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STUDENT TEACHERS' BELIEFS IN PRACTICE: IMPACT OF TEACHER EDUCATION PREPARATION ON READING CURRICULUM, ASSESSMENT, AND INSTRUCTION

by

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A Dissertation

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirement

for the degree of

Doctor of Philosophy

Grand Forks, North Dakota

August 2015

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This dissertation, submitted by Brittany Dawn Hagen in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Title Student Teacher's Beliefs in Practice: Impact of Teacher Education

Preparation on Reading Curriculum, Assessment, and Instruction

Department Teaching and Learning

Degree Doctor of Philosophy

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Brittany Dawn Hagen August 1, 2015

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ACKNOWLEDGEMENTS

As the old adage affirms, there is always, always something to be thankful for.

Today, I am thankful for many things. I am thankful for the student teachers who took time out of their busy schedules to share their stories. These stories will help improve not only my practice, but also the practice of teacher education programs across the Midwest. I am thankful for you.

I am thankful for my advisor, Dr. Pamela Beck, who has been a mentor and inspiration since we met in Mayville many moons ago. From the "angel" who walked into my first classroom and taught me how to be a great teacher, to the patient and brilliant woman who revised draft after draft of my work, your dedication to not only me but also the teaching profession is unrivaled. You are positive, yet honest, fun, yet driven. You are the epitome of what we all strive to be as teacher educators. I will spend the rest of my career trying to emulate you and your effectiveness. I am thankful for you.

I am thankful for my committee, Dr. Bonni Gourneau, Dr. Myrna Olson, and Dr. Robert Stupnisky for your dedication to helping make my work the best it could be. Each of you has supported me in different ways throughout my tenure as a graduate student at UND. Bonni, you have been an encourager since day one, always doing what it takes to make me feel special and be successful. Myrna, your honesty and wisdom have guided me in the right direction and I have felt supported by you every step of the way. Rob, your infinite knowledge and ability to share that knowledge so eloquently have taught me

not only about statistics but also a great deal about being an effective educator. For each of you, I am thankful.

I am thankful for my fabulous friends, Sonja and Erin. I will forever cherish our friendship -- built on similar duties, strengthened by similar interests, and solidified by similar values...and chocolate! Your support and encouragement has made this entire process possible, and I am so proud of both of you for seeing it through until the end. Thanks for running with me as we chased our dreams. I am thankful for you.

I am thankful for my family. They have always held high expectations and were there to encourage and support me throughout this process. I cannot begin to count the number of times they said they were proud of me, and I will always treasure those words. I am especially thankful for my Mom for teaching me to be a kind, generous, and smart person through her words and actions. I am thankful for my Mom, my grandparents, Kayo and Becky, and other family and friends for graciously taking care of Gabby so I could focus on my paper. I honestly could not have done it without your love and support. I am thankful for you all.

I am thankful for my amazing husband, Jason. You are the best husband that ever was and ever will be. You believed in me and my ability to do it all. You were my number one supporter and your faith in me made this all possible. God knew what He was doing when He put you in my life to love and encourage me. Just when I thought I could not love you any more, you stepped up and cared for our beautiful daughter, while I wrote and wrote and wrote some more! Speaking of our daughter, I am also thankful for Gabriella Grace, our delightful, amazing gift from God who often fell asleep on my chest

to the sound of typing. I am thrilled to be able to focus more time and energy on you, sweet baby girl. I am thankful for you.

Finally, I am thankful for my Heavenly Father. He was behind every keystroke, every brainstorm, and every triumph. I credit every success in life to Him and I know He will continue to bless me as I continue to glorify Him. I am thankful for you, God. Like I said in the beginning, I have many, many things to be thankful for!

ABSTRACT

Reading education programs are responsible for developing effective teachers equipped with the foundational knowledge and instructional approaches to deliver a comprehensive and balanced literacy curriculum. The purpose of this study was to assess the impact of teacher education reading programs on student teachers' ability to understand and implement reading curriculum, assessment, and instruction, and to understand the extent to which students are transferring professional knowledge in practical ways. Participants of this explanatory sequential mixed methods study included 19 elementary spring student teachers from three Midwestern states. Quantitative data was collected through a survey sent to over 200 student teachers. Seven student teachers agreed to take part in the one-on-one interview phase of the mixed methods study and five of those participants sent reading lesson plans to be analyzed.

Data analysis of survey, interview, and lesson plan documents revealed that even though student teachers believed content learned from coursework and interactions with cooperating teachers and professors influenced their preparedness to teach reading, they attributed student teaching as having the strongest impact on their beliefs about teaching reading, because they were able to apply theory to practice. In addition, results indicated that while the majority of student teachers credited their preparation program for adequately preparing them in the areas of lesson planning, curriculum skills, assessment techniques, and instruction models, some student teachers criticized their preparation

programs for low levels of self-efficacy attributed to lack of perceived knowledge and experience in applying reading beliefs to practice.

Results of this study hold several implications for theory and practice. First, teacher education programs should consider increasing the number of field experiences related to reading. Second, they should ensure that teacher educators and cooperating teachers are knowledgeable about best practices in reading curriculum, assessment, and instruction. Finally, an important goal for education programs is the need to create strong partnerships with elementary schools that are implementing best practices. Finding innovative ways to bridge the gap between theory and practice will remain on the forefront of teacher education programs' agendas for decades to come.

Keywords: Reading process, curriculum, assessment, instruction, student teacher, teacher preparation, self-efficacy

CHAPTER I

INTRODUCTION

Today's classrooms are more diverse than ever. Readers come from a variety of backgrounds and each exhibits unique needs. The teacher is the variable in the classroom, making many decisions that affect student learning (Whitaker, 2011). It is necessary for these decisions to be grounded in research-based best practices. More than any other factor, effective classroom instruction is critical in teaching reading and preventing reading problems (Moats, 1999). Considering the difficult task teachers have before them, the need to make teacher education programs more comprehensive in the area of reading instruction is essential. Reading forms the foundation for all other content areas (Ellery, 2009). Therefore, pre-service teachers need a firm understanding of theory related to reading instruction, as well as practical classroom applications (Monroe, Blackwell, & Pepper, 2010).

Researchers in the field assert that teacher preparation programs must be founded on "rigorous, research-based curriculum and opportunities to practice a range of predefined skills and knowledge" (Moats, 1999, p. 8). These skills and knowledge are fundamental components of any teacher education program. Teacher educators must understand the influence teacher preparation has on student learning and adjust programs and courses to better address the complexity of teaching reading. Studies have indicated that pre-service teachers feel unprepared to enter the classroom (Worthy & Patterson,

2001). Further, they lack necessary skills to feel competent as a teacher of reading (Starnes, Saderholm, & Webb, 2010). It is not clear whether this conclusion applies to those students who participate in brief field experiences or longer clinical experiences, such as student teaching. Student teaching is the portion of teacher education preparation designed to allow participants various opportunities to observe and apply previously learned theories and techniques (Bailey & Johnson, 2000). Real-life teaching experiences help student teachers conceptualize the way their future classrooms will operate.

Although a collection of literature related to pre-service teacher preparation during the student teaching experience exists, there is little evidence to support the notion that beliefs about reading instruction, in particular, change as a result of student teaching. To ensure clarity as this dissertation unfolds, the term "pre-service teacher" refers to any student enrolled in a teacher preparation program, while "student teacher" refers to preservice teachers enrolled in the student teaching semester. The literature typically refers to student teachers as pre-service teachers and, therefore, these two terms are used synonymously throughout the remainder of the dissertation.

Strong teacher education programs offer content and pedagogical knowledge through conceptual frameworks based on research and theory, with ample opportunities to practice (Cochran-Smith, 2003). Wilson, Floden, and Ferrini-Mundy (2001) argue that a practicum experience, such as student teaching, is often the most powerful component of teacher preparation. In a later article, Wilson, Floden, and Ferrini-Mundy (2002) explain the extent to which knowledge and skills grow as a result of field experiences is largely dependent on the nature of the field experience. Field experiences vary in length,

frequency, purpose, and structure within each institution and each of these variables can affect knowledge and skill acquisition. Student teaching is usually the longest field experience pre-service teachers participate in. Barr, Watts-Taffe, Yakota, Ventura, and Captui (2000) offer a historical perspective regarding field experiences over time and discuss the shift from students teaching single lessons in isolation, to students experiencing a variety of teaching and learning situations. These opportunities to practice teaching create a lasting impact for student teachers and have the potential to impact their preparedness to teach.

Need for the Study

Research has revealed several disparities between research in the field of reading instruction and how that information is applied in teacher preparation programs. These disparities contribute to a lack of efficacy from pre-service teachers as they struggle to apply reading concepts into practical classroom situations. Brady and Moats (1997) maintain that "impressive gains through national and international research efforts have highlighted what is essential for success at reading" (p. 8). Current research in the field of reading identifies the following content and skills necessary for reading teachers: the Big 5 (phonemic awareness, phonics, fluency, vocabulary, and comprehension), cueing systems, reading development, knowledge of language structures, practical instructional strategies, and understanding and application of reading assessment (Ellery, 2009; Moats, 1999; Wilde, 2000).

The majority of teacher preparation programs have a strong reputation of exposing students to the content knowledge inherent in teaching reading. Although knowing the content of how readers learn is important, it may not be enough. Moats

(1999) argues that knowing the reading content is not adequate enough for developing the skills to teach that content. She supports this claim by stating, "translating knowledge into practice requires experience with a range of students" (p. 21). This is where some teacher preparation programs fall short. They may not provide enough practical support to allow student teachers to experience how to apply that knowledge into practice. The current study examined how teacher preparation programs were addressing the needs of student teachers' reading preparation in the areas of curriculum, assessment, and instruction in both theoretical and practical ways. The research aimed at uncovering the content knowledge student teachers gain as a result of their coursework. The study also attempted to measure the extent to which student teachers feel confident teaching reading and identified factors that affect that sense of self-efficacy.

Purpose of Study

This study investigated the extent to which teacher preparation programs prepare student teachers on content and methodology regarding the process of reading. One purpose of this explanatory sequential mixed methods study was to examine student teachers' perceived knowledge of the essential components of teaching reading (i.e. curriculum, assessment, and instruction). An additional purpose was to investigate the extent to which these student teachers believed that their programs helped them understand and implement reading curriculum, assessment, and instruction in the elementary classroom. The study was phenomenological in nature as the researcher attempted to identify the perceptions of student teachers regarding their reading preparation. Quantitatively, data was collected through pre- and post-surveys focusing on participants' change, or lack thereof, in beliefs as a result of their student teaching

experience. The researcher then collected interview data to understand the factors that influence student teachers' beliefs and practices regarding reading curriculum, assessment, and instruction. Finally, lesson plan documents were collected to determine how student teachers were applying reading curriculum, assessment, and instruction in practical ways.

Research Questions

Three research questions guided this study. Questions were based on the concept of Ellery's (2009) curriculum, assessment, and instruction framework.

These questions included:

student teaching semester?

- What are student teachers' beliefs about their preparedness to teach reading, and to what extent does that change over the course of their
- 2. What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching?
- 3. What factors influence student teachers' perceptions of preparedness to teach reading?

Conceptual Framework

To solve the ever-growing dilemma of unprepared teacher candidates, pre-service teachers need to spend more time learning not only fundamental concepts of the reading process, but also how to implement effective instructional strategies while teaching reading. Moats (1999) argues that teacher education programs need to become more comprehensive in the areas of reading development, English language structure,

application of best practices, and utilization of valid and reliable assessments. Shaw and Mahlios (2008) also assert that curriculum forms the foundational knowledge of what pre-service teachers need to know about the reading process. Further, researchers assert the importance of analyzing and interpreting assessment data to inform instructional practices (Taskin-Can, 2011).

The three main areas of reading, curriculum, assessment, and instruction (CAI), form the conceptual framework supporting this study. The CAI framework established by Ellery (2009) is described as "the infrastructure that gives educators a sound foundation upon which to build comprehensive literacy teaching" (p. 7). The CAI framework acts as a lens to view the complex task of learning to teach by examining how curriculum, assessment, and instruction support and enhance one another. Ellery (2009) introduced the CAI framework as a way to support a comprehensive literacy classroom. She explains that literacy involves reading, writing, listening, viewing, and speaking. The curriculum portion of the CAI framework focuses on the five essential components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000). The National Reading Panel created these components and together they form the foundation of content used when educating pre-service teachers in the area of reading (National Reading Panel, 2000). Afflerbach, Cho, Kim, Crassas, and Doyle (2013) agree that phonemic awareness, phonics, fluency, vocabulary, and comprehension are "considered the hallmark of effective reading programs" (p. 441).

