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A STUDY OF FACTORS THAT CONTRIBUTE TO PRE-SERVICE TEACHERS'  
SENSE OF EFFICACY FOR LITERACY INSTRUCTION

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A STUDY OF FACTORS THAT CONTRIBUTE TO PRE-SERVICE TEACHERS'  
SENSE OF EFFICACY FOR LITERACY INSTRUCTION

A DISSERTATION APPROVED FOR THE  
DEPARTMENT OF  
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## DEDICATION

To my parents, Clarence and Susan Huntley,  
on whose literate shoulders I stand.



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## ABSTRACT

The three-fold purpose of this mixed methods study was to (a) analyze how preservice teachers' perceptions of teacher preparation program variables affect preservice teachers self-efficacy for literacy instruction, (b) determine how preservice teachers describe their teacher preparation program with regard to self-efficacy beliefs for teaching literacy, and (c) contribute to the construct validity and reliability of the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Quantitative data were collected using a 122-item, online Likert-type survey from a sample of 120 preservice elementary and early childhood education teachers completing their final year of university teacher preparation.

This study utilized a mixed methods approach designed to enhance understanding of quantitative analyses results through follow-up collection of qualitative data. Priority was given to quantitative data analyses, which consisted of descriptive statistics, Pearson's product moment correlation, multiple regression analyses and factor analyses. Respondents representing above and below average scores for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) participated in a follow-up, semi-structured telephone interview with the primary investigator.

Objective and subjective data were integrated for broader interpretation of results explaining variance in the TSELI. Two predictor variables (perceived sense of efficacy for literacy instruction of a university professor and nature of literacy methods courses) were statistically significant predictors, accounting for 37% of the variance on the criterion variable (TSELI). As an ancillary focus, the factor structure for the 22-

item Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) was examined by conducting principal axis factor analyses procedures similar to those utilized in Tschannen-Moran and Johnson's (2011) study. Results were consistent with a one-factor solution, with that factor explaining 46.59% of the variance in TSELI.

Given literacy is the basis for all instruction and central to elementary education, teacher preparation programs must begin to examine factors which contribute to the development of literacy instruction self-efficacy for improvements in nationwide literacy skills to be realized. This study contributes to the existing research regarding which characteristics of teacher preparation programs greatly influence elementary and early childhood education preservice teachers' sense of self-efficacy for literacy instruction.



## **CHAPTER ONE: INTRODUCTION**

### **Background and Statement of Problem**

Open almost any newspaper today and one can find a section addressing or more specifically, bemoaning the current plight of formal education and its failure to generate critically-thinking, literate citizens. Many fingers pointed in blame are quick to identify ineffective or incompetent teachers as the cause. Ironically, most individuals can just as readily identify influential teachers who have positively impacted their lives.

Frequently teachers credit their career choice to an influential, highly efficacious teacher who had a significant impact on their learning and thinking; to the point they committed to a career goal of becoming an educator with a vision for positively influencing children just as their teacher had.

Consider the resources of time and money allocated toward improving nationwide literacy skills, predicated by the notion that proficient literacy skills are primary to successful participation within society. How critical is the nature of the teacher's role in this endeavor? Cruickshank and Metcalf (1993) assert "An undeniable assumption underlying the educational reform movement of the past ten years is that the school achievement of American children can be enhanced through better teaching" (p. 86). Tharp, Estrada, Dalton, and Yamauchi (2000) argue that nothing has the desired effects on student learning unless it operates through instructional interactions between teacher and students at the classroom level. Based on corroborating research, Darling-Hammond (2002) found that teachers play a significant and powerful role with regard to student achievement and success; conversely the strongest, negative predictors of student failure were the proportions of uncertified new teachers and the proportions

of teachers holding less than a minor in the field in which they teach. According to the Organisation (sic) for Economic Cooperation and Development (2005) report, “Teachers are now expected to have much broader roles, taking into account the individual development of children and young people, the management of learning processes in the classroom, the development of the entire school as a ‘learning community’ and connections with the local community and the wider world” (p. 3). At day’s end, it is the instructional activities employed by individual teachers in their respective classrooms where theories and their intended results are realized or rendered powerless. Teachers are essentially a classroom’s greatest resource; as well as potentially its greatest weakness (Clark, 2009).

### **Purpose of Proposed Study**

Over three decades ago the concept of self-efficacy began to manifest in the field of teacher education when Bandura (1977) postulated that people’s beliefs regarding their capabilities had a direct influence on their behavior, contending these beliefs become self-fulfilling prophecies for validation of capabilities or incompetence. Simply put, self-efficacy beliefs affect a person’s decision-making, effort, tenacity, and degrees of anxiety for all of life’s tasks (Usher & Pajares, 2008). Bandura (1997) asserted weak-efficacy beliefs could lead to self-doubt and high-efficacy beliefs could lead to greater motivation, effort, and resilience. Grounded in socio-cognitive theory, the significant implications these assertions realized for teacher beliefs and actions began to take hold. Fives, Hamman, and Olivarez (2007) determined those teachers with weaker teacher self-efficacy were more likely to burnout and abandon the profession. Study results revealed a significant negative relationship exists between

personal teaching self-efficacy and burnout. What is evident from this growing body of research focused on teacher self-efficacy is that teachers, particularly new teachers, need quality experiences in teacher education programs which support development of highly-eficacious educators who are prepared to successfully embrace the realities of teaching (Clark, 2009).

Ways in which efficacy beliefs are established, particularly when efficacy beliefs are most impressionable, are critical issues worthy of study. Usher and Pajares (2008) argue the need for increased understanding between the roles that teachers and other students play in the development of confidence to perform academic tasks. The authors also stress that beliefs about one's abilities are most susceptible to change during the development of skills and strategies when a student is confronted with novel academic tasks. Identifying factors which contribute to positive influences on self-efficacy beliefs in teacher preparation programs is critical. The success of a teacher preparation program is determined by the success of its preservice teachers as the challenging transition is made to the world of inservice teaching (NCATE, 2002). Novice teachers' success ultimately rests on their sense of teacher self-efficacy and confidence in their abilities to successfully negotiate the demands of teaching (Clark, 2009). According to Tschannen-Moran and Woolfolk Hoy (2007), those teachers who begin a teaching career with a strong sense of self-efficacy tend to persist and build upon the motivation those beliefs support, and fueled by subsequent successes ultimately continue to nurture high, self-efficacy beliefs. Unfortunately, the reverse is the case also where teachers who begin their teaching career with weak, self-efficacy

beliefs are likely to reinforce and strengthen these efficacy beliefs through self-defeating actions.

Efficacy is not one size fits all, but is specific to context. As noted previously, self-efficacy is a perception or belief about one's ability to successfully negotiate tasks within specific contexts or domains (Bandura, 1977; Pajares, 2002). A direct relationship exists between perceived abilities and subsequent actions; teachers can have divergent beliefs with regard to instruction within a range of subject areas, which will most likely result in fluctuating instructional expertise. Teachers may be confident in their abilities to teach in their areas of expertise and/or interest resulting in subsequent student successes. But teachers, particularly new teachers, may feel inadequate when teaching outside their comfort zone and, therefore, will most likely experience dismal student results. Tschannen-Moran and Johnson (2011) found that despite some overlap, a strong sense of efficacy for general-teaching tasks was clearly not the same as a strong sense of efficacy for teaching literacy.

Despite this well-accepted notion that self-efficacy is a significant predictor of teaching behavior, problems continue with the existing instruments measuring teacher efficacy. Some researchers question the reliability and construct validity of measures being used (Henson, 2002). Many instruments reveal a two-factor structure; however, confusion and debate continue regarding what these factors actually represent (Tschannen-Moran & Woolfolk Hoy, 2001). Also, Bandura (1997) questions instruments measuring efficacy that did not use appropriate specificity to position the questions within the context of a situation for which efficacy beliefs were being measured. This notion emphasizes the need for efficacy instruments focused on

specific domains, as in the case of this literacy study. The areas of reading and literacy need their own uniquely valid and reliable measures if literacy instruction self-efficacy is to be intentionally developed. Tschannen-Moran and Johnson (2011) emphasize that little is known about the teacher's self-efficacy beliefs in the complex domain of literacy instruction, as well as the factors contributing to those beliefs. Understanding how to nurture and support high self-efficacy beliefs with regard to literacy instruction would be very beneficial. The relationship between literacy instruction self-efficacy and preparedness to teach literacy should be further explored.

The purpose for this study is to contribute to the existing body of research for literacy instruction self-efficacy. This proposed study's focus is threefold. First, this study seeks to analyze how teacher preparation program variables, using a sampling from public and private higher education institutions in Oklahoma, affect preservice literacy instruction self-efficacy. Second, how preservice teachers describe their literacy teacher preparation program with regard to their literacy teaching self-efficacy beliefs and feelings of preparedness for teaching literacy is determined. A third ancillary finding will contribute to the construct validity and reliability of the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (Tschannen-Moran & Johnson, 2011) by comparing sample data from the current study with Tschannen-Moran and Johnson's sample data.

### **Research Questions**

Given the critical role efficacy plays in so many factors related to quality teaching, a greater effort should be made to design teacher education programs which develop and educate highly efficacious teachers who are equipped to adjust to the

changing demands preservice teachers will eventually encounter. Teacher candidates rarely lose preconceptions that were formed during early experiences in formal educational settings (Pajares, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Frequently, these preconceptions are actually strengthened and endorsed by the instructional practices of the status quo still existing in schools today (Swars, Smith, Smith, & Hart, 2009). A major goal of preservice teacher education programs is to develop preservice teachers with high teaching self-efficacy who can successfully negotiate the demands of teaching. Though much is published about both the sources and effects of teacher efficacy, the question remains; how does this theory translate into educational practice for teacher preparation programs and specifically, literacy instructional practices? The following questions are addressed in this proposed study:

1. Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?
2. How do preservice teachers describe their literacy teacher preparation program relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy?
3. How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?

### **Importance of Proposed Study**

Proficient literacy skills are of primary importance for participation in any culture (Dimitriadis & Kamberelis, 2006). Such skills are foundational to all successful interactions and negotiations within a society. For the sake of diverse learners, special

needs learners and virtually every student, literacy instruction delivered by highly qualified, influential teachers is critically important (Allington & Cunningham, 2007; Ruddell, 2004). According to Baumann, Hoffman, Duffy-Hester, and Moon (2000), one of the greatest challenges teachers encounter is instructing students with a diverse range of reading abilities. Teaching reading requires flexibility and confidence in determining what reading skills and strategies students in a specific context require. Effective literacy instruction often demands instantaneous decision-making for complex reading challenges. High literacy instruction self-efficacy plays a significant role in making these decisions and successfully negotiating subsequent plans of action (Ashton & Webb, 1986; Soodak & Podell, 1993). For example, teachers with a weak sense of self-efficacy for literacy instruction may be more likely to blame students for their lack of success in learning to read, which may often lead to special education referrals. In contrast, those teachers with a strong sense of self-efficacy for literacy instruction are more likely to view all students as capable of reading, and consequently, are more willing to try a variety of instructional approaches until their students experience success (Allinder, 1994; Guskey, 1988; Midgley, Kaplan, & Middleton, 2001). Teachers with high literacy teaching self-efficacy are more likely well-equipped for such determinations, and thus, able to implement appropriate action (Tschannen-Moran & Johnson, 2011). It is critical that preservice teachers are afforded opportunities to develop high literacy instruction self-efficacy to make literacy, hence the culture, accessible for all students.

Self-efficacy will most certainly impact preservice teachers matriculating through teacher preparation programs. Bandura (1997) suggested efficacy beliefs can

be more powerful than one's actual abilities in terms of motivation and action for the required task. Those preservice elementary teachers who emerge from their teacher preparation programs with a strong sense of efficacy for literacy instruction will more likely embrace the challenges of transitioning to a career in elementary teaching. Research suggests these preservice teachers are more likely to draw upon their high efficacy beliefs to persistently exert great effort to assist student learning (Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Gibson & Dembo, 1984). Subsequent student successes will serve to reinforce and nurture their initial high literacy instruction efficacy beliefs. Conversely, preservice teachers who emerge from teacher preparation programs with weak, self-efficacy beliefs will most likely lack motivation and perseverance for promoting student learning, which will reinforce the continuation of negative beliefs. Tschannen-Moran and Woolfolk Hoy (2001) assert that once efficacy beliefs are solidified, stability tends to be maintained. These beliefs are most malleable during initial, novel experiences in their teacher education program. With the limited time and increased pressure on teacher education programs to develop preservice teachers into highly qualified, efficacious teachers, universities should know what best prepares preservice teachers to become influential, high-quality educators (Haverback, 2007).

Studies following preservice teachers through teacher preparation with an emphasis on developing their literacy instruction self-efficacy would shed light on little understood factors influencing literacy instruction self-efficacy beliefs (Tschannen-Moran & Johnson, 2011). Researchers should begin to explore which elements preservice teachers identify as most significant in developing their self-efficacy beliefs



for literacy instruction and other aspects of teaching. Are there differences between teacher education programs with regard to literacy methods course work? If so, how do these differences affect the perceptions and literacy instruction self-efficacy of preservice teachers? One of the findings of Wilson, Floden, and Ferrini-Mundy's (2001) review of 57 high-quality, empirical research studies was that teachers' perceptions and perspectives do matter and should be a consideration in determining public education policy. Using preservice teacher's perceptions of their teacher preparation to differentiate between specific subject areas and corresponding contexts, in this case literacy, and how teacher efficacy is impacted would be beneficial. Further investigation into which variables are highly predictive with literacy instruction self-efficacy development would greatly benefit teacher education programs.

Given that literacy is the basis for all instruction and a central focus for elementary education instruction, high literacy instruction self-efficacy beliefs are paramount. Teacher preparation programs must begin to examine those factors which contribute to the development of self-efficacy for literacy instruction if improvements in nationwide literacy skills are to be realized. This study will contribute to the existing research regarding what characteristics of teacher preparation programs greatly influence preservice teachers' literacy instruction self-efficacy beliefs. Currently, most studies have been conducted in a single, teacher preparation program and/or have investigated only one characteristic or variable. Many studies focused on a global rating of teacher self-efficacy, rather than domain-specific efficacy ratings. Drawing on several university and college locations, this proposed study seeks to investigate multiple literacy variables of teacher preparation programs which are identified as

significant, based on the empirical research, to determine their impact on preservice teachers' literacy teaching self-efficacy. For this study, independent variables are comprised of (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences. The results of this investigation will provide input for designing teacher preparation programs that positively and significantly influence preservice teachers' literacy teaching self-efficacy. Debates continue regarding the construct of self-efficacy and how it can reliably be measured in different contexts. This study also will provide additional reliability and construct validity data to preexisting literacy instruction self-efficacy instruments.

## **Definition of Terms**

For this study, the following terms are defined as follows:

**Cooperating teacher:** An inservice classroom teacher who serves as a mentor and instructor for a specific practicum student or student teacher. S/he works closely with the preservice teacher by sharing his/her classroom throughout the practicum-field experience and student teaching placement.

**Perceived mentoring support:** This encompasses the preservice teachers' perceptions of the support received from their cooperating teachers and university literacy professors while performing teaching tasks throughout their university teacher preparation program during methods coursework, practicum-field experiences and student teaching experience. Mentorship support is most often found in social-constructivist environments where teachers adjust assistance provided for in-class experiences consisting of inquiry-based, hands-on approaches to learning, as well as for practicum-field experiences. Preservice teachers consistently receive valuable, non-threatening feedback from mentoring teachers when attempting challenging tasks.

**Perceived instructional design of literacy methods courses:** A literacy class which prepares preservice teachers to teach literacy in elementary school. Literacy methods courses typically include theories of reading, components of reading, literacy-teaching practices, and literacy-assessment practices.

**Teacher sense of efficacy for literacy instruction:** The self-beliefs teachers possess regarding their abilities to teach literacy effectively. This is a self-reported measure using the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (Tschannen-Moran & Johnson, 2011).

**Perceived teacher sense of efficacy for literacy instruction of university**

**literacy professors:** The preservice teachers' perceptions of their university literacy professor's sense of literacy teaching efficacy. A modified version of the TSELI (Tschannen-Moran & Woolfolk Hoy, 2001) is the self-reported measure used.

**Perceptions of practicum-field experiences:** Experiences gained "in-school" within the elementary school classroom during a teacher preparation program. Experiences are comprised of teacher observation, planning for and teaching lessons under close supervision, working with small groups and individuals, conferring with students, assisting with daily routines and tasks, and administering assessments. Practicum-field experiences are designed to provide opportunities for preservice teachers to engage in teaching duties and experiences prior to student teaching. These experiences usually occur away from the university campus.

**Preservice teacher:** An undergraduate student who is enrolled in an elementary and/or early childhood teaching program.

**Program variables:** Unique characteristics of the teacher preparation program in which preservice teachers are enrolled. The variables in this study include (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences.

**Student teaching:** The culminating field experience in a teacher preparation program, typically in the preservice teacher's final year or semester.

**Teacher preparation program:** A university's or college's courses of study and planned field experiences designed to educate and prepare preservice teachers to teach in elementary classrooms.

## **CHAPTER TWO: REVIEW OF LITERATURE**

### **Introduction**

This review of the literature is organized into three sections. First, is an analysis of the literature related to Bandura's (1977) Social Cognitive Theory upon which this study is based. Second, is a history of the development of the construct of self-efficacy and issues related to self-efficacy survey instruments used in education. The final section is comprised of a literature review of research related to preservice teachers' perceptions of their self-efficacy for teaching, including a sense of their preparedness to teach.

### **Theoretical Framework**

#### **Social Cognitive Theory**

Bandura's (1977, 1986) Social Cognitive Theory provides a meaningful context and theoretical framework for analyzing teacher education programs and their impact on teacher self-efficacy. Ability is viewed as a variable characteristic over which individuals can exercise some amount of control (Bandura, 1993). Social cognitive theory is grounded in a belief that humans exercise agency by proactively engaging in their own development and intentionally making things happen. Human behavior is a relationship between the individual's behavior, internal cognitive processes, and environment (Bandura, 1986). This theoretical perspective asserts that human functioning is the product of a complex, dynamic interaction of personal, behavioral, and environmental influences; these interactions are not sequential, simultaneous or equal. The influences of these components fluctuate, depending on the specific activity and situation (Pajares, 2002).

According to Pajares (2002), the human capacity to self-reflect is an outstanding feature of social cognitive theory. Self-beliefs allow regulation of thoughts, feelings, and actions. Due to self-reflection, individuals are able to make sense of personal experiences, examine their cognition and self-beliefs, engage in self-evaluation, and consequently change their beliefs and behavior. Bandura (1986) asserts people are both creations and creators of their circumstances and experiences, essentially engaging in self-fulfilling prophecy.

Cognition plays a large role as persons engage in observations and actively interpret the behaviors of others. If this were not the case, all learning would require direct experiences; learning from the mistakes and influence of others would be impossible (Tracey & Morrow, 2004). Literacy education relies on modeling and vicarious experiences as a cornerstone for learning. Scaffolding through the Zone of Proximal Development usually begins with modeling and gradually transfers responsibility for those experiences to autonomous, mastery experiences (Vygotsky, 1978). Individuals collect information from four sources of efficacy to reflectively process self-efficacy beliefs. Relevant information is allotted differing weights to assess ability to perform a given task (Bandura, 1997). Simply stated, people learn vicariously through observing others; actually more learning may occur through observation than from consequences of personal experiences (Tracey & Morrow, 2004).

**Efficacy.** Self-efficacy refers to self-judgments of capabilities to organize and carry out a plan of action; a personal appraisal of abilities to do something specific (Bandura, 1977, 1986, 1997). Efficacy is future oriented with regard to an individual's belief about the level of competence s/he will be able to demonstrate in a given context.

Self-efficacy has more to do with self-perceptions of personal capability than an actual level of ability (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). Pajares (2002) asserts, “Successes build a robust belief in one’s personal efficacy. Failures undermine it, especially if failures occur before a sense of efficacy is firmly established” (p. 2). These beliefs are not based on actual ability, but rather on perceptions of ability. Ranging from high to low, these powerful beliefs are the source of both self-doubt and strength of persistence. Persons with high self-efficacy beliefs view complicated tasks as challenges, remain committed to goals, and strive diligently to succeed, even when facing failure (Bandura, 1997). The reverse also is true for those with low self-efficacy beliefs. Difficult tasks are seen as personal threats; therefore, these challenging tasks are not embraced. Tschannen-Moran and Woolfolk Hoy (2001) note that once efficacy beliefs are formed, change is fairly unlikely. Efficacy is concerned with multiple cognitive and behavioral tasks and is context-reliant; uniformity does not occur across all types of performance tasks (Bandura, 1986, 1993, 1997; Henson, 2002; Pajares, 2002). Motivation and persistence are supported by a sense of efficacy; self-efficacy beliefs influence every aspect of human lives, including any life choices made (Bandura, 1986; Murphy, Delli, & Edwards, 2004).

**Sources of efficacy.** Bandura (1986, 1997) asserts four central sources of influence upon which efficacy beliefs are formed. Teaching self-efficacy beliefs are created and developed when preservice teachers process the information produced by these four sources, which include (a) hands-on, mastery experiences, (b) vicarious, modeling experiences, (c) feedback in the form of verbal and social persuasion, and



(d) emotional and physiological arousal (Usher & Pajares, 2008). Mastery experiences, which are derived from opportunities for individuals to experience and view themselves successfully completing a task, are considered the most powerful. Thus, these individuals can witness the results of their actions. When these actions are viewed as successful, confidence for accomplishing subsequent tasks increases; the reverse also is valid. When preservice teachers perceive their efforts have failed, their confidence in performing similar tasks likely decreases. Field-based experiences and student teaching experiences are included in this category (Bandura, 1977, 1993, 1997; Knoblauch, 2004; Pajares, 2002; Tschannen-Moran & Woolfolk Hoy, 2007).

Vicarious experiences are comprised of observing others with the intent of comparing individual abilities with those modeled (Bandura, 1997). Preservice teachers may gauge their capabilities by observing and comparing themselves to other students performing the same tasks. For example, if a student achieves less than 70% on a test where most classmates earned 90% or better, confidence likely decreases for this type of task. Usher and Pajares (2008) assert that social models are powerful for developing self-efficacy when preservice teachers are uncertain of their abilities, regardless of the reason. Henson (2002) maintains that social models can determine an individual's confidence to complete a task and are more influential during transitional periods. Preservice teachers will tend to alter self-efficacy beliefs when observing a model's successes or failures when that model is similar in some aspect (e.g., ability level, gender, age, and ethnicity) to the one observing (Bandura, 1977, 1993, 1997; Usher & Pajares, 2008).

Verbal and social persuasions are comprised of encouragement and immediate feedback while performing a task (Bandura, 1997). Feedback can be effective for boosting confidence in task performance, such as a student teacher seeking feedback and reinforcement following a teaching performance observation. Feedback and reinforcement are especially important when preservice teachers are novices with regard to specific exercises and contexts; thus, unable to accurately assess their individual abilities (Bandura, 1986, 1997; Tschannen-Moran & Woolfolk Hoy, 2007). Verbal persuasion is more effective and supports success when precise explanations of conditions and instruction are provided. Carter (2006) argues that individuals weigh verbal persuasion in light of the knowledge and credibility of the person providing feedback, as well as how the feedback is framed. Usher and Pajares (2008) caution that confidence may be more easily undermined than bolstered through verbal persuasion, especially in the formative stages of skill development. Essentially, confidence-building feedback should be designed to support development of preservice teachers' efficacy beliefs (Tschannen-Moran & Woolfolk Hoy, 2007).

The fourth source of efficacy is emotional and physiological. It consists of varying degrees of feelings (e.g., anxiety, stress, fatigue, and mood) related to personal competence that depends on differing contextual conditions (Bandura, 1997). Preservice teachers interpret their feelings and mood as an indicator of their competence in a specific area. Usher and Pajares (2008) assert that strong emotional arousal to teacher-related tasks provides cues for the level of expected success or failure. In novel situations preservice teachers' self-efficacy beliefs are a strong filter and determinant for how new information is processed. Physical and emotional well being strengthens

self-efficacy; therefore, minimizing negative emotional states is crucial (Pajares, 2002; Tschannen-Moran & Woolfolk Hoy, 2001).

Information gained from these sources of efficacy provides informed guidance through cognitive processing and reflection. Each of these sources will have a range of weight and value, which ultimately influences how information from these four sources is processed and judged with regard to perceived teaching capabilities (Bandura, 1993, 1997; Tschannen-Moran & Woolfolk Hoy, 2007). Throughout this cognitive processing, individuals may over-rely on certain sources of efficacy, while ignoring others (Pajares, 2002).

**Related constructs.** Self-efficacy should not be confused with self-esteem or self-concept. Bandura (1997) stresses that self-efficacy is domain specific; individuals have fluctuating beliefs in their efficacy depending on the context and situation. Thus, efficacy is not a value judgment, but rather a personal appraisal of one's ability to accomplish a specific task. Self-concept is comprised of an individual's total definition of self across a multiple of domains. Self-esteem is a value judgment encompassing the total self across all domains. For example, individuals may perceive themselves as poor artists; however, if the personal ability to draw is not valued and not a part of their self-concept, self-esteem does not suffer. In contrast, self-efficacy is a personal appraisal of the ability to do something specific within a certain context (Knoblauch, 2004).

Also important to note is that Bandura's (1997) construct of self-efficacy belief is distinct from the construct of locus of control emerging from Rotter's (1966) Social Learning Theory. These constructs are not the same phenomenon. Social Learning Theory is concerned with stimulus and response in dealing with human behavior

(Rotter, 1975). Locus of control is focused on who or what has control of given outcomes. External locus of control is characterized by a person's perception that an outcome is contingent on luck or factors beyond his/her power to control. Internal locus of control is when a person believes the reinforcement is directly caused by his/her behavior. Bandura (1997) makes the distinction that beliefs regarding ability to produce a given action (self-efficacy) is not the same as beliefs about the causality of actions and outcomes (locus of control). Self-efficacy is concerned with an individual's future-oriented evaluation of one's capabilities in a given context (Bandura, 1986), where locus of control is a belief that a particular action can produce a predetermined outcome. Essentially, locus of control is focused on causal relationships between actions and outcomes and self-efficacy is a personal evaluation of ability to perform a task in a given context. Individuals may believe a certain behavior will produce a given outcome that is internal and controllable; however, one's personal belief in his/her capabilities to perform such tasks may be lacking (Bandura, 1993; Pajares, 2002).

Historically, instruments designed to measure self-efficacy beliefs have their roots in either Social Learning Theory or Social Cognitive Theory. These distinctions are of consequence. When instruments are intertwined in both, as is the case of Gibson and Dembo's (1984) two-factor Teacher Efficacy Scale (TES), confusion arises regarding what constructs the factors actually represent (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998; Tschannen-Moran & Woolfolk Hoy, 2001). Unresolved conflicts focused on faulty factor structure have caused some researchers to question the validity and reliability of this instrument for use in future research (Denzine, Cooney, & McKenzie, 2005; Fives & Buehl, 2010).

**Efficacious teacher correlates.** Teacher efficacy is a well-studied field supported by a large body of research indicating that highly efficacious teachers have several behavioral characteristics in common. With regard to instructional practices, these teachers tend to persist with struggling students, provide more time focused on academic activities, keep students on task, and establish higher goals and expectations. Determination of goals is a joint venture in efficacious teachers' classrooms as student participation is encouraged. All of these characteristics contribute to higher student outcomes and achievement (Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Gibson & Dembo, 1984).

Classroom atmospheres are more positive and oriented toward a more humanistic approach to discipline, where students are given a voice in decision making. Teachers with high efficacy are generally more committed to a career of teaching and extend beyond the basic, routine requirements of teaching. Job satisfaction is generally higher among these efficacious teachers (Allinder, 1994; DeForest & Hughes, 1992; Evans & Tribble, 1986; Gibson & Dembo, 1984; Viel-Ruma, Houchins, Jolivette, & Benson, 2010; Ware & Kitsantas, 2007; Woolfolk & Hoy, 1990). Innovative techniques are consistently embraced and implemented into their instructional practices; efficacious teachers willingly take risks to employ new teaching strategies (Allinder, 1994; Ghaith & Yaghi, 1997; Midgley, Kaplan, & Middleton, 2001). Also, effective and consistent parental involvement may be implemented where parental consultation is more likely to occur (Bandura, 1997; DeForest & Hughes, 1992; Hoover-Dempsey, Bassler, & Brissie, 1987).

Highly-efficacious teachers initiate less special education referrals, and in the case of identified special education students, work diligently to serve their needs; all students are seen as teachable (Ashton & Webb, 1986; Bandura, 1997; Henson, 2002; Midgley, Kaplan, & Middleton, 2001; Soodak & Podell, 1993). Students whose teachers are highly efficacious also tend to develop high efficacy for learning. Emphasis in these classrooms is placed on intrinsic rewards and creating autonomy, resulting in higher motivation and enthusiasm for learning (Anderson, Greene, & Loewen, 1994; Ashton & Webb, 1986; Ashton, Webb, & Doda, 1983; Woolfolk & Hoy, 1990). Highly-efficacious teachers generally demonstrate positive attitudes, effective communication skills, confidence, enthusiasm, and tend to develop trusting relationships with colleagues and administrators (Allinder, 1994; Bandura, 1997; da Costa & Riordan, 1996). Essentially, highly-efficacious teachers develop behavioral characteristics reflecting strong effort and perseverance; essentially developing environments and communities for learning (Bandura, 1993, 1997).

### **Capturing the Construct of Teacher Efficacy**

#### **Efficacy Measurement Instruments**

The first measure created to assess self-efficacy actually began with a two-item instrument designed by Rand Corporation to measure internal and external sources of control (Armor, et al., 1976). Teachers confident in their ability to teach students, regardless of obstacles, exhibit an internal locus of control. Alternatively, those teachers who believe environmental factors overwhelm their ability to teach exhibit a belief in an external locus of control (Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Burke Spero, 2005). Rotter's (1966) Social Learning Theory was the

theoretical foundation for the initial self-efficacy instrument. According to this theory, behavior is influenced by generalized expectations that results are determined by either individual actions or external forces beyond the individual's control (Bandura, 1997; Rotter, 1966). Building on the foundation of the Rand Corporation studies and also the conceptual underpinnings of Bandura's (1977) social cognitive theory, Gibson and Dembo (1984) developed the Teacher Efficacy Scale (TES). This 16-item scale yields two factors, which were assumed to represent the two expectancies identified in Bandura's (1977) social cognitive theory (Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Burke Spero, 2005). Gibson and Dembo (1984) identified the two independent factors; the first representing one's internal personal capability for teaching, and the second addressing external forces beyond the educator's control. The TES gained a reputable status in the education arena, and is often referenced as the standard instrument in the field. Several efficacy instruments were developed using the TES, such as the Math Teaching Efficacy Belief Instrument (MTEBI) (Enochs, Smith, & Huinker, 2000) and the Science Teaching Efficacy Belief Instrument (STEBI) (Enochs & Riggs, 1990). However, factor analyses conducted on the TES began to identify inconsistencies, where some argued for a three-factor structure and others a two-factor structure (Fives & Buehl, 2010; Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Which constructs these factors actually represent continues to fuel debates. Henson (2002) asserts that the debate is not surprising since the instrument serves two theoretical masters, specifically the Social Cognitive Theory (Bandura, 1977) and Social Learning Theory (Rotter, 1966). In 2005, Denzine, Cooney, and McKenzie used confirmatory factor analysis to articulate reasons the TES

was not a valid measure, advocating that any conclusions derived from use of this instrument should be disregarded. Despite this confusion surrounding the meaning of these two dimensions, the TES continues to be currently used by researchers.

Regardless, Tschannen-Moran and Woolfolk Hoy (2001) argued that instruments measuring efficacy must tap teachers' evaluations of their capabilities across the wide range of teaching responsibilities performed. Specifically, a teacher must understand and analyze what the task requires in given contexts to accurately assess personal competency. A valid teacher efficacy measure must address both personal competence and an analysis of the teaching task with regard to available resources and constraints within particular instructional contexts (Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk & Hoy, 1990). Bandura (1997) asserted that teacher efficacy is not uniform across the varied tasks educators are required to perform. In response to this a 30-item instrument was constructed which focused on seven subscales to create a more informed teacher efficacy measure. However, Bandura's instrument was unpublished and lacking information regarding validity and reliability (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). During a seminar on self-efficacy, the College of Education at The Ohio State University designed a new measure called The Ohio State Teacher Efficacy Scale (OSTES), later referred to as the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001). Adding to foundational studies to establish construct validity and reliable measures, a 52-item measure was designed; after three follow-up studies, a 24-item long form and 12-item short form were constructed. Factor structure, reliability, and validity were examined for use with both preservice and inservice teachers. Bandura (1986) asserted outcome



expectancy added minimal predictive power because it was contingent on the projected level of capability a person believes s/he will have in a given context. Hence, this instrument omits any focus on general teaching outcome expectations and narrows the remaining focus to personal teaching self-efficacy and teaching task analysis. For inservice teachers this efficacy measure proved to have three strong factors comprised of (a) instructional strategies, (b) student engagement, and (c) classroom management. These dimensions were believed to more accurately represent typical teaching responsibilities (Denzine, Cooney, & McKenzie, 2005; Tschannen-Moran & Woolfolk Hoy, 2001; Woolfolk Hoy & Burke Spero, 2005). Preservice teacher results were less distinct, leading researchers to assume a single factor structure for the same efficacy measure. Currently, the TSES is considered superior to previous instruments measuring teacher efficacy due to a unified, stable factor structure that assesses a broad range of multiple capabilities considered important by teachers across contexts and subjects (Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001).

