions increased. There was also an increase in Raphael's (1982, 1986) *Think, Search and Find* questions in which the reader had to look in several different sentences to find the answer which is a more difficult task for struggling readers. As the undergraduate pre-service teachers used the text more to interact with the young readers, their comprehensive questions increased. There was also a small increase in Raphael's (1982, 1986) other two types of higher difficulty questions:

*Author and Me* questions in which the answers were not in the text, but are a combination of the information provided by the author and already known by the reader, and the *On My Own* questions wherein the answer is not in the text; and

- As the undergraduate pre-service teachers' gained more confidence in their lesson designs, their pedagogical reasoning for the type of activities to increase the young readers' comprehension changed from worksheets to activities such as games, making books, and graphic organizers.

Another area of change in the undergraduate pre-service teachers' instruction as their pedagogical confidence increased was their consideration of the knowledge the young readers were bringing into the lesson. Initially, the undergraduate pre-service teachers struggled with which topics to teach and how to teach them. As the undergraduate pre-service teachers' concerns shifted from guessing which activities the young readers may be interested in to activities based on interests that were shared by the young readers. These instructional changes were as follows:

- The undergraduate pre-service teachers used nonfiction texts that the young readers connected with either through personal experiences or topics of interest;
- The young readers were provided instruction on what to do when they approached a word they could not read like sounding out the words instead of the undergraduate pre-service teachers telling them the unknown words. The undergraduate pre-service teachers learned how to guide the young readers throughout their reading;
- The undergraduate pre-service teachers modeled for the young readers how to improve their vocabulary by using context clues, pictures, and the glossary; and

- The undergraduate pre-service teachers allowed opportunities for the young readers to share their background knowledge about a topic before reading the book. The undergraduate pre-service teachers learned the importance of the text discussion between teacher and student.

### **Evidence in the Artifacts**

The researcher used the collected artifacts to support findings made from the analysis of the interviews and observations. The collected artifacts included 33 lesson plans written by the undergraduate pre-service teachers. The researcher labeled all artifacts with the undergraduate pre-service teachers' initials and the date. Initially, identifying the instruction as comprehension, word analysis, or writing instruction became somewhat of a challenge for the researcher because activities were not labeled. As the tutoring sessions continued, the undergraduate pre-service teachers began to follow a lesson plan template, which made it easier for the researcher to identify the different sections of the lessons. The researcher discovered that what the undergraduate pre-service teachers were calling writing was actually an activity requiring the young readers to fill in the blanks with the correct answer, or making a list of words the young readers could not read independently. The lesson plans served in assisting the researcher in identifying what the undergraduate pre-service teachers thought they were teaching. The findings previously stated in the interviews and observations were supported by the collected artifacts.

### **Evidence in the Field Notes Journal**

The researcher's field notes journal was used to record statements, practices, discussions, and actions of the participants. The field notes journal served the function of supporting the researcher in gathering and recording additional information to support her findings. There were three re-readings of the field notes journal by the researcher. The researcher first read her notes

to become familiar with the ideas recorded in the journal. The second time the researcher read the journal searching for information that might help her support her claims. During third re-reading the researcher was searching for answers to the following questions:

- Were there any patterns?
- Were there any experiences recorded that supported repeated words, phases, practices, and topics in the data?
- Were there any recorded experiences during the interviews that supported any ideas stated or action taken by the interviewees?
- Was there any promising subject matter in the recorded experiences?
- Were there other recorded experiences that captured some returning phenomenon in the data?

The findings are reported in the following section which answers these questions and were used for discussion in Chapter Five.

The recorded ideas and evidence within the field notes journal did support the findings of the researcher. The following ideas were noted in the field notes journal:

- The undergraduate pre-service teachers' concerns about writing lesson plans and planning activities that will help their young readers improve their reading;
- The undergraduate pre-service teachers' concerns about not having enough instructional time to cover all of the areas required on the lesson plan;
- The undergraduate pre-service teachers' struggles with teaching comprehension and how to ask questions to check for understanding; and

- The undergraduate pre-service teachers' gratitude for the whole group reflections and guided questions discussions.

### **Summary of Chapter**

The findings of this study were presented in this chapter and organized into the four following parts: (a) interview findings, (b) observation findings, (c) evidence in the artifacts, and (d) evidence in the field work journal. The researcher was the primary data collection tool for this study. She collected through the following three sources: (a) interviews, (b) observations, and (c) artifacts. Furthermore, the researcher used a field notes journal which functioned as a means of examining the researcher's interpretations.



## CHAPTER V: CONCLUSIONS AND RECOMMENDATIONS

### **Organization of Chapter**

The findings of this study and the researcher's conclusions will be discussed in this chapter. This chapter includes into the following components: (a) overview of study, (b) research question one—changes in initial ideas about literacy instruction among undergraduate pre-service teachers, (c) research question two—patterns of epistemological and pedagogical development, (d) research question three—effects of intervention on literacy practices, (e) content knowledge revisited, (f) implications, and (g) recommendations for future studies.

### **Overview of Study**

Data collection tools for this study included interviews, observations, and artifacts, which were organized and analyzed as multiple case studies. The researcher kept a field notes journal which served the function of supporting the researcher in gathering and recording additional information to support her findings. The proceeding section provides the researcher's conclusions to the following three research questions:

1. How do undergraduate pre-service teachers' initial ideas about literary instruction change from the beginning to the end of their tutoring experience?
2. What patterns of development are observed in undergraduate pre-service teachers' epistemological and pedagogical development while tutoring in a university-based reading setting?
3. How does intervention affect the instructional literacy practices as undergraduate pre-service teachers experience epistemological growth?

### **Research Question One**

**Changes in initial ideas about literacy instruction.** The researcher identified five concepts of the six undergraduate pre-service teachers' initial ideas about literacy instructions that address the research question one: *How do undergraduate pre-service teachers' initial ideas about literacy instruction change from the beginning to the end of their tutoring experience?*

***First concept of literary instruction.*** The first concept of literary instruction of the undergraduate pre-service teachers dealt with the undergraduate pre-service teachers' beliefs that teaching reading involved the young readers reading aloud while the pre-service teacher sat and listened passively. Initially, the undergraduate pre-service teachers asked few comprehension questions after the reading of the text. Worksheets were used to check for comprehension.

These initial activities supported Durkin's study (1979) in relation to teachers' misconceptions about how to check students' reading comprehension. Durkin (1979) reported little instruction that incorporated comprehension strategies that required more critical thinking. In Durkin's study, teachers made claims about valuing the importance of comprehension instruction and believed that they had included comprehension as part of the reading instruction when they were asking literal and teacher-generated questions. Their comprehension instruction also included assigning and checking practice sheets in workbooks and on ditto sheets with the emphasis on the literal. Bess still believed that students needed support and encouragement with their reading, but realized that her young reader wanted more than a worksheet to keep her busy. Durkin expressed that there is a difference between testing for literal understanding and teaching reading to students in order to "construct" meaning.

Later interviews revealed a change in the six undergraduate pre-service teachers' concepts for reading instruction. During the final interviews, the undergraduate pre-service teachers indicated that they realized that other factors needed to be included in their reading

instructions such as (a) knowing their young readers' topics of interest, (b) understanding how much the young reader already knew about the information being taught, and (c) including hands-on activities on their instructional reading levels that were more engaging and fun. In support of including topics of students' interests, Guthrie, Wigfield, Humenick, Perencevich, Taboada, and Barbosa's (2006) study found that a high number of stimulating tasks, in fact, increased student motivation, which had a positive effect on student reading comprehension. Nonetheless, these tasks must be connected to the content of texts and students' interests in order to increase their motivation to read. Initially, the young readers sat unresponsively when they were asked to retell what they read. Later during the tutoring, as the undergraduate pre-service teachers planned according to the young readers' interests, the young readers' engagement with the planned activities guided the undergraduate pre-service teachers in identifying the specifics that needed to be taught and the adjustments that needed to be made in order to meet their young readers' instructional needs. According to Guthrie and Wigfield (2000), behavior is activated through motivation. A central factor that affects students' reading performance is their attitude toward reading.

By the end of the tutoring sessions, the undergraduate pre-service teachers began to understand what it really meant to plan based on students' interests in order to motivate them to understand and learn from the text. Additionally, this movement of the undergraduate pre-service teachers connects to what Vygotsky (1978) refers to their "zone of proximal development" in which opportunities for literacy for students would be slightly above what they can do for themselves and just challenging enough to encourage learning. Amelia noticed how her activities had changed throughout the tutoring sessions and how they became more involved and creative by the last tutoring session.

Later in the study, the undergraduate pre-service teachers realized that reading instruction required much more involvement from the tutor with both the planning process and with the execution of the reading lesson. The researcher questioned the undergraduate pre-service teachers' pedagogical reasoning pertaining to their instructional choices. Fuller and Brown (1975) listed three stages of early teaching experienced by novices: (a) survival, (b) situation concerns, and (c) pupil concerns. These stages were supported by the undergraduate pre-service teachers' initial instructional choices. The undergraduate pre-service teachers struggled with concerns of what to teach and how to teach it; using worksheets was easier when they had other matters to address such as time management, short attention spans, and negative attitudes toward reading. Worksheets were also easy to find and simple to assign.