In addition to the five essential components, teacher education programs introduce pre-service teachers to the reading process. Wilde (2000) breaks the reading process into three cueing, or language systems, that enable readers to construct meaning

during reading. The three systems include the graphophonic system (sounds and letters), the syntactic system (sentence structure), and the semantic system (meaning making). The final feature of teacher education reading curriculum is the Common Core State Standards. The National Governors Association Center for Best Practices and Council of Chief State School Officers (2013) claims that CCSS are the skills and strategies that teachers are responsible for teaching and students are responsible for learning. Cassidy and Grote-Garcia (2014) claim that teachers and teacher educators across the nation are focusing on the CCSS. Supporting this claim is a strong statement: "of the educational trends that come and go, one thing is certain: Common Core State Standards (CCSS) is not one of them" (Cassidy & Grote-Garcia, 2014, p. 8). This claim supports the idea that teacher preparation programs must design educational experiences to address the need for knowledge and application of CCSS.

The second component of Ellery's (2009) CAI framework is assessment. While curriculum can be referred to as the content of reading preparation, assessment is more closely related to analyzing and interpreting students' interactions with that content.

According to Scriven (1996), student teachers are exposed to several different types of assessment in their teacher preparation coursework. The focus of this study was to examine the types of assessments student teachers learn in their coursework and the degree to which they feel confident implementing and analyzing each particular assessment. These assessments include a variety of diagnostic, formative, and summative assessments.

While curriculum and assessment are important factors in the conceptual framework of this study, instruction plays the largest role in student success. Researchers

and practitioners alike agree that effective classroom instruction is positively correlated to student learning. Allington (2006) supports this notion by stating "the most powerful feature of schools, in terms of developing children as readers and writers, is the quality of classroom instruction" (p. 142). Classroom instruction includes the approaches, strategies, and pedagogical practices used to educate students about a particular topic (Cambourne, 1995; Ellery, 2009). Engaging instructional strategies provide students with support and scaffolding as they attempt to tackle the complex task of learning to read. Important aspects of curriculum, assessment, and instruction in the area of reading will be covered more in depth in Chapter II.

Due to the specific nature of Ellery's (2009) CAI framework, there are no specific studies related to its development and use in teacher education. This study provided an additional avenue of research for improving reading preparation for student teachers. To stay in touch with the most current conceptual framework, teacher preparation programs need to reexamine how student teachers are learning and practicing reading knowledge and skills. This study also addressed the importance of curriculum, assessment, and instruction in preparing tomorrow's reading teachers.

Pilot Study

Studying the connection between reading curriculum, assessment, and instruction and the practical application of those components is an important and exciting research topic and the results can be used to impact the field of reading preparation. Thus, a pilot study was developed and conducted to examine the relationship between teacher education program preparation and the methodological application of perceived knowledge in reading instruction. The aim was to identify the extent to which pre-

service teachers, beginning their formal field experiences, were implementing the methods learned during coursework when planning and delivering reading instruction in the classroom setting. In addition, the need for a better understanding about the impact of teacher education program preparation on pre-service teachers' beliefs and the relationship between beliefs and practice was an additional purpose of the pilot study.

Students enrolled in a reading methods course were invited to participate in the study. The study was explained and consent forms were discussed and handed out during a class session. The population of students was a good fit for this study, because students were concurrently enrolled in a reading methods course and a 60-hour field experience. Twenty-two pre-service teachers were randomly selected to be interviewed from a possible pool of fifty-five consenting participants. The interviews were transcribed, coded, and categorized into themes. Results indicated that pre-service teachers felt that their lesson planning preparation was sufficient and reading content in preparatory courses was relevant to work in the field. Data analysis also revealed that pre-service teachers desired more field experiences and exposure to core reading curriculum. Although these findings were powerful and held implications for teacher educators and teacher education programs, the study did have limitations.

Pilot Study Limitations

The pilot study and the current study aimed to improve teacher education programs in the area of reading curriculum, assessment, and instruction. The pilot study was limited in three ways. First, the participants were recruited from one university, limiting the range of perspectives across various teacher education programs. Second, the study was qualitative in nature, which provided thick rich descriptions of participants'

experiences; nonetheless, it did not capture a concrete understanding of how significantly, or insignificantly, beliefs about reading instruction changed over time because it focused on students with limited experiences in the field. Finally, it is common for qualitative studies to be limited in gauging the generalizability of findings (Denzin & Lincoln, 2011) and the pilot study was no different. Although all research is susceptible to limitations, the current study was modified in an attempt to isolate and eliminate the limitations exposed by the pilot study.

A new mixed method design provided more and varied opportunities for participants to answer the research questions. These answers offered insightful information about how to improve teacher education programs in the area of reading instruction. To eliminate the limited range of perspectives from one university, the current study recruited participants from a broader, tri-state teacher education population. These varied perspectives provided a more comprehensive look at reading preparation as experienced by student teachers.

One potential limitation of the current study might appear as a result of a broader population of teacher education programs. Although a broader population offered a more extensive view, it also had the potential to expose differences in teacher education program expectations, which may affect student teachers' perceived knowledge of curriculum, assessment, and instruction. To compensate for this limitation, the survey, interview questions, and document analysis were all grounded in research-based best practices, supported by current research in the field of reading instruction. Further limitations based on results are discussed in Chapter IV.

Significance of the Study

There are benefits to both participants and society as a result of this study. The results serve as a resource for teacher educators to learn if their students are transferring professional knowledge from their teacher preparation programs into practical applications. If not, teacher educators will better understand the influences that affect preparedness and how to enhance teacher preparation. Based on the pilot study, expected findings indicate that student teachers feel the need for more practical applications in teacher preparation. Participants benefited by having a voice and impact on relevant change in reading teacher education programs. Implications for future research and practice in student teacher education included more comprehensive knowledge of reading curriculum, assessment, and instruction. The information informs and connects to the larger body of pre-service teacher education research.

Definition of Terms

Common terms used in this study are defined as follows. The purpose is to improve clarity and create a common vocabulary among readers.

AIMSweb. Assessment tool used to screen and monitor student progress in gradesK – 12 (NCS Pearson, 2014).

Assessment. Tools used to ensure students are learning what teachers want them to learn. Results are used to guide instruction.

Basals. Scripted core curriculum or teacher manuals used to teach reading in some classrooms. Basal titles referenced in this dissertation are Journeys and Reading Street.

Big 5/Essential Components of Reading. Phonemic awareness, phonics, fluency, vocabulary, and comprehension, together they form the foundation of content used when educating pre-service teachers in the area of reading (National Reading Panel, 2000).

Cambourne's Conditions. Children develop an understanding of early literacy when the following conditions are present: immersion, demonstration, expectation, engagement, use, approximations, response, and responsibility (Cambourne, 1995).

Common Core State Standards (CCSS). Rigorous and relevant Math and English Language Arts knowledge and skills used by our students upon entering college or careers. CCSS explain what students should be able to know and do at the end of each grade level (Wixson & Lipson, 2012).

Constructivism. An educational theory focusing on the construction of meaning (Hein, 1999) based on interactions with environment and other people (Draper, Barksdale-Ladd, & Radencich, 2000).

Curriculum. What teachers want students to know and be able to do with knowledge and skills (Ellery, 2009).

DIBELS. Dynamic Indicators of Basic Early Literacy Skills is an assessment tool used to measure the acquisition of early reading skills from Kindergarten through sixth grade (Dynamic Measurement Group, n.d.).

Gradual Release of Responsibility (GRR). The scaffolding and support provided by teachers as students learn new concepts and skills (Ellery, 2009).

Graphophonic cueing system. Closely related to phonics as it focuses on the relationship between sounds and letters (Wilde, 2000).

Instruction. Includes the methods and strategies used to deliver the content of a reading lesson.

MAP Testing. Measures of Academic Progress is a computerized assessment that is given to students to measure growth and achievement in the areas of Reading,

Language Usage, Mathematics, and Science (Northwest Evaluation Association, 2012).

MCA Testing. Minnesota Comprehensive Assessment is a statewide assessment used to measure students' achievement toward Minnesota's state standards for each grade level (Minnesota Department of Education, 2015).

Pedagogy. The methods, values, techniques and strategies used to teach (Polly,Mims, Shepherd, & Inan, 2009)

Phenomenology. How participants make meaning of their lived experiences of a phenomenon (Creswell, 2007).

Pre-service teacher. Overarching term for teacher education students who are currently taking coursework to obtain a college degree in teaching.

Reading process. Comprised of three cueing systems that enable readers to construct meaning during reading. The three systems include the graphophonic system (sounds and letters), the syntactic system (sentence structure), and the semantic system (meaning making) (Wilde, 2000).

Rigby assessments. Type of running record reading assessment used to identify readers' miscues.

Semantic cueing system. Made up of a reader's schema about the world they live in and the language they speak (Goodman, Watson, & Burke, 1987).

Student teacher. Pre-service teacher enrolled in their final semester of coursework, spending the extent of their time in the classroom observing and teaching children.

Student teaching. The portion of teacher education preparation designed to allow participants various opportunities to observe and apply previously learned theories and techniques (Bailey & Johnson, 2000).

Syntactic cueing system. Related to the syntax, or grammatical structure, of a language, or the sentence structure (Wilde, 2000).

Zone of Proximal Development. A theory developed by Vygotsky and defined as an alignment of intellectual maturity with developmentally appropriate subject matter (Langsford, 2005).

Chapter I Summary

The purpose of this study was two-fold. The first purpose was to examine student teachers' perceived knowledge of the essential components of teaching reading (i.e. curriculum, assessment, and instruction). The second purpose was to investigate the extent to which teacher education programs prepare student teachers to understand and implement reading curriculum, assessment, and instruction in the elementary classroom. This is an important topic to study because student teachers feel ill-equipped to enter the classroom (Kirkpatrick, Lincoln, & Morrow, 2006; Starnes, Saderholm, & Webb, 2010; Worthy & Patterson, 2001). In addition, they lack the necessary skills to feel confident teaching reading. For this reason, teacher education programs must study their practices and improve them to meet the needs of their learners.

To address these issues, this mixed method design provided concrete quantitative data about the perceived knowledge and skills student teachers learn as a result of their preparation. In addition, the qualitative interviews shed light on what factors influence a student teacher's feelings of efficacy in teaching reading. A review of literature addressing reading curriculum, assessment, and instruction is presented in Chapter II, including: five essential components of reading, three cueing systems, Common Core State Standards, summative assessments, formative assessments, instructional approaches, instructional strategies, pedagogy, methodology, Zone of Proximal Development, Cambourne's Conditions, and Gradual Release of Responsibility. In Chapter III, an overview of the methods used to collect and analyze data from the survey, interviews, and student samples are provided. Chapter IV findings about student teachers' perceptions of their preparation are presented. Finally, Chapter V includes a conclusion of the study as well as implications for future practice.

CHAPTER II

LITERATURE REVIEW

Teachers today require a complex and sophisticated set of skills to meet the needs of the learners in their classrooms. Teacher education programs have the responsibility of preparing teachers to develop this skill set. These programs are charged with the important task of preparing teachers to feel competent in methods and practices.

Research on competency and skill acquisition in pre-service teacher education has grown increasingly more popular in the last several decades. Previously published literature reviews on the topic were used to frame this particular review (Darling-Hammond, 1999; Roskos, Vukelich, & Risko, 2001; Clift & Brady, 2005). These reviews, however, provided limited information on the content found in reading coursework.

Teacher education programs are often criticized for graduates finishing with feelings of incompetence in reading methods and practices. Worthy and Patterson (2001) argue that many studies in teacher education conclude college coursework is disconnected from real work in the field, leaving pre-service teachers feeling ill-equipped and unprepared to enter the classroom. Some face the reality of burnout as numerous responsibilities of being a teacher soon become apparent. Various concerns about uniting theory and practice are evident in pre-service teachers' reflections of their preparation.

Starnes, Saderholm, and Webb (2010) discuss the divide between what pre-service teachers learn in coursework and how that knowledge transfers to their work in the field.

Pre-service teachers have difficulty applying their knowledge and skills in real-life classroom situations related to lack of experience in doing so. The role of teacher education programs is to provide opportunities for pre-service teachers to know, understand, and be able to implement various areas of reading, including curriculum, assessment, and instruction. Smith (2009) states "teacher preparation exerts powerful influences on the development of a beginning teacher's reading perspective" (p. 259). During teacher preparation, students develop a philosophy of teaching as well as a repertoire of instructional strategies. These strategies form the foundation of a preservice teacher's foundational knowledge about reading curriculum, assessment, and instruction.

