# IMPACT OF AN INTEGRATED LITERACY PROGRAM ON PRESERVICE TEACHERS' BELIEFS AND KNOWLEDGE

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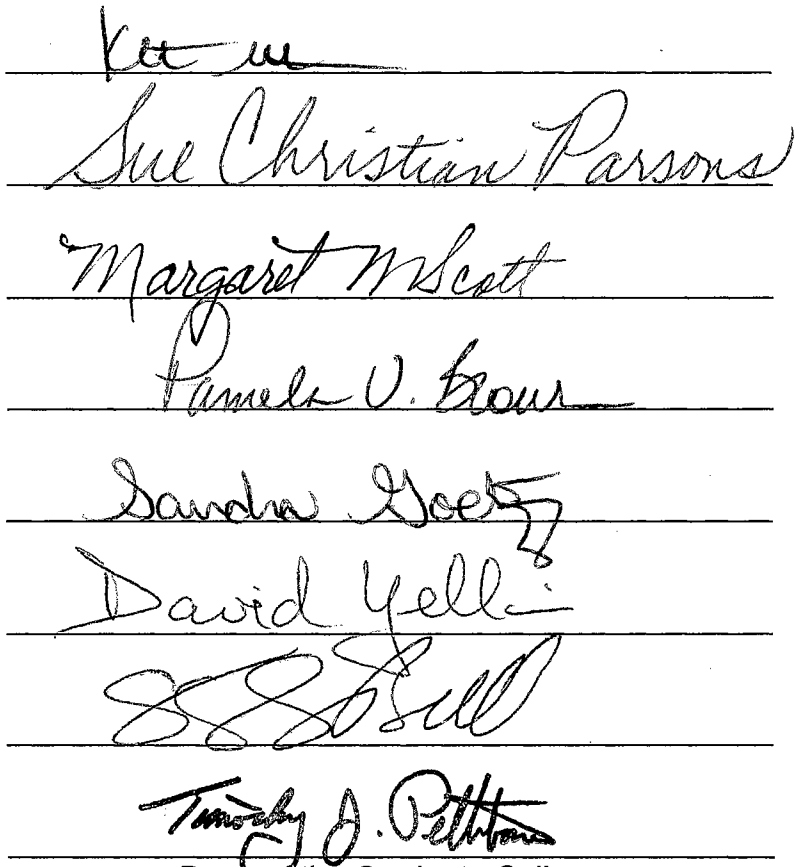

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# CHAPTER I

## *Introduction*

Research during the past two decades has shown that the most important factor in improving student achievement is teacher quality and the quality of teaching that occurs in the classroom. High quality teaching depends on both the teacher's knowledge and the teacher's ability to facilitate student learning (Allington, 2002; Ashton & Crocker, 1987; Darling-Hammond, 1994, 1996a, 1996b, 2000a, 2000b, 2000c; Holmes Group, 1986; Strickland & Snow, 2002; Wilson, Floden & Ferrini-Mundy, 2001). And, with the passage of the federal law, '*No Child Left Behind Act*' (January, 2002) schools are required to have a highly qualified teacher in every classroom by the 2005-2006 school year. Therefore, there has been a growing interest in teacher quality (Laczko-Kerr & Berliner, 2002). Usually, teacher quality has been measured in terms of student outcomes (Ashton & Webb, 1986; Berman, McLaughlin, Bass, Pauly & Zellman, 1977; Darling-Hammond, 2000c; Gibson & Dembo, 1984; Guskey & Passaro, 1994). However, there are many characteristics that make a high quality teacher (Neuruer, 1995; Segall & Wilson, 1998). Among the many characteristics under investigation as indicators of teacher quality (student outcomes) has been the

self-efficacy of teachers (Coladarch, 1992; Coladarch & Breton, 1997; Emmer & Hickman, 1990, 1991; Enochs & Riggs, 1990; Gibson & Dembo, 1984; Guskey, 1989, 1998; Jinks & Morgan, 1999; Krusher,1993).

Self-efficacy, "according to Bandura's (1977, 1986, 1997) social cognitive theory, is an individual's self-system that enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions" (Pajares, 1997, p. 2). These self-efficacy beliefs powerfully influence behaviors, as "what people think, believe and feel affects how they behave" (Bandura, 1997, p. 25).

Self-efficacy beliefs, which range from low to high or weak to strong, influence one's behavior. A low or weak self-efficacy belief may lead to self-doubt, which may slow the development of the very skills needed to perform complex tasks (Bandura, 1997). This supports Bandura's (1997) belief that "if self-efficacy is lacking, people tend to behave ineffectually, even though they know what to do" (p. 425). Where as a high or strong self-efficacy belief held by preservice teachers may lead to greater attention and effort in order to successfully accomplish the behavior or task. It has been shown that high self-efficacy beliefs predict performance success (Bandura, 1977, 1997; Cervone, 2000; Cervone & Scott, 1995; Cervone & Williams, 1992; Guskey, 1987, 1988; Pajares, 1996, 1997; Williams, 1995). This supports Bandura's (1997) belief that "persons who have a high sense of self-efficacy deploy their attention and effort to the demands of the situation and are spurred by obstacles to greater effort" (p. 395).

Self-efficacy was applied to the education arena when the Rand Corporation in 1976 added two items to a questionnaire that was sent to classroom teachers through out the United States. These two questions, in the form of statements, were:

1. "When it comes right down to it, a teacher really can't do much because a student's motivation and performance depends on his or her home environment." (measured general teaching efficacy; GTE – later called "outcome expectancy" by Bandura, 1977)
2. "If I really try hard, I can get through to even the most difficult or unmotivated students." (measured personal teaching efficacy; PTE)

The results of the Rand Study generated by these two statements sparked interest in the construct of teacher efficacy.

Teacher efficacy is a form or type of self-efficacy (Bandura, 1977; Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998). Teacher efficacy has been defined as "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, McLaughlin, Bass, Pauly & Zellman, 1977, p. 137) or as the "teachers' belief or conviction that they can influence how well students learn, even those who may be difficult or unmotivated" (Guskey & Passaro, 1994, p.4). "A teacher's sense of self-efficacy is one of the few variables that is consistently related to student achievement as well as to shaping student attitudes toward school, the subject matter being taught, and even the school itself" (Bandura, 1997, p. 153). Therefore, teacher efficacy is an important indicator of teaching quality, as teachers with high self-

efficacy beliefs tend to have higher expectations and assume personal responsibility for making sure that all of their students learn (Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998).

If preservice teachers are to develop into high quality teachers, it is important that preservice teachers develop high teacher efficacy beliefs. Therefore, it is important that education coursework provide preservice teachers with the knowledge and the experiences needed to increase their teacher efficacy beliefs toward a variety of tasks, situations and content areas, as self-efficacy judgments are task, situation and content specific (Bandura, 1977, 1997; Pajares, 1993, 1997). The investigation of preservice teachers' perceptions of their beliefs in their ability to teach reading and to positively influence students' reading development is important in order to enhance their learning of themselves, of content material and of effective teacher behavior (Gassert & Shroyer, 1992; Riggs & Enochs, 1990).

However, during the teacher preparation process, self-efficacy beliefs are a two-edged sword. Preservice teachers need to develop high self-efficacy beliefs about their abilities to teach but if they begin with high self-efficacy beliefs about their abilities to teach, this may make them poor students. Bandura (1997) points out that the effects of self-efficacy differ for individuals learning a task and for those performing established skills. Because preservice teachers are in a unique situation of having a dual identity, both that of being a student and that of perceiving themselves as being able to teach, they have been heard voicing the

following comments in discussions both in the classroom and in the hallways with their peers:

- "What I am being taught in this class will not help me in the real classroom, so why do I have to take so many method courses anyway?"
- "Just teach me how to be an effective teacher."
- "I don't need to learn about phonics, as I do not believe that is the best way to teach reading and besides I am going to teach fifth grade."
- "I do not need to learn how to teach reading, I am going to teach seventh grade science."
- "I just want to get this over with and get out of here and get in my own classroom so that I can teach!"

It is important to realize that the comments above are indicative of the research findings that preservice teachers have many and varied informal theories that they bring with them when they enter the College of Education (Bullough & Gitlin, 1995; Knowles & Cole, 1994). It is these long-held beliefs, about teachers' roles and practices about classrooms and school, that influence both preservice teachers' self-efficacy beliefs toward teaching and their approaches toward learning in their university course work (Bullough & Gitlin, 1995; Knowles & Cole, 1994; Lortie, 1975). These varied attitudes and self-efficacy beliefs cause some preservice teachers to become passive learners, some to become active learners, and some to learn only what they think they will

use in the classroom or what they feel is important to learn in order to become a more effective classroom teacher (Bandura, 1977, 1997). Examining the self-efficacy beliefs that preservice teachers hold is important if educators are to learn how to best prepare them to become effective classroom teachers.

As one's self-efficacy beliefs are task, situation and content specific (Bandura, 1977, 1986, 1997; Pajares, 1992, 1997), this study focuses on preservice teachers' belief in their ability to teach reading successfully and in their belief that they can positively influence how well students learn to read, even those who may be difficult or unmotivated.

Reading instruction is crucial if the '*No Child Left Behind Act*' is to be successful. Therefore, the effective teaching of reading is an important factor in student success, no matter what grade level or subject one teaches (Allington, 2002; Allington & Johnston, 2002; Block, Oakar & Hurt, 2002; Carbo, 1996; DeFord, 1979; Gove, 1981; Hermann & Sarracino, 1993; Marshall, 1997; Massey, 2002; Morrow, Tracey, Woo & Pressley, 1999; Reutzel & Cooter, 1999a, 1999b; Richek, Caldwell, Jennings & Lerner, 1996; Snow, Burns, Griffin, 1998; Strickland & Snow, 2002; Walker, 2000). Nevertheless, during the past decade, reading has had an abundance of criticism from citizens, government officials, researchers and authors of national reports (Carbo, 1996; Marshall, 1997; Moats, 1995, 1999; Snow, Burns & Griffin, 1998; Strickland & Snow, 2002). Reading educators have reacted by conducting research and implementing reform aimed at restructuring and improving teacher education programs (Allington, 2002; Berliner, 1992, 2000; Block, 2000; Darling-Hammond, 2000a, 1996a; DeFord,

1979; Duffy & Atkinson, 2001; Hermann & Sarracino, 1993; Hoffman & Roller, 2001; Holmes Group, 1986; Maloch, Fine & Flint, 2002-2003; Manzo, 2001; Moats, 1995, 1999; Reinke, Mokhtari & Willner, 1998; Reutzel & Cooter, 199a; Richek, Caldwell, Jennings, Lerner, 1996; Snow, Burns & Griffin, 1998; Tompkins, 2003; Vacca, Vacca & Gove, 1995; Weaver, 1998). Companies and individuals have reacted by designing a significant number of so-called teacher-proof programs (e.g. *Literacy First*, *Saxon Phonics*, *Shurley English* and *Open Court)* to develop teachers' knowledge about reading and the teaching of reading (Flinders & Tornton, 1997). Various state legislatures have reacted by adopting a variety of laws dealing with reading programs and reading standards. And finally, numerous organizations (e.g. The National Research Council, the National Education Association and the International Reading Association) have reacted by developing position statements in which they support the idea that reading is an important component of success and that every child deserves an excellent reading teacher. These varied approaches have one common goal: improving the teaching of reading. The teaching of reading is considered to be one of the most influential factors in increasing the quality of students' learning processes and outcomes (Allington, 2002; Allington & Johnston, 2002; Block, Oakar & Hurt, 2002; Carbo, 1996; DeFord, 1979; Gove, 1981; Hermann & Sarracino, 1993; Marshall, 1997; Massey, 2002; Morrow, Tracey, Woo & Pressley, 1999; Reutzel & Cooter, 1999a, 1999b; Snow, Burns, Griffin, 1998; Strickland & Snow, 2002; Walker, 2000).

The impact of teaching on student learning is an important construct (Allington & Johnston, 2002; Darling-Hammond, 2000b, 2000c; Renaissance, 2002). Research shows that it is the classroom teacher that makes a difference in children's reading achievement and in their motivation to read (Allington & Johnston, 2002; Darling-Hammond, 1996b, 2000c; Reutzel & Cooter, 1999a; Roller, 1996; Snow, Burns & Griffin, 1998; Strickland & Snow, 2002; Tompkins, 2003; Vacca, Vacca & Gove, 1995). Teachers need to be knowledgeable about the research in reading, even though it appears to be contradictory at times. Teachers also need to understand literacy developmental stages in order to optimize literacy growth (Snow, Burns & Griffin, 1998; Walker, 2000). And, it is the teachers' perceptions about their ability to teach and to positively impact students' reading development that have the potential for explaining some of the phenomena, both negative and positive, that have been observed in reading practices in the classroom. Some of the negative practices include that of avoiding the teaching of reading (Pressley, 2002; Walker, 2000), giving insufficient time to reading instruction (Allington, 2002), teaching reading in whole groups (Tschannen-Moran, Hoy & Hoy, 1998), becoming frustrated with students when these students can not read (Gibson & Dembo, 1984), providing more worksheets for the students to complete (Czerniak & Schriver, 1994) and referring more students to special reading and math classes (Tschannen-Moran, Hoy & Hoy, 1998). Some of the positive practices include that of being more open to new ideas and being more willing to experiment with new methods to better meet their students needs (Stein & Wang, 1988), exhibiting greater levels

of planning and organization (Allinder, 1994), providing a balanced approach to reading instruction (Reading Excellence Act, 1998), encouraging students to monitor their comprehension (Pressley, 2002) and in providing time just to read (Allington, 2002; Allington & Johnston, 2001).

Therefore, it is useful for reading educators to study preservice teachers' self-efficacy beliefs so that they are able to present literacy course work in a way that is more meaningful to the preservice teachers. It is also useful for preservice teachers to become aware of their self-efficacy beliefs around the teaching of reading and the impact these beliefs have on students' learning so that they might be able to appreciate the future value of the course work being presented to them. Thus, this study extends the existing research in teacher efficacy to the field of reading.

### *Statement of the Problem*

Self-efficacy beliefs have been a topic of study for many years (Rotter, 1966). Self-efficacy beliefs came to the forefront when the Rand Corporation (1976) added two questions to a survey they mailed to teachers throughout the United States. As a result, this survey sparked interest in examing teachers' self-efficacy beliefs and the importance these beliefs may play in the classroom.

Bandura (1977) is one person who became interested in the concept of teachers' self-efficacy beliefs and the role they play in the classroom. He believes that a teachers' perception in their ability to teach and to positively influence children's development is an important influence in the classroom. He

also found that a teacher's sense of efficacy is situation and/or subject specific, therefore, a variety of self-efficacy belief instruments have been developed. However, until recently, the reading field was one subject area that has not had a self-efficacy belief instrument to use to explore preservice teachers' perceptions of their ability to teach reading and to positively influence a child's reading development. Therefore, despite the vast number of studies that have been done with self-efficacy, the reading field has not investigated the self-efficacy beliefs of preservice teachers.

### *Purpose of the Study*

The study had four purposes (hypotheses). The first hypothesis examined elementary preservice teachers' personal efficacy beliefs (PRTE) toward the teaching of reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' self-efficacy beliefs in their ability to teach reading effectively. The second hypothesis examined elementary preservice teachers' outcome expectancy beliefs (RTOE) toward reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' beliefs in their ability to have a positive impact on student learning (reading development). The third hypothesis determined what kind of impact this integrated literacy program had on elementary preservice teachers' reading knowledge (RK). And, the fourth hypothesis explored the relationship between preservice teachers' reading

knowledge (RK), their self-efficacy beliefs (PRTE) and their outcome expectancy beliefs (RTOE) toward the teaching of reading.

This purpose was achieved by comparing self-efficacy beliefs (PRTE) and outcome expectancy beliefs (RTOE) of those preservice teachers who were enrolled in their first literacy course (Junior Group) and those preservice teachers who were enrolled in their last literacy course (Senior Group). It was believed that the data obtained by comparing the two difference groups of preservice teachers would provide a better understanding of what was occurring within the integrated literacy program and the impact it was having on preservice teachers' beliefs and knowledge.

The first two research hypotheses were answered using data from the Reading Teachers' Self-Efficacy Instrument (RTSEI) for preservice teachers, developed by Szabo, Mokhtari and Walker (in review), as it examines both factors: personal reading teaching efficacy (PRTE) and reading teaching outcome expectancy (RTOE); thus, allowing for the exploration of preservice teachers' belief in their ability to teach reading effectively (PRTE) and in their belief in their ability to positively impact student learning (RTOE). The third hypothesis was answered by using the data from the Reading Knowledge Test (RKT). This test was created by the researcher using questions from four different reading test bank manuals, three of which are for textbooks currently being used in the literacy program, in order to examine preservice teachers' reading knowledge growth. The fourth hypothesis explored the extent to which

knowledge about reading (RK) is related to the preservice teachers' self-efficacy beliefs (PRTE) and outcome expectancy beliefs (RTOE) toward reading.

*Research Hypotheses*

1. There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to teach reading before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - PRTE factor).
2. There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to impact student learning before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI -RTOE factor).
3. There is no statistically significant difference between Junior and Senior elementary preservice teachers' reading knowledge before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RKT).
4. There is no statistically significant relationship between Junior and Senior elementary preservice teachers' knowledge about reading (RK) and their beliefs in their ability to teach reading (PRTE) and in their beliefs in their ability to impact student learning (RTOE) before and after successful

completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from both the RTSEI and the RKT).

*Definitions of Key Terms*

1. Outcome Expectancy (OE): The beliefs that one can positively influence the outcome of events (student's learning).
2. Personal Reading Teaching Efficacy (PRTE): The extent to which the teacher believes he/she has the capacity or ability (skills, knowledge, strategies) to effectively teach reading.
3. Preservice Teachers: College students who have declared themselves education majors and are either in the process of entering the College of Education or have been admitted to the College or Education. These preservice teachers have not completed their formal training, done their student teaching or received their teacher certification.
4. Personal Teaching Efficacy (PTE): The subset of self-efficacy that deals with teachers' beliefs in their ability to teach effectively.
5. Reading Teaching Outcome Expectancy (RTOE): The extent to which the teacher believes he/she has the ability to overcome varied influences (e.g., family backgrounds and students attitudes) in order to produce a desired outcome (learning to read by the students). This is the belief that one can positively influence how well students learn, even those who may be difficult or unmotivated.

6. Self-efficacy: The beliefs that one has about their capabilities to learn or to perform tasks and the confidence or motivation he/she has to successfully reach his/her goal(s). Bandura (1977) defines it as: "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances. It is concerned not with the skills one has but with the judgments of what one can do with whatever skills one possesses" (Enochs, Smith & Huinker, 2000; Riggs & Enochs, 1990; Sia, 1992).
7. Teacher Efficacy (TE): The extent to which the teacher believes he/she has the capacity to affect student performance. Teachers with high levels of teacher efficacy believe that they can teach all of their students (to read) and that they can control, or at least strongly influence, student achievement and motivation. Teacher efficacy has been identified as a variable accounting for individual differences in teaching effectiveness (Bandura, 1977, 1986; Gibson & Dembo, 1984; Pajares, 1992).
8. Teaching Outcome Expectancy (TOE): The subset of self-efficacy that deals with the teachers' beliefs that student learning can be influenced by effective teaching.

### *Significance of the Study*

This study looks at the self-efficacy beliefs that preservice teachers hold toward the teaching of reading. It provides additional understanding of preservice teachers' attitudes in the classroom and in their approaches to

learning while enrolled in an integrated literacy preparation program (see Chapter 2, instructional setting, for more detail). The findings of this study contribute to a better understanding of preservice teachers' development as teachers. In particular, the findings will be of interest to college professors who are attempting to educate and support preservice teachers in a literacy education program. This study is designed to find out whether there is a significant growth in preservice teachers' confidence in their ability to teach reading (PRTE) in order to have a positive impact on students' reading performance (RTOE) and in their reading knowledge (RK) as a result of completing an integrated literacy program.

### *Assumptions*

This study is based on the following assumptions:

1. Preservice teachers do have beliefs about their ability to teach reading and to impact children's reading development.
2. Preservice teachers' knowledge of reading plays a critical role in shaping their beliefs about reading and the teaching of reading.
3. Reading preparation programs are important in the training of effective teachers of reading (Darling-Hammond, 1992; Manzo, 2001).
4. Self-efficacy beliefs of individuals can be influenced by direct instruction (Bandura, 1977, 1997; Gassert & Shroyer, 1992; Jinks & Morgan, 1999).
5. Positive self-efficacy beliefs are one component of becoming a quality teacher.

6. Preservice teachers had ample time to fill out the surveys and their responses represented their best efforts.

### *Organization of the Study*

This study is presented in five chapters. Chapter I provides an overview of the study including background information, a formal statement of the problem to be investigated, the purpose of the study, a definition of terms used in the study, a discussion of the significance of this research, and the assumptions and limitations of the study.

Chapter II reviews the literature and related research. In this chapter, there are three sections dealing with information on the topics of self-efficacy, teaching and reading.

Chapter III presents the methodology of the study. This includes the purpose, the research hypotheses, the data collection, the research design, the participants, the instructional setting, the instruments used, and data analyses.

Chapter IV reports the results of the data analyses and answers the four hypotheses in the study.

Chapter V presents a summary of the findings and conclusions. It also discusses the implications of the study's findings for teacher education programs along with recommendations for further research.

# CHAPTER II

## *Review of the Literature*

This chapter reviews the research relevant to this study. The first section presents an overview of the literature on self-efficacy, which includes sources of self-efficacy, effects of self-efficacy, efficacy research, teacher-efficacy, history of teacher efficacy, teacher efficacy belief instruments, effects of teacher efficacy on teachers, effects of teacher efficacy on preservice teachers, and various content-specific efficacy instruments. The second section was an investigation of the literature on teaching, which includes quality teacher standards, quality teachers, teacher training programs and teacher development, and the novice teaching stage. The third section explored the literature on reading, which includes reading knowledge, characteristics of an excellent reading teacher, and reading instruction.