All six of the undergraduate pre-service teachers realized that reading instruction also needs to include materials on students' instructional reading levels to improve comprehension. The six undergraduate pre-service teachers discussed how more involved the young readers were when they chose topics of their interests, which led to further discussions about what they read. Two of the undergraduate students did not provide instructionally appropriate reading materials for their young readers until the last tutoring session. Janice and Naomi, throughout the duration of the study, selected texts based on what other teachers used to cover certain reading skills. By the last tutoring session, they both had begun to select nonfiction texts on topics of their young readers' interests. Both of these undergraduate students relied heavily on activities from the Internet. However, during their last tutoring sessions, they both realized the positive effects that adequate texts had on students' interest in reading and discussions of the text. Initially, Janice had difficulty finding materials on her young reader's instructional reading level, but by her last

tutoring session, as she selected topics of her young reader's interests, he was less hesitant in attempting to read with her guidance.

***Second concept of literary instruction.*** The second concept of the undergraduate pre-service teachers' initial ideas of literary instruction of this study dealt with the skills and content knowledge that needed to be taught in order to help their young readers read fluently and with good comprehension. Torgensen, Houston, Rissman, and Kosanovich (2007) stated that helping students acquire the skills and knowledge needed to read fluently on grade level with good comprehension is the most important goal of reading instruction. They also reported that careful linking of different kinds of skills and knowledge must be incorporated by teachers in their reading instruction. The undergraduate pre-service teachers realized that phonemic awareness and phonics were skills students should acquire to be successful readers, but due to their lack of experience in teaching reading, the pre-service teachers were overwhelmed with making pedagogical decisions about where to begin and which activities to implement.

According to Schonwetter, Dieter, Sokal, Friesen, and Taylor (2002), a teacher should have a philosophy of teaching and learning because it guides teaching behaviors, promotes personal and professional growth, and encourages effective teaching. Even though the undergraduate pre-service teachers were aware of letter-sound relationships, they were unclear about how to take their young readers' word analysis skills to the next level and did not know how to use questioning and discussions to help build accuracy, fluency, and comprehension. According to Phelps & Schillings (2004), there are many subtleties in the structures of words that most content area teachers are unaware of who do not teach reading. This was clearly a factor that caused frustration and uncertainty among the undergraduate pre-service teachers.

***Third concept of literary instruction.*** The third concept of this study dealt with the materials needed in order to teach reading effectively. A major finding among the undergraduate pre-service teachers dealt with the types of materials that affected the young readers' attitudes and interests. Children should be exposed to fictional stories and to texts and nonfiction books that are not in story form (Duke, Bennett-Armistead, & Roberts, 2002). Initially, the undergraduate pre-service teachers listed fictional books as materials needed for teaching reading; however, by the end of the tutoring sessions, they realized the impact that nonfiction books had on their young readers.

Naomi mentioned that she always thought that children were more interested in reading fiction books. During the first few sessions, Naomi selected leveled books that she believed were appropriate for her young reader, yet, her student continued to struggle with the text. Choosing appropriate materials is important because research suggests it is critical for developing early readers to be challenged at their precise level (Fountas & Pinnell, 1996). By the last tutoring session, Naomi realized that her young reader was more interested in reading a nonfiction text because it intrigued her to want to continue reading to learn more. Therefore, leveled books for struggling readers should also be matched according to topics of interests and not limited only to the reading level of the books. Naomi also realized that she could get her young reader more involved with the nonfiction text. Initially, she believed that fiction text books would be fun, but after using both fiction and nonfiction, she learned that her young reader was more engaged with the nonfiction text. By the last tutoring session, all of the undergraduate pre-service teachers realized the positive effect nonfiction texts had on their young readers' attitudes toward reading and interests in the text.

***Fourth concept of literary instruction.*** The fourth concept of this study dealt with undergraduate pre-service teachers' struggles with questioning their young readers for comprehension. Initially, the young readers were asked to tell about what they read in the text. However, the young readers were not asked appropriate comprehension questions to guide their thinking until the course instructor informed the undergraduate pre-service teachers during guided questioning that they did not have to wait for the young reader to read the selected material in its entirety before checking for understanding. Research supports the claim that instructions that teach students comprehension strategies are effective at helping them understand the texts they read (Duke & Pearson, 2002; National Institute of Child Health and Human Development [NICHD], 2000; Pearson & Fielding, 1991; Pressley, 2000). Unfortunately, researchers have found that many classrooms do not include comprehension instruction (Durkin, 1979; Pressley, 2002a). Comprehending a text has to be an active, intentional thinking process in order for the reader to construct meaning (Alexander & Jetton, 2000; NICHD, 2000).

By the last interview, the undergraduate pre-service teachers realized that they did not have to wait until the entire text was read to have discussions or ask comprehensive questions. The undergraduate pre-service teachers realized that questioning and discussing the text were also processes that needed to be included before, during, and after their reading instruction.

***Fifth concept of literary instruction.*** The fifth concept of this study dealt with the undergraduate pre-service teachers making the connection between reading and writing. Initially, the undergraduate pre-service teachers were not sure how to plan for their writing, nor did they understand why they had to include writing in their lesson designs. Initially, the young readers were asked to write about what they did during their tutoring sessions. The undergraduate pre-

service teachers observed how the young readers hesitated about what to write. Liebling (1998) stated that beginning readers and writers' instructional practices should include (a) learning centers, (b) a print-rich classroom environment, (c) oral language activities, (d) phonemic awareness, (e) alphabet recognition and writing, (f) shared, interactive storybook reading, (g) daily guided reading activities, (h) independent reading, (i) shared writing activities, and (j) independent writing activities.

The independent writing should offer opportunities to write stories, letters, and informational text, and opportunities to share writing with peers in conferences and writing clubs are encouraged. By the last interview, a majority of the undergraduate pre-service teachers realized that the young readers were more willing to write about the facts they learned from their nonfiction texts. This attitude provided the undergraduate pre-service teachers with insights on how writing supports their spelling and word analysis instructions. Their initial beliefs about reading instruction, except for Naomi, did not include writing as a part of the reading process. Amelia learned how writing and reading could be taught together and how her modeling reading and writing helped her student experience success in both areas. Throughout the course of the study, Bess had learned to model good reading to her student, to use manipulatives to build vocabulary, to integrate writing with the text, and interact more with her young reader. Bess had learned to use nonfiction books, graphic organizers, and have her young reader write responses about the reading.

## **Research Question Two**

**Patterns of epistemological and pedagogical development.** Patterns of pedagogical and epistemological development were observed in this study to address research question two: *What patterns of development are observed in undergraduate pre-service teachers' epistemological*



*and pedagogical development while tutoring in a university-based reading setting?* These patterns were organized into two categories for discussion: (a) patterns linked to common pedagogy and epistemology with reading instruction, and (b) patterns of reading instruction linked to Shulman's (1987) Model of Pedagogical Reasoning and Action. The researcher recognized four patterns linked to common pedagogy and epistemology with reading instruction and three patterns of reading instruction linked to Shulman's (1987) Model of Pedagogical Reasoning and Action. The following section discusses the patterns observed in the two categories.

***First pattern linked to common pedagogy and epistemology in reading instruction: Concerns dealing with specific needs of students.*** The first pattern observed in this category of the study dealt with the six undergraduate pre-service teachers concerns about making the decision of which specific needs to address. Janice was concerned about not correctly administering the Bader *Reading and Language Inventory* (Bader & Pearce, 2009) and misdiagnosing her young reader's strengths and weaknesses. Adriana was knowledgeable about assessing and choosing the appropriate skills and activities, but struggled with finding engaging activities that would help her young reader improve her reading skills. Nydia's young reader was an English Language Learner (ELL), so improving both her English language and reading skills were challenging tasks for her. She, too, struggled with finding engaging activities that would keep her young reader's attention and address the reading and English language skills that needed to be taught. After spending more time with their young readers, all of the undergraduate pre-service teachers realized that their young readers' interests and background knowledge could guide them with planning their lessons and in choosing appropriate reading materials and activities.

This type of pedagogy is considered learner-centered (McCombs, 2001), in which knowledge is being constructed through active participation. The undergraduate pre-service teachers' new knowledge about the difficulty of teaching reading influenced their beliefs concerning the challenges they faced in trying to identify the specific areas that would help their young readers improve their reading. Hofer (2002) defines epistemology as being "concerned with the origin, nature, limits, methods, and justification of human knowledge" (p. 4). Because the undergraduate pre-service teachers' pedagogical knowledge consisted on discrete facts, Schommer (1990) referred to this knowledge as simple knowledge.

The undergraduate pre-service teachers' knowledge about teaching reading consisted of personal experiences and information learned in their college courses. They entered their tutoring sessions with a vision of teaching reading, but due to a lack of content knowledge, they had difficulty with delivering of reading instruction. Amelia's initial concepts of literary instruction changed throughout the course of the study as she learned reading strategies that would address her young reader's specific reading needs. This new knowledge helped her change her lesson plans from fun activities that had no effect on the young reader's reading to student-centered lesson plans that were based on her young reader's interest and used more interesting and engaging materials.

Initially, Bess was not sure about which activity to use with her young reader because she was unfamiliar with the terminology being used in class. Bess said there were activity books that she could purchase, but she didn't know which of the activities to use if she wanted to teach her student to blend sounds. After hearing other students and the course instructor during guided questioning share different types of activities, then Bess learned which of the activities targeted specific skills. This learned knowledge helped her use the reading activities books more

effectively with her young reader. Being a math major, Bess was not aware of the fact that there were different reading strategies to use to improve particular reading skills. Nydia learned that worksheets were not the appropriate materials to use to improve comprehension. She learned different hands-on activities that were interesting to her student and would keep her attention. Nydia was not able to identify the specific reading strategies that she used, but she was able to identify which reading skills her activities targeted.