The literature review found in this chapter has several purposes. First, constructivism and self-efficacy is described as a basis for how student teachers construct knowledge, and consequently, feel confident implementing that knowledge into practice. Second, Ellery's (2009) framework of curriculum, assessment, and instruction supports the foundational knowledge student teachers receive as a result of teacher preparation. The review uncovers various types of curriculum inherent in reading, including the reading process, the five essential components of reading, reading skills, and Common Core State Standards (CCSS). In addition, the review identifies and analyzes various types of assessments used in reading and to what degree these assessments impact student teachers' ability to be effective educators. Finally, the review describes how student teachers utilize professional knowledge of curriculum and assessment when planning reading instruction.

Constructivism Theory

Teacher education reading curriculum varies in content and depth. Content may include current policies, theoretical underpinnings of teaching reading, effective literacy instructional strategies, authentic reading assessments, and the construction of knowledge (Taskin-Can, 2011). Students enter teacher preparation programs with prior knowledge about learning to read or how to teach reading, based on their experiences as a student (Darling-Hammond, 2006). These beliefs often develop certain positive or negative perceptions about teaching reading. The responsibility of teacher education programs is to construct, or build on, what pre-service teachers already know about reading instruction.

Vygotsky (1978) is credited with introducing the theory of knowledge construction, known as constructivism. Draper, Barksdale-Ladd, and Radencich (2002) build on Vygotsky concept stating "constructivism is the philosophy, or belief, that learners create their own knowledge based on interactions with their environment including their interactions with other people" (p. 522). Richardson (2003) identifies five characteristics of constructivism in teacher education: 1) developing an understanding and appreciation for students' backgrounds; 2) facilitating group discussions that foster an understanding of a particular topic; 3) delivering content knowledge through direct instruction, text reference, web site exploration, etc.; 4) providing students with opportunities to challenge, change, or add to their prior knowledge and beliefs through structured tasks; 5) developing students' metacognition about the learning process.

Constructivism forms the foundation of how pre-service teachers construct knowledge about reading instruction. It provides a framework that scaffolds and supports

students with adequate challenges in order to construct new knowledge (Taskin-Can, 2011). Pre-service teachers construct knowledge in many ways. Class discussions, hands-on activities, and reflections all play a part in educating and assessing student reading teachers. Ciminelli (2009) offers three constructivist learning strategies utilized in her language arts class: activating prior knowledge, studying personal experiences, and working in collaborative groups. These learning strategies are used to assess student learning in ways that are meaningful and authentic. In order for assessments to be purposeful, they must accurately measure student learning (VandenHurk, Houtveen, VandeGrift, & Cras, 2013). In terms of teacher preparation in the area of reading instruction, it is important to consider how to measure a student teacher's level of confidence when teaching reading. One way to measure this confidence is by assessing a student teacher's self-efficacy in understanding and being able to implement reading curriculum, assessment, and instruction.

Self-Efficacy in Teaching Reading

According to Wasserman (2009), most reading methods courses fail to impact a student teachers' classroom instruction, because there are limited structured opportunities to practice these skills. Lack of practice often produces feelings of inadequacy and unpreparedness. These negative feelings directly affect a student teacher's feelings of self-efficacy. Self-efficacy is "one's beliefs in his/her capabilities to organize and execute the courses of action to achieve specific goals" (Bandura, 1997, p. 27). The goal, in this case, would be to effectively teach children how to read. Self-efficacy for teaching is used as a tool to measure students' levels of confidence when teaching. The

final survey construct used in this study was based on participants' feelings of confidence, or self-efficacy, in teaching reading.

Self-efficacy is created through interactions with family, school, and community throughout a person's cognitive and social experiences (McCabe, 2003). Particular experiences with teaching reading help create a student teacher's perceived feelings of self-efficacy. Positive experiences often promote positive feelings when in contrast, negative experiences have the opposite effect. What factors then lead to a student teacher's feelings of self-efficacy? Wasserman (2009) conducted a study that compared two reading methods courses in an elementary teacher education program. The first course included a service-learning element requiring pre-service teachers to interact with children. However, the second course was set up to allow pre-service teachers to teach sample reading lessons to their peers. The researcher hypothesized that pre-service teachers who participated in a structured service-learning experience were more likely to develop self-efficacy than those who taught to their peers. Results indicated that including a hands-on component to a reading methods course dramatically increased the participant's self-efficacy in teaching reading, not only for that time period but through to their student teaching. This powerful example lends itself to the impact of field experiences.

Ultimately, it is the role of the teacher education program to provide field experiences for their pre-service teachers. Moats (2009) agrees that preparing new teachers in the "big ideas" of reading instruction is a critical responsibility of any teacher education program. The big ideas of reading addressed in this literature review include curriculum, assessment, and instruction. Pre-service teachers need both foundational

knowledge about these areas and also strategies and techniques for effective implementation. Exposure and ability to practice effective techniques will likely improve self-efficacy among pre-service reading teachers.

Not only do pre-service teachers develop self-efficacy throughout their teacher preparation program, but they also need to be aware of the self-efficacy their students possess as readers. Henk and Melnick (1995) argue that students, who believe they are good readers, usually have positive experiences with books and learning to read. The opposite is also true; a student who presents low self-efficacy in reading rarely enjoys reading and lacks successful experiences with the process. Researchers agree, students are more likely to participate in tasks they feel competent doing, as opposed to those in which they lack confidence (Vuong, Brown-Welty, & Tracz, 2010). In conclusion, teacher education programs are responsible for creating positive and structured experiences in which pre-service teachers can practice improving self-efficacy in reading curriculum, assessment, and instruction.

Curriculum

As stated in Chapter I, the three main areas of reading preparation are curriculum, assessment, and instruction (CAI). Ellery (2009) developed the CAI framework as a foundation for building a comprehensive literacy program. The framework supports the idea that learning to teach is a complex job where curriculum, assessment, and instruction support and enhance one another. Each of these facets is addressed in teacher education programs as pre-service teachers begin to understand the literacy components they will be responsible for teaching. Ellery (2009) explains that literacy involves reading, writing, listening, viewing, and speaking. This literature review focuses on the curricular

components most closely related to reading. Ellery (2009) explains curriculum as "what [teachers] want students to know and be able to do" (p. 7). She goes on to argue that the ultimate goal of teaching is to provide authentic opportunities for students to strategically implement, connect, and explore curriculum. Routman (2008) agrees that reading curriculum must be "relevant, interesting, and challenging" (p. 62). Shaw and Mahlios (2008) explain that curriculum forms the foundational knowledge of what student teachers need to know about the reading process. The curriculum portion of the CAI framework focuses on the five essential components of reading, the reading process, and the Common Core State Standards (CCSS).

Five Essential Components

Pre-service teachers appear to have limited knowledge and understanding about the essential components necessary to teach reading (Moats, 1999). Therefore, teacher education programs must improve their ability to provide practical and theoretical opportunities for pre-service teachers to interact with the reading process. Pre-service teachers need foundational knowledge about how readers learn and practical strategies for applying that knowledge in their work with students. A large portion of the foundational knowledge applicable in teacher education reading courses involves the five essential components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Ellery, 2009; Moats, 2009; NPR, 2000). The National Reading Panel created these components, also referred to as the "Big 5", and together they form the foundation of content used when educating pre-service teachers in the area of reading (National Reading Panel, 2000). Afflerbach, Cho, Kim, Crassas, and Doyle (2013) agree that phonemic awareness, phonics, fluency, vocabulary, and comprehension are

"considered the hallmark of effective reading programs" (p. 441). A comprehensive literacy program includes instructional activities dedicated to each of the five essential components (Shaw & Mahlios, 2008). In addition, Ellery (2009) encourages educators to look strategically at how the "Big 5" play a role in teaching children to read.

Before applying them in practice, student teachers need a firm understanding of what each component is, why it is important, and how to implement it during reading instruction. Wilde (2000) states, "reading is both conceptual and visual" (p. 27). Other researchers would argue that hearing and sound also play a large role in learning to read. Phonemic awareness is the first essential reading component and it involves the understanding of sounds. Phonemic awareness can be understood as the process by which speech is made up of a sequence of sounds and sounds are combined to form words (Ellery, 2009). When learning to read, students become familiar with the way letters and words sound. Students use this knowledge to create, analyze, and recognize new words. This recognition is also made through the second essential component of reading, phonics. "Phonics is the part of the graphophoic cueing system that demonstrates the relationship between sounds in speech and letters in print" (Ellery, 2009). It can be argued that phonics instruction should be integrated into the other essential components of reading.

A third essential component of reading is fluency. This essential reading skill includes combining appropriate phrasing and tone, while automatically reading the words on the page (Ellery, 2009). Without a strong foundation of phonemic awareness and phonics, fluency can break down causing a break down in comprehension as well. Not only are fluent readers able to read groups of words in phrases as opposed to reading

word-by-word, they also tend to more effectively comprehend what they are reading.

Another essential component of reading that lends itself to comprehension is vocabulary.

Vocabulary, the fourth essential component of reading, is fundamental to the success of a young reader. Ellery (2009) argues that students need a variety of opportunities to develop vocabulary. It is important to include vocabulary instruction in not only reading, but other content areas as well. Students require both explicit vocabulary instruction and exposure to strategies that help develop the understanding of new words. With a strong foundation of phonemic awareness, phonics, fluency, and vocabulary, readers can attend to the purpose of reading, which is ultimately making meaning of what was read.

This meaning making, also known as comprehension, is the fifth and final essential component of reading and is arguably the most important. Similar to vocabulary instruction, comprehension instruction needs to be explicitly taught (Ellery, 2009). Allington (2006) argues "most struggling readers benefit enormously when we can construct lessons that help make the comprehensive processes visible" (p. 123). Furthermore, Cambourne (1988) suggests the difference between effective and ineffective readers is that the effective readers understand the purpose of reading, comprehension, and effective readers do not. Each of the five essential components of reading plays an important part in any teacher education reading course. However, preparing tomorrow's reading teachers includes a focus on one of education's hottest topics – the Common Core State Standards (CCSS) (Cassidy & Grote-Garcia, 2014).

Common Core State Standards (CCSS)

Although the "Big 5", or essential reading components (phonemic awareness, phonics, fluency, vocabulary, and comprehension) have been prominent in reading research and practice over the last several decades, more rigorous Common Core State Standards (CCSS) have changed the way we view the reading process. Wixson and Lipson (2012) claim the CCSS provide a more integrated approach to teaching reading, shifting from decoding to a stronger focus on making meaning of the text. Allferbach (2013), another proponent of the CCSS, argues that using the "Big 5" to teach reading allows limited opportunities for students to monitor their own reading, and thus, become successful readers.

The CCSS outline the skills and knowledge students must learn throughout their time in school. These skills and knowledge are intended to prepare students to be successful in the classroom and more importantly, in the real world outside the classroom (Common Core State Standards Initiative, 2014). Wixson and Lipson (2012) define the CCSS as rigorous and relevant knowledge and skills used by our students upon entering college or careers. Each section of the CCSS has Anchor Standards related to College and Career Readiness (Valencia and Wixson, 2013). These standards are consistent across grade levels and they define the knowledge and skills that students in every grade level must demonstrate (Common Core State Standards Initiative, 2014). A sample list of ELA Common Core State Standards for Kindergarten through 5th grade can be found in Appendix A.

How do the CCSS impact curriculum in preparing teachers of reading? Sayeski (2013) claims that adopting the CCSS will present challenges when preparing pre-service

teachers as in-service teachers are now just learning how to navigate the standards. Alston and Barker (2014) agree, "many teachers are unsure how to connect [the standards] to their instructional planning" (p. 64). These feelings of uncertainty may lend themselves to student teachers feeling unprepared to enter the classroom – yet another reason for teacher education programs to focus on including more relevant foundational knowledge into their reading coursework. CCSS provide a roadmap, or directional course, for what teachers are responsible for teaching their readers. Pre-service and inservice teachers alike need to understand and be able to implement the CCSS to effectively plan and deliver reading instruction. Even though CCSS provide a directional scope and sequence to follow, some teachers have autonomy and flexibility in deciding how to teach and meet each standard. In addition to the CCSS, the reading process provides a set of skills that guide reading teachers to successful teaching and learning experiences.