These topics were chosen for several reasons: First, Hargreaves (2000) states "much of education research is non-cumulative because few researchers seek to create a body of knowledge that is then tested, extended or replaced in some systematic way" (p. 201). He believes that education, as in natural sciences, should have a broad cumulative character and that research should seek explicitly to build on earlier research. For this reason, efficacy (both self-

efficacy and teacher efficacy) and various efficacy belief instruments are talked about in detail, as it was important to show that efficacy research is cumulative and has developed a large body of knowledge. Second, it is important to know what the current research tells us about preservice teachers, about teaching in general, and about the teaching of reading; not only to show that research findings in these areas are cumulative and have developed large bodies of knowledge, but also to help interrupt one's data and arrive at noteworthy conclusions (Gay, 1996; Mertens, 1998).

### *Self-Efficacy*

According to Bandura's (1977, 1986, 1997) social cognitive theory, the beliefs that individuals develop about their capabilities, what he calls self-efficacy beliefs, powerfully influence how they will behave. He (1986) describes self-efficacy as a cognitive mediator, as it is through the process of self-reflection that individuals are able to evaluate their experiences and abilities. It is our assessment of our own abilities, Bandura (1977, 1986, 1997) argued, that is responsible for the outcomes we expect and for the knowledge and skills we seek and acquire.

Self-efficacy is an appraisal about oneself and is essential for behavioral change to occur (Cervone, 2000), as "individuals guide their behavior by their beliefs surrounding their own efficacy" (Bandura, 1997, p. 154). Self-efficacy "is not concerned with the skills one has, but with the judgments of what one can do with whatever skills one possesses (Bandura, 1986, p. 391). Self-efficacy beliefs

are important as they help to determine which course of action will be taken, how much effort will be expended, how long one will persevere in the face of adversity and the level of success that will eventually be achieved (Bandura, 1997, Cervone & Scott, 1995; Wingfield & Ramsey, 1999; Zimmerman, 1995). "People engage in tasks in which they feel competent and confident and avoid those in which they do not" (Pajares, 1996). Therefore, individuals with high self-efficacy beliefs will begin and persist in a behavior (task) longer and the successful completion of the behavior (task) would provide them with a higher self-efficacy, which in turn, would increase the likelihood of their repeating the behavior (task) (Bandura, 1997; Cervone & Scott, 1995; Wingfield & Ramsey, 1999).

Sources of Self-Efficacy Beliefs

People's conception of their self-efficacy are developed and verified through various sources of information (Bandura, 1977, 1986, 1997). Research tells us that as people gain experience and confidence in executing strategies to reach specific goals, their self-efficacy beliefs should grow (Borrelli & Mermelstein, 1994). In Bandura's (1977, 1986, 1997) view, self-efficacy beliefs are enhanced or raised in four basic ways: performance accomplishments, vicarious experiences, verbal persuasion, and various physiological states. The first, and most important influence on enhancing self-efficacy beliefs is through the successful completion of a task in order to build one's current skill level (e. g., the availability of knowledge and strategies). Mastery experiences are especially important for people with little confidence in their own ability to perform the task

successfully; therefore, individuals should be encouraged to begin with small tasks so that they can experience success (Bandura, 1977, 1997; Tschannen-Moran, Hoy & Hoy, 1998).

The second form of self-efficacy enhancement occurs through vicarious observational experiences where others model the desired behavior. If we see someone else who is succeeding or has succeeded at performing a task, then we may decide that we can also successfully perform the task. Even though teachers should provide specific and credible feedback to learners, the intentional and unintentional modeling from skilled peers appears to be the most important (Bandura, 1977, 1997; Schunk, 1995; Tschannen-Moran, Hoy & Hoy, 1998; Weigand & Stockham, 2000).

The third technique to raise self-efficacy is verbal persuasion. This persuasion should be in the form of encouragement in order to talk the person through their insecurities and allow them to overcome their self-doubts (Bandura, 1977, 1986, 1997; Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998). However, "it is not enough for teachers to tell their students that they have 'done well' unless the students know what specifically they have done well" (Weigand & Stockham, 2000, p.67). Therefore, "verbal persuasion should be realistic and targeted toward specific skills that are developing or need to be developed" (Weigand & Stockham, 2000, p. 67).

Finally, various physiological states may spur one to action. Low physiological arousal or fewer "butterflies in the stomach" when presented with a task may contribute to self-confidence while high physiological arousal may

cause sweating, nervousness and "butterflies in the stomach" which may lead to self-doubt (Starko & Schack, 1989). This is the least effective source of self-efficacy.

Effects of Self-Efficacy Beliefs

Self-efficacy beliefs influence motivational and self-regulatory processes and influence one's thought patterns, emotions, attitudes and self-esteem that, in turn, determine one's actions, behaviors or outcomes (Bandura, 1997; Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998). Self-efficacy beliefs determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles and how resilient they will be in the face of adverse situations (Bandura, 1997; Cervone & Scott, 1995; Tschannen-Moran, Hoy & Hoy, 1998; Wingfield & Ramsey, 1999). Self-efficacy beliefs influence the amount of stress and anxiety individuals experience as they engage in a task (Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998). "People with high self-efficacy beliefs approach difficult tasks as challenges to be mastered rather than as dangers to be avoided, have greater intrinsic interest in activities, set challenging goals and maintain a strong commitment to them, more easily recover their confidence after failures or setbacks, and attribute failure to insufficient effort or deficient knowledge and skills which they believe they are capable of acquiring" (Pajares, 1997, p. 4). This high self-efficacy "helps to create feelings of serenity when approaching difficult tasks and activities" (Pajares, 1996, p. 545). In addition, "people with low self-efficacy may believe

that things are tougher than they really are and have a narrow vision of how best to solve a problem" (Pajares, 1996, p. 544-545).

## Self-Efficacy Research

The scope of self-efficacy research quickly broadened beyond the domain of clinical behavior change (Cervone, 2000). The tenets of the self-efficacy component of social cognitive theory have been widely tested in a variety of disciplines and have received support from a growing body of findings from diverse field (Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998). Self-efficacy beliefs have been found related to clinical problems (Borrelli & Mermelstein, 1994), performance in work settings (Locke & Latham, 1990), success in athletic pursuits (Feltz, 1992) and educational achievement (Bandura, 1997; Bandura, Barbaranelli, Caprara & Pastorelli, 1996; Pintrich & Schunk, 1996; Schunk, 1994; Tschannen-Moran, Hoy & Hoy, 1998; Wingfield & Ramsey, 1999).

For the purposes of this study, we will only look at the self-efficacy studies that relate to the educational field. In the educational field, there are also a large variety of studies, as one's efficacy beliefs are situational and content specific (Bandura, 1977, 1997; Cervone & Scott, 1995; Pajares, 1996; Tschannen-Moran, Hoy & Hoy, 1998; Wingfield & Ramsey, 1999; Zimmerman, 1995).

## Teacher Efficacy

Teacher efficacy is a form of self-efficacy (Dembo & Gibson, 1985; Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998). The term teacher efficacy

has been used to refer to teachers' beliefs or expectations that they can affect student learning and bring about positive student change for everyone, even those who may be difficult or unmotivated (Ashton & Webb, 1986; Berman, McLaughlin, Bass, Pauly & Zellman, 1977; Gibson & Dembo, 1984; Guskey & Passaro, 1994). Therefore, the teacher who believes effective teaching can influence student learning and who also has confidence in his or her own teaching abilities, should persist longer and provide greater academic focus in the classroom (Ashton, Webb & Doda, 1983; Cervone, 2000; Gibson & Dembo, 1984; Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998).

Teacher efficacy, like self-efficacy, is situation-specific (Bandura, 1997; Cervone & Scott, 1995; Pajares, 1996; Wingfield & Ramsey, 1999; Zimmerman, 1995). It is important to look at teacher efficacy because the teacher's self-efficacy beliefs toward teaching will help to determine how the teacher will behave in the classroom (Bandura, 1997; Pajares, 1996; Tschannen-Moran, Hoy & Hoy, 1998). Teacher efficacy affects the effort teachers put into teaching, the goals they set and their level of aspiration. A teachers' sense of self-efficacy is emerging as an important variable in the classroom (Dellinger, 2002; Gibson & Dembo, 1984; Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998).

## History of Teacher Efficacy

Teacher efficacy was first conceived in 1976 by the Rand researchers using the work of Rotter (1966) as a theoretical base. The first studies on

teacher efficacy were grounded in the social learning theory and consisted of only two questions. These two questions, in the form of statements, were:

1. "When it comes right down to it, a teacher really can't do much because a student's motivation and performance depends on his or her home environment." (measured general teaching efficacy; GTE – later called "outcome expectancy" by Bandura, 1977)
2. "If I really try hard, I can get through to even the most difficult or unmotivated students." (measured personal teaching efficacy; PTE)

In the RAND studies (1976), teachers were asked to indicate their level of agreement with each of these two statements on a five-choice Likert scale. The sum of the scores on the two items was called Teacher Efficacy (TE). These statements were used to determine if teachers felt they had control over their students' learning or if the control was external to them and depended on other factors (Tschannen-Moran, Hoy & Hoy, 1998). The RAND (1976) study found that teachers with high self-efficacy beliefs believed that they could control or at least strongly influence students' motivation and achievement because they had confidence in their abilities as teachers to overcome factors that could make learning difficult for students and that teachers with low self-efficacy beliefs believed that student motivation and performance rested in the home environment and that environmental factors would overwhelm any power that teachers exert in schools (Bandura, 1977, 1986, 1997; Gibson & Dembo, 1984; Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998; RAND, 1976).

The results of the two RAND studies sparked interest in the construct of 'teacher efficacy' (Bandura, 1977, Pajares, 1997; Tschannen-Moran, Hoy & Hoy, 1998), however, researchers were concerned about the reliability of the two-item scale and attempted to develop longer, more comprehensive measures (Tschannen-Moran, Hoy & Hoy, 1998). These new surveys were developed from ideas that grew out of Bandura's (1977) social cognitive theory and his construct of self-efficacy. The first self-efficacy belief instruments in the education field were developed to measure 'teacher efficacy' because a teacher's sense of self-efficacy seems to be important to the successful teaching and learning that occurs in the classroom (Dellinger, 2002; Gibson & Dembo, 1984; Hackett, 1985; Pajares, 1996, 1997; RAND, 1976; Tschannen-Moran, Hoy & Hoy, 1998; Wigfield, 1998; Woolfolk, Rosoff & Hoy, 1990; Zimmerman & Martinez-Pons, 1990).

Teacher Efficacy Belief Instruments (TEBI)

The Teaching Efficacy Belief Instrument (TEBI) was developed by Gibson and Dembo (1984) and was designed to explorer teacher efficacy for inservice teachers. Gibson and Dembo developed a 30-item instrument that yielded two factors consistent with the RAND items. The first factor (which contains items similar to RAND item 1) reflects a general belief about the power of teaching to reach difficult children therefore it was labeled general teaching efficacy (GTE, alpha = .79). General teaching efficacy (GTE – later named "outcome expectancy" by Bandura, 1977) is characterized by the notion that a teacher's

ability to bring about change is limited by factors external to the teacher, such as home environment, family background, and parental influences (Kushner, 1993). The second factor (which contains items similar to RAND item 2) appears to be the more accurate indicator of a teacher's personal sense of efficacy and is labeled personal teaching efficacy (PTE, alpha = .75). Personal teaching efficacy represents the teacher's belief that he or she has the personal skills and abilities to influence student learning (Kushner, 1993).

Kushner (1993) modified the Teacher Efficacy Belief Instrument (TEBI) to explore and measure preservice teachers' teaching efficacy beliefs (TEBI – preservice teacher). She gave two administrations of this modified survey to preservice teachers. She found that the alpha for the GTE scale on the first administration was 0.79 and for the second administration was 0.84 while the alpha for the PTE scale on the first administration was 0.79 and for the second administration was 0.70. This moderate reliability shows that this instrument consistently measures preservice teachers self-efficacy beliefs toward teaching.

Effects of Teacher Efficacy on Teachers

Researchers have used the teacher efficacy instruments noted above to investigate the impact of teachers that have low and high teacher-efficacy (Allinder, 1994; Anderson, Greene & Loewen, 1988; Dellinger, 2002; Ghaith & Yaghi, 1997; Gibson & Dembo, 1984; Hackett, 1985; Moore & Esselman, 1992; Oleander, 1995; Pajares, 1996; Podell & Soodak, 1993; Ross, 1992; Tschannen-Moran, Hoy & Hoy, 1998; Watson, 1991; Weasmer & Woods, 1998; Woolfolk,

Rosoff & Hoy, 1990; Zimmerman & Martinez-Pons, 1990). It was found that teachers' self-efficacy beliefs are revealed in the classroom in a number of ways, some of them negative and some of them positive. The combined scores of the PTE and the GTE factors were used to define teachers with both high and low teacher efficacy (Lee, Dedick & Smith, 1991; Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998). Characteristics and happenings in the classroom that are exhibited by teachers that possess high degrees of teacher efficacy can be seen below:

- Teachers are more active and assured in their responses to students and they persist longer, provide a greater academic focus in the classroom and exhibit different types of feedback. (Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998; Wingfield & Ramsey, 1999).
- Teachers are less likely to criticize a student following an incorrect response and more likely to persist with a student in a failure situation (Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998).
- Teachers devote their attention and effort to the demands of the situation, and, when faced with obstacles and difficult situations would try harder and persist longer (Lee, Dedick & Smith, 1991; Gibson & Dembo, 1984).
- Teachers are more flexible if the classroom routine is interrupted (Gibson & Dembo, 1984).

- Teachers are open to new ideas and more willing to experiment with new methods to better meet the needs of their students and provide a greater academic focus in the classroom (Allinder, 1994; Ghaith & Yaghi, 1997; Gibson & Dembo, 1984; Tschannen-Moran, Hoy & Hoy, 1998; Weasmer & Woods, 1998).
- Teachers are more likely to use inquiry, innovative instruction and student-centered teaching strategies (Allinder, 1994; Czerniak, 1990; Czerniak & Schriver, 1994; Enochs, Smith & Huinker, 2000).
- Teachers exhibit greater enthusiasm for teaching (Allinder, 1994).
- Teachers are more willing to work with students who are experiencing difficulties rather than referring the student to special education (Colardarci & Breton, 1997; Podell & Soodak, 1993; Tschannen-Moran, Hoy & Hoy, 1998).
- Teachers spend more time monitoring and checking seatwork (Gibson & Dembo, 1984).
- Teachers tend to use direct instruction (Gibson & Dembo, 1984).
- Teachers positively impact student achievement (Anderson, Greene & Loewen, 1988; Dellinger, 2002; Gibson & Dembo, 1984; Moore & Esselman, 1992; Oleander, 1995; Ross, 1992; Watson, 1991).
- Teachers positively affect student's interest in school and learning in general (Hackett, 1985; Pajares, 1996; Wigfield, 1998; Woolfolk, Rosoff & Hoy, 1990; Zimmerman & Martinez-Pons, 1990).

- Teachers tend to exhibit greater levels of planning and organization (Allinder, 1994).
- Teachers experience reduced stress (Parkay, Greenwood, Olejnik, & Proller, 1988).
- Teachers exhibit a theoretical base for the choice of strategies they use to help student to learn the lesson quickly and efficiently (Czerniak & Schriver, 1994).
- Teachers encourage family involvement in school activities and have positive teacher-parent relationships (Hoover-Dempsey, Bassler, & Brissie, 1987; Parkay, Greenwood, Olejnik & Proller, 1988).
- Teachers have better classroom management and discipline plans (Dellinger, 2002).
- Teachers are more likely to use learning centers, observation activities, simulations and small group discussion (Czerniak & Schriver, 1994).

Characteristics and happenings in the classroom exhibited by teachers with low degrees of teacher efficacy can be seen below:

- Teachers who have left teaching were found to have significantly lower teacher efficacy than teachers in either their first year or their fifth year of teaching (Glickman & Tamashiro, 1982).
- Teachers readily give up or become frustrated when the student is not learning (Gibson & Dembo, 1984).
- Teachers believe that student motivation and performance rests in the home environment (Rotter, 1966; Bandura, 1977).

- Teachers will behave ineffectually, even though they know what to do (Bandura, 1997).
- Teachers tend to be more flustered when their classroom routine is interrupted (Gibson & Dembo, 1984).
- Teachers are more likely to be concerned about student behavior rather than student learning (Czerniak & Schriver, 1994).
- Teachers, during questioning, are more likely to call on another student if the first student does not know the answer or allow another student to call out the answer before the called-on-student has time to answer (Gibson & Dembo, 1984).
- Teachers tend to behave with resignation and feel powerless (Dellinger, 2002).
- Teachers refer low SES students to special education more often (Podell & Soodak, 1993).
- Teachers rely more on teacher-directed strategies such as lecture and reading the textbook (Czerniak & Schriver, 1994).

In summary, a growing body of research supports the belief that teachers' efficacy beliefs are important to the success of students in the classroom (Allinder, 1994; Bandura, 1997; Dellinger, 2002; Pajares, 1996; Tschannen-Moran, Hoy & Hoy, 1998; Weasmer & Woods, 1998). When teachers have low teacher efficacy, their teaching tends to be characterized by authoritative, teacher-centered roles (Bandura, 1997; Tschannen-Moran, Hoy & Hoy, 1998; Czerniak & Schriver, 1994). In contrast, teachers with high teacher efficacy tend

to teach in ways characterized by the use of inquiry approaches, use more student-centered approaches, have better classroom management skills and have more understanding of their students' developmental levels (Hackett, 1985; Pajares, 1996; Wigfield, 1998; Woolfolk, Rosoff & Hoy, 1990; Zimmerman & Martinez-Pons, 1990). Weasmer and Woods (1998) and colleagues suggest that questions related to teacher efficacy should be used in screening teacher candidates and that such information may be a better indicator of future teaching success than past teaching performance, as judgments of personal competence are often stronger predictors of behavior than are prior accomplishments, skill or knowledge (Multon, Brown & Lent, 1991; Pajares, 1996; Schunk 1991).

Effects of Teacher Efficacy in Preservice Teachers

Teacher efficacy beliefs in preservice and student teachers have been linked to attitudes toward children and control (Woolfolk & Hoy, 1990; Tschannen-Moran, Hoy & Hoy, 1998). Undergraduates with a low sense of teacher efficacy tended to have an orientation toward control (Gibson & Dembo, 1984; Kushner, 1993; Tschannen-Moran, Hoy & Hoy, 1998); that is, they relied on strict classroom regulations, extrinsic rewards, and punishment to make students study. General teaching efficacy (GTE – later named "outcome expectancy" by Bandura, 1977) beliefs are more likely to change when students are exposed to learning experiences or social persuasion, such as college coursework (Watters & Ginns, 1995) while personal teaching efficacy (PTE)

beliefs are more likely to grow during actual teaching field experiences and during student teaching (Housego, 1992; Hoy & Woolfolk, 1990).

Content-Specific Efficacy Belief Instruments

Bandura's (1986) assertion that because judgments of self-efficacy are task specific, measures should be specifically tailored to the specific task being assessed. A subject specific instrument would be more informative as a specific measurement instrument should be a more accurate predictor of specific teaching behaviors and thus more beneficial to the change process necessary to improve student (preservice teacher) achievement in specific subject matter (Riggs & Enochs, 1990). Therefore, recognizing that many standard efficacy belief instruments overlook the specific teaching context (i.e. classroom management) and content (i.e. math and science), some researchers have modified the Gibson and Dembo instrument to explore teacher's sense of efficacy within particular curriculum areas (Rich, Lev & Fischer, 1996; Tschannen-Moran, Hoy & Hoy, 1998).

In each of the following efficacy belief instruments, two factors are represented. One factor measured teacher efficacy (TE) and contained the pronoun "I" and asked teachers about their views of their own efficacy as teachers (TE represented Question #2 on the RAND study). The other factor measured teacher's belief that student learning can be modified by effective teaching (Bandura called this outcome expectancy, OE, represented by Question #1 on the RAND study). Each survey used a 5-point Likert-scale response

system ranging from strongly agree to strongly disagree with both positively and negatively written statements.

*Science Teaching Efficacy Belief Instrument (STEBI-A) for Elementary Inservice Teachers developed by Riggs and Enochs (1990).* Initial science-specific items were modeled after scales designed to measure self-efficacy and outcome expectancy beliefs for teaching behavior in general (Gibson & Dembo, 1984). Consistent with Gibson and Dembo they have found two separate factors. The two resulting scales were named the "Personal Science Teaching Efficacy" (PSTE) scale and the "Science Teaching Outcome Expectancy" (STOE) scale. The Science Teaching Efficacy Belief Scale was administered to 331 practicing elementary teachers, both rural and urban, in Kansas. Item analysis was conducted on both scales. Reliability analysis for the Personal Science Teaching Efficacy (PSTE) scale resulted in an alpha of .92 and corrected item-total correlation of .53 and above for all items. Reliability analysis of the Science Teaching Outcome Expectancy (STOE) scale resulted in an alpha of .77 and corrected item-total correlation of .34 and above. The analysis resulted in a 25-item survey. Through various analyses, only gender exhibited a significant difference, with higher scores found for males on the Personal Science Teaching Efficacy Belief scale at the .05 level. It was found that teachers with a higher sense of PSTE, as measured using the STEBI-A, reported spending more time teaching science and were more likely to spend an ample amount of time to develop the science concept being considered (Riggs & Jesunathadas, 1993). Those with low PSTE spent less time teaching science, used a text-based

approach, were rated weak by sit observers and were less likely to teach science curriculum (Riggs, 1995).

*Science Teaching Efficacy Belief Instrument (STEBI-B) for Elementary Preservice Teachers developed by Riggs and Enoch (1990).* This was modeled after the STEBI-A. After analysis, this instrument contained 23 items. Alpha for Personal Science Teaching Efficacy (PSTE) scale was .90 and for the Science Teaching Outcome Expectancy (STOE) was .76. The moderate to high reliability showed that this instrument consistently measures preservice teachers self-efficacy beliefs toward the teaching of science.