Janice struggled with adjusting certain reading activities to her young reader's grade level. However, Janice believed this tutoring experience helped her understand that her young reader needed more involvement with her reading activities besides just sitting there and reading aloud. According to Janice,

It [this experience] made me think a little bit more. Even though it was six weeks, it was enough to be like I need to work on this, and then you have to teach yourself that or teach ways to do it because I would look it [reading strategies] up and it would be this [not her young reader's] grade level, so how do you simplify it down to their grade level?

Janice told the researcher that she thought she was finally understanding her young reader's needs and how to use the reading and writing activities to help her young reader improve his reading performance. This response supports the fact that learners are "not just responding to stimuli, as in the behaviorist rubric, but engaging, grappling, and seeking to make sense of things" (Perkins, 1992, p. 49).

***Second pattern linked to common pedagogy and epistemology in reading instruction: Teaching reading skills to students.*** The second pattern observed in this category of the study dealt with the undergraduate pre-service teachers' new knowledge about teaching reading skills their young readers needed to master in order to be successful readers. The undergraduate pre-

service teachers had realized that they were teaching for a purpose and not just for the act of teaching. According to Phelps and Schillings (2004), researchers focus on what teachers know or need to know about the “content” of reading such as the knowledge of the text, language, reading process, and how this knowledge is used in practice. However, teachers must possess explicit knowledge of language and text if beginning readers are to benefit from explicit opportunities to learn about the language and text elements that make up words (Moats, 1999; Wong-Fillmore & Snow, 2002). In this study, the undergraduate pre-service teachers’ lack of this knowledge influenced their decisions on what to teach and the depth in which they guided their young readers.

Bess’s initial concepts about instructional materials definitely changed by the end of the course such as writing plans and she learned that reading requires more materials other than books, whiteboards, and markers. Bess would take the information that was shared from the other undergraduate pre-service teachers during their guided questioning and try it with her young reader without taking into consideration the skills her young reader needed. Bess neglected to focus on improving the specific skills that would help her young reader. The researcher also observed an increase in Bess’s content knowledge in reading. With math being Bess’s course of interest, reading to her meant having many books available on an area carpet for students to read. At the time, she could not understand what reading had to do with math and why she had to take this reading course. Bess had not realized the connection between reading and math. According to Bess, “Reading is fundamental and now I get it.” Bess said she recognized that reading entails details, main idea, plots, and endings. She learned about activities like the hamburger bun to record the topic, details in the middle, and the conclusion at the end and the cloze procedure to assess a student’s reading.

Throughout the course of the study, Janice realized to the fact that she still had much to learn, so she continued researching different activities. She had difficulty transforming the activities to her student's performance level. She focused more on activities and less on her young reader's interests. According to the researcher's observations, Janice missed many opportunities to build her young reader's confidence and felt like she was not making a difference due to her lack of reading content knowledge.

Initially, Nydia had worksheets for her young reader to fill out. She said she realized that she needed to have a balance with the types of activities used in her lessons. She recognized that filling out a worksheet was not allowing her to effectively interact with her young reader. Throughout the course of the study, there was a growth in her epistemological development. She provided more guided reading activities and effective modeling. By the last tutoring session, Nydia realized that she needed to make her lessons interesting and that reading should be purposeful. Initially, Nydia had worksheets for her young reader to fill out, but later realized that she needed to have a balance with the types of activities used in her lessons.

***Third pattern linked to common reading instruction pedagogy and epistemology:***  
***Dealing with what to teach and how to teach it.*** The third pattern observed in this category of the study dealt with the six undergraduate pre-service teachers concerns about what to teach and how to teach it. The undergraduate pre-service teachers had assessed their young readers and identified their reading strengths and weaknesses, but they went into their first tutoring sessions not knowing the prior knowledge their young readers brought with them to their sessions, and if what they planned to teach would actually facilitate learning.

Because learning is an active process of constructing knowledge and making sense, the undergraduate pre-service teachers struggled with which skills to start and how to approach those

skills through instruction. Reading teachers must determine what to do when a student misreads words—should they tell the student the word or point out some features of the word, such as asking the student to sound it out, compare it to another word, think about the context, or something entirely different (Phelps & Schillings, 2004). Reading decisions made depend on the teachers' knowledge of the subtleties of word and text structure (Phelps & Schillings, 2004). Initially, the undergraduate pre-service teachers were telling the students the misread words, but toward the end of their tutoring experiences, they were encouraging their young readers to sound out the words and use the pictures or context clues to help them identify unknown words.

Initially, Janice lacked the skills needed to keep her young reader engaged and the knowledge of activities to build upon his fluency and writing skills. Instead of teaching word families to increase her young reader's word recognition skills, Janice made the decision to use a list of phrases to increase his fluency. She chose to continue to use the list of phrases even though her young reader struggled to read them independently. The list of phrases may have been an appropriate activity for increasing fluency, but her young reader was not developmentally ready for this type of activity. Janice struggled with the concept of not knowing if she was addressing what needed to be taught. However, she lacked the knowledge and skills needed to get him to complete the activity independently with success.

According to Leinhardt (1992), learning is a combination of what you know with what is taught: making connections with prior knowledge and new information. In this study, the undergraduate pre-service teachers struggled with the concept of making a connection with their new knowledge learned about teaching reading with the appropriate reading skill that would help their young readers develop better reading skills.

***Fourth pattern linked to common reading instruction pedagogy and epistemology:***

***Concerns dealing with balanced learning.*** The fourth pattern observed in this category of the study dealt with the six undergraduate pre-service teachers' concerns about struggling students. According to Powell (1991), discussions of school readiness have been greatly influenced by the perspectives of three theories of child development and learning. One group of theorists, the environmentalists, believes young children develop and acquire new knowledge by reacting to their surroundings. When they do not succeed, these children are often labeled as having some form of learning disabilities, so they are assigned to classrooms with specific curriculum where their behaviors and responses are controlled. A second group of theorists, the maturationists, believe young children's performance may indicate that they need more time to acquire knowledge and skills needed to perform at the level of their peers. A third a group of theorists, the constructivists, believe if children experience difficulties in the learning process, they should be given individualized attention and provided differentiated classroom curriculum. The undergraduate pre-service teachers in this study tutored young readers who could have possibly been labeled with a reading disability, needed extended time to complete their assignments, and assigned modified activities.

The undergraduate pre-service teachers were challenged to provide and design instruction to help address their young readers' learning problems, but they also wanted to maintain balanced learning with engaging and fun lessons. Due to their lack of experience with teaching reading, the tutors in this study were confronted with limitations of only knowing how to teach a few reading skills based on how they were taught as students themselves or based on the influences of classrooms teachers or course instructors. Adriana mentioned that she needed to balance her instructions because teaching reading included a variety of reading skills to teach

with such limited time. Due to her lack of teaching reading experience, the amount of time to allot to each activity was a challenge because she wanted to make sure that she was addressing the appropriate areas of need. This concept of new knowledge as it related to balance in reading instruction is addressed by Fitzgerald's (1999) three principles of balanced literacy approach. First, teachers have to develop students' skills knowledge, such as decoding skills and strategy knowledge for comprehension. Second, teachers have to develop instructional approaches such as phonics and reading workshops. Third, teachers have to develop a variety of reading materials from trade books to leveled books with controlled vocabulary.

Janice expressed to the researcher that all of the time and effort in planning for her young reader was a "waste of time" because she could not figure out how to help improve his reading fluency. It seemed that everything she planned was too hard for him. He did not want to read or write. He was not successful with answering any of the comprehension questions. She even planned an activity with a children's literature book that was successful for an experienced teacher who shared her lesson online. Her student was not interested in reading or listening to the story, but did attempt the activity. The activity was a graphic organizer in the shape of a fish and events from the story were written on scales from the fish's body. Her young reader was asked to write his responses on the scales, but he chose to dictate responses. After this lesson, Janice was encouraged to use more books on fish, but she used a nonfiction text during the next tutoring session at the request of the course instructor. The student not only discussed the book, he asked if he could copy sentences from the text. Janice had not made the connection that her student was a very weak speller and asking him to write independently was not a task he could achieve successfully.



The undergraduate students' young readers needed more guided instruction than what the tutors were initially providing due to their lack of experience. The undergraduate pre-service teachers did not recognize their young readers' lack of motivation or ability to achieve the planned tasks during the tutoring sessions.

**Patterns linked to Shulman's (1987) model of pedagogical reasoning and action.** The undergraduate's pedagogical decisions were categorized for examination according to Shulman's (1987) Model of Pedagogical Reasoning and Action: *comprehension*—understanding subject matter, *transformation*—reconfiguring subject matter knowledge for teaching, *instruction*—active teaching discovery or inquiry, *evaluation*—assessing of student and teacher accomplishments, *reflection*—analyzing one's teaching performance, and *new comprehension*—understanding new subject matter. The researcher used this process of categorizing to identify and compare the development of epistemological patterns of the undergraduate pre-service teachers within a variety of stages of pedagogical reasoning.

Three patterns were observed in this study that related to Shulman's (1987) Model of Pedagogical Reasoning and Action. According to Shulman (1987), teachers need the special subject matter knowledge for teaching in which their competencies include understanding students' learning difficulties and knowing ways to overcome these difficulties.

