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by

Trenice West-Raymond

December 2016

NOVICE TEACHERS' SELF-EFFICACY IN LITERACY INSTRUCTION

A Dissertation Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment
Of the Requirements for the Degree

Doctors of Education

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Abstract

The purpose of this study was to examine if a teacher's self-efficacy in teaching reading varies according to the type of preparation program in which s/he participated. This study also examined if there are difference in the key components of traditional teacher preparation program and Alternative Certification Program (ACP) and, if so, how the key components are related to the level of teacher self-efficacy in teaching reading. The study focused on novice teachers (less than 2 years of teaching experience) currently teaching reading in kindergarten, first, and second grade in the nation's seventh largest urban district, Houston Independent School District (HISD).

The conceptual premise for this study was Bandura's (1977) theory of self-efficacy. A teacher's self-efficacy belief influences how s/he feels, thinks, motivates themselves and behaves when faced with challenges. This study used the Novice Teacher Self-Efficacy in Literacy Instruction Survey (NTSELI), which incorporated items and scales from several surveys, to explore novice teachers' self-efficacy in teaching reading and those components of their teacher preparation program that were related to their self-efficacy in teaching reading. 104 novice teacher participated in taking the survey. Their responses were collected and analyzed to address the three research questions guiding the study. First, an independent sample *t* test was conducted to analyze whether there were any significant differences in teachers' self-efficacy in literacy instruction between teachers prepared in a traditional program and those prepared in an ACP. To examine the relationship between teachers' self-efficacy and their preparation in literacy instruction a

Pearson's correlation test was conducted. Finally, two independent sample *t* test were conducted to analyze if differences existed in the key components of traditional (four-year institution) teacher preparation programs and Alternative Certification Programs (ACP).

Some of the results of the analyses provided support for the research hypotheses, while other results did not. First, the results suggested that traditional teacher preparation programs offer significantly more coursework and field experiences than ACPs. They also indicated that only field experiences were related to teachers' level of self-efficacy in teaching reading. The results also indicated that there are no significant difference in the level of teacher self-efficacy to teach reading based upon teacher preparation programs.

These findings suggested it would be potentially beneficial for traditional teacher preparation programs and ACP's to offer field experience in reading to increase teachers' self-efficacy, previous to becoming a teacher of record, which indicates that teacher self-efficacy is not necessarily impacted by the program they attend but more importantly it is influenced by the quantity of field experience during their preparation.

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Chapter I

Introduction

The No Child Left Behind Law (2001) mandates “highly qualified” teachers in all classrooms, including low performing schools that service minorities and economically disadvantaged students (International Reading Association, 2003). More importantly, the Every Student Succeed Act (2015) eliminated the term “highly qualified” teachers, and instead requires schools receiving Title I-A funds to ensure that minority and economically disadvantaged students are not taught by inexperienced, ineffective, or out-of-field teachers. In other words, teachers need to be effective in meeting the instructional needs of their students. It is, therefore, important to take a closer look at what it takes to develop highly effective teachers, specifically those who teach at risk students. In light of NCLB’s mandate regarding teachers, there has been a growing amount of research around teaching quality and teacher knowledge and, in recent years, the question of teacher preparation has become a focal point (NCTQ, 2013; Washburn, Joshi, et al., 2010). This particularly is the case for programs that prepare reading teachers because it is one of the most frequently tested subjects under NCLB, ESSA and many state accountability systems. Indeed, teacher preparation programs, including alternative teacher certification programs, have been scrutinized and criticized for failing to align the content of their preparation program with the needs of novice reading teachers (NCTQ, 2006, 2013, 2014).

Teacher preparation programs are charged with preparing teachers to become highly effective educators, equipped with the necessary pedagogical and content knowledge to impact student achievement in reading. Yet, many teachers graduate from

their preparation programs feeling unprepared to meet the instructional needs of their students in reading, which impacts their confidence to teach reading effectively (IRA, 2003; Clark et al. 2013). Teachers who are charged with the responsibility of teaching reading need to be confident in their abilities to enact effective instructional practices that result in increasing students' motivation to learn and academic achievement (Duffin, French, & Partrick, 2012). The confidence that Duffin and colleagues (2012) refer to is a teacher's sense of self-efficacy. Teacher's self-efficacy is a teacher's belief in his or her own ability to plan, organize, and carry out activities that are required to attain given educational goals and it may shed light on the quality of teacher preparation programs for reading teachers (Skaalvik et al. 2009). Despite the important role that teacher preparation programs play in preparing reading teachers, there is a lack of research examining the connection between these programs and teachers' self-efficacy in reading instruction. The purpose of this thesis, therefore, was to address this gap in the literature and in our understanding of the relationship between teacher preparation and self-efficacy.

Background of the Problem

Teacher preparation programs play a pivotal role in preparing teachers to meet the instructional needs of their students in reading, but according to NCTQ (2013) three out of four elementary teacher preparation programs are not teaching the methods of reading instruction that could substantially lower the number of students who are not proficient readers. The National Assessment of Educational Progress (2014) reported that 80 percent of low income students in fourth grade are reading below the proficiency level. Attaining a better understanding of how to better prepare teachers in reading instruction

can directly impact instructional practices in the classroom, therefore impacting student achievement in reading.

In Texas 72 percent of all fourth graders are reading below proficiency (NAEP, 2014). At the same time, more and more districts in the state of Texas utilize student achievement in measuring teachers' performance. Therefore, teachers are under immense pressure to increase student achievement in reading (NCLB, 2008), which creates a sense of urgency for highly effective reading teachers (NCTQ, 2013).

The responsibility of teacher preparation programs is to prepare teachers with the instructional knowledge and tools to effectively teach reading. Unfortunately, according to recent research by Clark, Jones, Reutzel, and Andreasen (2012), almost 50% of all public school teachers are novice, inexperienced teacher who lack the expertise to effectively teach reading instruction. In other words, currently, there are too many future educators graduating lacking the ability to effectively teach reading. New teachers do not know how to teach in today's outcome based accountability-driven education system (Levine, 2006). If expert teachers are required to have the content knowledge, instructional expertise and classroom management to improve student reading proficiency, then colleges of education must also address their low admission standards, their fragmented and inconsistent curricula; in addition to their education faculty, who are disconnected from the realities of the classroom and their insufficient quality control of program structures and courses (Lyon, 2009).

In learning the science of teaching reading, pre-service programs play a crucial role in allowing potential teachers to apply what they learned, and develop self-efficacy in teaching reading (Wasserman, 2009; Greenberg & Walsh, 2010). Teacher preparation

is essential to the development of novice teachers and their self-efficacy beliefs in teaching reading. According to Clark et al. (2014), “teacher educators are frequently out of touch with the needs of pre-service teachers and questions how closely the curriculum, methods, and practices found in teacher education programs align with the realities of what beginning teachers feel they need to become effective teachers” (p. 88).

Many pre-service programs are plagued with missed opportunities to assist teachers in developing a keen sense of self-efficacy in teaching reading. Tschannen-Moran (1998) reported that first year teachers who ended the year feeling efficacious reported having higher quality preparation than teachers who felt less efficacious. It is likely that teachers with more advanced training, felt better prepared to handle the different challenges and were more likely to report higher levels of teacher efficacy (Brouwers et. al., 2011). According to Wasserman (2009), in order for new teachers to implement instructional practices that are new to them, they must possess a strong sense of self-efficacy and have enough conviction in their newly found knowledge, beliefs, and capabilities to implement them.

Statement of the Problem

Many teachers are graduating from non-traditional or traditional programs lacking the knowledge and/or self-efficacy to be effective in teaching reading. In fact, Haberman (1996) argues that most teacher preparation programs are not structured in ways that would assist in the development of teachers who are able to successfully teach in urban classrooms consisting of students from culturally and linguistically diverse backgrounds.

In a recent report released by the Anne Cassie Foundation (2014), the National Assessment of Educational Progress reported 80 percent of low-income fourth graders

and 66 percent of all fourth graders are not proficient in reading. Also according to the NAEP (2014,) in Texas, 83 percent of low-income fourth graders and 72 percent of all fourth graders are not proficient in reading. The NAEP concluded there was no progress in the last ten years, because in 2003, seventy three percent of low income fourth graders were not proficient in reading. Unfortunately, the current data reflects the impact current instructional practices used in teaching reading fail to impact student achievement.

Research has consistently reported, that well-prepared teachers profoundly influence student achievement in reading (Clark, Jones, Reutzel & Andresen, 2013). A factor that influences teachers feeling well prepared, is their self-efficacy belief. In fact, Bandura (1997) propose, that a teacher's belief in his or her ability, serves as a powerful tool in influencing a teacher's motivation to act and be resilient in face of setbacks.

Social cognitive theorist Albert Bandura (1977) introduced the concept of self-efficacy and defined it as, person's beliefs about his/her capabilities to produce designated levels of performance that exercise influence over events that affect their life. The study of teachers' sense of self-efficacy began in the mid to late 1970's with the RAND studies of reading instruction among low income and minority student in an urban setting (Armor et al., 1976; Tschannen-Moran & Johnson, 2011). Based on their findings, the researchers reported that teacher self-efficacy was positively related to variation in reading achievement among minority students. Specifically, they found that students taught by teachers who believed that they could significantly influence students' motivation and learning tended to have higher reading achievement than students whose teachers believed that there was little they could do, in light of the impediments to learning posed by the environment (Tschannen-Moran et al., 2001). The results of the

RAND study spearheaded researchers' interest in the construct of teacher's self-efficacy beliefs over the next four decades (Tschannen-Moran, 2011), and has proved to be a powerful construct related to teachers' motivation and behavior in the classroom, and to student achievement (Woolfork-Hoy & Tschannen-Moran, 1998).

Recent research has connected teacher preparation programs to concepts related to self-efficacy. For example, Maloch and colleagues (2003) reported that the type of training in reading instruction pre-service teachers received in the preparation programs influenced their teaching in terms of differences in understandings, beliefs, and decision making. They also reported that beginning teachers who graduated from reading specialist and reading embedded programs were more willing to experiment with teaching method, whereas, beginning teachers who graduated from general education programs, tended to make decisions about teaching and learning in relation to external factor, such as, materials, mandates, or the wishes of administrators. Which implies, that there may be elements of reading embedded program that leads to reading specialist developing a greater sense of self-efficacy to reading that may not exist in general education programs. Other research suggests that teachers' self-efficacy beliefs affect the effort teachers invest in their work the goals they set (Woolfork-Hoy et al., 2005). For instance, teachers with a strong sense of self-efficacy, tend to exhibit greater levels of planning and work harder with struggling students (Gibson & Dembo, 1984). Ross (1998), suggest that teachers with higher levels of self-efficacy are more likely to learn and use new approaches and strategies, provide additional assistance to low achieving students, build students' self-perception of their academic skills and persist in the face of

student failure, therefore, making it relevant to examine the origins and development of teacher self-efficacy.

Research shows that teacher's self-efficacy (Bandura, 1997) is determined early in their career. A teacher's sense of self-efficacy is most malleable during teacher preparation, and the first year of teaching (Bandura, 1997; Tschannen-Moran et al., 2007; Woolfork-Hoy et al., 2005). However, teacher preparation programs fail to focus their attention on the development of student teachers self-efficacy, and research that explores the development of student teacher self-efficacy is limited (Dinter et al., 2012). If teacher self-efficacy is most malleable during the early stages of a teacher's career, then it is pertinent to examine what impacts the development of teachers' self-efficacy during teacher preparation.

The NCTQ (2014) reported that only a few programs in the state of Texas teach the science of teaching reading effectively. It therefore is a matter of chance as to whether elementary teacher candidates learn how to become effective in teaching the science of reading. Indeed, Leshem (2008) and Clark and colleagues (2013) reported that teacher educators are frequently out of touch with the needs of pre-service teachers and questioned how closely the curriculum, methods, and practices found in teacher education programs align with the realities of what beginning teachers feel they need to become effective teachers. A lack of preparation may affect a teacher's belief in his or her ability to effectively teach reading due to lack of content knowledge. Furthermore, Haverback and colleagues (2011) suggest that self-efficacy is task-specific and a teacher is more likely to work on a task he/she is feels competent performing. For these reasons, teacher preparation programs likely affect teachers' self-efficacy in teaching reading.

The International Reading Association (2003), reported teachers who are prepared in quality reading teacher education programs are more successful than other beginning teachers in making the transition into the teaching profession. In fact, first year teachers who did not attend exemplary programs in reading did not view their preparation as useful and practical for the realities of teaching reading, which may impact their sense of self-efficacy in teaching reading (IRA, 2003).

With the growing population of novice teachers outnumbering veteran teachers, it is imperative to examine what elements in teacher preparation programs influences his or her effectiveness in teaching reading. The importance of strengthening teacher preparation and raising the effectiveness of novice teachers has never been greater. The NCTQ (2013) reported that twenty-five years ago, veteran teachers had a modal average of 15 years of experience. Today that number is down to just one year. NCTQ also reported, that first-year teachers teach around 1.5 million students every year and due to district placement practices, students already behind tend to be assigned to novice teachers, while students who are on grade level or above are more likely to be assigned to experienced teachers (NCTQ, 2013). Since a significant amount of novice teachers are responsible for teaching reading to the at risk population, it is imperative that the teacher preparation programs equip them with sound research based practices to be effective in teaching reading; therefore providing them with the tools and self-efficacy to be effective in teaching reading to all students, particularly the at risk population.

Moran and Johnson (2011) completed a study exploring the antecedents of self-efficacy beliefs for reading instruction. Their findings indicated that teacher preparation programs that provide powerful learning experiences improve teachers' sense of their

ability to effectively teach reading. Moran and Johnson (2011) findings also suggests that it is the quality of what is learned during teacher preparation that influences a teacher's belief about their capability to provide quality reading instruction. However, the study did not identify or isolate what learning experiences during teacher's preparation influenced his or her self-efficacy. This study explored which elements of teachers' preparation program students' perceived as most salient to developing their self-efficacy beliefs for teaching reading.

Purpose of the Study

The purpose of this study was to examine novice teachers' self-efficacy beliefs in teaching reading, and investigated whether and to what extent those beliefs vary according to the type of preparation program teachers attended. Specifically, the self-efficacy beliefs of novice teachers prepared in traditional four-year universities/college programs were compared to those of teachers prepared in alternative certification programs. In addition, this research explored which elements of their teacher preparation program novice teachers perceived as most salient to their development of self-efficacy beliefs for teaching reading.

Significance of the Study

The purpose of this study was to examine novice teachers' self-efficacy beliefs in teaching reading, and investigated whether and to what extent those beliefs vary according to the type of preparation program teachers attended. Specifically, the self-efficacy beliefs of novice teachers prepared in traditional four-year universities/college programs were compared to those of teachers prepared in alternative certification programs. In addition, this research explored which elements of their teacher preparation

program novice teachers perceived as most salient to their development of self-efficacy beliefs for teaching reading.