*Environmental Education Efficacy Belief Instrument (EEEBI) for Elementary Preservice Teachers developed by Sia (1992).* This instrument was developed, patterned after the Science Teaching Efficacy Belief Instrument for elementary preservice teachers (STEBI-B) developed by Enochs and Riggs (1990), to study preservice teachers' self-efficacy beliefs toward the teaching of environmental science. This study, which was designed to measure efficacy in the teaching of environmental education, was given to 40 preservice teachers who were enrolled in both science and mathematics methods course at a California university. This instrument contains two scales, Personal EE Teaching Efficacy Belief Scale (self-efficacy dimension containing 13 items) and EE Teaching Outcome Expectancy Scale (outcome expectancy dimension containing 10 items). Further analysis is underway using Cronbach's alpha coefficient and factor analysis to further refine the instrument. However, this study did show that the respondents expressed that they have inadequate

knowledge, training, and skill in EE to be effective in teaching it - negative self-efficacy. They also believe that they can increase students' achievement with effective teaching - positive outcome expectancy belief. Therefore, the validity of the instrument was determined to be high.

*Mathematics Teaching Efficacy Instrument (MTEBI) for Elementary Preservice Teachers developed by Enochs, Smith and Huinker (2000).* In this study, the authors formally assessed the Mathematics Teaching Efficacy Beliefs Inventory used in the Huinker and Madison (1997) study to provide a formal check of validity for the instrument. The MTEBI was a modification of the STEBI-B (Riggs & Enochs, 1990), which contained 23 items. These items were changed to reflect future mathematics teaching beliefs. The MTEBI was administered at the end of a math methods course to 324 preservice teachers in Wisconsin (3 sites), California, South Carolina and Michigan. This instrument was comprised of two subscales, personal mathematics teaching efficacy (PMTE) and mathematics teaching outcome expectancy (MTOE). Of the 23 items, two had item-total correlation less than .30 so were dropped from further analysis resulting in a final instrument with twenty-one items, thirteen items on the PMTE subscale and eight items on the MTOE subscale. Reliability analysis produced an alpha of .88 for PMTE subscale and an alpha of .77 for MTOE subscale, thus showing that this instrument consistently measures preservice teachers self-efficacy beliefs toward the teaching of math.

*Reading Teachers' Self- Efficacy Instrument (RTSEI) for preservice teachers was developed by Szabo, Mokhtari and Walker (in review).* The

development of the Reading Teachers' Self- Efficacy Instrument, found in Appendix D, for preservice teachers followed the pattern of the preservice STEBI-B (Riggs & Enoch, 1990) and the MTEBI (Enochs, Smith & Huniker, 2000) and was developed after reviewing a variety of existing efficacy instruments that had been developed for other teaching specialties (Science, 23 statements - Riggs and Enochs, 1990; Environmental Science, 23 statements - Sia, 1992; Teacher Efficacy, 30 statements - Gibson & Dembo, 1984; Math, 21 statements - Enochs, Smith and Huinker, 2000). The RTSEI for preservice teachers was created to study preservice teachers' beliefs in their ability to teach reading effectively and in their belief in their ability to positively impact student's learning of reading.

After reading the literature, two factors were called for based on a priori assumption. Therefore, all items were forced into two predetermined factors (Personal Reading Teaching Efficacy – PRTE and Reading Teaching Outcome Expectancy – RTOE) and confirmed by factor analysis. In the teaching of reading, self-efficacy is the teachers' belief that they have the ability to effectively teach reading to all students while outcome expectancy is the teachers' belief in their ability to influence or counter-balance external forces (e.g. home environment, student's attitudes) in order to positively impact all student's reading development.

The response categories range from 1 (strongly disagree) to 5 (strongly agree). The statements from the existing instruments had to be changed to

reflect the reading content area. The following is an example of the reading statements, which indicate the type of changes made:

- Self-efficacy: I will continually look for better ways to teach reading (science, math).
- Outcome Expectancy: If students are underachieving in reading (science, math), it is most likely due to ineffective reading (science, math) teaching.

Additional items were created for the RTSEI to reflect research on the teaching of reading and to develop a larger item pool. Initially, the RTSEI contained thirty-five statements. These thirty-five items were edited for clarity, redundancy and readability by both an undergraduate class who had completed their reading/literacy method courses and were not going to take part in the validation study and a panel of experts that consisted of both reading faculty members and reading graduate students. They were asked not only to mark the items that were unclear or confusing to them but to mark any items they felt were duplicated. This refinement process, which contributed to the instrument's content validity, eliminated eight items. This left the RTSEI with an item total of twenty-seven statements.

The twenty-seven reading statements on the RTSEI were then administered to a large sample of preservice teachers (n=419; 386 female and 33 male) in nine comprehensive universities found across the state of Oklahoma. These participants were education students who were enrolled in their first reading methods course and the RTSEI was administered at the end of the

semester. In addition, to completing the RTSEI and a short biographical section to learn more about each participant, the preservice teachers were asked to complete the Teacher Efficacy Belief Instrument (Krusher, 1993) for comparison, thus lending additional support to the RTSEI results.

Before the data could be analyzed, the five negatively worded reading statements had to be recoded to reflect a positive statement. This was done, by changing the preservice teachers' initial responses (1 changes to 5, 2 changes to 4, 4 changes to 2 and 5 changes to 1) on the instrument. Next, the statements were grouped according to the attribute they were intended to measure: personal efficacy belief (PRTE) statements or outcome expectancy belief (RTOE) statements.

Next, reliability analysis was conducted for both scales on the twenty-seven statements of the RTSEI. Of the twenty-seven reading statements, nine reading statements had a corrected item-total correlation of less than 0.30. Robinson, Shaver, and Wrightsman (1991) consider this low correlation to be less than exemplary and these reading statements were dropped from further analysis. Thus, four PRTE reading statements (numbers 11, 21, 24 and 27) and five RTOE reading statements (numbers 5, 6, 14, 15 and 17) were dropped (see Table I), leaving eighteen reading statements.

After that, a factor analysis using a principal component analysis extraction method with a forced factor of two was completed on the eighteen reading statements remaining to determine if there were any factoring problems. Two RTOE items (statement number 10 and 23) were dropped (see Table I)

using the priori factoring, as they did not factor the same way as the correlating statements on the Science (STEBI-B) or Math (MTEBI), thus eliminating any problems with cross loading items. As two items were dropped, another reliability analysis was performed on the RTOE scale.

Thus, the final RTSEI consists of sixteen statements measuring two broad categories; the personal reading teaching efficacy (PRTE) scale consists of 10 statements (5 positively worded and 5 negatively worded) that measure one's belief in their ability to effectively teach reading and the reading teaching outcome expectancy (RTOE) scale consists of 6 statements (all 6 are positively worded) that measure one's belief in their ability to positively impact student's reading development. Reliability analysis produced an alpha coefficient of 0.83 for the PRTE scale and an alpha coefficient of 0.70 for the RTOE scale, thus showing that this instrument consistently measures preservice teachers' self-efficacy beliefs and outcome expectancy beliefs toward the teaching of reading (see Table I).

The 419 preservice teachers were also asked to fill out the 20-item Teaching Efficacy Belief Instrument (TEBI) by Krusher (1993) to help add support to the validity of the new instrument (RTSEI). In this instrument, the two factors examined are general teaching efficacy (TE) and personal efficacy (PE). Krusher's (1993) results, using 359 preservice teachers, were: TE alpha = 0.65 and PE alpha = 0.79. This study's results were: TE alpha = 0.61 while the PE alpha = 0.80. These results lend support to the RTSEI, as the alpha results are similar and the factorial analysis of the twenty items was the same.

Consistent with prior research utilizing previous efficacy instruments, the RTSEI appears to be a valid and reliable measure that can be used for assessing preservice teachers' attitudes and beliefs toward the teaching of reading. As validation of the instrument continues to be an on going process, further research can help solidify these finding.

Table I: Reliability and Factor Analysis Results on the RTSEI

| PRTE Scale (14 items) Initial numbering of items. | Item-Total Correlation | Factor #1 PRTE | Factor #2 RTOE |
|---|---|---|---|
| 4. I will continually look for better ways to teach reading. | 0.52 | 0.65 | -0.08 |
| 8. Even if I try very hard, I will not teach reading as well as I will teach other subjects. | 0.57 | 0.63 | -0.30 |
| 9. I will not be very effective in monitoring reading activities. | 0.59 | 0.63 | -0.35 |
| *11. If I really try, I will be able to get through to readers with difficult reading problems.* | *0.26** | -- | -- |
| 13. I understand the process of reading well enough to be effective in teaching reading. | 0.44 | 0.54 | -0.13 |
| 16. I will find it difficult to teach students with reading problems. | 0.39 | 0.42 | -0.39 |
| 18. I will find it difficult to explain to students how to improve their reading. | 0.57 | 0.62 | -0.30 |
| 19. I do not know what to do to turn students on to reading. | 0.63 | 0.68 | -0.32 |
| *21. When a student has difficulty understanding what s/he has read, I will often be at a loss as to how to help the student understand the story better.* | *-0.55** | -- | -- |
| 22. When teaching reading, I will usually welcome student questions. | 0.46 | 0.59 | .04 |
| *24. If parents would do more reading with their children at home, I could do more at school.* | *0.14** | -- | -- |
| 25. I will know several ways to teach reading effectively. | 0.55 | 0.63 | -0.18 |
| 26. I will use community resources to help get support for literacy in my classroom. | 0.47 | 0.59 | 0.04 |
| *27. When teaching stories, I will find it difficult to help students understand the meaning.* | *-0.49** | -- | -- |

Table I (continued): Reliability and Factor Analysis Results on the RTSEI

| RTOE Scale (13 items) | Item-Total Correlation | Factor #1 PRTE | Factor #2 RTOE |
|---|---|---|---|
| 1. When the reading performance of students improves, it is often because their teacher has found a more effective way to support reading. | 0.47 | 0.31 | 0.52 |
| 2. The teacher is generally responsible for the achievement of students in reading. | 0.33 | 0.14 | 0.45 |
| 3. If parents comment that their child is showing more interest in reading, it is probably due to the performance of the child's teacher. | 0.34 | 0.25 | 0.49 |
| *5. The low reading achievement of some students cannot generally be blamed on their teachers.* | *0.11** | -- | -- |
| *6. If students don't read at home, they are not likely to read at school.* | *0.01** | -- | -- |
| 7. When a student does better than usual in reading it is often because the teacher exerted a little extra effort. | 0.48 | 0.35 | 0.59 |
| 10. The inadequacy of a student's reading can be overcome by good teaching of reading. | 0.42 | 0.49** | 0.36** |
| 12. When a low-achieving child progresses in reading, it is usually due to extra support offered by the teacher. | 0.53 | 0.36 | 0.59 |
| *14. Increased effort in the teaching of reading produces little change in some students' reading performance.* | *0.03** | -- | -- |
| *15. If parents would read more to their children, it would be easier to teach reading.* | *0.17** | -- | -- |
| *17. If students are underachieving in reading, it is most likely due to ineffective teaching of reading.* | *0.20** | -- | -- |
| *20. Students' achievement in reading is directly related to their teacher's effectiveness in the teaching of reading.* | *0.49* | *0.30* | *0.57* |
| *23. Teachers are not a very powerful influence on student reading performance when all factors are considered.* | *0.37* | *0.59*** | *-.09*** |

* items dropped from further analysis due to low item-total correlation
** items factored on the opposite side as judged by the STEBI-B & MTEBI
Note: Items in italics were dropped for the final RTSEI

*Other Efficacy Belief Instruments:* As self-efficacy beliefs are curriculum specific, many studies have also modified versions of the teacher efficacy belief instrument to assess efficacy beliefs toward different topics. Other content areas are: teaching Internet usage (Koul & Rubba, 1999), coaching (Weigand & Stockham, 2000), working with gifted and talent students (Starko & Schack, 1989) teaching tobacco prevention (Perry-Casler, Price, Telljohann & Chesney, 1997), efficacy and school climate (Hoy & Woolfolk, 1993) and the teaching of nutrition (Britten & Lai, 1998).

In conclusion, the various efficacy studies and the development of efficacy instruments show that self-efficacy and teacher efficacy has a large body of knowledge and that efficacy studies have been cumulative in nature, thus supporting Hargreaves (2000) belief that research should build on earlier research.

## *Teaching*

"Every child needs--and deserves--dedicated,
outstanding teachers, who know their subject matter,
are effectively trained, know how to teach to high standards and
to make learning come alive for all students."

----------President Clinton
Reading Excellence Act (1998, on-line)

Teachers are a very important part of the classroom environment (Allington & Cunningham, 2002; Darling-Hammond, 1996b, 2000c; Day, 1999;

Steffy, Wolfe, Pasch & Enz, 2000) and as such, they have a lot of influence over not only what is taught in the classroom but also how it is taught. Thus, teacher efficacy beliefs are an important educational variable that can contribute to the enhancement of the school experience for both the teachers and the students (Bandura, 1997; Rich, Lev & Fisher, 1996). As teaching is a multifaceted complex profession, an effective teacher must learn how to teach by synthesizing information from numerous bodies of knowledge such as method courses on child development, reading, science, learning styles and teaching strategies, classroom management and even from activities that develop self-understanding. Therefore, if preservice teachers are to become an effective teacher for all of their students, they must keep an open mind, as there is no one practice that can be followed to reach and teach every child in the classroom. As seen in the next section, there are many ideas on what should be done to help our preservice teachers become quality teachers.

## Quality Teacher Standards

*National Council for Accreditation of Teacher Education (NCATE).* According to Arthur Wise (2000), President of NCATE, The National Council for Accreditation of Teacher Education has achieved national recognition as a lever for reform in teacher preparation. NCATE has developed standards for teacher preparation, standards for subject matter preparation in the various program areas and standards for professional development schools. The NCATE standards are based on the thinking of

experts in the teaching profession and focus on a range of topics deemed critical to teacher preparation today (e.g., curriculum, students, faculty and governance). NCATE standards say that the teacher candidate (online):

- is expected to attain academic competence in the subject matter to be taught
- should have a liberal arts background
- should be able to use a variety of instructional methods to help motivate students and a variety of assessment tools to evaluate student achievement
- should be familiar with and able to use technology in instruction
- should be able to create meaningful learning experiences for and be able to teach all students.

*Organization for Quality Education (OQE).* According to the Organization for Quality Education (2000), a quality education system helps all students at all levels (K-16+) to attain the knowledge, skills, attitudes, values, and work habits needed to become productive, fulfilled citizens. Educational systems should provide clear goals, high standards, good teachers and a well-organized curriculum. The members of this organization believe that quality education should consists of the following (on-line):

- Teachers should be able to use systematic phonics to teach children to read and all children should be able to read at age-appropriate level or better.

- Teachers need to be encouraged to use rigorous and more effective strategies for teaching spelling and grammar.
- Teachers should be given incentives to learn about and use better methods and materials for teaching.
- Teachers should challenge students.
- Teachers need to provide disadvantaged children structured, academically intensive schools, which use proven methods.

*National Commission on Teaching and America's Future (NCTAF).* The report of the National Commission, *What Matters Most: Teaching for America's Future* (1996), concluded that school success at all levels depended on the restructuring of the teaching profession. They believe that it is "what teachers know and can do that makes the crucial difference in what children learn. In order to make significant improvements in teaching and learning by 2006, the Commission compiled the following recommendations" (1996).

- Get serious about standards, for both students and teachers.
- The nation should renew its promise to bring every American child up to world-class standards in core academic areas and to develop and enforce rigorous standards for teacher preparation, initial licensing, and continuing development.
- Reinvent teacher preparation and professional development.

- Colleges and schools should work with states to redesign teacher education so that the two million teachers to be hired in the next decade are adequately prepared and all teachers have access to high-quality learning opportunities.
- Overhaul teacher recruitment and put qualified teachers in every classroom.
- States and districts should aggressively pursue policies to put qualified teachers in every classroom by providing financial incentives to correct shortages, streamlining hiring procedures, and reducing barriers to teacher mobility.
- Encourage and reward knowledge and skill.
- School districts, states, unions, and professional associations should cooperate to make teaching a true profession, with a career continuum that places teaching at the top and rewards teachers for their knowledge and skills.
- Create schools that are organized for student and teacher success.
- Schools should be restructured to become genuine learning organizations for both students and teachers:

organizations that respect learning, honor teaching, and teach for understanding.

Quality Teachers

As seen above, various groups have created what they believe will enhance the educational system. Even President Bush, when he signed into law the '*No Child Left Behind Act*' (January, 2002) redefined what a quality teacher should possess. The Act states, all new teachers hired after September 2002, in Title I schools, must be qualified and in order to become a qualified teacher, one must do the following (Lewis, 2002):

- obtain full certification, including alternative certification, or pass a state licensing exam;
- hold a license to teach in the state; and
- have no waivers of certification or licensure on an emergency or provisional basis.

Effective teaching has always been considered a crucial ingredient to successful schools. However, recent studies, from *What Matters Most: Teaching for America's Future* (1996) to *Quality Counts 2000: Who Should Teach?* (2000), validate the point. "Today, research is confirming what common sense has suggested all along: A skilled and knowledgeable teacher can make an enormous difference in how well students learn" (Edwards, 2000). That is, teacher quality has a greater impact on student achievement than class size, school climate, ability grouping or location of the school (Darling-Hammond, 1999). Therefore, teacher preparation programs need to adequately prepare

preservice teachers while they are enrolled in professional teacher education programs at colleges and universities (Berliner, 1992; Carini & Kuh, 2003; Day, 1999; Edwards, 2000; Steffy, Wolfe, Pasch & Enz, 2000).

Linda Darling-Hammond (1999) advocates stronger teacher-preparation programs, higher standards for teachers, and more rigorous licensing. Teachers, she argues, need more than subject-area knowledge; they also must know how to teach their subjects effectively. Teacher preparation and certification are crucial in gaining and assessing that pedagogical expertise. In a recent policy brief on teacher quality, Darling-Hammond (1999) states what she believes teachers need to have in order to become quality teachers. She suggests that the characteristics of "quality teachers are one's verbal ability, subject-matter knowledge, knowledge of teaching and learning, and ability to use a wide range of teaching strategies adapted to student needs" (p. 1). The only way that teachers learn to use effective practices, she writes, is through teacher education and professional-development programs—"particularly training that focuses on analysis of learning and methods for teaching specific content to different kinds of learners" (p. 4). Not surprisingly, Darling-Hammond (1999) sees a clear relationship between teaching ability and student achievement as she states, "the strongest and most consistent predictor of a state's average student achievement level is the proportion of well-qualified teachers in the state" (p. 4). Therefore, every school system should be looking to hire competent, caring classroom teachers.

Wanted: A competent, caring and qualified teacher who is

> student focused, a passionate professional, committed to learning and well versed in subject-area content. Understands human development and learning, thrives on chaos, avoids burnout and withdrawal by remaining engaged in own learning. Leads successfully in technological milieu, arbitrates disputes, and juggles multiple tasks. Simultaneously related well and works collaboratively with colleagues, parents, the business community, service organizations, church groups, administrators, students, social service agencies, and others. Candidates should be knowledgeable and skilled in generating research-based teaching and learning strategies, including, but not limited to, cooperative learning, multicultural emphases, developmentally appropriate practices, school-to-work initiatives, service learning, brain-based learning, multiple intelligences, conflict resolution, and parent involvement. Commitment to lifelong continual professional development mandatory.
>
> Steffy, Wolfe, Pasch & Enz (2000, p. 1)

Teacher Training Programs and Teacher Development

Interest in teacher education has intensified. A number of national reports such as the one in 1996 from the *National Commission on Teaching* and the *American's Future and the Teacher Survey on Professional Development and Training* (Lewis, Parsad, Carey, Bartfai, Farris, & Smerdon, 1999) indicated that less than half of the new teachers surveyed felt prepared to meet the challenges of school classrooms.

Some researchers (DeFord, 1979; Gove, 1981) believe that teacher thinking and teacher behavior are guided by an organized set of beliefs or theories that influence teaching practices. Therefore, a variety of studies have been done to examine the biggest influence on preservice teachers' beliefs. Is it their college instructors and their formal training (Ashton, Crocker & Olejnik, 1986; Ferguson & Womack, 1993; Frazier, Mencer, Duchein, 1997; Kushner, 1993; Wham, 1993)? Is it their cooperating teacher during student teaching (Mencer, 1996; Metcalf, 1991; Richardson-Koehler, 1988)? Is it their informal theories that they bring to their undergraduate course work (Brosseau, Book & Byers 1988; Florio-Ruane & Lensmire, 1990; Herrmann & Sarracino, 1993; Holt-Reynolds, 1992; Lortie, 1975; Olson & Singer, 1994; Perry & Rog, 1992; Watters & Ginns, 1995)? Or is it the combination of all three (Kagan, 1992; Pajares, 1993; Steffy, Wolfe, Pasch & Enz, 2000; Williams, 1995)?

Studies have shown the benefits of methods classes in preparing preservice teachers to teach (Ashton, Crocker & Olejnik, 1986; Ferguson & Womack, 1993; Frazier, Mencer, Duchein, 1997; Manzo, 2001; Wham, 1993). One such study was done by Wham (1993) using the Theoretical Orientation to Reading Profile (TORP) to examine the relationship of undergraduate course work and the student teaching experience to reading theoretical orientations. Subjects who participated in the study included 35 undergraduate students, 35 student teachers and 35 cooperating teachers. Wham (1993) determined that the course work appeared to have had greater influence than did the student teaching experience. Another study done by Frazier, Mencer & Dunchein

(1997), which included 25 elementary education majors, 2 college instructors and 14 cooperating teachers, determined that overall preservice teachers were more influenced by their college instruction rather than by their cooperating teachers during student teaching. A third study done by Kushner (1993) using 118 participants to investigate the changes in preservice teachers' beliefs about the relevance of a required course was examined. She found that participants believed that the course was relevant to their needs but as the instruction progressed throughout the semester perceptions of course relevance decreased. Other studies suggest that even though variations in the philosophy, implementation and quality of teacher education programs are enormous, teacher education programs are successful in providing adequately trained teachers for the complexity of classroom instruction (Ashton, Crocker and Olejnki, 1986; Darling-Hammond, 1992; Ferguson and Womack, 1993; Strickland and Snow, 2002; Wilson, Floden & Ferrini-Mundy, 2001). And, preservice teachers who attend teacher preparation programs with a strong focus on reading instruction tend to provide richer literacy experiences for their student than those who attend institutions without such an emphasis (Manzo, 2001).