***First pattern linked to Shulman's (1987) model of pedagogical reasoning and action: Lack of applying the process of transformation.*** The first pattern found in this category of the study was a lack of the undergraduate pre-service teachers' application of *transformation* which affected the following activities within reason. For example, Janice wanted to improve her student's fluency by using technology because he did not respond well to the children's literature selected for the previous tutoring session. Janice's concern for her young reader's response to the

materials she used in their previous tutoring session was evidence of evaluation of her young reader's performance, and her choice to use a website of poetry on the laptop was evidence of her awareness of knowledge for effective materials that would enhance her reading instruction. However, through observation, the researcher clearly saw that Janice had neglected the process of *transformation*. Janice believed that her young reader would respond positively to technology, but her choice of poetry was difficult for her young reader to read—just the same as the material chosen for the previous tutoring sessions.

Due to Janice's lack of experience in teaching reading, she did not notice that the level of the reading materials selected to help build the young reader's fluency was on his frustrational level rather than on his instructional reading level; she was unable to apply the process of *transformation*. Janice recognized the frustration that her young reader was experiencing, but did not make the connection that the text chosen was too difficult for him to read. Moreover, Janice's inability to transform the subject matter to meet her young reader's needs affected her *instruction* which in turn affected her *evaluation, reflection, and new comprehension*. This reaction is evidence that the lack of implementation of one of Shulman's (1987) activities does have an effect on the remaining activities.

***Second pattern linked to Shulman's (1987) model of pedagogical reasoning and action: Not manipulating subject matter.*** The second pattern found in this study in reference to Shulman's (1987) Model of Pedagogical Reasoning and Action was the lack of the undergraduate pre-service teachers manipulating subject matter to improve their young readers' reading performance. During the interviews, the undergraduate pre-service teachers were not able to share how they would use the materials chosen for their activities' *instruction* to help their young readers' learn the skills needed to help them improve their reading performance. For

example, Adriana selected children's literature and activities that did not have a common theme. The books were for Adriana to read aloud to her young reader or vice versa. The reading activities were selected for the sake of having something to do with her young reader, but the activities did not coincide with the information read. Initially, Adriana did not have a specific reading objective that the texts and activities supported, and she recognized this disconnect as the tutoring sessions progressed. At the beginning of the tutoring sessions, Naomi chose to help her young reader with her assigned spelling words. Throughout the course of the study, Naomi realized that the spelling words did not support the reading materials used during the tutoring session nor did she include prepared activities for the spelling words because Naomi did not have access to the words prior to the tutoring sessions. Most of the time, the spelling list required time from the tutor's instruction because Naomi was not properly prepared with a dictionary to aid in the pronunciations or meanings of the words. Naomi became uncomfortable with the spelling list because she could not justify a common pattern among the words or was not familiar with some of the words; therefore, really Naomi had no purpose in teaching the spelling words.

By the end of the tutoring sessions, all of the undergraduate pre-service teachers realized the activities and materials chosen would have an effect on their young readers' learning; therefore, they put more thought into the activities planned, but they showed no evidence of purposeful transformation of subject matter in their reading instruction to address their young reader's individual needs.

A primary focus for revisiting Stephanie Ann Grote-Garcia's (2009) study was to rearrange the time for tutoring sessions from the end of the class to the beginning of class and provide intervention with the course instructor for immediate feedback directly after each tutoring session that would help the undergraduate students prepare better lessons for the

following week. A major finding in Stephanie Ann Grote-Garcia's (2009) study was the undergraduates' initial lack of concern with transforming subject matter. This same finding with Shulman's (1987) *transformation* of subject matter among the undergraduate pre-service teachers was evident in this study.

***Third pattern linked to Shulman's (1987) model of pedagogical reasoning and action:***

***Application among the six activities.*** The third pattern found in this category of the study in relation to Shulman's (1987) Model of Pedagogical Reasoning and Action revealed that the undergraduate pre-service teachers' application of the six activities did not follow a certain order. Shulman (1987) acknowledged that his Model of Pedagogical Reasoning and Action can occur in a different order because they are not a set of fixed stages, phases, or steps. Through an analysis of the interviews and observations, the undergraduate pre-service teachers' reasoning about pedagogy did not have a particular order. For example, Bess skipped Shulman's (1987) *comprehension* activity and went directly to Shulman's (1987) *instruction* activity. She received ideas from other undergraduate pre-service teachers and planned her lessons accordingly. The activities' *instruction* appeared to be fun and engaging, but she lacked the forethought to design her reading instructions based on her knowledge about reading instruction *comprehension* or addressing the needs of her young reader—*transformation*. Similarly, Nydia spent a majority of the tutoring sessions with her reading *instruction* activities which had an effect on her *evaluation*, *reflection*, and *new comprehension* activities. By the last tutoring session, Nydia realized that more time throughout the course of the study was used for making projects and less time was used to address her young reader's reading needs. There was no evidence of Nydia's application of Shulman's *transformation* activity. Because so much time was used for the

*instruction*, Nydia did not allow herself to apply Shulman's *evaluation*, *reflection*, and *new comprehension* activities throughout the course of the study.

### **Research Question Three**

**Effects of intervention on pre-service teachers in this study.** The purpose of this study was to observe the epistemological and pedagogical growth of six undergraduate pre-service teachers. This study involved participants tutoring during the course READ 3351: *Diagnosis and Correction of Reading Problems* classes followed by a course instructor intervention, guided questioning; this addressed research question three—*How does intervention affect the instructional literacy practices as undergraduate pre-service teachers experience epistemological growth?* Each undergraduate pre-service teacher was assigned a young reader to tutor for 75 minutes. After each tutoring session, the undergraduate pre-service teachers met in groups to reflect, share, and discuss their experiences teaching reading.

The specified intervention involved dividing the class into groups of six students to discuss their tutoring experiences and reflect on their reading instruction. During these reflections, the course instructor lead a group discussion with a guided question concerning patterns observed within the tutoring sessions. The researcher had previously provided the course instructor with a menu of guided questions that could be discussed with each group of undergraduate students about the reading strategies and children's literature used during that particular tutoring session. Tutoring is already a component of the READ 3351 course; the specific instructor intervention of guided questioning was the modified component to the course.

Research suggests that pre-service teachers base their initial reading practices on personal literacy experiences (Duffy & Atkinson, 2001). According to Richardson (1996), "Pre-service teacher education seems a weak intervention. It is sandwiched between two powerful forces—

previous life history, particularly that related to being a student, and classroom experience as a student teacher and teacher” (p.113). Nonetheless, the practice and philosophy of beginning teachers could be influenced by pre-service teachers’ education in literacy (Anders, Hoffman, & Duffy, 2000). Researchers in previous studies have drawn attention to the importance of pre-service teachers having hands-on experience when working with struggling readers (Broadus & Bloodgood, 1999; Roskos & Walker, 1994).

This position is supported by the responses and reactions that guided questioning had on the undergraduate pre-service teachers in this study. Overall, the undergraduate pre-service teachers in this study believed that the specific instructor intervention, guided questioning, provided immediately after each tutoring session aided them in planning better lesson plans for the next tutoring session.

The undergraduate pre-service teachers valued the course instructor leading their discussions with guided questions pertaining to areas of instructional concerns. The undergraduate pre-service teachers welcomed the guided discussions for many reasons. Adriana thought the guided questioning allowed her to see whether the direction she was taking was right or not, which helped her to see how she could improve her instruction, so she could prepare for the next session. Janice stated that the group reflection and course instructor’s intervention “helps you think a little bit more...a little bit more in-depth.” According to Nydia, the group reflections and discussions with the course instructor “helped us...we learned from our mistakes...and things we did right. The feedback helped us know whether we’re on the right tracks or we’re completely missing the ball.” Bess believed that the discussions helped the undergraduate students who were “shy to ask a question out loud...or feel like they are saying something dumb...or they should know the answers already.” Naomi thought the feedback was

“very helpful.” Amelia said she “learned a lot from the other people and the different things they were doing.” Unfortunately, Amelia did not think that the guided questions addressed by the course instructor “pertained” to her during a particular lesson.

The course instructor informed the researcher that she appreciated the group discussions and guided questions because this study required her to be cognizant of patterns and teaching methods that needed to be addressed in order to help tutors plan effectively the following week. The intervention kept her focused on which reading strategies and instruction to discuss. Initially, the course instructor hesitated with the modification of the tutoring times because when she taught the tutors taught the course previously, the tutors met at the beginning of the class. Throughout the course of the study, however, she recognized the positive impact of allowing the undergraduate students time to reflect on their lessons with others in their groups and to discuss comprehension, word analysis and writing instructions immediately after each tutoring session.

In Grote-Garcia’s (2009) study, throughout the course of the participants’ tutoring experience, their perception of reading instruction changed. Like the participants in this current study, Grote-Garcia’s (2009) participants began to perceive reading instruction as being more complex than they first believed. They learned that reading instruction consisted of more than simply answering comprehension question. They also realized the following about reading instruction:

- Needed to add to the student’s prior knowledge
- Should be child-centered
- Should include books on child’s instructional level (Grote-Garcia, p. 136)

Grote-Garcia (2009) reported in her study, that some of her participants believed their tutoring experience increased their own reading ability and their interests in children literature. Tutoring also changed some of the participants' attitude toward reading. Before their experience tutoring, they did not enjoy reading. After their involvement with the University-based reading clinic, their interest in children's literature increased.