Research Questions

1. What differences exist in novice teachers' self-efficacy beliefs about teaching reading between those teachers prepared in a traditional teacher preparation program and those prepared in an Alternative Certification Program (ACP)?
2. In what ways do the key components of the teachers' preparation programs relate to their self-efficacy beliefs for teaching reading?
3. What differences exist in the key components of traditional (four-year institution) teacher preparation programs and Alternative Certification Programs (ACP)?

Research Design

The study proposed to examine novice teachers' perceptions of teacher preparation programs preparing them to be effective in teaching reading. All of the research was acquired from novice teachers in Houston Independent School District (HISD). For the purpose of this research, novice teachers are those with fewer than 2 years of teaching experience and currently teaching in HISD. The study focused on novice teachers who currently teach Kindergarten through Second grade. A request was submitted to HISD to acquire permission to distribute the Novice Teacher Self-Efficacy in Literacy Instruction Survey (NTSELI) and collect data. The essential component of the NTSELI survey is the original, Teacher Self-Efficacy in Literacy Instruction developed by Tschnannen-Moran and Johnson (2011). In addition, the NTSELI survey consisted of questions originated from the Pre-Service Teacher Program Survey used to gather data on teacher preparation in early reading instruction (National Center for Education

Evaluation, 2013), and Examining Teacher Preparation: Does the Pathway make a Difference? Survey of First Year Teachers (<http://cepa.stanford.edu/tpr/teacher-pathway-project-old>). Once HISD identified novice teachers based on the above criteria, they administered the survey through an internal emailing system, therefore kept the identity of novice teacher's participation anonymous. Teachers were given a three week window to complete and submit their survey. Data was gathered, reviewed and analyzed to provide a summary of the findings.

Summary of findings

In summary, the results were mixed. The findings suggested there are no significant differences in the self-efficacy of novice teachers who taught reading based upon where they received their preparation. But there was a relationship between field experiences and teacher self-efficacy in teaching reading that suggested that the more field experience a teacher had during his/her preparation program, the higher his/her self-efficacy in teaching reading. Finally, the results suggested that traditional teacher preparation programs provided more opportunities for both field experiences and more coursework focused on teacher reading.

Chapter II

Review of Literature

Introduction

The purpose of this study was to examine how novice teachers' self-efficacy beliefs about teaching reading compare between those prepared in a traditional teacher preparation program and those prepared in an Alternative Certification Program (ACP), and what elements of their teacher preparation program related to the teachers' self-efficacy beliefs for teaching reading. In addition, the study examined if there were any significant differences in the elements identified by novice teachers who attended a traditional (four-year institution) teacher preparation program compared to novice teachers who attended an Alternative Certification Program (ACP).

This literature review addresses research on reading instruction as well as literature relevant to the three guided research questions. First, discussion on the history and components of reading instruction. Then, a description of how teachers are typically prepared to teach reading and the policies that guide their preparation. After that, the introduction and definition of the concept of teacher self-efficacy, and a connection to both student outcomes and to the ways in which teachers are prepared. Finally, the presentation of conceptual framework that guided the research described in chapter three.

A Brief History of Reading Instruction

Over the past few decades, the efforts of researchers to understand reading development, reading problems and reading instruction have redirected educational policy in the United States at many levels. Policies requiring informed reading instruction are founded on considerable evidence that competent teaching will alleviate or reduce the

severity and consequences of reading failure, especially true in high risk populations, including second language learners and children of poverty (Denton, Forman & Mathes, 2003; Forman et al., 2006; Mathes et al., 2005).

The content knowledge teachers need to learn to teach reading has evolved greatly over the years as a result of synthesizing decades of conflicting research on effective reading instructional practices (NICHD, IRA, NRP, 2000). This evolution resulted from ongoing efforts to close the achievement gap in reading. Tackling the academic gap in reading achievement can be traced back as far as the early 20th century with progressive educators such as Horace Mann and John Dewey. Both rejected the standard phonics-based approach to teaching reading and, instead, encouraged teaching children whole, meaningful words and helping student learn how to read. As a result in the 1930s, a strong movement emphasizing reading for meaning over mechanistic drills emerged and the “look and say” method encouraged readers to memorize a core group of frequently used words and then use context clues to identify new words. Therefore causing a widespread adoption of look and say readers, such as Dick and Jane, became the reading program in most classrooms (Adams, 1990; NCTQ 2006)

After WWII, Alvin Liberman made an important discovery that shed light on why students struggled with learning how to read. Alvin Liberman was an experimental psychologist who discovered an intricate relationship between language that was read and spoken language that he argued was the primary cause of why it could be challenging to learn how to read. Specifically, Lieberman discovered that struggling readers had a hard time blending together the different sounds that make up a word. Previous to his research, there was no recognition that many young readers found it difficult to distinguish small

segments of sound. Based on his findings, struggling readers' difficulties had little to do with their ability to recognize letters, but instead with their ability to identify, discriminate and isolate sounds, all foundational skills for fluent readers. What emerged from his research was the recognition that phonics and phonemic awareness needed to be taught to all readers, especially struggling readers (Lemann, 1997; NCTQ, 2006)

Then, in 1955, Ralph Flesch captured the nation's attention with his book, *Why Johnny Can't Read*. In his book, he argued that students could not read because educators and publishers were focusing on the whole language approach and withholding phonics instruction. His rejection of the whole language approach spurred the revival of phonics instruction, which was supported by parents, educators and federal agencies. After that, something of a political and 'moral' battle between good phonics and bad whole language emerged, polarizing educators around one of the two approaches.

In the 1960's, Frank Smith and Ken Goodman, both college professors, launched the whole language movement. Both professors argued that reading was a "natural process" that did not require formal drills (Year, p.). Eventually this concept picked up momentum with educators and by the 1980's, whole language had a dedicated following in school as well as among professional organizations, such as the IRA and the National Council of Teachers of English (Lemann, 1997; NCTQ, 2006).

In spite of the support for the whole language movement, both in research and in classroom instruction, research began to emerge in the 1980s that provided evidence strong enough to discredit many of the assumptions that the whole language and the isolated phonics approach were effective in teaching reading (Adams, 1990; National Research Council, 1998; NCTQ, 2006)). However, there was some resistance to accept

the research among educators who strongly believed in the whole language approach. Nevertheless, that changed in the late 1990s when the reading scores of school districts using the whole language approach plummeted (NCTQ, 2006).

The battle between whole language and phonics persisted for several decades in spite of increasing scientific evidence demonstrating that neither was effective on its own in closing the reading achievement gap. Subsequently, the U.S. Congress convened a panel of reading experts to form the National Reading Panel (NRP) in 1997. The purpose of NRP was to synthesize past and current research on reading instruction, including the effectiveness of various approaches to teach children to read. The NRP released its review of evidence based reading research in 2000. The panel concluded that effective reading instruction includes explicit systematic teaching of phonemic awareness, phonics, guided oral reading to improve fluency, direct and indirect vocabulary building and exposure to a variety of comprehension strategies (NICHD, 2000). More importantly, the panel emphasized that explicit instruction for both new and established teachers produce higher student achievement in reading. As a result of the conclusive and clear findings of the NRP, their report became the foundation for federal legislation and eventually was integrated into the No Child Left Behind Act of 2001 (NICHD, 2000; NCTQ, 2006). Subsequently, the IRA endorsed a balanced literacy approach that included systematic teaching of phonemic awareness and phonics that was researched-based (NRP, 2000).

Components of High Quality Reading Instruction

The balanced approach to teaching reading should include explicit teaching of phonics, phonemic awareness, guided oral fluency, vocabulary and reading comprehension. Washburn et al. (2010) and the NRP (2000) reported that strong evidence

exists to help struggling readers, and that all children could benefit from explicit, systematic and sequential instruction in the areas of phonemic awareness, phonics, fluency, vocabulary and text comprehension strategies. Furthermore, they argued that early identification and intervention are the key factors in children's reading success. For this reason, more emphasis was placed on the importance of having teachers who were knowledgeable in the content of reading, particularly in the early grades (i.e., Kindergarten through second grade) when there was the most potential to prevent reading failure through effective instruction. The duration of this section includes a description of each of the essential components of high quality reading instruction.

Phonics. Systematic phonics instruction is a critical part of reading instruction. It teaches reading by making explicit the letter sound correspondence in reading and writing. The primary focus of phonics instruction is to help beginning readers understand how letters are linked to sounds (phonemes) to form letter-sound correspondences and spelling patterns. Phonics instruction also serves as a memory aid that helps students remember and apply rules for matching sounds and letters (NRP, 2000; Learning Associates, 2004; IRA 2007)

There are two kinds of phonics approaches: synthetic and analytic. Synthetic phonics approaches teach students to link individual letters or letter combinations with the appropriate sound and then blend the sounds together to form words. This approach is effective in improving low socioeconomic status students' alphabetic knowledge and word reading skills (IRA, 2007). In the analytic phonics approach, students are taught whole words units first, followed by systematic instruction linking the specific letters in the word with their respective sounds (NRP, 2000; IRA, 2007).

Phonemic awareness. Phonemes are the smallest units of sound composing spoken language. Phonemes are different from the letters that represent phonemes in the spelling of words. For example, the word go consist of two phonemes/sounds, /g/ /o/. Instruction in phonemic awareness involves teaching students to focus on and manipulate phonemes in spoken syllables in words. Phonemic awareness is sometimes confused with phonics instruction, which entails teaching students how to use letter sound relations to spell words; however, phonemic awareness qualifies as phonics instruction only when it involves teaching students to blend or segment the sounds in words using letters (Learning Associates, 2004; IRA, 2007).

Fluency. Reading fluency is the ability to read aloud accurately and rapidly enough that the reader can process and comprehend what has been read. In other words, fluent readers are able to read orally with speed, accuracy and proper expression. Fluency is a critical factor necessary for reading comprehension. There are two instructional approaches identified in helping students develop fluency. The first is guided oral reading, which encourages students to read a passage orally with systematic and explicit guidance, in addition to feedback from the teacher. The other approach is independent silent reading, which encourages students to read silently on their own. Even though independent reading was recommended by the NRP, they could not find sufficient evidence to support independent silent reading impact on fluency (NRP, 2000).

Vocabulary. Indirect and direct vocabulary instruction is critically important in reading instruction and developing reading skills. Since the early part of the 20th century, researchers have acknowledged that reading comprehension means continuous growth in acquisition of word knowledge (NRP, 2000). There are two types of vocabulary: oral and

print. A reader who encounters an unknown word in print can decode the word to speech. If it is not in the reader's oral vocabulary, the reader will have to determine the meaning by other means. Therefore, the more extensive a reader's vocabulary, the easier it is for him/her to make sense of the text (NRP, 2000, IRA, 2007)

Reading comprehension. Reading comprehension is defined as the intentional thinking during which meaning is constructed through interactions between text and reader. This makes it possible for the reader to derive meaning from the text when he/she engages in intentional, problem solving thinking processes. Research suggests that text comprehension is enhanced when readers actively relate the ideas represented in print to their own knowledge and experiences, and construct mental representations in memory. Thus, explicitly teaching comprehension skills is essential to showing students how to use specific cognitive strategies when they encounter barriers to understanding what they are reading. Explicit instruction in the application of comprehension strategies has been shown to be highly effective in enhancing understanding (NRP, 2000; IRA, 2007).

The NRP identified 16 categories of text comprehension instruction. Of the 16 identified, the following seven appeared to be the most promising:

- Comprehension monitoring, where readers learn how to be aware of their understanding of the material.
- Cooperative learning, where students learn reading strategies together.
- Use of graphic organizers and semantic organizers, including story maps, where readers make graphic representations of the material to assist comprehensions

- Question answering, where readers answer questions posed the teacher and receive immediate feedback
- Question generation, where readers ask themselves questions about various aspects of the story
- Story structure, where students are taught to use the structure of the story as a means of helping them recall story content in order to answer questions about what they read.
- Summarization, where readers are taught to integrate ideas and generalize from the text information (NRP, 2000, pp. 15).

When used in combination, the strategies can improve results on a standardized comprehension test (NRP, 2000).

Teacher Preparation in Reading Instruction

In the past when student achievement in reading was low, blame was directed at the teacher, but after research surfaced on what a teacher needs to know to be effective in teaching reading, there was a shift (Maloch, Fine & Seely-Flint et al., 2003). The emergence of more research has led to the examination of teacher preparation programs and what potential teachers were being taught about the science of teaching reading. Even though research on teaching and reading existed for more than a century, research on teacher's preparation is relatively new. Grossman & McDonald (2000) suggest that a stronger emphasis on research on teacher education could inform the content of the material taught, and how that content address the complexity of both teaching as a practice and the preparation of teachers. More recently, Clark et al. (2013), suggested that the acknowledgement of the influence of teacher education on a beginning reading

teacher's instructional practices was an important step towards determining which aspects of teacher education are most meaningful and most important, in producing teachers with the ability to influence student reading achievement.

Grossman and McDonald (2008) noted that recent research on teaching has moved from looking at characteristics, such as enthusiasm or authoritarianism, to researching teaching behaviors, teaching decision making, teacher knowledge and reflection, and dispositions. Current research aims to understand the knowledge base of elementary reading pre-service and in-service teachers, as well as teachers' perceptions of knowledge, skill, instructional philosophies, and teaching ability (Darling-Hammond, 2000; Joshi et al., 2009; Washburn et al., 2011). In other words, teacher preparation matters.

In recent years there have been several studies focused on teacher preparation in reading instruction. In an effort to examine teacher preparation in reading instruction, Steiner and Rozen (2004) completed a study analyzing courses in educational foundations in teaching reading at 16 top-rated education schools in the United States. They concluded that pre-service teachers received only a cursory of knowledge of how to teach the reading skills identified by the NRP. Expounding upon the research of Steiner and Rozen (2004), the National Council on Teaching Quality (2006) completed a more extensive study within 72 educational schools and reviewed courses that taught the core components in the science of teaching reading. The study identified what elementary teacher candidates learned or failed to learn in their required reading courses. The NCTQ (2006) concluded that most of the educational schools were not teaching the science of teaching reading: Only 11 of the 72 institutions taught all the components of the science

of teaching reading “to some degree”, while the remaining 61 institutions lacked evidence of teaching the science of reading.

In fact, much of the reading instruction taught in the teacher preparations programs were incompatible with the science of teaching reading. Instead of preparing potential teachers to use explicit instruction in teaching reading, many of the preparation programs emphasized a collaborative approach, in which students discover the tools of reading for themselves. More importantly, aspiring teachers were taught that all methods in teaching reading were equally valid and that teaching reading should be based on personal preference instead of sound, researched instructional practices. Furthermore, future teachers has not learned how to identify and assess children with reading difficulties during their teacher preparation programs, thus the potential creation of a larger issue for teachers who work with at-risk students (NCTQ, 2006; Clark et al., 2012).