Reading Process

A third and final component of learning to teach reading lies in the understanding of the reading process. As described here, the reading process encompasses two parts: 1) the three cueing systems that work together to create the English language system and 2) how readers interact with that system. These systems include the graphophonic system, the syntactic system, and the semantic system. Each system plays an individual, yet integral part in learning to read.

The graphophonic cueing system is closely related to phonics, one of the five essential components of reading. Ellery (2009) explains the graphophonics system as one that "demonstrates the relationship between sounds in speech and letters in print" (p. 59).

Not only is the graphophonic system related to the sound system of our language (phonics), but it also involves spelling conventions and the complex relationship between the two (Goodman, Watson, & Burke, 1987). Readers sound out words while reading using the graphophonic cueing system and decide whether the word looks right. When educating young readers, student teachers need to be aware of the process that occurs as readers acquire the ability to use phonics while reading (Wilde, 2000).

The second cueing system student teachers need to understand is the syntactic cueing system. The syntactic cueing system is related to the syntax, or grammatical structure, of a language. Simply put, the syntactic system relates to sentence structure (Wilde, 2000). Goodman, Watson, and Burke (1987) refer to this system as the interrelationship between words, phrases, sentences, and paragraphs. Effective readers use the syntactic system to decode unknown words based on their location in the sentence. Student teachers require knowledge of the syntactic system as they guide readers in making sense of the words they are reading. When learning to read within the syntactic system, students ask themselves if the word sounds right, which enables them to see if the word makes sense or not.

The third and final cueing system student teachers must have in their foundational knowledge repertoire is the semantic cueing system. This system is most closely related to the essential reading component of comprehension. The semantic cueing system is made up of a reader's schema about the world they live in and the language they speak (Goodman, Watson, & Burke, 1987). This information is used to make sense of what the reader is reading. Wilde (2000) argues that the "semantic system is necessary to make us feel that we've comprehended the text" (p. 18). Students learn to read from many

sources and student teachers need to be aware of the cueing systems that affect a student's ability to read. It is also important to note that the use of these cueing systems may be difficult for teachers of reading to recognize, because most of them happen automatically over time. Yet another reason to educate student teachers about each cueing system and the role they play in teaching a child to read.

In conclusion, to be successful reading teachers, student teachers require a firm foundation of the curriculum and content knowledge inherent in learning to read. Ellery (2009) identifies curriculum as the knowledge and skills students need to demonstrate. Knowledge of curriculum includes understanding the five essential components of reading, as well as consideration of the CCSS and the three cueing systems. With a firm understanding of these curricular topics, student teachers can begin to look at assessing students' knowledge in regards to the reading process.

Assessment

Assessment can take many forms in the elementary classroom, and the definitions are wide and varied. Davis (2009) discusses how to ensure student learning, mainly through the assessment or evaluation of that learning. Ellery (2009) defines assessment as "windows into the learner's knowledge, beliefs, and attitudes" (p. 10). Still others argue that assessment includes the methods that teachers use to collect data about teaching and learning (Hanna & Dettmer, 2004). Routman (2008) describes assessment as a way to check, monitor, and direct student learning. Others believe that assessment is the data collected and used to understand readers so that teachers can plan instruction and set learning goals (Barrentine & Stokes, 2005). When these various definitions are

synthesized, one can ascertain that assessment is a process by which data is collected and used to measure student learning.

Assessment, as used in this context, refers to the data pre-service teachers collect to identify whether or not their students are learning. DeLuca and Bellara (2013) examined pedagogies that encouraged positive transformations in pre-service teachers' understanding of assessment. They argue that beginning teachers display low levels of competency in assessment related to a lack of exposure over the course of their teacher preparation programs. Therefore, field experiences play a critical link in helping preservice teachers understand assessment. Barnyak and Paquette (2010) agree that preservice teachers must understand the importance of using effective, research-based strategies when assessing students' abilities to read. The authors conducted a quantitative study to investigate pre-service teachers' attitudes and beliefs about teaching reading and the extent to which their coursework impacted their practices. Results indicated that preservice teachers' beliefs about providing students with meaningful experiences increased as a result of their reading methods course. These results are further evidence that teacher preparation programs must be comprehensive when presenting current, researchbased best practices about assessment to their pre-service reading teachers.

Teaching is a complex task that requires the use of critical thinking and deliberate decision making. Educators must know, understand, and be able to apply several skills at the same time. Assessing the extent to which these instructional strategies are measuring student learning is equally as challenging. Teacher preparation courses aimed toward educating pre-service teachers about how to teach reading, use the following assessment tools: checklists, interviews, pre-tests, self-assessments, conferencing, feedback,

journaling, observations, portfolios, rubrics, standardized, and unit tests (Boyd-Batstone, 2005; Barretine & Stokes, 2005; Ellery 2009). Several of these assessments will be discussed in depth in the following section.

Types of Assessment

These assessment components, most often taught in college coursework and implemented in the field, require students to demonstrate what they know and can do with their knowledge. Cochran-Smith (2003) promotes the idea that student learning is a defining goal of teacher education. One might argue that student learning is a defining goal of any educational experience. Therefore, pre-service teachers need a variety of knowledge regarding assessment techniques and strategies to measure student learning. Such variety may come in the form of various diagnostic, formative, and summative assessments.

Diagnostic assessments. Diagnostic assessments are used at the beginning of a learning cycle and can help identify current knowledge and skills. Ellery (2009) explains that teachers use diagnostic assessments to evaluate a student's strengths and weaknesses. Results of diagnostic tests inform instruction as the teacher makes decisions about the learning needs of his/her students. Barrentine and Stokes (2005) maintain that without diagnostic assessments, important information about students' abilities may remain hidden. The results of diagnostic assessments guide teaching and are essential to the learning process. An example of a diagnostic assessment would include a self-assessment. Other types of diagnostic assessments are listed in Table 1.

Self-assessments. A reader's perception of reading is influenced by many factors. Routman (2008) agrees that a teacher can impact a child's perception of reading. By

believing that all students are capable of learning, students gain confidence in their own abilities. It is essential that student teachers acknowledge the responsibility they carry in helping students feel successful with reading. These teacher-student interactions have the Table 1. Types of Diagnostic, Formative, and Summative Assessments

Diagnostic Assessments	Formative Assessments	Summative Assessments
AIMSweb	Anecdotal records	Checklists
CPAA	Conferencing	Final exams
DIBELS	Feedback	MCA
Interest Inventories	Journaling	Portfolios
Interviews	Observations	Projects
MAP	Reading Notebooks	Rubrics
Pre-tests	Running Records	Standardized tests
Self-assessments	Student Samples	Unit tests

potential to either positively or negatively impact a student's feelings toward reading. Teacher education programs include self-assessments as a tool in educating student teachers about how to gauge students' feelings toward reading. Henk and Melnick (2005) claim, "children who have made positive associations with reading tend to read more often, for longer periods of time, and with greater intensity" (p. 299). These researchers believe that teachers can better address positive associations by knowing how students rate their self-efficacy in reading.

Henk and Melnick (2005) have done extensive work analyzing scales that are used to measure self-efficacy in reading and have come to the conclusion that each has its

limitations. Therefore, the pair created their own self-assessment scale called the Reader Self-Perception Scale (RSPS). The RSPS is made up of 32 questions categorized into four subscales including: progress, observational comparison, social feedback, and physiological states. Upon implementation and further analysis, the creators of the scale concluded that results can be used to monitor the general classroom climate toward reading and also feelings of individual readers. As a diagnostic tool, self-assessments can identify students who are at risk or lack confidence in reading and early interventions can be made for those students (Henk & Melnick, 2005).

Formative assessments. Educators are constantly striving to improve their practice. They do this by collecting data about what students are learning. Although data from diagnostic assessments are typically used toward the beginning of a unit of study, data from formative assessments are used throughout the learning process. Formative assessments are used during the learning process to measure student progress. In addition, they measure whether or not the instruction is meeting the needs of the learner (Boyd-Batstone, 2004). A main focus of formative assessment is to identify students' knowledge and skill areas that need improvement. The formative assessment process is driven by a variety of student data collected throughout the learning process. When using formative assessments, the teacher evaluates whether or not the learning activity contributed to student learning and if it should be used again. Graham (2005) defines formative assessment as "building on prior knowledge, observation, diagnosis, and support for students' needs throughout the learning process" (p. 609). Two examples of formative assessments include anecdotal records and conferencing. Other types of formative assessments are listed in Table 1.

Anecdotal records. As addressed previously, formative assessments focus on identifying areas of reading where students need support. Anecdotal records are an informal assessment tool designed to gather such data. Anecdotal, or observational, records are used to record a student's natural literacy proficiencies (Boyd-Batstone, 2005). These written records allow reading teachers to make informed decisions about how to assist the reader during the reading process (Rhodes & Nathenson-Mejia, 1992). Although anecdotal records can be used during peer discussions and reading minilessons, they are most often used during individual reading conferences.

Conferencing. Reading teachers collect data in many different ways and student teachers need to be trained in these techniques and how they are used in the classroom. Conferencing is one such technique used by teachers to collect reading data about individual students. Gill (2000) defines conferences as "meetings between individual students and their teacher, during which the student may talk about what he or she is reading, retell the story, or read aloud to the teacher" (p. 181). Dudley-Marling (1996) agrees that conferencing consists of one-on-one meetings, where teachers can individualize instruction based on the needs of each particular reader. Student teachers must understand that conferences serve several purposes, including: helping students find books of interests, setting personal purposes for reading, and introducing and practicing comprehension strategies (Gill, 2000). Formative assessments such as anecdotal records and conferencing allow student and in-service teachers alike, to identify students' strengths and weaknesses and adjust instruction accordingly.

Summative assessments. While educators use formative assessment, such as conferencing, throughout the learning process, summative assessments are typically used

upon completion of a unit of study. Ferguson (2011) distinguishes between summative and formative assessment by explaining that summative assessments explain how teachers assign a grade, while formative assessments create a clear picture of the modifications that can be made to improve the grade throughout the learning process. The summative assessments reviewed here include rubrics, portfolios, and standardized tests. Other types of summative assessments are listed in Table 1.

Rubrics. Rubrics are an assessment tool designed to describe what students did or did not learn or do during an activity or assignment (National Association of Student Personnel Administrators, 2004). This assessment tool is designed to explain expectations, share those expectations, and assess levels of expectation mastery (Graham, 2005). Huba and Freed (2000) offer an encompassing look at promoting learning through the use of rubrics when they state:

Assessment information must reveal to learners an understanding of how their work compares to a standard, the consequences of remaining at the current level of skill or knowledge, as well as information about how to improve, if improvement is needed (p. 154).

Ambrosio, Seguin, Hogan, and Miller (2001) defend the use of rubrics in assessing learners, because their use promotes success for all students, including those with diverse cultural backgrounds. Rubrics can be completed both by the teacher and the student on their own performance. Rubrics challenge students of all ages and abilities to assess growth at various stages of the learning process (Bresciani, 2006). Student teachers would also benefit from creating personalized rubrics to be used with their own students.

Huba and Freed (2000) dedicate an entire chapter to using rubrics to provide feedback on learning. The authors maintain that in order to be useful, rubrics need to include several elements. First, rubrics must include criteria, or skills and knowledge that will be assessed through the learning activity. Second, criteria must be compared against levels of mastery to show students where they are performing against a set expectation. Third, rubrics should be designed so skills are in organized groupings. The purpose of rubrics is to help students see that they will be assessed on "complex abilities that are multi-dimensional" (p. 167). Finally, Huba and Freed (2000) suggest that rubrics provide commentary, or a description, of how the student's work meets, fails to meet, or exceeds the expectations. Rubrics are often used in reading instruction to assess where students are compared to a set standard or how their work compares to that of their peers.

Portfolios. Another way student learning is assessed is through the use of portfolios. Maki (2010) provides a simple definition – portfolios are a collection of student work. The work included in a portfolio should demonstrate the knowledge students construct, or collect, throughout the lesson or unit. Huba and Freed (2000) discuss the importance of having a purpose, or set of goals, when using portfolios as a form of assessment. The authors explain that portfolios have two purposes, the first is to evaluate learning and the second is to promote learning. Zeichner and Wray (2001) identify another purpose of portfolios is to demonstrate growth over a period of time. To be effective, portfolios must show evidence of learning and growth in terms of what students know, understand, and are able to do with their knowledge. Portfolios contain student samples that provide evidence of knowledge and skills learned as a result of reading instruction.