### **Content Knowledge Revisited**

Teaching reading is not simple and requires more than being able to read and a love for books (Moats, 2001). According to the International Reading Association (2003), new teachers need to be knowledgeable, responsive, adaptive, reflective, and strategic. In order for teachers to plan appropriate lessons, students' reading behaviors need to be analyzed (Anders, Hoffman, & Duffy, 2000). Teachers need to enter the classrooms with a more specific set of knowledge and skills than in the past (Hoffman & Pearson, 2000; Ogle, 2008). This section takes a closer look at development of the participants' content knowledge and compares developmental processes to the proposed works of Elbaz (1991, 1983), Schön (1983) and Shulman (1987).

**Freema Elbaz (1991, 1983).** Freema Elbaz (1991, 1983) conducted one of the first research studies that sought to explore the answer to the question "What do teachers know?" Through her two-year study on a high school teacher's "practical knowledge," Elbaz (1983) explained, "This knowledge encompasses firsthand experience of student's learning styles, interests, needs, strengths and difficulties, and a repertoire of instructional techniques and classroom management skills" (p. 5).

Elbaz (1983) stated that the practical knowledge of the teacher ranged over five areas: (a) knowledge of self, (b) milieu, (c) subject matter, (d) curriculum development, and (e) instruction.



Practical knowledge in practice was represented in three different approaches. The first approach was referred to as the rules of practice—“brief, clearly formulated statements of what to do or how to do it in a particular situation” (p. 132). The second approach was referred to as the practical principles—“more inclusive and less explicit” (p. 133). The third approach, in the case of the teacher (Sarah) in her study, was referred to as images—“a brief, descriptive, and sometimes metaphoric statement which seems to capture some essential aspects of Sarah’s perception of herself, her teaching, her situation in the classroom or her subject matter, and which serves to organize her knowledge in the relevant areas” (p. 137).

Elbaz (1983) was interested in what the teacher in her study (Sarah) knew or believed about her work and how her understanding of her work could possibly be understood. Elbaz’s intentions were to get an understanding of Sarah’s knowledge of her work world without enforcing theory or certain methods. Elbaz discovered that Sarah’s knowledge consisted of things that made up her “practical knowledge,” rather than theory. Sarah’s practical knowledge included (a) carrying out instructional tasks, (b) resolving conflicts, (c) adjudicating competing considerations, and (d) connecting aspirations to plans and then to instructional performance.

The researcher found in this study evidence that supported Elbaz’s third approach referred to as images. The undergraduate pre-service teachers’ statements provided the researcher with ideas of their perceptions of themselves, their teaching, and the subject matter. The undergraduate pre-service teachers began their tutoring sessions with an image of what was expected of them as tutors even though they began with uncertainties. It was clear to the researcher that the undergraduate pre-service teachers were focused more on themselves because they were full of anxiety and uncertainty about carrying out their instructional tasks. Throughout the course of their tutoring sessions, they were faced with conflicts and making decisions based

on their young reader's needs. They also had to take in all of the ideas being shared with them and plan their instructions based on what they believed were essential to help their young readers learn. For example, the undergraduate pre-service teachers realized that their selections of texts related to their young readers' interests were motivational in getting them to read and discuss the texts.

Initially, the materials selected for the tutoring sessions were books that were chosen just for the sake of having books for the young readers to read aloud. Throughout the course of the study, the undergraduate pre-service teachers began to listen to their young readers and allowed their ideas to influence the kinds of books that were being selected for them to read. During one of the tutoring sessions, Nydia's young reader was so excited about the information she was reading about that she wanted to do all of the reading. When Naomi's focus was more on the young reader and her needs, she realized that her young reader reacted differently to the fictional books than she did to the nonfiction books. This enabled Naomi to focus less on her own insecurities and more on her young reader's instructional needs, which had a positive impact on her instructional plans.

**Donald Schön (1983).** Donald Schön (1983) examined practical knowledge and searched for a better way of understanding how a small number of professional practitioners work in action. According to Schön, our knowing is in our action. These concepts are referred to by Schön (1983) as knowing-in-action, reflecting-on-action, reflecting-in-practice, and reframing called "the epistemology of practice." Reflection-in-action involves looking to our experiences, connecting to our feelings, and attending to our theories in use which involves gaining new understandings to inform our actions in unfolding situations. This act is also referred to as "thinking on our feet." The reflection-on-action involves exploring why practitioners acted as

they did, what was happening in a group, and so forth. This act allows the practitioners to develop a set of questions and ideas about their activities and practices. Schön (1983) saw this as essential to reflective thoughts because practitioners build up a collection of images, ideas, examples and actions that they can pull from in effort of making sense of the situation. This model of Schön's has received some criticism, but the impact of his reflective practice core notions has influenced training and education programs for teachers in organizing experiences and in the teaching content.

The researcher found evidence that supported Schön's reflection-in-action concept when the undergraduate pre-service teachers were faced with making pedagogical decisions on the spot. There were times when the text was too difficult for the young readers to read and the undergraduate pre-service teachers had to think fast on their feet about what to do next. The researcher also found evidence that supported Schön's reflection-on-action concepts. The undergraduate pre-service teachers had opportunities to reflect on their tutoring experiences. They reflected as a group on what they believed was successful and what was unsuccessful and what they would do differently.

During their times of thinking on their feet, they had a collection of images, ideas, examples, and actions to pull from that related to the immediate situation, in which they found themselves. For example, when Janice realized that the reading materials were too challenging for her young reader, she remembered being instructed to try echo reading. There was another time when Janice wanted to focus on fluency. While listening to her young reader read aloud, she remembered others sharing how they used rereading to help their young readers improve reading fluency. So instead of continuing with the text, Janice modeled to her young reader how that section of the text should be read and then she instructed her young reader go back and reread

that section a couple of times. Naomi also reflected on that same group discussion when her young reader was reading incorrectly. Naomi also modeled to her young reader how the selection should be read and instructed her young reader to reread the selection and with greater expression.

There was also another example of the group was practicing the reflection-on-action approach when Naomi shared a successful writing session she had with her young reader. She told the group that she used a previous writing of her young reader to edit and how enthusiastically her young reader reacted to the lesson. Nydia took this idea and tried it with her young reader's collection of writing samples. Through this activity, Nydia realized how much help her young reader needed with her writing and how the information read in the texts could help the young reader generate ideas to write about. Schön's (1983) reflection-on-action had a positive impact on these undergraduate pre-service teachers' development in their reading content knowledge.

**Lee Shulman (1987).** Lee Shulman (1987a) argues, "The results of research on effective teaching, while valuable, are not the sole source of evidence on which to base a definition of the knowledge base of teaching" (p. 7). In his 1985 American Educational Research Association, (AERA) presidential address, Shulman (1986b) differentiated three types of knowledge: (a) propositional knowledge—empirical and philosophical inquiry, practical experience, and moral reasoning; (b) case knowledge—"knowledge of specific, well-documented, and richly described events," (p. 11), and (c) strategic knowledge—when rules or principles (developed out of propositional knowledge) of practice (cases or case knowledge) conflict and bring resolution to the conflict which constitutes professional judgment—"the hallmark of any learned profession," (p.13).

Shulman (1992) explained case strategy as a “particular strategy of pedagogical transformation—a strategy for transforming more propositional forms of knowledge into narratives that motivate and educate” (p.17). Shulman (1992) argued that case methods are a way to transform propositional knowledge into case knowledge. The researcher found evidence in this study that supports Shulman’s propositional knowledge being transformed into case knowledge. The undergraduate pre-service teachers realized throughout the course of the study that the instructions provided to their young readers had a purpose. Until the undergraduate students came to that realization, their focus was on their own personal feelings and experiences and not on their young readers’ needs. When the undergraduate pre-service teachers’ lessons reflected not only their young readers’ interests, but also topics that would help them be better readers, they observed an excitement in their young readers that they had not observed earlier. The undergraduate pre-service teachers in this study did not demonstrate consistency within Shulman’s (1987) Model of Pedagogical Reasoning and Action, activities—comprehension, transformation, instruction, evaluation, reflection, and new comprehension. The undergraduate pre-service teachers struggled with the *transformation* from *comprehension* to *instruction* which affected the delivery of their *instruction*; nonetheless, they did experience some epistemological and pedagogical growth during their reading tutorial experiences.

### **Implications**

Pre-service teachers attend their professional literacy courses with initial ideas about teaching reading, and based on their own personal experiences with learning to read and limited experiences with teaching reading, they begin constructing their own ideas about literacy instruction. Teacher certification programs are expected to prepare well-qualified teachers to meet the needs of the diverse student population in today’s classrooms. The coursework for

literacy instruction is a critical element in elementary pre-service teachers' undergraduate preparation programs. This study confirmed previous researchers such as Richardson (1996), who reported that pre-service teachers normally have an image of their role as a professional based on their prior school experiences. They typically bring these images with them and begin to develop beliefs about teaching that influence their learning in their methods courses. Therefore, teacher educators and pre-service teachers must discuss these beliefs and help the pre-service teachers address and understand their preconceived ideas in order to build new information pre-service teachers will need if they are to be effective in the classroom. Teachers hold implicit beliefs about their subject areas and their students that could affect their own learning and teaching practices (Fang, 1996).