### **Literacy Instruction Efficacy Measures**

Based on Bandura's (1997) previous assertions that teacher efficacy is not constant across domains, other domain-specific efficacy measures have been designed. Clark (2009), Haverback (2007), Szabo and Mokhtari (2004) and Johnson and Tschannen-Moran (2004) each designed teacher self-efficacy instruments to specifically measure reading or literacy instruction self-efficacy. Szabo and Mokhtari (2004) used two existing instruments from the science and math fields, which have their foundation in Gibson and Dembo's (1984) two-factor Teacher Efficacy Scale; specifically, the Math Teaching Efficacy Belief Instrument (MTEBI) (Enochs, Smith, & Huinker, 2000)

and the Science Teaching Efficacy Belief Instrument (STEBI) (Enochs & Riggs, 1990) to design the Reading Teaching Efficacy Instrument (RTEI). This instrument for teacher candidates was designed to measure two factors; personal reading teacher self-efficacy and reading teaching outcome expectancy, which raises the same questions with regard to construct validity for the RTEI, as those concerned with the TES upon which it is based (Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001).

Haverback (2007) adapted the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) using two subscales including Efficacy in Student Engagement and Efficacy in Instructional Practices to design the Reading Teacher Sense of Efficacy Scale (RTSES). Subsequent confirmatory factor analysis studies did not support initial factor analysis results. Also, an exploratory factor analysis did not result in the same factor loadings as the original TSES. What emerged was a reading efficacy measure assessing reading motivation and reading assessment, which did not capture the full essence of reading instruction.

The Utah Teacher Efficacy Scale (UTES) used in Clark's (2009) study had five first-order factors which produced a global efficacy measure created to provide domain-specific measures for (a) math efficacy, (b) assessment efficacy, (c) general knowledge and skills efficacy, (d) diversity and multicultural efficacy, and (e) reading efficacy. Similar to the TSES, this instrument was designed to measure personal competence within particular contexts. Confirmatory factor analysis and other measures established construct validity, reliability, and a good data fit with regard to the five first-order factors contributing to global teacher self-efficacy. The reading portion of this scale could be used to measure reading teacher self-efficacy; however, as was the case with

the RTSES, it does not appear to be as comprehensive with regard to literacy teaching tasks as the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI).

Johnson and Tschannen-Moran (2004) adapted the TSES to design an efficacy measure within the domain of literacy. The Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) uses a nine-point Likert scale to respond to 22 questions focused on teaching strategies and skills required to successfully teach literacy. The NCTE/IRA Standards for the English Language Arts (1996) and the IRA Standards for Reading Professionals (2004) were used to develop the 33 items related to various aspects of literacy instruction. Through the process of field testing, factor analyses, and reliability measures, the single-factor TSELI was pared to a 22-item measure. When examining various measures of literacy self-efficacy, the TSELI is currently the most comprehensive for addressing the domain of literacy and is comprised of only 22 questions. Further studies using efficacy instruments for literacy teacher efficacy should provide additional data for factor-structure analysis using additional factor analyses.

### **Studies of Teacher Preparedness and Teacher Self-Efficacy**

Zeichner and Conklin (2005) contributed to the Report of the American Educational Research Association (AERA) Panel on Research and Teacher Education by reviewing 38 peer-reviewed, empirical research studies published between 1986 and 2002 specifically examining teacher education programs. The review followed those standards established by the AERA Panel on Research and Teacher Education. Nine of these studies focused on preservice and novice teachers' perceptions of confidence with

regard to their teacher preparation programs, which are of particular interest given this research.

This comprehensive literature review was organized by characteristics of effective teacher education programs, the structure of the teacher education programs, and whether the programs were traditional or alternative. Findings indicate results were inconclusive on several issues studied due to lack of clear, concise definitions of federal programs and state policies and/or school community contexts for the studies. Zeichner and Conklin (2005) contend the difficulty, if not impossibility, to disentangle the effects of program characteristics and the abilities the preservice teachers brought to the teacher education programs. Despite these problems, this literature review supports the claim that teacher education programs can make a difference with regard to novice teacher self-efficacy and feelings of preparedness.

Additional studies have been conducted since 2002 which examine relationships between a sense of teacher preparedness and teacher self-efficacy, using preservice and novice teachers in their samples. The following review includes and updates Zeichner and Conklin's (2005) literature review to examine and draw conclusions based on the current research findings regarding the relationships between teacher preparation and teacher self-efficacy.

### **Review Methods**

The update of the literature search began by considering what key terms would best identify relevant studies. As many suggest, this process became subjective in some cases; an art rather than a science. At times, the searches became ambiguous journeys

that would be difficult to retrace, which made serendipitous discoveries that much more rewarding.

The descriptors or key terms producing the best results were teacher efficacy, teacher preparedness, perceptions of preservice teachers, preparing high-quality teachers, self-efficacy, assessing teacher education, teacher development, preservice teacher education and reading-teacher efficacy. Search engines included Pro-Quest, EBSCO Host, ERIC (government website), Education Research Complete, Sage, J-Stor, Professional Development Collection and Education Researcher. Direct searches of electronic journals included the *Journal of Teacher Education*, *Teaching and Teacher Education*, *Journal of Educational Psychology*, *Journal of Educational Research*, *Review of Educational Research* and *Reading Research Quarterly*. Pro-Quest identified dissertations which were pertinent to the focus of this literature review. Bibliographies from these dissertations served to locate additional sources of applicable studies and articles. Lastly, citation searches within the selected literature yielded additional valuable resources; a practice which understandably could potentially create inherent bias.

**Criteria for inclusion.** This search produced many current articles, suggesting this field is beyond its exploratory stage. Initially, reading the abstracts served to determine each study's relevance and quality with respect to research questions. Measures were taken to avoid study duplication. Finally, criteria for selecting or excluding studies were based on the following:

- Studies were either dissertations or peer reviewed.
- Studies were published within the period between 2000 and present.

- Study participants were preservice elementary education teachers or novice elementary teachers with a focus on teacher preparation programs.
- Studies represented adequate descriptions of data collection and utilized appropriate data analysis methods.
- Studies focused on some measure of preservice teachers' perceptions of their preparedness and/or teacher efficacy based on their preservice education experiences.

**Limitations.** Initially, more than 45 studies and articles were identified; however, several were eliminated because of one or more of the following: (a) they were not focused directly and explicitly on some measure of preservice or novice teachers' perceptions of preparedness and teacher efficacy, (b) the samples did not include preservice or novice teachers, or (c) the articles expressed an author's opinion rather than the result of an empirical study. In two cases, the sample sizes were not adequate for the length of the surveys used, and for another, the research question and research methodology were not compatible. A total of 20 studies were selected as a result of using the screening criteria. All include some form of survey research and most have a mixed methods design. Noteworthy is that five of the 20 selected studies administered the Teacher Efficacy Survey (TES) or an adaptation of the TES (Gibson & Dembo, 1984) for data collection, despite several researchers' (Denzine, Cooney, & McKenzie, 2005; Henson, 2002; Roberts & Henson, 2001; Tschannen-Moran & Woolfolk Hoy, 2001) cautions that any data derived from this instrument should be tentatively considered or completely disregarded. Arguments claim that theoretical and

psychometric weaknesses have been overlooked and researchers prematurely adopted the instrument (Henson, 2002).

The literature review is divided into three areas differentiated by teacher efficacy and/or teacher preparedness. Information includes the study's sample size and characteristics which include (a) Methods Courses without Practicum Mastery Experiences, (b) Methods Courses with Practicum Mastery Experiences, and (c) Studies of Student Teaching and/or Novice Teaching Experiences. All studies are situated within the theoretical framework of Bandura's (1977) Social Cognitive Theory and focused on one or more phenomena experienced during a teacher education program. Each addresses, at some level, one or more source of efficacy and/or perceptions of preparedness to teach as identified by Bandura (1977, 1993, 1997). The category with the greatest number of studies were those which focused on student teaching experiences as a phenomenon for changing teacher efficacy, as well as a broader focus to include some part of the novice teacher's teaching experience. This is consistent with Bandura's (1977, 1986, 1993) assertion that mastery experiences over time yield the most significant changes in efficacy beliefs. Table 1 provides a summary for the findings of this literature review.

Table 1

*Analyses of Studies*

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
<b>Methods Courses without Practicum Mastery Experiences</b>				
Bleicher (2007)	To examine changes in Personal Science Teaching Self-	Multiple methods: pre/post tests and three midterms for	70 preservice elementary teachers enrolled in science methods courses	Personal Science Teaching Efficacy, Science Teaching
<i>(table continues)</i>				

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
	Efficacy (PSTSE), Science Teaching Outcome Expectancy (STOE), and science conceptual understanding.	science conceptual understanding; pre/post tests, field notes and student journals for teaching self-efficacy and outcome expectancies		Outcome Expectancy and science conceptual understanding significantly increased during participation in the science methods courses.
Brand & Wilkins (2007)	To determine which of the four sources of self-efficacy was reported to have positively influenced teachers' beliefs about their abilities to teach science and math and how these self-efficacy beliefs were influenced by math and science methods courses.	Mixed Methods: qualitative study utilizing naturalistic inquiry through written reflections written by preservice teachers at the end of the course; responses were coded using Bandura's (1993) four sources of efficacy	50 preservice elementary teachers enrolled in a Master's degree elementary-teacher education program	Math and science courses tended to develop teaching efficacy most through mastery experiences. Findings suggest the other three sources may provide a nurturing ground for mastery experiences to occur.
Nietfeld & Cao (2003)	To determine the specific instructional strategies that provide the greatest influence on students Personal Teaching Efficacy (PTE) in teacher training courses.	Survey: Teacher Efficacy Scale (TES)	140 preservice elementary and secondary education students enrolled in an introductory educational psychology course	Students perceive active instructional strategies to be more important for increasing PTE. Students with highest gains in PTE placed greater emphasis of importance on in-class illustration exercises and whole-group discussion.
Palmer (2006)	To investigate the relative importance of various sources of self-efficacy in a primary science methods course.	Survey: Science Teaching Efficacy Beliefs Instrument Form B (STEBI-B) and informal surveys	108 preservice elementary students enrolled in a science methods course	Significant gains in students' self-efficacy can occur in the absence of mastery experiences. The main source of self-efficacy was cognitive pedagogical mastery.

*(table continues)*



Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
Phelps (2009)	To examine the range of motivational profiles (mathematics self-efficacy beliefs and mathematics learning goals) and investigate how motivational profiles develop over time to inform teacher educators.	Mixed Methods: Survey: Patterns of Adaptive Learning Scales (PALS) and open-ended interview questions	61 preservice elementary teachers enrolled in mathematics methods course	Results from interviews indicate past performance, vicarious experiences, verbal persuasions, career goals, and the nature of mathematics in mathematics classes influenced development of self-efficacy and learning goals.
Richardson & Liang (2008)	To determine what pedagogical “design tools” are present in the inquiry-based course and to determine the impact of the inquiry-based course on preservice teachers’ efficacy beliefs about teaching mathematics and science.	Survey: Inquiry Elements Survey, the Science Teaching Efficacy Beliefs Instrument Form B (STEBI-B) and The Mathematics Teaching Efficacy Beliefs Instrument (MTEBI)	31 preservice teachers enrolled in a two-part inquiry science and methods course	The pedagogical focus of the course was inquiry-based and the preservice teacher efficacy improved significantly.

### **Methods Courses with Practicum Mastery Experiences**

Fang & Ashley (2004)	To determine effects of tutoring struggling readers on preservice teachers’ confidence as reading teachers.	Multiple methods: surveys, journals, interviews	28 preservice elementary teachers enrolled in reading courses	Preservice teachers’ confidence as reading teachers grew after tutoring.
Haverback (2007)	To explore whether differences in amount of change in reading teacher efficacy and pedagogical knowledge in reading related to different reading field experiences, tutoring or observations.	Multiple Methods: Teacher Sense of Efficacy Scale (TSES), Reading Teacher Sense of Efficacy Scale (RTSES), Content Knowledge Assessment, structured diaries and interviews	86 preservice elementary education teachers	Both tutors and observers rated themselves higher in reading efficacy beliefs and content knowledge at the end of the course. There was little difference between the amounts of change between the two groups. There was no significant correlation between reading content

*(table continues)*

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
				knowledge and reading teacher efficacy.
Li & Zhang (2000)	To investigate the effects of early field experiences on preservice teachers' teacher efficacy (TE) beliefs.	Survey: Teacher Efficacy Scale (TES), Teaching Anxiety Scale (TAS), The Perceived Cooperating Teachers' Efficacy Scale (PCTES), and the Field Experience Rating Scale	52 preservice elementary and early childhood teachers	There was a relationship between student teachers' TE beliefs and their early field experience settings, perceived cooperating teachers' TE beliefs, and their teaching anxiety.
Shaw, Dvorak, & Bates (2007)	To explore what beliefs about literacy-instruction preservice teachers have at the beginning and throughout the semester and to what degree self-efficacy of undergraduates in literacy methods courses change over the semester.	Survey and Assessment: Theoretical Orientation to Reading Profile, Teacher Self Efficacy Literacy Instruction Scale (TSELI) Questionnaire	52 preservice elementary education teachers	Self-efficacy beliefs were high at the beginning of the course and increased by the end of the course. Knowledge increased regarding alphabet, letter-sound, phonemic awareness, and direct instruction.
Swars, Smith, Smith, & Hart (2009)	To determine the effects of a teacher preparation program on preservice teachers' preparedness to teach mathematics.	Longitudinal mixed methods: Individual interviews with selected participants; The Mathematics Teaching Efficacy Beliefs Instrument (MTEBI) and the Mathematics Beliefs Instrument (MBI)	24 preservice elementary teachers	Programmatic features including a developmental two-course mathematics sequence and coordinated developmental-field placements provided a context for teacher change in beliefs.

### Studies of Student Teaching and/or Novice Teaching Experiences

Carter (2006)	To determine if student teacher's self-efficacy beliefs change significantly	Survey: Teacher Self-Efficacy Scale (TES)	100 preservice elementary and secondary education teachers	Student Teaching experiences increased teaching self-efficacy.
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*(table continues)*

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
	after student teaching and whether a relationship exists between self-efficacy beliefs of mentor teachers and student teachers.			Mentor teacher and student teachers' self efficacy beliefs were significantly and positively correlated.
Clark (2009)	To determine how preservice and inservice teachers rate their preparation program and preparedness and teacher self-efficacy.	Survey: Utah Preservice Teacher Efficacy Scale (UPTES) and Utah Inservice Teacher Efficacy Scale (UITES)	Preexisting sample of 543 elementary education graduates and 136 inservice teachers	Most preservice and inservice teachers are generally satisfied with teacher preparation programs. Literacy courses and student teaching were statistically significant in teacher-efficacy measures.
Fives, Hamman, & Olivarez (2007)	To explore relations that exist among student teachers' efficacy beliefs, burnout, perceived support from university supervisor and cooperating teacher.	Survey: Teacher Sense of Efficacy Scale (TSES), Maslach Burnout Inventory (MBI), Learning to Teach Questionnaire (LTQ), and Learning Climate Questionnaire (LCQ)	49 elementary and secondary student teachers in either one or two student teaching placements	A strong relationship exists between efficacy and factors of burnout; as efficacy increases, burnout decreases. The type and amount of support student teachers receive influences efficacy.
Helfrich (2007)	To measure differences in knowledge of literacy instruction and assessment between teacher-candidates from two teacher education programs.	Multiple Methods: Knowledge Inventory, Survey of Perceptions, Follow-up Perception Survey, telephone interviews, faculty and staff interviews	53 participants enrolled in Master of Arts in Teaching Program and 50 participants enrolled in a Professional Year Program	No significant differences were revealed on the Knowledge Inventory. Master of Arts in Teaching candidates felt more prepared to teach in all areas. Professional Year candidates felt more confidence to teach phonics.
Ingvarson, Beavis, & Kleinhenz (2007)	To identify characteristics of effective initial teacher education programs.	Survey: Teacher Preparedness Inventory (TPI) and Opportunity to Learn Scales (OLS)	1147 participants who just completed their first year of teaching	The most prepared teachers completed courses providing deep content

*(table continues)*

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
				knowledge and how students learned that content. Also identified was skill development in assessing students' levels of understanding before and after instruction and planning activities for understanding.
Knoblauch & Woolfolk Hoy (2008)	Did student teachers' self-efficacy change following student teaching based on their school setting (rural, urban, suburban) and is there a relationship between perceived cooperating teacher's efficacy and student teacher's efficacy?	Survey: Teacher Sense of Efficacy Scale (TSES) Short Form, Collective Efficacy Scale, Perceived Cooperating Teachers' Efficacy Scale	102 preservice elementary and secondary student teachers	Following student teaching experience, student teachers from all three settings experienced significant increases in efficacy measures. Perceptions of cooperating teacher's efficacy were predictive of student-teacher's efficacy scores.
Pettway (2005)	To determine the degree of satisfaction novice teachers felt regarding their abilities to demonstrate content, pedagogical, and professional knowledge. Also, to what degree they felt satisfied with field and clinical experiences.	Survey: 50-item questionnaire using 4-point Likert scale with some open-ended questions	608 elementary, junior high, and high school novice teachers	Overall, teachers were satisfied with their teacher education programs. No statistical differences were found between teachers of traditional and alternative certification. Novice teachers felt they needed more education in diversity, technology, and classroom management.
Woolfolk Hoy & Burke Spero (2005)	To determine how a sense of self-efficacy changes during student teaching and what factors in the first year of teaching	Survey: The Teacher Efficacy Scale (TES); Bandura's Teacher Self-Efficacy Scale; and	53 preservice elementary education teachers and 29 elementary novice teachers	Efficacy increased during teacher preparation and student teaching. Efficacy decreased when actually

*(table continues)*

Study	Research Purpose	Research Design	Sample/Program Characteristics	Conclusions
	relate to efficacy changes.	the OSU Teaching Confidence Scale		teaching. Field experiences and course work were considered the most valuable factors for teacher preparation.
Zientek (2007)	To determine how sense of self-efficacy, perceptions of preparedness to teach, mentoring experience, rationale for entering or staying in the profession, classroom preparation were influenced by differing routes to certification.	Survey: 3-part survey focused on demographics, self-efficacy, and perceptions of preparedness to teach using a 6-point Likert scale	1197 novice teachers	Traditional teacher preparation programs develop teachers with high sense of self-efficacy. Traditionally certified teachers felt better prepared than teachers from alternative routes; however, mentoring programs and additional experiences have minimized the differences.

## 1. Methods Courses without Practicum Mastery Experiences

Six studies focused on methods courses. For this category, methods courses did not require a field experience, which narrowed the focus to how in-classroom experiences relate to developing efficacy beliefs. Five of the six studies were focused on science or math methods courses, the sixth study was situated in an educational psychology course. Following is a review of the study characteristics for these six studies.

**Research purpose.** Each of the six studies had similar research purposes where experiences in mandatory teacher education program courses were examined for the purpose of determining factors which most influenced teacher self-efficacy and beliefs. Bleicher (2007) examined whether participation in an innovative science methods course would significantly impact science teacher self-efficacy beliefs and conceptual

understandings about science. Brand and Wilkins (2007) conducted a study where preservice elementary teachers self-reported which factors in science or math methods courses most influenced their beliefs about abilities to teach. Nietfeld and Cao (2003) designed a study to examine changes in Personal Teaching Efficacy (PTE) of preservice teachers as a result of participation in an educational psychology class to gain insight into specific instructional strategies facilitating the greatest gains on preservice teachers' PTE.

Motivated by an understanding that preservice elementary teachers tend to approach science with low confidence and avoid hands-on science instructional activities, Palmer (2006) conducted a mixed-methods study designed to investigate the relative importance of sources of self-efficacy in a primary-science methods course. Phelps (2009) designed a study to examine preservice elementary teachers' mathematics self-efficacy and learning goals (motivational profiles) and also to examine how preservice teachers' motivational profiles develop over time. Richardson and Liang (2008) conducted a study to determine whether a two-part methods course for mathematics and science for preservice elementary teachers provided inquiry-based instruction. The study also examined whether teaching self-efficacy for mathematics and science instruction was impacted by inquiry-based pedagogy.

**Research design.** Five of the six studies in this category were of a mixed-methods design, where quantitative methods analyzed self-reported survey data, and written responses explained quantitative data analysis (Bleicher, 2007; Nietfeld & Cao, 2003; Palmer, 2006; Phelps, 2009; Richardson & Liang, 2008). Only one was qualitative in its design (Brand & Wilkins, 2007). For most of these studies, methods-

course experiences were the focus of investigation in relation to preservice teachers' sense of teaching self-efficacy.

Bleicher (2007) administered three science conceptual understanding tests at four-week intervals throughout a 15-week course for his one-group pre- and post-course quantitative design. Formative assessment of teaching confidence was based on participants' reflective journals and research field notes. Summative changes in preservice teachers' science-teaching self-efficacy and outcome expectations were measured by the Science Teaching Efficacy Belief Instrument (STEBI-B) (Enochs & Riggs, 1990). Data for science conceptual understanding were analyzed using a paired sample t-test. A correlation analysis (using Pearson's  $r$ ) and an analysis of variance (ANOVA) were conducted to compare results among the three sections of the science methods course. Journal data were analyzed using an ad hoc analytic system based on the respondents' three-part protocol used for journal entries.

Neitfeld and Cao (2003) administered the 20-item Teacher Efficacy Scale (TES) (Gibson & Dembo, 1984) at the beginning and at the end of a semester-long educational psychology course. Respondents also were asked to rate which instructional strategies had the greatest influence on their Personal Teaching Efficacy (PTE) using a six-point Likert scale. Data were analyzed using Pearson's  $r$  and independent samples t-tests.

Palmer (2006) administered the Science Teaching Efficacy Belief Instrument Form B (STEBI-B) on the first and again on the last day of class. Data were analyzed using paired t-tests. Informal surveys, consisting of open-ended questions addressing content and confidence to teach, were administered three times throughout the semester. Data were coded by categories representing sources of self-efficacy.

Phelps (2009) administered the Patterns of Adaptive Learning Scales (PALS) (Midgley, et al., 2000). Based on descriptive survey data-analysis results, participants were grouped into two categories; productive and non-productive self-efficacy beliefs and learning goals. Representatives from each category participated in an open-ended response interview. Interview data were analyzed using open-coding and axial coding, while descriptive statistics were computed for survey data.

Richardson and Liang (2008) administered a researcher-developed inquiry elements survey to both course instructors and preservice teachers enrolled in a two-part science and mathematics methods course. The Science Teaching Efficacy Beliefs Instrument Form B (STEBI-B) and the Mathematics Teaching Efficacy Beliefs Instrument (MTEBI) were administered three times. Data were analyzed using repeated measures ANOVAs to determine within-subject differences. Also, three pair-wise comparisons were completed for STEBI-B and MTEBI data.

Brand and Wilkins' (2007) study was qualitative in nature where self-reported data were coded using Bandura's (1993) four sources of efficacy. Participants were asked to respond in writing to one open-ended question at the semester's end regarding a constructivist science methods course where most instructional learning activities were inquiry-based and "hands-on."

**Sample and program characteristics.** Study participants were limited to only preservice elementary and secondary education teachers. Samples for each study varied in size from 31 to 140 participants, but each consisted of preservice teachers enrolled in teacher preparation methods courses. Bleicher's (2007) study consisted of 70 preservice elementary education teachers enrolled in a three-section science methods



course. Brand and Wilkins (2007) queried 50 preservice elementary teachers pursuing certification in a Master's level elementary teacher education program. Neitfeld and Cao's (2003) study included 140 preservice elementary and secondary education students enrolled in an introductory educational psychology course, where two course sections were taught by one instructor and the other two were taught by another instructor. Palmer (2006) reported 108 preservice elementary students enrolled in a 13-week primary-science methods course consisting of lecture and workshop formats. Phelps' (2009) study was comprised of 61 preservice elementary teachers who had completed three inquiry-based mathematics-content courses and were currently enrolled in a mathematics-methods course. Richardson and Liang's (2008) study included 31 elementary preservice teachers enrolled in a two-part methods course for mathematics and science. The science and mathematics methods course was cross-disciplinary, integrated, and inquiry-based.

**Conclusions.** In general, results of these six studies provided empirical evidence to support the claim that preservice teachers' sense of teaching self-efficacy is influenced by experiences in methods courses. Bleicher (2007) found an improvement in science conceptual understanding by the end of the 15 weeks. Results suggested significant gains in both science teaching self-efficacy beliefs and science outcome expectancy. Further analysis revealed significant correlations between the post-course conceptual understanding and science teaching self-efficacy beliefs, leading Bleicher to conclude methods course design does matter, especially if participants are lacking in requisite-background knowledge.

Brand and Wilkins (2007) found participants identified constructivist, practical experiences as being most influential. Next was stress reduction, which would be characterized by Bandura (1993) as a physiological state having great influence on teaching self-efficacy beliefs. The preservice teachers indicated feeling safe within the constructivist environment to make mistakes and take risks. All sources of efficacy were referenced at some level for course-learning activities. Study authors hypothesized that vicarious learning, verbal persuasion, and physiological states served to provide a nurturing ground for the more influential mastery experiences. Implications suggest interrelatedness exists among the sources of efficacy, but without some level of mastery experience, little if any, improvement in efficacy beliefs existed.

Nietfeld and Cao's (2003) study results indicate that preservice teachers perceive active instructional strategies including (a) in-class exercises, (b) group discussion, and (c) peer collaboration rather than passive instructional strategies as being most influential on improving their Personal Teaching Efficacy (PTE). Passive strategies for instruction included (a) lecture, (b) course website, (c) textbook, and (d) textbook website. Students with the greatest gains in PTE were more aware of instructional strategies and their benefit on PTE, rating in-class exercises and whole-group discussions as the most beneficial. The textbook and companion website were rated the least beneficial. Results also determined that PTE and learning outcomes are intertwined. Lastly, the specific instructional strategies emphasized by an instructor directly influenced students' paths to increased PTE.

Palmer's (2006) study suggests the main source of self-efficacy in this science methods course was cognitive pedagogical mastery. Formal survey results indicated

preservice teachers' science teaching self-efficacy significantly improved as a result of participating in the class, despite the absence of enactive mastery experiences.

However, based on Bandura's (1997) assertion that simulated modeling could be considered a form of mastery experience, enactment of science teaching pedagogy with primary-aged children or college-student peers is desirable.

Phelps' (2009) results support prior research, indicating respondents believe that previous mastery experiences, vicarious experiences, and verbal persuasions influenced the development of their motivational profiles. Career goals, a perception that course content is important for future teaching goals, as well as how closely personal views of math are aligned with the constructivist nature of the methods course also influences mathematics self-efficacy and learning goals. Additionally, those who held the most productive motivational profile versus those with the least productive motivational profile differed due to their prior experiences in the three mathematics content courses. Results suggest teacher educators may have a great deal of influence on preservice teachers' self-efficacy beliefs and learning goals.

Richardson and Liang (2008) found that integrated science and mathematics methods course did implement inquiry-based pedagogy for both mathematics and science instruction. Statistically significant results suggested that cross-disciplinary, inquiry-based methods courses in mathematics and science can positively influence preservice teaching self-efficacy.

## **2. Methods Courses with Practicum Mastery Experiences**

Five studies focused on methods courses and related field experiences. Each examined one or more methods course required for completion of a teacher education

program. Each methods course provided field experiences where preservice teachers worked with students in real-world contexts, which created opportunities to experience and see themselves successfully completing a task. According to Bandura (1993, 1997), this mastery experience is the most powerful for developing teacher efficacy. A review of these studies' characteristics follows.

**Research purpose.** All studies examined some aspect of field experiences and their effect on confidence or a sense of teaching self-efficacy; one specifically examined how preservice teachers' beliefs changed throughout the course of a semester. Fang and Ashley (2004) studied to what extent preservice teachers' confidence as teachers of reading was affected by experiences from tutoring struggling readers. Haverback (2007) examined both teaching self-efficacy and reading content knowledge to determine how each was affected by tutoring as opposed to field observations. Essentially, does observing or one-on-one tutoring in reading cause changes in efficacy beliefs.

Li and Zhang's (2000) study focused on several variables and their effects on teaching self-efficacy, including relationships of early field experience ratings, perceived cooperating teachers' efficacy beliefs, and teaching anxiety levels on a sense of teaching self-efficacy. Shaw, Dvorak, and Bates (2007) examined how preservice teachers' beliefs changed throughout the semester while participating in a 10-hour field experience practicum. This study also attempted to determine preservice teachers' knowledge about reading development and instructional strategies, noting whether these changed following instruction. Swars, Smith, Smith, and Hart (2009) studied the effects of a cohort pre-endorsement program on preservice teachers' preparedness to teach

mathematics by looking at several variables including (a) teaching mathematics for understanding, mathematics pedagogy and teaching efficacy beliefs, (b) mathematics anxiety, and (c) specialized content knowledge for teaching mathematics.

**Research design.** Four of the five studies measured single or multiple variables and their influence on preservice teachers' confidence and teaching self-efficacy (Haverback, 2007; Li & Zhang, 2000; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009). Haverback collected data using an adaptation of the Teacher Sense of Efficacy Scale (TSES) for a domain specific measure in reading; specifically, the Reading Teacher Sense of Efficacy Scale (RTSES) as a pre- and post-test measure. Also, a pre- and post-test for content reading knowledge was administered. Data were analyzed using repeated measures ANOVA.

Li and Zhang (2000) collected data using four instruments (a) the Teacher Efficacy Scale (TES), (b) the Teaching Anxiety Scale (TAS), (c) the Perceived Cooperating Teachers' Efficacy Scale (PCTES), and (d) a researcher-designed Early Field Experience Rating Scale. The TES and TAS were administered at the beginning and again at the end of the semester. The PCTES and the Early Field Experience Rating Scale were administered only at the semester's end. Data were analyzed using a t-test for paired samples for pre- and post-test TES ratings. Three ANCOVA procedures were used to analyze relationships between TES ratings, perceived cooperating teachers' teacher efficacy, and teaching anxiety.

Shaw, Dvorak, and Bates (2007) administered the Theoretical Orientation to Reading Profile (TORP) (DeFord, 1985) and the Teacher Sense of Efficacy for Literacy

Instruction Scale (TSELI) (Tschannen-Moran & Johnson, 2011) at the beginning and again at the end of the semester. Histograms, Chi-square tests, and paired-samples t-tests were used to analyze data. Swars, Smith, Smith, and Hart (2009) collected data using four instruments; three were survey instruments using Likert scales and one was designed to assess knowledge by presenting mathematical tasks typical of what teachers might encounter in the classroom. During a four-semester, cohort pre-endorsement program, the Mathematics Beliefs Instrument (MBI) and the Mathematics Teaching Efficacy Beliefs Instrument (MTEBI) were administered on four occasions; the Mathematics Anxiety Rating Scale (MARS) was given three times only and the Learning Mathematics for Teaching Instrument (LMTI) was administered once at the end of the final semester of student teaching. Data were analyzed using descriptive statistics and Pearson's product moment correlation analysis ( $r$ ).

Three studies included some form of qualitative measures within a quantitative-dominant approach to explain the data (Haverback, 2007; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009). Haverback required each participant to complete a series of structured journal entries following each tutoring or observation session for purposes of reflection. Data were analyzed by counting strategies reported by preservice teachers. Shaw, Dvorak, and Bates (2007) asked participants to complete an open-ended, short-answer questionnaire for the purpose of documenting students' reading knowledge. Data were coded by emerging themes and pertinent categories were established. Swars, Smith, Smith, and Hart (2009) interviewed six respondents representing those with the greatest positive change in personal teaching efficacy scores and those with either no change or a decrease in the scores. Interviews were conducted

using ethnographic methods and were coded for specific statements of (a) beliefs about the usefulness and appropriateness of social-constructivist pedagogy, (b) personal teaching efficacy beliefs, and (c) evidence of confidence in understanding mathematics teaching.