Standardized tests. Not only do student teachers need strategies to assess students, they also require assessment tools to evaluate student learning over time. These tools are used before, during, and after instruction to measure competency. Standardized tests are typically an assessment used toward the end of a student's time in a particular grade. Valencia and Buly (2004) reviewed literature supporting the use of standardized test scores as indicators of learning. This traditional method of assessment can easily be administered to a large population of students, making it cost and time effective.

However, standardized tests rely heavily on a test taker's depth of content knowledge rather than the skills and performance necessary to be successful in the learning process.

Standardized high stakes tests are summative in nature, because they are typically given at the end of a school year or particular grade. Some agree that these tests not only measure student learning, but also a teacher's ability to present the concept in such a way to impact student learning. As a common form of assessment in today's classrooms, student teachers need to be aware of and accountable for the results of standardized tests.

In conclusion, assessment is not a trend that is here today, gone tomorrow. Funding is influenced by positive assessment results. Teacher education programs are required to provide evidence that their candidates have learned how to teach (Wei & Pecheone, 2010). Stakeholders are always interested in knowing that teachers are competent. Hoffman, Assaf, and Paris (2001) agree, "accountability through testing, for students, teachers, and administrators, is the key leverage point for policymakers seeking to promote educational reform" (p. 482). This educational reform may perhaps begin in teacher education programs as pre-service teachers come to know and understand the various types of assessment.

As far as teacher education programs are concerned, graduates should leave with a strong understanding of how to design, implement, and analyze the results of a variety of assessments. Deluca and Bellara (2013) state the importance of exposing pre-service teachers to multiple methods and applications of assessment. Although it is important for pre-service teachers to understand the definitions of diagnostic, formative, and summative assessments, it is even more important to develop a working knowledge of various assessments as they guide reading instruction in the classroom.

Instruction

The literature discussed thus far has focused on the understanding and application of self-efficacy, curriculum, and assessment related to reading. This section explores how instruction fits into the process of how children learn to read. More specifically, the review investigates student teachers' beliefs regarding instruction, various approaches, or structures, for teaching reading, the importance of pedagogy, and finally research-based instructional theories.

Student Teachers' Beliefs

Anytime student teachers are in charge of a classroom of learners, it is their responsibility to meet the needs of all learners in their care. Meeting these needs is accomplished through thoughtful planning and explicit, organized instruction. More than any other factor, effective classroom instruction is critical in teaching reading and preventing reading problems (Moats, 1999). Classroom instruction includes the methods and strategies used to deliver the content of a reading lesson. A focus on improving reading instruction has been on the minds of educators and researchers for many years. Several examples are outlined in the following paragraphs.

Chesley and Jordan (2012) conducted a study investigating teachers' perceptions of their preparation and discovered several gaps. The researchers completed focus groups with 60 teachers; some were new to the field, others were experienced teachers. Results of the focus groups indicated several important instances where teacher preparation can be improved. Participants reported their teacher education programs did not prepare them for the mental and physical stress that naturally occurs when teaching children. It was also indicated that teacher education programs neither encouraged nor emphasized the professional habits necessary for being an effective teacher. More importantly, Chesley and Jordan (2012) uncovered that pre-service teachers did not feel sufficiently prepared to teach reading. Factors affecting these feelings of preparedness centered around reading coursework being too general and not applicable in real classroom situations. Participants also indicated their exposure to lesson planning related to reading instruction was "artificial and minimally useful" (p. 43).

Friesen and Butera (2012) conducted a study exploring the daily instructional practices of three reading teachers. The researchers examined the relationship between professional, practical, and personal experiences and how those experiences influenced choices about reading instruction. Results indicated that professional knowledge played a limited role in decisions related to reading instruction while practical and personal knowledge greatly impacted the teachers' beliefs about teaching reading. Implications for future practice suggest that understanding a teacher's beliefs about reading is important for improving their educational practices.

Instructional practice improves as a result of not only understanding beliefs about reading, but also what those beliefs represent. Shaw and Mahlios (2008) conducted a

study examining pre-service teachers' metaphorical representations of teaching literacy. Participants were asked to create a metaphor that represented the content and pedagogy presented in their reading methods course. The major theme that came out of data analysis was the parts/ingredients metaphor. The researchers explained this metaphor as representing literacy as a holistic subject made up of a variety of interconnected components. The following section is dedicated to examining some of these components including: instructional approaches, the importance of pedagogy, and finally, research-based instructional theories.

Approaches

The approaches used to teach reading are as varied as the skills required to learn how to read. Instruction is often structured around a support that encourages the integration of skills with authentic reading experiences. Allington (2006) identifies the importance of choosing an instructional approach that offers numerous opportunities for students to engage in the act of reading. He states, "if I were required to select a single aspect of the instructional environment to change, my first choice would be creating a schedule that supported dramatically increased quantities of reading throughout the school day" (Allington, 2006, p. 35). Balanced literacy, Daily 5, and Reading Workshop, three instructional approaches taught in pre-service preparation, increase the amount of time students spend reading during the school day.

Balanced Literacy. A balanced literacy program is a particular approach used to teach reading. It is used in a variety of grade levels and consists of five components: (1) read alouds, (2) independent reading, (3) shared reading, (4) writing about reading, and (5) guided reading (Dorn & Jones, 2012). Shaw and Mahlios (2008) suggest that a

balanced literacy program must include instructional time dedicated to each of the five components. The first component is the read aloud. Reading aloud is an important part of any classroom as it strengthens the "intellect of your students, expanding vocabulary, and language, developing an appreciation for inquiry, and creating a literary community" (Fountas & Pinnell, 2006). Throughout the read aloud, teachers build on students' background knowledge, while exposing them to complex vocabulary and supporting readers through a more difficult text (Dorn & Jones, 2012).

The second component of balanced literacy is independent reading. Richardson (2009) acknowledges the importance of allowing students to choose their own books for independent reading. The classroom is often silent during independent reading as students work to become competent readers. Independent reading differs from silent reading, because independent reading is supported by a strong instructional framework in which readers have ample time to understand and process text (Fountas & Pinnell, 2006). Books read during independent reading time are familiar to students, which naturally provides a scaffold for their learning (Dorn & Jones, 2012). Routman (2003) describes the significance of independent reading by stating that it "is the crucial learning context in which the reader assumes responsibility for applying smart reading behavior in order to gain and maintain understanding" (p. 86). With comprehension and understanding as underlying goals for any reading interaction, teachers must be aware of the specific purpose independent reading has in their classrooms.

A third component of balanced literacy is shared reading, which also has specific purposes and justifications for its continued use. Shared reading is the process by which teachers model reading and students work together to collaboratively read a particular

text (Routman, 2003). Fountas and Pinnell (2006) extend the definition with the idea that shared reading is typically done in unison with the teacher pointing to each word. This component of balanced literacy is used across grade levels, genres, and content areas, although it does become more complex with older students. Richardson (2009) describes the purpose of shared reading is to "teach skills and strategies, increase reading fluency, learn content information for science and social studies, and support developing readers" (p. 7). This important definition provides insights as to where shared reading fits into the balanced literacy approach. It is also essential to remember that shared reading can occur in both whole-group and small-group settings making it versatile enough to use on a daily basis (Dorn & Jones, 2012). Another literacy activity that occurs in classrooms on a daily basis is writing about reading.

Writing about reading is the fourth component of a balanced literacy approach.

Routman (2003) promotes the importance of writing about reading when suggesting that young children often write before they know how to read. These early interactions with print form strong foundations of the reading/writing connection. Other researchers support the use of writing about reading as an important reflective and instructional tool. Writing about reading allows students to record their ideas and reflect on their thinking (Dorn & Jones, 2012). Fountas and Pinnell (2006) suggest writing about reading should not be assigned to readers, but rather, the process should be taught explicitly in order to ensure students understand the complexity of learning to read and write. Dorn and Soffos (2005) list several benefits of writing about reading including: helping students organize their thinking, encouraging flexible thinking, and promoting deeper comprehension. In addition, Dorn and Jones (2012) agree that writing about reading increases

comprehension. Another approach to increasing reading comprehension is through the use of guided reading.

The fifth and final component of balanced literacy is guided reading. Schulman and Payne (2000) offer an in-depth look at guided reading and define it as a "structured, practical way of matching reading instruction to the diverse individual readers in the classroom" (p. 12). Fountas and Pinnell (2006) offer another dimension of guided reading as an instructional approach that involves teaching small groups of readers with similar reading levels and abilities. Dorn and Jones (2012) supplement the definition by identifying the teacher's role in guided reading. The authors explain the teacher's role is to predict how much support is needed with the reading task and to provide appropriate supports that will enable the readers to make meaning of the text. Teachers are also responsible for guiding students through several different aspects of the reading process including: selecting books, making meaning, decoding words, defining words, reading fluently, monitoring comprehension, and identifying author's purpose (Routman, 2003).

Balanced literacy is a comprehensive and complex approach to teaching reading. Student teachers must embrace the complexity as they gather information about what types of instructional approaches to try in their own classrooms. Heydon, Hibbert, and Iannacci (2004) consider the importance of acknowledging pre-service teachers' background knowledge and perceptions as teacher preparation programs educate them on the balanced literacy approach. Metsala (1997) conducted research in which highly effective teachers were surveyed and each listed the 10 most important characteristics of reading instruction. Characteristics ranged from explicit teaching to practicing various types of reading. Other skills included preparing a literature-rich environment and using

instructional strategies that were motivating to young readers. These important skills form the basis of any balanced literacy program and student teachers should know and understand each of them.

Finally, Weaver (2002) differentiates between a comprehensive literacy program and a balanced literacy program. She explains that a balanced literacy program typically teaches skills in isolation while a comprehensive literacy program integrates skills and strategies into authentic contexts. Whether it is comprehensive or balanced, the important factor is that students are engaging in multiple opportunities to read throughout the school day. Another instructional approach that offers readers the chance to increase their time spent interacting with books is the Daily 5 Approach.

Daily 5. The Daily 5 is an educational framework used to teach reading. The approach consists of five strategies used to engage students in reading and writing: 1)

Read to Self, 2) Work on Writing, 3) Word Work, 4) Listen to Reading, and 5) Read to Someone. Teachers structure Daily 5 in their classrooms to ensure students have the opportunity to complete each of the five tasks over the course of one school day (Boushey & Moser, 2009). The strength of the program lies in allowing students to make choices regarding the order of the different tasks during the literacy block. An additional reading instructional strategy that allows students to make choices about books is Reading Workshop.

Reading Workshop. Similar to the Daily 5 approach, reading workshop is divided into different categories. The set up of reading workshop is consistent across grade levels and includes three components: mini-lesson, reading block, and share time. Workshop often begins with a whole-group mini-lesson that focuses on a particular

reading procedure or skill (Calkins, 2010). After the mini-lesson, students read either independently or in a small group during a period of time designated as the reading block (Dorn & Soffos, 2005). At the end of reading workshop, the teacher and students gather to share and discuss the literacy interactions that took place during the independent or small group work (Richardson, 2009).

Calkins (2010) explains that reading workshop was specifically designed to ensure students are given the essential knowledge and skills to be successful readers. Miller (2008) describes reading workshop as the "best keep-it-simple" instructional approach she knows. She outlines the three components and delves deeper into their purpose. According to Miller (2008), the mini-lesson is a time to model and demonstrate what effective readers do. The reading block is dedicated to conferencing with students about self-selected books and providing a variety of opportunities for students to practice and respond to reading. Finally, the workshop ends with share time, where students reflect and teach each other about what they learned during the mini-lesson and subsequent reading block (Fountas & Pinnell, 2006). Whether it is Balanced Literacy, Daily 5, Reading Workshop, or another instructional approach used to teach reading, the importance of giving students ample opportunities to interact and respond to text is essential. It is also essential for student teachers to feel confident and competent in using these pedagogical techniques and strategies.

Pedagogy

Pedagogy is an important and multifaceted component of teacher education (Thompson, 2006). The beliefs, skills, and dispositions exhibited by student teachers are evaluated for pedagogical proficiency throughout their teacher education program. Polly,

Mims, Shepherd, and Inan (2009) describe pedagogy as the methods, values, techniques and strategies used to teach. The authors explain that it can be thought of as both content and process. Teaching is a complex task bringing together content and process through theories and practice, paired with delivering instruction, managing the physical space and the students, as well as assessing student learning. Many researchers support this short list of skills necessary for teaching (Mather, Bos & Babur, 2001; Wei & Pecheone, 2010; Ziechner, 2012). Zeichner (2012) offers several examples of teaching skills including: how to pose questions, classroom management, delivering instruction, and leading discussions. Teachers in the field typically exhibit these skills on a regular basis and student teachers also need to be well-versed in these skills to become effective educators.