Research specifies that exceptional reading instruction involves multiple instructional components (Pressley, Wharton-McDonald, Allington, Block, Morrow, Tracey, Baker, Brooks, Cronin, Nelson, Woo, 2001; Reutzel, 2007)). In order for the teacher preparation reading programs to be effective, the following concepts must be included: (a) phonics, (b) phonemic awareness, (c) oral language, (d) word identification, (e) vocabulary, (f) comprehension, (g) fluency, (h) assessment, and (i) the management of literacy instruction across various grades (Fielding-Barnsley & Purdie, 2005).

The current study confirmed the research of Elbaz (1983), Schön (1983), and Shulman (1987) which identified necessary relations between how teachers conceive, interpret, and perceive knowledge and the manner in which they deliver their instruction, specifically how they formulate instructional decisions. The guided questioning intervention in this study was successful in supporting the undergraduate pre-service teachers in writing effective lesson plans and selecting appropriate reading activities. The current study is substantially important because

it identified six undergraduate pre-service teachers' initial ideas about literary instruction and observed how the beliefs of the undergraduate pre-service teachers' literacy instruction progressed. The findings from this study could help teacher-training programs provide high quality instruction that will help teachers develop literary content knowledge needed in order to effectively teach reading. This growth in teachers' epistemology upon entering the classroom may have a positive influence on teacher retention which will reduce the cost of replacing teachers in districts. Above all, an increase in teachers' epistemological growth in reading content and pedagogical practices may increase students' success in reading.

### **Recommendations for Future Studies**

Upon completing this study, the researcher saw several possibilities for future studies. The following are recommendations for future research:

- A longitudinal study that tracks the epistemological and pedagogical development of undergraduate pre-service teachers throughout their university reading courses
- A study that tracks the reading instructional practices implemented by university reading students during one-on-one tutoring sessions, field base courses, student teaching, and beginning teaching years in the classrooms. This study could influence methods universities emphasized.
- A study that tracks the pedagogical content knowledge development of beginning reading teachers.

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## Appendix A

### READ 3351 *Diagnosis & Correction of Reading Problems*

- I. **Course Description:** This is an undergraduate diagnostic reading course. This course is an introduction to various formal and informal means to assess the reading strengths and weaknesses of children. Students will have the opportunity to apply a variety of reading assessment strategies and develop an instructional plan for young children. You will work one-on-one with a student for 8 weeks. During this time you will administer several informal diagnostic reading tests and plan a reading program to assist the student.
- II. **Rationale:** This course is an advanced course that presumes undergraduates have had some introductory reading experiences/courses. Students will learn various assessment techniques that can be applied in the classroom with individual students or with groups of students.
- III. **Course Objectives:** The student will be able to:
- demonstrate knowledge of appropriate corrective techniques
  - demonstrate knowledge informal techniques to assess reading ability
  - adapt reading approaches and materials to meet the needs of the individual student
  - develop an appropriate dynamic instructional literacy plan for a young child
- IV. **Instructional Methods and Activities:** Methods and activities for instruction include:
- Traditional experiences (lecture, discussion, demonstration)
  - Clinical Experiences (simulations, cooperative groups, student demonstrations and presentations, and experience working with elementary learners).
- V. **Course Requirements:**
- A. **Case study portfolio and oral report:** You will work with one child with reading problems. You will administer some informal assessments and provide instruction based on the results of your assessments. The results of your work with this one child will be summarized in a case study - handout will be provided. It is expected that your work be well written, word-processed, spell-checked and grammatically correct. Points will be taken off if I have to make major (grammatical/spelling, etc.) corrections to your paper. **(230 points). See appendix or assignment on WebCT for detailed instructions and grading rubric.**
- B. **Class attendance, activities and participation:** Students are expected to attend class and be punctual. Students should come to each class prepared to discuss assigned readings and make contributions to the class/group discussions. Twenty point (20) points will be deducted for each absence during the class sessions before and after the tutoring period. Responses to class topics will be submitted at the end of each class period. **(40 points).**

**C. Bag of Books:** You will put together a bag of books to use the first day of tutoring. You need to look for books that cover the different genres and different reading levels. Your bag must consist of 12 books. You should turn in a book list that includes the title of each book, the author, publisher, date of publication and a brief description of each book **(120 points)**. **See appendix or assignment on WebCT for detailed instructions.**

**D. Textbook responses**

You will respond the reading in the textbook chapters the day each chapter is assigned for the class. Your journals may be a summary of your reading and questions you that come up during reading. I also want you to connect the reading to what you know. The class will utilize journaling techniques throughout the semester. Your journal is interactive, so I expect to take the journal at some point to react to your writing. During tutoring you are also expected to add to your journal writing with points you learn while with the students you tutor. **Textbook responses. (25 points)**

**E. Student Reading Profile**

You will prepare a preliminary report on your assessment findings on the Student Reading Profile. Your scores and examples of student performance will be turned in at the end of the assessments with your student. **(50 points)** **See appendix or assignment on WebCT for profile form.**

**F. Quizzes**

You will have two quizzes during the semester; these will cover course readings and lecture notes. Quizzes will be taken on WebCT and will be open for at least two days. You will not be permitted to take a quiz after the time period has closed **(40 points)**. **See Quizzes section on WebCT page.**

**G. Tutoring sessions:** You will have 8 tutoring sessions with a student. You are required to be present for all tutoring sessions. **If you can't make it you must ask a classmate to take your student for that day.** If you do not make up that missed day you will not receive credit for that tutoring session. **You will lose 50 points for each absence.** So make sure you get cell phone numbers and any other information you need from your classmates.

- You will prepare a “Tutoring Plan” for each day you assess and instruction students. The plan may be handwritten. All plans will be turned in with the final case study.
- You will develop hands-on activities based on children’s literature and other authentic texts for the student you tutor.

**See appendix or study guide on WebCT for tutoring plan format and suggestions.**

**VI. Evaluation and Grade Assignment**

**Grades will be assigned according to the professional level of the final submissions.**

- A = Excellent-All work is 100% completed in a professional manner and contains evidence of **significant effort and accomplishment**. The work is 100% professional in content and appearance.
- B = Good-All work is completed in a useful manner and contains evidence of effort and accomplishment. The work is complete in content and appearance but lacks professional polish.
- C = Average-The work is complete. The work contains all required parts. The work lacks evidence of time and effort.
- D = Passing-The work is not adequate in details, efforts, professionalism, or completeness.
- F = Failing-The work is inadequate or incomplete.

### Points

Class participation responses	40 points
Chapter responses	25 points
Bag of Books	120 points
Student Reading Profile	50 points
Quizzes	40 points
Case study portfolio and oral report	230 points
<i>Missed tutoring session (-50)</i>	
<i>Missed class (-20)</i>	
<b>Total</b>	<b>505 points</b>

<i>Points</i>	<i>Grade</i>
92%-100%	A
84%-91%	B
76%-83%	C
68%-75%	D
60%-67%	F

### Texts:

Bader, L. A. & Pearce, D. L. (2009). *BADER reading and language inventory* (6<sup>th</sup> ed.). Boston: Pearson; Allyn & Bacon.

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## **IX. State Adopted Proficiencies and Competencies**

State Adopted Proficiencies - The state-adopted proficiencies covered in this course include the following:

- Equity in Excellence for All Learners - The teacher responds appropriately to diverse groups of learners.
- Learner-Centered Communication. While acting as an advocate for all -students and the school, the teacher demonstrates effective professional and interpersonal communication skills.
- Learner-Centered Instruction. To create a learner-centered community, the teacher collaboratively identifies needs; and plans, implements, and assesses instruction using technology and other resources.

TExES Competencies

### **Generalist, EC-4**

**Standard I.** Oral Language: Teachers of students in grades 4–8 understand the importance of oral language, know the developmental processes of oral language, and provide a variety of instructional opportunities for students to develop listening and speaking skills.

**Standard II.** Foundations of Reading: Teachers of students in grades 4–8 understand the foundations of reading and early literacy development.

**Standard III.** Word Analysis Skills and Reading Fluency: Teachers understand the importance of word analysis skills (including decoding, blending, structural analysis, sight word vocabulary) and reading fluency and provide many opportunities for students to practice and improve their word analysis skills and reading fluency.

**Standard IV.** Reading Comprehension: Teachers understand the importance of reading for understanding, knows the components of comprehension, and teaches students strategies for improving their comprehension.

**Standard V.** Written Language: Teachers understand that writing is a developmental process and provide instruction that helps students develop competence in written communication.

**Standard VI.** Study and Inquiry Skills: Teachers understand the importance of study and inquiry skills as tools for learning and promote students' development in applying study and inquiry skills.

**Standard VII.** Viewing and Representing: Teachers understand how to interpret, analyze, evaluate, and produce visual images and messages in various media and to provide students with opportunities to develop Course Syllabus skills in this area.

**Standard VIII.** Assessment of Developing Literacy: Teachers understand the basic principles of assessment and use a variety of literacy assessment practices to plan and implement instruction.



## English Language Arts 4-8

**Standard I.** Oral Language: Teachers of students in grades 4–8 understand the importance of oral language, know the developmental processes of oral language, and provide a variety of instructional opportunities for students to develop listening and speaking skills.

**Standard II.** Foundations of Reading: Teachers of students in grades 4–8 understand the foundations of reading and early literacy development.

**Standard III.** Word Analysis Skills and Reading Fluency: Teachers understand the importance of word analysis skills (including decoding, blending, structural analysis, sight word vocabulary) and reading fluency and provide many opportunities for students to practice and improve their word analysis skills and reading fluency.