One study primarily used a qualitative design (Fang & Ashley, 2004). During a field experience, two tutors were assigned to one student, each taking turns teaching for 45 minutes one time per week while the other observed and took notes. The paired tutors debriefed following each lesson and reflective discussions with other tutors in the class then followed. Data collected using journal notes, surveys, and interviews were coded by Bandura's (1993) four sources of efficacy.

**Sample and program characteristics.** All of the studies' samples were limited to preservice elementary education teachers. In Fang and Ashley's (2004) study, 28 preservice teachers enrolled in reading courses during reading block were required to participate in a tutoring experience involving struggling readers. Haverback (2007) studied 86 preservice teachers, of which 40 were engaged in tutoring field experiences and another 46 participated in observation of literacy teachers during field experiences. Participants in Li and Zhang's (2000) study included 52 sophomore-level students majoring in elementary and early childhood education. Preservice teachers were randomly assigned to two elementary schools, which participants attended six times throughout the semester for a half-day. Shaw, Dvorak, and Bates (2007) studied efficacy beliefs of 52 preservice teachers who were enrolled in a reading methods course designed to bridge understanding of the relationship between reading, writing, and spelling. Swars, Smith, Smith, and Hart's (2009) study included 24 preservice

elementary teachers enrolled in a four-semester cohort pre-endorsement program which included two mathematics methods courses, three mathematics content courses, and a final semester of student teaching. The methods courses were designed to challenge existing beliefs about elementary mathematics curriculum by placing emphasis on a conceptual focus in the context of problem-solving and discourse about children's thinking strategies.

**Conclusions.** Fang and Ashley (2004) found that tutors' self-efficacy as reading teachers improved as a result of participation involving mastery experiences, verbal persuasion, and vicarious experiences. Stress also was reduced because of the peer support provided by placing tutors in pairs.

Haverback (2007) found that both the tutoring and observation groups of participants in field experiences rated themselves higher in reading teacher efficacy as a result of their experiences and also improved in their reading content knowledge. When comparing reading teacher efficacy scores and content knowledge of each group, no significant differences in scores were found; however, surprisingly, those actually participating in mastery experiences of one-on-one tutoring with struggling readers rated themselves lower in efficacy beliefs than those involved in vicarious experiences of observing. It is noteworthy that tutors were not given structured formats for tutoring, but rather had complete autonomy to explore and design instructional practices for struggling readers using theories and strategies learned in class to apply to their specific situations. In effect, this tutoring experience was more representative of student teaching and/or novice teaching mastery experiences; however, assistance and feedback in the form of verbal persuasion were lacking. In retrospect, efficacy scores logically



would be lower (not higher) for the group involved in mastery experiences of tutoring than those participating in vicarious experiences (observing), because the latter did not have their teaching beliefs challenged. Also, factor analysis revealed that the RTSES only measured two factors predetermined to be reading motivation and reading assessment, which may not completely represent the essence of reading instruction.

Li and Zhang's (2000) results indicated a correlational relationship between preservice teachers' teacher efficacy (TE) beliefs, early field experience settings, perceived cooperating teachers' TE beliefs, and teaching anxiety. Preservice teachers with high (low) early field experience ratings also had higher (lower) TE beliefs. Also, preservice teachers with high (low) perceived cooperating TE beliefs had higher (lower) TE beliefs. Lastly, those preservice teachers with high teaching anxiety had significantly lower TE beliefs. The reverse was true for those with low scores.

Shaw, Dvorak, and Bates' (2007) results revealed a moderate relationship between pre- and post-efficacy measures. All preservice teachers began with fairly high self-efficacy scores, which as a result of formal learning, continued to improve throughout the methods course. Variation in preservice teachers' theoretical orientation did vary, suggesting that formal knowledge may actually affect preservice teachers' beliefs.

Swars, Smith, Smith, and Hart's (2009) findings suggest that taking a second methods course allowed time for preservice elementary teachers to become more comfortable with social-constructivist pedagogy. Methods-course instructional design consisted of viewing in-class videos and observing successful models of mathematics instruction provided by the university instructor, as well as cooperating teachers in their

field placements. In addition, field experiences provided ample opportunities for successful experiences in teaching mathematics. Upon completion of all mathematics content and methods courses, results from the multidimensional measures indicated specialized content knowledge were positively correlated with cognitively-oriented pedagogical beliefs and personal teaching efficacy beliefs, suggesting complex, interrelatedness of teachers' beliefs and knowledge. As preservice teachers expanded their knowledge base in mathematics, increased confidence in their abilities to teach and understand cognitively-oriented pedagogical beliefs was achieved.

### **3. Studies of Student Teaching and/or Novice Teaching Experiences**

Consisting of nine studies, this category focused on student teaching and/or novice teaching experiences and their respective influence on teaching self-efficacy beliefs. Not surprising, every study focusing on student teaching experiences revealed significant, positive changes in teaching self-efficacy beliefs as a result of the experience. A review of the study characteristics follows.

**Research purpose.** Each study examined perceptions of preparedness to teach and/or teaching self-efficacy in the student and/or novice teaching experience. Three of these studies focused solely on student teaching experiences (Carter, 2006; Fives, Hamman, & Olivarez, 2007; Knoblauch & Woolfolk Hoy, 2008). Three other studies began with student teaching experiences and followed participants into their initial year of teaching (Clark, 2009; Helfrich, 2007; Woolfolk Hoy & Burke Spero, 2005). The remaining three studies examined novice teachers' perceptions of preparedness and teaching self-efficacy (Ingvarson, Beavis, & Kleinhenz, 2007; Pettway, 2005; Zientek, 2007). Following is a discussion of each.

***Student-teaching experiences.*** Carter (2006) investigated whether preservice teacher's beliefs changed significantly after student teaching. The relationship between student teachers' teaching self-efficacy beliefs and perceptions of their mentor teachers' personal teaching efficacy beliefs also was studied. Knoblauch and Woolfolk Hoy (2008) also examined teaching self-efficacy beliefs after student teaching, but with a focus on the influence of the school setting (urban, suburban, and rural), the school's collective, teaching self-efficacy, and the perceptions of the cooperating teachers' sense of teaching self-efficacy. Fives, Hamman, and Olivarez (2007) designed a study testing their hypothesis that teacher-burnout may begin as early as student teaching.

***Longitudinal studies.*** Clark (2009) conducted a three-fold study. First, the reliability and validity of the Utah Teacher Efficacy Scale (UTES) were tested and then teaching self-efficacy was analyzed using the UTES at the end of student teaching and again after the first year of full-time teaching. Finally, the influence of school context variables on teaching self-efficacy was examined. Helfrich (2007) studied the differences between two groups of preservice teachers with regard to their knowledge in reading instruction and perceived preparedness to teach reading. Woolfolk Hoy and Burke Spero (2005) designed a longitudinal study to determine whether a sense of teaching self-efficacy changes during student teaching and, if so, what factors in the first year of teaching relate to changes in efficacy.

***Novice-teaching experiences.*** Ingvarson, Beavis, and Kleinhenz (2007) explored the characteristics of successful initial teacher education programs for the purpose of guiding policy-makers regarding appropriate standards for accreditation. Specifically, to what extent teacher education program components contributed to

variation in teachers' ratings regarding their feelings of preparedness to teach were examined. Similarly, Pettway (2005) studied the extent to which novice teachers expressed satisfaction with their abilities to assist all students with content, pedagogical, and professional knowledge. Zientek's (2007) study hoped to corroborate the previous research findings of Darling-Hammond, Chung, and Frelow (2002) with regard to how teacher certification routes influence perceptions of preparedness to teach and a sense of teaching self-efficacy. Zientek's (2007) study differed in that participants were from another state with data collected from respondents about their certification program, rationale for entering the profession of teaching, and their mentoring experience. Additionally, the influence that program components, former classroom experiences, and mentoring had on teachers' feelings of preparedness was examined.

**Research design.** Every study collected data using one or more survey instruments. Most studies used recognized data-collection instruments; however, in two cases, the researcher created the data-collection tool (Helfrich, 2007; Pettway, 2005). Both studies added some form of qualitative data collection. A discussion of each follows.

***Student-teaching experiences.*** Carter (2006) used the Teacher Sense of Efficacy Scale (TSES) (Tschannen-Moran & Woolfolk Hoy, 2001) and the Perceived Cooperating Teacher Efficacy Scale (PCTES) (Li & Zhang, 2000). Data analysis included descriptive statistics, a paired t-test, and Pearson's product moment correlation ( $r$ ). Fives, Hamman, and Olivarez (2007) used four instruments for data collection at two points during a 12-week student teaching practicum including (a) the Teacher Sense of Efficacy Scale (TSES), (b) Maslach Burnout Inventory (MBI), (c) the

Learning To Teach Questionnaire (LTQ), and (d) the Learning Climate Questionnaire (LCQ). Data were analyzed using correlational analysis, repeated measures Multiple Analyses of Variance (MANOVA), and stepwise regression.

***Longitudinal studies.*** Clark (2009) used the Utah Teacher Efficacy Scale (UTES) comprised of five first-order factors representing multiple subject matters, which contribute to a general teaching efficacy score. Data were collected at the completion of a teacher preparation program and again after the first year of full-time teaching. Analyses included descriptive statistics and analysis of variance (ANOVA). Helfrich (2007) used a knowledge inventory and a perceptions survey to collect data upon completion of a teacher preparation program and again after three months of full-time teaching. Data were analyzed using t-tests for independent means. Woolfolk Hoy and Burke Spero (2005) repeatedly collected data at the teacher preparation program's beginning, at the end of student teaching, and upon completion of the first year of teaching. Data instruments included the Teacher Efficacy Scale (TES) (Gibson & Dembo, 1984), the Bandura Teacher Self-Efficacy Scale (Bandura, 1997), and the OSU Teaching Confidence Scale (Woolfolk Hoy & Burke Spero, 2005). Factor analysis was conducted for the TES, but not the Bandura Teacher Self-Efficacy Scale due to a small sample size. Descriptive statistics were conducted for all data.

***Novice-teaching experiences.*** Ingvarson, Beavis, and Kleinhenz (2007) collected data using the Teacher Preparedness Inventory (TPI), and the Opportunity to Learn Scale (OLS) to novice teachers who had taught one year and were now one month into their second year of teaching. Data were analyzed using descriptive statistics and multiple regression analysis. Knoblauch and Woolfolk Hoy (2008) used

a combination of efficacy measures to collect data three times during student teaching from three separate school settings including (a) the Teacher Sense of Efficacy Scale – short form (TSES), (b) the Collective Efficacy Scale, and (c) the Perceived Cooperating Teachers’ Efficacy Scale (PCTES). Data analyses consisted of descriptive statistics, paired-samples t-tests and independent-samples t-tests. Multiple regression analysis was used to determine predictive factors of student teachers’ sense of efficacy after student teaching. Pettway (2005) designed a 50-item survey referencing the National Council for Accreditation of Teacher Education (NCATE, 2002) to collect data from novice teachers with less than three years of experience. Data were analyzed using descriptive and inferential statistics. Multivariate analysis of variance technique (MANOVA) was conducted to determine multivariate relationships between independent variables. Zientek (2007) used the same survey instrument as Darling-Hammond, Chung, and Frelow’s (2002) five-factor scale, with slight modifications including a change from a five-point Likert scale to a six-point scale. Data were analyzed using multivariate analysis of variance (MANOVA) and canonical correlation analyses (CCA).

*Qualitative measures.* Helfrich (2007) collected and coded qualitative data using telephone interviews of novice teachers, faculty, and staff to help explain the quantitative data. Pettway (2005) added open-ended questions to assess teacher perceptions of overall satisfaction with their teacher preparation programs. Data were tabulated by the number of responses having similar answers and coded based on frequency of responses.

**Sample and program characteristics.** For the three studies focused on student-teaching experiences, all included preservice elementary- and secondary-education students enrolled in the final semester of student teaching. Carter's (2006) sample consisted of 100 respondents; Fives, Hamman, and Olivarez (2007) included 49; and Knoblauch and Woolfolk Hoy (2008) queried 102 participants.

Longitudinal studies followed preservice elementary education teachers into their first full-time teaching experiences. Clark (2009) sampled 543 elementary-education graduates and one year later queried 136 novice teachers emerging from the previous sample. Helfrich's (2007) study participants consisted of two groups of preservice teachers enrolled in either a Master of Arts teaching program (53 respondents) or a Professional Year program (50 respondents) offered at the same university. Woolfolk Hoy and Burke Spero's (2005) study began with 53 preservice teachers enrolled in a Master's of Education initial teaching certification program and placed in urban settings with diverse populations for a year. After their first year of teaching, 29 of these teachers participated in the final data collection for the study.

For Ingvarson, Beavis, and Kleinhenz's (2007) study, all universities in a region of Australia were represented in a sample of 1147 first-year teachers. Pettway's (2005) study population consisted of 608 elementary, middle school, and high school novice teachers employed at three public school systems in Alabama. Zientek (2007) used a convenience sample of 1197 novice teachers in their first three years of teaching to obtain a stratified sampling of Texas regions. Participants represented teacher certification programs from traditional and alternative teacher-certification pathways.

**Conclusions.** Similar to the previous studies discussed which focused on mastery teaching experiences, the nine studies in this category revealed relationships between real-teaching experiences and a sense of teaching self-efficacy and/or preparedness to teach. A review of study characteristics for each follows.

*Student-teaching experiences.* Carter (2006) found a significant increase in personal teacher-self efficacy beliefs, which suggests that student teaching does provide critical opportunities for preservice teachers to develop personal beliefs related to their teaching ability. Results also confirmed a single factor of personal teaching self-efficacy emerged when using the TSES to measure preservice teachers' self-efficacy beliefs, despite their lack of background teaching experiences. Also, a positive correlation between preservice teachers' post student teaching efficacy belief and perceptions of their mentors' teaching self-efficacy belief existed. The author emphasized the significant influence a cooperating teacher exerts on preservice teachers; through daily contact, preservice teachers may be more influenced by cooperating teachers than all previous university supervisors combined.

Fives, Hamman, and Olivarez's (2007) study suggests a significant, negative relationship exists between efficacy and burnout factors. Specifically, as teacher efficacy beliefs increased, degrees of burnout decreased. Also, significant changes occurred over time with respect to student teachers' perceptions of efficacy, burnout, and perceived levels of cooperating teacher and university supervisor support. Those student teachers receiving higher levels of guidance from their cooperating teacher at the beginning of their experience, exhibited higher levels of efficacy for instructional practices at semester's end. The study suggested that cooperating teachers benefit in



receiving explicit instruction for how to provide guidance for the student teachers with whom they work. Time between the first and second data collection suggests that student teachers' efficacy beliefs increased, which seems to support the need for opportunities to engage in safe, mastery experiences.

Results for Knoblauch and Woolfolk Hoy's (2008) study indicated student teachers from three settings (urban, suburban, and rural) experienced significant increases in efficacy beliefs. Given most of the research focused only on suburban settings, these findings are especially encouraging. Urban-student teachers generally reflected significantly lower perceived collective teacher-efficacy when compared with the rural and suburban settings. The authors suggest more research is needed to examine how a school's collective agency may influence student teachers' emerging-efficacy beliefs. Similar to Carter's (2006) study, findings revealed that student teachers' sense of efficacy was positively correlated with the perceived cooperating teachers' efficacy beliefs. Data analyses suggest that student teachers, who viewed their cooperating teachers as efficacious, were themselves more efficacious at the conclusion of their student teaching experience.

*Longitudinal studies.* Initially, preservice teachers reported high teacher self-efficacy in Clark's (2009) study; however, in a follow-up survey with the same participants, teacher efficacy declined after one year of teaching, suggesting a need for improvement in preparing preservice teachers for the realities of teaching. When evaluating teacher preparation program characteristics for importance over time (i.e., type of student teaching experience, number of student teaching placements, and number of literacy methods courses taken), only the number of literacy methods courses

taken proved a statistically significant advantage in securing and maintaining high teacher efficacy over time in the areas of global and reading teacher self-efficacy. Taking three literacy methods courses, rather than two, seems to result in higher teacher self-efficacy. With regard to feelings of preparedness and teacher efficacy, both preservice and inservice teachers rated the highest means scores for teaching basic knowledge and skills, and also, engaging students in cooperative work, suggesting content knowledge learned in literacy courses was positively correlated with teacher self-efficacy. Findings also suggest that professional development and mentoring support, if perceived as useful and helpful, had both a positive and statistically significant correlation with teacher efficacy.

Helfrich's (2007) study results did not reflect any differences in reading knowledge; teacher candidates from the Master of Arts in Teaching program and the Professional Year Program viewed themselves as adequately prepared to teach reading. After three months of inservice teaching, this level of confidence declined. Participants from both programs indicated coursework and field experiences were the most valuable components of their programs, though many expressed concerns with lack of confidence for spelling and writing instruction, differentiating instruction using assessment as a basis, and differentiating instruction to address specific needs of diverse learners.

Woolfolk Hoy and Burke Spero (2005) found that perceptions of confidence increased during the teacher education program including student teaching, but declined during the first full year of inservice teaching. However, on the OSU Teaching Confidence Scale, confidence rose during both the teacher education program and

student teaching and held constant after one year of teaching. Woolfolk Hoy and Burke Spero (2005) questioned whether the Teaching Confidence Scale is an accurate measure of perceived efficacy. Also, worth noting is the TES has come under scrutiny recently because of construct validity and measurement problems. Tschannen-Moran and Woolfolk Hoy (2001) note that reliability and validity information about Bandura's Teacher Self Efficacy Scale was not available at the time of publishing. The authors identify a study limitation as a small sample size from only one teacher preparation program.

*Novice-teaching experiences.* Ingvarson, Beavis, and Kleinhenz's (2007) study found that, in general, respondents viewed preservice teacher education favorably, though room for improvement exists. Findings did reveal significant variations between teacher education programs with regard to reported effectiveness. Specifically, significant variations existed between teacher-education courses taught in different universities. Opportunities to learn through feedback from university instructors during the teacher education course, as well as the quality of teaching throughout the course were statistically significant. Findings suggest an emphasis on reflective teaching alone is not sufficient to substitute for the nature of feedback and insights that university instructors could and probably should provide. Also, modeling of effective teaching practices with a link to the practicum component was significantly related to course effectiveness. The strongest and most consistent influence on feelings of preparedness to teach was the extent to which the preservice methods course focused on content knowledge and the pedagogical content knowledge required for teachers to effectively assist their students in learning subject matter with deepened understanding.

Essentially, critical features of effective courses were the quality of opportunities and processes for learning what and how to teach, modeling effective instructional practices with links to real-world situations, and quality opportunities for feedback when practicing new teaching strategies.

Pettway's (2005) findings suggest teachers were satisfied overall with their teacher preparation programs. Most respondents (77%) indicated they would teach again, although no statistical differences were found among certification routes. Participants reported a need for more training in diversity, technology, and effective classroom management.

For Zientek's (2007) study, the results suggest that traditional teacher education programs develop teachers with a higher sense of self-efficacy and greater determination to remain in the teaching profession. For both Darling-Hammond, Chung, and Frelow's (2002) and Zientek's (2007) studies, an overall sense of preparedness to teach was the strongest predictor of teaching self-efficacy. Traditionally-certified teachers felt more prepared to teach than those participants who followed nontraditional pathways. However, nontraditionally-certified teachers' positive mentoring experiences and prior classroom experiences contrasted with overall less positive mentoring experiences for traditionally-certified teachers. Also, variations between traditional teacher certification programs may have minimized the variation between the pathways. Results clearly indicate variations in perceptions of preparedness to teach exist between traditional certification programs, leading Zientek (2007) to conclude that identification of the teacher preparation programs' strengths and weaknesses is critical for improvement in education. To improve teacher education

programs, research should address the following components: (a) content knowledge, (b) pedagogical background, (c) mentoring experience, (d) field experience, and (e) teaching self-efficacy.

## **Discussion**

All students need access to high-quality, highly-efficacious teachers. Teacher candidates must feel high efficacy for teaching in any and all settings. The research literature reviewed has provided evidence of the significance for many factors of teacher education programs associated with preservice teachers and their perceptions of teaching self-efficacy. Four areas emerged as significantly related to teacher-candidates' perceptions of preparedness and teacher self-efficacy included (a) content knowledge, (b) methods course design, (c) mentoring support, and (d) practicum-field experiences.

### **Content Knowledge**

Evidence from this review synthesis reveals that methods course content matters. All studies reviewed content knowledge and its relationship to efficacy in some capacity. In each, content knowledge was significantly linked to increased teacher self-efficacy. Shaw, Dvorak, and Bates (2007) concluded that formal learning increased teacher self-efficacy scores and caused some fluctuation in preservice teachers' theoretical orientation. Both Bleicher (2007) and Brand and Wilkins (2007) found a strong, interactive relationship between content knowledge and teacher self-efficacy. A majority of these studies determined that content knowledge is essential and must be considered relevant for future practice by preservice teachers (Bleicher, 2007; Brand & Wilkins, 2007; Clark, 2009; Haverback, 2007; Helfrich, 2007; Ingvarson,

Beavis, & Kleinhenz, 2007; Palmer, 2006; Pettway, 2005; Phelps, 2009; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009; Zientek, 2007). In addition, the result of interaction between teaching domain-specific pedagogy in concert with content knowledge produces significant increases in teacher self-efficacy and perceptions of preparedness to teach (Bleicher, 2007; Clark, 2009; Ingvarson, Beavis, & Kleinhenz, 2007; Palmer, 2006; Pettway, 2005; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009).

Swars, Smith, Smith, and Hart (2009) determined that increased numbers of math methods courses contributed significantly to increased math-teacher self-efficacy and perceptions of preparedness to teach math. Clark (2009) looked across institutions and teacher-education programs and concluded that the number of literacy courses (three preferred over two) taken was positively and significantly correlated across many factors contributing to teacher self-efficacy; however, the nature and content of these courses were not included in the study. Both studies attribute this finding to increased exposure to both content knowledge and its related pedagogical knowledge. Based on this sizeable, corroborating research, relevant content knowledge taught in concert with pedagogical knowledge are critical for developing and supporting increased teacher self-efficacy and perceptions of preparedness to teach. Further investigation of how content knowledge is taught in literacy courses situated in a wider sample of teacher preparation programs would be beneficial to examine the relationships between literacy instruction self-efficacy, content knowledge, and teacher preparation programs.

## **Methods Course Design**

Several components of methods course designs were identified as significant for increasing teacher knowledge and teacher self-efficacy scores. Opportunities to learn through inquiry-based instruction, positioned within a social-constructivist framework where existing beliefs were challenged significantly influenced teacher self-efficacy (Bleicher, 2007; Brand & Wilkins, 2007; Phelps, 2009; Richardson & Liang, 2008; Swars, Smith, Smith, & Hart, 2009). Participants reported that inquiry-based classrooms provided feelings of safety which fostered confidence to attempt new learning and teaching practices. Respondents also indicated the mentoring-assistance and feedback provided by instructors in constructivist classrooms bolstered confidence when encountering challenging learning tasks (Bleicher, 2007; Fang & Ashley, 2004; Ingvarson, Beavis, & Kleinhenz, 2007).

Interactive, hands-on experiences linked to real-world situations provided a foundation supporting increased efficacy (Bleicher, 2007; Brand & Wilkins, 2007; Nietfeld & Cao, 2003; Richardson & Liang, 2008; Swars, Smith, Smith, & Hart, 2009). Participants reported in-class exercises and whole-group discussions were most beneficial for their learning; hence beneficial for increasing teacher self-efficacy. As expected, in-class modeling linked to real-world experiences also was identified as significant for increasing content knowledge, pedagogical knowledge and efficacy (Ingvarson, Beavis, & Kleinhenz, 2007; Palmer, 2006; Phelps, 2009; Richardson & Liang, 2008). Additionally, integration of content knowledge representing two or more disciplines resulted in higher efficacy and content knowledge (Bleicher, 2007; Richardson & Liang, 2008).

Generally, methods courses should address all four sources of self-efficacy including vicarious experiences, verbal persuasion, and physiological states (e.g., reduction in stress), which when combined, provide a nurturing context for effective mastery experiences (Bleicher, 2007; Brand & Wilkins, 2007; Fang & Ashley, 2004; Haverback, 2007). Bandura (1993, 1997) asserts mastery experiences are the most influential for increasing teacher self-efficacy. In most cases each of the studies included some form of mastery experiences for in-class instructional activities. These included hands-on guided experiences (Bleicher, 2007; Brand & Wilkins, 2007; Nietfeld & Cao, 2003; Richardson & Liang, 2008; Swars, Smith, Smith, & Hart, 2009) and simulations (Palmer, 2006). Five studies incorporated mastery experiences linked to course design in the form of practicum field experiences (Fang & Ashley, 2004; Haverback, 2007; Li & Zhang, 2000; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009). Four of these studies reported significant increases in teacher self-efficacy as a result of field experiences. Haverback's (2007) study examined a tutoring experience more representative of inservice teaching, so teacher self-efficacy not surprisingly decreased.

Components of teacher education programs significantly influences teacher self-efficacy and variations in these programs produce significantly different results (Ingvarson, Beavis, & Kleinhenz, 2007; Zientek, 2007). Clark (2009) noted the number of literacy methods courses taken significantly influenced perceptions of preparedness; however, in most cases, studies focused on individual courses or a sequence of methods courses within one setting. Investigating the nature of course design as one component



in a study designed to compare variations in multiple teacher preparation programs would be beneficial.

### **Mentoring Support**

What is evident from this research synthesis is the importance of the cooperating teacher. Studies found a significant correlation between student teachers' sense of teacher self-efficacy and their perceived cooperating teachers' self-efficacy (Fives, Hamman, & Olivarez, 2007; Knoblauch & Woolfolk Hoy, 2008). Fives, Hamman, and Olivarez (2007) also determined that student teachers receiving higher levels of guidance by the cooperating teacher and university supervisor, beginning with their field experience, exhibited higher levels of efficacy for instructional practices. Clark (2009) reported those novice teachers who viewed the professional development and mentoring support as useful, had a positive and statistically significant correlation with teacher efficacy.

Results in several studies' lead researchers to conclude the design of the constructivist course work and the professors' mentorship-type support, provided students with feelings of safety, which fostered confidence to take risks when engaging in challenging learning tasks (Bleicher, 2007; Fang & Ashley, 2004; Ingvarson, Beavis, & Kleinhenz, 2007; Phelps, 2009). In each case mentorship-type support contributed to increased content knowledge and higher scores in teacher self-efficacy. Zientek (2007) found that unlike non-traditionally certified teachers, most teachers from traditional teacher preparation programs lacked any form of substantial mentorship during their coursework and teacher preparation endeavors. Fives, Hamman, and Olivarez (2007) found that student teachers receiving higher levels of guidance and support from their

cooperating teacher and university supervisor significantly increased teacher self-efficacy.

Two studies found participants' perceptions of their university supervisors' and/or cooperating teachers' self-efficacy positively and significantly influenced student teachers' self-efficacy beliefs (Carter, 2006; Knoblauch & Woolfolk Hoy, 2008; Li & Zhang, 2000). This finding suggests cooperating teachers may wield the greatest impact on preservice teachers due to daily contact; possibly greater influence than all previous university instruction combined (Carter, 2006). This is not surprising given the cooperating teacher's position to influence and shape all four sources of self-efficacy present in the student teaching experience. As Bandura (1986) stresses, perceptions can be more significant than an actual event. University and/or cooperating teachers have much power to influence the perceptions of their respective preservice teachers. According to Carter (2006), this area of research focused on perceived teacher self-efficacy consists of few studies and asserts this area is in great need of additional empirical research. Also, this small body of research is limited to only university supervisors and cooperating teachers. A study conducted in multiple sites with a broader focus to capture data related to perceived teacher self-efficacy of university literacy-methods course professors, university supervisors, and cooperating teachers and its impact on preservice teachers' sense of literacy teaching self-efficacy would be valuable. Given the significant findings in this collection of studies, further examination of mentoring support received throughout teacher preparation programs and its relationship to development of literacy instruction self-efficacy would be very beneficial.

## **Practicum Field Experiences**

In all cases, teacher self-efficacy scores increased as a result of field experiences associated with methods courses and also student teaching experiences, regardless of design (Carter, 2006; Clark, 2009; Fang & Ashley, 2004; Fives, Hamman, & Olivarez, 2007; Haverback, 2007; Ingvarson, Beavis, & Kleinhenz, 2007; Knoblauch & Woolfolk Hoy, 2008; Li & Zhang, 2000; Pettway, 2005; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009; Woolfolk Hoy & Burke Spero, 2005; Zientek, 2007). Based on findings in Clark's (2009) study, student teacher design, traditional versus intern, as well as one-placement versus two, yielded significant results; however, effect sizes were low. In the longitudinal studies including investigations of novice teaching beliefs, scores for teacher self-efficacy decreased during inservice teaching (Clark, 2009; Woolfolk Hoy & Burke Spero, 2005). Knoblauch and Woolfolk Hoy (2008) found that placement in urban, suburban and rural student teaching placements yielded significant increases in teacher self-efficacy, regardless of placement context. Clearly, field experiences contribute to increased teacher self-efficacy; however, are teacher education programs realizing the greatest potential in their designs for how practicum field experiences are implemented? Investigating the nature of field experiences and their links to teaching methods courses across multiple teacher education programs would be beneficial and should be studied.

### **Summary**

This body of research points toward the significant role teacher self-efficacy plays in the development of professional educators because of its direct impact on so many areas influencing teaching practices. Though the idea of teacher self-efficacy is

simple, its implications are significant. Teacher efficacy has been correlated with student achievement outcomes and is a primary predictor of student success (Allinder, 1994; Midgley, Kaplan, & Middleton, 2001). Highly-eficacious teachers demonstrate distinct characteristics of effort and perseverance as environments and communities for learning are developed (Bandura, 1993, 1997).

What is evident from this research review is that new teachers need high-quality experiences in teacher education programs preparing them for the realities of teaching. Experiences which support higher teacher self-efficacy are critical. The studies in this research synthesis provide valuable information for identifying experiences in teacher preparation programs which yielded positive, significant influence on teacher self-efficacy; however, these studies were limited, in many cases, due to small sample sizes, or were conducted in isolated methods courses, and/or were situated in only one teacher preparation program. Given the foundational importance of literacy instruction for all learning, examining factors influencing self-efficacy development in the literacy-instruction domain is critical. Little has been completed to identify what components of teacher preparation programs contribute to a sense of literacy instruction self-efficacy.

Many studies have established that self-efficacy and methods course design in literacy are positively and moderately correlated; however, these studies generally examined only one course within one teacher education program. To continue this line of research is important through a more comprehensive lens focused on multiple teacher education programs to consider which designs nurture preservice teachers' sense of literacy instruction efficacy; specifically, preservice teachers who are in the beginning stages of their literacy teaching career (Szabo & Mokhtari, 2004).

Great variation exists among teacher education programs (Ingvarson, Beavis, & Kleinhenz, 2007). Zeichner and Conklin (2005) found that studies looking across teacher preparation programs to compare and contrast differences were absent from the research literature. Additional studies are needed to compare teacher preparation program characteristics so that teacher self-efficacy can be intentionally promoted. Clark (2009) suggested additional program variables might include how closely practicum experiences connect to methods courses, preservice teachers' perceived efficacy of university-teaching personnel and cooperating teachers, the nature of cooperating teacher and university-supervisor support, and the instructional design of literacy methods courses. Also, the relationship between teacher efficacy and preparedness to teach literacy should be a focus of study. In addition, opportunities to further investigate the factor structure of instruments measuring preservice-literacy instruction self-efficacy is warranted to ensure collection of valid and reliable data in future studies; especially, given the importance of literacy as the vehicle for instruction.

Though the research appears clear, too frequently teacher preparation programs have not been impacted by its findings. For preservice teachers to learn how to use effective teaching practices is not sufficient. Given the desired outcome for K-12 schooling is access for all students to a literate life with developed identities, high-level cognitive processes, and high efficacy for learning and problem solving; status quo education will not suffice. Improved teacher preparation programs are for the greater good of the students that preservice teachers will eventually teach. The stakes are high and preparation time is limited. Preservice teachers must have access to exemplary teaching in challenging, collaborative learning communities where beliefs are explored

and challenged and strong teaching self-efficacy is developed (Yost, Sentner, & Forlenza-Bailey, 2000). Tschannen-Moran and Johnson (2011) assert, “Effective action depends, in part, on one’s perceived self-efficacy that the knowledge and skills needed to perform the task can be mobilized successfully under varied and unpredictable circumstances” (p. 7). As Hoffman and Pearson (2000) suggest, a teaching force that is well prepared to face the teaching demands and challenges of the 21<sup>st</sup> century must be knowledgeable, considerate, and reflective. Teachers with high self-efficacy who believe in their abilities to teach all students cannot only positively impact their students, but can impact the world (Bandura, 1997).