Alternately, studies have shown that the student teaching experience is the most significant aspect of teacher preparation and they seem to show that the college instruction has the least influence on the preservice teacher (Bullough & Gitlin, 1995; Ransom & Weisenbach, 1994; Richardson-Koehler, 1988). Richardson-Koehler (1988) noted that within two weeks of field placement, student teachers discounted their college instructors' influence, attributing most

of their practices to their cooperating teachers. Bullough & Gitlin (1995) went so far as to say, "they were frustrated at watching much of our course work 'wash out' during student teaching" (p. 9). A study done by Ransom & Weisenbach (1994) looked at 90 elementary education students' perceptions after a reading methods course and after a student teaching assignment. They found that what is taught at university reading classes does influence student perceptions/beliefs but that those beliefs become less important after completion of a student teaching assignment.

Perry & Rog (1992), Florio-Ruane & Lensmire (1990) and Lortie (1975) suggest that the countless number of hours and the many dull or exciting years spent in the classroom, as a student is what shapes preservice teachers ideas about teaching the most. Also college students' self-perception of themselves as either a good student or a bad student (Lortie, 1975), their recollection of their teachers (Watters & Ginns, 1995), their family's beliefs, values and attitudes about education and learning, and the media influence their beliefs about teaching and learning. Therefore, pre-service teachers enter the College of Education with varying interpretations of what teaching is, how they will teach reading and what they think makes an effective teacher (Bullough & Gitlin, 1995; Knowles & Cole, 1994).

As preservice teachers' training experiences are important, Walters & Ginns (1995) suggests, "that the attitudes developed during their own schooling may be influenced by their preservice training experiences" (p. 4). Pajares (1992) suggests that this can be done through education programs, which

promote reflection about educational practices. Knowles & Cole (1994) suggest that you cannot expect to teach others until you know yourself; therefore, the discovery of self is an important factor in the teaching process and this self-discovery should be a part of the education program.

A study by Holt-Reynolds (1992) with 9 preservice teachers enrolled in a reading content course showed that preservice teachers come to their formal study of teaching with implicit theories and personal history-based beliefs. This study showed that the assumption held by teacher educators that preservice teachers can and do distinguish between the beliefs they currently hold and the principles they are asked to consider in class is unfounded. Therefore, preservice teachers need to be encouraged to reflect in order to learn from their past experiences, to know themselves, and to understand why they feel and think the way they do (Bullough & Gitlin, 1995).

Whitbeck (2000) found that preservice teachers appear to hold a simplistic view of the profession. She did a qualitative study with fourteen preservice teachers in which she examined their beliefs about teaching. She found that they believed they had a "special calling" or "gift" that would make them more successful than other individuals for this career. And, they indicated that this "gift" alone was enough to allow them to be successful in teaching. She also found that most of their beliefs developed from their own experiences as students and because of this belief, they had a high self-efficacy toward teaching.

Research has emphasized the importance of both "personal or informal theories" and "public or formal theories" in preservice teachers' learning.

Teachers' behaviors in the classroom are influenced and often determined by their thought processes (Clark & Petterson, 1986). Therefore, teacher educators are becoming more interested in the beliefs or informal theories preservice teachers bring with them to their undergraduate course work (Brosseau, Book, & Byers, 1988) as they have a significant effect on their motivation, attitudes and self-efficacy.

The Novice Teaching Stage

Literature suggests that learning to teach is a developmental process (Day, 1999; Kagan, 1992; Katz, 1972;*). The Life Cycle of the Career Teacher* (Steffy, Wolfe, Pasch & Enz, 2000) is an advocacy model, which describes teacher development and offers a prescription for enhancing the teaching profession. According to Steffy, Wolfe, Pasch and Enz (2000), this cycle has six basic phases that preservice and inservice teachers experience during their teaching careers —novice, apprentice, professional, expert, distinguished and emeritus.

The novice phase begins when preservice students first encounter a practicum experience. This begins with their first orientation to the teaching profession in their teacher education program and continues through their student teaching. "During this phase, novice teachers may be confused and even frustrated or overwhelmed by the clash of their expectations for teaching and the reality of life in the classroom and school" (Steffy, Wolfe, Pasch & Enz, 2000, p. 30). Most preservice teachers value the learning that occurs through

firsthand experience more than the structured discourse of the university (Bolin, 1990; Howey & Zimpher, 1996). Darling-Hammond (1994) suggests that the characteristics valued in the school site many times are in opposition to those valued by the university. Roskos, Risko, and Vukelich (1998) warned that students often look to their instructors to provide quick fixes and simple answers (Duffy & Hoffman, 1999).

It is important for educators to consider how to nurture preservice teachers who are in the novice stage. The teacher stage model recommends appropriate strategies and approaches to ensure that sufficient support occurs at each phase. According to Allington and Cunningham (2002) and Steffy, Wolfe, Pasch and Enz (2000) teacher-development efforts that universities need to incorporate into their curriculum to enhance preservice teachers growth are:

- Help preservice teachers build a professional vocabulary;
- Give preservice teachers powerful learning experiences to transform their teacher knowledge;
- Give preservice teachers early experience;
- Help preservice teachers connect informal and formal theories;
- Help preservice teachers make explicit the beliefs they hold and decide why they have these beliefs;
- Provide preservice teachers with activities that will help them link theory to practice;
- Provide preservice teachers with various setting to give rise to different kinds of knowing;

- Assign preservice teachers to a building and not to a single teacher during field experiences; and
- Make sure preservice teachers experience conflict; all experiences should not be agreeable, as their current ideas will not be challenged.

*The Life Cycle of the Career Teacher* (Steffy, Wolfe, Pasch & Enz, 2000) model has important implications for teacher educators who work with novice teachers. Using the model enforces the idea that the career of teaching is a process and that preservice education is the beginning of the continuum. Only by paying close attention to the preservice teacher curriculum offered at the university level will teacher educators help novices change their beliefs about what it means to be a teacher and help preservice teachers to acquire the skills/knowledge necessary to move them into the next phase of teaching (Steffy, Wolfe, Pasch & Enz, 2000).

In summary, we want to provide all students with competent, caring and qualified teachers, who know their subject matter, know how to teach to high standards and to make learning come alive for all students. Therefore, we must prepare our preservice teachers to become quality teachers. This can be done through teacher education programs, providing a variety of classroom practicum and by helping preservice teachers to become knowledgeable about themselves. Thus, the life cycle of teaching is a useful model in promoting teacher efficacy, in promoting good practices and in promoting the ideas that teaching is a continual learning process.

## *Reading*

Today teachers face huge challenges, especially for teaching reading in the primary grades. Teachers must be able to identify students' strengths and weaknesses and plan instructional programs that apply a variety of teaching techniques to meet the individual needs of students (Strickland and Snow, 2002; Walker, 2000). Snow, Burns and Griffin (1998) in the Executive Summary of *Preventing Reading Difficulties in Young Children* points out that not just primary teachers but all teachers need to be provided with adequate knowledge about reading and the teaching of reading. Snow, Burns and Griffin (1998) believe that too many of our children cannot read or have difficulty reading. A recent study found that fewer than half of American teachers report feeling very well prepared to meet such challenges (Snow, Burns & Griffin, 1998; Strickland & Snow, 2002). Therefore, reading remains a "hot" topic and has taken center stage in many of the discussions about education reform at all levels; local, state and federal.

### Reading Knowledge

Reading instruction needs to prepare children to be successful in the classroom by providing them with essential reading skills and strategies (Walker, 2000). In school, children enter their various classrooms with a tremendous range of skills and experiences and teachers are faced with the task of meeting the needs of each of these children, providing individual attention based on each child's unique capabilities. However, as seen below, there are many ideas, some with similar views and some with differing views, on what teaching of reading

knowledge preservice teachers and inservice teachers must have in order to become an exemplary teacher of reading.

In April 2000, the National Reading Panel, after reviewing hundreds of reading research projects, published their findings:

> "effective reading instruction includes teaching children to break apart and manipulate the sounds in words (phonemic awareness), teaching them that these sounds are represented by letters of the alphabet which can then be blended together to form words (phonics), having them practice what they've learned by reading aloud with guidance and feedback (guided oral reading), and applying reading comprehension strategies to guide and improve reading comprehension."
>
> National Reading Panel (2000, on-line)

The National Research Council (1998) and the National Reading Panel (2000) prepared comprehensive research reviews related to what children need to know to learn to read. Their findings indicate that children need:

- Rich language experiences (particularly with vocabulary)
- Phonological awareness
- Phonics
- Fluency
- Comprehension

The Reading Task Force report (1996), *Teaching Reading: A Balanced, Comprehensive Approach to Teaching Reading in Pre-kindergarten Through*

*Grade Three*, called for a balanced and comprehensive approach to reading instruction that includes both teacher-directed skills instruction and the activities and strategies most often associated with whole-language literature-based instruction. It concluded that the following instructional components should be in every reading program:

- Phonemic awareness;
- Letter names and shapes;
- Systematic and explicit phonics;
- Spelling and vocabulary development;
- Fluency; and
- Comprehension and high-order thinking.

The Center for the Improvement of Early Reading Achievement (CIERA) in their publication, *Put Reading First*, wrote that "while there are no easy answers or quick solutions for optimizing reading achievement, an extensive knowledge base now exists to show us the skills children must learn in order to read well" (p. ii). They use the report written by the National Reading Panel (NRP, 2000) to summarize what researchers have discovered about how to successfully teach children to read. It provides five areas that should be included in all reading instruction:

- Phonemic awareness,
- Phonics,
- Fluency,
- Vocabulary, and

- Text comprehension

The Reading Excellence Act (1998) proposes the use of rigorous research when selecting reading instruction content and strategies in order to teach every child to read by the end of third grade. The REA requires that reading instruction be based on scientifically based reading research. According to the REA, the term reading means a complex system of deriving meaning from print that requires all of the following:

- Phonemic awareness, letter knowledge, and concepts of print
- The alphabetic code: Phonics and decoding
- Fluency, automatic reading of text
- Vocabulary
- Text comprehension
- Written expression
- Spelling and handwriting
- Screening and continuous assessment to inform instruction
- Motivating children to read and developing their literacy horizons

Pressley (2002) believes there is little doubt that instruction that develops the following interrelated skills should improve comprehension. He believes that teachers need to know how to do the following:

- Teach decoding skills.
- Teach vocabulary.

- Encourage children to build world knowledge through reading and to relate what they know to what they read (e.g., by asking "Why?" questions about factual knowledge in text).
- Teach students to use a repertoire of comprehension strategies, including prediction, analyzing stories with respect to story grammar elements, question asking, image construction, and summarizing.
- Encourage students to monitor their comprehension, noting explicitly whether decoded words make sense and whether the text itself makes sense.

Moats (1999) states that teaching reading is a job for an expert. Contrary to the popular theory that learning to read is natural and easy, learning to read is a complex linguistic achievement (Moats, 1999). For many children, it requires effort and incremental skill development. Moreover, teaching reading requires considerable knowledge and skill, acquired over several years through focused study and supervised practice. In her book, Moats (1999) writes about knowledge and skills for teaching reading and what a core curriculum for teacher candidates should look like. She has developed a four-part curriculum that she argues must be taught to all teacher candidates if they are to become successful teachers of reading.

- Part I. The Psychology of Reading and Reading Development
    - Cognitive Characteristics of Proficient Reading
    - Cognitive Characteristics of Poor Reading
    - Environmental and Physiological Factors in Reading

Development

- The Development of Reading, Writing, and Spelling

- Part II. Knowledge of Language Structure and Its Application
  - Phonetics
  - Phonology
  - Morphology
  - Orthography
  - Semantics
  - Syntax and Text Structure
- Part III. Practical Skills of Instruction in a Comprehensive Reading Program
  - Consensus Findings of Research
  - Concepts of Print, Letter Recognition, Phoneme
  - Awareness
  - Decoding, Word Attack
  - Spelling
  - Fluency
  - Vocabulary Development
  - Reading Comprehension
  - Composition
- Part IV. Assessment of Classroom Reading and Writing Skills

Allington and his colleagues think that good teachers, effective teachers, matter much more than any particular curriculum materials, pedagogical

approaches, or "proven (teacher-proof) programs" (Allington & Johnston, 2001; Darling-Hammond, 1999; Duffy, 1997; Pressley, Allington, Wharton-McDonald, Collins-Block & Marrow, 2001; Taylor, Pearson, Clark & Walpole, 2000). He believes that if we are to hope to attain the goal of "no child left behind," we must focus on creating a greater number of effective, expert teachers (Allington, 2002). In order to determine what an exemplary teacher does, Allington and his colleagues studied some of the best elementary school teachers in the nation (Allington & Johnston, 2002; Pressley, Allington, Wharton-McDonald, Collins-Block & Morrow, 2001). After hundreds of days of classroom observation and hundreds of interviews with teachers and students he talks about six common features – the 6 Ts. He states that these 6 Ts should be found in every classroom in order to have effective literacy instruction:

- Time --These teachers had a "reading and writing vs. stuff" ratio that was far better balanced than is typically found in elementary classrooms (Allington, 2001).
- Texts -- If children are to read a lot throughout the school day, they will need a rich supply of books they can actually read. This seems a simple statement of fact. But there also exists a large and potent research base supporting supplying children with books of appropriate complexity (Allington, 2001).
- Teach -- These teachers offer useful strategy models – decoding strategies, composing strategies, self-regulating strategies – as separate lessons to the whole class, to targeted small groups, and to

individual students in side-by-side instruction. In fact, it is this literal overabundance of instructional activity that truly sets these teachers apart and explains much of their effectiveness with lower-achieving students (Taylor, Pearson, Clark & Walpole, 2000).

- Talk -- This talk was purposeful talk, not simply chatter. The talks in these classrooms were problem posing, problem-solving talk related to curricular topics (Allington & Johnston, 2002; Johnston, Woodisde-Jeron & Day, 2001).
- Tasks -- Another characteristic of these exemplary teacher classrooms was the greater use of longer assignments and reduced emphasis on filling the day with multiple, shorter tasks (Allington, 2001).
- Tests -- Finally, these exemplary teachers evaluated student work based more on effort and improvement than simply on achievement status. This focus meant that all students had a chance at earning good grades, regardless of their achievement levels (Allington, 2001; Duffy, 1997).

Characteristics of an Excellent Reading Teacher

While there are many ideas, ranging from teacher-centered to child-centered approaches, on what should be taught, everyone is in agreement that every child deserves excellent reading teachers because teachers make a difference in children's reading achievement and motivation to read (position statement by the International Reading Association, IRA, 2000; Snow, Burns &

Griffin, 1998). Good reading teachers, according to International Reading Association position statement (2000) and collected research by Snow, Burns & Griffin (1998), share several critical qualities of knowledge and practice:

- They continually assess children's individual progress and relate reading instruction to children's previous experience.
- They know a variety of ways to teach reading, when to use each method and how to combine the methods into an effective instruction program.
- They offer a variety of materials and texts for children to read.
- They use flexible grouping strategies to tailor instruction to individual students.
- They are good reading "coaches" who can provide help strategically.
- They understand that all components of reading influence every stage of reading, but they also realize that the balance of instruction related to these components shifts across the developmental span and shifts for individual children.
- They are familiar with a wide range of assessment techniques, ranging from standardized tests to informal assessment techniques that they use daily in the classroom.

In *Ten Proven Principles for Teaching Reading*, Sweet & Kapinus (2000, April) wrote about ten ideas that transform instruction in reading and heightens literacy for all students.

- One, reading is the comprehending of the texts. Readers construct meaning by interacting with the text on the basis of their existing or prior knowledge.
- Two, effective reading instruction can develop engaged readers who are knowledgeable, strategic, motivated and socially interactive.
- Three, phonemic awareness, a precursor to competency in identifying words, is one of the best predictors of success in learning to read.
- Four, modeling is an important classroom activity that supports and encourages literacy learning.
- Five, storybook reading, done in the context of sharing experiences, ideas, and opinions, is a highly demanding mental activity for children.
- Six, responding to literature helps students to construct their own meaning, which may not always be the same for all readers.
- Seven, children who engage in daily discussions about what they read are more likely to become critical readers and learners.
- Eight, expert readers have strategies that they use to construct meaning before, during and after reading.
- Nine, children's reading and writing abilities develop together.
- Ten, the most valuable form of reading assessment reflects our current understanding about the reading process and simulates authentic reading tasks.

Reading Instruction and Research Studies

The way a person performs or behaves in a given situation depends on attitudes that are manifestations of both cognitive and affective attributes of that person (Bandura, 1997). The extent to which teachers will teach reading is influenced by the teachers' knowledge of reading and the issues in teaching reading as well as their feelings or attitudes toward reading. These attitudes may develop during their own schooling (Brosseau, Book & Byers 1988; Florio-Ruane & Lensmire, 1990; Herrmann & Sarracino, 1993; Holt-Reynolds, 1992; Lortie, 1975; Olson & Singer, 1994; Perry & Rog, 1992) but may also be influenced by their preservice training experiences (Frazier, Mencer, Duchein, 1997; Wham, 1993). Researchers agree that teachers' informal and formal theories tend to influence their actions toward teaching (Brosseau, Book, & Byers, 1988; Bullough & Gitlin, 1995; Hughes, 1994; Pajares, 1992).

In literacy, educators have looked for a best way to teach preservice teachers how to teach reading (Allington, 2001; Bear, Invenizzi, Templeton & Johnston, 2000; Tompkins, 2003; Reutzel & Cooter, 1999a; Walker, 2000; Vacca, Vacca & Gove, 1995). Method courses vary from university to university but include the enjoyment of literature, assessment and diagnostics of reading and the integration of reading in content areas (Ashton & Crocker, 1987; Darling-Hammond, 1992; Wilson, Floden & Ferrini-Mundy, 2001). As preservice teachers hold unspoken or hidden theories about the reading process, a survey instrument developed by DeFord (1979) has been used to determine preservice teachers orientation to reading and how reading method courses affect that

orientation. DeFord's survey reflects three orientations: subskills (phonics) to skills to whole language.

O'Callaghan (1997) used DeFord's instrument and teaching metaphors to do a qualitative study with four of her students. She discovered that all four participants advocated a skills orientation to the teaching of reading as determined by the Theoretical Orientation to Reading Profile (TORP). However, she found that the two participants who had experienced a supportive literacy environment during childhood chose a nurturing metaphor for teaching while the two who did not enjoy reading during their childhood chose metaphors that emphasized the teacher as an authoritarian figure.

Hughes (1994) was interested in the beliefs preservice teachers bring to their undergraduate methods courses and how these beliefs change. Her qualitative study was done with ten preservice teachers and her results showed preservice teachers continuing to think of teaching as being skills oriented and that they would use the new approaches and materials they had learned in traditional ways. These studies support Lortie's (1975) findings that the major influence in shaping future teachers' conceptions of teaching is their previous years of experiences as a student.

Another instrument developed by Lenski, Wham & Griffey (1998) was the Literacy Orientation Survey (LOS) for assessing teachers' beliefs about literacy learning and classroom practices as they relate to constructivism. A study by Wham (1993) focused on preservice teachers' theoretical orientations to the reading process and examined the relationship of under-graduate course work

and the student teaching experience to these orientations. At the completion of the two-year study, two conclusions were drawn: 1) more than half of the students in the study experienced no changes in theoretical orientation throughout the course of the study; and 2) for those who did experience a change, the course work appeared to have had a greater influence than did the student teaching experience.

A study by Scrivens (1998) using seventy-three preservice teachers looked at their confidence to teach reading and to determine which elements of the coursework contributed most to an understanding of teaching reading. This study used the Bandura mastery approach. The conclusion of this study showed that structured, directed tasks where preservice teachers were required to work closely with children, and to use assessment and teaching strategies that they had learned about in lectures had a positive effect on the preservice teachers' confidence. These preservice teachers began to feel that they could teach students how to read successfully.

Manzo (2001) did an extensive study, which tracked teachers from their undergraduate programs through their initial years in the classroom. They were looking to see what difference high quality reading preparation programs makes in the classroom. They found that teachers who had a teacher preparation program which had a strong focus on reading instruction tended to provide richer literacy experiences for their students (i.e. reading centers, time to read for fun and planned reading instruction to help their student's progress through the

reading stages and master reading skills and strategies need to promote comprehension).

In summary, reading and the teaching of reading is an important aspect in the classroom. Teachers need to be knowledgeable not only about the reading research but they need to understand the literacy developmental stages. Even though the reading knowledge discussed in this section appears to be contradictory at times, it is important to expose preservice teachers to all research about reading and the teaching of reading in order to optimize the literacy growth of all students, as it should be the student's needs that determine what and how reading is taught. Thus, supporting that idea that a skilled and knowledgeable teacher in the classroom does make an enormous difference in how well student learn to read.

### *Conclusion*

Helping preservice teachers explore their attitudes toward reading will help them to understand why they believe the way they do toward the teaching of reading and, in turn, help them to become better teachers of reading. College success depends on both external factors, such as the demands of method courses, and internal factors, such as motivation and efficacy beliefs (Bandura, 1977, 1997; Bullough & Gitlin, 1995; Cervone & Scott, 1995; Knowles & Cole, 1994; Pajares 1992, 1993). Preservice teachers must learn to become reflective about their attitudes and self-efficacy toward reading and their reading teaching practices, as their academic achievement will be enhanced when they learn to

control their own learning and combine their private and public theories (Bullough & Gitlin, 1995; Kruger & Dunning, 1999).

In the next chapter, the methodology is presented. This includes the purpose and the rational, the data collection, the research design, the participants, the instructional setting, the instruments used, and data analyses.

# CHAPTER III

# METHODOLOGY

This chapter describes the research methodology used in this study. The first two sections state the purpose of the study and the four null hypotheses that were examined. Subsequent sections provide details about the participants, the instructional setting, the instruments used for collecting relevant data, and the procedures followed to obtain and analyze the data collected.

## *Study Purpose*

The study had four purposes or hypotheses. The first hypothesis examined elementary preservice teachers' personal efficacy beliefs (PRTE) toward the teaching of reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' self-efficacy beliefs in their ability to effectively teach reading. The second hypothesis examined elementary preservice teachers' outcome expectancy beliefs (RTOE) toward reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' beliefs in their ability to have a positive impact on student learning (reading development). The third hypothesis determined what kind of impact this integrated literacy program had

on elementary preservice teachers' reading knowledge (RK). And, the fourth hypothesis explored the relationship between preservice teachers' reading knowledge (RK), their self-efficacy beliefs (PRTE) and their outcome expectancy beliefs (RTOE) toward the teaching of reading.