**Standard IV.** Reading Comprehension: Teachers understand the importance of reading for understanding, know the components of comprehension, and teach students strategies for improving their comprehension.

**Standard V.** Written Language: Teachers understand that writing is a developmental process and provide instruction that helps students develop competence in written communication.

**Standard VI.** Study and Inquiry Skills: Teachers understand the importance of study and inquiry skills as tools for learning and promote students' development in applying study and inquiry skills.

**Standard VII.** Viewing and Representing: Teachers understand how to interpret, analyze, evaluate, and produce visual images and messages in various media and to provide students with opportunities to develop skills in this area.

**Standard VIII.** Assessment of Developing Literacy: Teachers understand the basic principles of assessment and use a variety of literacy assessment practices to plan and implement instruction.

## English Language Arts 8-12

**Standard I.** English language arts teachers in grades 8–12 know how to design and implement instruction that is appropriate for each student, that reflects knowledge of the Texas Essential Knowledge and Skills (TEKS), that integrates all components of the English language arts (i.e., writing, reading, listening/speaking, viewing/representing), and that is based on continuous assessment.

**Standard II.** English language arts teachers in grades 8–12 understand the processes of reading and teach students to apply these processes.

## Special Education EC-12

**Standard IV.** The special education teacher understands and applies knowledge of the characteristics and needs of individuals with disabilities.

**Standard V.** The special education teacher understands formal and informal assessment procedures and knows how to evaluate student competencies to make instructional decisions.

**Standard VI.** The special education teacher understands and applies knowledge of procedures for planning instruction and managing teaching and learning environments.

**Standard XI.** The special education teacher promotes students' performance in English language arts and reading.

## Bilingual Education EC-4 and 4-8

**Standard IV.** The bilingual education teacher has a comprehensive knowledge of the development and assessment of literacy in the primary language.

**Standard V.** The bilingual education teacher has a comprehensive knowledge of the development and assessment of biliteracy.

## Appendix B

### Participant Selection Survey

Student Identification Number: \_\_\_\_\_

Question	Yes	No
Are you seeking a teaching certification?		
Circle your area of study:      EC-6  Special Education  Secondary English  Middle School 4-8		
Have you completed field base experience?		
Have you completed or are currently enrolled in student teaching?		
Have you been previously enrolled in <i>READ 3351: Diagnosis and Correction of Reading Problems</i> ?		
Are you willing to complete three interviews and have your tutoring sessions videotaped?		

\*Questions were taken from Stephanie Ann Grote-Garcia's (2009) dissertation and some were modified.

## Appendix C

Student Identification Number: \_\_\_\_\_

### Pretest/Posttest

1. During the morning message, a kindergarten teacher produces the /t/ sound and asks the students, “Who can show me the letter in the morning message that makes that sound?” A student then uses a pointer to identify the letter that corresponds with that sound. Which of the following concepts is the teacher primarily addressing?
  - A. Phonemic awareness
  - B. Alphabetic principle
  - C. Fluency
  - D. Schema
2. Ms. Aguirre has several English-language learners (ELLs) in her class. To provide her ELL students with additional support, Ms. Aguirre often incorporates body movement into her verbal interaction with her students by clapping the syllables of words in simple sentences. Her approach focuses primarily on which of the following skills?
  - A. Phonological awareness
  - B. Pragmatics
  - C. Phonics
  - D. Syntax
3. A fourth-grade teacher has each student choose a novel and then places the students into small groups based on their book choice. Each group meets periodically. While the teacher facilitates each group’s meetings, the students decide the reading selections and discussion topics. The instructional practice outlined can be best described as
  - A. guided reading.
  - B. literature circles.
  - C. shared reading.
  - D. choral reading.
4. Ms. Gonzales has her third-grade students read the following from a science text to themselves.

“After the volcano erupted, lava flowed down into the forest, destroying all the trees and vegetation.”

One of the students asks Ms. Gonzales what the word “erupted” means. Which of the following actions by Ms. Gonzales would best foster students’ independent use of reading strategies?

  - A. Providing the students with sentences that use the word correctly and sentences that use the word incorrectly
  - B. Giving the students a quick and simple definition of the word as it relates to the text they are reading
  - C. Modeling the process of using the surrounding text to determine the meaning of the word
  - D. Instructing the students to reread the sentence until they discover the meaning of the word on their own

5. To best assess a student's accuracy and rate of reading, a teacher should have the student
  - A. read a passage silently for one minute and then write a summary of it.
  - B. read out loud for one minute from a list of words of varying difficulty while the teacher records miscues.
  - C. read a passage with words omitted out loud for one minute and then fill in the blanks with appropriate words.
  - D. read a passage out loud for one minute while the teacher records miscues.
6. Mr. Silva's first-grade students make a chart of their predictions about a story prior to reading the story. As they read the story, they refer to their chart to confirm or change their predictions. The primary instructional purpose for the activity is to help students
  - A. understand how to use a story map to organize thoughts.
  - B. develop a richer and more extensive vocabulary.
  - C. recognize that writing is connected to reading.
  - D. make inferences to aid in comprehension.
7. A first-grade teacher who is working with a group of beginning readers gives each student a set of word cards. On each card is printed a word that the students have already learned to read (e.g., "he," "she," "sees," "loves," "has," "the," "a," "dog," "cat," and "pail"). The teacher shows the students how to arrange the cards to create a statement (e.g., "she sees the cat"). Students then create their own statements and read them aloud. One goal of the activity is to promote students' reading development by reinforcing word-recognition skills. In addition, the activity can be expected to promote students' writing development by
  - A. helping them learn to view writing as a useful tool for communication.
  - B. promoting their recognition of similarities and differences between written and oral language.
  - C. building their understanding of basic syntactic structures.
  - D. helping develop their understanding of the value of writing conventions (e.g., capitalization, punctuation).
8. The following is a writing excerpt from a first grader.

<p><i>The Katipilar was haging on the tree banch. It gru and gru then itbkam a Butifl Buttrfli.</i></p>
---

Which of the following stages of the writing workshop process is the student ready to initiate next?

- A. Publishing
  - B. Prewriting
  - C. Revising
  - D. Drafting
9. Which of the following is the best strategy for adapting the activity for a student with dyslexia?
  - A. Requesting that the student go to the library and choose a book on tape to better understand the story
  - B. Having the student dictate his letter to a scribe and then respond to the letter orally in a one-on-one conference

- C. Helping the student in choosing a book below his instructional reading level to maximize comprehension
  - D. Establishing a time limit to ensure the student completes the letter in class and receives the appropriate assistance
10. A first-grade teacher meets with her students before their first visit to the library. She shares with students the following routine. “Open the book to the middle. Read the page to yourself. Hold up one finger for each word you do not know how to pronounce. If you get to five fingers, then the book is too hard. Pick a different book.” The main purpose of the teacher’s instruction is to guide the students to
- A. locate books in the library by author and by topic.
  - B. select books at an independent reading level.
  - C. read fluently with few errors in pronunciations.
  - D. practicing decoding new and unfamiliar words.

\*Questions are taken from TExES/ExCET 191 Generalist EC-6 Preparation Manual (2011).

## Appendix D

### CONSENT FORM

#### Effects of Intervention on Undergraduate Pre-Service Teachers in Literacy Education

##### **Introduction**

The purpose of this form is to provide you information that may affect your decision as to whether or not to participate in this research study. If you decide to participate in this study, this form will also be used to record your consent.

You have been asked to participate in a research project studying pre-service elementary teachers' initial ideas about literary instruction and epistemological development during their tutoring experience in a university-based reading setting. The purpose of this study is to identify the predominant dimensions of inexperienced teachers' ideas concerning reading instruction as they transition content knowledge into pedagogical content knowledge, identify the patterns of the epistemological and pedagogical development of inexperienced teachers teaching reading, and to link pedagogical practices to teacher epistemology.

You were selected to be a possible participant because you are seeking a teaching certification, you have not completed nor are enrolled in a field base course, have not completed nor are currently enrolled in student teaching, are not enrolled in more than 15 credit hours, have not been previously enrolled in *READ 3351: Diagnosis and Correction of Reading Problems*, and you are willing to complete three recorded interviews, have your tutoring sessions video recorded and have your work examined.

##### **What will I be asked to do?**

If you agree to participate in this study, you will be asked to complete three recorded interviews, allow six of your eight tutoring sessions to be video recorded, allow your lesson plans to be examined by Alma Williams, and complete six reading comprehension checklists. This study will last a total of 8 weeks. During week one you will be asked to fill out a *Participant Selection Survey*, take a pretest, and have a *The Getting to Know You Interview*. During weeks two through seven, you will be asked to have your tutoring sessions video recorded, fill out a checklist of the reading strategies used by you and your client, and participate in whole group discussions with the course instructor to reflect on your tutoring experience. During week four, you will also have your second interview, *The Learning Through Experience Interview*, with the researcher. During week seven, you will have your third interview, *The Making Connections Interview*, with the researcher. Finally, during week eight you will have a posttest. Each tutoring video recording will take about 75 minutes each. The pretest and posttest will take about 6 minutes each. The interviews will be scheduled, audio recorded, and take about 20 minutes each.

Your participation will be audio and video recorded.

Your participation will [    ] be audio / [    ] video recorded.

**What are the risks involved in this study?**

The risks associated in this study are minimal, and are not greater than risks ordinarily encountered in daily life.