Challenges in teacher preparation. In recent years research has unveiled some of the challenges teacher preparation programs face in developing effective reading teachers. Some of the research suggested many of the teacher preparation programs are not equipped with the coursework, educators or pre-service experiences potentially effective in the development of highly effective reading teachers. The field of professional teaching has been plagued with unrelenting public criticism regarding its effectiveness and receives pressure from federal mandates, such as No Child Left Behind (2000). Moreover, the field has been historically divided on how teachers should teach young children to read; therefore, making educating highly proficient reading teachers an increasingly challenging and complex endeavor (Clark, Jones, Ruetzel & Andreasen, 2013). What’s more, teacher educators frequently are out of touch with the needs of pre-

service teachers, and questions remain regarding how closely the curriculum, methods and practices found in teacher education programs align with the realities of what beginning teachers need to become effective teachers (Clark et al., 2013).

Research suggests that much of the preparation pre-service reading teachers receive does not prepare them for the classroom. Further, Clark et al. (2013) and Roswell (2007) reported that pre-service teachers felt that the theory and research taught during their preparation were not always clearly articulated and that the information presented was often confusing or incoherent, in turn left novice teachers to figure out the implementation of reading instruction on their own. Similarly, Joshi et al. (2009) and Grisham (2000) reported that novice teachers felt a disconnect between what they learned during their preparation programs and the realities of teaching, which caused them to feel unprepared to meet the instructional needs of their students. Equally important, Joshi et al. (2009) reported a substantial gap between licensure test for prospective reading teachers and the knowledge that teachers must have to be effective in teaching reading in the classroom.

Many teacher preparation programs focus on theory without spending sufficient time on the application of theory in the context of teaching. Furthermore, the IRA (2000) investigation of pre-service teachers' reading instructional beliefs concluded that if pre-service teachers are not provided with opportunities to actually implement specific reading instruction during their field experiences, they will be less likely to feel they are useful as teachers. Therefore, reading courses in teacher preparation programs should incorporate meaningful instructional activities and a variety of opportunities for pre-

service teachers to implement, while reflecting on the impact of the activity on student achievement.

An equally important challenge in teacher preparation is how teachers perceive themselves as a result of their training. While some researchers have determined that teachers who receive their education from traditional teacher preparation programs have higher self-efficacy and feel better prepared than teachers who receive their education through alternative routes (Darling-Hammond and Young, 2002), other researchers suggest that the experiences pre-service teachers have in their teacher preparation programs are null and void, and in some cases completely forgotten once they begin teaching (Clark et al, 2013). Maloch et al. (2003), however, report that beginning teachers employ instructional strategies, methods and techniques they learn during training and can identify the strategies they employed from their in-service. In other words, they argue that teacher preparation influences the instructional practice of novice teachers

Best practices in teacher preparation. Most teacher preparation programs require potential teachers to complete a certain amount of coursework and field experience. In most cases, both components play a crucial role in fulfilling requirements to become a certified teacher. Since colleges and universities prepare the majority of teachers, they have a pivotal role to play in ensuring qualified teachers of reading in most classrooms. The challenge is particularly great in teacher preparation programs that serve student populations with high levels of poverty (IRA, 2003; Teaching Reading Well, 2007).

The emphasis on accountability has infused a new urgency to improve teacher preparation, licensing and professional development. Teacher education programs at the university level are under pressure to incorporate more specific and rigorous standards for

licensing and to align the content of instruction with scientifically grounded research evidence (Moats, 2009). Consequently, research has begun to identify the characteristics and features of an effective reading teacher preparation program.

Some studies suggest that effective reading teacher preparation programs share common program features. The National Commission on Excellence in Elementary Teacher Preparation for Reading Instruction, a commission of the IRA, and the Sites of Excellence in Reading Teacher Education (SERTE) completed a longitudinal study analyzing the features of excellent reading teacher preparation programs. The study placed strong emphasis on reading instruction and field experience at eight schools that were identified as having excellent reading teacher preparation programs. The teacher preparation programs chosen had no fewer than six credit hours of coursework focused specifically on reading and, in some cases, more than 15 credit hours of related coursework. Furthermore, each program engaged pre-service teachers in over 150 hours of field experience prior to student teaching. Even though the programs differed in their organizational structure, they shared eight common features, which the IRA (2007) condensed into the following six features:

- Content - The content should include research focusing on how students become successful readers and how teachers can support students with instruction;
- Faculty and teaching - The faculty need to be committed to effective instruction that delivers appropriate content and models successful instructional techniques for students;

- Field experience - The field experience should move teacher through a systematically arrayed experiences that are closely coordinated with their coursework and expose them to excellent models and mentor;
- Diversity - The program should be saturated with an awareness of diversity. Faculty and students should reflect diversity and produce teachers who know how to teach diverse students in diverse settings;
- Candidate and program assessment – The program should intentionally, or on a regular basis, assess their students, faculty, and curriculum to guide the instructional decision making and program development;
- Governance, resources and vision – The program should have a quality vision that focuses on quality teaching to produce a community of future leaders in reading instruction. In addition, programs should have a governance structure that gives faculty the appropriate control for realizing the vision (pg. 1).

Even though the IRA (2007) recommended these features, it admitted that achieving excellence in all six components is extremely challenging. However, teacher preparation programs that produce effective teachers share variations of the key features. Indeed, first year teachers who attended and graduated from the identified programs reported they were responding to students' needs in flexible, knowledgeable and strategic ways, in spite of the challenges of mandated curricula and high stakes testing. What's more, many of the teachers exhibited a high sense of self-efficacy in their teaching of reading, talking in ways that suggested a sense of security in their ability to make an impact on student learning. Moreover, the teachers consistently were engaged in reflection and continuously

were considering ways to improve or change instruction to meet the needs of their students (Maloch et al., 2003).

Contrary to the study completed by SERTE (2003), the National Council on Teacher Quality (2006) published a study that examined the syllabi content from courses focused on teaching reading instruction for elementary aged children. Of the 72 university preparation programs in the study's sample, only 11 (15%) were found to contain content aligned with current research in teaching reading. More recently, Lyon and Weiser (2014) reported that it was a "disappointing fact" that very little has been done in traditional, university-based teacher preparation program to ensure teachers are provided with the essential skill, knowledge and abilities to help students become proficient readers (p. 478). In addition, Joshi et al. (2009) and NCTQ (2013, 2014) found that the majority of the textbooks used in teacher preparation programs lacked up-to-date content on current scientific research on reading, therefore providing aspiring teachers with inadequate information about reading development, reading difficulties and reading instruction.

Course work. Coursework plays an essential role in developing teachers' content knowledge in reading instruction. In fact, according to Risko, Cummings and Beans (2008), the best way to affect the knowledge and beliefs of teachers may be in the context of methods courses. Schulman (1987) defined pedagogical content knowledge as "the most useful ways of representing and formulating the subject that makes it comprehensible to others... Pedagogical content knowledge also includes an understanding of what makes the learning of specific topics easy or difficult" (p. 7). Content in teaching and what needs to be taught and learned about a subject provided a conceptual foundation for what teachers need to know before they enter the classroom

(Phelps & Schilling, 2004). In other words, aspiring teachers of reading need opportunities to develop the specialized knowledge of their subject that is uniquely tailored to the challenges and the task of teaching (Phelps, 2009). In the best teacher preparation programs, pre-service teachers learn about teaching reading by developing content knowledge and application skills that incorporate the following: A conceptual understanding about the foundation of language development, proficiency with formal and informal assessment tools to determine reader's reading strengths and weaknesses, expertise with instructional strategies and materials for readers of all backgrounds and abilities (NRP, 2000; Phelps, 2009). In addition, aspiring reading teachers need detailed knowledge of text (forms of written or printed work) and they need to know how to represent reading tasks and material in a way that can foster students' learning.

Researchers also found that the most successful teacher preparation programs follow the approach of organizing pieces of knowledge into systems of study that faculty and students return to again and again. This approach to developing pedagogical content knowledge requires revisiting important topics repeatedly and building a depth of knowledge systematically throughout the course of the preparation stages (IRA, 2007; NRP, 2000; Phelps, 2009; Snow et al., 2005). Moreover, research indicates that learning to teach reading cannot happen in one single course; instead, it requires intensive study of instructional methods and materials over several semesters (IRA, 2007).

Another factor that is crucial to teacher preparation in reading instruction is understanding how to administer reading assessments and interpret the data to meet the instructional needs of students. Studies show that without formal preparation in assessment methodology, beginning teachers struggle with translating diagnostic data

into effective teaching strategies. Broad principles such as *assessment driven instruction*, which refers to a teacher's use of the results from various student assessments to plan instruction; *responsive and adaptive teaching*, which refers to a way of teaching that emphasizes social, emotional, and academic growth in a strong and safe school community; and *explicit content delivery*, which is systematic instruction that is direct and engaging, make concrete the theoretical connections between content knowledge and classroom skills (IRA, 2000; Lyons & Weiser, 2009). An effective teacher preparation program also addresses the needs of readers from diverse backgrounds, in addition to promoting and endorsing active strategies within the program that value diversity and differences. Furthermore, an effective teacher preparation program identifies institutional practices and attitudes that might impede student learning and practice instructional methodologies that reach diverse population (IRA, 2007).

Field experience. Field experience plays a crucial role in helping teachers link the theory they learn as students to the application in the classroom as teachers. There are two factors that are the most influential in determining the success of field experiences. The first is exposure to the classroom environments where explicit references to course and case content are made to help beginning teachers apply the knowledge they have learned in their studies. The second is guidance from master teachers with explicit feedback to further learning during fieldwork. In addition, field experiences should expose pre-service teachers to proven, established and successful strategies for teaching reading and a mentoring relationship that involve regular debriefing of fieldwork activities for greater understanding and future effectiveness in the classroom (IRA, 2000). In fact, Grisham's (2000) research supported the argument that early exposure to a

classroom environment that exemplifies the material under study and where the teacher models appropriate instructional methodologies can strongly influence the future effectiveness of teachers. Moreover, teacher preparation programs that provided supervised, relevant field base experience in which pre-service teachers receive ongoing support, guidance and feedback are crucial in the development of effective teachers (Darling-Hammond, 2000; Hoffman et al., 2005). In fact, the National Center for Education Evaluation (2010) reported that pre-service teachers were twice as likely to report a strong focus on the essential components of their field experience as in their coursework in preparing them to teach reading.

The value of field experience is that it gives aspiring teachers of reading, practical experience in using their acquired knowledge and skills to assess students for the purpose of planning, as well as to organize and manage lessons for reading instruction. Therefore, it is beneficial for the field experience of aspiring teachers to be purposeful and paired with excellent teachers who will act as role models and mentor (Maloch, Fine & Flint, 2003; IRA, 2007). Moreover, the field work should be in classrooms that transcend the typical student teaching scenario, in which students are presented with carefully arranged hands-on experiences in reading instruction, including tutoring, diagnostic assessments and small/whole group instruction that mirror and reinforce the coursework and preparation provided in the preparation setting (IRA, 2007).

Traditional teacher preparation versus ACP.

Individuals interested in becoming certified teachers may choose to pursue certification through a traditional or alternative certification program (ACP). Previous to the No Child Left Behind Act (2001), potential teachers were required to complete a

designed program at a traditional college or university. As a result of NCLB, the U.S. Secretary of Education issued the Secretary's Annual Report on Teacher Quality (2002) in which he argued for the dismantling of teacher education systems and the redefinition of teacher qualifications to include little preparation for teaching (Darling-Hammond, 2002; Evans, 2010). The report was the catalyst for the evolution of ACP's and the deregulation of teachers' preparation (Evans, 2010; U.S. Department of Education, 2002).

Both traditional and ACP's require teachers to complete a program designed to meet state standards to earn their certification. Taking the state exam to receive their certification is a common requirement for both programs, but there are notable differences in how each kind of program goes about that process. Traditional teacher preparation programs are housed in schools of education at universities/colleges, and teachers must complete the state's mandated requirements in a four- or five-year degree program before becoming a teacher of record (classroom teacher). In contrast, ACPs are supported by school districts and government agencies and are field-based training programs that allow individuals to enter the classroom after a short introductory program and to complete certification requirement while working as the teacher of record (Evans, 2010). In other words, content knowledge and field experiences in teaching reading are embedded in the traditional program, whereas, in an ACP, content knowledge in teaching reading is completed prior to beginning the certification process and field experience and course work happen simultaneously (Baines, McDowell and Foulk, 2001). Therefore based on the above research, the postulated hypothesis is, that there are differences in the

key components of traditional teacher preparation programs and Alternative Certification programs.

Conceptual Framework: Teacher Self-Efficacy and Preparation for Reading

The research described in chapter three will be guided by the theory that teacher self-efficacy is both key to students' success in reading and malleable, that is, it can be enhanced through appropriate teacher preparation. In this section, previous research discussed about self-efficacy and teacher preparation will be utilized to explain how self-efficacy relates to novice teachers and to student learning, and to present specific hypotheses that will be tested in order to answer the research questions guiding the research.

Teacher Self-efficacy. The conceptual foundation for this study is Bandura's (1977) theory of self-efficacy, which Bandura defined as a person's beliefs about his/her capabilities to produce designated levels of performance that exercise influence over events that affect their life. Teacher self-efficacy has been researched and studied for decades. Early efforts to conceptualize and measure teachers' sense of self efficacy evolved from Rotter's (1966) theory on locus of control, which led to research on the extent to which teachers believe they have control over student outcome regardless of environmental. In a study completed by RAND (1966), researchers conceived of teacher self-efficacy as the extent to which teachers believed that they could control the impact of their actions on student achievement. According to this conceptualization, teachers who believed that external influences overwhelm a teacher's ability to have an impact on students' learning also tend to believe that reinforcement of their teaching efforts lies outside of their control. On the other hand, teachers who expressed confidence in their

ability to teach challenging, unmotivated students tended to believe that the impact of teaching activities lay within the teacher's control. Further, teachers who expressed internal control displayed more confidence in their abilities as teachers to overcome factors that made it difficult for students to learn.

The second conceptual base on self-efficacy emerged from Bandura's work in social cognition. Bandura's research on self-efficacy supports the RAND (1966) findings that teachers' confidence in their abilities influenced their motivation to persist when faced with challenges. Bandura (1977) defined self-efficacy as a person's beliefs about his/her capabilities to produce designated levels of performance that exercise influence over events that affect their life. Bandura (1986) later formally defined self-efficacy "as people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance" (p. 391). In this way, teachers' self-efficacy is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, including among those students who may lack motivation or be difficult (Bandura, 1977; Tschannen-Moran & Woolfork-Hoy, 2001).

A person's self-efficacy beliefs are hypothesized to shape how s/he feels, thinks, motivates him or herself, and behaves (Bandura, 1977). According to Bandura (1977, 1997), a strong sense of self-efficacy can enhance a person's well-being as well as his or her capacity to approach difficult tasks as challenges to be mastered rather than avoided.