This purpose was achieved by comparing self-efficacy beliefs (PRTE) and outcome expectancy beliefs (RTOE) of those preservice teachers who were enrolled in their first literacy course (Junior Group) and those preservice teachers who were enrolled in their last literacy course (Senior Group). It was believed that the data obtained by comparing the two different groups of preservice teachers would provide a better understanding of the learning (or training) that was naturally occurring within the integrated literacy program and the impact it was having on preservice teachers' beliefs and knowledge.

The first two research hypotheses were answered using data from the Reading Teachers' Self-Efficacy Instrument (RTSEI) for preservice teachers, which was developed by Szabo, Mokhtari and Walker (in review), as it examines both factors: personal reading teaching efficacy (PRTE) and reading teaching outcome expectancy beliefs (RTOE); thus, allowing for the exploration of preservice teachers' belief in their ability to effectively teach reading (PRTE) and in their belief in their ability to positively impact student learning (RTOE). The third hypothesis was answered by using the data from the Reading Knowledge Test (RKT). This test, which was created by the researcher for this study, used questions from four different reading test bank manuals, three of which accompanied textbooks that were being used in the integrated literacy program,

in order to examine preservice teachers' reading knowledge growth. The fourth hypothesis explored the extent to which knowledge about reading is related to the preservice teachers' self-efficacy beliefs (PRTE) and outcome expectancy beliefs (RTOE) toward reading.

### *Research Hypotheses*

In order to determine the impact of a twelve-credit-hour integrated literacy education program on preservice teachers' beliefs in their ability to effectively teach reading and to positively impact student reading development, and on their reading knowledge, the following four null hypotheses were examined:

1. There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to teach reading before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - PRTE factor).
2. There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to impact student learning before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI -RTOE factor).
3. There is no statistically significant difference between Junior and Senior elementary preservice teachers' reading knowledge before and after

successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RKT).

4. There is no statistically significant relationship between Junior and Senior elementary preservice teachers' knowledge about reading (RK) and their beliefs in their ability to teach reading (PRTE) and in their belief in their ability to impact student learning (RTOE) before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from both the RTSEI and the RKT)

### *Data Collection*

The data for this study was conducted in several phases. Phase One was gaining permission to conduct the study. First, a proposal describing the purpose of the study was developed, four hypotheses were delineated, and the steps were taken to ensure protection of human subjects as required by the University's Institutional Review Board (Appendix A, approved June, 2002). Next, support was solicited from the literacy faculty members who would be teaching the first and last literacy classes in the twelve-credit-hour integrated literacy program (three classes), since the targeted participants (preservice teachers) were enrolled in these classes. These reading faculty members were briefed about the purpose of the study, the steps involved in collecting the data, the study duration, and other related details. Finally, materials necessary for conducting the study were prepared, and includes:

- Informed Consent Script and Consent Form (Appendix B);
- Background Questionnaire (Appendix C);
- Reading Teachers' Self-Efficacy Instrument - RTSEI (Appendix D);
- Reading Knowledge Test – RKT (Appendix E).

Phase Two of the study was the collection of the data. This began with the distribution of both the Informed Consent Script and the Consent Form along with the various survey instruments to the reading faculty members who had volunteered to assist with the study. The literacy faculty members were given instructions to follow on how to administer the surveys in order to assure some consistency among the four sections of the first reading course and the three sections of the last reading course.

During this phase, each group of participants (Junior and Senior) completed the same survey instruments. It was estimated that it would take approximately one hour to fill out the survey instruments. This time was divided among three different class periods, taking approximately twenty minutes from each class period. During the first twenty-minute session, the participants were told about the study, asked to sign a consent form (Appendix B) and completed the Background Questionnaire (Appendix C). During the second twenty-minute session, the participants completed the Reading Teachers' Self-Efficacy Instrument (RTSEI – sixteen statements- Appendix D). During the third and final twenty-minute session, the participants completed the thirty-seven questions found on the Reading Knowledge Test (RKT - Appendix E).

Phase Three of the study was devoted to the analyses of the

quantitative data (i.e., the Background Questionnaire, the Reading Teachers' Self-Efficacy Instrument and the Reading Knowledge Test).

### *Research Design*

As discussed above, the study sought to determine the impact of a twelve-credit-hour integrated literacy education program on preservice teachers' personal efficacy beliefs, outcome expectancy beliefs and reading teaching knowledge. A cross-sectional, descriptive research design was used for this study (Gay, 1996; Mertens, 1998). This research design was cross-sectional in nature, as there are two independent participant groups (Junior Elementary Education Major Students and Senior Elementary Education Major Students). This research design was descriptive in nature, as there was no manipulation of the participants by the researcher. However, this study observed, recorded and compared the learning that was naturally occurring as the preservice teachers were being educated about reading and the teaching of reading during the integrated literacy program. It was believed that the data obtained by comparing the two different groups of preservice teachers would provide a better understanding of the learning (or training) that was naturally occurring within the integrated literacy program and the impact it was having on preservice teachers' beliefs and knowledge.

*Participants*

The participants involved in the study were preservice teachers pursuing an elementary education degree. The participants for this study involved two sample groups: junior elementary preservice teachers who have not yet completed any of the required integrated literacy courses offered at the university, and senior elementary preservice teachers who have completed all of the required integrated literacy courses offered at the university. As both groups contained different participants, it had to be shown that both sample groups were from comparable populations. In order to do this, the background information on each participant was examined using descriptive and frequency statistics. A detailed comparison of the demographic characteristics of each group's participants can be seen in Table II (found on page 80-81).

The ninety-six participants, who are predominantly white (86%) and female (97%), have a mean age of 21.0 for the junior group and 22.8 for the senior group. All ninety-six participants (forty-eight participants in the junior group and forty-eight participants in the senior group) were enrolled in established reading courses (see the "Instructional Setting" section for specific information about these courses).

The participants were asked to participate in the study voluntarily by either the researcher or the literacy faculty member that taught the course. Although the study was conducted during their class time, the participants were assured that neither their participation nor their lack of participation in the study would affect their grade in their respective courses in any way. Also, each participant

had the opportunity to withdraw from participating in the study at any time during the three survey sessions without penalty. Participants were specifically given the opportunity to accept or decline the survey at the beginning of each of the three survey sessions.

The participants who completed the surveys were asked to identify their individual surveys by putting the last four digits of their social security number at the top. The completed surveys were then grouped or matched to determine which participants had completed a survey during all three sessions. Only participants who had completed all three surveys were used in this study.

Group One – Junior Elementary Education Major Students

All members of this group were first semester junior elementary preservice teachers. All eighty-four preservice teachers, who were enrolled in one of the four sections of the first literacy course (see "Instructional Setting" section), were asked to participate. To ensure that this literacy course did not have any impact on the results of the study, the preservice teachers were asked to fill out the three survey instruments during the first week of the semester.

Even though all eighty-four junior elementary preservice teachers were asked to contribute, only forty-eight of them (57%) completed all three instruments. Reasons that may have led to this relatively low level of participation were:

- the preservice teachers had not had time to form a learning community and working relationships with the professor or with each other, and

thus felt no responsibility or obligation to participate in the study when asked to do so;

- the preservice teachers had no relationship with the researcher and, therefore, no sense of trust of or responsibility to her/him; and
- the preservice teachers' lack of knowledge about the research process and the role that research plays in university life.

The forty-eight participants in this study were preservice teachers who had agreed to participate, signed the consent form (seen in Appendix B), completed all three surveys (seen in Appendices C, D, and E) and were enrolled in their first literacy course (see the "Instructional Setting" section for description of course). The participants consisted of forty-seven females and one male. Their ages ranged from nineteen to thirty-six. Table II (found on below) presents a more detailed account of the participants including their self-reported GPA, ethnicity, age, gender, when they decided to enter teaching, if they like to read and if they had been diagnosed with a reading problem. The results of the analyses on the demographic information, found in Table II below, were used to determine if the two sample groups were from comparable populations.

Table II
Demographic Characteristics of Junior and Senior Participants

| Variables | Group One – Juniors | Group Two – Seniors |
|---|---|---|
| | Number (Percent) | Number (Percent) |
| Participants | 48 (100.0) | 48 (100.0) |
| Gender | | |
| Female | 47 (97.9) | 46 (95.8) |
| Male | 1 ( 2.1) | 2 ( 4.2) |

Table II (continued)
Demographic Characteristics of Junior and Senior Participants

| Variables | Group One – Juniors<br>Number (Percent) | Group Two – Seniors<br>Number (Percent) |
|---|---|---|
| Ethnicity | | |
| Caucasian | 41 (85.4) | 42 (87.5) |
| Asian-American | 0 ( 0.0) | 0 ( 0.0) |
| American Indian | 7 (14.6) | 5 (10.4) |
| African American | 0 ( 0.0) | 1 ( 2.1) |
| Hispanic | 0 ( 0.0) | 0 ( 0.0) |
| When did you decide to become a teacher? | | |
| always wanted to teach | 29 (60.4) | 28 (58.3) |
| after high school | 6 (12.5) | 5 (10.4) |
| after starting college | 8 (16.7) | 7 (14.6) |
| after basic studies | 5 (10.4) | 8 (16.7) |
| not sure I want to teach | 0 ( 0.0) | 0 ( 0.0) |
| How many experiences have you had working with children? | | |
| 1-3 experiences | 29 (60.4) | 21 (43.7) |
| 4-6 experiences | 19 (39.6) | 27 ( 6.3) |
| Do you like to read? | | |
| Yes | 38 (79.2) | 45 (93.7) |
| No | 10 (20.8) | 3 ( 6.3) |
| Self-Reported GPA | M = 3.3 (SD = .41)<br>ranged from 2.40 – 4.0 | M = 3.4 (SD = .39)<br>ranged from 2.50 – 4.0 |
| Age | M = 21.0 (SD = 2.8)<br>ranged from 19 – 36 | M = 22.8 (SD = 3.7)<br>ranged from 21 – 41 |

Group Two – Senior Elementary Education Major Students

All members of this group were first semester senior elementary preservice teachers. All sixty-seven preservice teachers, who were enrolled in one of the three sections of the last literacy course (see "Instructional Setting"

section), were asked to participate. To ensure that this literacy course, which is the last literacy course in the integrated literacy program, did have an impact on the results of the study, the preservice teachers were asked to fill out the three survey instruments during the last full week of instruction for the semester.

Even though all sixty-seven senior elementary preservice teachers were asked to participate, only forty-eight of them (72%) completed all three instruments. One of the reasons that may have led to this moderate level of participation was the fact that the three surveys were given during a two-day period in three different method courses (Reading, Social Studies and Classroom Management) in which this group was enrolled and absenteeism was a problem during the two-day period. Even though all sixty-seven students were willing to participate, as they were the researcher's students, some were not present to fill out all three surveys and thus were eliminated.

The forty-eight participants in this study were preservice teachers who had agreed to participate, signed the consent form (seen in Appendix B), completed all three surveys (seen in Appendices C, D, and E) and were enrolled in their last literacy course (see the "Instructional Setting" section for description of courses) thus completing their twelve-credit-hour integrated literacy education program. The participants in this group consisted of forty-six females and two males. Their ages ranged from twenty-one to forty-one. Table II (found on pages 80-81) presents a more detailed account of the participants including their self-reported GPA, age, gender, ethnicity, when they decided to enter teaching, if they like to read and if they had been diagnosed with a reading problem. The results of the

analyses on the demographic information, found in Table II on pages 80-81, were used to determine if the two sample groups were from comparable populations.

### *Instructional Setting*

Participants in the study are pursuing an elementary education degree within the College of Education at a comprehensive Midwestern University. They all seek to become schoolteachers, and, as such, are required to successfully complete a minimum of twelve credit hours in an integrated literacy education program. The literacy education program is organized in a 5-5-2 integrated literacy model, which consists of three courses, with all literacy faculty members within each course using the same syllabus and teaching to the same objectives.

The first literacy course in the series (5 credit-hours) is a literacy foundation course. In order to be enrolled in this course, preservice teachers are expected to have completed two basic English classes (Freshman Composition I and II). In this course, preservice teachers learn about the cognitive and linguistics foundations of literacy, the language conventions needed to compose and comprehend oral and written texts and the selection and use of literature in a school setting (University's Course Catalog – Spring 2002-2003).

The second literacy course in the series (5 credit hours) is a literacy assessment and instruction course. Successful completion of the literacy foundation course is required for enrollment in this second course. While in this course, preservice teachers learn about reading strategies, formal and informal assessment, curriculum materials, theory, and research pertaining to reading,

writing, spelling and oral language development at the elementary school levels (University's Course Catalog – Spring 2002-2003). During this course, each preservice teacher tutors an elementary child, some are having trouble with literacy processing while some are above grade level in their reading ability.

The third and final literacy course in the series (2 credit hours) addresses integration of literacy across the curriculum. Required for this course are: successful completion of the second literacy course and completion of the requirements to become fully admitted into the College of Education (one requirement being a 2.5 GPA). While in this class, preservice teachers learn about the integration of literacy into content areas in the elementary school curriculum (University's Course Catalog – Spring 2002-2003). During this course, each preservice teacher spends time in an assigned practicum setting in one of the elementary schools in the area.

### *Instruments*

Three instruments were used to collect data: a Background Questionnaire (Appendix C), the Reading Teachers' Self-Efficacy Instrument (RTSEI – Appendix D) and a Reading Knowledge Test (RKT - Appendix E). The background Questionnaire was developed and used to determine if both sample groups (Juniors and Seniors) were from comparable populations. The RTSEI was given in order to look at the impact of a twelve-credit-hour integrated literacy education program on preservice teachers' beliefs in their ability to effectively teach reading (PRTE) and on their beliefs in their ability to positively impact

student's reading development (RTOE). The RKT was given in order to examine the impact of the literacy education program on the participants' knowledge about reading and the teaching of reading. These three survey instruments are described in more detail below.

Background Questionnaire

The ninety-six participants completed a background questionnaire. These questions were aimed at gathering personal information such as gender, ethnicity, self-reported GPA, age and number of experiences (e.g., coaching, tutoring, babysitting, parenting) each participant had had with children. This was necessary not only to find out the demographic characteristics of each group but also to determine if each group represented comparable populations.

*Background Questionnaire Instrument Description*

Questions seven (When did you decide to enter teaching?) and eight (Mark the experiences you have had as a leader with children.) were taken from Kushner's (1993) study done on efficacy. It was felt that this data could be used to support the premise that these two groups were from comparable populations. Other questions about reading (i.e. "Do you like to read?" and "Were you diagnosed with a reading problem?") were added by the researcher in order to solicit dimension to the participant's self-efficacy beliefs toward reading. It is interesting to note that the three students in the Senior Group who reported that they had been diagnosed with a reading problem were also the only three that

said they did not like to read. A copy of the Background Questionnaire can be found in Appendix C.

Reading Teachers' Self-Efficacy Instrument (RTSEI)

The RTSEI (Szabo, Mokhtari & Walker, in review), found in Appendix D was used to determine the impact of the twelve-credit-hour integrated literacy education program on preservice teachers' self-efficacy beliefs and on their outcome expectancy beliefs. This is a reliable and valid instrument.

*Reading Teachers' Self-Efficacy Instrument (RTSEI) Description*

The RTSEI for preservice teachers was created by Szabo, Mokhtari & Walker (in review) to study both preservice teachers' beliefs in their ability to effectively teach reading (PRTE) and in their beliefs in their ability to positively impact student learning (RTOE). The development of the RTSEI instrument is talked about in-depth in Chapter 2; however, a quick overview will be presented. The RTSEI uses a five-option Likert-like scale, response choices ranging from 1 (strongly disagree) to 5 (strongly agree). The RTSEI contains sixteen statements measuring two factors – personal reading teaching efficacy (PRTE, ten statements) and reading teaching outcome expectancy (RTOE, six statements). In the teaching of reading, self-efficacy is the teachers' belief that they have the ability to effectively teach reading to all students while outcome expectancy is the teachers' belief that they have the ability to positively influence or counter-

balance external forces (e.g. home environment, student's attitudes) in order to positively impact all student's reading development.

The Reading Teachers' Self-Efficacy Instrument can be administered individually or in a classroom setting to groups of preservice teachers within teacher preparation programs and school settings. Although there is no time limit set for the instrument, it is estimated to take 10-15 minutes. The following outline describes the steps that can be taken when administering the RTSEI instrument.

1. Explain the purpose of the instrument and how to complete it.
2. Distribute copies of the instrument to participants.
3. Discuss the response options to ensure participants understand the rating scale.
4. Ask if anyone has any questions about any aspect of the instrument.
5. Instruct participants to begin completing the instrument.
6. Invite them to score their responses using the enclosed scoring sheet.

Scoring is easy and can be done by the participants themselves. They can simply transfer the scores obtained for each item to the scoring sheet (See Appendix) and follow the directions, which accompany the instrument to obtain their scores. After recording the scores in Column 1 as indicated, they should recode the negatively worded items, indicated by the letter 'R' in Column 2. Thus, a response of '1' should be recoded to '5', a response of '2' becomes '4', a response of'3 'remains the same, a response of'4' becomes'2 'and a response of'5' becomes'1'. The next step is to transfer the numbers from Column 2 to either Column 3 or Column 4 as indicated. Finally, participants can add up the

scores recorded in Columns 3 and 4. With this final step, preservice teachers should be able to use the sum of the scores in column 3 to determine their personal self-efficacy levels (high, average or low) and the sum of the scores in column 4 to determine their outcome expectancy levels (high, average or low).

The scoring levels for Column 3, which examines preservice teachers' self-efficacy beliefs (PRTE), were determined by using 1 Standard Deviation below and above the mean (M = 41; SD=5). The corresponding levels are High (score of 47-50), Average (score of 36-46) and Low (score of 10-35). The scoring levels for Column 4, which examines outcome expectancy beliefs (RTOE), were determined by using the same formula (i.e., 1 SD below and above the mean [M = 21, SD=3]). The corresponding levels are High (score of 25-30), Average (score of 18-24) and Low (score of 6-17).

Interpretation of the data is a little more difficult. Previous instruments have determined one's total self-efficacy levels (high or low) by using the scores that would normally occur in Column 2, which are the combined scores of the efficacy factor and the outcome expectancy factor. However, concerns have been voiced by researchers (Pajares, 1997; Roberts, Henson, Tharp, Moreno, 2001; Tschannen-Moran, Hoy & Hoy, 1998) about using the combined scores on efficacy instruments as recent research has shown that the self-efficacy factor deals with internal issues while the outcome expectancy factor deals with external issues (e.g., home environment, family background, parental influences, hunger, child's attitude). Researchers (Pajares, 1997; Roberts, Henson, Tharp, Moreno, 2001; Tschannen-Moran, Hoy & Hoy, 1998) believe that these two constructs should not be grouped

together. Consequently, the RTSEI provides a scoring method for both factors instead of using the traditional method of looking at one's over-all self-efficacy. It is believed that this scoring method will provide a better understanding of preservice teachers' beliefs, thus providing a clearer picture of preservice teachers individual needs in order to help each become high quality teachers.

The sum for Column 3 (Questions 2, 3, 5, 6, 8, 12, 13, 14, 15 and 16) examines teaching efficacy (PRTE) beliefs. Personal reading teaching efficacy is defined as a belief in one's ability to teach reading effectively. Following Bandura's (1977, 1997) theorizing, a high score on the teaching efficacy sub-scale means that preservice teachers are highly confident about their ability to effectively teach reading to all students. These preservice teachers are also more likely to be open to new ideas and more willing to experiment with new methods to better meet the needs of their students than their low scoring peers (Stein & Wang, 1988). Preservice teachers with low teaching efficacy beliefs are likely to become frustrated with students who experience difficulty reading and thus become critical of students when they make reading errors (Ashton & Webb, 1986). These preservice teachers feel uncomfortable about their ability to teach reading, and as a result will benefit from assistance in increasing their knowledge base and experience in teaching reading, preferably through hands-on, guided experiences with children of all ages and abilities (Housego, 1992; Hoy & Woolfolk, 1993).

The sum for Column 4 (Questions 1, 4, 7, 9, 10 and 11) pertains to outcome expectancy beliefs. Outcome expectancy is defined as the belief that effective teaching will have a positive effect on student learning regardless of environmental

factors (e.g. home environment, student's attitude). Preservice teachers who score high on the outcome expectancy sub-scale feel confident about their ability to positively influence students' reading development. On the other hand, preservice teachers who score low tend to perceive the students' external circumstances (e.g., unsupportive home environment, negative attitudes towards reading) as being serious obstacles to students' reading achievement. They also tend to believe that their efforts to help students learn to read may be adversely affected by the students' circumstances beyond the classroom setting. For these teachers, a better understanding of their own students and the circumstances in which they live (e.g., students' prior knowledge, parental and community support for their children, socio-economic levels, reading stages of each student and which strategies can be used to help each student move to the next level of development) would greatly enhance appreciation for others and increase outcome expectancy beliefs with regard to influencing students' reading development.

Reading Knowledge Test

In order to determine the impact of the twelve-credit-hour integrated literacy education program on the preservice teachers' knowledge about reading and the teaching of reading, a multiple-choice test (see Appendix E) was developed. The decision to develop such an assessment instrument was made following a literature search which showed that there were no tests available which could be used to assess preservice teachers' knowledge about reading and the teaching of reading in a comprehensive way, as all the tests found only

addressed one aspect of reading. The test that was developed deals with more than one aspect of reading (reading assessment, reading instruction in general and the 5 non-negotiable skills – phonemic awareness, grapheme-phoneme or decoding, spelling, fluency and reading comprehension).

*Reading Knowledge Instrument Description*

In order to ensure that the statements in the RKT were appropriate for determining preservice teachers' reading knowledge, several steps were taken. First, the researcher looked for existing reading tests that accompanied reading textbooks. Four different instructor's test bank manuals were used, three of which accompany textbooks currently being used in the literacy education program. The four test bank manuals used to develop the reading knowledge multiple-choice test were: *Instructor's Manual and Test Bank to Understanding Reading Problems* (Young & Mathews, 1994), the *Ready for RICA: A test Preparation Guide for California's Reading Instruction Competence Assessment* (Zarrillo, 2002), *the Instructor's Manual for Teaching Reading in the Content Areas* (Cooter & Flynt, 1996) and the *Instructor's Manual for Literacy for the 21st Century: A Balanced Approach* (Tompkins, 1997). This yielded a large pool (over 250 questions) of potentially useful test questions.