Mather, Bos, and Babur (2001) discuss reading specifically and confirm the idea that reading teachers need to "possess positive perceptions regarding the role of systematic, explicit instruction" (p. 472). The authors were curious about whether or not participants would understand how the different aspects of learning to read (e.g. phonemic awareness, phonemes, accuracy) were impacted by time in the field. Participants were assessed using a perception survey and a knowledge assessment. Through analysis of the survey and assessment, researchers discovered pre-service teachers lack knowledge about concepts necessary for teaching young children to read.

Therefore, teacher education programs have a responsibility to prepare pre-service teachers by providing more opportunities for them to practice applying perceived knowledge and skills in a real-world classroom setting. Through case study analysis, Thompson (2006) concluded pre-service teachers have a difficult time transferring what they learn in coursework to their work in classroom field experiences. This finding is

consistent with most pre-service teachers' perceptions and has long been an area of research interest in teacher education. The current study aims to inform this topic as well.

Knudson and Maxson (2001) sought to study the impact of this disconnect by collecting and analyzing final exam scores and comprehension/vocabulary lesson plans during a literacy field experience. The authors concluded that pre-service teachers' beliefs and attitudes toward reading instruction were positively influenced by time in the field. In addition, a focus on using coursework as a foundation for reading instruction and utilizing field experiences to build on that foundation is crucial to candidate success. This connection between theory and practice is also influenced by research conducted by Wilson, Floden, and Ferrini-Mundy (2002). These authors discuss pedagogical preparation, which includes: methods, theories, assessments, sociology, psychology, and history. In addition, Wei and Pecheone (2010) refer to a set of professional teaching skills as content and pedagogical knowledge. This knowledge is not only applicable to today's classroom, but future classrooms as well.

Strong constructivist teacher education programs offer content and pedagogical knowledge through conceptual frameworks based on research and theory, with ample opportunities to practice (Cochran-Smith, 2003). Coffey (2010) suggests that early field experiences "facilitate more social awareness" (p. 336). This awareness can be applied while pre-service teachers participate in observations during their subsequent field experiences and ultimately student teaching. Mallette, Kile, Smith, McKinney, and Readence (2000) offer a few perspectives on observations as they are "neither guided nor analytical, they do serve as an apprenticeship and cause pre-service teachers to make

certain assumptions about teaching" (p. 593). The authors discuss the importance of structuring teacher education programs in such a way as to enhance and change the beliefs pre-service teachers have upon entry into the program.

Instructional Theories

The role of teacher education programs is to influence a teacher's philosophy toward being more learner-centered. One way to become more student-centered lies in the application of educational theory. Such theories explored here include: Vygotsky's Zone of Proximal Development (1978), Cambourne's Conditions for Optimal Learning (1995), and Pearson and Gallagher's (1983) Gradual Release of Responsibility.

Zone of Proximal Development. A common educational theory presented in teacher preparation coursework is Vygotsky's zone of proximal development (ZPD). Langsford (2005) discusses Vygotky's idea of the ZPD as an alignment of intellectual maturity with developmentally appropriate subject matter. Vygotsky (1978) also believed that learning takes place through social interaction. His research provided evidence that young children must interact with one another in order for learning to take place. Berk and Winsler (1995) agree that children naturally develop new capacities to learn when interacting in a shared environment with adults, then peers, and finally independently. The authors state, "the region in which this transfer of ability from shared environment to the individual occurs... is called the zone of proximal development" (Berk & Winsler, 1995, p. 24).

VandenHurk, Houtveen, VandeGrift, and Cras (2014) discuss the importance of scaffolding when providing instruction. Although Vygotsky's original research on ZPD did not include scaffolding, these supports align well with his idea of meeting students'

needs. Scaffolding enables children to solve problems most could not solve on their own. Student teachers must understand and be able to implement the theory of ZPD when planning reading instruction that will appropriately challenge young readers.

Cambourne's Conditions of Optimal Learning. A second theory deserving prominence in teacher education programs is Cambourne's Conditions of Optimal Learning. With more than three decades of research in the field of language acquisition, Cambourne (1995) maintains "all pedagogy is ultimately driven by a theory of learning" (p. 183). Cambourne's conditions, however, go beyond theories of learning and get to the heart of what effective educators do; develop a genuine, trusting relationship between the student and the teacher (Lent, 2006). These relationships are created by setting expectations for students. Expectations are one of Cambourne's (1995) eight conditions for optimal learning; the remaining conditions inherent in optimal learning include: immersion, demonstration, expectation, engagement, use, approximations, response, and responsibility. Cambourne (1995) defines his conditions as "particular states of being (doing, behaving, creating), as well as being a set of indispensable circumstances that cooccur and are synergistic in the sense that they both affect and are affected by each other" (p. 184). This complex interconnectivity is an essential component to student teachers' understanding of planning and implementing effective instruction. Not only are these conditions important for optimal learning in the classroom, but they can also be applied in real world situations as well.

Ellery (2009) identifies Cambourne's conditions for learning as a model to help teachers implement effective strategies for learning in their classrooms. Student teachers would benefit from not only learning about Cambourne's (1995) conditions, but also

effective ways to implement them. Rushton, Eitelgeorge, and Zickafoose (2003) postulate that Cambourne's (1995) conditions support teachers and students in the learning process by providing a context in which learning takes place. Cambourne (2002) suggests his conditions of learning generate collaborative and motivating experiences between the student and the content. These dynamic experiences can also occur through a theory referred to as the gradual release of responsibility.

Gradual Release of Responsibility. The concept of gradual release of responsibility (GRR) was first introduced by Pearson and Gallagher (1983). GRR relates to the scaffolding and support provided by teachers as students learn new concepts and skills (Ellery, 2009). These supports fade over time, releasing responsibility from teacher to student. Fisher and Frey (2008) explain the process through which responsibility passes from teacher to student. First, the teacher teaches a lesson and then the student completes the lesson. Second, the teacher guides the lesson and both teacher and student do the task together. Finally, the student is able to complete the task independently. In another article by Fisher and Frey (2003), the authors propose the gradual release of responsibility takes place over time and may occur in one day, a week, or even over the course of a school year. Student teachers would benefit from using the theory of GRR in their classrooms as reading instruction provides ample opportunities for student-teacher interactions.

Chapter II Summary

Teacher education programs are responsible for equipping pre-service teachers with a sophisticated set of skills, a strong understanding of content knowledge, and a professional disposition in order to meet the needs of their students. Yet often, pre-

service teachers feel unprepared to meet the demands of the classroom (Worthy & Patterson, 2001). Grisham (2000) suggests that consistent and comprehensive teacher education programs are influential in preparing effective teachers. In addition, effective curriculum, assessment, and instruction should be implemented throughout each reading course.

Curriculum is an organized body of information that guides instruction and learning within a course. It is outlined in the standards and includes the reading process and the five essential components of reading – phonemic awareness, phonics, fluency, vocabulary, and comprehension. It is vital that curriculum is related to current best practices and that learners regard it as applicable to their future careers (Allington, 2006). Curriculum content is disseminated through the use of effective instructional strategies. Ranging from modeling to gradual release of responsibility, student teachers need to present students with abundant opportunities to learn about, think about, and engage in the act of reading. Assessment is used to ensure that students are learning what teachers expect them to learn. Anecdotal records and standardized tests are examples of assessments used to determine whether or not students are exemplifying the knowledge and skills needed to an effective reader.

In addition to curriculum, assessment, and instruction, student teachers apply their personal and professional philosophies and beliefs about reading when educating their students. The ultimate goal of teacher preparation programs is to prepare student teachers to enter the dynamic world of teaching. Assisting student teachers in forming their own philosophies about how children learn and grow can help prepare them. Every

student teacher who engages in teaching reading, knows the full extent of what it means to "be the variable" in a classroom of children (Whitaker, 2011).

CHAPTER III

METHODOLOGY

Teacher education programs are responsible for developing effective teachers of literacy learning, equipped with the foundational knowledge and instructional approaches to deliver a comprehensive and balanced literacy curriculum. The literature reviewed in the previous chapter revealed that pre-service teachers feel unprepared to enter the field (Kirkpatrick, Lincoln, & Morrow, 2006; Starnes, Saderholm, & Webb, 2010; Worthy & Patterson, 2001). Therefore, the purpose of this study was to examine the relationship between teacher preparation and the application of content knowledge in reading curriculum, assessment, and instruction during field-based experiences, specifically student teaching. The intent was to discern to what extent pre-service teachers, in their final stages of teacher preparation, were understanding and implementing the content and methods learned during coursework when planning and teaching reading in the classroom setting.

In addition, the field is searching for a better understanding of the impact of teacher education programs on preparation and the relationship between beliefs and practice (Monroe, Blackwell, & Pepper, 2010). To fill this need, the following research questions were explored:

- 1. What are student teachers' beliefs about their preparedness to teach reading, and to what extent does that change over the course of their student teaching semester?
- 2. What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching?
- 3. What factors influence student teachers' perceptions of preparedness to teach reading?

The remainder of this chapter includes a description of the methodological approach, the research design, and data analysis procedures.

Phenomonological Approach

The methodological lens of phenomenology was used to frame this study's research questions. This particular lens is traced back to the work of Edmund Husserl in the early 1900's (Eagleton, 1996). Husserl is credited with using phenomenology to study philosophy and the human sciences. Creswell (2007) describes phenomenology as how participants make meaning of their lived experiences of a phenomenon. One purpose of this study was to gain an understanding of how student teachers make meaning of their preparation, specifically in reading instruction.

Again, the purpose of using phenomenology for this study was to understand the essence of an individual's experience with a phenomenon (VanManen, 1990).

Historically, phenomenology has been used to understand an extensive range of phenomenon from insomnia to cooperative education, from grief to eating disorders. In the case of this research study, the explored phenomenon relates to student teachers'

understanding of content knowledge and the methods used to apply that knowledge. The study explores how perceived knowledge of content, paired with application, affect a student teacher's perception of preparedness. By studying the phenomenon of student teachers' perceptions of preparedness, one may understand what teacher education programs are doing well and more importantly, what can be improved.

Phenomenology is a qualitative approach that provides researchers with a practical way to study phenomenon (Hein & Austin, 2001). In its most basic form, phenomenology "investigates what is experienced and how it is experienced" (Wertz, Charmaz, McMullen, Josselson, Anderson, & McSpadden, 2011, p.125). The aim of this study was to uncover the connection between perceived content knowledge, pedagogy, and practical application among pre-service teachers during their student teaching experience. Using a phenomenological methodology provided rich descriptions of student teachers' perceptions of their preparation. The study of perceptions enabled the researcher to gain a better understanding of the factors that affect a student teachers' confidence in working with children. The phenomenological approach provided a structure to ensure that student teachers' voices were heard and that the analysis was credible and trustworthy.

The phenomenon of pre-service teachers feeling unprepared to enter the field has been discussed and analyzed for many decades (Worthy & Patterson, 2001). Over time, several theories and ideas about why this phenomenon exists have surfaced. Not until recently have researchers studied feelings of preparedness in specific content areas, such as reading (Monroe, Blackwell, & Pepper, 2010). The specific phenomenon of student teachers' perceptions of preparedness was at the heart of this phenomenological study.

To study perceptions of preparedness, one must understand how student teachers learn and connect new ideas. Oftentimes, constructivism plays a role in this type of learning and therefore, it was used to support the framework of this study as discussed in Chapter II. In the next section, the research design (including participants, data collection, and data analysis procedures) are described.

Research Design

The current study followed an explanatory sequential mixed method research design. Creswell and Plano Clark (2011) provide several characteristics of mixed methods research, focusing on the methods, philosophy, and design orientation of qualitative and quantitative research. Often, researchers use the two methodologies sequentially, but they can also be mixed, merged, or embedded within one another. For the purposes of this study, data was first collected quantitatively followed by qualitative data collection. Figure 1 represents a modified version of Creswell and Plano Clark's (2011) explanatory sequential mixed methods research design. In the following sections, the participants of this study, the procedure for collecting data, and how data was analyzed are presented.



Figure 1. Explanatory sequential design (adapted from Crewell & Plano Clark, 2011).