Bandura identified four specific elements that influenced the development of self-efficacy: mastery experience, verbal persuasion, vicarious experiences, and physiological arousal (Bandura, 1997; Tschannen-Moran & Hoy, 2007). Peoples' sense of self-efficacy is developed through the mastery of experiences, which occur when a person experiences

success in the desired outcome or action (Bandura, 1997). According to Molding, Stewart, and Dunmeyer (2014), mastery experience is the active attainment of personal success or accomplishments. Relevant to one's mastery experience is the ability to overcome obstacles through perseverance (Bandura, 1994). The second element, verbal persuasion, occurs when one is told by others that s/he possesses the ability or capability to succeed at the targeted task (Bandura, 1997). It also comprises receiving positive praise and positive feedback (Moulding et al., 2014). The third element, vicarious experience, is acquired through witnessing others like oneself master similar challenges. The fourth and final element, physiological arousal, refers to an awareness of the emotional and physical response while attempting a task (Moulding et al., 2014). In addition, it is a person's ability to control stress reaction and mood when being challenged (Bandura, 1994).

Construction of a Valid Measure of Teacher Self-Efficacy

An abundance of research exists showcasing the strong influence self-efficacy has on human behavior, critics agree that the concept of teacher efficacy should be aligned with Bandura's theoretical perspective. However, there have been some discrepancies in the interpretation of Bandura's theory in the process of creating teacher efficacy measure. Which led to researchers, throughout the decades, questioning the psychometric properties of the different measures used in past and present research in measuring self-efficacy (Duffin et al., 2012).

As a result of the RAND (1966) study and Bandura's (1977) theory of self-efficacy, many researchers sought to examine the construct of teacher self-efficacy. Amor (1976) was one of the first researchers to attempt to construct a measure of teacher self-

efficacy. He concluded that the greater the teacher's self-efficacy the more students advance in reading achievement.

In measuring teacher efficacy, some researchers questioned what needed to be measured. Some researchers questioned if teacher efficacy is a single construct or is it comprised of distinct factors (Duffin & French 2012; Tschannen-Moran & Hoy 2001). Others felt, teacher self-efficacy measures should be constructed to capture teacher self-efficacy as a teacher's belief in his or her capabilities to carry out specific teaching practices to affect desired student outcomes, (Duffin et al., 2012; Gibson & Dembo 1984).

Bandura (1997) suggested teacher efficacy measures should be constructed to capture teacher efficacy as a teacher belief in his/her capabilities to carry out specific teaching practices to affect desired student outcomes (efficacy expectation), or the measure should assess teaching efficacy as a judgment of capabilities based on teacher's personal competence beliefs, plus their expectation of the outcome when facing potential environmental obstacles (outcome expectations) (Bandura, 1997; Duffin et al., 2012; Tschannen-Moran & Hoy, 2001). Bandura (1997) also reported that teachers' self-efficacy measures should be operationalized to reflect beliefs about capability and therefore should be phrased in terms of can do rather than will do, because can is a judgment of capability and will is a statement of intent. In addition, self-efficacy measures should reflect a particular context or domain of functioning rather than global functioning.

In spite of efforts on the part of researchers to come up with a valid instrument or tool to measure teacher's self-efficacy, it was not until Moran and Hoy (2001) created the Ohio

State Teacher Self-Efficacy Scale (OSTES) instrument, did one exist. The OSTES evolved and became known as the Teacher Self-Efficacy Scale (TSES), a tested and valid instrument used to measure teacher self-efficacy. Initially, the OSTES included 52 items with 23 of them from Bandura's original instrument. The instrument was vetted in three different studies resulting in a new valid and reliable instrument containing two forms. The long form contained 24 items and the short form contained 12 items. Participant responded to the items using a 9-point Likert scale with anchors ranging from 1(nothing) to 9 (a great deal). It was designed to assess three aspects of teachers' sense of self efficacy, the self-efficacy for instruction, which measured teacher's confidence in their ability to use a variety of instructional and assessment strategies to meet the needs of all students. The self-efficacy for classroom management items assessed teachers' confidence in their ability to effectively keep order, supervise or manage their classrooms. The self-efficacy for engagement items assessed teachers' confidence in their ability to motivate students or to engage them in learning activities (Tschannen-Moran & Hoy, 2001; Wolter & Daughtery, 2007). Even though there is conflicting research in utilizing TSES as a true measurement of teacher self-efficacy, it is still recognized as the most valid instrument that exist up to date. Based on the validity of the TSES as a measurement of teacher self-efficacy, Tschannen-Moran and Johnson (2011) used it to solidify the development of an instrument, the Teacher Self-Efficacy in Literature Instruction (TSELI) to measure teacher self-efficacy in teaching reading.

Novice Teachers and Self Efficacy. Developing self-efficacy in novice teachers may be important to improving their effectiveness and keeping them in the classroom for longer. For example, research suggested that when novice teachers complete their first

year of teaching with a high sense of teacher efficacy, they found greater satisfaction in teaching and experienced less stress (Hoy & Spero, 2005). Equally important, novice teachers who demonstrated a high level of self-efficacy rated the quality of their preparation high and the difficulty of teaching lower than those who had a lower sense of self-efficacy. Finally, highly efficacious novice teachers indicated greater optimism and remained in the field of teaching longer than those with lower self-efficacy (Hoy & Spero, 2005).

Bandura (1997) suggested that it was necessary to better understand how efficacy beliefs are shaped, supported and undermined in the early years of one's career because once self-efficacy beliefs are solidified, it would take a certain shock to cause a recalibration. Indeed, novice teachers often enter the profession with high hopes about the kind of impact they will make on students' lives, only to encounter the painful reality that it is more difficult than they realized. As a result, novice teachers recalibrate the meaning of good teaching, and may lower their standards out of self-protection—to avoid the painful self-assessment of failure. On the other hand, novice teachers entertaining doubts about current effectiveness may be motivated to continue learning and growing because he/she believes in the possibility of future success (Wheatley, 2002; Tschannen-Moran et al. 2007). As an example of this, Hoy and Spero (2005) found that novice teachers' self-efficacy decreased during the transition from teacher preparation programs to first-year teaching. Specifically, they suggested that the decline in self-efficacy was due to the shattering of unrealistic optimism held by most student teachers and may be the result of first-year teachers discovering that teaching is more than methods and strategies.

Wasserman (2009) makes the argument that beginning teachers must possess a strong sense of self-efficacy and have enough conviction in their newfound knowledge, beliefs and capabilities that they are willing to find a way to implement them under adverse conditions in order to improve reading instruction. As an example, high self-efficacy may help novice teachers refuse to teach using only traditional curriculum and methods and encourage them to use more effective teaching methods. Furthermore, teachers must feel confident that they possess an instruction plan of action that will enhance student performance and deal with the dilemmas inherent to teaching, particularly in the urban setting (Darling-Hammond, 1999; Wasserman, 2009).

Teachers' Self-Efficacy and Student Outcomes. Research suggested that teacher self-efficacy impacts student outcomes in specific ways. Bandura (1977, 1997) argued that a strong sense of self-efficacy enhances human accomplishments and personal well-being. As it relates to teaching specifically, Bandura (1997) argued that self-efficacy refers to a teacher's belief in his\her capability to carry out instructional practices in the education context that resulted in positive student outcomes. In this way, self-efficacy affects the effort teachers invest in teaching, the goals they set and their level of aspiration (Hoy & Moran, 2001). Therefore, the task of creating learning environments that are conducive to the development of cognitive skills may rest on the skills and self-efficacy of teachers.

Tschnannen-Hoy and colleagues (2011) suggested that teacher self-efficacy can affect teachers' behaviors in their classrooms. Accordingly, teacher self-efficacy can influence many meaningful educational outcomes, such as teacher persistence in the face of challenges as well as teacher enthusiasm, motivation, commitment and instructional

behaviors linked to student outcomes. Teachers with a strong sense of self-efficacy often put greater efforts into their planning and are likely to be more willing to try new and innovative instructional practices methods to better meet the needs of their students (Skaalvik & Skaalvik, 2007). For this reason, teachers who have a high sense of efficacy about their teaching capabilities may be better able to motivate their students and enhance their cognitive development. Conversely, teachers who have a low sense of efficacy about their instructional capabilities often have a custodial orientation that relies heavily on negative sanctions to motivate students (Bandura, 1994; Hoy et al., 2001; Skaalvik & Skaalvik, 2007; Tschannen-Moran & Hoy, 2001; Wolter et al., 2007).

Because teacher efficacy is believed to influence teachers' performance, it also is theorized to indirectly affect student outcomes, such as motivation and achievement (Duffin, French and Patrick, 2012). Specifically, when teacher self-efficacy is high, teachers are hypothesized to utilize a variety of instructional strategies that are supportive and positive for student engagement and achievement outcomes, even when face with challenging situations. Conversely, teachers who do not expect to be successful with certain students are likely put forth less effort in the preparation and delivery of instruction and to give up more easily at the first sign of difficulty, even if they actually know of strategies that could assist the students if applied. In this way, self-efficacy can become the self-filling prophecy: Validating beliefs of capability or of incapacity (Bandura, 1997; Tschannen-Moran & Hoy, 2007).

Teachers with a greater sense of self-efficacy tend to exhibit different instructional practices, feedback to students and flexibility. Wolter and Daugherty's (2007) reported that a teacher's belief about their teaching abilities are linked to

instructional practices found to influence students' motivation for learning and achievement. In fact, teachers who reported greater confidence in their ability to modify their instruction and assessment strategies to fit student needs, tend to report using instructional practices that focus students on improvement, overcoming a challenge and learning as much as possible (Wolter et al., 2007). In assessing beliefs about their teaching capability in a particular context, teachers make two related judgments: One about the requirements of an anticipated teaching task and a second about their personal teaching competence in light of those requirements (Tschannen-Moran & Hoy 2007). The assessment of the teaching task requires them to take into account available resources, as well as students' motivation, ability and social economic status. Judgment of personal competence includes those judgments a teacher makes about his or her capabilities based on an assessment of internal strengths and deficits. Therefore, a teacher who judges herself to be capable of orchestrating and designing instruction based on individual student's needs, taking into account the challenges of a particular teaching context, will likely exert greater effort, persistence and resilience, as a result of, stronger self-efficacy (Tschannen-Moran & Hoy, 2007)

Self-efficacy can potentially create a false sense of confidence in teachers about their capabilities. According to Hoy and Spero (2005) and Tschannen-Moran et al. (2007), self-efficacy is a motivational construct based on self-perception of competence rather than actual level of competence. Consequently, teachers tend either to overestimate or underestimate their actual abilities, and their estimations may have consequences for the courses of action they choose to pursue and the effort they exert in those pursuits. Nonetheless, Bandura (1997) suggested that it is beneficial for teachers to slightly

overestimate their teaching skill, as their motivation to expend efforts and to persist in the face of setbacks will help them to make the most of the skills and capabilities they possess. Consequently, the standard teachers hold for what constitutes good teaching also will influence their sense of self-efficacy. The self-assurance with which teachers approach and manage difficult tasks determines whether they make good or poor use of their capabilities (Tschannen-Moran & Hoy 2007). In contrast, Bandura (1997) suggested that a person's insidious doubts could overrule their best skills.

Self-Efficacy and Teacher Preparation

Teacher preparation affects self-efficacy in specific ways, but there is evidence that suggests the ACP's versus traditional teacher preparation programs may cultivate self-efficacy differently because the difference in the sequencing of the certification process, quantity of coursework and field experiences. There is a growing interest in support of research that examines the development of self-efficacy in teacher preparation. Dinther, Docchy and Segers (2013) examined the self-efficacy development of student teachers in a competence-based education program. A competence can be viewed as an integrated set of related knowledge, skills and attitudes, which enables the student to perform professional tasks. Hence, competence-based teacher education differ from traditional teacher preparation program and ACP in that it emphasizes the development of teacher competences in relation to authentic teaching experiences, instead of merely the acquisition of isolated knowledge, skills and attitudes. Dinther et al. (2013) recommended incorporating self-efficacy in competency-based, teacher education programs, with emphasis on the diagnostic use of evaluation methods that would monitor and guide the development of student competence. Dinther et al. (2013) further argue that in order to

provide incipient student teachers with mastery teaching experiences, teacher educators must provide an authentic teaching experience and the supervision of the student teachers to the complexity of the teaching task and to the students' competence development; therefore, avoiding the decline in efficacy as a result of being exposed to the realities of teaching their first year.

Though teacher preparation varies across traditional preparation programs, field experiences such as student teaching and practicum are a standard component of most traditional teaching programs (Moulding et al., 2014; Darling-Hammond & Lieberman, 2012). The goal of student teaching is to allow novice teachers to reflect on their practices and develop skills as they progress their teacher preparation progress. Beginning teachers learn to develop confidence in their own abilities as an instructor in the practicum (Evans, 2010). Moreover, Hoy and Woolfork (1993) concluded that formative pre-service experiences such as teacher training and student teaching have been shown to be important in building teaching efficacy. Tuchman et al. (2011) suggested the formative pre-service experiences, such as student teaching, help mold a teacher's self-efficacy beliefs. These experiences occur while teachers' efficacy beliefs are still developing and are more easily influenced, and therefore can have a significant impact on teachers' sense of self-efficacy. As a matter of fact, pre-service teaching experiences that leave prospective teachers with a feeling of success and provide evidence of competence, bolsters their efficacy beliefs (Bandura, 1997). Equally important, repeated successes during student teaching, help these beliefs become stronger and more resilient and once a resilient sense of efficacy has been developed it is not as easily weakened by experiences of failures or obstacles. Henceforth, teachers with a strong resilient sense of efficacy react

to failure by redoubling their effort, viewing obstacles as surmountable. On the other hand, teachers who have yet to develop strong efficacy beliefs, their experiences of early obstacles and failure can lead to the development of very low self-efficacy, and repeated failure can strengthen these beliefs, to the point that even clear successes are easily discounted (Bandura, 1997; Tuchman & Isaacs, 2011).

According to Moulding et al. (2004), three of the four sources of efficacy identified by Bandura (1977)—mastery experience, vicarious experience and verbal persuasion—are supported during traditional teacher preparation programs. Mastery experience (Bandura, 1997) is the most powerful source of self-efficacy, and has been identified by many researchers as being a pertinent component of the pre-service experience of student teachers in developing teachers' efficacy (Tschannen-Moran, 2011). Many traditional preparation programs provide an opportunity for enactive mastery experiences through a supervised program of student teaching. As opposed to ACP's which offers short introductory programs to potential teacher candidates prior to becoming the teacher of record. Indeed, researchers have argued that supervised teaching experiences build teachers' self-efficacy beliefs, resulting in an increase in their level of self-efficacy after they complete their student teaching and before they begin their first year of teaching (Bandura, 2001; Moulding et al., 2004; Woolfork-Hoy et al., 2005).