Second, the researcher had to narrow the above large pool of test questions in order to determine which test questions were going to be chosen for this Reading Knowledge Multiple-Choice Test. It was decided to look for test questions that reinforced reading assessment, reading instruction in general and

the five non-negotiable elements of reading instruction (phonemic awareness, grapheme-phoneme or decoding, spelling, fluency and reading comprehension) promoted by the state department and the commission for teacher preparation in the statewide Literacy First program. These five components of reading instruction are also supported by the Center for the Improvement of Early Reading Achievement (CIERA, 2001) as being sound instructional skills that must be taught in order to help prevent reading failure. Thus, using various questions from the four instructor's test bank manuals listed above, a test bank of fifty questions was compiled.

Third, feedback was solicited from a panel of judges made up of doctoral students with a reading emphasis, some of who hold a Reading Specialist certificate. The members of the panel were asked to critique the Reading Knowledge Test (RKT) for content, clarity, redundancy and overall readability. This contributed to the instrument's content validity and resulted in a second generation of the RKT containing thirty-seven multiple-choice questions to be used in assessing reading knowledge.

This instrument, built to examine preservice teachers reading knowledge, was assumed to be a reliable way to examine reading knowledge growth for several reasons. First, the majority of the questions came from test bank manuals that accompanied the textbooks being used in the integrated literacy program. And second, it was a comprehensive test that measured many aspects of reading. Reliability data, both the alpha coefficient and item-correlation, were determined during this study and the results are found in the next chapter.

*Data Analyses*

As indicated earlier, the data for this study consisted of quantitative data analysis. A brief description of how the data were analyzed follows:

Research Null Hypothesis #1: There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to teach reading before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - PRTE factor).

To answer hypothesis #1, the PRTE statements (statements 2, 3, 5, 6, 8, 12, 13, 14, 15, and 16) on the Reading Teachers' Self-Efficacy Instrument (RTSEI) were examined. Analysis of variance (ANOVA) was used to determine if there was a statistically significant difference in preservice teachers' self-efficacy beliefs toward the teaching of reading (personal reading teaching efficacy - PRTE). Also, reliability analysis using Cronbach's alpha and corrected item-total correlation on each statement was done to determine the reliability of the PRTE scale.

Along with the above analyses, the scoring procedure for the RTSEI, which measures the efficacy factor independently and accompanied the instrument, was also used to analyze the data. This scoring procedure used each participant's total PRTE score on the Likert-like scale to group the scores into three levels of performance (low self-efficacy beliefs, average self-efficacy beliefs [determined by one standard deviation above and below the mean] and

high self-efficacy). Frequency distributions were used to report how many participants were at each level of performance. The results of the data analyses will be reported in the next chapter.

Research Null Hypothesis #2: There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to impact student learning before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - RTOE factor).

To answer hypothesis #2, the RTOE statements (statements 1, 4, 7, 9, 10, and 11) on the Reading Teachers' Self-Efficacy Instrument (RTSEI) were examined. Analysis of variance (ANOVA) was used to determine if there was a statistically significant difference in preservice teachers' beliefs that they can impact student learning regardless of environmental influences (reading teaching outcome expectancy - RTOE). Also, reliability analysis using Cronbach's alpha and corrected item-total correlation on each statement was done to determine the reliability of the RTOE scale and to add further support to the RTSEI.

Along with the above analyses, the scoring procedure for the RTSEI, which measures the outcome expectancy factor independently and accompanied the instrument, was also used to analyze the data. This scoring procedure used each participant's total RTOE score on the Likert-like scale to group the scores into three levels of performance (low self-efficacy beliefs, average self-efficacy beliefs [determined by one standard deviation above and below the mean] and

high self-efficacy). Frequency distributions were used to report how many participants were at each level of performance. The results of the data analyses will be reported in the next chapter.

Research Null Hypothesis #3: There is no statistically significant difference between Junior and Senior elementary preservice teachers' reading knowledge before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RKT).

To answer hypothesis #3, the data obtained from the 37-question Reading Knowledge Test (RKT) was examined to determine preservice teachers' knowledge about reading and the teaching of reading. A reliability analysis using Cronbach's alpha and corrected item-total correlation on each statement was done to determine the reliability of the RKT. Next, an analysis of variance (ANOVA) was used to determine if there was a statistically significant difference in preservice teachers' reading knowledge before and after successful completion of a twelve-credit-hour integrated literacy education program. The results of the data analyses will be reported in the next chapter.

Research Null Hypothesis #4: There is no statistically significant relationship between Junior and Senior elementary preservice teachers' knowledge about reading (RK) and their beliefs in their ability to teach reading (PRTE) and in their belief in their ability to impact student learning (RTOE) (as measured by data from both the RTSEI and the RKT).

The fourth hypothesis explores the extent to which knowledge about reading is related to preservice teachers' beliefs, both self-efficacy and outcome expectancy, toward reading. A Pearson's correlation, "chosen because most variables have quantitative properties and it is one of the most frequently used measures in relationships" (Porter & Hamm, 1986, p. 92), was used to determine if there was a significant relationship between preservice teachers' reading knowledge, their beliefs in their ability to teach reading, and in their belief to positively impact student's reading development. The correlation matrixes are presented in the next chapter.

In the next chapter, the results of the various data analyses and the answers to the four hypotheses in the study will be discussed.

# CHAPTER IV

# RESULTS

The study had four purposes or hypotheses. The first hypothesis examined elementary preservice teachers' personal efficacy beliefs (PRTE) toward the teaching of reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' self-efficacy beliefs in their ability to effectively teach reading. The second hypothesis examined elementary preservice teachers' outcome expectancy beliefs (RTOE) toward reading before and after a twelve-credit-hour integrated literacy education program. This hypothesis deals with preservice teachers' belief in their ability to have a positive impact on student learning (reading development). The third hypothesis determined what kind of impact this integrated literacy program had on elementary preservice teachers' reading knowledge (RK). And, the fourth hypothesis explored the relationship between preservice teachers' reading knowledge (RK), their self-efficacy beliefs (PRTE) and their outcome expectancy beliefs (RTOE) toward the teaching of reading. The data, collected by the researcher and various reading faculty, were analyzed and the results of those analyses are reported in this chapter by examining each of the hypotheses in the order they were proposed in Chapter I. The results are presented below.

*Instrument Reliability*

The first two hypotheses were answered with data from the RTSEI. Therefore, several different analyses had to be done on the RTSEI to make sure that the instrument being used was good, thus making the data reliable. First, an internal consistency reliability analysis was conducted on the RTSEI in an attempt to estimate the degree of consistency among the participants with respect to their responses to the various items on the questionnaire. Four reliability analyses were run. A reliability analysis was run for each factor (PRTE and RTOE) and for each group (Junior Group; N = 48 and Senior Group; N = 48). The results showed a moderate internal consistency coefficient for the Junior Group of preservice teachers' personal reading teaching efficacy (PRTE Alpha = .82) and their reading teaching outcome expectancy (RTOE Alpha = .75) and a reasonably high internal consistency coefficient for the Senior Group of preservice teachers' personal reading teaching efficacy (PRTE Alpha = .75) and their reading teaching outcome expectancy (RTOE Alpha = .77). Next, a reliability analysis was run for the overall or combined groups (N=96). The result showed a reasonably high internal consistency coefficient for the PRTE as the alpha was found to be 0.81 and for the RTOE scale as the alpha was found to be 0.76. These coefficients suggest that the participants' responses across items were fairly consistent and reliable and support the results of the original RTSEI. This data results support the premise that the RTSEI is a reliable instrument.

The second type of analysis examined the corrected item-total correlation on each statement. They were all found to be above .30, which Robinson,

Shaver and Wrightsman (1991) believe to be necessary. It was found that all statements had a corrected item-total correlation higher than .30. And finally, a factor analysis was done to check the loading of each reading statement. It was found that each statement factored the same way as the original results on the RTSEI. These analyses support the conclusion that the RTSEI is a reliable instrument.

The third hypothesis was answered with data from the RKT. Therefore, several different analyses had to be done on the RKT to make sure the instrument was good, thus making the data reliable. An internal consistency reliability analysis was conducted on the RKT in an attempt to estimate the degree of consistency among the participants with respect to their responses to the various items on the questionnaire. The results showed an adequate internal consistency coefficient (N=96, Alpha = .71), thus suggesting that the participants' responses across items were fairly consistent. However, upon further examination, the corrected item-total correlation was poor, as twenty-four of the thirty-seven multiple-choice questions had less than 0.30. Robinson, Shaver and Wrightsman (1991) consider this low correlation less than exemplary and suggest that these items be dropped. This left thirteen reading knowledge questions that were used for data analyses.

Reliability was once again run on the thirteen reading knowledge questions. The results showed an adequate internal consistency coefficient (N=96, Alpha = .75), with the Junior Group having an alpha of 0.62 and the Senior Group having an alpha of 0.65, thus suggesting that the participants'

responses across these questions were fairly consistent. Even though the reliability on the thirteen questions were adequate, the fact that twenty-four questions had to be eliminated indicates that there is indeed a need for a comprehensive reading test that can be used to measure preservice teachers' reading knowledge in a comprehensive manner. However, the results on the thirteen questions suggest that the data from the RKT are reliable.

### *Data Analyses*

The Reading Teachers' Self-Efficacy Instrument (RTSEI - seen in Appendix D) data results were used to answer the first two hypotheses. Descriptive statistics and ANOVA were used to examine the mean scores in order to determine if there were any differences between the Junior Group and the Senior Group before and after the completion of a twelve-credit-hour integrated literacy program in their belief in their ability to effectively teach reading (PRTE) and in their belief in their ability to positively impact student learning (RTOE). Also, the scoring sheet that accompanied the RTSEI instrument was used to examine which levels (low, average, high) the mean scores fell into in order to determine if the preservice teachers' belief in their ability to teach reading (PRTE) and in their belief in their ability to positively impact student's reading development (RTOE) were low, average or high. The third hypothesis was examined by using the data from the Reading Knowledge Test (RKT - seen in Appendix E). This examination was to determine if there was any growth in their knowledge about reading and the teaching of reading

before and after completion of a twelve-credit-hours integrated literacy program and was obtained by using descriptive statistics and ANOVA. The fourth hypothesis examined the means scores to determine if there were any relationships between the results of the reading knowledge test scores (RKT) and their beliefs in their ability to teach reading (PRTE) and their beliefs in their ability to impact student learning (RTOE).

Research Null Hypothesis #1: There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability to teach reading before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - PRTE factor).

Preservice teachers' beliefs in their ability to teach reading were examined by using the personal reading teaching efficacy (PRTE) scale on the RTSEI (Column 3 scores). The examination of the data, shown in Table III, show that the elementary preservice teachers in the Senior Group achieved higher mean scores ($M = 41.50$; $SD = 4.21$) than did their counterparts in the Junior Group ($M = 38.08$; $SD = 5.61$). These differences were statistically significant ($F [1, 94] = 11.37$, $p = .001$), indicating that the Seniors, who had successfully completed a twelve-credit-hour integrated literacy program, felt more confident in their ability to effectively teach reading than did the Juniors, who had not yet completed such a program. Consequently, the null hypothesis was rejected. Thus, showing that there was change in preservice teachers' self-efficacy beliefs toward the teaching

of reading (PRTE), which leads us to conclude that the integrated literacy program does have a positive effect on these preservice teachers' belief in their ability to teach reading and that the varied hands-on field experiences with 'real' children were successful.

Table III

Differences in the Juniors' and Seniors' Belief in their Ability to Teach Reading (RTSEI - PRTE Factor)

| | Juniors | Seniors | ANOVA | |
|---|---|---|---|---|
| Variable | M (SD) | M (SD) | F (1,94) | p |
| Personal Reading Teaching Efficacy (PRTE) | 38.08 (5.61) | 41.50 (4.21) | 11.37 | .001 |

* A standard ANOVA Table is presented in Appendix F

The scoring scheme that accompanied the RTSEI was used to categorize the preservice teacher's PRTE scores into three levels of performance. This was to determine if the participants held high efficacy, average efficacy or low efficacy beliefs in their ability to teach reading.

The scoring levels for the total means scores on the PRTE scale, which looked at their belief in their ability to teach reading, were determined by setting one standard deviation below and above the mean as average. The levels are: low (score of 10-35), average (score of 36-46) and high (score of 47-50). As seen in Table IV, the junior group had fifteen preservice teachers whose scores fell in the low level, thirty preservice teachers whose scores fell in the average level and three preservice teachers whose scores fell in the high level while the senior group had four preservice teachers whose scores fell in the low level, forty

preservice teachers whose scores fell in the average level and four preservice teachers whose scores fell in the high level. These results show that there was a positive change in the preservice teachers' perceptions in their ability to teach reading effectively (PRTE).

Table IV

Degree Level Held by Groups in Their Ability to Teach Reading (RTSEI - PRTE Factor)

| Groups | Low (10-35 ) | | Average (36-46) | | High (47-50) | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Junior Group | 15 | 31.3 | 30 | 62.5 | 3 | 6.2 |
| Senior Group | 4 | 8.4 | 40 | 83.2 | 4 | 8.4 |

These finding support the conclusion to reject research hypothesis #1, as there is positive movement toward gaining higher levels of self-efficacy in their ability to teach reading. Thus leading us to the conclusion that these preservice teachers' believe they can effectively teach reading. However, as most preservice teachers are in the "average level", this means they can not recognize and diagnose reading problems or model appropriate reading strategies all of the time and that they do not have a good understanding of reading development for all students. Therefore, to raise self-efficacy beliefs, more experiences helping 'real' children with differentiating reading abilities are recommended.

Research Null Hypothesis #2: There is no statistically significant difference between Junior and Senior elementary preservice teachers' beliefs in their ability

to impact student learning (reading development) before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RTSEI - PRTE factor).

Preservice teachers' belief in their ability to impact student learning and reading development was examined by using the reading teaching outcome expectancy belief (RTOE) scale on the RTSEI. The examination of the data obtained, shown in Table V, show that the elementary preservice teachers in the Senior Group of elementary preservice teachers achieved only slightly higher mean scores (M = 20.71; SD = 3.16) than their counterparts in the Junior Group (M = 20.04; SD = 3.47). These differences were not statistically significant difference (F [1,94] = 0.97, p = .33) indicating that Seniors, who had successfully completed a twelve-credit-hour literacy program, did not feel any more confident in their ability to impact student learning than did Juniors, who had not yet completed such a program. Therefore, the null hypothesis was not rejected. This leads us to conclude that the integrated literacy program had a neutral effect on preservice teachers' beliefs in their ability to positively impact all students' reading development.

Table V

Differences in the Juniors' and Seniors' Belief in their Ability to Positively Impact Student Learning (Reading Development) (RTSEI - RTOE Factor)

| | Juniors | Seniors | ANOVA | |
|---|---|---|---|---|
| Variable | M (SD) | M (SD) | F (1,94) | p |
| Reading Teaching Outcome Expectancy (RTOE) | 20.04(3.47) | 20.71(3.16) | 0.97 | .33 |

* A standard ANOVA Table is presented in Appendix F

The scoring scheme that accompanied the RTSEI was used to categorize the preservice teachers' RTOE scores into three levels of performance. This was to determine if the participants held high, average or low beliefs in their ability to positively influence students' reading development.

Table VI

Degree Level Held by Groups in Their Ability to Positively Impact Student Learning (RTSEI - RTOE Factor)

| Groups | Low (6-17 ) | | Average (18-24) | | High (25-30) | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Junior Group | 7 | 14.6 | 37 | 77.0 | 4 | 8.4 |
| Senior Group | 6 | 12.6 | 37 | 76.9 | 5 | 10.5 |

The scoring levels for the total mean scores on the RTOE scale, which looked at their belief in their ability to impact student learning (reading development), were determined by setting one standard deviation below and above the mean. The levels are: low (score of 6-17), average (score of 18-24) and high (score of 25-30). As seen in Table VI, the junior and senior groups had thirty-seven preservice teachers whose total correct scores fell in the average level, while their high and low levels had a one unit difference. These findings support the conclusion that there was no change in their outcome expectancy beliefs, as there is no movement toward gaining higher levels of belief in their ability to impact student learning. Thus leading us to conclude that the integrated literacy program did not have an impact on these preservice teachers' beliefs that they could overcome environmental issues (such as attitude and motivation) to

impact all of their students' reading development. Therefore, to help raise their outcome expectancy beliefs, more challenging course work is recommended.

Research Null Hypothesis #3: There is no statistically significant difference between Junior and Senior elementary preservice teachers' reading knowledge before and after successful completion of a twelve-credit-hour integrated literacy preparation program (as measured by data from the RKT).

An examination of the scores obtained from the Reading Knowledge Test show that the Juniors' reading knowledge test scores ranged from 1 to 13 while the Seniors' reading knowledge tests scores ranged from 2 to 13. It is interesting to note, that several members of the Junior Group were able to correctly answer all of the reading knowledge questions before they had taken any literacy courses while several members of the Senior Group still have little knowledge about reading and the teaching of reading after completion of the integrated literacy program. However, upon further examination of the data, shown in Table VII, the elementary preservice teachers in the Senior Group did achieved higher mean scores ($M = 10.63$; $SD = 2.15$) than did their counterparts in the Junior Group ($M = 6.88$; $SD = 2.57$). These differences were statistically significant ($F[1,94] = 56.12$, $p = .001$). Therefore, the null hypothesis was rejected. Thus, leading us to conclude that Seniors, who had successfully completed a twelve-credit-hour integrated literacy program, are more knowledgeable about reading and the teaching of reading than the Juniors, who had not yet completed the integrated literacy program. This shows that the literacy program did have a

positive impact on preservice teachers' knowledge about reading and the teaching of reading. This was not an unexpected finding, as this was assumed to occur, as this is the reason for education courses.

Table VII
Reading Knowledge Test (RKT) Score Differences by Group

| | Juniors | Seniors | ANOVA | |
|---|---|---|---|---|
| Variable | M (SD) | M (SD) | F (1,94) | p |
| Reading Knowledge Test Scores | 6.88 (2.57) | 10.63 (2.15) | 56.12 | .001 |

* A standard ANOVA Table is presented in Appendix F

Research Null Hypothesis #4: There is no statistically significant relationship between Junior and Senior elementary preservice teachers' knowledge about reading (RK) and their beliefs in their ability to teach reading (PRTE) and in their beliefs in their ability to impact student learning (RTOE) (as measured by data from the RTSEI and the RKT).

An examination on the overall relationship (N = 96) between preservice teachers' reading knowledge (RK) and their beliefs in their ability to teach reading (PRTE) and their beliefs in their ability to impact student learning (RTOE) were examined using a Pearson's correlation. As seen in Table VIII, analysis of the data showed that there was a significant correlation between the reading knowledge test (RKT) scores and the PRTE scores (N = 96; r = .260; p = .011) but not with the reading knowledge test (RKT) scores and the RTOE scores (N = 96; r = .076; p = .459). These findings make intuitive sense (more knowledge =

higher self-efficacy); however, these results do not support Bandura's (1977, 1997) supposition that the knowledge one possesses does not effect ones' self-efficacy beliefs.

Table VIII

Junior and Senior Overall Correlation Matrix (N = 96)

| N = 96 | PRTE | RTOE | RKT |
|---|---|---|---|
| PRTE | 1.000 | | |
| RTOE | .103 (ns) | 1.000 | |
| RKT | .260* | .076 (ns) | 1.000 |

* Correlation is significant at the 0.05 level

Due to the fact that the above is inconsistent with prior research (Bandura, 1977, 1997), further analysis was done. An examination of the relationship between the Junior Group and the Senior Group scores on their reading knowledge (RKT) and their belief in their ability to teach reading (PRTE) were examined using a Pearson's correlation. As seen in Table IX and Table X, analysis of the data showed that there was no significant correlation between the reading knowledge (RK) and the PRTE scores for either the Junior Group ($r = .001$; $p = .996$) or the Senior Group ($r = .179$; $p = .225$) indicating that reading knowledge does not affect preservice teachers' beliefs in their ability to teach reading. This supports Bandura's (1977) supposition that one's belief in their ability is not concerned with the skills one has but with the judgments of what one

can do with whatever skills one possesses. However, statistical correlations may disappear for other reasons. This could be due either to the fact that there may be a problem with the sample size (number of participants - 48 vs. 96) or that the range of scores are restricted in each group.

Table IX

Junior Group Correlation Matrix (N = 48)

| N = 48 | PRTE | RTOE | RKT |
|---|---|---|---|
| PRTE | 1.000 | | |
| RTOE | .110 (ns) | 1.000 | |
| RKT | .001(ns) | .010(ns) | 1.000 |

Table X

Senior Group Correlation Matrix (N = 48)

| N = 48 | PRTE | RTOE | RKT |
|---|---|---|---|
| PRTE | 1.000 | | |
| RTOE | .011 (ns) | 1.000 | |
| RKT | .179 (ns) | .015(ns) | 1.000 |

Also, an examination on the relationship between the Junior Group and the Senior Group scores on their reading knowledge (RKT) and their beliefs in their ability to positively influence student learning (RTOE scores) were examined using a Pearson's correlation. As seen in Table IX and Table X, analysis of the

data showed the same results. There was no significant correlation between the reading knowledge test (RKT) scores and the RTOE scores for either the Junior Group ($r = .010$; $p = .945$) or the Senior Group ($r = .015$; $p = .920$) indicating that reading knowledge does not affect preservice teachers' beliefs in their ability to impact student learning. This supports Bandura's (1977) supposition that one's belief in their ability to impact student learning is not concerned with the skills one has but with the judgments of what one can do with whatever skills one possesses to achieve a positive impact on student learning.