**What are the possible benefits of this study?**

The possible benefits of participation will offer the participants the opportunity to reflect upon their tutoring experiences and in turn, become more aware of their proficiencies as elementary teachers. The findings from this study could help teacher-training programs provide needed support and training for undergraduate pre-service elementary teachers, and, as a result, novice teachers may enter the classrooms better prepared to teach reading. This change in teacher epistemology will influence teacher retention, thus reducing the cost to school districts. Most importantly, this epistemological growth of reading content knowledge within the teacher may increase their abilities to effectively teach children to read.

**Do I have to participate?**

No. Your participation is voluntary. You may decide not to participate or to withdraw at any time without your current or future relations with Texas A&M University Corpus Christi being affected.

**Who will know about my participation in this research study?**

This study is confidential.

The records of this study will be kept private. No identifiers linking you to this study will be included in any sort of report that might be published. Research records will be stored securely and only Alma Williams will have access to the records.

If you choose to participate in this study, you will be audio/video recorded. Any audio/video recordings will be stored securely and only Alma Williams will have access to the recordings. At the conclusion of the study, any video recordings will be destroyed at the completion of the study or at the end of one year.

**Whom do I contact with questions about the research?**

If you have questions regarding this study, you may contact Alma Williams, 361-676-5784, [acawills@yahoo.com](mailto:acawills@yahoo.com).

**Whom do I contact about my rights as a research participant?**

This research study has been reviewed by the Research Compliance Office and/or the Institutional Review Board at Texas A&M University Corpus Christi. For research-related problems or questions regarding your rights as a research participant, you can contact Erin Sherman, Research Compliance Officer, at (361) 825-2497 or [erin.sherman@tamucc.edu](mailto:erin.sherman@tamucc.edu)

**Signature**

Please be sure you have read the above information, asked questions and received answers to your satisfaction. You will be given a copy of the consent form for your records. By signing this document, you consent to participate in this study. You also certify that you are 18 years of age or older by signing this form.

\_\_\_\_\_ I agree to be audio [/video] recorded.  
\_\_\_\_\_ I do not want to be audio [/video] recorded.

**Signature of Participant:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_

**Signature of Person Obtaining Consent:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Printed Name:** \_\_\_\_\_



## Appendix E

### Reading Instructional Strategy Checklist

Check the reading instructional activities you applied today.

Tutor		Before Reading		During Reading		After Reading
		Activate Prior Knowledge		Brainstorm		Build a Story
		Brainstorming		Choral Reading		Build/Make Words
		Build Fluency(rereading activity)		Cloze Passages		Compare/Contrast
		Decoding Skills (phonics)		Echo Reading		Generate Writing Ideas
		Discuss Author/ Illustrator		Engage Student w/text		Guided Writing Activities (Language Exp. Approach)
		Introduce New Vocabulary		Foldable		Make a Book
		Model Oral Rereading		Graphic Organizers		Model Summarization
		Model Think Alouds		Guided Reading		Recall Story
		Picture Walks		Highlighting		Recall Story in Writing
		Predictions		Pictures for Sequence		Retell Story Events
		Preview Text		Post-It Strategy		Review Predictions
		Preview Vocabulary		Predictions		Review Sequencing
		Relate Personal Experiences		Scaffold		Review Vocabulary
		Sight Words		Side Notes		Use Technology
		Other:		Other:		Other:

Check the reading strategies your client applied today.

Client		Before Reading		During Reading		After Reading
		Letter Recognition		Blend Sounds		Compare text/characters/ etc.
		Made Predictions		Chunk Words		Generate Ideas for Writing
		Read Isolated Sounds		Cold Oral Reading		Identify the Author's Purpose
		Read Isolated Words		Decode Words		Identify Story Elements (plot, characters, setting, problem, solution)
		Read Sight Words		Make Self-Corrections		Participate in Rereading Activities
		Self-Selected Text		Repeat Oral Reading		Make Words Correctly
		Sound Recognition		Use Context Clues		Retell Story Sequentially
		Use Prior Knowledge		Use Picture Clues		Writing contains an understandable message
		Other:		Other:		Other:

Self -Reflections: Reflect what worked well and what you would do differently if you taught this lesson again.

## Appendix F

### The Getting to Know You Interview

1. I was writing a biography about you, what would I need to know?
2. How did you learn to read?
3. Why did you decide to become an elementary teacher?
4. Do you have any experiences teaching reading? If so, explain.
5. Explain to me what you learned about reading in your prior course work.
6. What skills do you think a reading teacher should possess and what makes a reading teacher an effective teacher?
7. Describe to me the process of becoming an effective teacher?
8. What knowledge does a child need for reading?
9. What materials are effective for teaching reading?
10. On a scale of 1 to 10, how confident are you in your ability to teach reading at this moment?
11. Is there anything else that you can tell me which may help my study?

\*Questions are taken from Stephanie Ann Grote-Garcia's (2009) dissertation.

## Appendix G

### The Learning Through Experience Interview

1. What have you learned about teaching reading since our previous interview?
2. Have your feelings about effective teaching changed since our previous interview?
3. Have your ideas about effective materials changed since our previous interview?
4. Have your feelings about effective readers and knowledge needed to be an effective reader changed since our previous interview?
5. How would you describe your development as a reading teacher since our previous interview?
6. On a scale of 1 to 10, how confident are you in your ability to teach reading?
7. Is there anything else that you can tell me that may help me understand your development as a reading teacher?

\*Questions are taken from Stephanie Ann Grote-Garcia's (2009) dissertation.

## Appendix H

### The Making Connections Interview

1. Throughout the six tutoring sessions, how did your teaching change?
2. Throughout the six tutoring sessions, what did you learn about reading?
3. Throughout the six tutoring sessions, how did your feelings about effective teaching change?
4. Throughout the six tutoring sessions, how did your ideas about effective materials change?
5. Throughout the six tutoring sessions, how have your ideas about effective readers and knowledge needed to be an effective reader change?
6. Describe your development as a reading teacher as it occurred through the six tutoring sessions?
7. On a scale of 1 to 10, how confident are you in your ability to teach reading at this moment?
8. Is there anything else that you can tell me that may help me understand your development as a reading teacher?
9. How did you benefit from the course instructor's intervention with the guided group reflections and discussions after each tutoring session?

\*Questions are taken from Stephanie Ann Grote-Garcia's (2009) dissertation.

# Appendix I

## Observation Form

Student Identification Number: \_\_\_\_\_ Date: \_\_\_\_\_

Duration

### Comprehension

☐ Listening comprehension ☐ Reading Comprehension

<input type="checkbox"/> Effective Instruction, Why?				<input type="checkbox"/> Ineffective Instruction, Why?			
Text	Frequency	Instruction	Frequency	Demonstration of Comprehension	Frequency	During Instruction	Frequency
Informational Text		Activated Prior Knowledge		Answered Right There Questions		Tutor corrected the student's errors	
Narrative Text		Made predictions		Answered Think, Search, and Find Questions		Tutor modeled the correct answer	
<input type="checkbox"/> Controlled Vocabulary/Decodable		Previewed Vocabulary		Answered Author and Me Questions		Tutor prompted the student to use the context	
<input type="checkbox"/> Patterned Language		Made Personal Connections		Answered On My Own Questions		Tutor prompted the student to sound out the word	
Other:		Stopped and discussed text		Discussed text with tutor		Tutor prompted the student to use the picture	
		Visualization				Tutor ignored the error	
		Advanced organizers				Other:	
		Analyzed and evaluated					
		Specific Skills:					
		Other:					

\*The observation form used many of the same categories as *The language arts log* (Phelps & Schillings, 2004). Modified version of Stephanie Grote-Garcia's (2009) dissertation.

Student Identification \_\_\_\_\_ Date \_\_\_\_\_

Duration

## Word Analysis

<input type="checkbox"/> Effective Instruction, Why?	<input type="checkbox"/> Ineffective Instruction, Why?

Materials	Frequency	Instruction	Frequency
Isolated Sounds		Alphabetic principle	
Isolated Words		Counted phonemes	
Used Manipulative		Counted Syllables	
Connected to reading materials		Blending Phonemes into nonsense words	
Other:		Sight words	
		Structured Analysis	
		Other:	

NOTES:

\*The observation form used many of the same categories as *The language arts log* (Phelps & Schillings, 2004). Modified version of Stephanie Grote-Garcia's (2009) dissertation.

Student Identification \_\_\_\_\_ Date \_\_\_\_\_

Duration

Writing

<input type="checkbox"/> Effective Instruction, Why?	<input type="checkbox"/> Ineffective Instruction, Why?

Areas	Frequency	Instruction	Frequency
Generated ideas for writing-brainstormed with list		Tutor did a think-aloud of own writing	
Organized ideas for writing		Tutor used student's own writing during instruction	
Literary techniques or author's ideas		Tutor used a published author's writing during instruction	
Writing forms or genres		Tutor took dictation from the student	
Revision- elaboration		Tutor commented on what the student wrote	
Revision- refining or reorganizing		Tutor described what the student did well in his/her writing	
Editing- capitals, punctuation, or spelling		Tutor commented on how the student could improve his/her writing	
Editing- word use, grammar, or syntax		Tutor provided a writing or proofreading guide/dictionary	
Other:		Tutor read student's paper aloud to student so he/she could determine if it made sense	

NOTES

\*The observation form used many of the same categories as *The language arts log* (Phelps & Schillings, 2004). Modified version of Stephanie Grote-Garcia's (2009) dissertation.