Vicarious experiences during pre-service preparation also can influence the development of teacher self-efficacy, especially for individuals with little or no previous teaching experience (Moulding et al., 2014). Vicarious experiences occur when an individual observes other individuals similar to themselves succeed at the target task (Bandura, 1997). During pre-service preparation, teachers with little or no teaching

experience have the opportunity to experience teaching vicariously by observing veteran teachers during early field work, observing peers teaching in class simulation, and hearing about the success and challenges of their peers in student teaching seminars (Moulding et al., 2014). These interactions provide potential teachers with opportunities to observe the application of theory and analyze the impact of instructional practices on student achievement. Potential teachers in a traditional teacher program are more likely to engage in vicarious experiences during supervised student teaching, whereas, Evans (2010) reported that the opportunity to experience vicarious experience is not an option for ACP teacher. Instead, ACP teachers are assigned mentors after they become the teacher of record, who provides observation feedback; therefore they are less likely to encounter vicarious experiences.

Verbal persuasion occurs when an individual is told by others that he or she possesses the capabilities to succeed at the target task. Bandura (1997) argued that feedback and support foster self-efficacy. When student teachers are provided with feedback from peers and supervisors, they are experiencing verbal feedback, which research indicated is positively related to self-efficacy beliefs. What's more, the impact of verbal persuasion on self-efficacy is magnified when it closely follows a successful mastery experience (Moulding et al., 2014; Woolfork-Hoy et al., 2005). Once again traditional teacher preparation programs are more likely to engage in verbal persuasion during supervised student teaching than ACP's. Supervised student teaching provides potential teachers with a source of practical advice and knowledge of what they as a teacher would or would not do under the guidance of a supervising teacher. In contrast, ACP's teacher are engaged in feedback from mentors after becoming the teacher of

record (Evans, 2010) All things considered, mastery experience, along with support and positive feedback from supervisors and mentors, were identified as important in developing efficacy. Based on the above research, the postulated hypothesis is, that teacher self-efficacy in teaching reading varies according to the type of preparation program in which s/he participated and that of self-efficacy is supported by teacher preparation program, I also hypothesize that key components of teacher preparation programs are related to the level of self-efficacy in teaching reading.

Some of the most influential experiences on the development of teachers' sense of self efficacy are mastery experiences during student teaching. Research consistently supports that student teachers' efficacy beliefs typically are enhanced after the student teaching experience (Hoy & Spero, 2005; Hoy & Knoblauch, 2007). Swan, Wolf and Cano (2014) completed a study monitoring self-efficacy of teachers, starting with their student teaching year through the third year of teaching. They reported that teacher's self-efficacy is high during their student teaching experience but the greatest level of self-efficacy declination happens right at their first year of teaching. However, this decline is influenced by context and the realities of teaching reading. As a matter of fact, Siwatu (2011) suggested, that there is a great need for student teaching to be completed in urban school to alleviate the decrease of self-efficacy, due to the reality shock many novice teachers endure their first year of teaching. Siwatu (2011) also suggested, that since self-efficacy beliefs are malleable during early years, it is pertinent to identify ways to prepare prospective teachers for the unique challenges that context may present and structuring a system that supports novice teachers as they attempt to overcome context-specific challenges.

Chapter III

Methodology

The purpose of this study was to examine novice teachers' self-efficacy beliefs in teaching reading and to investigate the ways in which those beliefs vary according to the type of preparation program the teachers attended. Specifically, the self-efficacy beliefs of novice teachers prepared in traditional four-year universities/college programs were compared to those of teachers prepared in alternative certification programs (ACP). In addition, this research explored which elements of the teacher preparation programs are related to the teachers' self-efficacy beliefs for teaching reading. This chapter describes the research design, data sources, and analytic techniques that were used in this study.

Research Questions

The following research questions guided the investigation:

1. What differences exist in novice teachers' self-efficacy beliefs about teaching reading between those teachers prepared in a traditional teacher preparation program and those prepared in an Alternative Certification Program (ACP)?
2. What are the key components in the teachers' preparation programs, and in what ways do the key components relate to the teachers' self-efficacy beliefs for teaching reading?
3. What differences exist in the key components of traditional (four-year institution) teacher preparation programs and Alternative Certification Programs (ACP)?

Setting

The study was completed in the seventh largest school district in the United States, the Houston Independent School District (HISD). HISD is the largest school

district in Texas, consisting of 283 schools, including 10 early childhood schools (Pre K - K) and 153 elementary schools (grades K-5). There are approximately 215, 000 students in HISD. Of those students, 62.1% are Hispanic, 24.9% are African American, 8.2% are White and 3.6% are Asian. In HISD, 75.5% of the student population is economically disadvantaged and 71.6% is considered at-risk of dropping out of school based on state-defined criteria.

Research Design

This research utilized a quantitative design to examine and compare the responses of novice early literacy teachers on a questionnaire. The study was non-experimental in nature because the participants were not randomly assigned to preparation programs or to their current teaching assignments. Data was gathered through the online administration of a validated questionnaire that asked about the teachers' preparation programs, particularly in terms of the preparation they received to teach reading, and about the teachers' sense of self-efficacy in teaching reading.

Participants

The study focused on novice teachers who currently teach reading (early literacy) in kindergarten, first, and second grade in HISD. For the purpose of this research, novice teachers are those with fewer than two years of teaching experience. Teachers who taught for more than two years were excluded because they likely have gained pedagogical experiences from their time in the classroom and from district or external professional development that would skew their perception of self-efficacy in teaching reading as it related to their teacher preparation program. The study focused on grades Kindergarten through second because, for most students, those grade levels were in their

developmental stage in reading. Participants were recruited from the 153 elementary schools within HISD. There was a pool of approximately 2,720 Kindergarten through Second grade teachers, but HISD identified 171 teachers who fit the study's criteria of a novice teacher who were teaching reading. The 171 teachers identified were invited to participate in the study.

Of the 171 teachers that were invited to take the survey twenty-four teachers responded previous to the academic school year ending. As a result of low participation in the initial group of invited participants, permission was requested from the district to administer the survey to novice teachers that were recently hired and attending the New Teachers Literacy Institute at the end of July, 2016. Teachers attending the three-day workshop were provided a printed invitation that contained an anonymous link. This increased the number of participants to 74 by August 1st, 2016.

Data Collection

Data was collected through an online questionnaire administered using the software Qualtrics and teacher emails provided by the district. The Novice Teacher Self-Efficacy in Literacy Instruction survey (NTSELI) took approximately 20 minutes to complete. Participants were emailed a unique link to the survey and given one opportunity to complete the survey; once she/he began the survey, she/he had to complete it in its entirety to progress to the end of the survey. All participants was given a three-week window to complete and submit the survey. Participants received a follow-up email at the end of the first and second weeks reminding them to complete the survey within the three-week window.

Instrument

The study combined several existing, validated questionnaires to create the Novice Teacher Self-Efficacy in Literacy Instruction survey (NTSELI) to address the research questions listed above. Part one of the NTSELI survey was comprised of general questions from the survey, *Examining Teacher Preparation: Does the Pathway make a Difference? Survey of First Year Teachers* (ETP). This provided basic information about the teacher preparation programs participants attended. The next part of the NTSELI was the *Pre-Service Teacher Program Survey* (PTPS), which included coursework, field experience and feeling of preparedness in reading instruction. This was included in the NTSELI survey to gather data on the components of teacher preparation program that focused on reading instruction. The last part of the NTSELI survey was the *Teacher Self-Efficacy in Literacy Instruction* survey (TSELI). This survey was included as a part of the NTSELI survey to gather data on novice teachers' self-efficacy belief in teaching reading. These questionnaires were combined into a single questionnaire that comprised 59 items. In the following sections, the content and diagnostics of each of the three surveys will be reviewed.

ETP. The Examining Teacher Preparation: Does the Pathway make a Difference? Survey of First Year Teachers (<http://cepa.stanford.edu/tpr/teacher-pathway-project-old>) was created by Boyd and colleagues (2005) as part of an ongoing project to better understand how teacher preparation policies and practices affect the supply, retention, and effectiveness of K-12 teachers in difficult-to-staff urban schools (Boyd, Grosman, & Lankford, 2005). The survey solicits first-year teachers' experiences and views concerning their preparation to teach, characteristics of the schools in which they are

teaching and their future plans. The survey was administered to all first-year teachers in New York City public schools who first began teaching during the 2004-2005 school year. The NTSELI will only use items 1 through 8 of the survey which are descriptors used to gather background information on participants' teacher preparation programs and their perceptions of the program. With the exception of items 7 and 8, which use a Likert scale ranging from strongly disagree to strongly agree, items 1 through 6 identify basic information about the participant. For a complete copy of the survey please refer to the website: <http://cepa.stanford.edu/tpr/teacher-pathway-project-old>.

PTPS. The NTSELI survey also used components of the Pre-Service Teacher Program Survey (PTPS) to gather data on pre-service teachers' perceptions of their training program, field experiences and feeling of preparedness in early reading instruction (National Center for Education Evaluation, 2010). The PTPS is a survey originally developed and implemented in the *Study of Teacher Preparation in Early Reading Instruction* by the NCEE (2010) as a way to measure the preparedness of students entering the teaching profession to teach the essential components of reading instruction. The PTPS consists of two part. The first section consisted of 22 multi-part items used to gather background knowledge on participants. The second section was used to gather both teachers' perceptions on the extent to which their coursework emphasized the five essential components of early reading, and the extent to which their field experiences exposed them to instruction in early reading. The second section also gathered data on pre-service teachers' perceptions of preparedness to teach reading. The NTSELI survey only used the components from the second section of the PTPS.

Section two of the PTPS consists of three parts: coursework, field experiences and feeling of preparedness. There are 17 identical items used to target teachers' perceptions of their coursework in reading and field experience during their teacher preparation program. The first set of 17 items asks teachers to think about all their coursework in reading and literacy, and the second set of 17 items asks teacher to think about their classroom observations of reading instruction and activities as a part of field experience. Participants rate each of the 34 item using a four-point metric ranging from *none* (0) to *considerable* (4). To obtain teachers' feeling of preparedness, part three of the section, feeling of preparedness, consists of 13 of the 17 items addressed in coursework/field experience. Teachers rate how prepared they felt to teach each reading concept or strategy. Repetition of the items in each part linked teachers' reported programmatic focus on the concepts and strategies directly with their feelings of preparedness.

The items for the PTPS were subjected to various levels of review and pilot testing. There were two levels of pilot testing. Level one pilot testing was completed with focus groups, and level two comprised cognitive laboratory interviews. During the level one pilot testing, four focus groups were held with students who were nearing completion of their pre-service teacher education programs. The responses of the participants in the focus groups served as checkpoints on overall comprehensibility, familiarity of language, and understanding of concepts presented in each item. There were two rounds of cognitive laboratory interviews where individual pre-service teachers were asked to think aloud using a draft of the PTPS and provide commentary on their interpretation of the items as well as additional aspects of their program they felt should be included in the survey. The results of the pilot tests informed wording and the format of the final

instrument. Upon completion for pilot test, the PTPS was reviewed at the Institute of Education Sciences (IES), by members of the study's Technical Working Group, and by the Office of Management and Budget (OMB). Revisions were made to the final drafts of the PTPS based on comments received from these sources (NCEE, 2010, pp. 14-15 and C1).

The study team conducted unweighted reliability analyses of the 17 coursework items, the 17 field experience items, and the 13 feelings of preparedness items on the PTPS. The reliability results were based pre-service teacher level analyses that ignores the institutions participants' attended and on a multivariate hierarchical linear models (HLM) that take into account the nested data structure of the Program Survey data (i.e., items nested within teachers and teachers nested within institutions). Results were presented using the following alternative factor models:

- Five –factor model: phonemic awareness, phonics, fluency, comprehension and vocabulary
- Three-factor model: Alphabetics, fluency, and meaning
- Two-factor model: word and meaning
- One-factor model: all five essential components of early reading instruction combined

As a first step in understanding the reliability of pre-service teachers' responses to the PTPS, the study team estimated reliability by using teacher-level analyses that ignored the nested data structured. This provided simple reliability estimates. Table1 presents Cronbach's alpha reliability estimates for scales measuring the essential components of reading instruction based on survey data on pre-service teachers' coursework, field

experience, the sum of coursework and field experience (treating the coursework and field experience sections as one combined section instead of two), and feelings of preparedness to teach these components. The reliabilities for the five-factor model range between 0.507 and 0.860, but the highest reliability corresponded to a one factor scale (NCEE, 2011, pp. G2-G3).

Table 1

Internal consistency (Cronbach's alpha) of Program Survey Scales, by Aspect of Program and the Components of Early Reading Instruction

Essential Component	Coursework		Field Experience		Coursework and Field Experience		Feelings of Preparedness	
	n	α	n	α	n	α	n	α
Five scales								
Phonemic Awareness	2,187	0.826	2,184	0.860	2,184	0.747	2,183	0.809
Phonics	2,169	0.741	2,174	0.750	2,157	0.739	2,164	0.781
Fluency	2,165	0.664	2,167	0.637	2,167	0.722	2,173	0.507
Comprehension	2,180	0.767	2,177	0.737	2,149	0.819	2,178	0.688
Vocabulary	2,137	0.673	2,140	0.720	2,177	0.695	2,176	0.672
Three scales								
Alphabets	2,169	0.849	2,171	0.850	2,157	0.844	2,161	0.862
Fluency	2,165	0.664	2,167	0.637	2,167	0.722	2,173	0.507
Meaning	2,131	0.806	2,140	0.787	2,089	0.850	2,168	0.795
Two scales								
Word	2,147	0.849	2,152	0.840	2,117	0.870	2,155	0.850
Meaning	2,131	0.806	2,140	0.787	2,089	0.850	2,168	0.795
One scale	2,112	0.887	2,124	0.878	2,062	0.913	2,131	0.880

Note. Program focus based on coursework and field experience data was measured on a 4-point scale in the Program Survey: 0 = none, 1 = little, 2 = moderate, and 3 = considerable. Feelings of preparedness was measured on a 4-point scale: 0 = not at all prepared, 1 = somewhat prepared, 2 = mostly prepared, and 3 = definitely prepared

To further understand the reliability of the pre-service teachers' responses to the PTPS, the responses were examined using methods proposed by Raudenbush, Rowan, and Kang (1991), a three level multivariate hierarchical linear model (HLM). The model explicitly took into account the nested data structure and allowed for an assessment of scale reliabilities at both the pre-service teacher level and the institution (university/college) level. The results of the analyses provided clarity as to which

program components are experienced similarly by pre-service teachers within the same institutions and therefore should be treated as group-level constructs, and which aspects of the program components experienced by pre-service teachers vary substantially, even among pre-service teachers within the same institutions. Therefore it was treated as an individual-level constructs in subsequent analyses. The reliability estimates from the multilevel analyses are presented in Tables 2 and 3.

Table 2

Reliability estimates for Program Survey scales based on multivariate HLM analyses, by aspect of program and the components of early reading instruction.