Participants

The participants for this study included a variety of student teachers. Nineteen student teachers completed at least one portion of the survey (pre- or post-), while 10 of

those student teachers completed both the pre- and post-survey. Of the 10, seven student teachers were interviewed and of the interviewees, five submitted reading lesson plans for analysis. Initially, the study was designed to use purposeful sampling to select interviewees based on the extent to which their beliefs changed over the course of student teaching as indicated by survey results. However, a low number of responses to the survey made it impossible for the data to support any significant statistical claims. Therefore, interviewees were selected based on their willingness to take part in the second and third phases of data analysis. Each of the original 19 participants was enrolled in their student teaching semester in the spring of 2015. To recruit participants, teacher education field placement offices of 12 Midwestern universities were contacted. Of the 12, seven universities responded and agreed to send a survey out to their student teachers. The seven universities and corresponding demographic data can be found in Table 2.

Table 2. University Demographic Information

University	Total Undergraduate Enrollment*	Number of Elementary Spring Student Teachers**	Number of Survey Participants	Number of Interview Participants
University A	2,876	9	4	0
University B	1,081	12	1	1
University C	6,158	60	1	1
University D	3,410	34	2	1
University E	12,557	22	1	0
University F	14,906	46	6	2
University G	1,378	48	4	2
Totals	42,366	231	19	7

^{*} Enrollment statistics are from the fall 2014 semester

^{**} Enrollment statistics are from the spring 2015 semester

By phone and email, the researcher explained the purpose of the study, the survey and interview process, and the consent form to each of the universities' field placement directors. The coordinators then sent the pre-survey out to all student teachers in January of 2015. To increase participation for the survey, a reminder email to complete the pre-survey was sent out to all student teachers in early February 2015. Student teachers finished their student teaching experience and all were asked to complete the post-survey in early May 2015. Student teachers consenting to be interviewed indicated their willingness by entering their email address on the post-survey.

The group of seven student teachers interviewed somewhat represented a broader population of the overall teacher education student population at the Midwestern universities in which the research was conducted. Of the seven participants, 86% were female and 100% were white. Participants also represented a cross section of student teachers from Kindergarten through 5th grade, maximizing the range of perspectives. In Table 3, the original participants of the study with the following demographic information: name, gender, age, ethnicity, grade level preference, and university are identified. As indicated, these participants represented a cross-section of genders, universities, and grade level preferences. To protect the confidentiality of the participants, first and last names were replaced with pseudonyms. An additional precaution was taken to protect the confidentiality of not only the participants, but also the universities attended. The name of each university has been labeled University A, University B, etc.

Table 3. Demographic Information for Participants

Name	Gender	Age	Ethnicity	Grade Preference	University
Gabe*	Male	22	White	Fourth – Sixth	University A
Cindy*	Female	21	White	Pre-School - Kindergarten	University D
Maria*	Female	23	White	First – Third	University E
Addy*	Female	32	White	Pre-School - Kindergarten	University F
Josie**	Female	22	White	Fourth - Sixth	University C
Elsa***	Female	21	White	First – Third	University B
Kate***	Female	22	White	Pre-School - Kindergarten	University D
Ana***	Female	21	White	Fourth - Sixth	University F
Pete***	Male	24	White	Fourth - Sixth	University F
Gabby***	Female	22	White	Fourth – Sixth	University G
Lila***	Female	22	White	Pre-School - Kindergarten	University G

^{*} Participant completed pre- and post-survey but no interview.

Data Collection

Maxwell (2013) discusses the importance of triangulation of data to ensure valid results. He describes triangulation as collecting data through the use of "a variety of methods...to reduce the risk of chance associations and systematic bias" (p. 128). Data collected from an online survey was the first type of data used in triangulation. During their spring 2015 student teaching semester, consenting participants completed a survey designed to target perceptions related to reading preparation acquired from teacher education programs. One-on-one interviews served as a second set of data in the

^{**} Participant completed pre- or post-survey and interview.

^{***} Participant completed all three phases of the study: pre-survey, post-survey, and interview.

triangulation process. Seven interviews, one per participant, were conducted after the post-survey was administered. The purpose of these interviews was to gain information about the factors that influence the implementation of reading theory into practice. The third and final set of data used in triangulation were documents, specifically lesson plans. Upon request, participants emailed one reading lesson plan to the researcher for further analysis. The lesson plan rubric and checklist were used to assess the degree to which pre-service teachers applied reading content knowledge and methodology to their classroom teaching (The rubric and checklist can be found in Appendices D and E, respectively).

Surveys. Participants were invited to participate in the study via an email sent from their university's field placement coordinator. The email included an explanation of the study and the link to an online survey (Appendix B). The survey opened with a consent form and student teachers were required to consent before being asked any further questions. The consent form explained that participation was voluntary and could be discontinued at any time. In addition, participants understood that their decision to participate would not affect future relations with their university, instructor, or course grade. The benefits of the study were explained to the participants. The benefits included: potential to impact future teacher education programs in the area of reading education, participants' voices would be heard and considered as teacher educators reassess program philosophies, goals, overall course design, knowledge gained through participation, and participants had a chance to win one of four \$20 Amazon gift cards. At the bottom of the consent form, students could enter their email addresses indicating a willingness to participate in the interview phase of data collection.

As stated previously, the survey was administered early in the student teaching semester and once again toward the end. The survey link was emailed to over 200 student teachers in January 2015 and again in May 2015. This particular delivery method was chosen to allow a sufficient amount of time to depict potential growth. The purpose of completing the survey twice was to identify what perceptions and beliefs had changed as a result of time in the field. It was expected that student teachers would report an increase in confidence as a result of applying their beliefs about reading to practice during student teaching. The researcher and her advisor developed the online survey used in this study. The survey was designed using insights and information from an article by Moats (1999), which outlined the various knowledge and skills student teachers should understand and be able to implement as a result of their preparation program. In addition to the literature review, statistical and literacy experts in the field were contacted to develop and redevelop the survey. The survey contained 99 items structured around a 5-point Likert-scale, ranging from 1=strongly disagree to 5= strongly agree. Items were organized into four constructs: curriculum, assessment, instruction, and self-efficacy in teaching reading. A codebook for this data set was created for two reasons: to define the codes and to provide guidance for coding survey responses (Carley-Baxter, 2008). A copy of this codebook can be found in Appendix B. All survey data was analyzed using SPSS software. Specific data analysis procedures are outlined in the paragraphs that follow.

The results of the survey were used to examine the extent to which student teachers perceived knowledge changed as a result of the student teaching semester. The analysis sought to uncover the extent to which student teachers' perceived knowledge and

application regarding the reading process was related to feelings of preparedness. Further findings are described in Chapter IV.

Interviews. Glesne (2011) explains that the strength of interviewing is "the opportunity to learn about what you cannot see and to explore alternative explanations of what you do see" (p. 104). As an explanatory sequential mixed method study, interviews formed the second phase of the data collection. The purpose of using interviews was to understand what factors affected student teachers' feelings of preparedness in reading curriculum, assessment, and instruction. Interviews were also used to clarify findings of the quantitative survey results. From the 231 potential participants, 19 completed either the pre- or post-survey, 10 completed both surveys, and seven student teachers took part in one 30 – 45 minute interview regarding perceptions and beliefs about their teacher preparation. The results of their survey and willingess to participate were two factors in choosing them as participants.

To ensure consistency, all interviews were conducted in May 2015 via phone. During the interviews, the interviewer asked a series of questions, made notations about key ideas, and asked follow-up questions. Semi-structured interview questions were crafted based on the quantitative findings. This strategy allowed for possible questions to arise based on survey results and interview discourse. Interview questions ranged from "what beliefs and practices did you learn about reading in your teacher training?" to "what challenges have you faced when trying to apply your beliefs about reading instruction into practice? Did any person/setting/event affect the application of your beliefs?" (Additional interview questions can be found in Appendix C).

To ensure valid and reliable future analysis, the interviews were audio recorded, with permission, and later transcribed. Transcriptions were completed using a transcribing website (rev.com). A non-disclosure agreement was created to ensure participants' confidentiality was protected. The transcriptions were then sent back to the participant to review in a process known as member checking. Each participant reviewed the documents and analysis continued without any changes to the data. Further qualitative data analysis, such as themes and assertions, are discussed in Chapter IV.

Documents. Upon request, participants emailed one lesson plan, based on an experience teaching reading. Of the seven interviewees, only five student teachers had access to their student teaching lesson plans. Therefore, five reading lesson plans were collected. Lesson plans were analyzed against a rubric to evaluate both the overall quality of the lesson plan and the degree to which student teachers were applying perceived knowledge of curriculum, assessment, and instruction in their lesson planning process. The rubic included 9 indicators, each based on one of the Interstate Teacher Assessment and Support Consortium (InTASC) principles (rubric can be found in Appendix D). Indicators were organized into curriculum, assessment, and instruction, and then into understanding, implementation, and analysis. The rubric was adapted from an original version created by the University of North Dakota's Undergraduate Assessment Committee (UAC). The original 13 item rubric was created by the UAC, based on InTASC standards as aligned with the conceptual framework guiding UND's Teacher Education Program (D. Pearson, personal communication, May 17, 2015). The modified rubric used in this study measured the overall "CAI score" for each lesson plan. Each component (curriculum, assessment, and instruction) represented a possible score of 12 points. Therefore, an overall grade for each lesson plan would equal 36 points. Results of lesson plan analysis can be found in Chapter IV.

An additional document used to collect data was the lesson plan checklist. For each of the lesson plans submitted, the checklist was used to determine how frequently student teachers were referencing each of the specific curriculum, assessment, and instruction components. The researcher developed the checklist by aggregating curriculum, assessment, and instruction components from the comprehensive review of literature. In addition, these same components were examined through the quantitative survey used in this study, a further connection for the mixed method design (The checklist can be found in Appendix E).

Again, the checklist was divided into three areas: curriculum, assessment, and instruction. The checklist itemized nine curriculum skills, 12 assessment skills, and 12 instructional skills. With five submitted lesson plans, curriculum represented a total of 45 occurrences, while assessment and instruction represented a total of 60 occurrences, respectively. Further, frequency data collected from the checklist can be found in Chapter IV.

Data Analysis Procedures

The goal of data analysis is to condense a large amount of information into a simplified version, easily understood by others (Glesne, 2011). In the following section, basic procedures for analyzing survey, interview, and lesson plan documents are described. More detailed data analysis is the focus of Chapter IV.

Surveys. Survey data was collected through a Qualtrics survey. Raw data was cleaned and transferred into SPSS according to the survey codebook (Appendix B). The

variable codes in SPSS were renamed to reflect codes in the study's codebook. Once data was in a suitable format, the researcher ran descriptive statistics to test for normality of data distribution. The purpose of the study was to understand how beliefs changed as a result of student teaching. Therefore, statistical results were based on the ten participants who completed both the pre- and post-survey. This limited number of participants forced the researcher to change data analysis from a pre-planned paired samples *t* test, to strictly reporting descriptive statistical means. Although not as powerful as a paired samples *t* test, descriptive statistics both informed the research question and related to the purpose of the study. More detailed data analysis procedures are presented in Chapter IV.

Interviews. Interviews were transcribed, coded, and categorized using an Excel spreadsheet. Coding is a process by which significant statements from transcriptions are reduced into short phrases that are categorized based on patterns. Initial codes were used as a guideline to analyze subsequent transcripts, thus informing new codes. Following this preliminary code development, significant statements were reread and codes were reorganized to better represent the four themes and two assertions. Further data analysis related to interviews is discussed in Chapter IV.

Documents. The final phase of data analysis was evaluating lesson plan documents against a rubric and checklist. Five participants submitted lesson plans for analysis. The rubric and checklist were used to assess the degree to which student teachers were applying perceived knowledge of curriculum, assessment, and instruction in their lesson planning process. Each lesson plan had a potential rubric score of 36. In addition, lesson plans as a whole had the potential of scoring 45 curriculum points, 60

assessment points, and 60 instruction points. Further discussion on lesson plan analysis is discussed in Chapter IV.

Validity Techniques

Qualitative researchers must convince the audience that their study is credible (Creswell, 2007). Researchers do this through triangulation, member checking, thick descriptions, peer reviews, and audit trails (Creswell, 2007). Of course not all of these validity procedures are employed each time research is conducted; nonetheless, considerations for validity should remain a priority. Following are several ways validity was addressed in this study.

First, data triangulation was used to ensure multiple perspectives were represented. The study utilized surveys, interviews, and documents to validate the findings. This technique helped create thick descriptions of each participant's experiences in teacher education through one-on-one interviews. Second, interviews were transcribed and sent to participants to complete a member check. Finally, researcher reflexivity was utilized throughout the analysis process. Biases can threaten the very heart of qualitative research. Therefore, it is important for a researcher to understand his/her biases during the data collection and analysis process. Because the researcher herself obtained an elementary teaching degree from one of the universities in this study, employing researcher reflexivity was essential. The researcher approached the interviews with a set of IRB approved questions and let individual quantitative survey results guide additional questions. The researcher asked for clarification when appropriate and kept opinions and thoughts about teacher preparation out of the dialog.