## **CHAPTER THREE: METHODOLOGY**

### **Overview**

Research methods and procedures are explained in this chapter. First, research design and rationale are discussed, followed by a description of the research methods utilized. Next, procedures for data collection are provided, and finally, data analyses are discussed. Three research questions provide the focus for this study.

1. Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?
2. How do preservice teachers describe their literacy teacher preparation program relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy?
3. How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?

### **Overview of Research Design**

Corroborating results of a growing body of teacher-efficacy research have identified the powerful effects self-efficacy has on teaching practice. Teachers with low self-efficacy are likely to avoid difficult tasks, have low aspirations, weak commitments to goals, dwell on personal deficiencies, and retreat quickly in the face of challenging tasks; faith in their abilities may be quickly lost victimized by stress and depression (Bandura, 1993). Conversely, teachers with a strong sense of efficacy generally increase personal and professional accomplishment in multiple ways. The purpose of this study is to determine those predictor (or independent) variables in teacher education

programs which have the greatest impact on developing preservice teachers' sense of literacy instruction self-efficacy (dependent variable). Additionally, this study seeks to further assess the construct validity of a pre-existing survey instrument measuring literacy instruction self-efficacy.

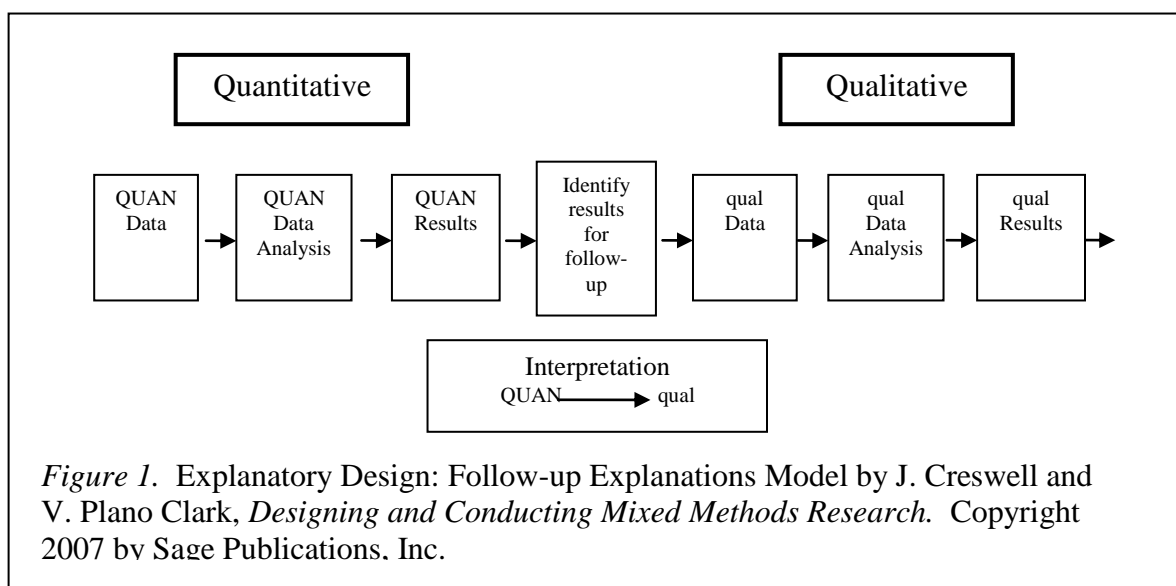
### **Research Design**

“Methodology represents the organized procedures that researchers use to collect, analyze, and interpret phenomena under study. Appropriate methodology is necessary to ensure that the obtained evidence can be used to generate warranted conclusions” (Kamil, Mosenthal, Pearson, & Barr, 2002, p. vii). To determine the most appropriate methodology, studies from the literature review in the previous chapter were examined. The majority of these studies used a combination of research methods. Initially, most utilized questionnaires and scales for the purpose of obtaining quantitative data from a sample to conduct correlational research; examining its status with regard to one or more variables focused on teacher efficacy. Many also included qualitative data collection to provide further clarification of the quantitative results. In some cases, data were gathered at multiple points in time within a program of instruction, using the same respondents for each of these data collections, followed by paired samples t-tests for data analysis. Other studies used a quasi-experimental design to compare preservice and inservice teachers' sense of self-efficacy. Regression analyses were used frequently to analyze and determine significant predictor variables for teacher self-efficacy. When comparing groups of categorical variables on a dependent variable(s), some form of ANOVA or MANOVA was most often utilized. Qualitative data collection for mixed methods studies included one or more of the



following: (a) open-ended questions, (b) journals where the results were coded and tabulated, (c) open-ended formative assessments, and (d) open-ended telephone interviews.

This study utilizes a mixed methods design to enhance the understanding of quantitative data analyses by gathering additional qualitative information to provide in-depth understanding of the quantitative results. Creswell (2003) explains that mixed methods research involves methods of inquiry for collecting both objective and subjective information, so the final database includes both sources of information in a single study. Mixed methods studies utilizing quantitative and qualitative methods provide an enriched understanding of the research problems; a perspective that neither approach could achieve independently (Creswell & Plano Clark, 2007). Explanatory design mixed methods studies first collect and analyze quantitative data to determine responses that may need additional qualitative explanations; for example, further study to explain the statistically significant differences. Ultimately, results of data analyses from both methods are integrated to provide a broader interpretation of the research



problem, which can be especially beneficial when unexpected results emerge from a quantitative study (Creswell, 2003). An explanatory design is used for this study (see Figure 1). Priority is given to the collection and analyses of quantitative data, followed by the collection and analysis of qualitative data.

**Quantitative design.** Multiple regression analyses research allows examination of the influence for each of the predictor variables on a criterion variable in a given model (Field, 2009). Multiple regression does not necessarily imply causation; however, relationships and associations may be used for predictive purposes. The quantitative portion of this study seeks to examine which predictor or set of predictor variables in teacher preparation programs are most influential in predicting teacher sense of efficacy for literacy instruction. A composite of five predictor subscales, each representing a pre-existing, validated, self-report instrument is utilized (see Appendix B) which generates numerical data that could be quantitatively explored using descriptive, correlation and multiple regression analyses. Also, a pre-existing, pre-tested, self-report scale is included to measure a sense of self-efficacy for literacy instruction. In addition to the five predictor subscales and the literacy instruction efficacy measure, respondents completed demographic questions with regard to age, gender, and ethnicity.

**Qualitative design.** Individuals perceive the world in unique ways (Berg, 1989). To capture unique perspectives of select study participants, a semi-structured interview protocol is an effective strategy. Participants were engaged in one-on-one dialogue, guided by predetermined questions queried in a systematic, consistent order.

However, semi-structured questions allow the flexibility to digress for the purpose of probing initial responses; further permitting experiences to be viewed from a respondent's perspective. For this study a protocol of 12 questions is the basis for follow-up telephone interviews (see Appendix C). Results are discussed in the following chapter.

Qualitative data must be condensed and made analytically comparable. Open-coding is most often used to conceptualize qualitative data for purposes of categorization and comparison (Strauss & Corbin, 1998). With open-coding, data analysis is relatively unrestricted while data are scrutinized to tentatively identify emerging categories. Subsequently, axial coding can further differentiate those categories identified via open-coding, and organize them into related sub-categories. Axial coding examines the complex nature of relationships among categories and subcategories to hypothesize more precise and complete explanations for phenomena. Axial coding seeks to answer questions such as why, where, when, and using what results to better understand the relationship between process, structure, and the phenomenon itself (Berg, 1989).

### **Participants**

The 120 study participants were preservice elementary and early childhood education teachers completing their final year of teacher preparation. Nine public and private universities represented nearly all regions of Oklahoma. Sixty-three percent of the sample attended public universities and 37% attended private universities. Study participants volunteered with the encouragement of reading professor members of the Oklahoma Higher Education Reading Council (OHERC).

Descriptive statistics for the 120 study participants are provided in Table 2. Eighty-one participants were between the ages of 21 and 25, 12 were in a range from 26 to 30 years old, three were between the ages of 31 to 35, 15 were between 36 and 40 years of age, and nine were 41 years old and over. Seven were African-American, three were Asian, 95 were Caucasian, four were Hispanic, ten were Native-American, and one was not specified. Six respondents were male and 114 were female.

Table 2

*Participants' Demographic Characteristics (n = 120)*

Characteristic	Frequency (#)	Percentage (%)
<b>Age</b>		
21 – 25	81	67.5
26 – 30	12	10.0
31 – 35	3	2.5
36 – 40	15	12.5
41 and over	9	7.5
<b>Ethnicity</b>		
African-American	7	5.8
Asian	3	2.5
Caucasian	95	79.2
Hispanic	4	3.3
Native-American	10	8.3
Other	1	0.8
<b>Gender</b>		
Male	6	5.0
Female	114	95.0

**Role of the Researcher**

For the quantitative phase of this study, the researcher initiated contact with OHERC members to facilitate data collection in their respective universities. Data were collected using an online survey to ensure confidentiality. For the telephone interviews,

the researcher maintained a stance of a non-participating interviewer. Analytic tools described by Strauss and Corbin (1998) were utilized to minimize researcher bias; bracketing beliefs and perspectives with regard to data are complex. Analytic tools are discussed in the data analysis section.

### **Research Procedures**

Before collecting data, approval was given by the University of Oklahoma's Institutional Review Board (IRB) (see Appendix A). All participants were asked to complete an online, pre-existing, multi-dimensional questionnaire during their final year in teacher preparation programs. Online consent forms stated respondents gave their implied consent if they decided to complete the online survey. Additionally, respondents were asked for permission to contact them in the event the data results suggested further qualitative study. To preserve confidentiality, individual responses were not divulged in the study's results or to participating faculty. Initially, respondents were entered in a random drawing for one of two \$50.00 gift certificates. Those participants selected for follow-up interviews were given a monetary stipend to encourage participation. Online, self-reported survey data were imported into Statistical Package for the Social Sciences (SPSS) for quantitative analyses. Descriptive statistics included, but were not limited to, frequency distributions and measures of central tendency.

Data were collected using Likert-type scales; a common measure used in social sciences for gathering affective data (Field, 2009). When capturing data about one's feelings, Likert-scales are widely accepted. Most often, these measures assume distances between categories are constant, allowing researchers to consider resulting

data as continuous, interval data. Garson (2008) makes the distinction between Likert scales and Likert items, asserting that surveys comprised of eight items or more, passing tests of intercorrelation can be considered scales. Likert scale items providing five or more categorical responses are widely accepted as producing interval-level data and used in social science research. Composite variable scores obtained from Likert-type scales in this study were treated as continuous variables for subsequent parametric correlational and regression analyses.

Prior to inviting respondents to participate in the study, a separate, preliminary sample of respondents completed the survey with specific directions for noting the amount of time necessary to complete the survey, to discuss any confusing terms and items, and to offer any suggestions to make this task completion easier for future respondents. Immediately following survey completion, preliminary participants were invited to discuss their suggestions with the researcher in a focus group format. Based on respondents' input, some directions were reworded to add clarity and some open-ended response items were converted to Likert-type scale items.

Once the data were collected and statistically analyzed, nine respondents, representing above and below average efficacy scores obtained on the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI), were invited to participate in a follow-up telephone interview conducted by the researcher. Participants represented three different public and private universities. Qualitative data were analyzed using open- and axial-coding and merged with quantitative results to provide more in-depth explanations of the study's findings.

## Data Collection

This study employed a mixed methods design focusing on the three primary research questions discussed. Instruments of data collection included (a) Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI), (b) a researcher-designed composite of pre-existing scales focused on components of teacher preparation programs, and (c) semi-structured interview questions. Data for this study were collected during preservice elementary education and early childhood education teachers' final year in a teacher preparation program. The following table (Table 3) provides a visual overview for this study's (a) research questions, (b) measures for data sources, and (c) corresponding data analyses.

Table 3

*Overview of Research Questions, Data Collection, and Data Analyses*

Question	Data Sources	Data Analyses
1. Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?	<ul style="list-style-type: none"> <li>• Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (Criterion Variable)</li> <li>• Utah Preservice Teacher Efficacy Scale (Criterion Variable)</li> <li>• A composite of pre-existing, pre-tested scales focused on variables that impact literacy instruction self-efficacy (Predictor Variables)</li> <li>• Perceived Cooperating Teachers' Efficacy Scale (PCTES) (Predictor Variable)</li> <li>• Oklahoma Subject Area Test (OSAT) (Predictor Variable)</li> </ul>	<ul style="list-style-type: none"> <li>• Descriptive Statistics</li> <li>• Pearson's Product Moment Correlation Matrix</li> <li>• Simultaneous Multiple Regression</li> </ul>
2. How do preservice teachers describe their literacy teacher preparation program	<ul style="list-style-type: none"> <li>• Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI)</li> </ul>	<ul style="list-style-type: none"> <li>• Open-Coding</li> <li>• Axial-Coding</li> </ul>

*(table continues)*

Question	Data Sources	Data Analyses
relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy?	<ul style="list-style-type: none"> <li>Selective number of interviews, representing a range of self-efficacy for literacy instruction scores.</li> </ul>	
3. How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?	<ul style="list-style-type: none"> <li>Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI)</li> </ul>	<ul style="list-style-type: none"> <li>Factor Analysis</li> </ul>

This study examined relationships among components of teacher preparation programs and literacy instruction self-efficacy identified in the literature review focused on teaching self-efficacy. Specifically, five variables were identified as potentially influencing a teacher's sense of efficacy for literacy instruction, including (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences. Pre-existing instruments were used for data collection in this study (see Appendix D). Table 4 provides a summary and discussion of the scales used to measure predictor and criterion variables examined in this study.

Table 4

*Predictor and Criterion Variables*

Variable	Variable Type	Pre-Existing Scale	Scoring Method	Scoring
Teacher sense of efficacy for literacy instruction	Criterion Variable	1. TSELI	Likert scale, "1-Not at all" through "9-A great deal"	22 items, cumulative score <i>(table continues)</i>



Variable	Variable Type	Pre-Existing Scale	Scoring Method	Scoring
		2. UPTES	Likert scale, “1-Not at all” through “9-A great deal”	12 items, cumulative score
Literacy content knowledge	Predictor Variable	OSAT	Multiple choice, Extended response	118 items, cumulative score
Perceived instructional design of literacy methods courses	Predictor Variable	OLS	Likert scale, “1-Never” through “5-Almost always”	16 items, cumulative score
Perceived mentoring support of cooperating teachers	Predictor Variable	LTQ	Likert scale, “1-Never” through “5-Almost always”	20 items, cumulative score
Perceived teacher sense of efficacy for literacy instruction of university literacy professors	Predictor Variable	PTSELI	Likert scale, “1-Not at all” through “9-A great deal”	22 items, cumulative score
Perceptions of practicum-field experiences	Predictor Variable	OLS	Likert scale, “1-Strongly disagree” through “5-Strongly agree”	10 items, cumulative score

*Note.* TSELI = Teacher Sense of Efficacy for Literacy Instruction Scale; UPTES = Utah Preservice Teacher Efficacy Scale; OSAT = Oklahoma Subject Area Test; OLS = Opportunity to Learn Scale; LTQ = Learning to Teach Questionnaire; PTSELI = Perceived Teacher Sense of Efficacy for Literacy Instruction Scale.

### Criterion Variable Instruments

**Teacher sense of efficacy for literacy instruction scale (TSELI).** The TSELI (Tschannen-Moran & Johnson, 2011) was used to assess participants’ literacy instruction self-efficacy scores. Directions encourage respondents to consider a combination of current ability, current resources, and opportunities for responding to each item. A Likert scale on a nine-point continuum for possible responses included

1 – Nothing, 3 – Very Little, 5 – Some Influence, 7 – Quite A Bit, and 9 – A Great Deal. Each question on this survey begins with “How much can you...” or “To what extent can you...” Sample items include:

1. To what extent can you help your students figure out unknown words when they are reading?
2. How much can you do to get children to value reading?

***Instrument development.*** Based on the literature reviewed, previous instruments measuring literacy teachers’ self-efficacy beliefs were based primarily on Gibson and Dembo’s (1984) measure (TES), and; therefore, shared the same psychometric dilemmas or in the case of Haverback (2007) did not accurately represent the breadth of literacy teachers’ educational tasks. Johnson and Tschannen-Moran (2004) developed a new measure of teachers’ sense of efficacy for literacy instruction (TSELI) and in 2011 re-tested its relationship to demographic factors and contextual variables in teacher preparation and professional development experiences, in addition to general teaching self-efficacy beliefs (Tschannen-Moran & Johnson, 2011). Influenced by Bandura’s (2006) caution regarding the relationship of perceived efficacy and context-specific domains, the survey developers endeavored to provide an instrument that was neither too specific nor too general. As Pajares (1996) asserts, measures that are too context specific lose predictive power for anything beyond that context.

***Validity.*** A 33-item pool specific to literacy instruction was initially identified by researchers, referencing the National Council for Teachers of English and the International Reading Association Standards (NCTE/IRA) for the English Language

Arts (1996) and the IRA Standards for Reading Professionals (2004) respectively. Areas of focus included (a) word study, (b) decoding, (c) comprehension strategies, (d) modeling effective strategies, (e) integrating instruction across the language arts, (f) grouping practices, (g) using a wide variety of genres, (h) meeting the needs of both proficient and struggling readers, and (i) the ability to motivate students to value reading. To assess content validity, the initial survey instrument was submitted for review to a panel of four experts representing the fields of reading and literacy instruction. A field test consisted of administering the instrument to eleven graduate students in literacy instruction to evaluate clarity of wording for (a) instructions and items, (b) appropriateness of the response scale, and (c) ease of administration. Effort was made to capture respondents' current capabilities rather than future potential. The instructions read, "Please respond to each of the questions by considering the combination of your *current* ability, resources, and opportunity to do each of the following in your present position."

***Factor structure and reliability.*** An exploratory factor analysis using principal axis factoring was used to eliminate items not contributing to a coherent factor structure and to evaluate construct validity (Tschannen-Moran & Johnson, 2011). Based on their analyses six questions exhibited low communalities and, thus, were removed. In addition, five questions were eliminated due to low factor coefficients. Initially, two factors emerged and were strongly correlated; however, when the data were rotated, the two factors converged into one single factor. Factor analysis was repeated on the 22 remaining questions, which all demonstrated strong factor coefficients (greater than .63). This factor had an eigenvalue of 12.17, explaining 55% of the variance in the

TSELI. Cronbach's alpha revealed a reliability coefficient of .96, indicating good internal consistency. The remaining 22 questions were used in this study and a composite of participants' responses to be a measure of literacy instruction self-efficacy (TSELI).

**Utah preservice teacher efficacy scale (UPTES).** Because no widely-accepted measure exists for literacy instruction self-efficacy and because TSELI was only recently developed and re-tested (2004, 2011), a second measure for literacy instruction self-efficacy was examined. Clark's (2009) study used the multi-dimensional Utah Preservice Teacher Efficacy Scale to measure teacher efficacy of 543 preservice teachers on five areas encompassing the essence of teaching (a) general knowledge and skills, (b) diversity and multicultural perspectives, (c) reading, (d) mathematics, and (e) assessment. Respondents are asked to indicate feelings of preparedness using a Likert scale on a five-point continuum including 1 – Not At All, 2 – Poorly, 3 – Adequately, 4 – Well, and 5 – Very Well. Analysis using Cronbach's alpha (Cronbach, 1951) determined acceptable reliability measures greater than 0.9. The reading subscale of UPTES indicated a measure of 0.95. Confirmatory factor analysis revealed five factors contributing to an overall global efficacy measure. The single-factor reading subscale consisted of twelve items, each focused on feelings of preparedness to teach reading. These items were included in this study's survey to provide independent ratings for literacy instruction self-efficacy to serve as a basis for comparison between the two fairly new instruments designed to measure the dependent variable literacy instruction self-efficacy. Statistical comparisons of UPTES and TSELI are reported,

but, TSELI score is used as the measure of literacy instruction self-efficacy for this study.

### **Predictor Variable Instruments**

Self-reporting, online survey questions were combined to measure five predictor variables identified in the literature, using a five-point Likert scale to preserve consistency with the preexisting, pre-tested scales. Pre-existing, valid and reliable instruments utilized in the literature review studies were combined to develop a survey for this study focused on the following five predictor variables: (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences.

**Literacy content knowledge.** The Oklahoma Subject Area Test (OSAT) was used to capture data for this predictor variable. The OSAT is one of three required certification examinations for Oklahoma educators (CEOE). The Oklahoma Commission for Teacher Preparation (OCTP) (2011) worked with the Evaluation Systems Pearson Group to both develop and administer these tests. Oklahoma public school educators and college faculty with educator programs at institutions of higher learning were invited to assist with test construction. Content-based test validation processes complied with professionally accepted standards for licensure certification tests. Administration of CEOE tests by trained test administrators at multiple secure, accessible sites throughout Oklahoma is consistent with standardized procedures.

All tests are criterion referenced and designed to measure Oklahoma's pre-service teachers' knowledge with regard to established standards of competence. The Oklahoma Subject Area Tests are offered in 54 certification/licensure categories, for the purpose of assessing subject-matter knowledge and skills for entry-level Oklahoma educators. The Elementary Education OSAT consists of two subtests; Subtest 1 focuses on reading and language arts, while Subtest 2 relates to social studies, mathematics, science, health, fitness, and the arts. Subtest 1 is comprised of 52 (85%) selected response questions, where respondents are given a choice of four responses per test item, one of which is the best answer of the options given. A fairly equal balance of items focuses on reading (a range of 11 - 20 questions) and language arts (a range of 11 - 20 questions). One constructed-response question (15%) focuses on some aspect of reading. Subtest 2 consists solely of 66 selected-response questions, with no constructed-response items. To comply with the guidelines set by the University of Oklahoma's Internal Review Board, respondents were asked to self-report their OSAT scores. The respondents' OSAT scores are used in this study as a measure of pre-service teachers' overall subject-matter knowledge.

**Perceived instructional design of literacy methods courses.** The pre-existing Opportunity to Learn Scale (OLS) (Ingvarson, Meiers, & Beavis, 2005) was adapted for this predictor variable. For this scale, perceived opportunity to learn refers to the structure and substance of learning experiences in teacher preparation programs. The OLS is comprised of multiple subscales developed by factor analysis to include those underlying dimensions which influence perceptions of first-year teachers with regard to their pre-service education coursework. These include, "(a) the opportunity to learn

what teachers do and need to know in order to be effective, (b) the extent to which they understood the professional knowledge needed by teachers, and (c) the extent to which they were prepared by their courses for professional practice as teachers” (Ingvarson, Meiers, & Beavis, 2005, p. 20). For each item in this multidimensional scale respondents were asked to self-report the extent to which their teacher preparation program exposed them to learning opportunities. For the 2005 study, factor analyses were used to identify the many dimensions represented in the multiple-item scale. Cronbach’s alpha revealed each subscale’s reliability coefficient ranging from adequate (.78) to good (.88).

For this study, 16 items from three factors were selected to represent the quality of literacy methods courses including (a) opportunity to learn the practice of teaching, (b) opportunity to learn via feedback from university professor, and (c) quality of university teaching. For example, respondents were asked to “indicate to what extent your preservice teacher education program’s literacy methods courses gave you opportunity to see models of expert teachers in action.” The second factor focused on feedback as respondents were asked to “indicate to what extent your preservice teacher education program’s literacy methods courses gave you opportunity to receive useful feedback about your teaching from your university literacy professor.” The third factor consisted of specific instructional practices used by the literacy professor, such as, “How often did your literacy university professor model evaluation and reflection on their own teaching?” Cronbach’s alpha scores for each of the factors were .88, .78, and .83 respectively. For every item, respondents were asked to evaluate how frequently each given statement occurred in their teacher preparation program experience. For this

study, 16 items are included in the online survey using a five-point Likert scale to preserve consistency among all subscales, with response choices ranging from (1) strongly disagree to (5) strongly agree. All 16 items from three factors on the OLS are included in this current study as a measure of learning experiences in a literacy methods course.

**Perceived mentoring support of cooperating teachers.** The Learning to Teach Questionnaire (LTQ) (Hamman & Olivarez, 2005) is designed to assess student teachers' perceptions of their interactions and experiences with their cooperating teacher in regard to classroom instruction. A 20-item, five-point Likert scale measured preservice teachers' perceptions of cooperating teacher support. Participants responded by identifying how strongly they agree with each of the 20 items. Hamman and Olivarez (2005) conducted exploratory analysis, followed by confirmatory factor analysis using data from a split-group sample, which revealed a two-factor structure. The first factor indicated the extent to which student teachers received guidance from their cooperating teacher. For example, "My cooperating teacher and I have worked *together* to improve *my* instruction this semester." A second factor revealed the extent to which the student teacher imitated the cooperating teacher, such as, "I watch what my cooperating teacher does during instruction and then try it myself." Analysis using Cronbach's alpha revealed highly acceptable levels of internal consistency for the 2005 study with a reliability coefficient of .93. All twenty items from this scale are included in the online survey using a five-point Likert scale to provide consistency, with response choices ranging from (1) Never to (5) Almost Always. For this study,



composite scores of participants' responses are used as a measure of mentoring support of cooperating teachers.

**Perceived teacher sense of efficacy for literacy instruction of university literacy professors.** The Perceived Cooperating Teachers' Efficacy Scale (PCTES) is designed to measure student teachers' perceptions of the efficacy beliefs held by their cooperating teachers (Li & Zhang, 2000). The initial scale was based on the Teacher Efficacy Scale (TES); however, Knoblauch (2004) used the more widely accepted Teacher Sense of Efficacy Scale (TSES) to achieve a similar outcome. For either scale, student teachers were asked to respond to efficacy statements as they believed their cooperating teachers would have responded. The 12 questions comprising the PCTES were identical to those used in the TSES short form; however, the directions read by respondents were as follows: "Please indicate how *you believe* that your cooperating teacher would respond to each statement below." Cronbach's alpha revealed a .95 reliability coefficient. For this study, the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (22 items) was adapted by using the same directions indicated above with regard to how respondents believe their university literacy professor would rate themselves on this scale. The sum of each individual's responses to the 22 items is used in this study as a measure of perceived teacher sense of efficacy for literacy instruction of university literacy professors.

**Perceived Practicum-field experiences.** The Opportunity to Learn Scale (OLS) (Ingvarson, Meiers, & Beavis, 2005) captured data regarding perceptions of the nature and quality of school experiences. For the 2005 study, respondents were asked to indicate the extent to which they agreed with each of ten items comprising practicum

experiences (OLS). For example, “My cooperating teacher had a clear idea of what my university required me to do as part of my practicum.” Cronbach’s alpha revealed a reliability coefficient of .87. A factor analysis for nature of practicum experiences suggested a single dimension underlying this set of items representing the quality of the practicum. Again, to provide consistency among subscales, these items were included in the current online survey using a five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Respondents achieving high scores perceive their practicum experiences as beneficial for developing effective teaching practices; conversely, those reflecting low scores perceive their practicum experiences as providing little to no benefit for developing effective teaching practices. For this study, the OLS score computed for each respondent by combining the responses to the ten items used in this study’s online survey serves as the measure of the respondents’ practicum-field experiences.

**Summary.** The 122-item online survey consists of a compilation of multidimensional, pre-existing, pre-tested scales. Survey data are used to compute composite scores for the five predictor variables and one criterion variable examined in this study. Demographic questions for age, gender, and ethnicity also are included.

### **Interviews**

Semi-structured interviews were conducted with a purposive sample of study participants to explore more in-depth preservice teachers’ perceptions of their teacher preparation experiences. Based on the previously collected and statistically analyzed data, four to six respondents with above average efficacy scores were identified for subsequent follow-up interviews and four to six respondents with below average

efficacy scores also were contacted. Questions focused on unique perspectives of preservice teachers' experiences in a single, teacher preparation program and their feelings of preparedness to teach literacy (see Appendix C). Questions were constructed using words familiar to preservice elementary education teachers and designed to elicit elaboration for responses on the survey portion of the study; such as, "In general, what would you change about your teacher preparation program with regard to teaching literacy?" and "In general, what did you find most rewarding about your teacher preparation program with regard to teaching literacy?" All interviews began with the same protocol of questions; however, depending on responses, individual clarifying questions were asked. Copies of basic interview questions were provided prior to the personal interview so that each participant can provide thorough, reflective responses. Each interview lasted approximately 20 - 40 minutes and was audio-taped and professionally transcribed.

### **Data Analysis Procedures**

All statistical analyses for this study were performed using the Statistical Package for the Social Sciences (SPSS) for Windows. All data were imported from the online surveys into SPSS. A one-way frequency table was constructed for each question to check for erroneous responses; for example, a blank or non-response mistakenly entered as a zero would distort all subsequent descriptive statistics and statistical tests. The researcher believes data collected more accurately reflected the overall sample responses because questionable data were eliminated. For example, if a participant answered with the same response ("5 – Some Influence") or a similar answers to every question, the researcher viewed the respondent as putting little effort

into completing the survey; therefore, little value was gleaned from the individual's response and was discarded. In conclusion, the researcher believes the resulting data set was as accurate as academically possible.

### **Research Question One**

#### **1. Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?**

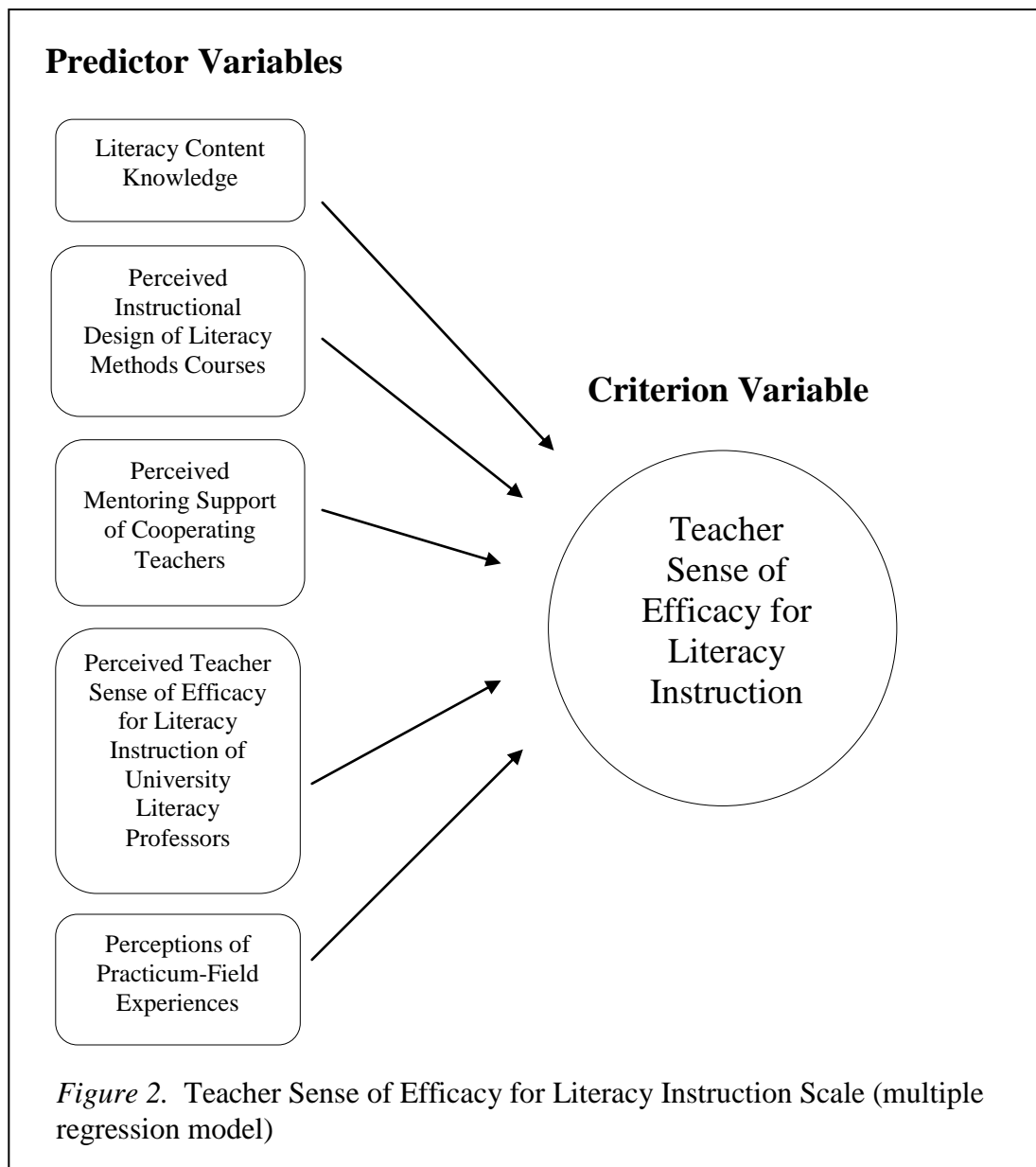
Are the differences in teacher preparation programs associated with preservice teachers' literacy instruction self-efficacy? Program variables are the components that differentiate each teacher preparation program. To collect data, the current TSELI and online composite of pre-existing scales and subscales were used. Quantitative data were analyzed using (a) descriptive statistics, (b) Pearson's product moment correlations, and (c) multiple regression. Though correlation methodology cannot establish causality, the strength and direction of relationships among variables for inferential, predictive purposes can be examined (Stanovich & Cunningham, 2004). The independent variables in this study consisted of teacher preparation program characteristics in public and private universities and colleges identified as significant in the literature review; the dependent variable was a teacher's sense of efficacy for literacy instruction (TSELI). The five independent variables and corresponding measures were as follows: (a) literacy content knowledge (OSAT), (b) perceived instructional design of literacy methods courses (OLS), (c) perceived mentoring support of cooperating teachers (LTQ), (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors (PTSELI), and (e) perceptions of practicum-field experiences (OLS). Consistent with most studies reviewed, Likert data, known to

be ordinal, were assumed to be interval so that more desirable parametric statistical tests such as Pearson's product moment correlations were conducted.