Essential Component	Coursework			Field Experience			Coursework and Field Experience		
		Teacher Level	Institution Level		Teacher Level	Institution Level		Teacher Level	Institution Level
Five scales	n	ICC	ICC	n	ICC	ICC	n	ICC	ICC
Phonemic Awareness	2,187	0.795	0.790	2,184	0.854	0.494	2,184	0.716	0.728
Phonics	2,169	0.693	0.792	2,174	0.732	0.628	2,157	0.700	0.770
Fluency	2,165	0.610	0.768	2,167	0.627	0.464	2,167	0.694	0.699
Comprehension	2,180	0.744	0.703	2,177	0.729	0.580	2,149	0.807	0.670
Vocabulary	2,137	0.649	0.634	2,140	0.715	0.321	2,177	0.677	0.560
Three scales									
Alphabetics	2,169	0.821	0.814	2,171	0.845	0.602	2,157	0.822	0.775
Fluency	2,165	0.610	0.768	2,167	0.626	0.466	2,167	0.693	0.700
Meaning	2,131	0.792	0.716	2,140	0.788	0.567	2,089	0.844	0.675
Two scales									
Word	2,147	0.817	0.816	2,152	0.829	0.585	2,117	0.849	0.767
Meaning	2,131	0.792	0.716	2,140	0.787	0.570	2,089	0.844	0.676
One scale	2,112	0.873	0.772	2,124	0.875	0.592	2,062	0.905	0.725

Note: N of institutions = 99.

Table 3

Reliability estimates for program focus scales based on multivariate HLM analyses of Program Survey items related to feelings of preparedness

Essential Component: Feelings of Preparedness			
	n	Teacher level	Institution level
Five scales	2,183	0.790	
Phonemic	2,164	0.759	0.679
Phonics	2,173	0.486	0.682
Fluency	2,178	0.681	0.643
Comprehension	2,176	0.661	0.494
Vocabulary			0.508
Three scales	2,161	0.847	
Alphabetics	2,173	0.470	0.703
Fluency	2,168	0.788	0.651
Meaning			0.521
Two scales	2,155	0.828	
Word	2,168	0.787	0.707
Meaning	2,131	0.865	0.517
One scale	2,183	0.79	0.677

Note: N of institutions = 99.

Some of the individual scales in the five-factor model have relatively low reliabilities. Once again the one-factor framework is proven to be more reliable.

There are differences in the reliability estimates between the teacher-level and institution-level. The institution-level scale reliabilities are consistent with the pre-service teacher level reliabilities based on responses to coursework items, but lower than pre-service teacher level reliabilities across all scales based on responses to field experience items and across all the feelings of preparedness scales with the exception of fluency. A possible explanation for the differences is that they reflect differences in the intra-class correlations (ICC) among scales that refer to different aspects of pre-service teachers'

experiences. As noted by Raudenbush, Rowan, and Kang (1991), the group-level reliability of a scale depends on four factors: the number of items making up the scale; the level of inter-correlation among these items at the individual level; the level of inter-subjective agreement among individuals within the same group (i.e., the ICC); and the number of individuals sampled within the group. With all else being equal, the higher the G-5 level of agreement about the scale (inter-subjective agreement) among individuals within the same group, the more reliable is the group-level estimate of the scale based on individual-level data (NCEE, 2011, pp. G3-G5).

Next, the study team examined the correlations among scales at each level to determine if there was sufficient justification to collapse the five scales into three scales. The correlations among the five scales based on the HLM analyses seemed to support collapsing the five-factor model into three scales (See Tables 4 – 7).

Table 4

Institution-level correlations among three scales based on coursework items

Essential Component	Alphabetics	Fluency	Meaning
Alphabetics	1.000		
Fluency	0.791	1.000	
Meaning	0.609	0.811	1.000

Table 5

Institution-level correlations among three scales based on field experience items

Essential Component	Alphabetics	Fluency	Meaning
Alphabetics	1.000		
Fluency	0.769	1.000	
Meaning	0.732	0.746	1.000

Table 6

Institution-level correlations among three scales based on coursework and field experience items combined

Essential Component	Alphabetics	Fluency	Meaning
Alphabetics	1.000		
Fluency	0.778	1.000	
Meaning	0.641	0.772	1.000

Table 7

Institution-level correlations among three scales based on feelings of preparedness items

Essential Component	Alphabetics	Fluency	Meaning
Alphabetics	1.000		
Fluency	0.643	1.000	
Meaning	0.799	0.899	1.000

Note: N of institutions = 99. N of teachers = 2,187.

In conclusion, the results from the reliability analyses support using a three-factor framework of early reading instruction (i.e., alphabetics, fluency, and meaning). The reliabilities of the scales differ across scales, across levels of data (teacher level vs. institution level), and across item referents (coursework, field experience, and feelings of preparedness). The institution-level scales are more appropriate measures of program focus on the components of early reading instruction than the pre-service teacher-level scales, and they seem to have appropriate reliability for the coursework items. However, the scale is less reliable for the field experience items and feelings of preparedness items, suggesting that there is less uniformity in pre-service teachers' field experiences and perceptions of preparedness than in their coursework experience. As a result, the report analyses considered coursework to be a state-level construct because pre-service teacher programs are preparing students to meet certification requirements and testing mandates determined at the state level. The analyses considered field experience and feelings of

preparedness individual-level constructs because field experiences may differ according to grade level, content of instruction observed or taught, and other factors such as the quality of the teachers who are observed. Further, pre-service teachers' feelings of preparedness to teach the essential components of early reading instruction will derive from distinct personal as well as experiential factors (NCEE, 2011, pp. G7-G8). For a complete copy of Pre-Service Teacher Preparation Program refer to: NCEE. (2010). Study of Teacher Preparation in Early Reading Instruction. Retrieved from <https://ies.ed.gov/ncee/pubs/20104036/pdf/20104036.pdf> .

TSELI. Tschannen-Moran and Johnson (2011) developed the Teacher Self-Efficacy in Literacy Instruction Survey (TSELI) to examine teachers' self-efficacy beliefs in literacy instruction. The TSELI initially had 33 items specific to literacy instruction that were submitted to a panel of four experts in the field of reading and literacy instruction for review and to determine content validity. Upon the panel's approval, the TSELI was field tested to assess the clarity of wording, appropriateness of the scales and to ensure that the instrument assesses teachers' current capability rather than future potential. In order to keep the TSELI content specific to literacy instruction, participants were asked to respond to questions by considering their current abilities, resources and opportunities. A unipolar response scale on a 9-point continuum with anchors starting at 1 is *not at all*, 3 is *very little*, 5 is *some influences*, 7 is *quite a bit* and 9 is *a great deal*.

Sample items include:

- To what extent can you use a variety of informal and formal reading assessment strategies?

- To what extent can you adjust reading strategies based on ongoing informal assessments of your students?

An exploratory factor analysis (EFA) using principal axis factor analysis was conducted to pare down and refine the TSELI to 22 items that demonstrated a solid and coherent factor structure. The 22 items were loaded onto a single factor and all demonstrated strong factor coefficients, ranging from .83 to .63. The factor had an eigenvalue of 12.17 and explained 55% of the variance in TSELI, which provided evidence of construct validity. In addition, the 22-items measured had a Cronbach's alpha reliability of .96; henceforth providing further justification for retaining a single factor. Refer to Table 8 for the results of the factor analysis.

Finally, a Confirmatory Factor Analysis (CFA) was conducted using the remaining 22 items of the TSELI and 12 items from the Teacher Self-Efficacy Survey (TSES), a reliable tool that was previously validated and used to measure teachers' self-efficacy beliefs more generally in instruction, classroom management and student engagement. The CFA was conducted to determine how well the theoretical model of the TSELI and TSES as separate constructs fit the data (Table 9). The fit of the models was evaluated using the root mean square error of approximation (RMSEA), the standardized root mean square residual (SRMR), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI) and the Comparative Fit Index (CFI) as indicators (Johnson & Tschannen-Moran, et al., 2011). The findings from the CFA suggests, that teacher self-efficacy is a multifaceted construct based on sets of sub-skills, and that teacher self-efficacy for literacy instruction can be considered an important set of skills that contributes to an overall set of self-efficacy beliefs among elementary teachers.

Therefore, providing evidence of the validity of the TSELI (Tschannen-Moran & Johnson, 2011, pp. 754-756).

Table 8

Factor structure for the Teachers' Sense of Efficacy for Literacy Instruction Scale

Teachers' sense of efficacy for literacy instruction	
To what extent can you use a student's oral reading mistakes as an opportunity to teach effective reading strategies?	0.83
To what extent can you use a variety of informal and formal reading assessment strategies?	0.82
To what extent can you adjust reading strategies based on ongoing informal assessments of your students?	0.81
To what extent can you provide specific, targeted feedback to students' during oral reading?	0.80
To what extent can you adjust writing strategies based on ongoing informal assessments of your students?	0.77
How much can you do to meet the needs of struggling readers?	0.77
To what extent can you help your students monitor their own use of reading strategies?	0.75
To what extent can you provide your students with opportunities to apply their prior knowledge to reading tasks?	0.75
To what extent can you get students to read fluently during oral reading?	0.74
To what extent can you model effective reading strategies?	0.73
To what extent can you implement effective reading strategies in your classroom?	0.73
To what extent can you help your students figure out unknown words when they are reading?	0.72
To what extent can you implement word study strategies to teach spelling?	0.71
To what extent can you use students' writing to teach grammar and spelling strategies?	0.70
To what extent can you model effective writing strategies?	0.70
To what extent can you use flexible grouping to meet individual student needs for reading instruction?	0.69
To what extent can you integrate the components of language arts?	0.69
To what extent can you get children to talk with each other in class about books they are reading?	0.69
To what extent can you recommend a variety of quality children's literature to your students?	0.67
To what extent can you provide children with writing opportunities in response to reading?	0.66
How much can you do to adjust your reading materials to the proper level for individual students?	0.65
How much can you motivate students who show low interest in reading?	0.63
Eigenvalue	12.17
% of variance explained	55.31

Table 9

Confirmatory factor analysis TSELI model comparisons.

Competing models	X	df	ΔX^2	Δdf	RMSEA	SRMR	AGFI	GFI	CFI
One-factor model	6748.00*	527	-	-	.13	.087	.57	.62	.94
Two-factor model	3467.32*	520	3280.68	7	.093	.071	.73	.76	.96
Two-factor model with correlated errors	2739.80*	514	4008.20	13	.082	.066	.77	.80	.97
Four factor model	2446.11*	515	4301.89	12	.076	.061	.79	.82	.97
Four factor model with correlated errors	2299.21*	509	4448.79	18	.074	.056	.80	.83	.98

Note. * $p < .001$.

Measures

Specific items from the survey will be used to measure the key variables in the study. The following key variables were discussed: teacher certification, teacher self-efficacy, and teacher coursework and field experiences. Teacher certification was measured as a dichotomous variable: Respondents indicated whether their preparation was completed through a traditional or an alternative certification program (ACP). A second key variable was teachers' self-efficacy in literacy instruction. This was measured by creating an average score for each teacher across the 22 questions that ask the participants about their self-efficacy in literacy instruction. Each of these 22 items used a unipolar response scale on a 9-point continuum with anchors starting at 1 is *not at all*, 3 is *very little*, 5 is *some influences*, 7 is *quite a bit* and 9 is *a great deal*. Finally, coursework and field experiences were the two key components of teachers' preparation programs in reading instruction that was measured by asking questions about participants' mastery experiences, vicarious experiences and verbal persuasion in their teacher preparation program. There are 17 identical items measured in both categories in which participants will use the following four-point scale to respond: *none* (0), *some* (1), *moderate* (2), and

considerable (3) to respond to each item. An average was calculated for each participant in both categories to determine their measure of coursework and field experience in reading instruction.

Data Analysis

The following section describes how the data was analyzed which consists of descriptive and inferential analyses. The section organization based primarily around the three research questions guiding the study.

Missing data. Initially, 171 teachers were invited to participate in the study, but after the first administration, only 28 teachers participated. Due to a low number of respondents by the end of the academic school year, additional new teachers were invited to participate during the New Teacher Academy in July of 2016, which increased the number of participants to 74 novice teachers.

Descriptive analysis. First off, a descriptive analysis of the sample was conducted to provide a descriptive summary of the participants in the study. Descriptive statistics were provided for the following:

- Type of teacher preparation programs teachers attend: Traditional/ACP.
- The grade the teachers currently teaching (Kindergarten – Second grade)
- Number of reading courses in their preparation program (0 -5)
- Numbers of days spent student teaching (none – over 80 days)
- Number of hours spent in a K-2nd grade classroom during teacher preparation (none – 200 hours)

The descriptive statistics for the continuous variables were calculated using a measure of central tendency, specifically the mean, and a measure of dispersion, specifically the

standard deviation. For the categorical variables, descriptive statistics were presented in the form of frequencies. A summary for the sample was written bases upon the analysis of the descriptive statistics.

Research question 1. Research question 1, which asked whether there were any significant differences in teachers' self-efficacy in literacy instruction between teachers prepared in a traditional program and those prepared in an ACP, was answered using an independent samples t test. Hypothesis: A teacher self-efficacy in teaching reading varies according to the type of program in which s/he participated. The independent samples t test assessed whether the means of two independent groups are *statistically* different from each other. Specifically, testing the two-way null hypothesis that there are no differences in self-efficacy between teachers in the two groups. The grouping factor for the t test was teacher preparation program; participants in the study either were prepared in a traditional preparation program (X^1) or via an ACP (X^2), or therefore cannot be in both groups. The dependent variable was teachers' self-efficacy in literacy instruction scores. These scores were calculated for each participant in the study by creating an average score across the multiple items. Equation 1 presents how a t statistic is calculated. The value of the t statistic is determined by subtracting the mean of one group from the other, and the difference then divided by the standard deviation of the pooled error (i.e., the amount of variability within each group).

Equation 1: t test

$$t = \frac{X^1 - X^2}{\sqrt{\frac{Var^1 + Var^2}{n^1 + n^2}}}$$

The t statistic was compared to the critical value to decide whether to reject or retain the null hypothesis. The critical value is identified using the alpha level of 0.05s

and degrees of freedom (n_1+n_2-2), and using the fact the hypothesis is a two-tailed hypothesis. If the t statistic is greater than the critical value, then the null hypothesis can be rejected. If it is less than the critical value, then we fail to reject the null hypothesis.

The t test made the following assumptions:

1. The dependent variable should be measured on a continuous scale.
Teacher's self-efficacy will be the dependent variable and will be measured using a 9 point continuum scale.
2. The independent variables should consist of two categorical independent groups. The independent variables will be categorized as teachers who attended traditional teacher preparation programs and teachers who attended Alternative Certification Programs (ACP).
3. There is no relationship between the observations in each group or between the groups. Teachers participating in the study will be assigned only to one category, either traditional or ACP.
4. There are no significant outliers, which are simply single data points within your data that do not follow the usual pattern. Both traditional and ACP' teachers' responses will measured using the Teacher Self-Efficacy in Literature survey (dependent variable).
5. There needs to be homogeneity of variances. All participants will be novice teachers (less than 2 years of experience) currently teaching reading in HISD

Upon completion of the independent sample t test, Cohen's d was utilized to calculate the effect size.