## Conclusion

This study shows that the successful completion of a twelve-credit-hour integrated literacy program has a positive impact on preservice teachers' beliefs in their ability to effectively teach reading. However, there was no statistically significant difference in elementary preservice teachers' beliefs in the ability to have a positive impact on student learning. In addition, this study shows that the completion of a twelve-credit-hour integrated literacy program has a positive impact on preservice teachers' reading knowledge. And, it has also shown that there is a need for a better comprehensive reading test to measure preservice teachers' knowledge about reading and the teaching of reading. Finally, this study shows that when examining the overall relationship between reading knowledge, belief in their ability to effectively teach reading (PRTE) and belief in their ability to positively impact student learning (RTOE) using all the participants ($N = 96$), there was a significant correlation between reading knowledge and

PRTE scores. However, when the Junior Group and the Senior Group was examined independently, this correlation disappeared, thus supporting Bandura's (1977) supposition that one's belief in their ability to impact student learning is not concerned with the skills one has but with the judgments of what one can do with whatever skills one possesses to achieve a positive impact on student learning. However, statistical correlation may disappear for other reasons. This could be due either to the fact that there may be a problem with the sample size (number of participants – 48 vs. 96) or that the range of scores are restricted in each group.

In the next chapter, a summary of the findings and conclusions will be presented. It also discusses the implications of the study's findings for teacher education programs along with recommendations for further research.

# CHAPTER V

## *Summary, Discussion, Conclusions and Recommendations*

These preservice teachers, like all preservice teachers, entered their teacher preparation program with preconceived ideas, some accurate and some inaccurate, about teaching and learning (Brosseau, Book & Byers, 1988; Florio-Ruane & Lensmire, 1990; Herrmann & Sarracino, 1993; Holt-Reynolds, 1992; Lortie, 1975; Meister & Jenks, 2000; Olson & Singer, 1994; Perry & Rog, 1992). Their own personal experiences and self-concepts about reading and the teaching of reading, developed as students, have created these preconceived ideas (Bullough & Gitlin, 1995; DeFord, 1979; Gibson & Dembo, 1984; Krushner, 1993, Meister & Jenks, 2000). And because the majority of these students have not had reading problems and they enjoy reading, they believe that they know how to teach reading which adds to their strong self-efficacy beliefs at the start of the program (Duffy & Atkinson, 2001; Massey, 2002). It is this early development in obtaining strong self-efficacy beliefs that not only has led these preservice teachers to choose teaching as a career but also has led some of them to believe that teaching reading is fairly easy (Neuruer, 1995; Profriedt, 1994; Whitbeck, 2000).

Preservice teachers pursuing an elementary education teaching degree participated in the study. These preservice teachers were divided into two

different groups: one group consisted of junior elementary preservice teachers who had not yet completed any of the required literacy courses offered at the university, and the other group consisted of senior elementary preservice teachers who had completed all of the required literacy courses offered at the university. It was believed that the data obtained by comparing the two different groups of preservice teachers would provide a better understanding of the learning (or training) that was naturally occurring within the integrated literacy program and the impact it was having on preservice teachers' beliefs and knowledge. All ninety-six participants (forty-eight participants in the junior group and forty-eight participants in the senior group) were enrolled in established reading courses. The preservice teachers in the Junior Group filled out the survey instruments during the first week of class while the preservice teachers in the Senior Group filled out the survey instruments during the last full week of instruction.

### *Summary of the Main Findings*

This study shows that the successful completion of a twelve-credit-hour integrated literacy program does have a positive impact on preservice teachers' beliefs in their ability to teach reading, as there was a statistically significant difference between the Junior and the Senior Group' self-efficacy scores (PRTE factor). Therefore, these preservice teachers should feel more confident in their ability to teach reading effectively, recognize and diagnose reading problems, and model appropriate reading strategies. As teachers they should be more apt

to provide time in the classroom for their students just to read, be more open to new ideas, persist longer when a child is having difficulty and encourage students to monitor their comprehension.

This study also shows that the successful completion of a twelve-credit-hour integrated literacy program does not appear to have had an impact on the preservice teachers' beliefs in their ability to impact student reading development (RTOE factor), as there was not a statistically significant difference between the Junior and the Senior Group means. Therefore, as teachers, they may provide less direct instruction and use more worksheets. They may also feel that they do not know how to teach differentiating levels of learning, thus becoming frustrated with the students when they can not read and refer more students more often to special reading classes.

Another important finding is that the completion of a twelve-credit-hour integrated literacy program did have a positive impact on preservice teachers' reading knowledge, as there was a statistically significant difference between the Juniors' and Seniors' reading test scores. The elimination of twenty-four questions due to a low corrected item-total correlation supports the need to find or develop a better comprehension reading knowledge test. However, the results on the thirteen questions suggest that the data from the RKT are reliable. It is interesting to note, that several members of the Junior Group (scores ranged from 1-13) were able to correctly answer all of the reading knowledge questions before they had taken any literacy courses while several members of the Senior Group (scores ranged from 2-13) still have little knowledge about reading and the

teaching of reading after completion of the integrated literacy program. However, the Senior Group did achieve a higher mean score (M = 10.63; SD = 2.15) than did their counterparts in the Junior Group (M = 6.88; SD = 2.57), leading us to conclude that the seniors were more knowledgeable about reading and the teaching of reading than the juniors, who had not yet completed the integrated literacy program. These findings show that the literacy program did have a positive impact on preservice teachers' knowledge about reading and the teaching of reading. This was not an unexpected finding since this is the reason for education courses.

Finally, initial data analysis, using a Pearson's correlation on the data from all of the participants (N = 96), showed that there was a significant relationship between reading knowledge and preservice teachers' beliefs in their ability to effectively teach reading (PRTE). There was not, however, such a relationship between reading knowledge and preservice teachers' beliefs in their ability to positively impact student learning (RTOE). Interestingly, when the Junior Group and the Senior Group was examined independently (N = 48), this correlation disappeared, thus supporting Bandura's (1977) supposition that one's belief in their ability to impact student learning is not concerned with the skills one has but with the judgments of what one can do with whatever skills one possesses to achieve a positive impact on student learning. However, statistical correlation may disappear for other reasons. This could be due either to the fact that there may be a problem with the sample size (number of participants – 48 vs. 96) or that the range of scores are restricted within each group.

*Discussion*

Different literacy faculty members, using the same syllabus and teaching to the same objectives, taught the various sections of the literacy method courses. Upon further reflection, it was discovered that all of the faculty members included all of the components identified by Bandura (1977, 1986, 1997) as contributing to building one's perceptions of ability to teach effectively and have a positive impact on student learning in their course work. Bandura believes these four components are mastery experience, vicarious experiences, verbal persuasion and emotional arousal and that all of these components are important in varying degrees for helping people build confidence in their own abilities.

Examples of course-related *mastery experiences* in which preservice teachers participated included a variety of opportunities to instruct and interact with children, both in the public school classroom and in their college classroom. During their literacy course work, preservice teachers were able to work one-on-one and with small groups of children in order to gain experience and feedback (Lowery, 2002; Tschannen-Moran, Hoy & Hoy, 1998). Preservice teachers also completed a capstone project that require rigorous integration and synthesis of knowledge (Carini & Kuh, 2003) and they were provided with instruction that included periods of self-directed mastery or independent practice (Schunk, 1995).

The benefits of *vicarious experiences* were achieved largely through in class discussion and presentations. Preservice teachers were encouraged to

talk about the problems they were having while teaching children to read (Watters and Ginns, 1995). Students' presentation of reading strategies in their college classrooms, including modeling and reciprocal teaching, helped them to become knowledgeable about reading strategies, so that they could develop possible strategies/skills to solve students' reading problems (Gorrell & Capron, 1990; Schunk, 1995; Tschannen-Moran, Hoy & Hoy, 1998; Weigand & Stockham, 2000). Another source of *vicarious experience* was through the preservice teachers observations of their cooperating teachers and other teachers during reading instruction at their field schools.

Benefits of v*erbal persuasion* were achieved through feedback. Both the literacy faculty and the teachers in the classroom provided the necessary, immediate feedback that most preservice teachers needed in order to develop the skills and strategies needed to become successful reading teachers. In addition, as reading instruction needs to meet the needs of children with varying ranges of skills and experiences, preservice teachers were exposed to a variety of reading approaches reflecting the broad, even sometimes contradictory, base of research into teaching of reading.

Finally, examples of course-related *emotional arousal* in which the preservice teachers participated included setting goals and monitoring their progress toward attaining these goals (Schunk & Zimmerman, 1998; Weigand and Stockham, 2000). *Emotional arousal* was also achieved by giving preservice teachers choice in the classroom assignments they completed (Turner, 1995; Walker, 2003).

*Conclusion*

There is definitely a need to monitor preservice teachers' beliefs in their ability to teach reading and to impact student learning, and in their reading knowledge. As Bandura (1997) points out, self-efficacy beliefs differ for individuals learning a task and for those performing established skills. Therefore, measures of self-efficacy beliefs and outcome expectancy beliefs can be used to determine how preservice teachers feel about reading and the teaching of reading, and may even provide an understanding of how each preservice teacher will approach their own learning about reading in their course work. It is important to note, that if a preservice teacher already possesses a high level belief in his/her ability to teach reading and in his/her ability to positively impact student learning, this may mislead that preservice teacher into feeling that less effort and preparation are necessary; consequently, the preservice teacher may spend less time acquiring the knowledge and skills necessary to be able to teach reading successfully (Bandura, 1986, 1997). Also, if a preservice teacher already possesses a low belief in his/her ability to teach reading and positively impact student learning, this may create self-doubt and insecurity in his/her ability to learn what is needed to become an effective teacher of reading. Therefore, it is important for both the preservice teacher and the literacy faculty member to monitor the beliefs and knowledge held by preservice teachers in order to encourage change and enhance the learning experience.

"Educators must find ways to encourage preservice teachers to meet, engage with, practice, reflect on, value, and commit to new ideas despite

reluctance to relinquish the familiar and comfortable" (Hill, 2002, p. 52). That is, they must be encouraged to alter any mistaken predetermined ideas that they bring with them to their literacy coursework. Strike and Posner's (1992) theory of change states that four steps are necessary in order to promote change:

- First, learners (preservice teachers) must be aware of and dissatisfied with their current conceptions; that is, learners must first have lost faith in the capacity of their current conceptions to solve their problems.
- Second, learners (preservice teachers) must be able to understand the new ideas.
- Third, learners (preservice teachers) must believe that the new ideas will solve the problem.
- Fourth, learners (preservice teachers) must believe it worthwhile to put time and effort into learning the new ideas.

Preservice teachers must adjust their mistaken preconceptions about teaching. Education programs must help preservice teachers make explicit the beliefs they hold and examine why they have these beliefs (Knowles & Cole, 1994). Reflection is the key, as it is a way to develop understanding of how and why acts/behaviors in the classroom occur (Burch, 1999). Learning, struggling, and understanding are all needed in order to become a quality teacher and move along the continuum of professional growth from novice to master teacher (Holm & Horn; 2003).

If we want preservice teachers to use effective educational practices when they become classroom teachers, they must become knowledgeable about these

practices (Carini & Kuh, 2003). Understanding cannot take place unless students themselves go through the reasoning involved in the development and application of concepts. Preservice teachers need to be able to transfer reasoning skills learned in one context to another. Therefore, successful learning experiences that are somewhat challenging yet can be accomplished are a significant means to developing preservice teacher's self-efficacy beliefs (Gassert & Shroyer, 1992; Pajares, 1993, 1996), as experience precedes understanding (Loughran & Russell, 1997). As preservice teachers gain experience and confidence in using a variety of strategies and skills necessary to move their students from one reading stage to another, their beliefs in their ability to teach reading effectively and to impact student learning and reading development, and in their reading knowledge, should improve. This supports Housego's (1992) findings that the strengthening of preservice teachers' self-efficacy beliefs toward teaching would be one indication that their teacher preparation course work had a positive impact.

In conclusion, self-efficacy beliefs play a crucial role in determining one's outlook and success (Allinder, 1994; Ashton, 1984, 1985; Bandura, 1977, 1997; Cannon, 1997; Cervone, 2000; Cervone & Scott, 1995; Cervone & Williams, 1992; Clark & Peterson, 1986; Coladarch, 1992; Finson, 2000; Guskey, 1989, 1998; Pajares, 1996, 2003; Ross, 1995, 1998; Smylie, 1990; Soodak & Podell, 1993; Walker, 2000). Therefore, preservice teachers need educators to understand that learning to teach reading is a developmental process (Allington & Cunningham, 2002; Day, 1999; Darling-Hammond, 1994; Massey, 2002;

Steffy, Wolfe, Pasch & Enz, 2000). They need educators that will let them struggle and reflect in order to understand and find meaning from their experiences rather than educators who will provide the quick fixes and the simple answers that many preservice teachers seem to want from their instructors (Duffy & Hoffman, 1999; Freeman, 2002; Roskos, Risko & Vukelich, 1998). Preservice teachers need educators who will help them to evaluate their own learning, discuss their progress, provide immediate feedback, and encourage self-evaluation through reflection. Preservice teachers can improve self-efficacy beliefs, which, in turn, will increase their engagement in learning how to teach reading (Burch, 1999; Freeman, 2002; Gassert & Shroyer, 1992; Meister & Jinks, 2000; Schunk, 2003; Walker, 2003). Those preservice teachers who resist reflection and change need to be identified early in order to either screen them out of the program or to help them reduce their resistance and increase their confidence for the kind of reflective growth (Burch, 1999) that increases self-regulatory practices and self-efficacy beliefs.

### *Implications for Teacher Programs*

This study has valuable implications for teacher education. It shows that preservice teachers' beliefs can be enhanced by a number of practices. It appears that of the two, self-efficacy is the easiest to change as outcome expectancy beliefs are affected by a myriad of external variables (e.g., home environment, family influences, student attitude). As the majority of the senior preservice teachers were only in the "average level" of self-efficacy, and

Bandura's (1986, 1997) theory of self-efficacy suggests that efficacy may be most malleable early in the learning experience, a concentrated attempt must be made to help preservice teachers gain "high levels" of self-efficacy beliefs. As their outcome expectancy beliefs were in the "average level," these too should be raised. And, as their reading knowledge ranged from 1-13 with the Junior group averaging approximately 6 right answers while the Senior group averaged approximately 10 right answers, there is a need to build their knowledge about reading and the teaching of reading. Implementing the following changes should help preservice teachers enhance their ability to effectively teach reading (PRTE factor), their ability to positively impact students' reading development (RTOE factor) and their knowledge about reading and the teaching of reading.

There are several ways to impact preservice teachers' beliefs and knowledge, keeping in mind that meaningful learning requires students to become intellectually active in the learning process and involves both time and numerous opportunities. The first way is through activities or strategies that can be added to the course work in order to give support to the growth of preservice teachers' beliefs in their abilities and in their reading knowledge. Some suggestions for such activities include:

- Mezirow's (1991) transformation model could be used to help preservice teachers look at their preconceived ideas in order to determine if they are accurate or inaccurate. For those who already have a high self-efficacy belief toward the teaching of reading and who have not been able to modify their incorrect

presumptions about reading, the disorienting dilemma or unsuccessful experience may be necessary in order to initiate the necessary change. This disorienting event will allow preservice teachers to experience failure and then, through self-examination and reflection, learn from their mistakes. It is essential with such experiences that literacy faculty members are there to guide their learning process and provide metacognitive and self-regulatory strategies, when necessary, in order to promote change and understanding of reading and the reading process (Brown, 1982; Knowles, 1975; Osman & Hannafin, 1992; Strike & Posner, 1992).

- Preservice teachers' perceptions of a reading teacher or a teacher of reading may be measured in the first literacy course by patterning a "Draw-A-Reading Teacher-Test" after the "Draw-A-Science-Teacher-Test (DAST) developed by Chambers (1983). This self-regulatory technique, which uses reflective practices, would help preservice teachers visualize the images they have of a teacher-of-reading, and engaging in class discussion of these images may help them to change their stereotypical view or misconceptions. This activity may serve as a disorienting dilemma (Mezirow, 1991) and allow preservice teachers to reflect on their preconceived ideas (Strike & Posner, 1992), which is necessary if change is to occur (Burch, 1999; Knowles & Cole, 1994).

- Video cases could be viewed in the classroom to enhance the learning process. This activity may also serve as a disorienting dilemma (Mezirow, 1991) as it engages preservice teachers in analysis of teachers teaching episodes of reading. Through both group and individual discussion and analyses, preservice teachers can identify and interpret teachers' actions while they are actively teaching reading (Beck, King & Marshall, 2001). This not only will promote knowledge about effective educational practices (Carine & Kuh, 2003) but will allow preservice teachers to gain vicarious experiences (Bandura, 1977, 1997) and, in turn, build there confidence in their ability to use a variety of reading strategies to impact all students' learning (Loughran & Russell, 1997).
- Preservice teachers should be encouraged to video tape their own teaching experiences. This is a self-regulatory activity that promotes problem-based learning (Duch, Gron, & Allen, 2001). Bandura's (1977) self-efficacy theory suggests that real experiences are often more effective; therefore, it would seem reasonable to assume that using these video cases to analyize not only their own teaching but the impact their teaching is having on the child (children) would be an effective way to increase involvement, thus increasing one's self-efficacy and outcome expectancy beliefs. Analyzing one's own practice in this way is a challenging learning experience, as it is difficult to watch and

critique one's teaching; however, if done properly, it should provide significant development in the preservice teachers' ability to effectively teach reading and to impact student learning (Gassert & Shroyer, 1992).

- If we do not want literacy course work to be "washed out" when preservice teachers enter the classroom (Bullough & Gitlin, 1995), we need to help preservice teachers use so-called "teacher-proof" (e.g., Literacy First, Shurley English, Saxon Phonics and Open Court) materials, often purchased and mandated by school districts, in a constructivist manner. Such instruction will not only allow preservice teachers to understand how the different programs work, their strengths and weaknesses but will give them the knowledge to be able to change the instructional procedures and content of these reading programs in a skillful manner in order to meet the needs of all learners (Halloway, 2000; Mason, 1999; Tomlinson, 1999).
- Because accountability and student achievement is vital, we need to help preservice teachers learn how to assess student learning (Renaissance, 2002). Doing so may help them to realize that their teaching does indeed have an impact on the learning that occurs within the classroom, thus raising their outcome expectancy scores. We need to help preservice teachers develop rubrics or grading scales using state standards and provide them with a variety of

actual children's work samples for assessment in which these rubrics can be used.

Another way to support the growth of preservice teachers' beliefs in their abilities and in their reading knowledge is through program change. In order to develop skilled and knowledgeable teachers, changes in the program should include the following:

- Preservice teachers may need to be formally grouped in order to form mentorship triads. Research shows (Steffy, Wolfe, Pasch & Enz, 2000; Sparks & Hirsh, 1997) that peer mentoring makes a difference as it provides both affective and cognitive support through the learning and reflective process. Triads should include first semester juniors, second semester juniors, and first semester seniors. Such groupings should be formally arranged at the program level and meeting times should be planned into the students' regular schedule.
- All education students should go through some type of apprenticeship program before they start their method courses. As human begins learn from past experiences (Lortie, 1975, Knowles, 1975), and preservice teachers' past experiences thus far have been as students, preservice teachers need to become a teachers' aide for at least one semester (first semester Junior year), in order to provide them with experiences from an adults' (teachers') point of view. Not only will being an apprentice add to the students'

professional experience, it will provide rich learning opportunities. Such experiences are of central importance, as research shows that the more training prospective teachers receive, the more likely they are to remain in the field, thus eliminating the high turnover rates that impose heavy costs to school districts (Darling-Hammond, 2003).

- Finally, we must reduce class size if we want our preservice teachers to become skilled knowledgeable teachers. It has been found that "class size differences at the low end (between one and ten students, for instance) have quite large effects on achievement, while differences at the high end (20 vs. 40 students, say) have very small effects" (Leithwood & Montgomery, 1986, p. 172-173). In fact, "congressional interest in the late 1980s and early 1990s spurred the military schools to maintain excellent student-to-faculty ratios of four to one to promote superior learning" (Tucker & Codding, 2002, p. 134). Ideally, then education classes should contain no more than twelve students if we are to change preservice teachers' inaccurate preconceived ideas and help them to enhance both their reading knowledge and beliefs in their ability to effectively teach reading and impact students' reading development

*Future Research*

Further research in the area of reading and reading efficacy is needed. This particular study leads to the following possibilities for extended exploration.

- Since reliability and validity assessment is a never-ending process, this study, using the RTSEI, should be replicated in various universities.
- This study should also be done with the Junior Group of preservice teachers when they have completed the integrated literacy program and are enrolled in their last literacy course in order to compare the results
- The RTSEI could be used as a pre-post test in various literacy courses to increase both the educators' and the preservice teachers' awareness of the feelings preservice teachers has toward the teaching of reading.
- The RTSEI could also be used with preservice teachers who attend universities with a four-year program versus a five-year program. Such comparisons may be important as Bandura (1997) argued that strong efficacy beliefs are generally the product of time and multiple experiences.
- Several questions should be added, either to the Background Questionnaire or to an Essay Response, to determine if preservice teachers believe student's abilities are fixed or variable, comparing the responses to their outcome expectancy beliefs.

- The RTSEI could be used to look at secondary preservice teachers' beliefs toward the teaching of reading. This is important, as all teachers should be teachers of reading.
- Finally, developing a comprehensive assessment pertaining to knowledge about reading and the teaching of reading is needed, as there is no comprehensive assessment tool presently available.

### *Limitations*

This study has several limitations that should be noted if additional studies with similar purposes are undertaken. This study was done with a sample size of ninety-six preservice teachers (48 Juniors and 48 Seniors). An increased sample size would likely increase the representation of the general population. A larger sample size also might provide results more generalizable to other preservice teachers in similar settings. This study was limited to preservice teachers majoring in elementary education that returned not only their consent forms but also completed all three instruments.

The instructional setting for this study was unique as it used a 5-5-2 model approach to the integrated literacy program. Therefore, it is possible that the results will be different at other universities that have a different literacy program configuration of course work.

Also, it is suggested that the Reading Knowledge Test may need to be reexamined or modified as the data used contained only thirteen reading knowledge test questions. Nevertheless, the instrument was able to detect

teaching of reading knowledge improvement after completion of a twelve-hour course of study. This study has shown that there is a need for a short, comprehensive reading knowledge test that has a better reliability.

Finally, the socio-economic status of the participants in this study is described as "middle class" and may not be applicable to the population at large. And the cultural diversity found in the demographics of this university where the study was conducted might not accurately reflect that of the United States in general. All of these factors impact the generalization of the results and should be taken into consideration when evaluating the results.