First, Pearson's product moment correlations were computed to determine the relationship between the Utah Preservice Teacher Efficacy Scale (UPTES) and the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Prior to running regression analyses, Pearson's product moment correlations were computed to identify the relationships between each of the five independent variables and the one dependent variable (TSELI). Also, correlations between each of the five independent variables were used to identify highly correlated relationships and to detect and minimize multicollinearity.

Multiple regression analyses included a measure of teacher sense of efficacy for literacy instruction as the dependent variable and the five independent variables including (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors (PTSELI), and (e) perceptions of practicum-field experiences. A sample of 120 respondents exceeded minimal acceptable standards requiring 15 respondents per predictor variable (Field, 2009). In addition, Field recommended a sample should have at least 100 respondents to produce a moderate effect size. Both criteria were exceeded. Simultaneous entry multiple regression analyses (see Figure 2) were conducted. Field (2009) asserts many researchers believe this is the only method appropriate for testing

theory as stepwise techniques are influenced by random variation in the data, which rarely provides replicable results if the model is retested. Regression analyses were used to explore which predictors and/or sets of predictors were critical in accounting for variance on the dependent variable efficacy score (TSELI).



## **Research Question Two**

### **2. How do preservice teachers describe their literacy teacher preparation program relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy?**

Once quantitative data were statistically analyzed, select participants representing above and below average literacy instruction self-efficacy scores were interviewed. Interviews were audio-taped, transcribed using pseudonyms and analyzed using open-coding to reduce and interpret data into emerging categories and sub-categories. Throughout the interview process words or explanations were not taken at face value, but rather were investigated through additional questioning to accurately interpret what was being reported.

Initially, transcripts were read for a sense of what each participant was communicating and reviewed multiple times while making note of emerging commonalities. To minimize intruding bias, the researcher frequently examined concepts by looking at extremes or opposites to obtain a different perspective (Berg, 1989). Reviewing the interview questions provided additional guidance for identifying distinct, yet related categories. Additionally, categories and sub-categories were examined further to explore and examine relationships among each. The researcher routinely stepped back during analysis to ask, “What is the nature of this process, structure, or relationship?” Transcribed data were repeatedly read and highlighted to identify and sort similar participant responses. Eventually, transcriptions were reread in light of the quantitative findings of this study; making note of the commonalities between the quantitative and qualitative data results. Ultimately, study results from

both the quantitative and qualitative data sources were merged to provide a more comprehensive understanding of the research problem.

### **Research Question Three**

**3. How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?**

The Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) was developed in 2004 (Johnson & Tschannen-Moran, 2004) and was recently re-tested in 2011 (Tschannen-Moran & Johnson, 2011). This recently published scale is emerging as an acceptable instrument for measuring literacy instruction self-efficacy within the body of literacy research. Tschannen-Moran and Johnson (2011) determined that TSELI consisted of a single-factor structure. Much emphasis has been placed on strengthening the construct validity for instruments measuring teaching self-efficacy; in this case, self-efficacy for literacy instruction (Denzine, Cooney, & McKenzie, 2005; Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Using the additional data gathered for this study, a principal axis factor analysis was conducted to determine whether results were consistent with previous findings for TSELI.

### **Summary**

This study was designed to examine three research questions focused on literacy instruction self-efficacy. Using both quantitative and qualitative methods to gather data are more powerful than either would be independently. For this mixed-methods research design, quantitative data were collected and statistically analyzed prior to gathering qualitative data. A quantitative correlation design was conducted to identify



relationships among predictor variables. Simultaneous multiple regression analyses were run to determine the contributions of five predictor variables in explaining variance in Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Data were collected from 120 preservice elementary and/or early childhood teachers from nine Midwestern universities. This sample of 120 participants satisfied the target sample size of 15 respondents per predictor variable. Predictor variables included (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences. The criterion variable was a Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Data were collected using an online survey consisting of previously validated, self-report surveys. Demographic data included age, gender, and ethnicity. Finally, quantitative data results were integrated with qualitative findings to provide an in-depth explanation of the research problems. The factor structure for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) was examined by conducting factor analyses procedures similar to those utilized in Tschannen-Moran and Johnson's (2011) study as an ancillary focus for this study.

## **CHAPTER FOUR: RESULTS**

The purpose for this study was to contribute to the existing body of research for literacy instruction self-efficacy. The threefold purpose was to (a) seek to analyze how teacher preparation program predictor variables, using a sampling from public and private higher education institutions in Oklahoma, predict a teacher sense of efficacy for literacy instruction; (b) determine how preservice teachers describe their literacy teacher preparation program with regard to their literacy teaching self-efficacy beliefs and feelings of preparedness for teaching literacy; and (c) further assess the construct validity and reliability of the updated Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (Tschannen-Moran & Johnson, 2011). The research questions for this study were:

1. Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?
2. How do preservice teachers describe their literacy teacher preparation program relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy?
3. How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?

### **Research Question One**

The first research question was, "Which teacher education program variables are associated with perceptions of preservice literacy instruction self-efficacy?" Each teacher preparation program offers unique experiences for each of the five independent

variables examined in this study. This research question sought to identify which predictor variables accounted for the greatest amount of variance on the criterion variable, Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). First, descriptive statistics for study participants and study variables are provided. Next, results from statistical analyses are presented and findings are evaluated.

### **Descriptive Statistical Analyses**

Descriptive statistics for the five composite variables examined in this study are presented in Table 5. Field (2009) cautioned that reliability analyses should be applied separately to items which are related to separate factors in a multi-dimensional questionnaire; essentially, Cronbach’s alpha ( $\alpha$ ) should be applied separately to each subscale. Reliability analyses were computed for each of the five subscales. All internal consistency reliability coefficients were .90 or greater, indicating scale items that produced results similar to the overall scale.

Table 5

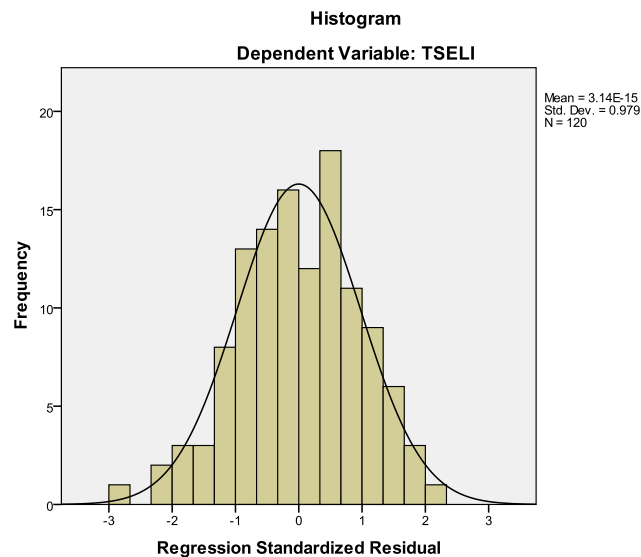
*Descriptive Statistics for Composite Variable Scores (n = 120)*

Scale	Items	Min.	Max.	Mean	SD	$\alpha$
Instructional Design of Literacy Methods Courses (MTHDS)	16	26	69	55.09	8.38	.93
Perceived Mentoring Support of Cooperating Teachers (CTSPT)	20	22	100	68.26	16.98	.96

*(table continues)*

Scale	Items	Min.	Max.	Mean	SD	$\alpha$
Perceived Teacher Sense of Efficacy for Literacy Instruction of University Literacy Professors (PTSELI)	22	69	198	168.05	25.58	.97
Perceptions of Practicum-Field Experiences (FLDEXP)	10	20	50	40.06	5.71	.90
Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI)	22	92	194	153.67	19.17	.95

For research question one, parametric statistical tests were used; therefore, the criterion variable's distribution of scores was tested for normality. Figure 3 presents a visual representation for the distribution of scores on the criterion variable, Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). The frequency distribution appears reasonably normal (skewness =  $-.24$ ; kurtosis =  $.42$ ).



*Figure 3.* This histogram reveals a fairly normal frequency distribution of the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) ( $n = 120$ ).

## **Pearson's Product Moment Correlations**

First, to determine the relationship between the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) and the Utah Preservice Teacher Efficacy Scale's (UPTES) subscale for reading, a correlation analysis was conducted. The correlation was  $.84, p < .001$ . Although this suggests the two measures could be used interchangeably, the TSELI scale has been used in all further analyses. Bandura (1986, 1993, 1997) asserts efficacy is not uniform across all types of performance tasks; the more domain-specific and comprehensive the instrument for the efficacy domain being measured, the more representative the efficacy scores results will be for that domain. Both instruments have items focused on essential reading instruction and skills; however, the TSELI has a broader focus to include writing instruction and literacy instructional thinking strategies. Both are relatively new; however, the TSELI has continued to collect data with additional samples (Tschannen-Moran & Johnson, 2011). The TSELI was selected for use in this study as it was a more comprehensive and accurate measure with regard to literacy instruction.

Table 6 presents relationships computed using Pearson's product moment correlation among the five predictor variables and the TSELI. Several statistically significant relationships were identified in the correlation analyses. If the significance level is adjusted for the number of tests (15) using Bonferroni's approach discussed in Green and Salkind (2008), the acceptable criteria becomes  $.003 (.05/15)$ . Given this more conservative criteria level, only 8 of the 10 correlations are statistically significant.

Table 6

*Correlations among Five Predictor Variables and One Criterion Variable (n = 120)*

Scale	TSELI	OSAT	MTHDS	CTSPT	PTSELI	FLDEXP
Criterion Variable:						
TSELI	1.00					
Predictor Variables:						
OSAT	.08	1.00				
MTHDS	.46 <sup>***</sup>	-.04	1.00			
CTSPT	.28 <sup>**</sup>	-.11	.39 <sup>***</sup>	1.00		
PTSELI	.53 <sup>***</sup>	.06	.39 <sup>***</sup>	.16 <sup>*</sup>	1.00	
FLDEXP	.28 <sup>**</sup>	-.18 <sup>*</sup>	.52 <sup>***</sup>	.60 <sup>***</sup>	.15 <sup>*</sup>	1.00

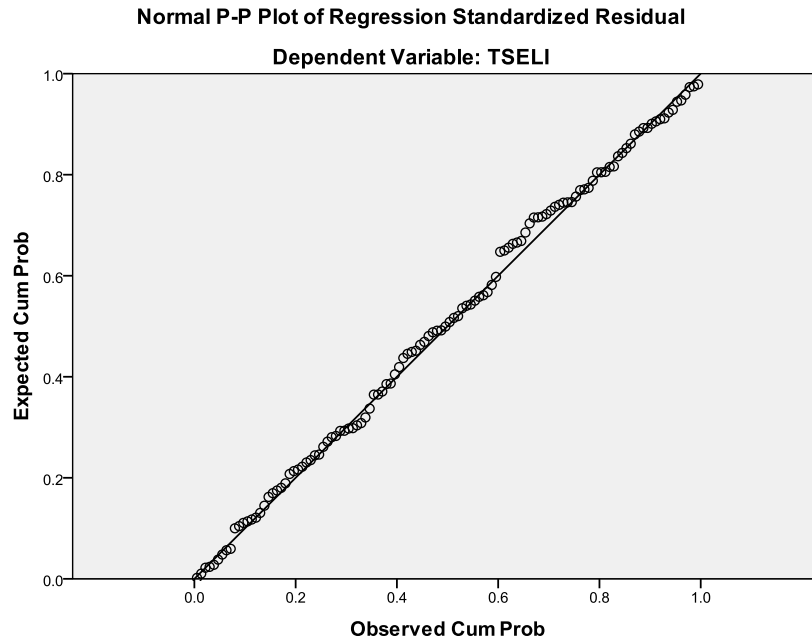
*Note.* TSELI = Teacher Sense of Efficacy for Literacy Instruction Scale; OSAT = Literacy Content Knowledge; MTHDS = Perceived Instructional Design of Literacy Methods Courses; CTSPT = Perceived Mentoring Support of Cooperating Teachers; PTSELI = Perceived Teacher Sense of Efficacy for Literacy Instruction of University Literacy Professors; FLDEXP = Perceptions of Practicum-Field Experiences; \*p (one-tailed) < .05, \*\*p (one-tailed) < .01, \*\*\*p (one-tailed) < .001.

The TSELI was positively and significantly correlated with all remaining predictor variables, except OSAT (see Table 6). Perceived teacher sense of efficacy for literacy instruction (PTSELI) and perceived instructional design of literacy methods courses (MTHDS) had the strongest, positive relationship to the criterion variable,  $r = .53$  and  $r = .46$ ,  $p < .001$  respectively. OSAT and FLDEXP were significantly and negatively correlated,  $r = -.18$ ,  $p < .05$ . OSAT also was negatively correlated with MTHDS and CTSPT; though these correlations were not significant, it does suggest that preservice teachers with less content knowledge tended to score higher on these three

predictor subscales. PTSELI was positively correlated with OSAT, but this correlation was not statistically significant. Predictor variables FLDEXP and CTSPT had a moderate to strong positive relationship,  $r = .60$ ,  $p < .001$ . All other predictor correlations were positive, ranging from .08 to .53, indicating small to moderate strength in relationships. In general, the results suggest that preservice teachers who had developed a sense of confidence to teach literacy also felt more positive about their teacher preparation experiences, with the exception of literacy content knowledge.

### **Regression Analysis**

A simultaneous multiple regression was conducted to identify the relationships between the criterion variable (teacher sense of efficacy for literacy instruction) and the predictor variables (literacy content knowledge, perceived instructional design of literacy methods courses, perceived mentoring support of cooperating teachers, perceived teacher sense of efficacy for literacy instruction of university literacy professors, and perceptions of practicum-field experiences). All independent variables were tested for highly correlated relationships by computing tolerance values and variance inflation factor scores for each predictor. Multicollinearity is indicated when tolerance values are less than .10 and variance inflation factor scores are greater than 10 (Field, 2009). Tolerance values for each predictor were .53 or greater and variance inflation factors were 1.90 or lower; both are well within the acceptable range. Figure 4 is the normalized P-Plot of the regression residuals. The majority of data points fall closely to the diagonal line, suggesting normal distribution of prediction errors.



*Figure 4.* This probability plot (P-Plot) presents a relatively normal frequency distribution for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (n = 120).

Table 7 represents the simultaneous regression model results. These findings suggest that respondents with higher scores for both perceived teacher sense of efficacy for literacy instruction of university literacy professors (PTSELI) and also perceived instructional design of literacy methods courses (MTHDS) tended to have significantly higher scores for Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Literacy content knowledge (OSAT), perceptions of practicum-field experiences (FLDEXP) and perceived cooperating teacher support (CTSPT) were not statistically significant in the model for explaining variance on TSELI, suggesting these predictors had little influence on preservice teachers' sense of efficacy for literacy instruction. Overall, the regression model was statistically significant:  $F(5, 114) = 13.56, p < .001$ ,  $R^2 = .37$ , adjusted  $R^2 = .35$ . The  $R^2$  value of .37 indicated that the set of five predictors



explained 37% of the variance in Teacher Sense of Efficacy for Literacy Instruction Scale scores (TSELI). Individually, two predictor variables were statistically significant (PTSELI and MTHDS).

Table 7

*Multiple Regression Model Results (n = 120)*

Scale	<i>B</i>	SE <sub>B</sub>	$\beta$	<i>t</i>	<i>p</i>
Constant	31.803	29.116		1.092	.277
OSAT	.101	.096	.079	1.045	.298
FLDEXP	.169	.343	.050	.493	.623
CTSPT	.110	.105	.098	1.048	.297
PTSELI	.309	.061	.412	5.082	< .001***
MTHDS	.534	.216	.234	2.478	.015*

*Note.*  $R = .61$ ,  $R^2 = .37$ , adjusted  $R^2 = .35$ ,  $F(5, 114) = 13.56$ ,  $p < .001$ . TSELI = Teacher Sense of Efficacy for Literacy Instruction Scale; OSAT = Literacy Content Knowledge; FLDEXP = Perceptions of Practicum-Field Experiences; CTSPT = Perceived Mentoring Support of Cooperating Teachers; PTSELI = Perceived Teacher Sense of Efficacy for Literacy Instruction of University Literacy Professors; MTHDS = Perceived Instructional Design of Literacy Methods Courses.

Table 7 represents the relative strength of each predictor on the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). As noted previously (see Table 6), all bivariate correlations were positive between predictor variables representing components of teacher education programs and TSELI; four of the five predictor indices revealed statistical significance at the .01 level or better. Field (2009) indicates semi-partial correlations are best used when trying to explain unique variance on only one outcome variable from a set of predictor variables. In this case, PTSELI accounted for 14% ( $.38^2 = .14$ ) of the variance of the TSELI index and MTHDS accounted for 3%

(.18<sup>2</sup> = .03) of the variance (see Table 8). The other three predictors together contributed only an additional 1% of the variance on the TSELI index. Because the two major predictors (PTSELI and MTHDS) are moderately correlated ( $r = .39$ ) (see Table 6), the unique importance of each predictor is not easily determined (Green & Salkind, 2008). Both PTSELI and MTHDS were significant predictors for positively influencing scores on TSELI.

Table 8

*The Partial and Part Correlations of the Predictors with TSELI Index*

Scale	Correlation between each predictor & TSELI Index controlling for all other predictors (Partial)	Unique correlation between each predictor & TSELI Index (Semi-Partials)
OSAT	.10	.08
FLDEXP	.05	.04
CTSPT	.10	.08
PTSELI	.43	.38
MTHDS	.23	.18

**Research Question Two**

The second question was “How do preservice teachers describe their literacy teacher preparation program relating to their feelings of preparedness for literacy instruction and literacy teaching self-efficacy? This question was designed to qualitatively enhance the understanding of the quantitative data analyses results for research question one; a story always exists behind the numbers. Each person has unique perceptions of the world (Berg, 1989). To explore their unique perceptions,

a purposive sample of nine study participants represented a wide range of efficacy scores as measured by the TSELI, including above and below average scores. Respondents selected participated in one-on-one, semi-structured interviews with the primary investigator. Interview questions focused on unique perspectives of preservice teachers' experiences in their respective teacher preparation program and their feelings of preparedness to teach literacy. All interviews began with the same protocol of questions, with follow-up individual clarification questions when necessary. Interviews lasted approximately 20 - 40 minutes. Each interview was audio-taped with permission of the respondent, professionally transcribed, and analyzed by the primary investigator using open-coding to reduce and interpret data into emerging categories and sub-categories.

## **Participants**

Table 9

### *Interview Participants*

Name	TSELI
Valerie	97 (weak)
Christine	113
Jenna	121
Taya	144
Anna	149
Hailey	155
Rhianna	158
Jerri	161
Angeleen	180 (strong)

*Note.* TSELI = Teacher Sense of Efficacy for Literacy Instruction Scale

Table 9 provides a pseudonym to protect the participants' anonymity and corresponding scores for Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) for each participant. Five interview participants attended public universities and four attended private universities. Appendix D provides a profile for each interview participant.

### **Supporting themes related to significant predictor variables**

After thorough review of the transcribed data, strong themes supporting statistically significant quantitative findings emerged. Such findings are discussed with regard to the significant predictor variables including Perceived Teacher Sense of Efficacy for Literacy Instruction (PTSELI) and the Perceived Instructional Design of Literacy Methods Courses (MTHDS). In many cases delineating between each area is difficult, as many responses tended to be intertwined and dependent on each other. Given this limitation, each will be discussed in detail.

**Perceived teacher sense of efficacy for literacy instruction (PTSELI).** This variable was the strongest predictor of teacher sense of efficacy for literacy instruction. All interview participants were questioned with regard to personal perceptions of their literacy professors. Responses were fairly consistent and seemed to emerge into two subcategories; relationships with professors and degree of professional expertise as a practitioner.

***Relationships with professors.*** Positive relationships with professors seemed to override all other perceptions. Students unanimously described their effective, most-liked literacy professors as ones who valued their students' prior experiences and ideas. For example, when asked to describe her literacy professor, Jerri enthusiastically said,

“...she was just a really friendly, open, nice teacher...I would talk with her in the hall, where I didn’t even stop for a conversation with the other ones...she didn’t make you feel like I was getting in trouble...” Professors who treated students with respect while emanating a transparent, genuine, caring attitude and who were current and knowledgeable with regard to literacy were consistently described as great professors. Hailey mentioned how her literacy professors would openly interact with her, emphasizing they were not afraid to be transparent, “...[her literacy professor told her] I had to deal with this, and this is how I handled it...and when I look back, I probably didn’t handle it the best way.” Jerri described her professor as treating her with the respect of a colleague, “...she called us Miss \_\_\_\_\_. She called us like how we would be called in a classroom.”

When the relationship with a literacy professor was positive, preservice teachers perceived their professors as being experts in the field of literacy. Anna asserted that, “I wish that my child had had teachers like these.” When the relationships were negative or non-existent, the preservice teachers expressed a lack of respect and general disregard for the professors’ literacy knowledge. Jenna was extremely frustrated and explained, “Uh, really, I just said, ‘You know what, if I can get through the class and pass, I don’t really care’.” Jerri expressed how these literacy professors negatively influenced her confidence for teaching:

...they made you feel like maybe I don’t want to teach...they made you just feel like you didn’t know anything and you were never going to make it...I haven’t heard one person say they wanted to be in her class!

One respondent plainly asserted, “He just doesn’t care! He didn’t even know my name...”

*Degree of professional expertise as a practitioner.* Relationships seemed to directly influence interview respondents' perceptions of their literacy professors as practitioners. Jenna described one of her literacy professors as, "...very encouraging. She would give immediate feedback...if she thought you had really good ideas or good points of discussion or something like that, she was very supportive." When asked if she thought this professor would make a great practitioner she readily responded she would, "...her personality I guess, and just the way she delivered the information to us. ...and some of the ideas and stuff that she shared with us, I could just tell that she would be great in the classroom." Those literacy professors who fostered strong relationships with students were without exception perceived by the students to be experts in their field of literacy instruction. Hailey explained, "...you know they've been there and they've been in the trenches, and it hasn't been that long ago." When Anna was asked how she believed her literacy professor would teach literacy as an elementary teacher she stated:

I perceived her as being what I call rock-star teachers...I would just think that if you put them in a classroom they're going to be like a total rock star, like they seem like they have it all...I'm just thinking she'd be an awesome teacher for my kid.

Conversely, of those interview respondents describing literacy professors who had no relationships with their students unanimously and emphatically stated they also would make poor practitioners of literacy in the elementary grades. Jenna mentioned:

I think if she [her professor] had to go back into the classroom with second graders they [the children] would be scared to death...She has zero personality and was hard to talk to...I've never seen her smile...it wouldn't be good...I saw her as how not to be...

Valerie made the distinction between a professor having only book knowledge versus having extensive practical experience too; emphatically expressing that the difference is obvious when the literacy professor is teaching. “You can tell she knew what she was talking about; it wasn’t something she’d learned in a book, it was something that she experienced.” Jerri supported this:

...then you get into some of these courses with these teachers...who are older and just haven’t maybe taught a couple of years...they’re really book smart and they know everything those books say, but they don’t know how to show you how to teach...

Literacy professors who were too young and inexperienced or had been out of the elementary classroom for too long were perceived as poor practitioners. Anna asserted, “Some of my professors haven’t been in a classroom for 15, 20, 25 - 30 years...I don’t think they were knowledgeable as to what is concurrently going on in the school rooms.” Valerie expressed this about her literacy professor, “...she had a lot of research information, but I don’t know that she had a whole lot of experiential background on it...she had just gotten her doctorate in reading...but she had never really taught...” Jerri asserted, “...some of the things they teach you at college is not as up-to-date as some of the things that are going on in the classroom...” This lack of practical, current experience also seemed to affect the degree to which relationships were built with preservice teachers; those professors who were perceived as current seemed to more readily build relationships. One exception was a literacy professor who admittedly had been out of the classroom for at least ten years; however, she openly acknowledged this, continually inviting preservice teachers to share new ideas learned in their field experiences. As a result, this literacy professor was regarded as someone who would make a great practitioner.

Generally, the stronger the relationships, the more the preservice teachers viewed their literacy professors as expert practitioners; role models who preservice teachers wanted to emulate as teachers of literacy. When asking Rhianna to describe her perceptions of her literacy professor, she expressed, “We talked a lot. I feel so comfortable with her...maybe it’s because I hopefully can see myself in her position. She’s so young; she’s accomplished so much...that’s exactly what I want to do.” Many respondents perceived their literacy professors as a future source of expertise when they would begin teaching in their own classrooms; these professors were believed to be expert practitioners and were willing to assist them with classroom design and instruction beyond graduation. Assistance extending beyond graduation was another indicator of strong, positive relationships with expert literacy professors. Taya explained:

I think that they [literacy professors] have been really helpful in my learning process, and I think that at any time if I needed their assistance or if I was on my own, in my own classroom and had a student that I needed to tutor that I could call any one of those [literacy] professors up at any time and they would be more than happy to help me. You know, it seems like they are genuinely concerned about the children and about what’s best for them.

**Perceived instructional design of literacy methods courses (MTHDS).** This variable also was a predictor of teacher sense of efficacy for literacy instruction. In general, without prompting, several interview respondents contrasted their literacy methods courses with other subject-area methods courses. When compared to other non-literacy methods courses, respondents unanimously expressed that literacy methods courses had by far been the most beneficial courses for building confidence and a sense of preparedness to teach. While discussing her literacy methods courses, Anna said:



I love how the reading classes put you in the classroom...I really like how they give you more, like real practice before you're thrown into trying to do it...you're actually getting to put it into practice. Because you never know how it's going to work until you actually try it...and I think that in itself [hands-on experiences] is like the best aspect of the reading classes...

Taya explained:

In my other classes I haven't had an opportunity to work with students. They always want us to create this thing and hang on to it and use it someday. I never hung onto it; I just wanted to get rid of it. ...I think in a lot of the classes they give work that really is kind of meaningless, pointless maybe. Things that I already know and I think it's completely silly to make us do them. I feel like most of the projects are a waste of my time. But in reading, everything that we work with is stuff that we don't know about unless we learn it there, and it is stuff that we're going to use in our future classrooms.

Some emphatically conveyed a desire for more or a different type of literacy methods courses in their degree programs; especially in the cases where the literacy methods course experiences were poor. When discussing literacy methods courses and corresponding practicum-field experiences, four intertwining themes emerged including (a) organization, (b) teaching methods, (c) course assignments and relevance to real-world teaching, and (d) connectedness between literacy methods courses and corresponding practicum-field experiences.

**Organization.** Organization of the literacy method classes was mentioned rarely and only in cases where preservice teachers believed their literacy professors were highly disorganized. Such disorganization was frustrating because students never knew when assignments were due; the teacher would accept them if and whenever they were completed. Low accountability in this context translated into low expectations. Even though interview respondents believed the professor to be knowledgeable, nothing was learned because of the lack of organization and sporadic, generalized feedback.

Angeleen described one such experience, "...she had a lot of knowledge...but the class was really unorganized...I like to know exactly when stuff is due...but most of what I learned was on my own...I didn't really learn a lot from her..." Anything that was learned had nothing to do with the professor, but rather respondents credited their personal tenacity and work ethic for independent problem-solving. When speaking about a similar experience Jenna explained, "It was all on you to figure out what to do."

For those teachers who developed positive relationships with their preservice teachers, high expectations with clear direction were viewed as desirable and translated into an indicator of a caring relationship with students. Conversely, those teachers with high expectations, but lacking in positive relationships were perceived as difficult, to the point some respondents believed the literacy professors actually wanted their students to fail, or at the least, receive lower grades. Rhianna explained:

You can tell by going in the class...he didn't care...there's no modeling...there should be, but there's not...he is trying to confuse you...wreck your brain...there's no expectations; they're set low...he's called us stupid before...we don't even talk; it's fearful...no one asks him questions...it's horrible!

Some respondents believed that literacy professors in this scenario formed their professional teaching identity by how difficult their courses were, regardless whether or not their student measures were valid. Jerri described one such experience:

...Dr. G. got worried that she wasn't being tough enough on us...and we all made C's and D's because when she gave you a test, she gave you a right answer, an almost right answer, and it could be right but it's not what she was looking for...she would always give you 'In your opinion' questions and then count them off...from then on I went to anyplace I could to not take her.

*Teaching methods.* For positive class experiences, respondents enthusiastically described their literacy professors' instructional methods as portraying a fundamental respect by soliciting students' input into class discussions where students were safe to respond. Anna described, "...and they just always encourage us...after our tutoring she really does talk to us about how things went...she just makes you feel more comfortable...it doesn't always go as planned and that's okay..." Prevalent methods for teaching included modeling and opportunities to practice with immediate and useful feedback. Examples from actual classroom practice were provided. Anna expressed, "I love the examples they give...like physically giving us something that we can see and touch in our hands – that's been very helpful." These practices were identified by some respondents as the most beneficial aspect of their teacher education program because confidence to teach literacy was the result. Some described these practices as a mentorship, which again, suggests the importance of relationships.

In contrast, for those classrooms identified as a negative experience, these positive practices were entirely lacking. Jenna described this experience, "...I thought the professor was terrible...I didn't learn...that was probably my least effective class... I didn't really learn anything...we tutored for one hour a week...we had to do all kinds of forms, assessments...they were just boring...the kids didn't like them..." When asked about her professor's feedback, she replied, "I don't know; it wasn't very good feedback. It was like she really didn't know what to do." In addition, friendly, professional discussions were lacking; instead topics were quickly and superficially addressed with minimal opportunities to clarify confusions. Jenna described one such literacy methods course experience:

...and she [the professor] would be talking about the information and she would just stop, midway through her sentence of her discussion and say ‘Oh, and you know, and now...and then go on to this.’ And she would move on to something else...And she’d be like ‘You know, you know’ and I’m like ‘No, I don’t know, that’s why I need you to teach me.’ It was a terrible class.

Angeleen added, “...I think she really knows all about reading...but it was just like skim the basics...”

Interview respondents expressed frustration because learning how to teach was not occurring in their classes. Hailey explained, “they’re having you do things, but they’re not backing it up with research-based purpose...I don’t see a whole lot coming from the teaching aspect...this is how you want to teach your students.” When asked how to improve literacy methods courses, Valerie enthusiastically replied, “More practical information! More practice with actual students and more – more of a mentor kind of thing than a professor kind of thing.”

*Course assignments and relevance to real-world teaching.* Without exception, those respondents who identified their literacy methods courses as a positive experience, also enthusiastically expressed that all assignments were practical with regard to real-world teaching. Hailey described her class work this way, “...every [literacy] class you go into it’s about how are you going to set up your classroom and what’s going to be beneficial...” Those who were in their first year of teaching indicated instructional practices learned in college were helpful in their respective elementary classrooms. The nature of the “hands-on” practice with authentic literacy tasks was given credit for creating confidence to teach literacy. Some interview respondents identified frustrating negative practicum experiences where the coursework did not provide practical, useful materials to use with their tutees. Angeleen explained:

We didn't really have any hands-on stuff. We watched a few videos of people doing it [reading activity], but we never, as students, did it...the class wasn't really challenging...so I actually read all the information and did a lot of research on my own to better help the kids and different ways that I could teach literacy to students like that...

In these cases the respondents were forced to locate and/or develop their own resources, with minimal support, such as effective literacy instructional practices.