Research question 2. . Research question 2 examined the relationship between teachers' self-efficacy and their preparation in literacy instruction. Hypothesis: Key components of teacher preparation programs are related the level of teacher self-efficacy in teaching reading. This question was analyzed using Pearson's correlation. Pearson's correlation measures the strength and direction of association that exists between two variables measured on at least an interval scale. The test determines the degree to which the relationship between two variables is linear. Specifically, the Pearson's correlation tests the null hypothesis that there is no relationship ($\rho=0$) between teachers' self-efficacy in literacy instruction and teachers' level of coursework/field experiences. The variables were teachers' average self-efficacy scores in literacy instruction (a continuous variable) and their average level of coursework and field experiences. Participant responded to each item using a four-point scale, *none* (1), *some* (2), *moderate* (3), and *considerable* (4). An average score for each category was calculated. All variables measured were continuous and numerical.

Two Pearson's correlations was conducted. The first Pearson's correlation examined if there was an association between teacher's self-efficacy in literacy instructions and the level of coursework in their preparation program. The second Pearson's correlation examined if there was an association between teachers' self-efficacy in literacy instruction based on their level of field experiences.

The Pearson's correlation test make the following assumptions:

1. That the variable being measures are continuous and numerical.
2. That there is a linear relationship between the two continuous variables being measured.

3. There are no significant outliers, which are single data points that do not follow the usual patterns.
4. The variables are approximately normally distributed.

Research question 3. Research question 3, which explored if differences exist in the key components of traditional (four-year institution) teacher preparation programs and Alternative Certification Programs (ACP) was also answered using two independent sample t tests. Hypothesis: there are differences in the key components of traditional teacher preparation programs and Alternative certification Programs (ACP). The independent sample t test specifically tested the two-way null hypothesis that there are no differences between the key components in a traditional preparation program and ACPs. Teachers were grouped according to which program they attended, traditional or ACP's, and this was the independent variables in the test. The dependent variables were coursework and field experience. An average score for each participant was calculated in both coursework and field experiences. The first independent sample t test examined if there are any significant differences between the coursework of participants who attended a traditional teacher preparation programs and ACP's. The second independent sample t test examined if any significant differences existed between the field experiences of participants who attended traditional teacher preparation programs and ACP's. To understand the functionality of an independent sample t test and its assumptions, please refer to content in question 1, which explained how to calculate a t statistic and provided the list of assumptions for the independent sample t test. Upon completion of both independent sample t test, Cohen's d was used to calculate the effect size of each.

Chapter IV

Results

This chapter begins with a descriptive analysis of teachers who participated in taking the NTSELI survey and an analysis of missing data. In addition, a summarization of the results of various tests used to analyze the three research questions that guided the study. An independent sample *t* test analysis was conducted to answer hypothesis 1, which asked if there were any significant differences in teacher's self-efficacy in literature instruction between teachers prepared in a traditional program and those prepared in an ACP test. Two additional independent sample *t* tests were conducted to analyze hypothesis 3, which explored if differences exist in the key components of teacher preparation programs (traditional vs. ACP). Finally, a Pearson's correlation test was conducted to answer hypothesis 3, which examined the relationship between teacher self-efficacy and their preparation in literacy instruction.

Descriptive Analysis

The purpose of this section is to provide a descriptive summary of the participants who participated in this study and completed the survey. Of the 104 teachers who consented to participate in the study and started the survey, 74 completed the full NTSELI survey. Based on participants' responses, 38.3% have ACP certification and 61.7% received their certification from a traditional program; 9.6 % did identify the program from which they received certification.

Of the 104 teachers, 24% did not identify the grade they currently teach. Of the remaining teachers, 25.3% teach Kindergarten, 27.8% teach First grade and 46.8% teach second grade. To satisfy teaching requirements as part of their certification process, 37%

of the teachers student-taught without the presence of another teacher, 16.5% did not spend any time in a K-2 classroom as a part of their teacher preparation prior to becoming a teacher, and 54.1% spent over 100 hours in a K-2 classroom as a part of their preparation prior to teaching. Moreover, 25.9% did not participate in student teaching at all, while 18.8% spent 60 to 80 hours student teaching and 36.5% spent over 80 hours student-teaching. In terms of content coursework, 57.6% of the respondents took three or more courses in reading pedagogy before teaching.

The participating teachers responded to questions that provided descriptive data pertaining to their teacher preparation program. In thinking about their preparation to become a teacher, the teachers generally were positive about their preparation. For example, more than 83.5% agreed or strongly agreed that their program articulated a clear vision of teaching and learning, and 80.6% agreed or strongly agreed that the faculty were excellent teachers. 80.1% agreed or strongly agreed that what they learned in methods courses reflected what they observed in the field. Conversely, only 10.2% of participants either agreed or strongly agreed that their teacher preparation program lacked coherence among their courses, 75.9% either disagreed or strongly disagreed, and 13.9% remained neutral. 12.8% either agreed or strongly agreed that there was a lack of coherence among their coursework and field experience, 74.4% disagreed or strongly disagreed and 12.8% remained neutral.

Finally, the participants were asked to describe the supervision and feedback they received during their teacher preparation. Again, the majority of respondents were positive about their preparation experiences. For instance, almost 60% of the participants agreed or strongly agreed that the teachers they observed were excellent teachers. What's

more, 58.6% agreed or strongly agreed that they received useful feedback from a supervisor, classroom teacher, or fellow advisor. Finally, almost 65% of participants believed prior to beginning to teach that most of their students can learn what the teachers are supposed to teach.

Missing Data.

Initially 104 people took some part of the survey, but only 74 completed the survey for a response rate of 71%. In order to identify if there were any significant differences between the teachers who completed the survey and those who did not, differences that potentially could bias the results, the two groups were compared systematically. To analyze the missing data, a chi-square test of association was used to determine whether there was a relationship between several key variables and the fact that the teachers were missing responses or not. Specifically, three separate chi square tests were conducted using the key variables in the NTSELI survey: Teacher self-efficacy, teachers' coursework, teachers' field experience, and teachers' certification. . The first chi-square test of association was performed using the variables Coursework and Teacher certification, and there was no significant relationship between teachers who did or did not complete the coursework section of the survey and teacher certification, $X^2(1, N=104) = .005, p = .94$. In other words, the missing data do not appear to create a problem for the analysis of the coursework variables: There was a relatively even distribution of teacher certification (ACP vs. traditional) for those teachers who did not respond to the questions about coursework, and the missing data did not mean that a disproportionate number of teachers with one type of certification or another was lost.

Upon completion of second chi square test, no significance was found in the relationship between teachers who did or did not complete the section on Field Experience and their Teacher certification $\chi^2(1, N=104) = .939, p = .33$. Once again, due to the even distribution of teacher certification in both traditional and ACP who did not respond, the missing data doesn't appear to create an issue for the analysis of the field experience variables.

The final chi square test, which used the variable Teacher Self-efficacy and Teacher certification as the independent variable, also failed to uncover a significant relationship between teachers who did and did not complete the self-efficacy survey and teacher certification, $\chi^2(1, N=104) = .005, p = .94$. This was also due to the even distribution of missing data.

Research Question 1

In order to answer research question 1, which asked if there were any significant differences in teacher's self-efficacy in literature instruction between teachers prepared in a traditional program and those prepared in an ACP, an independent-samples t-test was conducted. Specifically, it tested the two-way null hypothesis that there are no differences in the level of self-efficacy between teachers prepared in an ACP and those prepared in a traditional program. The results of the test indicated no significant difference in the scores of ACP teachers ($M=3.95, SD= 0.732$) and traditional teachers ($M= 4.13, SD= 0.56$), $t(66) = -1.147, p = 0.255$, meaning the null hypothesis could not be rejected. The 95% confidence interval is -0.52972 and 0.16538 , which means the real difference between the two groups could be zero. Cohen's $d=0.3$, was used to measure the

standardized difference between means of the two groups; which defined the effect size as small.

Research Question 2

Three Pearson's correlation tests was conducted to answer research question 2, which examined the relationship between teacher self-efficacy and teachers' preparation in literacy instruction. . Specifically, the Pearson's correlation tested the null hypothesis that there was no relationship ($\rho=0$) between teachers' self-efficacy in literacy instruction and teachers' level of coursework/field experiences. The first test assessed the relationship between teachers' average self-efficacy score and their average level of course work. The second test measured the strength of association between teachers' average level of self-efficacy and their average level of field experiences. There was no significant correlation between teachers' self-efficacy and coursework [$r = .160, n = 69, p = .189$], but there was a positive correlation between teachers' self-efficacy and field experiences that was statistically significant [$r = .431, n = 69, p = .000$]. What's more, this size of this relationship can be considered a moderate relationship.

Research Question 3

Finally to answer question 3, which explores if differences existed in the key components of traditional (four-year institution) teacher preparation programs and Alternative Certification Programs (ACP), two independent sample t tests was conducted. The independent sample t tests specifically tested the two way null hypothesis that there are no differences between the key components in a traditional preparation program and an ACP. The first independent t test was conducted to compare average levels of coursework in ACP's to average levels in traditional teacher preparation programs. There

was a significant difference in teachers' reported level of coursework in an ACP ($M=2.27$, $SD=.89$) and in traditional teacher preparation programs ($M=3.03$, $SD=.66$); $t(76) = -4.37$, $p = .000$. Specifically, these results suggested that traditional programs offer more coursework than ACPs. Cohen's $d=0.97$, was used to measure the standardized difference between the two groups; which defines it as a large effect size.

A second independent samples t test was conducted to compare the average field experiences score of teachers who attended an ACP and to the average score of those who attended a traditional teacher preparation programs. There also was a significant difference in the field work of ACP's ($M=2.28$, $SD=.93$) and traditional teacher preparation programs ($M=3.12$, $SD=.66$) conditions; $t(68) = -4.39$, $p = .000$. These results suggested that traditional teacher preparation programs provide more field experience for teachers than ACP's. Cohen's $d=1.04$ was used to measure the standardized difference between the two groups; which defines it as a large effect size.

Summary

In summary, the results were mixed. For research question number 1 the result of the t test meant that the null hypothesis was not rejected and there were no significant differences between in the levels of self-efficacy of novice teachers prepared in a traditional teacher preparation program and those prepare in an ACP. For research question number 2, the results of Pearson's correlation suggest a moderate relationship between self-efficacy and field experience, but there was no significant correlation between levels of coursework and self-efficacy. Finally, the results of the two independent t tests used to explore differences in the key components of traditional teacher preparation programs and ACPs suggested that in the case of this study's sample

teachers, traditional teacher preparation programs offer more coursework and field experiences than ACPs. The next chapter discusses the implications of these findings for the education community, research, policy and practice.

Chapter V

Conclusions

The purpose of this study was to examine if a teacher's self-efficacy in teaching reading varies according to the type of preparation program in which s/he participated. This study also examined the difference in the key components of the teacher preparation traditional teacher preparation programs and ACP's and how these key components are related to teacher self-efficacy in teaching reading. This chapter summarizes the results and discuss the implication of those result on research, policy and practice.

Summary of results

The results of the study were mixed. According to the analyses, there were no significant differences in the self-efficacy of novice teachers who teach reading based upon whether they were prepared traditionally or through an ACP. In fact, teachers prepared at a traditional teacher preparation program and ACPs scores demonstrated significantly high levels of self-efficacy in teaching reading.

Based on research that stressed the importance of field experiences and coursework, it was hypothesized that key components of teacher preparation programs are related to the level of novice teachers' self-efficacy in reading. The results were mixed and reported a moderate relationship between novice teachers self-efficacy in teach reading and field experience, whereas coursework did not contribute to teachers' self-efficacy in teaching reading.

There was no surprise in the results of the test of hypothesis 3, which examined the differences between the key components of traditional teacher preparation program.

Expectations were fulfilled when significant differences were found in the key components of traditional teacher preparation programs and ACPs based on the literature review in chapter 2. The results suggested that traditional teacher preparation programs provide more opportunities for both field experiences and more coursework focused on teacher reading. These differences likely are due to the sequencing of the certification process in traditional teacher preparation programs versus ACPs, and the relatively high amount of coursework in traditional teacher preparation program. Traditional teacher preparation programs require teachers to complete all of their coursework and field experiences prior to certification, whereas ACPs are meant to be field-based programs that allow individuals to teach after a two to four week introductory program; they complete their coursework while working as the teacher of record (Evans, 2010). So, the results may reflect the differences in field experience and coursework based the assumption that many of the novice teachers in ACPs lack field experiences and coursework because of the sequential structure of their certification process.

Surprise findings

Two of the three findings were surprising. First, it was surprising to find that there was no significant difference in the average level of self-efficacy between teachers prepared traditionally and those who were prepared in an ACP. It was hypothesized that there would be a significant difference in novice teachers' self-efficacy in teaching reading between teachers prepared in a traditional teacher preparation program and those prepared in ACPs based on Bandura's (1977) self-efficacy theory. Based on the research, it was evident that mastery experience, vicarious experiences and verbal persuasion,

which are elements of Bandura's self-efficacy theory, were highly embedded in the key components of traditional teacher preparation program but less so in ACPs.

There are several possible explanations for this finding. First, it may be that novice teachers from both program scored high in self-efficacy to teach reading because they are very new teachers (i.e., new to the classroom or only one year of experience) and they have not encountered many difficulties typical in teaching reading. Indeed, while all the participants were novice teachers with fewer than two years of teaching experience, the survey did not identify the years of experience for each participant. In addition, 74 participants were either new to teaching or new to the district with less than two year of teaching experience attending the New Teacher Academy. The results therefore may reflect the possibility that many of the novice teachers have not experienced the transition from their teacher preparation program to their first year of teaching. According to Bandura (1997), self-efficacy is most malleable during a teacher's early years, and novice teachers often enter teaching with high hopes about the kind of impact they will make on student achievement, until they encounter the challenges of teaching reading, particularly in an urban district with many low income and low performing students. According to Hoy and Spero (2005), novice teachers' self-efficacy tends to decrease during their transition to first year teaching, once again, due to the shattering of unrealistic optimism held by most student teachers previous to teaching. In that same vein, Swan, Wolf and Cano (2014), who studied the self-efficacy of teachers starting their student-teaching year through their third year of teaching, found that teachers' self-efficacy is high during student-teaching, but the greatest level of decline of self-efficacy occurs right after their first year of teaching. In other words, if the teachers in the sample were predominantly

new to the classroom, they may not yet have had any experiences that would lead to a decline in self-efficacy and more differentiation along preparation program lines.