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# APPENDICES

# APPENDIX A

# IRB APPROVAL

# Oklahoma State University
# Institutional Review Board

Protocol Expires: 6/4/03

Date: Wednesday, June 05, 2002 IRB Application No: ED02123

Proposal Title: DOES A 12-CREDIT HOUR READING PREPARATION PROGRAM POSITIVELY EFFECT ELEMENTARY PRESERVICE TEACHERS EFFICACY TOWARD THE TEACHING OF READING?

Principal Investigator(s):


Susan Szabo
260 Willard
Stillwater, OK 74078

Dr. Kouider Mokhtari
248 Willard
Stillwater, OK 74078


Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved *

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Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 203 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,

Carol Olson

Carol Olson, Chair
Institutional Review Board

*NOTE: The IRB office has moved to 415 Whitethurst. Please make that change on the consent form.

# APPENDIX B

# INFORMED CONSENT SCRIPT AND CONSENT FORM

**Informed Consent Script for the Study of Teacher Knowledge and Beliefs Toward the Teaching of Reading.**

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You are being asked to participate in a research study that is being conducted by doctoral student Susan Szabo under the direction of her advisor Dr. Kouider Mokhtari. The purpose of this study is to obtain information from you about your reading knowledge and attitudes toward reading and the teaching of reading.

Your voluntary participation in this study will involve completing four reading-related instruments, which will take approximately 20 minutes to be completed over 3-class session period.

- During the first session you will be asked to sign a consent form and complete a Background Questionnaire. The Background Questionnaire asks you to provide information such as age, ethnicity, gender, and GPA.
- During the second session, you will complete a 37-question multiple-choice Reading Knowledge Test.
- During the third session, you will complete the Reading Teachers' Self-Efficacy Instrument (RTSEI), which asks you to read sixteen statements and circle a number 1-5 that best applies to you in order to examine your personal reading teaching efficacy and your reading teaching outcome expectancy. You will then be able to rate your answers by filling out the scoring sheet.

Please note that your participation in this study is voluntary and your decision will not affect your grade or standing in this course in any way whether you participate in this study or not. Your confidentiality will be maintained as your name or any other identifying mark will not be on the questionnaires. No identifying information will be included in the published dissertation, as all information will be reported as a group. You will put the last four digits of your social security number at the top. As you consider participation in this study, please note that:

1. Data collected in this study is confidential; no names will be used in reporting the data. All data will be reported in summary format.

2. While there may not be individual benefits of this study, there is also no risk (physical, mental or psychological) to you as a participant in this study.

3. Although the study will be conducted during class time, there is no penalty

for refusing to participate and your grades will not be affected in any way.

4. I understand that I have the opportunity to withdraw from participating at any point in the study.

Signature: _____Date: _____

Should you have any questions or comments about this project, please do not hesitate to contact me at 405-744-7605, my research advisor, Dr. Kouider Mokhtari at 405-744-8044 or University Research Services, Oklahoma State University, at 405-744-5700.

Thank you for your willingness to consider participating in this research project and for helping with my dissertation data collection process.

Susan Szabo
OSU Doctoral Candidate

# APPENDIX C

# BACKGROUND QUESTIONNAIRE

# Background Questionnaire

**Last 4-digits of your social security number: _____**

**Directions:** The purpose of this study is to determine your understanding of your reading and how your perceptions of reading affect your ability to teach reading, the impact of your teaching on children and your reading knowledge. Please complete the statements as indicated. Thank you for taking the time to fill out this survey.

**Background Information**

1. Gender: ____female ____male

2. Age: ___

3. GPA ____

4. Do you like to read? Circle: Yes or No

5. Ethnicity:
   ____Caucasian ____Asian-American ____Black/African American
   ____Hispanic ____American Indian
   ____Other:_____

6. When did you decide to enter teaching? (check the one that best describes you)

   ___ always wanted to teach
   ___ after high school
   ___ after starting college
   ___ after complete basic studies (freshman and sophomore year)
   ___ not sure I want to teach

7. Mark the experiences you have had as a leader with children. (check all that apply)

   ___ Babysitting
   ___ Sunday school teacher
   ___ Bible school teacher
   ___ Day care helper
   ___ Substitute
   ___ Summer camp leader
   ___ Coach
   ___ Boy/Girl Scout leader
   ___ Other (Please explain)_____

8. Were you diagnosed with a reading problem? Circle: Yes No
   If yes, please explain on back.

# APPENDIX D

## READING TEACHERS' SELF-EFFICACY INSTRUMENT (RTSEI) AND SCORING INSTRUCTIONS

**Reading Teachers' Self-Efficacy Instrument and Scoring Instructions**
**Szabo, Mokhtari & Walker**
**(in review)**

Last 4-digits of SSN: _____

**Directions:** Listed below are statements about reading. Please read each statement carefully. Then **circle** the letters that show how much you agree or disagree with the statement. Use the following:

1 = strongly disagree
2 = disagree
3 = undecided
4 = agree
5 = strongly agree

| | | | | | |
|---|---|---|---|---|---|
| 1. When a student does better than usual in reading it is often because the teacher exerted a little extra effort. | 1 | 2 | 3 | 4 | 5 |
| 2. I will continually look for better ways to teach reading. | 1 | 2 | 3 | 4 | 5 |
| 3. Even if I try very hard, I will not teach reading as well as I will teach other subjects. | 1 | 2 | 3 | 4 | 5 |
| 4. When the reading performance of students improves, it is often because their teacher has found a more effective way to support reading. | 1 | 2 | 3 | 4 | 5 |
| 5. I will know several ways to teach reading effectively. | 1 | 2 | 3 | 4 | 5 |
| 6. I will not be very effective in monitoring reading activities. | 1 | 2 | 3 | 4 | 5 |
| 7. When a low-achieving child progresses in reading, it is usually due to extra support offered by the teacher. | 1 | 2 | 3 | 4 | 5 |
| 8. I understand the process of reading well enough to be effective in teaching reading. | 1 | 2 | 3 | 4 | 5 |
| 9. The teacher is generally responsible for the achievement of students in reading. | 1 | 2 | 3 | 4 | 5 |
| 10. Students' achievement in reading is directly related to their teacher's effectiveness in the teaching of reading. | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 11. If parents comment that their child is showing more interest in reading, it is probably due to the performance of the child's teacher. | 1 | 2 | 3 | 4 | 5 | 5 |
| 12. I will find it difficult to teach students with reading problems. | 1 | 2 | 3 | 4 | 5 | |
| 13. When teaching reading, I will usually welcome student questions. | 1 | 2 | 3 | 4 | 5 | |
| 14. I will find it difficult to explain to students how to improve their reading. | 1 | 2 | 3 | 4 | 5 | |
| 15. I do not know what to do to turn students on to reading. | 1 | 2 | 3 | 4 | 5 | |
| 16. I will use community resources to help get support for literacy in my classroom. | 1 | 2 | 3 | 4 | 5 | |

Scoring for the Reading Teachers' Self-Efficacy Instrument:

1. In the first column, record your circled numbers from the survey. Place each circled number for each statement on the line.

2. In the second column, you will need to recode (R) 5 statements as they are negatively
   - worded. If the number has an R by it, change your initial score (if you had a 1, change to 5; if 2 change to 4; if 4 change to 2 and if 5 change to 1).

3. In the third column, put the numbers from column two on the existing lines. Questions 2, 3, 5, 6, 8, 12, 13, 14, 15 and 16 judge your personal reading teachers' efficacy (PRTE). Add the column of numbers to find your PRTE rating.
   Personal reading teachers' efficacy is defined as a belief in your ability to teach reading effectively to all students in your classroom, whether they are gifted, average or at-risk readers.

   - Low = 10 – 35 (Yes, I can teach reading effectively to some of my students, some of the time.)
   - Average = 36 – 46 (Yes, I can teach reading effectively to most of my students, most of the time.)
   - High = 46 – 50 (Yes, I can teach reading effectively to all of my students, all of the time.)

4. In the fourth column, put the numbers from column two on the existing lines. Questions 1, 4, 7, 9, 10 and 11 judge your reading teachers' outcome expectancy (RTOE). Add the column of numbers to find your RTOE rating.
   Reading teachers' outcome expectancy is defined as the belief that effective teaching will have a positive impact on student's learning (reading development) irregardless of out side factors such as home environment and student's attitudes that they bring with them to the classroom.

   - Low = 6 – 17 (No, I do not have the ability to change environmental factors in order to improve all of my student's reading development.)
   - Average = 18 – 24 (Yes, I have the ability to sometimes positively impact or counter-balance external forces in order to improve some of my student's reading development.)
   - High = 25 – 30 (Definitely, I have the knowledge and skill to effectively impact student's reading development all of the time for all of my students.)

| Score: | Re-coded Scores | Personal Efficacy (PRTE) | Outcome Expectancy (RTOE) |
|---|---|---|---|
| 1. _____ | 1. _____ | | 1. _____ |
| 2. _____ | 2. _____ | 2. _____ | |
| 3. _____ | R3._____ | 3. _____ | |
| 4. _____ | 4. _____ | | 4. _____ |
| 5. _____ | 5. _____ | 5. _____ | |
| 6. _____ | R6._____ | 6. _____ | |
| 7. _____ | 7. _____ | | 7. _____ |
| 8. _____ | 8. _____ | 8. _____ | |
| 9. _____ | 9. _____ | | 9. _____ |
| 10. _____ | 10. _____ | | 10. _____ |
| 11. _____ | 11. _____ | | 11. _____ |
| 12. _____ | R12. _____ | 12. _____ | |
| 13. _____ | 13._____ | 13. _____ | |
| 14. _____ | R14. _____ | 14. _____ | |
| 15. _____ | R15._____ | 15. _____ | |
| 16. _____ | 16._____ | 16. _____ | |
| | | SUM _____ | SUM _____ |
| | | Possible Score 10 - 50 | Possible Score 6 - 30 |
| | | Low = 10 - 35<br>Average = 36 - 46<br>High = 47 – 50 | Low = 6 - 17<br>Average = 18 - 24<br>High = 25 - 30 |

# APPENDIX E

## READING KNOWLEDGE TEST (RKT)
## AND ANSWER KEY

## Reading Knowledge Multiple-Choice Test

**last 4 digits of SSN:** _____

**Directions:** Read each question carefully and choose the ONE best answer. Record your answer on this written test. After you are done, record your answer on the answer sheet in the space that corresponds to the question number. Fill in the space having the same letter as the answer you have chosen.

---

1. A teacher could most effectively support at-home reading by:

    a. Sending parents a weekly/bimonthly newsletter, which describes classroom reading activities.
    b. Sharing with parents important articles from professional reading journals.
    c. Recommending books that parents would likely enjoy reading aloud to their children.
    d. Providing parents with periodic reports on their children's progress in reading.

2. A first grade teacher provides students with explicit, systematic phonics instruction to promote their reading development. When designing activities to teach letter-sound correspondences, the teacher should:

    a. Provide reading opportunities for students to practice sounds in context after studying the sounds in isolation.
    b. Make certain that students have mastered vowels sounds before focusing on consonants.
    c. Ensure that students master the spelling of practice words using the target sound before teaching a new sound.
    d. Include instruction in related consonant blends when introducing individual consonants.

3. The teacher wants his fourth graders to use context to unlock the meanings of words they do not know. He will plan activities that will help his students use semantic clues, which are:

    a. The meanings of surrounding words
    b. Clues based on word order
    c. Sound-symbol clues
    d. A part of morphemic analysis

4. In order to help her students develop a sense of story, the teacher needs to:

    a. Use story frames and when students are ready, story grammar and story maps.
    b. Read aloud to her students.
    c. Use guided reading lessons that focus on how different students can have different perspectives of the same event in a story.
    d. Use a combination of environment print, the shared book experience and read aloud.

5. Ms. Carlyle, a sixth grade teacher, observes that several students have misspelled the word pasteurize. After writing pasteurize and Louis Pasteur on the blackboard, the teacher explains how Pasteur invented the process of pasteurization. Students then discuss how the word Pasteur relates to the word pasteurize. The instructional activity is likely to foster students' reading development primarily by:

    a. Helping students improve their spelling by comparing and contrasting similar words.
    b. Helping students learn to use etymology to improve spelling and promote word recognition.
    c. Motivating students to use orthographic patterns to expand their vocabulary knowledge.
    d. Motivating students to improve their spelling through the use of systematic study skills.

6. A teacher who selects high-frequency words for a weekly spelling list could provide the following rationale for that decision:

    a. The use of morphemic analysis to decipher unknown words is an important skill for children to acquire and spelling lessons should focus on prefixes, suffixes and root words.
    b. High-frequency words are those words that appear most frequently in printed English.
    c. This will help children as they go about the process of mastering the most regular sound-symbol relationships in English.
    d. Phonetic speller choose at least one letter to represent each sound in words they write.

7. Ms. Smith believes in a balanced approach to teaching reading. She understands the importance of phonemic awareness in reading development. So, she teaches many directed lessons to develop acquisition of phonemic awareness. To balance these lessons she should?

    a. Develop a series of worksheets to reinforce what the students have learned.
    b. Administer timed tests to see what each student has learned.
    c. Use chants and songs with rhyming words.
    d. Use repeated readings of big books.

8. In order to assess spelling, a teacher should:
    a. Use both spelling tests she has developed and standardized spelling tests
    b. Use a 6-point phonic grading scale
    c. Have students do a lot of story writing
    d. Use spelling tests and samples of students writing

9. Teachers should have an assessment plan that uses a variety of measures to evaluate student development. This would include informal measures like:

    a. Anecdotal records the teacher has carefully kept while students are engaged in reading activities.
    b. A teacher-developed test that determines the students recognition of the high frequency words that students will find in their reading material.
    c. A standardized, norm-referenced test on reading comprehension.
    d. A test of concepts about print produced by the publisher of basal reading series that includes a very specific script for the person administering the test.

10. When you administer an informal reading inventory (IRI) you should:

    a. Start at the primer level and administer every passage
    b. Administer all of the oral reading passages first
    c. Start where you think the child will be able to read easily.
    d. Start one level above the child's present grade

11. In order to meet the needs of a class of students with diverse abilities, a teacher should:

a. Develop a set of tests for each of the areas of reading development; for example a kindergarten teacher should create tests for concepts about print, phonemic awareness and word identification.
b. Have Children compare the properties of a set of words.
c. Have children work in small groups.
d. Use flexible grouping, individualized reading instruction and timely intervention for those children have difficulty.

12. When reading expository text, students frequently will read "differently" than when they read a narrative text. They might, for example, have to skim or scan. This most likely would occur when a student:

a. Reads to locate information in an encyclopedia.
b. Reads a chapter in a social studies textbook.
c. Reads a biography of Marion Jones.
c. Reads a poem written about Michael Jackson.

13. Many teachers use onsets and rimes to improve the word identification skills of their students. This is because:

a. It makes sense to teach onsets and rimes because most young children are not ready to recognize the number of phonemes in a word.
b. Once children know the definitions of onsets and rimes, they can determine which syllables have an onset and rime and which only have a rime (e.g. hat, cat, ham).
c. It helps to make learning fun.
d. The most common rimes appear repeatedly in English words.

14. Miscues are:

a. Incorrect answers to comprehension questions.
b. Spontaneous corrections.
c. Oral divergences from the text.
d. All of the above.

15. Vocabulary word are most effectively learned by:

a. Memorizing definitions.
b. Relating new words to prior knowledge.
c. Completing structured overviews.
d. All of the above.

16. Effective classroom environments:

    a. Support the way you teach.
    b. Encourage collaboration.
    c. Encourage risk taking.
    d. All of the above.

17. All of the following are aspects of metacognition that can influence successful reading EXCEPT:

    a. Having clear goals for learning.
    b. Awareness of what one possesses to accomplish a learning task.
    c. Relying on teacher-made questions to successfully comprehend text.
    d. Being able to identify the important parts of a message in a reading selection.

18. The zone of proximal development (ZPD) suggests that istructionally teachers should:

    a. Promote more opportunities for collaboration in their classrooms.
    b. Be sure to model what they expect students to be able to do.
    c. Recognize that their role changes as students become adept or skilled at learning tasks.
    d. All of the above.

19. All of the following will enhance vocabulary acquisition EXCEPT:

    a. Long lists of words with one-line definitions.
    b. Capitalizing on students' interests.
    c. Using a variety of techniques.
    d. Trying to get and keep students involved.

20. Direct instruction should:

    a. Be the center of a literacy-focused classroom.
    b. Provide systematic drill and practice skills instruction.
    c. Be used in mini lessons to provide explicitly information
    d. All of the above.

21. Indirect instruction should:
    a. Has been show by research to be the most effective type of instruction.
    b. Is implemented as teachers find students in teachable moments for instruction.
    c. Comprises 70-80% of instructional time.
    d. All of the above.

22. Literacy is best defined as:

a. Using reading and writing to carry out complex tasks in society.
b. Using complex tasks to express and understand spoken language.
c. Being able to read to get a job.
d. Learning how to read.

23. The four language arts are:

a. Reading, responding, exploring and extending
b. Talking, listening, reading and writing.
c. Reading, writing, talking and thinking
d. Active listening, guided reading, writing and responding.

24. The writing process and the reading process are:

a. Each defined by five distinct, sequential steps.
b. Similar, complex, meaning making processes
c. Separate, complex sequential process
d. Arbitrary and artificial labels.

25. Some readers have difficulty comprehending because

a. They are more fluent at word identification
b. They spend too much time and attention on decoding
c. They are not using the cueing systems
d. They are not reading authentic texts

26. Phonemic awareness is:

a. The most powerful predictor of later reading achievement.
b. Nurtured spontaneously through word play and language rich environments.
c. Taught explicitly in lessons involving manipulation and segmentation of speech.
c. All of the above.

27. The most meaningful approach to phonics instruction:

a. Occurs in the context of real reading writing activities.
b. Involves the teaching of mini-lessons for specific skills and concepts.
c. Uses teachable moments to provide indirect instruction.
d. All of the above.

28. Students who have developed metacognitive awareness:

    a. Think aloud as they read and write.
    b. Notice the effectiveness of the strategies that they use and make adjustments when their comprehension falters.
    c. Focus on decoding and use the strategies skills they have been taught.
    d. Teaching other students to become more strategic readers.

29. As students become more fluent readers, they:

    a. Focus exclusively on comprehension strategies.
    b. Use less energy on decoding words and focus more on comprehension.
    c. No longer need to use decoding strategies.
    d. All of the above.

30. Instructional practices that are designed to help develop reading fluency include:

    a. Phonics, word walls, dictionary use and repeated readings.
    b. Phonics, repeated readings, word banks and echo reading.
    c. Readers theatre, word walls, target words and choral r4eading.
    d. Readers theatre, repeated readings, choral reading and listening to tapes.

31. In order for students to read independently,

    a. Their reading materials must be at or above their reading level.
    b. Their reading materials must be at their reading level.
    c. Their reading materials must be below their reading level.
    d. Their reading materials should be what ever they want to read.

32. Which of the following strategies would be activate students' prior knowledge of a content area topic about which the class will be reading?

    a. Giving a brief informational lecture on the topic before assigning the reading.
    b. Completing a K-W-L chart with students, in which students identify what they already know and would like to learn about the topic.
    c. Supplying the classroom with a wide variety of topic-related books for students to browse through beforehand.
    d. Creating on the board a diagram showing how the information is organized in specific texts students will be reading.

33. The major reason that students with reading difficulties become increasingly at risk of falling behind their peers academically is that, over time, such students generally tend to:

    a. Limit their reading to high-interest, low-reading level material.
    b. Avoid reading whenever possible.
    c. Receive less instruction in specific reading skills such as decoding.
    d. Develop a smaller experiential base.

34. According to reader response theories, a main goal of literacy instruction is:

    a. For students to become lifelong readers.
    b. For students to switch between efferent and aesthetic stances as they read
    c. For readers to build their schemata while they read.
    d. For students to use the 3 cueing systems while reading.

35. The alphabetic principle is the idea that:

    a. Spelling is learned through alphabetical lists of important words.
    b. Children must recognize the letters of the alphabet and be able to name them.
    c. Letters represent sounds in words.
    d. All of the above.

36. Traditional reading programs emphasize:

    a. The sequence of skills instruction outlined in the teacher's guide.
    b. The self-selection of reading materials.
    c. Individualized pacing.
    d. Student interest and attitudes about reading.

37. Of the following statements, which is the most consistent with whole language approach:

    a. Teaching specific hierarchical subskills in the language arts develops skills essential to learning.
    b. Instruction that focuses on student participation in di8scourse community is critical for developing good reading and writing skills.
    c. Direct instruction is necessary to develop the greatest proficiency in comprehension.
    d. All of the above.

Reading Knowledge Multiple-Choice Test Key

1. C
2. A
3. A
4. A
5. B
6. B
7. C
8. D
9. A
10. C
11. D
12. A
13. D
14. D
15. B
16. D
17. C
18. D
19. A
20. D
21. B
22. A
23. B
24. B
25. B
26. D
27. D
28. B
29. B
30. D
31. B
32. B
33. B
34. A
35. C
36. A
37. B

# APPENDIX F

## STANDARD ANOVA TABLES FOR DATA FOUND IN CHAPTER 4

ANOVA SUMMARY TALBE III (Shortened version is found on page 97)
Dependent Variable: Personal Reading Teaching Efficacy (PRTE)

| Source | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Intercept | 11537.067 | 1 | 11537.067 | 468.325 | .000 |
| GROUP | 280.167 | 1 | 280.167 | 11.373 | .001 |
| Error | 2315.667 | 94 | 24.635 | | |
| Total | 154600.000 | 96 | | | |

ANOVA SUMMARY TABLE V (Shortened version is found on page 99)
Dependent Variable: Reading Teaching Outcome Expectancy (RTOE)

| | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Intercept | 3603.750 | 1 | 3603.750 | 327.034 | .000 |
| GROUP | 10.667 | 1 | 10.667 | .968 | .328 |
| Error | 1035.833 | 94 | 11.020 | | |
| Total | 40900.000 | 96 | | | |

ANOVA SUMMARY TABLE VII (Shortened version is found on page 102)
Dependent Variable: Reading Knowledge Test (RKT)

| Source | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|
| Intercept | 112.067 | 1 | 112.067 | 20.172 | .000 |
| GROUP | 311.760 | 1 | 311.760 | 56.116 | .000 |
| Error | 522.229 | 94 | 5.556 | | |
| Total | 8307.000 | 96 | | | |

VITA 2

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