***Connectedness of literacy methods coursework and practicum-field***

***experiences.*** Most interview respondents expressed that literacy methods courses with a corresponding practicum-field experience were most influential in creating a sense of confidence to teach literacy; Bandura's (1986, 1997) assertions that mastery experiences are most effective for creating a sense of efficacy for teaching were supported. Classes where course lectures and assignments were geared toward equipping preservice teachers to teach literacy to a tutee were regarded as extremely beneficial; respondents explicitly gave credit to the supportive connection between the course design and the practicum experience as greatly boosting their confidence to teach literacy. Christina explained, "...sitting there working, doing it hands-on – working with the student for that class assignment I knew that I was being successful...I knew ...when I got out of school and started the job, I knew that I could do it." When classes failed to support preservice teachers' endeavors to teach children during a practicum, respondents expressed feelings of inadequacy and a need to take additional literacy methods courses to be prepared. Angeleen expressed, "...it's hard to only have a little bit of literacy teaching...I really don't feel like I was very prepared to teach reading when I got out of school."

## **Unexpected Findings**

In at least one case, mastery experiences did not prove more beneficial than coursework without a field-experience practicum. Jerri indicated that one literacy methods course without a practicum-field experience was more beneficial as compared to another course with a corresponding practicum-field experience. She believed that the professor's relationships with students, expertise, and teaching style compensated for a lack of field-experience practice. By contrast, the disorganization, lack of practical literacy teaching tools, and ambiguous feedback, so characteristic of another literacy methods course with practicum-field experience, appeared to be void of any great benefits; to the point students travelled great distances to attend another school to circumvent repeating a similar experience with the same ineffective literacy professor.

Also, interesting is the fact that high scores for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) were associated with both strong, negative experiences, as well as positive experiences. One possible explanation may be the respondents who had negative literacy methods course experiences did not have a clear idea for the breadth and depth of instructional tasks associated with literacy due to the poor nature of their literacy methods instruction; therefore, realistically and accurately assessing preparedness to teach literacy was difficult, if not impossible.

## **Summary of Results**

Possessing and conveying expert knowledge in literacy may not be requisite to forming strong relationships with students; however, interview respondents did not (or were not able to) take full advantage of what the literacy professor knew unless positive relationships were formed. Taya raised a great question, "I don't know if it's just

reading professors or if it's the personality it takes to be a reading professor, but I just have had a good experience with all of my reading professors.” Based on these qualitative findings, strong, positive relationships with expert literacy professors seemed to be the most powerful requisite for positively influencing preservice teachers; a finding which also is reflected in the quantitative results. Also, most respondents agreed that literacy methods courses were among the most beneficial experiences in their teacher education program; many expressed a desire to take additional literacy methods courses. These findings also support Clark's (2009) study where the number of literacy courses taken directly impacted an overall sense of efficacy for teaching. Those who expressed confidence to teach literacy had experienced strong, positive relationships working with expert literacy professors in literacy methods courses fostering a mentorship teaching style. These findings seem to reflect the often used educational proverb, “Students don't care how much you know, if they don't know how much you care.”

### **Research Question Three**

The third question was “How do the construct validity and reliability for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) from this study's data set compare to Tschannen-Moran and Johnson's (2011) findings?” Factor analyses were conducted using procedures similar to Tschannen-Moran and Johnson's (2011) study to determine whether results were consistent with their previous findings for TSELI. Principal axis factor analysis was used to analyze the 22 items to preserve consistency, as this was the statistical analysis chosen for Tschannen-Moran and Johnson's (2011) study. Principal axis factor analysis estimates factors solely on the

basis of common variance, as compared to principal component analysis which takes into account total variance in the data (Malhotra, 2007). The correlation matrix revealed an overwhelming majority of moderate correlation values, significant at  $p$  (one-tailed)  $< .001$ . The Kaiser-Meyers-Olkin (KMO) measure confirmed this sample was adequate for factor analysis,  $KMO = .92$ , which according to Field (2009) is excellent. All KMO values for individual items were .90 or greater; all variables exceeded the acceptable limit, again confirming the sampling adequacy for this analysis. Initial analyses to obtain eigenvalues for each factor in the data revealed three factors with eigenvalues near or over Kaiser's criterion of 1 (10.33 for Factor 1, 1.03 for Factor 2, and .77 for Factor 3). Together, these three components accounted for 55.15% of the variance (46.95% for Factor 1, 4.68% for Factor 2, and 3.52% for Factor 3), as compared with Tschannen-Moran and Johnson's (2011) initial findings of two components accounting for 62% of the variance. The scree plot (Figure 5) showed

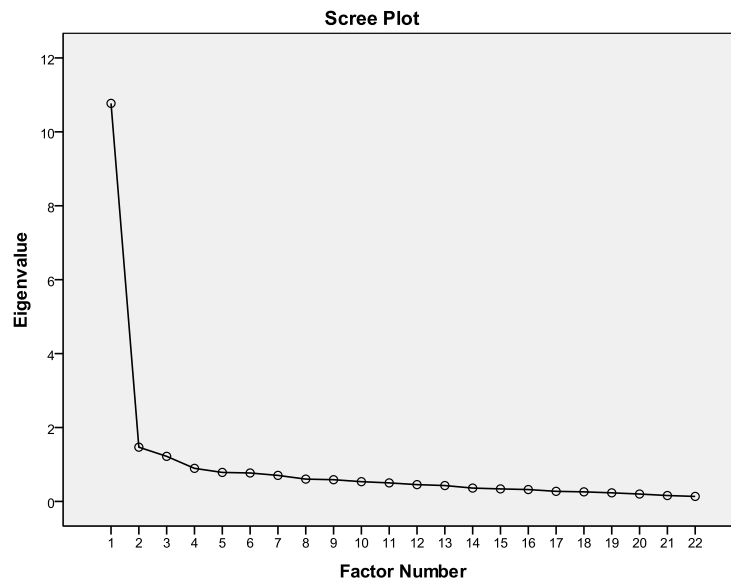


Figure 5. Scree plot of three-factor solution on the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) using principal axis factor analysis.



inflexions suggesting three factors. However, factors two and three, in combination, only accounted for approximately 8.20% of the variance and were essentially insignificant (minimal) as compared to factor one (46.95%). Both positive and negative factor loadings for the second and third factors were moderate to small, ranging from -.43 to .01. Table 10 shows the initial factor loadings using principal axis factor analysis.

According to DeCoster (1998) the number of factors retained should be limited to factors occurring before the last major drop in the magnitude of eigenvalues. Based on the scree plot, only one factor should be selected (eigenvalue of 10.33 for factor one versus only 1.03 for factor two). Following Tschannen-Moran and Johnson's (2011)

Table 10

*Summary of Exploratory Principal Axis Factor Analysis Factor Coefficients for TSELI (n = 120)*

Item	Factor 1	Factor 2	Factor 3
To what extent can you adjust reading strategies based on ongoing informal assessments of your students?	.71	.32	-.18
To what extent can you use a variety of informal and formal reading assessment strategies?	.68	.40	.01
To what extent can you integrate the components of language arts?	.53	.26	.02
To what extent can you provide specific, targeted feedback to students during oral reading?	.62	.03	.37
To what extent can you adjust writing strategies based on ongoing informal assessments of your students?	.64	.33	.10
To what extent can you use a student's oral reading mistakes as an opportunity to teach effective reading strategies?	.66	.18	.36
To what extent can you model effective writing strategies?	.75	.14	.13

*(table continues)*

Item	Factor 1	Factor 2	Factor 3
How much can you do to meet the needs of struggling readers?	.73	.09	-.17
How much can you do to get students to use independent reading time productively?	.68	-.25	.18
To what extent can you implement word study strategies to teach spelling?	.72	-.14	.16
To what extent can you get children to read a wide variety of genres?	.63	-.24	.24
To what extent can you help your students figure out unknown words when they are reading?	.73	.05	-.03
To what extent can you use flexible grouping to meet individual student needs for reading instruction?	.69	-.05	-.28
To what extent can you model effective reading strategies?	.62	.01	-.15
To what extent can you get students to read fluently during oral reading?	.73	-.28	-.06
To what extent can you use students' writing to teach grammar and spelling strategies?	.79	-.04	.11
How much can you do to get students to use independent writing time productively?	.77	-.10	.05
How much can you do to provide appropriate challenges for high ability readers?	.72	.02	-.27
To what extent can you get children to talk with each other in class about books they are reading?	.67	-.33	-.05
To what extent can you provide children with writing opportunities in response to reading?	.66	.09	-.09
How much can you do to adjust your reading materials to the proper level for individual students?	.68	.02	-.30
How much can you do to get children to value reading?	.63	-.43	-.11
Eigenvalues (Total = 12.13)	10.33	1.03	.77
% of variance (Total = 55.15)	46.95	4.68	3.52

procedures, another factor analysis was conducted requesting a single factor (Table 11). All items revealed strong factor coefficients, ranging from .79 to .53, as compared to the 2011 study's factor coefficients ranging from .83 to .53. For the current study this factor had an eigenvalue of 10.25 and accounted for 46.59% of shared variance in TSELI. Tschannen-Moran and Johnson's (2011) study had an eigenvalue of 12.17 and explained 55% of the variance. For this present study, TSELI had a high reliability (Cronbach's  $\alpha = .95$ ); Tschannen-Moran and Johnson's (2011) findings revealed Cronbach's  $\alpha = .96$ . The sample for the current study was comprised of 120 elementary and early childhood education preservice teachers, while the sample for Tschannen-Moran and Johnson's (2011) study consisted of 648 inservice teachers.

Table 11

*Summary of Exploratory Principal Axis Factor Analysis Factor Coefficients for Single-Factor TSELI (n = 120)*

Item	Factor 1
To what extent can you adjust reading strategies based on ongoing informal assessments of your students?	.70
To what extent can you use a variety of informal and formal reading assessment strategies?	.67
To what extent can you integrate the components of language arts?	.53
To what extent can you provide specific, targeted feedback to students during oral reading?	.61
To what extent can you adjust writing strategies based on ongoing informal assessments of your students?	.63
To what extent can you use a student's oral reading mistakes as an opportunity to teach effective reading strategies?	.65
To what extent can you model effective writing strategies?	.75

*(table continues)*

Item	Factor 1
How much can you do to meet the needs of struggling readers?	.73
How much can you do to get students to use independent reading time productively?	.67
To what extent can you implement word study strategies to teach spelling?	.72
To what extent can you get children to read a wide variety of genres?	.62
To what extent can you help your students figure out unknown words when they are reading?	.74
To what extent can you use flexible grouping to meet individual student needs for reading instruction?	.69
To what extent can you model effective reading strategies?	.63
To what extent can you get students to read fluently during oral reading?	.73
To what extent can you use students' writing to teach grammar and spelling strategies?	.79
How much can you do to get students to use independent writing time productively?	.77
How much can you do to provide appropriate challenges for high ability readers?	.72
To what extent can you get children to talk with each other in class about books they are reading?	.67
To what extent can you provide children with writing opportunities in response to reading?	.66
How much can you do to adjust your reading materials to the proper level for individual students?	.68
How much can you do to get children to value reading?	.62
Eigenvalue	10.25
% of variance	46.59

## CHAPTER FIVE: SUMMARY AND DISCUSSION

The purpose for this mixed methods study was to contribute to the existing body of research regarding literacy instruction self-efficacy. The threefold purpose was to (a) seek to analyze how teacher preparation program predictor variables, using a sampling from public and private higher education institutions in Oklahoma, influence a teacher sense of efficacy for literacy instruction; (b) determine how preservice teachers describe their literacy teacher preparation program with regard to their literacy teaching self-efficacy beliefs and feelings of preparedness for teaching literacy; and (c) contribute to the construct validity and reliability of the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) (Tschannen-Moran & Johnson, 2011) by comparing this study's sample results with their prior sample results.

### Summary

#### Methodology

**Participants.** Respondents for this study consisted of 120 preservice elementary and early childhood education teachers who were completing their final year of university teacher preparation. Study participants were from nine public and private universities in Oklahoma. Following quantitative data collection and subsequent statistical analyses, nine survey respondents representing above and below average scores for the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) participated in a follow-up, semi-structured telephone interview with the primary investigator.

**Measurement Instruments.** An online, self-reporting Likert-type survey focusing on the complexities of literacy instruction collected data for subsequent statistical analyses to determine strength of relationships between five predictor variables and one criterion variable. The 122-item survey was comprised of pre-existing, pre-validated, and multi-dimensional scales. The Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) determined participants' confidence for teaching literacy (criterion variable). Based on the literature reviewed, five predictor variables were identified for this study including (a) literacy content knowledge, (b) perceived instructional design of literacy methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors, and (e) perceptions of practicum-field experiences. Literacy content knowledge was measured using a state-mandated subject-area certification examination for educators (OSAT) in Oklahoma. Survey respondents self-reported scores achieved on this instrument. Four remaining predictor variables were measured using a composite of pre-existing, pre-tested, valid and reliable instruments utilizing a self-reporting, Likert-scale format.

Using quantitative statistical analyses results as a guideline, a protocol of questions was designed to query select interview participants representing above and below average scores on the criterion variable (TSELI). Follow-up, semi-structured telephone interviews were conducted using this protocol of questions.

**Design.** For this mixed-methods study, priority was given to quantitative statistical analyses of data collected using an online, Likert-type survey focused on the comprehensive tasks of literacy instruction (see Appendix B). Additional qualitative

data collected during follow-up telephone interviews conducted by the primary investigator served to further explain the criterion variable TSELI. Objective and subjective data were integrated to provide a broader interpretation of results and an enriched understanding of the research problems.

**Procedure.** Study participants included preservice elementary education and early childhood education teachers in their final year of a teacher preparation program, from nine colleges and universities in Oklahoma. Data were collected using a 122-item online, multidimensional, pre-existing, pre-tested self-reporting survey comprised of (a) the Learning to Teach Questionnaire (LTQ) (Hamman & Olivarez, 2005), (b) the Perceived Cooperating Teachers' Sense of Efficacy for Literacy Instruction Scale (PCTSELI) (Li & Zhang, 2000), and (c) the Opportunity to Learn Scale (OLS) (Ingvarson, Meiers, and Beavis, 2005). The criterion variable for this study, a Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI), was collected and computed as part of the 122-item online survey. The five predictor variables and corresponding surveys were (a) literacy content knowledge (OSAT), (b) perceived instructional design of literacy methods courses (OLS), (c) perceived mentoring support of cooperating teachers (LTQ), (d) perceived teacher sense of efficacy for literacy instruction of university literacy professors (PTSELI), and (e) perceptions of practicum-field experiences (OLS). Statistical analyses included descriptive statistics, Pearson's product moment correlations, simultaneous multiple regression analyses, and principal axis factor analyses.

Additionally, semi-structured interviews were conducted with a purposive sample of study participants to explore preservice teachers' perceptions of their literacy-

related teacher preparation experiences. Interview questions focused on unique perspectives of preservice teachers representing a range of Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) scores. This qualitative data provided in-depth examination of the quantitative data analyses results.

## **Results and Discussion**

This study used a mixed methods approach to enhance understanding of quantitative analyses results through follow-up collection of qualitative data; an in-depth understanding of the statistical analyses resulted. Research Questions One and Two shared a common theme focused on teacher education program variables that influenced preservice teachers' sense of efficacy for literacy instruction. Research Question One provided objective data for determining statistical significance, while Research Question Two supplied subjective data producing qualitative explanations for the statistical findings. Consequently, Research Questions One and Two are discussed in concert. An explanatory mixed-methods design uses qualitative data to explain or provide insight for the quantitative findings (Creswell & Plano Clark, 2007). For this study, merging data from qualitative and quantitative sources provided a more comprehensive understanding of the research problem. Research Question Three, which is discussed separately, focused on a specific construct outcome.

### **Program Variables Associated with Perceptions of Preservice Literacy Instruction Self-efficacy and Feelings of Preparedness for Literacy Instruction**

The body of research reviewed for this study examined which components of teacher preparation programs significantly influenced preservice teachers' sense of efficacy for teaching. The review of the literature identified five key components as



most influential for impacting preservice teachers' sense of efficacy for teaching including (a) content knowledge, (b) perceived instructional design of methods courses, (c) perceived mentoring support of cooperating teachers, (d) perceived teacher sense of efficacy for instruction of cooperating teachers, and (e) perceptions of practicum-field experiences. These components (variables) were adapted to include a literacy focus for each and used in this study to examine which were significant in explaining the criterion variable, teacher sense of efficacy for literacy instruction (TSELI). Four predictors were positively and significantly correlated with TSELI including (a) perceived instructional design of literacy methods courses (MTHDS), (b) perceived mentoring support of cooperating teachers (CTSPT), (c) perceived teacher sense of efficacy for literacy instruction of university literacy professors (PTSELI), and (d) perceptions of practicum-field experiences (FLDEXP). Individually, PTSELI and MTHDS revealed the strongest correlations with TSELI ( $r = .53$  and  $r = .46$  respectively,  $p$  [one-tailed]  $< .001$ ). A fifth predictor variable, literacy content knowledge (OSAT), as measured by a subject-area, state-licensure test had only a small positive, statistically insignificant correlation with TSELI.

A simultaneous multiple regression model measuring relationships between the criterion variable (TSELI) and the five previously identified predictor variables revealed a statistically significant relationship for the set of five predictors; accounting for 35% ( $R^2_{\text{adj}} = .35$ ) of the variance on TSELI. Perceived teacher sense of efficacy for literacy instruction of literacy professors (PTSELI) and perceived instructional design of literacy methods courses (MTHDS) were statistically significant, which not surprisingly, also had statistically significant correlations with TSELI. Using semi-

partialing, the most conservative correlation measure, PTSELI accounted for 14.21% of unique variance on TSELI and MTHDS accounted for 3.39% of unique variance.

These results support findings in the literature review suggesting that methods courses and perceived teacher sense of efficacy proved among the strongest predictors for preservice teachers' sense of teaching self-efficacy (Carter, 2006; Helfrich, 2007; Clark, 2009; Ingvarson, Beavis, & Kleinhenz, 2007; Knoblauch & Woolfolk Hoy, 2008; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009).

Both significant predictors identified in this study (PTSELI and MTHDS), represent and utilize all four sources of efficacy identified by Bandura (1986, 1997); essentially, sources of influence for developing a teaching sense of efficacy identified by including (a) hands-on, mastery experiences, (b) vicarious, modeling experiences, (c) feedback in the form of verbal and social persuasion, and (d) emotional and physiological arousal. Mastery experiences consist of opportunities to experience and observe one's self completing a hands-on task; such experiences are considered the most powerful source of efficacy, especially those linked to the real-world practice of teaching (Usher & Pajares, 2008). Second, vicarious experiences are derived from observing others for the purpose of comparing individual abilities with those modeled (Bandura, 1997), as evidenced in this study by the perceived teacher sense of efficacy for literacy instruction of a university literacy professor. Verbal and social persuasions consist of encouragement and timely feedback while completing a task, which frequently is a natural occurrence within a mentorship-style of teaching. The final source of efficacy is emotional and physiological, consisting of varying degrees of feelings, both positive and negative. Often, preservice teachers use their feelings as

indicators of their competence for a given task (Usher & Pajares, 2008), and also limit taking risks to perform a task when emotional safety is not assured. The subscale measuring the instructional design of literacy methods courses specifically focused on opportunities to experience all four sources of efficacy. For example, characteristics of high-quality methods courses identified in the literature review provided opportunities to observe experts who modeled best practices, followed by opportunities to attempt replication of those practices with immediate feedback; all within an environment where participants' background experiences were respected and also where emotional safety was assured (Bleicher, 2007; Brand & Wilkins, 2007; Clark, 2009; Helfrich, 2007; Ingvarson, Beavis, & Kleinhenz, 2007; Nietfeld & Cao, 2003; Palmer, 2006; Richardson & Liang, 2008; Shaw, Dvorak, & Bates, 2007; Swars, Smith, Smith, & Hart, 2009).

**Mastery Experiences.** The relationship with perceived instructional design of literacy methods courses (MTHDS) was statistically significant with TSELI, in both simple correlations, as well as a predictor in the multiple regression model. This partially supports Helfrich's (2007) findings that methods coursework and field experiences were considered most influential for developing a sense of confidence and efficacy to teach. However, for the present study, perceptions of practicum-field experience (FLDEXP) had a small, positive, but statistically insignificant relationship with TSELI in the regression model results. When considering the follow-up qualitative data to further explain the quantitative results, practicum experiences alone were not enough to build teacher confidence; such practical experiences must be directly linked to and supported by the more foundational literacy methods coursework.

Ingvarson, Beavis, and Kleinhenz's (2007) study supported this notion, emphasizing the importance of teaching corresponding pedagogical knowledge in concert with all content-area knowledge taught. The Literacy Methods Course subscale (OLS) was designed to measure this type of instructional methods course design, for example, respondents were asked to indicate how often their university lessons were linked to the school field experience component of the program. The current study corroborates the findings of Ingvarson, Beavis, and Kleinhenz's (2007) study results.

Five studies reviewed in the literature found that methods courses designed to teach content knowledge with pedagogical knowledge significantly influenced preservice teachers' sense of efficacy for teaching (Ingvarson, Beavis, & Kleinhenz, 2007; Knoblauch & Woolfolk Hoy, 2008; Palmer, 2006; Phelps, 2009; Richardson & Liang, 2008). For this study, those courses identified by interview participants as directly supporting field experiences were repeatedly identified as most beneficial for developing a sense of confidence to teach literacy. Courses that provided modeling, timely feedback, and emotionally-safe environments for learning with professors perceived by their respective students as being expert practitioners were, without exception, identified as a resource for developing a greater sense of confidence for teaching literacy. Online survey items specifically addressed this; for example, respondents were asked to indicate to what extent their literacy methods courses gave them opportunities to (a) practice analyzing and reflecting on examples of their teaching practice, (b) practice new teaching skills with feedback from their university literacy professor, and (c) analyze their teaching practice in relation to standards for good teaching practice. Survey items also asked respondents to indicate to what extent the

cooperating teacher generally valued the literacy ideas and approaches learned from their university literacy professor. Conversely, those classes identified as lacking direct links to and support for corresponding field-experience practicums were reported to be insufficient for creating any sense of efficacy to teach literacy. These literacy methods courses with field-experience practicums that did not teach requisite pedagogical knowledge with opportunities to practice and receive timely feedback were viewed as ineffective.

**Vicarious Experiences.** Three studies reviewed measured strength of perceptions of cooperating teachers in relation to preservice teachers' teaching self-efficacy (Carter, 2006; Knoblauch & Woolfolk Hoy, 2008; Li & Zhang, 2000). Results of these studies found a positive, statistically significant relationship between participants' perceptions of their cooperating teachers' self efficacy and preservice teachers' personal self-efficacy teaching beliefs; results which were corroborated in this study. For example, in a follow-up interview, Rhianna's description of the relationship with her literacy professor accentuated the powerful effect of vicarious experiences, "We talked a lot. I feel so comfortable with her [professor]...maybe it's because I hopefully can see myself in her position. She's so young; she's accomplished so much...that's exactly what I want to do." Online survey items focused specifically on the modeling and expertise of the literacy methods professor. For example, respondents were asked to indicate the extent to which their preservice teacher education program's literacy methods courses gave them opportunities to observe models illustrating new teaching practices and to learn methods for reflecting on examples of teaching practices. This statistically significant, positive relationship of foundation and practicality from

the quantitative results had the greatest influence for predicting TSELI also is corroborated in the qualitative data findings.

Those professors teaching a literacy methods course that were identified as building strong relationships with their preservice teachers also were consistently perceived as experts in both the fields of literacy and elementary classrooms as teachers of literacy. Online survey items addressed the expertise of university literacy professors by asking respondents to indicate to what extent they had opportunities to observe models of expert teachers in action. Qualitative data directly supported the quantitative data; for example, Anna observed, “I perceived her as being what I call rock-star teachers...I would just think that if you put them in a classroom they’re going to be like a total rock star, like they seem to have it all...” Conversely, the opposite was observed for those literacy professors failing to form positive relationships with their preservice teachers. Jenna described one such professor, “I think if she had to go back into the classroom with second graders...it wouldn’t be good...I saw her as how not to be...”

Several interview respondents made the distinction between book knowledge and practical teaching experiences. Valerie described her experience, “She [literacy professor] had a lot of research information, but I don’t know that she had a whole lot of experiential background on it...she had never really taught.” The distinction was made between those literacy professors who, at one time, may have been influential practitioners, but had not remained current in their practitioner knowledge. Anna explained, “Some of my professors haven’t been in a classroom for 15, 20, 25 - 30 years...I don’t think they were knowledgeable as to what is concurrently going on in the school rooms.” One survey item related to this observation asked respondents to

indicate how recently their university literacy professor had participated in primary and secondary school experiences. Regardless of whether literacy professors were inexperienced or had been away from elementary classroom teaching for too long, both were perceived as poor practitioners, thus reducing their effectiveness for teaching literacy content knowledge. Generally, literacy professors who were perceived as expert practitioners were also those professors who fostered strong relationships with their preservice teachers; professors who were perceived as experts in the field of literacy and worthy of emulation.

Clearly, perceptions based on vicarious experiences in the form of mentorships with cooperating teachers or literacy professors played a powerful role in predicting preservice teachers' sense of efficacy. Bandura (1986) believed perceptions could be more powerful than the actual event for determining self-efficacy, as evidenced in this study's qualitative results. Interview respondents who had positive, supportive relationships with literacy professors, generally had a greater sense of efficacy for literacy instruction, which appeared to be a direct result to the extent of how efficacious their literacy professors were perceived to be with regard to literacy instruction.

Corroborating research results (Bleicher, 2007; Brand & Wilkins, 2007; Nietfeld & Cao, 2003; Richardson & Liang, 2008) suggest that mentoring experiences with an expert in literacy knowledge, as well as an experienced practitioner, are critical for developing a teaching sense of efficacy for literacy instruction in preservice teachers. Determining which role (the cooperating teacher or university literacy professor) is more critical has not been examined.

**Verbal persuasion.** Qualitative findings in this study highlighted the importance of a knowledgeable literacy professor who provided timely, valuable feedback. Carter (2006) argued that in the case of verbal persuasion, preservice teachers weigh the feedback given in the context of both the knowledge and credibility of the professor providing the feedback. Online survey items specifically addressed verbal persuasion; for example, respondents were asked to indicate the extent to which they had opportunities to practice new teaching skills with feedback from the university literacy professor, as well as, to receive useful feedback about their teaching from their university literacy professor. Jenna's description provides supporting qualitative data of a corresponding experience, "...I didn't learn...that was probably my least effective class...I didn't really learn anything...we tutored for one hour a week...I don't know; it wasn't very good feedback. She [the professor] really didn't know what to do." It is possible that confidence can be more easily damaged or even destroyed than bolstered through verbal persuasion, especially if such an experience occurs during the malleable, formative stages of skill development (Usher & Pajares, 2008). Consider Rhianna's statement about such an experience:

"You can tell by going in the class...he didn't care...there's no modeling...there should be, but there's not...he is trying to confuse you...wreck your brain...there's no expectations; they're set low...he's called us stupid before...we don't even talk; it's fearful...no one asks him questions...it's horrible!"

Interview respondents repeatedly echoed that nothing was learned in those classes where relationship and consequent feedback were lacking, to the point of resenting the professor's feeble attempts to communicate. "She doesn't even know me, so how does she know what I'm thinking! That's offensive!"



**Emotional and physiological arousal.** Another caution revealed in the literature review was the notion that preservice teachers often interpret their feelings and moods as indicators of competence for a given task (Usher & Pajares, 2008). Given that preservice teacher's sense of teaching efficacy are strong filters and predictors for how new information will be processed, minimizing negative emotional states is of paramount importance (Tschannen-Moran & Woolfolk Hoy, 2001). Where the methods class environment lacked a sense of community and safety, interviewees unreservedly admitted withdrawal from class participation where professor-student relationships were lacking. To exemplify this assertion Jerri stated, "...they [professors] made you feel like maybe I don't want to teach...they made you just feel like you didn't know anything and you were never going to make it." In contrast, another interviewee, Anna, described a situation fostering a positive, emotional state, "...they [professors] just always encourage us...after our tutoring she really does talk to us about how things went...she just makes you feel more comfortable...it doesn't always go as planned and that's okay." Online survey items addressed the emotional support by asking how much they were valued; for example, respondents were asked to indicate how often their literacy professors in a literacy methods course valued the learning and experiences established prior to starting the program and also the learning and experiences gained in their field experience practicum.

**Influence of number of literacy methods courses taken.** Clark's (2009) study determined that the greater the number of literacy methods courses taken during teacher education programs resulted in a statistically significant advantage in developing and sustaining a high sense of teacher efficacy over time for both a global and reading

teacher self-efficacy. Qualitative results from this study provided additional supporting evidence; several interview respondents expressed a desire to take more literacy methods courses due to the lack of preparedness to teach literacy, especially when these experiences were negative. Angeleen expressed her concerns, "...it's hard to only have a little bit of literacy teaching...I really don't feel like I was very prepared to teach reading." In the case of positive literacy methods course experiences, interview respondents indicated their literacy methods courses were more beneficial than any of the other methods courses taken during their teacher preparation program. Taya described and contrasted her literacy methods course with other methods courses, "[in other methods courses] I feel like most of the projects are a waste of my time. But in reading, everything that we work with is stuff that we don't know about unless we learn it there, and it is stuff that we're going to use in our future classrooms."

**Unexpected findings.** Given the corroborating body of research indicating content knowledge impacts a sense of teaching self-efficacy (Bleicher, 2007; Ingvarson, Beavis, & Kleinhenz, 2007; Palmer, 2006; Shaw, Dvorak, & Bates, 2007), the predictor variable literacy content knowledge (OSAT) was unexpectedly not statistically significant in explaining the criterion variable TSELI. Haverback's (2007) study also failed to find statistical significance between content knowledge and reading teacher efficacy; however, the instrument measuring reading teacher self-efficacy may not have accurately represented the comprehensive and complex nature of literacy instruction. Of interest was the small, negative, statistically significant correlation with perceptions of practicum-field experience (FLDEXP) ( $r = -.18$ ,  $p$  [one-tailed]  $< .05$ ) and literacy content knowledge (OSAT). Also, a moderate, negative relationship with perceived

mentoring support of cooperating teachers (CTSPT) ( $r = -.11$ ) and a small, negative relationship was indicated for perceived instructional design of literacy methods courses (MTHDS) ( $r = -.04$ ) with OSAT; however, neither of these relationships were statistically significant. For this study, participants' self-reported subject-area licensure test scores (OSAT). To reportedly protect the privacy of the participant, the Internal Review Board (IRB) prohibited access to actual OSAT scores. Given the nature of self-reporting scores to conclusively determine the meaning of the small, statistically insignificant relationship between literacy content knowledge and a teacher sense of efficacy for literacy instruction (TSELI) in both correlation statistics and the regression model results is problematic.

### **Construct Validity and Reliability of the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI)**

Self-efficacy is well-accepted as a significant predictor for teaching behavior; however, questions of construct validity continue to plague the research community with regard to measurements capturing a sense of self-efficacy for teaching (Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Many researchers placed emphasis on strengthening the validity of instruments designed to measure teaching self-efficacy (Denzine, Cooney, & McKenzie, 2005; Henson, 2002; Tschannen-Moran & Woolfolk Hoy, 2001). Bandura (1997) cautioned that instruments measuring efficacy which did not include adequate specificity to position the items within the context of the situation for which efficacy beliefs were being measured may not be valid. Each domain needs its own uniquely valid measure, in this case literacy instruction self-efficacy. Responding to this gap in the research, Tschannen-Moran and Johnson (2011)

developed the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI) in 2004 and re-tested in 2011. Emerging as an acceptable measure for literacy instruction self-efficacy, the TSELI is considered fairly new and additional studies would only strengthen the statistical reputability of this instrument.

Principal axis factor analyses were conducted using procedures similar to Tschannen-Moran and Johnson's (2011) study to compare this study's consistency with the previous 2011 findings for the TSELI. Initially, three factors emerged with an eigenvalue greater than one. Using the scree plot in concert with eigenvalues, factor analyses results suggested only a single-factor structure. Subsequent factor analyses, requesting a single-factor, revealed strong factor coefficients ranging from .79 to .53. For the current study, a single factor accounted for 46.59% of the variance in TSELI; for the 2011 study, a single factor explained 55% of the variance in TSELI. This difference could be attributed to the difference in samples where the current study consisted of 120 preservice teachers and the 2011 sample was comprised of 648 inservice teachers. Similar to 2011 findings (Cronbach's  $\alpha = .96$ ), internal consistency for this study was high ( $\alpha = .95$ ). These results contributed to the statistical reputability of the TSELI, strengthening its position as a viable measure for future research in literacy instruction efficacy.