The second finding that emerged from this study, that average levels of field experiences but not coursework were related to the teachers' level of self-efficacy, was somewhat less surprising. This finding means that the more field experience a teacher had during his/her preparation program, the higher his/her self-efficacy in teaching reading. Many novice teachers engage in various degrees of mastery experiences, vicarious experiences and verbal experiences during their field experience, which, according to Bandura (1997), influence their self-efficacy in teaching reading. What was surprising about the results was discovering that coursework did not contribute to teachers' self-efficacy in teaching reading. It was hypothesized that coursework would influence teachers self-efficacy in reading based on the research that supported the relevancy of coursework as it relates to teachers effectiveness in teaching reading. There is a possibility that, at the time the teachers completed the survey, any first-year ACP teachers would not have started their coursework as part of their certification process. Most ACP teachers in Texas complete their course work after becoming a teacher of record and therefore a lack of coursework might have influenced the results. Indeed, the results of the third part of the analysis indicated that those teachers who were prepared traditionally were exposed to higher levels of both coursework and field experiences.

Another potential reason why coursework may not contribute to teachers' self-efficacy is the lack of connection between coursework and practical application to teaching in traditional teacher preparation programs. Evans (2010) reported that novice teachers who received their certification through a traditional teacher preparation program believed

coursework to be beneficial to their futures as teachers, but there was a considerable amount of discrepancy among them regarding the relevancy of some of coursework and the applicability of the materials. Perhaps it is not quantity of coursework but the quality of coursework that influence teacher's self-efficacy in teaching. Tschannen-Moran and Johnson (2011) reported that it was the quality of what was learned during teacher preparation and not the number of credit hours acquired that influenced teachers' self-efficacy belief in teaching reading.

Implications

The results of this study suggested some important implications for teacher preparation programs, educational leadership and policy regulators. Having a better understanding of what components of a teacher preparation program cultivate and support teacher self-efficacy can direct the practices of teacher preparation programs, districts and policy regulators in how to better support fostering teachers' self-efficacy in reading instruction.

The findings in this study identified what components of a teacher preparation program influence teacher self-efficacy in teaching reading. Whether it was a traditional teacher preparation program or an ACP, the findings indicated that field experiences positively influence teacher self-efficacy in teaching reading. For this reason, it may be beneficial for teacher preparation programs to invest in quality field experiences that explicitly embed Bandura's (1997) sources of self-efficacy with a focus on mastery experiences, which research suggested are the greatest contributor to teachers' self-efficacy (Bandura, 1997; Hoy and Spero, 2005; Tschannen-Moran and Johnson, 2011). Perhaps research should be less concerned with which program type is better at

influencing novice teacher self-efficacy in teacher in teaching reading, and more concerned with which elements of coursework and field experience play an essential role in influencing self-efficacy in novice teacher. In other words, it is the quality of the teacher preparation program that influences novice teacher's self-efficacy in teaching reading, and the findings of this study suggested that quality may not be unique to one program type or the other. Further exploration is needed to understand what elements of field experiences teachers perceive as most salient in influencing their self-efficacy to teach reading.

The study also revealed that the traditional teacher preparation programs offered more field experiences than ACP's, which positively influence teachers' self-efficacy levels in teaching reading, and yet there were no significant differences in the self-efficacy levels of the novice teachers between the two groups. This could mean that there are other factors influencing the self-efficacy levels of ACP's teachers. Further exploration is needed to understand what factors contribute to ACP's teachers' high levels of self-efficacy in teaching reading.

Student teaching is an element of field experience that engages potential teachers in mastery experiences. It is also when theory is applied to practice and potential teachers receive feedback that influences their self-efficacy to teach. Bandura suggest that teacher self-efficacy is malleable in the early learning; therefore student teaching may be an essential element of field experience that molds teacher' self-efficacy beliefs. Traditional teacher preparation programs offer student teaching. In contrast, student teaching is not included in the certification process of ACP's. Considering that student teaching can potentially play a vital role in developing teachers' self-efficacy beliefs which influences

how s/he feels, thinks, motivate themselves and behave when faced with challenges, it may be prudent for the regulators of ACP's to add student teaching to their certification process.

The findings suggested that there was no significant relationship between teachers' self-efficacy in teaching reading and coursework. According to the research this may be a reflection of the disconnect between coursework and practice. Evans (2010) reported that the most common complaint among teachers is the lack of connection between coursework and the practical application. Teacher preparation programs can significantly impact novice teachers' self-efficacy in teaching reading if they offered coursework that was relevant to their teaching practices and allow teachers to bridge the gap between theory and practice through supervised field experiences. Research also indicated that the coursework believed to be most beneficial were primarily classroom-oriented and pedagogy focused. Once again referring to the quality of teacher preparation versus the quantity.

The NCLB (2001), mandated "highly qualified" teacher in every classroom which lead to the deregulation of teacher preparation and reshaped policies on teacher certification, requiring teachers to demonstrate subject-matter knowledge in the areas they teach, and hold a certification in subject they teach. Resulting in the ongoing debate of which teacher preparation program is more effective in developing efficacious teachers, traditional or Alternative Certification Program (Darling-Hammond et al., 2002). However based on the results of this study, both traditional teacher preparation programs and ACPs' teachers demonstrate high levels of self-efficacy in teaching reading, which provides support for Bandura (1977) and Tschannen-Moran's (2007)

findings that novice teachers often enter the teaching profession with high level of self-efficacy.

A teacher's self-efficacy belief influences how s/he feels, think, motivate themselves and behaves when faced with challenges. Once self-efficacy is solidified, it would take a shock of some kind to provoke recalibration of self-efficacy (Bandura, 1997). For many novice teachers that reality shock happen during their first year of teaching causes a decline in their self-efficacy levels. Since the survey did not identify the years of experience for each participant in the study, it would be beneficial to explore the sustainability of teachers' self-efficacy levels in teaching reading, beyond their first year. It may also be beneficial for districts and school leadership to investigate how to best support novice teachers during their first year to prevent the decline in their self-efficacy levels

Also, the results of this study suggest that it would be in school districts' best interests to consider recruiting and hiring novice teachers who have engaged in field experiences as a central part of their certification process. Teachers with field experiences seem to have higher levels of self-efficacy, which influences their performance; therefore influencing student achievement. Teacher with higher levels of self- efficacy put forth greater efforts in the planning and implementation of their instructional practices and are less like to quit in the face of challenges ((Skaalvik & Skaalvik, 2007).

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Appendix A

Novice Teacher Self-Efficacy In Literacy Survey

Novice Teachers Self-Efficacy in Literacy Instruction

Q1 Which program did you complete to get your teaching certification?

- Traditional Program (4 Year College/University) (1)
- Alternative Certification Program (ACP) (2)

Q2 What grade are you currently teaching?

- Kindergarten (1)
- First (2)
- Second (3)

Q3 To satisfy your teaching requirements for certification, did you teach your own classroom without another teacher present? (Do not count your student teaching)

- Yes (1)
- No (2)

Q4 How much time did you spend in a K-2 classroom as a part of your teacher preparation program, prior to becoming a full time classroom teacher (include all field experiences, such as, observations and student learning)?

- None (1)
- 1-10 hours (2)
- 11-30 hours (3)
- 31-60 hours (4)
- 61-99 hours (5)
- 100-150 hours (6)
- 151-200 hours (7)

Q5 How much actual time did you spend student teaching as part of your teacher preparation prior to becoming a full time classroom teacher (assume one day is equivalent to 6 hours)? Student teaching is a type of field experience involving full or partial responsibility for the classroom under the guidance of a full time classroom teacher or supervisor.

- None (1)
- 1-20 days (2)
- 21-39 days (3)
- 40-59 days (4)
- 60-80 days (5)
- Over 80 days (6)

Q6 How many courses did you take in teaching of reading while completing your degree while completing your degree and/or certification?

- 0 (1)
- 1 (2)
- 2 (3)
- 3 (4)
- 4 (5)

<p>(3) A supervisor or advisor from my program was available to talk with me when I had questions or concerns about reading instruction</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>(4) Most of the students in my class can learn what I am supposed to teach them</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>(5) By trying different methods, I can significantly affect my students' achievement level</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>(6) If I try hard, I can get through to even the most difficult or unmotivated students</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<p>(7) If some students in</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<p>my class are not doing well, I feel that I should change my approach to the subject (for example: teaching strategies) (8)</p> <p>I am certain I am making a difference in the lives of my students (9)</p>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Q9 Coursework

Think about the courses you took in your degree program that focused specifically on reading and literacy. Please rate the degree of emphasis that your program placed on the strategies listed below. Keep in mind that you will have the opportunity to rate the emphasis on these strategies in your Field Experiences next. Use the following scale to rate the emphasis on your coursework.

None This is not addressed in any of my courses

Little This was addressed briefly in one course

Moderate This was addressed over several class periods in one or two of my courses

Considerable I took a course entirely devoted to this topic

Q10 Teaching children how to isolate, identify, separate, and blend sounds in spoken words

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q11 Teaching children to use phonics skills to figure out how to pronounce unfamiliar words

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q12 Teaching children to monitor how well they understand what they read and to correct problems as they occur

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q13 Using a variety of methods to teach children the meanings of words, including direct and indirect (conversational) instruction, and multiple exposure and repetition

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q14 Identifying the words in a text that your children do not know and using their background knowledge to help them figure out the words' meaning

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q15 Make instructional decisions based on evaluations of children's oral fluency

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q16 Teaching children a variety of strategies for understanding the text they read, such as using graphic organizers, making predictions, asking questions, and identifying the main idea

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q17 Teaching phonics to children in a systematic way with a series of skills and activities

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q18 Teaching children to recognize and name letters

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q19 Having children repeatedly read the same text aloud to improve their speed, accuracy, and expression

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q20 Teaching reading with both fiction and non-fiction reading materials

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q21 Relationship between elements of reading and oral language

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q22 Relationship among elements of reading or different types of reading skills

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q23 Examined materials and/or participated in class discussions about Texas Standards
in teaching reading

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q75 Examined materials and/or participated in class discussions about using core reading
programs (or basals/anthology), such as Harcourt Brace, Open Court, Scott Foresman,
SRA Reading Mastery, McGraw Hill or Houghton Mifflin

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q24 Examined materials and/or participated in class discussions about using literature
based programs, such as Fountas and Pinnell's Guided Reading, Scholastic Guided
Reading, Rigby leveled reader material or Wright Group leveled reader material

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q76 Examine materials and/or participated in class discussion about using supplemental
programs, such as Neuhaus, Go Phonics, Saxon Phonics, Great Leaps, LiPS or Voyager

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q25 Examined materials and/or participated in class discussions about using school wide literacy models, such as Literacy by 3, Success for all, First Steps, Balanced Literacy or Literacy Collaborative

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q26 Field Experience

Now think about the various experiences you had in elementary classrooms during your teacher preparation program. These experiences may be times in which you observed, did a practicum, or did your student teaching. Please try not to focus on classroom experience(s) you have had outside your teacher preparation program. Use the following scale to rate the emphasis IN your field experience(s):

None This is not addressed in any of my courses

Little This was addressed briefly in one course

Moderate This was addressed over several class periods in one or two of my courses

Considerable I took a course entirely devoted to this topic

Q27 Teaching children how to isolate, identify, separate, and blend sounds in spoken words

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q28 Teaching children to use phonics skills to figure out how to pronounce unfamiliar words

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q29 Teaching children to monitor how well they understand what they read and to correct problems as they occur

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q30 Using a variety of methods to teach children the meaning of words, including direct and indirect (conversational) instruction, and multiple exposure and repetition

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q31 Identifying the words in a text that your children do not know and using their background knowledge to help them figure out the words' meanings

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q32 Making instructional decisions based on evaluations of children's oral reading fluency

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q33 Teaching children a variety of strategies for understanding the text they read, such as using graphic organizers, making predictions, asking questions, and identifying the main idea

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q34 Teaching phonics to children in a systematic way with a series of skills and activities

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q35 Teaching children to recognize and name letters

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q36 Having children repeatedly read the same text aloud to improve their speed, accuracy, and expression

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q37 Teaching reading with both fiction and non-fiction reading materials

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q38 Relationship between elements of reading and oral language

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q39 Relationship among elements of reading or different types of reading skills

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q40 Examined materials and/or participated in class discussions about Texas Standards in teaching reading

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q41 Examined materials and/or participated in class discussions about using core reading programs (or basals/anthology), such as Harcourt Brace, Open Court, Scott Foresman, SRA Reading Mastery, McGraw Hill or Houghton Mifflin

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q42 Examined materials and participated in class discussions about using literature based programs, such as Fountas and Pinnell's Guided Reading, Scholastic Guided Reading, Rigby leveled reader material or Wright Group leveled reader material

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q43 Examine materials and/or participated in class discussion about using supplemental programs, such as Neuhaus, Go Phonics, Saxon Phonics, Great Leaps, LiPS or Voyager

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q44 Examined materials and/or participated in class discussions about using school wide literacy models, such as Literacy by 3, Success for all, First Steps, Balanced Literacy or Literacy Collaborative

- None (1)
- Little (2)
- Moderate (3)
- Considerable (4)

Q45 Feeling of Preparedness

New teachers enter their own classroom for the first time feeling prepared about their abilities to teach in certain area and less prepared in others. Use the following scale to rate your feelings of preparedness for reading instruction

Not at all Prepared I do not know about or do not understand these activities well enough to use them with my students

Somewhat Prepared I am not completely sure how to use these activities with my students at all reading levels

Mostly Prepared I understand how to use these activities with some students but I still need to deepen my understanding or the activities

Definitely Prepared I completely understand how to use these activities with all my students at all reading levels

Q46 Teaching children how to isolate, identify, separate, and blend sounds in spoken words

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q47 Teaching children to use phonics skills to figure out how to pronounce unfamiliar words

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q48 Teaching children to monitor how well they understand what they read and to correct problems as they occur

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q49 Using a variety of methods to teach children the meaning of words, including direct and indirect (conversational) instruction, and multiple exposures and repetition

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q50 Identifying the words in a text that your children do not know and using their background knowledge to help them figure out the words' meanings

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q51 Making instructional decisions based on evaluations of children's oral reading fluency

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q52 Teaching children a variety of strategies for understanding the text they read, such as using graphic organizers, making predictions, asking questions, and identifying the main idea

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q53 Teaching phonics to children in a systematic way with a series of skills and activities

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q54 Teaching children to recognize and name letters

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q55 Having children repeatedly read the same text aloud to improve their speed, accuracy, and expression

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q56 Teaching reading with both fiction and non-fiction reading materials

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q57 How prepared do you feel to teach Kindergartners the essential skills of reading?

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q58 How prepared do you feel to teach First graders the essential skills of reading?

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

Q59 How prepared do you feel to teach Second graders the essential skills of reading?

- Not at all prepared (1)
- Somewhat prepared (2)
- Mostly prepared (3)
- Definitely prepared (4)