### **Conclusions**

Teachers are a classroom's greatest resource; but teachers also are potentially a classroom's greatest weakness (Clark, 2009). Corroborating research suggests teachers play significant and powerful roles in student achievement and success (Darling-Hammond, 2002). In Darling-Hammond's study, the most powerful, negative

predictor of student failure was the proportion of uncertified, less qualified teachers in the classroom. Proficient literacy skills are critical to successful participation within society; thus, significant time and monetary resources have been and should be spent on improving literacy skills. Given the fundamental importance of an individual's proficiency in literacy as a requisite for participation in almost any culture, every student deserves and should expect a quality education in literacy; hence, student teachers must develop and learn to teach with a pedagogical literacy knowledge expertise and a strong sense of efficacy for literacy instruction to embrace the challenges of entering the prevalent work force of traditional, status quo education. Direct relationships exist between perceived teaching abilities and actual practice (Bandura, 1997; Pajares, 2002). Teachers may be confident to teach in one area, but possess a sense of inadequacy when teaching outside their comfort zones; dismal student outcomes will most likely be the result. Tschannen-Moran and Johnson's (2011) study found that a strong sense of efficacy for teaching in general was clearly not the same as a strong sense of efficacy for literacy instruction.

This study examined five components of teacher education programs identified in a review of literature to determine which were significant for influencing a preservice teachers' sense of efficacy for literacy instruction. Statistically-significant, positively-correlated, quantitative results suggested the greatest influence on preservice teachers' sense of efficacy for literacy instruction was how their literacy methods professors' sense of efficacy for teaching literacy was perceived. Instructional design of literacy methods courses proved to be the second most significant influence on preservice teachers' sense of efficacy for teaching literacy. A review of the literature revealed that

literacy methods courses should provide (a) mentoring-assistance and feedback on real-world applications, (b) in-class modeling of instructional practices linked to real-world experiences, (c) literacy content knowledge taught in concert with pedagogical knowledge, and (d) respect for the learner. Follow-up qualitative data supported these findings, which provided a deeper understanding for the quantitative results.

Essentially, literacy professors who were perceived by preservice teachers as possessing expert knowledge were also those identified as forming strong relationships with their preservice teachers. For professors who failed to form relationships with their respective students, interview respondents were incapable and/or unwilling to take advantage of the literacy professor's expertise. Strong, positive relationships with literacy professors seemed most influential for impacting preservice teachers' sense of efficacy for literacy instruction; a qualitative conclusion which supports this study's quantitative results. Most interview respondents indicated high-quality literacy methods courses were the most beneficial experiences in their teacher education program. In the case of poor literacy methods course experiences, many indicated a desire for more (and better) literacy methods courses, as a result of the belief of being inadequately equipped to teach literacy; this finding supports Clark's (2009) study indicating that the number of literacy methods courses taken not only affected a sense of efficacy for literacy instruction, but also was a significant influence on a global sense of efficacy for teaching. Essentially, interview respondents who expressed confidence for teaching literacy had experienced strong, positive relationships with literacy professors in high-quality literacy methods courses fostering a mentorship-type teaching style. Based on both qualitative and quantitative findings, the nature of the instructional design of

literacy methods courses is of significance, as well as the type of teaching relationships facilitated by the university literacy professor during those methods courses.

Diverse learners, special needs learners, and essentially, all students are entitled to literacy instruction delivered by highly qualified, influential teachers who possess a strong sense of efficacy for teaching literacy (Allington & Cunningham, 2007; Ruddell, 2004). The complexities of literacy instruction require pedagogical knowledge and a sense of confidence for determining what literacy skills and strategies students require in specific contexts; literacy instruction often times demands instantaneous decisions for complex reading challenges. A strong sense of efficacy for specific contexts, in this case literacy instruction, plays a significant role in making such decisions and negotiating subsequent plans of action possible (Ashton & Webb, 1986; Soodak & Podell, 1993).

A sense of efficacy for teaching will most definitely impact the extent to which preservice teachers matriculating through teacher education programs learn pedagogical knowledge and perform teaching tasks successfully. Preservice teachers who graduate from teacher preparation programs with a strong sense of efficacy for literacy instruction will be better positioned to successfully embrace the challenges of transitioning into a career in elementary teaching; a work force characteristically lacking in mentoring support, as well as possibly antagonistic, with the ideals new teachers intend to implement. Tschannen-Moran and Woolfolk Hoy (2001) asserted that once efficacy beliefs are stabilized, change rarely occurs. Literacy instruction efficacy beliefs must be solidified before leaving teacher preparation programs. Preservice teachers must be afforded opportunities to develop a strong sense of efficacy

for literacy instruction to make literacy acquisition, hence the culture, a reality for all students. Ultimately, it is the instructional activities employed by individual teachers in their respective classrooms where theories and their intended results are realized or, possibly, rendered ineffective; teachers who possess a strong sense of efficacy for literacy instruction are potentially a classroom's greatest resource.

### **Recommendations for Practice**

Given literacy is the basis for all instruction and central to elementary education, teacher preparation programs must examine factors, which contribute to the development of literacy instruction self-efficacy, if improvements in nationwide literacy skills are to be realized. Teacher education programs are in a unique position of power for influencing and utilizing all four sources of self-efficacy during the malleable stages of instructional literacy skill development (Usher & Pajares, 2008); however, only a brief opportunity exists for influencing a teacher-sense of self-efficacy for literacy instruction in preparing for a life-time career teaching literacy to elementary children. Results of this study provided the basis for many suggestions for implementation of theory into practice.

This study's findings indicate the mentorship of a cooperating teacher, practicum-field experiences, and literacy content knowledge were not statistically significant for influencing a Teacher Sense of Efficacy for Literacy Instruction (TSELI); however, instructional design of methods courses and perceived teacher sense of efficacy for literacy instruction were statistically significant in TSELI. This information should prove beneficial for teacher education programs when designing their programs determining which opportunities to learn and real-world experiences to



provide. Specific, purposeful examination of program characteristics are provided, rather than focusing on the broad, overall teacher education program.

Institutions of higher learning should exercise caution when filling positions involving literacy instruction of preservice teachers. Both the quantitative and qualitative data in this study identify the importance of developing positive relationships with literacy professors who are experts in literacy, as well as the pedagogy of instruction developed in practitioner experiences. Only literacy professors possessing expert literacy knowledge and demonstrating expertise in pedagogy should be considered for positions involving literacy instruction to preservice teachers who will become the critical gatekeepers of literacy for future elementary students.

Given the importance of forming relationships with literacy professors who are knowledgeable and expert practitioners, requirements for determining who is eligible to teach literacy methods courses should be examined. Based on this study's results, establishing a certification process much like those existing for National Boards Certification would be beneficial; guidelines of benchmark characteristics focusing on both literacy content knowledge and pedagogical practices should be constructed. Given how literacy is critically fundamental to a literate, competitive society, employing literacy methods course professors who are both experts in literacy knowledge and influential practitioners is a must, as the success of their future elementary students is significantly contingent on the nature of literacy instruction received.

Many interview respondents made the distinction between professors who were current in pedagogical practices versus theory knowledge only. Professors may begin

a career for teaching literacy methods courses with current pedagogical experiences; however, over time, current programs and practices employed in K-12 schools may be lost or become obsolete. One suggestion is to require that literacy methods professors routinely return to the elementary classroom for periods of sustained instructional practice; such a requirement would be part of their faculty teaching load and possibly continued certification.

A sense of teaching efficacy helps preservice teachers to remain steadfast to beliefs regarding quality literacy instruction in environments which may lack instructional and administrative support. Additionally, a teaching sense of efficacy for literacy instruction supports a commitment to realize each student's potential. Given the power of a teaching sense of efficacy for literacy instruction, teacher education programs should consider including a measure such as the perceived sense of efficacy for literacy instruction to be completed by student teachers' respective cooperating teachers and university supervisors as part of their student teaching performance evaluation. In addition, part of the hiring process for elementary teachers could include a requirement that applicants respond to a series of scenarios representing the multiple facets of elementary literacy instruction and using the Teacher Sense of Efficacy for Literacy Instruction Scale as a reference for interviewers to evaluate applicant responses to each scenario.

Elementary students are entitled to quality literacy instruction, which has little chance of occurring if preservice teachers do not have opportunities to learn from expert practitioners of literacy. The importance of high-quality literacy methods courses are highlighted in this study; methods courses where participants are provided opportunities

to learn using real-world practices, modeled by expert practitioners, with timely, explicit feedback provided within a safe, positive mentorship relationship. Interview respondents consistently made the distinction between those classes that instilled a sense of confidence versus those that did not. The influence of the instructional design of methods courses positively and significantly influenced a teaching sense of efficacy for literacy instruction. Ingvarson, Beavis, and Kleinhenz (2007) emphasized the importance of teaching pedagogical knowledge in concert with content knowledge; a finding supported in this study's qualitative data. Based on this study's significant results and the corroborating research reviewed (Ingvarson, Beavis, & Kleinhenz, 2007; Knoblauch & Woolfolk Hoy, 2008; Richardson & Liang, 2008), the design of literacy methods courses must include opportunities to routinely utilize the four sources of efficacy (mastery experiences, modeling, feedback, and a sense of safety); courses must include a mentorship-style of teaching, hands-on experiences with timely feedback, within an emotionally safe environment for risk-taking, where real-world connections are facilitated by an expert literacy professor. Given efficacy beliefs, once stabilized, rarely fluctuate; the instructional design of literacy methods courses is critical.

Finally, the results of this study identify the powerful role that relationships with university literacy professors play in developing a strong sense of efficacy for literacy instruction in preservice teachers. In light of this finding, teacher education programs should provide small, specialized courses to facilitate personal mentorship relationships between the university professor and each class participant. Also, the structure of alternative certification programs should be re-examined in light of these findings which highlight the importance of preservice teachers forming relationships with their

university literacy professors to develop a strong sense of efficacy for literacy instruction.

### **Limitations of the Study**

As with all research, this study had limitations. Five limitations are identified in this discussion. First, due to the nature of the pre-existing, pre-validated scale, items were not changed to accommodate regional or cultural differences. The scales were measures of perceptions which can be greatly influenced by culturally sensitive phrases or words. Though the language of teaching is fairly consistent, some regional variations exist. Instructions were added for each subscale designed to guard against biases or confusions that regional differences might create.

Gaining Internal Review Board (IRB) approval presented many significant obstacles to this study. Arrangements were made to acquire actual subject-area licensure test scores (OSAT) from the State Commission for Teacher Preparation; however, IRB approval was denied. Consequently, at the recommendation of the IRB, participants were asked to self-report their scores to the best of their recollection. Also, the anticipated paper-pencil, on-site survey was converted to an on-line format to accommodate IRB requirements; although participants were insured of being able to volunteer free from any coercion, the nature and characteristics of the sample were limited. Are the pre-service teachers who volunteered to complete this on-line survey different from those who were invited to participate, but declined? Are those who completed the on-line survey more or less satisfied than those preservice teachers choosing not to complete the survey? IRB approval is essential to protect student

participants; however, adjusting study procedures to accommodate IRB requirements can present formidable obstacles to expanding the frontier of quality research.

Survey respondents were invited to participate in follow-up telephone interviews. These consisted of one-on-one conversations which prohibited clouding by another respondent in a group setting. Focus groups elicit a distributed knowledge, where latent constructs could surface, areas that might otherwise remain undetected. What additional knowledge providing a more comprehensive understanding of the research question could have been gleaned with the addition of a focus group?

Self-reporting surveys using Likert-scale formats are limiting. Closed-ended questions prohibit respondents from qualitatively explaining their perceptions and feelings with regard to literacy teacher self-efficacy. As with any self-reporting survey, the data are only as good as the respondent's honesty. Are they answering the way they think is expected? Social desirability bias was minimized due to the nature of an on-line survey; however, responses can potentially be biased. Perceptions, by nature, are unique to each individual; was the scale item uniformly interpreted by all respondents to mean the same thing? Given the rigidity of the IRB restrictions, no process was implemented to clarify respondents' questions.

Another limitation was the nature of composite predictor variables. Each predictor variable was a composite of several scale items. Some items may be deserving of greater weighting based on the degree of importance identified in factor analyses. Some composite variables were multidimensional, consisting of more than one subscale. Should each of these subscales receive equal weight in the composite variable scores?

## **Recommendations for Future Research**

This study contributes to the existing research regarding which characteristics of teacher preparation programs significantly influence elementary and early childhood education preservice teachers' sense of self-efficacy for literacy instruction. Additional studies to expand the body of research on a sense of efficacy for literacy instruction could include the following recommendations.

1. A comparative study examining preservice teachers in rural versus urban contexts would be beneficial. Knoblauch and Woolfolk Hoy (2008) found that student teachers' sense of teaching self-efficacy increased regardless of an urban or rural placement, but what about teacher education programs situated in rural versus urban locations? Rural communities could potentially have a higher level of built-in accountability and mentorship-type relationships because individuals interact in social contexts outside of the school community; preservice teachers will eventually teach the community's children. Do rural contexts foster a greater sense of efficacy for literacy instruction than urban settings?
2. Longitudinal studies to determine whether enthusiasm alone is enough to sustain preservice teachers entering the workforce would be beneficial. Several interview respondents in this study indicated an increased level of confidence in their abilities to teach literacy because of their literacy methods professor's encouragement. Bandura (1997) suggested self-efficacy beliefs can be stronger than one's actual abilities regarding motivation and courses of action. Also, if these preservice teachers were exposed to multiple high-quality literacy methods courses during their respective teacher preparation programs, their sense of

efficacy for literacy instruction may begin to stabilize prior to graduation. Once a sense of efficacy is solidified for a specific area and context, stability is usually maintained (Clark, 2009; Tschannen-Moran & Woolfolk Hoy, 2001). How do these same preservice teachers, after their first year of teaching, view the value of their literacy methods courses and the expertise of their university literacy professors?

3. Conducting a comparative study examining data through the lens of respondents' demographics, such as (a) commuter versus residential schools, (b) age, (c) reasons for teaching, (d) marital status, (e) family, and (f) ethnicity would be beneficial. Follow-up telephone interviews would add insightful contextual data to this study. Unique perceptions contributing to the development of literacy instruction teaching efficacy have been influenced by these demographics; part of where one is going is part of where one has been. Determining which were most significant for influencing literacy instruction efficacy would assist teacher education programs and elementary schools intentionally provide support where needed to develop this sense of efficacy.
4. Conducting a study designed to examine just the extreme scores (high and low) for a sense of teaching self-efficacy for literacy instruction to determine which variables or scale items strongly predict a high (low) level of success would be beneficial. Differentiating which variables were critical in determining extreme scores on TSELI could develop a better understanding for why some preservice teachers may have a weak sense of efficacy for literacy instruction, while others

completing the same or similar teacher education program have a strong sense of efficacy.

5. Repeating this current study using actual subject-area licensure test scores (OSAT), rather than self-reported scores, would provide the basis to further explore the lack of statistically significant relationships between literacy content knowledge and a teacher sense of efficacy for literacy instruction found in this study. The body of research indicates a significant, positive relationship does exist between knowledge and a sense of efficacy (Bleicher, 2007; Haverback, 2007; Ingvarson, Beavis, & Kleinhenz, 2007; Palmer, 2006; Shaw, Dvorak, & Bates, 2007). To examine the nature of this relationship further would be of interest. Is the OSAT an accurate measure of literacy content knowledge and is self-reporting an acceptable method of capturing the respondents' OSAT data?
6. Repeating this current study measuring procedural knowledge of literacy instruction instead of declarative knowledge should be beneficial. Does a difference exist between procedural knowledge and declarative knowledge in relation to a sense of teaching efficacy for literacy instruction? Examining the correlational and predictive relationships of procedural knowledge in a replication of this study would be of great interest.
7. Clark's (2009) study results suggest that literacy methods courses influenced not only a sense of efficacy for reading instruction, but were one of the strongest predictors for determining an overall, global teaching efficacy score. Both quantitative and qualitative results of this current study corroborate the importance of literacy methods courses. Some teacher education programs offer



only two literacy methods courses, where others offer more. Also, qualitative data in this study indicated that literacy methods courses are not uniform within a single teacher education program, and in fact differs across multiple universities and colleges. Conducting a comparative study of both the instructional design of literacy methods courses and the number of literacy methods courses offered in teacher education programs situated in a variety of universities and colleges to assist teacher preparation programs intentionally design programs that develop a teacher sense of efficacy for literacy instruction would be beneficial.

8. Conducting focus groups drawing from different universities and colleges to identify latent factors to use as a basis for study with regard to the nature of literacy methods courses would be beneficial. What makes a literacy methods course so beneficial? What is it about a great literacy methods course that was so different from another? A survey or one-on-one interview extracts the experiences of only one individual. In contrast, drawing upon the distributed knowledge created during a focus group could glean additional knowledge and latent concepts that might otherwise remain undetected.
9. Since perceptions of university literacy methods professors sense of efficacy to teach literacy were identified as statistically significant in this study, a qualitative study designed to evaluate characteristics and mannerisms portrayed by professors perceived as highly efficacious with regard to literacy instruction would be beneficial. Observing these professors as they teach and interact with preservice teachers would provide much needed insight for both

hiring literacy methods professors and designing instructional practices for literacy methods courses. Also, query their respective preservice teachers to determine resulting levels of self-efficacy for literacy instruction to determine what statistical relationships exist.

10. Given that literacy is fundamental for successful participation in a society, and also given that literacy methods courses and relationships with university literacy professors were determined critical in developing a sense of confidence for teaching literacy, further investigation comparing a teacher sense of efficacy for literacy instruction between teachers who completed a traditional certification program and those completing an alternative education certification route would be of great interest.
11. Conduct a comparative study measuring the perceived teacher sense of efficacy for literacy instruction for both the literacy methods professor (theory) and the student-teaching cooperating teacher (application). Three studies in the literature review found that a perceived cooperating teacher sense of teaching efficacy was statistically significant for predicting scores on preservice teachers' sense of efficacy for teaching. This study examined preservice teachers' perceived teacher sense of efficacy for literacy instruction of only university literacy methods professors. Is there a relationship between preservice teachers' perceptions of university literacy professors and cooperating teachers' sense of efficacy for literacy instruction? Prior to graduation query preservice elementary and early childhood education teachers using the Teacher Sense of Efficacy for Literacy Instruction Scale (TSELI). Additionally, encourage

respondents to complete the Perceived Teacher Sense of Efficacy for Literacy Instruction Scale (PTSELI) for both their literacy methods university professor and also their student-teaching cooperating teacher to determine significant relationships for influencing preservice teachers' TSELI scores and which has the greater impact on teacher efficacy.

12. Conducting factor analyses on the 122-item survey to determine correlations with the qualitative findings in this study would be of great interest. Multiple dimensions are represented in the 122-item survey; correlating these dimensions with qualitative findings could provide valuable insights for which components of teacher preparation programs afford the greatest sources of efficacy for literacy instruction.

In conclusion, the researcher believes this research study goes beyond an academic exercise required for graduation. Based on a thorough review of the literature, a comprehensive 122-item survey was constructed using pre-tested, valid and reliable multi-dimensional scales to capture data related to literacy instruction teacher efficacy. Avoiding the temptation of a convenience sample using only the researcher's students from one university, a substantial, diversified sample of 120 participants from multiple university teacher preparation programs was recruited. Quantitative data were examined using a statistical computer software package (SPSS) to determine statistically significant relationships using correlation, regression and factor analyses. Follow-up qualitative interview data were recorded, professionally transcribed, coded and subsequently merged with quantitative results to provide insight that more comprehensively explained the study's research problems.

Considerable limitations were overcome to provide a number of recommendations, which if implemented, would be of potentially significant benefit to classroom literacy instruction. Findings of this study are advantageous to teaching literacy and pedagogical content knowledge to preservice teachers; more importantly all students should benefit as efficacious literacy teachers consider not only what government mandates require, but what research reveals is critical for development of literacy skills. This research study pushed the frontier of knowledge for developing literacy instruction teacher efficacy, providing new horizons for future research; a worthy pursuit given that the acquisition of literacy skills is mandatory to learning and surviving in almost any culture.

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## APPENDICES

## Appendix A. Internal Review Board (IRB) Approval



*The University of Oklahoma*<sup>®</sup>

OFFICE OF HUMAN RESEARCH PARTICIPANT PROTECTION - IRB

IRB Number: 13352  
Approval Date: March 31, 2011

April 01, 2011

Charlene Huntley  
Instructional Leadership and Academic Curriculum  
820 Van Fleet Oval, ECH Rm114  
Norman, OK 73019

**RE: A Study of Factors that Contribute to Pre-Service Teachers' Sense of Efficacy for Literacy Instruction**

Dear Ms. Huntley:

On behalf of the Institutional Review Board (IRB), I have reviewed and granted expedited approval of the above-referenced research study. This study meets the criteria for expedited approval category 6, 7. It is my judgment as Chairperson of the IRB that the rights and welfare of individuals who may be asked to participate in this study will be respected; that the proposed research, including the process of obtaining informed consent, will be conducted in a manner consistent with the requirements of 45 CFR 46 as amended; and that the research involves no more than minimal risk to participants.

This letter documents approval to conduct the research as described:

Other Dated: March 11, 2011 Recruitment email  
Protocol Dated: March 11, 2011  
Consent form - Subject Dated: March 11, 2011  
Consent form - Subject Dated: March 11, 2011 Information sheet  
IRB Application Dated: March 11, 2011  
Other Dated: March 08, 2011 SOSU letter of support  
Other Dated: March 08, 2011 ORU letter of support  
Other Dated: February 17, 2011 Southeastern letter of support  
Other Dated: February 15, 2011 Instruction letter to literacy professors  
Survey Instrument Dated: February 15, 2011 Demographic information  
Survey Instrument Dated: February 15, 2011 Teacher Beliefs  
Survey Instrument Dated: February 15, 2011 The Perceived Literacy Efficacy Scale  
Survey Instrument Dated: February 15, 2011 Follow-up Telephone Interview  
Other Dated: February 15, 2011 Recruitment script  
Other Dated: February 11, 2011 Mid-America letter of support  
Other Dated: February 10, 2011 Cameron letter of support  
Other Dated: February 08, 2011 Univ Central OK letter of support  
Other Dated: February 08, 2011 St. Gregory's letter of support  
Other Dated: February 08, 2011 OSU letter of support  
Other Dated: February 08, 2011 Northeastern letter of support  
Other Dated: February 07, 2011 OU letter of support

As principal investigator of this protocol, it is your responsibility to make sure that this study is conducted as approved. Any modifications to the protocol or consent form, initiated by you or by the sponsor, will require prior approval, which you may request by completing a protocol modification form. All study records, including copies of signed consent forms, must be retained for three (3) years after termination of the study.

1816 West Lindsey, Suite 150 Norman, Oklahoma 73069 PHONE: (405) 325-8110





## Appendix A (continued)

The approval granted expires on March 30, 2012. Should you wish to maintain this protocol in an active status beyond that date, you will need to provide the IRB with an IRB Application for Continuing Review (Progress Report) summarizing study results to date. The IRB will request an IRB Application for Continuing Review from you approximately two months before the anniversary date of your current approval.

If you have questions about these procedures, or need any additional assistance from the IRB, please call the IRB office at (405) 325-8110 or send an email to [irb@ou.edu](mailto:irb@ou.edu).

Cordially,

A handwritten signature in black ink, appearing to read "Aimee Franklin". The signature is written in a cursive, flowing style.

Aimee Franklin, Ph. D  
Vice Chair, Institutional Review Board

701-A-2

## INFORMATION SHEET FOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY

My name is Charlene Huntley, and I am a doctoral student in the Instructional Leadership and Academic Curriculum department at the University of the Oklahoma. I am requesting that you volunteer to participate in a research study titled: A Study of Factors That Contribute to Pre-Service Teachers' Sense of Efficacy for Literacy Instruction. You were selected as a possible participant because you are currently completing an Early Childhood or Elementary Education certification program this semester. Please read this information sheet and ask any questions that you may have before agreeing to take part in this study.

**Purpose of the Research Study:** To determine what characteristics of teacher preparation programs, including methods courses and practicum field experiences, influence elementary and early childhood education preservice teachers' sense of efficacy for teaching, particularly literacy instruction.

**Procedures:** If you agree to be in this study, you will be asked to do the following things:

- Complete an online survey. You will be asked to identify how strongly you feel about specific statements related to your experiences in the teacher education program you are attending. Most response options range from *strongly agree* to *strongly disagree*.
- After questionnaire results are analyzed, you may be invited to participate in a follow-up, recorded, telephone interview.

**Risks and Benefits of Being in the Study:** The study has the following risks:

The risks are low and mainly arise from the accidental release of your responses and testing scores. Every effort will be made to assure that this does not happen. There are no benefits to participation.

**Compensation:** Your participation in this study makes you eligible to enter a lottery drawing for one of two Amazon gift cards (\$25.00). If you are invited to participate in the follow-up telephone interview, you will receive a monetary stipend of \$20.00.

**Voluntary Nature of the Study:** Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free not to answer any question or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.

**Length of Participation:** This online survey will take 20-25 minutes to complete. For select participants, follow-up telephone interviews will last 45 – 60 minutes.

**Confidentiality:** In published reports, there will be no information included that will make it possible to identify you without your permission. Research records will be stored securely and only approved researchers will have access to the records.

There are organizations that may inspect and/or copy your research records for quality assurance and data analysis. These organizations include the OU Institutional Review Board.

**Contacts and Questions:** If you have concerns or complaints about the research, the researcher(s) conducting this study can be contacted at 918-495-6128, [chuntley@oru.edu](mailto:chuntley@oru.edu), or Dr. Priscilla Griffith

Revised 09/01/2009

Page 1 of 2

APPROVED

MAR 31 2011

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MAR 30 2012

EXPIRES

## Appendix A (continued)

may also be contacted at 405-325-3534, [pgriffith@ou.edu](mailto:pgriffith@ou.edu). In the event of a research-related injury, contact the researcher(s). You are encouraged to contact the researcher(s) if you have any questions. If you have any questions, concerns, or complaints about the research or about your rights and wish to talk to someone other than the individuals on the research team, or if you cannot reach the research team, you may contact the University of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at (405) 325-8110 or [irb@ou.edu](mailto:irb@ou.edu).

*Please keep this information sheet for your records. By completing and submitting this online survey, I am agreeing to participate in this study.*

Revised 09/01/2009

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MAR 3 1 2011  
OU NC IRB

APPROVAL  
MAR 3 0 2012  
EXPIRES

Page 2 of 2

701-A-1

**University of Oklahoma  
Institutional Review Board  
Informed Consent to Participate in a Research Study**

**Project Title:** A Study of Factors That Contribute to Preservice Teachers' Sense of Efficacy for Literacy Instruction  
**Principal Investigator:** Charlene Huntley  
**Department:** Instructional Leadership and Academic Curriculum

You are being asked to volunteer for this research study. This study is being conducted at the University of Oklahoma. You were selected as a possible participant because you are in your final semester of your teacher preparation program preparing you to be a certified elementary education teacher.

Please read this form and ask any questions that you may have before agreeing to take part in this study.

**Purpose of the Research Study**

The purpose of this study is:

To determine what characteristics of teacher preparation programs, including methods courses and practicum field experiences, influence elementary education preservice teachers' sense of efficacy for teaching, particularly literacy instruction.

**Number of Participants**

About 20 people will take part in this study.

**Procedures**

If you agree to be in this study, you will be asked to do the following:

You completed an online survey, and now you are being asked to participate in a follow-up, recorded telephone interview. Your participation is completely voluntary.

**Length of Participation**

This telephone interview will last approximately 45 – 60 minutes.

**This study has the following risks:**

The risks are low and mainly arise from the accidental release of your responses and testing scores. Every effort will be made to assure that this does not happen.

**Benefits of being in the study are:**

There are no benefits to participation.

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OU NC IRB      EXPIRES

Appendix A (continued)

701-A-1

**Confidentiality**

In published reports, there will be no information included that will make it possible to identify you without your permission. Research records will be stored securely and only approved researchers will have access to the records.

There are organizations that may inspect and/or copy your research records for quality assurance and data analysis. These organizations include the OU Institutional Review Board.

**Compensation**

If you participate in this interview, you will receive \$20.00.

**Voluntary Nature of the Study**

Participation in this study is voluntary. If you withdraw or decline participation, you will not be penalized or lose benefits or services unrelated to the study. If you decide to participate, you may decline to answer any question and may choose to withdraw at any time.

**Request for record information**

None

**Audio Recording of Study Activities**

To assist with accurate recording of participant responses, interviews may be recorded on an audio recording device. You have the right to refuse to allow such recording without penalty. Please select one of the following options.

I consent to audio recording.        Yes        No.

**Contacts and Questions**

If you have concerns or complaints about the research, the researcher(s) conducting this study can be contacted at

Researcher: Charlene Huntley, Doctoral Student  
918-495-6128  
[chuntley@oru.edu](mailto:chuntley@oru.edu)

Advisor: Dr. Priscilla Griffith  
405-325-3534  
[pgriffith@ou.edu](mailto:pgriffith@ou.edu)

Contact the researcher(s) if you have questions or if you have experienced a research-related injury.

If you have any questions about your rights as a research participant, concerns, or complaints about the research and wish to talk to someone other than individuals on the research team or if you cannot reach the research team, you may contact the University

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**MAR 3 1 2011**                      **MAR 3 0 2017**  
**OU NC IRB**                              **EXPIRES**



Appendix A (continued)

701-A-1

of Oklahoma – Norman Campus Institutional Review Board (OU-NC IRB) at 405-325-8110 or irb@ou.edu.

***You will be given a copy of this information to keep for your records. If you are not given a copy of this consent form, please request one.***

**Statement of Consent**

I have read the above information. I have asked questions and have received satisfactory answers. I consent to participate in the study.

---

Signature

Date

***“The University of Oklahoma is an equal opportunity institution.”***

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EXPIRES



## Pre-Service Teacher's Efficacy Survey

Created: April 03 2011, 11:48 AM  
Last Modified: August 16 2011, 8:19 AM  
Design Theme: Basic Green  
Language: English  
Button Options: Labels  
Disable Browser "Back" Button: False

### Pre-Service Teacher's Efficacy Survey

#### Page 1 - Heading

**INFORMATION SHEET FOR CONSENT TO PARTICIPATE IN A RESEARCH STUDY**  
My name is Charlene Huntley, and I am a doctoral student in the Instructional Leadership and Academic Curriculum department at the University of the Oklahoma. I am requesting that you volunteer to participate in a research study titled: A Study of Factors That Contribute to Pre-Service Teachers' Sense of Efficacy for Literacy Instruction. You were selected as a possible participant because you are currently completing an Early Childhood or Elementary Education certification program this semester. Please read this information sheet and ask any questions that you may have before agreeing to take part in this study.

#### Page 1 - Heading

**Purpose of the Research Study:** To determine what characteristics of teacher preparation programs, including methods courses and practicum field experiences, influence elementary and early childhood education preservice teachers' sense of efficacy for teaching, particularly literacy instruction.  
**Procedures:** If you agree to be in this study, you will be asked to do the following things:  
· Complete an online survey. You will be asked to identify how strongly you feel about specific statements related to your experiences in the teacher education program you are attending. Most response options range from strongly agree to strongly disagree.  
· After questionnaire results are analyzed, you may be invited to participate in a follow-up, recorded telephone interview.  
**Risks and Benefits of Being in the Study:** The study has the following risks:  
The risks are low and mainly arise from the accidental release of your responses and testing scores. Every effort will be made to assure that this does not happen.

#### Page 1 - Heading

**Compensation:** Your participation in this study makes you eligible to enter a lottery drawing for one of two Amazon gift cards (\$50.00). If you are invited to participate in the follow-up telephone interview, you will receive a monetary stipend of \$20.00.  
**Voluntary Nature of the Study:** Participation in this study is voluntary. Your decision whether or not to participate will not result in penalty or loss of benefits to which you are otherwise entitled. If you decide to participate, you are free not to answer any question or discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled.  
**Length of Participation:** This online survey will take about 25 minutes to complete. For select participants, follow-up telephone interviews will last 45 - 60 minutes.  
**Confidentiality:** In published reports, there will be no information included that will make it possible to identify you without your permission. Research records will be stored securely and only approved researchers will have access to the records. There are organizations that may inspect and/or copy your research records for quality assurance and data analysis. These organizations include the OU Institutional Review Board.

## Appendix B (continued)

Page 1 - Heading

Contacts and Questions: If you have concerns or complaints about the research, the researcher(s) conducting this study can be contacted at 918-495-6128, chuntley@oru.edu, or Dr. Priscilla Griffith may also be contacted at 405-325-3534, pgriffith@ou.edu. In the event of a research-related injury, contact the researcher(s). You are encouraged to contact the researcher(s) if you have any questions. If you have any questions, concerns, or complaints about the research or about your rights and wish to talk to someone other than the individuals on the research team, or if you cannot reach the research team, you may contact the University of Oklahoma - Norman Campus Institutional Review Board (OU-NC IRB) at (405) 325-8110 or irb@ou.edu.  
Please keep this information sheet for your records. By completing and submitting this online survey, I am agreeing to participate in this study.

Page 2 - Heading

Demographic Information

Page 2 - Question 1 - Choice - One Answer (Drop Down)

[Mandatory]

Gender (please select one):

- Female
- Male

Page 2 - Question 2 - Choice - One Answer (Bullets)

[Mandatory]

Age in years (please check one):

- Under 21
- 21-25
- 26-30
- 31-35
- 36-40
- 41 and over

Page 2 - Question 3 - Choice - One Answer (Bullets)

Ethnic group (please check one):

- African American/Black
- Asian/Asian-American/Pacific Islander
- Caucasian/White
- Hispanic/Latino/Spanish Origin
- Native-American
- Other, please specify

Page 2 - Question 4 - Choice - One Answer (Bullets)

[Mandatory]

What is your major?

- Early Childhood
- Elementary Education
- Early Childhood and Elementary Education
- Other, please specify



Appendix B (continued)

Page 2 - Question 5 - Open Ended - One Line

[Mandatory]

To your best recollection, what score did you receive on your Oklahoma Subject Area Test (OSAT)? (Typically a range from 240-300)

Page 2 - Question 6 - Choice - One Answer (Bullets)

Have you, or are you currently student teaching?

- Yes
- No

Page 2 - Question 7 - Choice - One Answer (Bullets)

[Mandatory]

How long have you been working on your teaching certification program? Please check one:

- Less than 4 years
- 4 years, but less than 5
- 5 years, but less than 6
- More than 6 years

Page 2 - Question 8 - Choice - One Answer (Bullets)

How likely are you to choose teaching as a long-term career (more than 5 years)? Please check one:

- Highly Unlikely
- Unlikely
- Likely
- Highly Likely

Page 2 - Question 9 - Choice - One Answer (Drop Down)

[Mandatory]

What college or university are you currently attending? Please select one:

- For purposes of confidentiality the names of participating institutions have been omitted.

Page 2 - Question 10 - Choice - One Answer (Bullets)

[Mandatory]

May I contact you for a follow-up interview? (If you are selected, you will be compensated monetarily for your time.) Please check one:

- Yes
- No

Appendix B (continued)

Page 2 - Question 11 - Open Ended - One or More Lines with Prompt

If you answered yes to question 10, please provide the following contact information:

- Email Address: .....
- Alternate Email Address: .....

Page 2 - Heading

Questions 12 - 15 are designed to create an identification code that is uniquely yours.

Page 2 - Question 12 - Open Ended - One Line

[Mandatory]

What is your shoe size? (example: size 9 = 09; size 12 = 12)

Page 2 - Question 13 - Open Ended - One Line

[Mandatory]

What is your month of birth? (example: January = 01)

Page 2 - Question 14 - Open Ended - One Line

[Mandatory]

How many brothers do you have? (example: 3 brothers = 03)

Page 2 - Question 15 - Open Ended - One Line

[Mandatory]

How many sisters do you have? (example: 2 sisters = 02)

Page 3 - Heading

**Your Teacher Beliefs**  
Questions in this section should be answered by considering how you personally feel about yourself as a teacher, right now. Respond by selecting how you feel on a scale from (1) Not at all to (9) A great deal. Most questions begin with "How much can you..." or "To what extent can you..."  
This section should take approximately 5 minutes to complete.

Page 3 - Question 16 - Rating Scale - One Answer (Horizontal)

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

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Not at all              | 2                       | Very little             | 4                       | Some influence          | 6                       | Quite a bit             | 8                       | A great deal            |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 3 - Question 17 - Rating Scale - One Answer (Horizontal)

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

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Not at all              | 2                       | Very little             | 4                       | Some influence          | 6                       | Quite a bit             | 8                       | A great deal            |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 3 - Question 18 - Rating Scale - One Answer (Horizontal)

To what extent can you integrate the components of language arts?

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Not at all              | 2                       | Very little             | 4                       | Some influence          | 6                       | Quite a bit             | 8                       | A great deal            |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

## Appendix B (continued)

Page 3 - Question 19 - Rating Scale - One Answer (Horizontal)

To what extent can you provide specific, targeted feedback to students during oral reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 20 - Rating Scale - One Answer (Horizontal)

To what extent can you adjust writing strategies based on ongoing informal assessments of your students?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 21 - Rating Scale - One Answer (Horizontal)

To what extent can you use a student's oral reading mistakes as an opportunity to teach effective reading strategies?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 22 - Rating Scale - One Answer (Horizontal)

To what extent can you model effective writing strategies?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 23 - Rating Scale - One Answer (Horizontal)

How much can you do to meet the needs of struggling readers?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 24 - Rating Scale - One Answer (Horizontal)

How much can you do to get students to use independent reading time productively?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 25 - Rating Scale - One Answer (Horizontal)

To what extent can you implement word study strategies to teach spelling?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 26 - Rating Scale - One Answer (Horizontal)

To what extent can you get children to read a wide variety of genres?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 27 - Rating Scale - One Answer (Horizontal)

To what extent can you help your students figure out unknown words when they are reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 28 - Rating Scale - One Answer (Horizontal)

To what extent can you use flexible grouping to meet individual student needs for reading instruction?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

## Appendix B (continued)

Page 3 - Question 29 - Rating Scale - One Answer (Horizontal)

To what extent can you model effective reading strategies?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 30 - Rating Scale - One Answer (Horizontal)

To what extent can you get students to read fluently during oral reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 31 - Rating Scale - One Answer (Horizontal)

To what extent can you use students' writing to teach grammar and spelling strategies?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 32 - Rating Scale - One Answer (Horizontal)

How much can you do to get students to use independent writing time productively?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 33 - Rating Scale - One Answer (Horizontal)

How much can you do to provide appropriate challenges for high ability readers?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 34 - Rating Scale - One Answer (Horizontal)

To what extent can you get children to talk with each other in class about books they are reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 35 - Rating Scale - One Answer (Horizontal)

To what extent can you provide children with writing opportunities in response to reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 36 - Rating Scale - One Answer (Horizontal)

How much can you do to adjust your reading materials to the proper level for individual students?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 3 - Question 37 - Rating Scale - One Answer (Horizontal)

How much can you do to get children to value reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

## Appendix B (continued)

Page 4 - Heading

### Your Teacher Beliefs (continued)

Think about your professional preparation for becoming a certified teacher. Take into account your course work, field experiences, seminars, student teaching, and any other formal part of your teacher preparation. Based on the experiences in our teacher preparation program, how prepared do you feel to do the following?

This section should take approximately 3 minutes to complete.

Page 4 - Question 38 - Rating Scale - One Answer (Horizontal)

Teach reading vocabulary (emphasizing word meaning).

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 39 - Rating Scale - One Answer (Horizontal)

Teach oral reading.

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 40 - Rating Scale - One Answer (Horizontal)

Help foster students' oral or written responses to literature.

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 41 - Rating Scale - One Answer (Horizontal)

Teach silent reading (including time for independent reading).

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 42 - Rating Scale - One Answer (Horizontal)

Use comprehension activities (e.g., discussion questions and assignments).

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 43 - Rating Scale - One Answer (Horizontal)

Use instructional strategies to help children with their reading comprehension.

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 44 - Rating Scale - One Answer (Horizontal)

Use a variety of reading assessments (e.g., observation, portfolios, tests, performance tasks, and anecdotal records) to determine students' strengths, needs, and progress.

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 45 - Rating Scale - One Answer (Horizontal)

Teach reading to groups that are of mixed ability.

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

## Appendix B (continued)

Page 4 - Question 46 - Rating Scale - One Answer (Horizontal)

Evaluate reading materials for their usefulness and appropriateness for your students.								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 47 - Rating Scale - One Answer (Horizontal)

Understand how youngsters come to acquire reading skills.								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 48 - Rating Scale - One Answer (Horizontal)

Use the textbook as a resource in reading rather than as the primary instructional tool.								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 4 - Question 49 - Rating Scale - One Answer (Horizontal)

Teach reading (oral or silent) during social studies, science, or mathematics classes.								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 5 - Heading

<p><b>Opportunity to Learn Scale</b></p> <p>The following questions ask you about the opportunities to learn which were provided by your preservice teacher preparation program, before your student-teaching experience. Questions are focused on literacy methods courses, field experiences, and teaching methods used by your literacy professors.</p> <p>Respond to each of the following by considering "To what extent it represents your teacher preparation program experiences." You will be asked to select a number indicating how well the statement represents your experiences on a scale from (1) Never to (5) Almost always.</p> <p>This section should take approximately 8 minutes to complete.</p>
--

Page 5 - Heading

<p>For this questionnaire:</p> <p>Preservice teachers are teacher candidates still working on degree requirements for teaching certification. If you are being asked to complete this questionnaire, you are a preservice teacher.</p> <p>The teacher preparation program is your university or college's coursework and K-12 practicum field experiences which were designed to educate and prepare you to teach in the elementary classroom.</p> <p>Literacy methods courses are the classes which prepared you to teach literacy (reading and writing) in elementary classrooms.</p> <p>Your cooperating teacher is the classroom teacher who worked with you in your practicum.</p>
---

## Appendix B (continued)

Page 5 - Heading

Your Literacy Methods Courses

For the following questions, indicate to what extent your preservice teacher education program's literacy methods courses gave you the opportunity to...

Page 5 - Question 50 - Rating Scale - One Answer (Horizontal)

See models of expert teachers in action.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 51 - Rating Scale - One Answer (Horizontal)

Observe models illustrating new teaching practices.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 52 - Rating Scale - One Answer (Horizontal)

Learn methods for reflecting on your teaching practice analyzing and reflecting on examples of your practice.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 53 - Rating Scale - One Answer (Horizontal)

Practice analyzing and reflecting on examples of your teaching practice.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 54 - Rating Scale - One Answer (Horizontal)

Use teaching standards to identify specific areas of your practice that you needed to develop.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 55 - Rating Scale - One Answer (Horizontal)

Develop and test new teaching practices.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 56 - Rating Scale - One Answer (Horizontal)

Analyze your teaching practice in relation to standards for good teaching practice.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 57 - Rating Scale - One Answer (Horizontal)

Practice new teaching skills with feedback from your University Literacy Professor.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Appendix B (continued)

Page 5 - Question 58 - Rating Scale - One Answer (Horizontal)

Receive useful feedback about your teaching from your University Literacy Professor.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Heading

Your Literacy University Professor

How often did your literacy university professor in your preservice teacher education program's literacy methods courses...

Page 5 - Question 59 - Rating Scale - One Answer (Horizontal)

Model good teaching practices in their teaching.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 60 - Rating Scale - One Answer (Horizontal)

Draw on and use research relevant to the content of their courses.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 61 - Rating Scale - One Answer (Horizontal)

Model evaluation and reflection on their own teaching.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 62 - Rating Scale - One Answer (Horizontal)

Have recent experience in primary or secondary schools.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 63 - Rating Scale - One Answer (Horizontal)

Value the learning and experiences I had prior to starting the program.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 64 - Rating Scale - One Answer (Horizontal)

Link their university lessons to the school field experience component of the program.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5

Page 5 - Question 65 - Rating Scale - One Answer (Horizontal)

Value the learning and experiences you had in your field experience practicum.

- Never  1      Rarely  2      Sometimes  3      Often  4      Almost always  5



## Appendix B (continued)

Page 5 - Heading

Your Field Experiences Tied to Literacy Methods Courses  
Thinking about your field experiences tied to your literacy methods courses in your preservice teacher education program, to what extent do you agree with the following statements?

Page 5 - Question 66 - Rating Scale - One Answer (Horizontal)

My cooperating teacher(s) had a clear idea of what my university required me to do as part of my practicum.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 67 - Rating Scale - One Answer (Horizontal)

I had a clear understanding of what was expected of me as a teacher in order to pass the practicum.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 68 - Rating Scale - One Answer (Horizontal)

I used teaching standards as a guide to evaluating and reflecting on my teaching.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 69 - Rating Scale - One Answer (Horizontal)

My cooperating teacher(s) used clear and explicit standards when reviewing my lessons with me.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 70 - Rating Scale - One Answer (Horizontal)

Overall, the feedback I received from my cooperating teacher(s) helped me to improve my teaching.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 71 - Rating Scale - One Answer (Horizontal)

The methods used to assess my ability to teach were valid.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 72 - Rating Scale - One Answer (Horizontal)

My literacy professor(s) and my school-based cooperating teachers had similar views on good teaching methods.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

Page 5 - Question 73 - Rating Scale - One Answer (Horizontal)

My cooperating teacher(s) generally valued the literacy ideas and approaches I brought from my university professor.

Strongly disagree      Disagree      Neutral      Agree      Strongly agree  
 1       2       3       4       5

## Appendix B (continued)

Page 5 - Question 74 - Rating Scale - One Answer (Horizontal)

Overall, my practicum experience was a valuable part of my preparation for literacy instruction.				
<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 5 - Question 75 - Rating Scale - One Answer (Horizontal)

My cooperating teacher(s) used criteria/standards provided by my university for evaluating my teaching.				
<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Heading

<b>Learning to Teach Reading Questionnaire</b>
Below is a list of statements about how you learned to provide reading instruction during a practicum teaching experience, before student-teaching, but one that involved implementation of instruction with children. Specifically, these statements are concerned with various ways that you and your cooperating teacher may have interacted while you learned to provide effective reading instruction. Your cooperating teacher is the classroom teacher who worked with you in your practicum. This section should take approximately 5 minutes to complete.

Page 6 - Question 76 - Rating Scale - One Answer (Horizontal)

I tried to teach reading in a way that was similar to my cooperating teacher.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 77 - Rating Scale - One Answer (Horizontal)

My cooperating teacher offered suggestions to improve my reading instruction.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 78 - Rating Scale - One Answer (Horizontal)

My cooperating teacher and I have worked together to improve my reading instruction.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 79 - Rating Scale - One Answer (Horizontal)

I watched what my cooperating teacher did during reading instruction and then I tried it myself.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 80 - Rating Scale - One Answer (Horizontal)

My cooperating teacher told me how to teach reading.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 81 - Rating Scale - One Answer (Horizontal)

My cooperating teacher offered help with my reading plans only when I needed it.				
<b>Never</b>	<b>Rarely</b>	<b>Sometimes</b>	<b>Often</b>	<b>Almost always</b>
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Appendix B (continued)

Page 6 - Question 82 - Rating Scale - One Answer (Horizontal)

My cooperating teacher and I talked about teaching reading.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 83 - Rating Scale - One Answer (Horizontal)

My cooperating teacher guided me in the art of teaching reading.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 84 - Rating Scale - One Answer (Horizontal)

My cooperating teacher worked with me if s/he saw that students were struggling.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 85 - Rating Scale - One Answer (Horizontal)

My cooperating teacher left me on my own while I was teaching reading.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 86 - Rating Scale - One Answer (Horizontal)

My reading instruction has improved because my cooperating teacher offered good suggestions.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 87 - Rating Scale - One Answer (Horizontal)

My cooperating teacher observed me teaching reading.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 88 - Rating Scale - One Answer (Horizontal)

During reading instruction, I used the same materials and teaching methods as my cooperating teacher.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 89 - Rating Scale - One Answer (Horizontal)

My cooperating teacher offered me feedback after I taught reading.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 90 - Rating Scale - One Answer (Horizontal)

I learned the most about teaching reading by watching my cooperating teacher.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 91 - Rating Scale - One Answer (Horizontal)

My cooperating teacher was clear about her/his goals for me related to reading instruction.				
Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Appendix B (continued)

Page 6 - Question 92 - Rating Scale - One Answer (Horizontal)

My cooperating teacher shared information with me from workshops s/he attended.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 93 - Rating Scale - One Answer (Horizontal)

My cooperating teacher and I talked about reading instruction methods.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 94 - Rating Scale - One Answer (Horizontal)

My cooperating teacher reviewed my plans for reading instruction.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 95 - Rating Scale - One Answer (Horizontal)

My cooperating teacher offered feedback after watching me teach reading.

Never	Rarely	Sometimes	Often	Almost always
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

Page 6 - Question 96 - Choice - Multiple Answers (Bullets)

During your preservice teacher education program, how was your literacy practicum organized? Please check all that apply:

- Blocks of time (e.g., 3 weeks)
- A certain number of days each week (e.g., 2 days per week)
- Other, please describe

Page 6 - Question 97 - Choice - One Answer (Bullets)

During your preservice teacher education program (excluding student-teaching), about how many hours in total did you spend in schools (whether practice teaching, observing, or doing other activities)?

- 25 hours or less
- 26 hours to 50 hours
- 51 hours to 75 hours
- 76 hours to 100 hours
- 101 hours to 125 hours
- More than 125 hours

Page 6 - Question 98 - Choice - One Answer (Bullets)

During your preservice teacher education program (excluding student-teaching), about how many times in total did you spend teaching (in contrast to observing, etc.) in all of your practicum field experiences in schools? This could include working one-on-one with students, teaching small groups and/or large groups ranging from a single lesson to an entire day.

- 10 times or less
- 11 - 20 times
- 21 - 30 times

## Appendix B (continued)

- 31 - 40 times
- More than 40 times

Page 6 - Question 99 - Rating Scale - One Answer (Horizontal)

Did you work in partnership (sharing the same cooperating teacher and the same classroom) with another teacher-candidate for any of your practicum field-experiences (excluding student-teaching)?

- |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Never</b>            | <b>Rarely</b>           | <b>Sometimes</b>        | <b>Often</b>            | <b>Almost always</b>    |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 |

Page 7 - Heading

### Perceived Literacy Professor's Sense of Efficacy Scale

This is the last section! For the following questions you are asked to think of one literacy professor who taught you during your teacher education program. When responding, think about how this literacy professor would answer the question about her or himself - NOT about you. In other words, if your literacy professor were answering this questionnaire about her beliefs, how do you think she would respond to each question? You will respond to the following by selecting the number indicating how you believe your literacy professor would feel on a scale from (1) Not at all to (9) A great deal. Most questions begin with "How much can you..." or "To what extent can you..." This section should take approximately 3 minutes to complete.

Page 7 - Question 100 - Rating Scale - One Answer (Horizontal)

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

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 7 - Question 101 - Rating Scale - One Answer (Horizontal)

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

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 7 - Question 102 - Rating Scale - One Answer (Horizontal)

To what extent can you integrate the components of language arts?

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 7 - Question 103 - Rating Scale - One Answer (Horizontal)

To what extent can you provide specific, targeted feedback to students during oral reading?

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 7 - Question 104 - Rating Scale - One Answer (Horizontal)

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

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

Page 7 - Question 105 - Rating Scale - One Answer (Horizontal)

To what extent can you use a student's oral reading mistakes as an opportunity to teach effective reading strategies?

- |                         |                         |                         |                         |                         |                         |                         |                         |                         |
|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| <b>Not at all</b>       | <b>2</b>                | <b>Very little</b>      | <b>4</b>                | <b>Some influence</b>   | <b>6</b>                | <b>Quite a bit</b>      | <b>8</b>                | <b>A great deal</b>     |
| <input type="radio"/> 1 | <input type="radio"/> 2 | <input type="radio"/> 3 | <input type="radio"/> 4 | <input type="radio"/> 5 | <input type="radio"/> 6 | <input type="radio"/> 7 | <input type="radio"/> 8 | <input type="radio"/> 9 |

## Appendix B (continued)

Page 7 - Question 106 - Rating Scale - One Answer (Horizontal)

To what extent can you model effective writing strategies?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 107 - Rating Scale - One Answer (Horizontal)

How much can you do to meet the needs of struggling readers?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 108 - Rating Scale - One Answer (Horizontal)

How much can you do to get students to use independent reading time productively?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 109 - Rating Scale - One Answer (Horizontal)

To what extent can you implement word study strategies to teach spelling?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 110 - Rating Scale - One Answer (Horizontal)

To what extent can you get children to read a wide variety of genres?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 111 - Rating Scale - One Answer (Horizontal)

To what extent can you help your students figure out unknown words when they are reading?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 112 - Rating Scale - One Answer (Horizontal)

To what extent can you use flexible grouping to meet individual student needs for reading instruction?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 113 - Rating Scale - One Answer (Horizontal)

To what extent can you model effective reading strategies?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 114 - Rating Scale - One Answer (Horizontal)

To what extent can you get students to read fluently during oral reading?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 115 - Rating Scale - One Answer (Horizontal)

To what extent can you use students' writing to teach grammar and spelling strategies?

Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Appendix B (continued)

Page 7 - Question 116 - Rating Scale - One Answer (Horizontal)

How much can you do to get students to use independent writing time productively?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 117 - Rating Scale - One Answer (Horizontal)

How much can you do to provide appropriate challenges for high ability readers?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 118 - Rating Scale - One Answer (Horizontal)

To what extent can you get children to talk with each other in class about books they are reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 119 - Rating Scale - One Answer (Horizontal)

To what extent can you provide children with writing opportunities in response to reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 120 - Rating Scale - One Answer (Horizontal)

How much can you do to adjust your reading materials to the proper level for individual students?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 121 - Rating Scale - One Answer (Horizontal)

How much can you do to get children to value reading?								
Not at all	2	Very little	4	Some influence	6	Quite a bit	8	A great deal
<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7	<input type="radio"/> 8	<input type="radio"/> 9

Page 7 - Question 122 - Open Ended - One or More Lines with Prompt

If you would like to be entered in a drawing for a \$50 Amazon gift card, please provide your email below.
<input style="width: 100%;" type="text" value="✉ Contact Email: ....."/>

Thank You Page

Thank you so much for your participation in this study! We appreciate your valuable input!
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Screen Out Page

Standard
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Over Quota Page

Standard
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Survey Closed Page

Standard
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## Appendix C. Follow-Up Semi-Structured Interview Questions and Protocol

- Was there a point at which you thought – I really am a teacher? What led up to this?
- What were the most significant factors in your undergraduate teacher education program that caused you to talk the language of teachers and think and feel like a teacher?
- How were classroom experiences used to influence and challenge your thinking, especially with regard to literacy?
- How were practicum experiences used to influence and challenge your thinking, especially with regard to literacy?
- Please briefly describe the main features of the university-based part of your preservice teacher education program that were particularly *helpful* in preparing you to teach literacy.
- Please briefly describe any elements that you feel *should have been included* in your pre-service teacher education program, to better prepare you to teach literacy.
- Please briefly describe the features of the practicum component of your preservice teacher education program of most value in helping you learn how to teach literacy.
- Please briefly describe how the practicum component of your pre-service teacher education program may have been improved in helping you learn how to teach literacy.
- In general, what would you change about your teacher preparation program with regard to teaching literacy?
- In general, what did you find most rewarding about your teacher preparation program with regard to teaching literacy?
- Have I left anything out? What else would you like to add?



## Appendix D. Profiles of Qualitative Interview Participants

### **Valerie (TSELI score: 97 [weak])**

Valerie graduated in the spring semester of 2011 from a private university and, at the time of this interview, was in her first year of teaching in an elementary school. She was middle-aged, married and commuted to a small community where she taught. She described her literacy methods professor as wonderful, helpful, and knowledgeable; believing she could still receive assistance from her at any time, even though Valerie was no longer a student. Valerie felt her literacy methods professor would make a good elementary reading teacher and believed she had authentic, classroom experiences which complemented her literacy methods class. She expressed that literacy methods coursework and practicum-field experiences were closely aligned with regard to theory; however, she did notice a discrepancy in the pacing of her coursework and the actual progress of her tutee, which was frustrating at times. For one literacy methods course in particular, the material was covered too quickly at a surface level, with little or no opportunity to clarify confusions. In this case she explained that peers relied on each other to pass the course. Consequently, she believed she retained very little of what was addressed in that literacy methods course; to this day, she is not confident teaching reading in the topics covered in this class. In general, she believed her literacy methods coursework *did not prepare her to teach reading well and wished her classes had provided more real-world strategies for teaching students* [emphasis added].

### **Christine (TSELI score: 113 [weak])**

At the time of the interview, Christine was a first-year teacher of elementary children in a small community. She graduated in the spring semester of 2011 from a teacher education program at a private school. She described herself as *unprepared*

## Appendix D (continued)

*to teach literacy* [emphasis added]. She spent long hours studying because she had to figure out for herself how to teach her students, as no administrative or collegial support was available. She emphatically expressed that she would like to have had more literacy courses. Her literacy practicum-field experiences were at two extremes; extremely beneficial or extremely worthless. For the beneficial experience, she described the teacher as supportive and encouraging. She explained *the difference between the two cooperating teachers was the nurturing teacher's willingness to share, explain, and offer practical, non-threatening feedback* [emphasis added]. She attributed any sense of confidence for teaching literacy to this experience. In the class of limited value, she learned what not to do; the cooperating teacher babysat, rather than taught. Essentially, she believed that the teacher “just didn’t care.” She believed no connection existed between her methods coursework and her practicum experiences.

Christine identified one literacy methods course as excellent, emphasizing that she still utilized what she learned in that class! She attributed this excellence to the caring and knowledgeable professor; modeling what was expected and providing support for locating additional resources. Christine believed her professor had substantial experience, as opposed to just book learning, and believed she would make a great children’s literacy instructor. She contrasted this with many of her other professors, whom she believed had not been in a classroom for 15 years or longer.

### **Jenna (TSELI score: 121 [weak])**

Jenna was in her first year of teaching in a small community. She graduated in spring 2011 from a private university with an elementary education degree. She described herself as a student who did not develop strong relationships with professors,

## Appendix D (continued)

because she was just there “to go to school and learn.” She indicated she always felt capable and prepared for teaching, despite her classes. She believed one of her literacy professors was supportive and provided useful information. She firmly believed this literacy professor would make a great classroom teacher. When discussing a methods class with a tutoring component, she emphatically stated *how much she disliked the course because she was not given the instructional tools or support to successfully tutor a child* [emphasis added]. She believed the class was quite disorganized and that the professor just skimmed the surface when lecturing, proceeding too quickly. Essentially, Jenna was frustrated with this practicum-field experience. Overall, she felt adequately prepared because she was an independent learner who knew how to benefit from any situation.

### **Taya (TSELI score: 144)**

Taya was a middle-aged, full-time commuter student attending a large, state-funded university; commuting an hour and a half each day to attend class. She was also a single mother of four children. She was proud of the fact she was on the Presidential Honor Roll, because she had overcome learning disabilities to excel. At the time of this interview, she was in her final year of teacher preparation; she would be student-teaching the following semester. She was passionate about becoming a teacher and already expressed how she cared about her future elementary students. Of the three literacy methods courses she has taken, most required some form of practicum-field experience. She attributed her confidence to literacy as a direct result of these practicum experiences. She definitely believed her literacy professors would make good elementary literacy teachers. Taya admitted she is still terrified at the thought of

## Appendix D (continued)

teaching young children to read, because she knows how much of their future successes in school and life are contingent on their reading abilities. She described the relationships with her literacy professors as really strong, believing she could contact them for assistance, even after graduation. She explained that being an older student caused her to realize that much of the required methods coursework was just busy work; however, that was never the case for her literacy methods courses. Essentially, she believed that her literacy professors were passionate about literacy and genuinely cared about her as a student. She explicitly stated the only classes where she learned something were her literacy methods courses; the rest of the classes felt like “just survival” mode.

### **Anna (TSELI score: 149)**

Anna was in her final year of teacher preparation coursework, just prior to student teaching. She was a commuter student attending a large state-funded school where she was pursuing certification in elementary education. At the time of the interview she was enrolled in 18 hours, working 35 hours per week, and trying to raise a ten-year-old daughter. When asked about her experiences with literacy methods coursework, she enthusiastically described two separate classes with tutoring field-experiences. She portrayed her literacy professors as extremely supportive and the design of the literacy methods course as adequately preparing her for the task of tutoring. She emphasized that her practicum gave her opportunity to actually put into practice what she had learned in her methods course. She gave these experiences full credit for making her feel as confident as she is currently; however, she felt less than adequate prior to these experiences. She asserted the *best part of her teacher*

## Appendix D (continued)

*preparation program was “the way they really put her out there” [emphasis added].*

Before using the instructional practices on her tutee, she was equipped with instructional tools needed to be successful, which she practiced on her peers. She attributed her *improved comfort level in working with students directly to her practicum-field experiences and also the relationships with her literacy professors* [emphasis added]. There was no doubt she loved her literacy professors!

### **Hailey (TSELI Score: 155 [strong])**

Attending a large, state-funded university, Hailey was in her final year of teacher preparation coursework completing a degree in elementary education. She was a full-time commuter student with young children of her own. She described her literacy methods coursework in an extremely positive light. The methods courses were connected and each offered information that she believed would be beneficial for teaching in her own future classroom. The methods courses and field experiences were closely aligned. *The professors modeled best practices and provided opportunities to practice what was expected in their field-experience practicums* [emphasis added]. She believed her literacy professors were caring, transparent, and knowledgeable; backing up everything with supporting research. When asked if she thought they would make good elementary literacy teachers, she immediately responded affirmatively because they had been in their own elementary classrooms recently. *Because of her literacy methods courses and relationships with her literacy professors, she felt confident and prepared to teach future students* [emphasis added].

**Rhianna (TSELI score: 158 [strong])**

Rhianna was passionate about her future career in teaching elementary education. She was in her final year of a teacher preparation program and, at the time of this interview, was getting ready to student teach in her final semester of college requirements. She was a fulltime, commuter student who attended a state-funded university. She resided in a rural community and commuted about an hour to the university for her classes. In spite of the fact she described her practicum-field experiences as “bad,” she intentionally kept her attitude positive. However, she was currently enrolled in a literacy methods course that was changing the way she thought about teaching reading and giving her confidence that she could teach reading. She attributed the *difference to the literacy professor who made her feel so comfortable and welcome as a student* [emphasis added]. This professor provided emotional support for the challenging tasks of taking the state teaching certification tests and, also, for the sometimes daunting task of tutoring a student in reading. She enthusiastically emphasized that her literacy professor was the teacher she wanted to become! She described her as taking elementary class work from boring to extreme fun; her literacy professor has created a role model for Rhianna to emulate. She expressed concern that a huge discrepancy exists between what she learned in her literacy methods courses and what was actually being practiced in her local community. She hoped to teach there soon, but was worried she would not be accepted by fellow teachers when she implemented best literacy practices in the existing school environment. Knowing her literacy professor was able to successfully teach literacy in a public school was encouraging her that she might be able to do so as well. *Essentially, she attributed all*

## Appendix D (continued)

*of the good, beneficial literacy experiences in her teacher education program to an expert literacy professor who built relationships with her students; Rhianna believed whether or not the literacy professors cared made all the difference [emphasis added].*

### **Jerri (TSELI score: 161 [strong])**

Jerri attended a small, private college and, at the time of this interview, was student teaching in another state. She was married and had a 21-month-old baby. Her experiences in literacy methods courses were at opposite ends of the spectrum. One course was an excellent experience, with some practicum-field experience and a literacy professor who was kind, approachable, supportive and knowledgeable. Course work for this class consisted of authentic, challenging tasks that represented current strategies for teaching reading in elementary classrooms. Her teaching identity was nurtured as the literacy professor respected and valued what her students had to contribute, as if they were already teaching colleagues. *Jerri believed this literacy professor had the experience and expertise to be a good elementary teacher of reading [emphasis added].*

In contrast, the other class felt threatening, to the point Jerri travelled to other campuses to avoid having to take additional classes with this particular literacy methods course professor. She emphatically expressed a discrepancy between what was taught in class and what was tested. She believed this literacy professor would be ineffective with elementary students because she had not been a practitioner for years, and also, did not foster relationships with students. She believed the professor wanted to be difficult to limit grade inflation. Essentially, the professor who fostered positive relationships had the most impact on Jerri's confidence to teach.

**Angeleen (TSELI score: 180 [strong])**

A spring 2011 graduate, Angeleen was an early childhood major who, at the time of the interview, was in her first year of teaching. She had a split class of third and fourth grade students in a very small school. She lived in a state other than where she taught. She described her current teaching placement as situated in a school that was “kind of old” with a young administration. She portrayed her students as having a lot of behavior problems. She believed she was on her own to survive, with no administrative support.

She completed two literacy methods courses when she was enrolled in a small private school for her teacher education program. Her literacy professor was knowledgeable, but unorganized; nice, but of little assistance. Angeleen explained her literacy professor just skimmed the surface and had no course expectations. She enjoyed the literacy field-experience practicum which was independent of the literacy methods course.

Tutoring was difficult because her tutee did not struggle with reading, but rather was a behavior problem for the classroom teacher. According to Angeleen, the student was placed with her to give the classroom teacher a break. With little to no help from her literacy professor, Angeleen was motivated to explore and develop activities that met course requirements and still motivated her tutee. She believed the tasks offered in her literacy methods course were ineffective for engaging her tutee in reading. Though this practicum was helpful, *she did not feel prepared to teach reading and wished she had taken more literacy methods courses while in college, asserting she felt short-changed in her degree program* [emphasis added]. She had just started a graduate



Appendix D (continued)

program in reading, so she was hopeful she would make up for what was not learned as an undergraduate. Surprisingly, her teaching sense of efficacy for literacy instruction was high, in spite of her expressed inadequacy for teaching reading.