The literature regarding teacher preparation helped explain the perceptions student teachers hold regarding their preparation.

Chapter III Summary

In this chapter, the methodological approach, the research design, and data analysis procedures have been described. This study examined the relationship between student teacher preparation related to perceived reading knowledge and the application of that knowledge into the student teaching experience. A phenomenological design and constructivist theory framed the study. The research methods were explained in terms of participant selection and data collection. Data was collected through surveys, interviews, and lesson plan documents. Data was then analyzed into codes, categories, themes, and several final assertions, each accounting for assumptions and limitations from the biases the researcher may have possessed. Data analysis and subsequent results are presented in Chapter IV with a discussion of the results to follow in Chapter V.

CHAPTER IV

RESULTS

The purpose of this explanatory sequential mixed methods study was to assess the impact of teacher education reading programs on student teachers' perceived ability to understand and implement reading curriculum, assessment, and instruction in an elementary setting. An additional purpose was to understand the extent to which students are transferring professional knowledge in practical ways. In an explanatory sequential design, quantitative and qualitative data are separate but connected (Creswell, 2009). Therefore, quantitative data was collected through surveys and qualitative data was collected from interviews. Further quantitative data came from lesson plan documents. Qualitative data was used to clarify findings from the quantitative results. Qualitative data was also used to add depth and breadth to the quantitative data. Data was collected and then analyzed to examine the impact of teacher preparation programs on student teachers' self-efficacy when teaching reading. Analyzed data was used to answer the following research questions:

1. What are student teachers' beliefs about their preparedness to teach reading, and to what extent does that change over the course of their student teaching semester?

- What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching?
- 3. What factors influence student teachers' perceptions of preparedness to teach reading?

Throughout this chapter, findings from surveys, interviews, and documents used to answer the research questions are presented. This chapter includes a discussion of the four themes that emerged from data analysis.

Analysis of Survey Results

The first phase of data analysis was related to the survey results. Consenting participants were asked to respond to a pre- and post-survey that included statements regarding their perceived knowledge and subsequent implementation of reading curriculum, assessment, and instruction (The survey can be found in Appendix B). The survey instrument was developed by the researcher and her advisor with knowledge collected from an article by Moats (1999), as well as insights from various statistical and literacy experts in the field.

The survey was administered twice during the student teaching experience – once at the beginning and once again at the end. The survey link was emailed to over 200 spring 2015 student teachers through their respective university field placement directors. The pre-survey was completed in January 2015 and the post-survey was completed in May 2015. This particular survey delivery method was chosen to allow a sufficient amount of time to depict potential growth. The purpose of completing the survey twice was to identify what perceptions and beliefs had changed as a result of time in the field. Since

students were able to apply beliefs into practice, it was expected they would become more confident in their ability to apply perceived knowledge of pedagogy and content to a practical experience like student teaching. The pre- and post surveys were identical and contained 99 items structured around a 5-point Likert-scale, ranging from 1=strongly disagree to 5=strongly agree. All data were analyzed using SPSS software. Specific data analysis procedures are outlined in this chapter.

According to Wilson (2011), carefully cleaning quantitative data in SPSS is a vital step in analysis, because it ultimately affects the final results. The author states that the process by which data is cleaned depends on the data analysis methods devised in the original research design. In the research design for this study, it was decided that Qualtrics software would be used to collect and record survey data. Raw data was taken out of Qualtrics and copied into a format suitable for analysis, in this case SPSS software. Once the data had been transferred to SPSS, several steps were taken to ensure the data was ready for analysis.

First, columns that were irrelevant to data analysis were removed. These columns provided default, anonymous, or numerical codes to identify participants. These codes were replaced with identification numbers, rather than names, to ensure the confidentiality of participants was protected. Next, the researcher renamed all of the variables according to the codebook created during survey development (Codebook can be found in Appendix B). After renaming the variables, the researcher identified participants that would potentially pose a problem to further data analysis due to lack of response rate and removed them from the data set. Most responses were saved to

promote participant preservation. Once the data had been cleaned, the researcher was able to run descriptive statistics and test for normality of data distribution.

Initially, 29 surveys were completed (13 pre-surveys and 16 post-surveys). After cleaning the data and removing two survey results (participant answered only the demographic questions), 19 different participants were identified. Of the 19, 10 participants completed both the pre- and post surveys. Because the purpose of the study was to understand how beliefs changed as a result of student teaching, statistical results were based on the ten participants who completed both the pre- and post-survey. A required two-phase survey completion was necessary to answer the research question.

When planning for data analysis, it was decided that paired samples *t* tests would best measure the extent to which participants' knowledge and skills changed over the course of their student teaching experience. However, due to low response rates, the preplanned paired samples *t* tests could not be reported and were replaced with descriptive statistics. Although paired samples *t* tests would have been more powerful in explaining the relationship between student teachers' reported level of preparation and their beliefs about teaching reading, a statistical expert recommended that reporting descriptive statistics would be the most valid analysis plan. Descriptive statistics both informed the research question and related to the purpose of the study.

Frequency statistics indicated that 89% of the original participants were female and 11% were male. Results also indicated that participants ranged in age from 21 to 32 years of age with a majority of students being 22 years of age. One hundred percent of participants were White/Caucasian. While 40% of participants shared a grade level preference for Pre-School – Kindergarten and Fourth – Sixth grade, respectively, 20%

preferred teaching students in First – Third grade. Participants represented a wide variety of universities, each of which is located in the Midwest. The majority of participants attended University F (30%) with University D (20%) and University G (20%) rounding out the top three. The remaining participants attended the following universities with corresponding percentages: University A (10%), University B (10%), University C (0%), and University E (10%).

The survey constructs were developed based on Ellery's (2009) conceptual framework of reading preparation. The framework consists of three areas: curriculum, assessment, and instruction (CAI). In addition to the CAI constructs being evaluated in the survey, a fourth construct dedicated to self-efficacy in reading curriculum, assessment, and instruction was also studied. Again, due to low response rates, descriptive statistics, rather than *t* test results, are reported here.

Descriptive statistics are typically used to summarize the characteristics of a sample. This type of statistic provides information about the frequency of responses, distributions of data, and estimated range of possible scores. Descriptive statistics also offer insights regarding the validity of the measurement device. Typically, the following information is reported in descriptive statistics: mean, median, mode, frequency, skewness, kurtosis, standard deviation, minimum, maximum, and sum. The mean, median, and mode are considered measures of central tendency. Measures of central tendency help provide an overall summary of the participants' responses. Warner (2013) encourages researchers to report the mean of the data set, because it is the best approximation of any individual score if no other information is available.

The next section is dedicated to describing each of the six constructs, or subscales, as reported by the pre- and post-survey administration and subsequent data analysis. The mean, median, standard deviation, skewness, and kurtosis for overall reported perceptions of curriculum, assessment, instruction, and efficacy for the presurvey are found in Table 4. The same descriptive statistics for post-survey are found in Table 5.

Subscale 1: Curriculum

The curriculum subscale consisted of nine questions focusing on student teachers' understanding of the role of foundational knowledge when teaching reading. In the survey, students were asked to rate their level of agreement with the following statements: "In reading development, I understand the role of... phonemic awareness, phonics, fluency, vocabulary, comprehension, three cueing systems, and the Common Core State Standards".

Table 4. Descriptive Statistics for Overall Reported Perceptions of Curriculum, Assessment, Instruction, and Efficacy on the Pre-Survey

Construct	Number of Items	Mean	Median	Standard Deviation	Skewness	Kurtosis
Curriculum	9	4.14	4.22	0.29	-0.68	0.58
Assessment	24	3.98	4.02	0.46	0.11	-0.50
Instruction	21	4.17	4.17	0.47	-0.24	1.40
Curriculum Efficacy	9	3.96	4.00	0.42	-0.73	0.27
Assessment Efficacy	12	4.11	4.08	0.41	-1.12	1.71
Instruction Efficacy	15	4.02	4.13	0.59	-1.70	3.58

Note. Scale ranges from 1=Strongly disagree to 5=Strongly agree on a Likert-type scale

Table 5. Descriptive Statistics for Overall Reported Perceptions of Curriculum, Assessment, Instruction, and Efficacy on the Post-Survey

Construct	Number of Items	Mean	Median	Standard Deviation	Skewness	Kurtosis
Curriculum	9	4.12	4.28	0.46	-0.43	-1.40
Assessment	24	4.00	3.83	0.62	0.23	-0.32
Instruction	21	4.10	3.93	0.51	0.50	-1.73
Curriculum Efficacy	9	3.78	3.83	0.49	0.03	-1.58
Assessment Efficacy	12	4.18	4.00	0.60	0.31	-1.79
Instruction Efficacy	15	4.23	4.10	0.54	0.32	-1.52

Note. Scale ranges from 1=Strongly disagree to 5=Strongly agree on a Likert-type scale

According to current research and an extensive review of literature, these curricular elements are aligned with content used in effective teacher education preparation programs. Within SPSS, the nine questions were combined to create one curriculum subscale. This summed subscale was used for further data analysis as it better represented the curriculum construct as a whole. To assess the reliability of the curriculum subscale, a reliability test was conducted within SPSS. The Cronbach alpha for the curriculum subscale can also be found in Table 6. According to data presented in Tables 4 and 5, the difference between pre- and post-survey means was -.02. Both scores fell in the high range on the 5-point Likert-type scale where 1 = Strongly agree and 5 = Strongly disagree.

Table 6. Cronbach's Alpha for Curriculum, Assessment, Instruction, and Efficacy Constructs

Construct	Pre-Survey Cronhbach's Alpha	Post-Survey Cronbach's Alpha
Curriculum	0.73	0.82
Assessment	0.86	0.95
Instruction	0.91	0.92
Curriculum Efficacy	0.71	0.82
Assessment Efficacy	0.74	0.92
Instruction Efficacy	0.90	0.92
Overall Efficacy	0.92	0.96

Note. $\alpha > .70$ presents strong internal consistency

Subscale 2: Assessment

The largest scale used in the survey was the assessment subscale. The assessment subscale was made up of 24 questions dedicated to examining the understanding, analysis, and implementation of various assessment techniques. The construct covered a variety of assessment techniques including: diagnostic, formative, and summative assessments, anecdotal records, conferencing, portfolios, rubrics, standardized tests, and student self-assessments. Specifically, students were asked to rate their level of agreement based on understanding the role of various assessments as well as implementing and analyzing assessment results.

Again, these assessment techniques were grounded in the literature. The 24 questions regarding assessment were combined to create a comprehensive assessment subscale. This summed subscale was tested for reliability and used for further data analysis. As shown in Tables 4 and 5, the difference between pre- and post-survey means

was +.02. This score indicates that participants' knowledge of assessment in reading fell within the high range on a 5-point Likert-type scale.

Subscale 3: Instruction

The instruction subscale was made up of 21 questions related to planning and implementing a variety of instructional strategies. The construct surveyed participants about the following forms of reading instruction: Common Core standards, read alouds, shared reading, interactive reading, guided reading, independent reading, core curriculum/basals, Reading Workshop, mini-lessons, conferencing, share time, zone of proximal development, Cambourne's Conditions, gradual release of responsibility, "think aloud" strategies, comprehension strategies, and self-monitoring strategies. Within the survey, students were asked to self-report on their perceptions about planning and implementing various instructional strategies.

These instructional strategies were grounded in the literature and collected through conversations with reading experts in the field. To remain consistent to the other scales, the 21 questions regarding instruction were merged to create a comprehensive instruction subscale. This new summed subscale was tested for reliability and used for further data analysis. Indicated in Tables 4 and 5, the difference between pre- and post-survey means was -.07. This score indicates that participants' knowledge of reading instruction remained in the high range on the 5-point Likert-type scale.

Subscale 4: Curriculum Efficacy

The curriculum efficacy subscale consisted of nine questions addressing the student teachers' overall confidence in affecting student learning through knowledge and implementation of curriculum. The construct was directly related to the curriculum

subscale; however, it went beyond understanding and implementation and tackled student teachers' confidence levels related to phonemic awareness, phonics, fluency, vocabulary, comprehension, three cueing systems, and the Common Core State Standards. Students were asked to self-report on their confidence levels associated with planning and implementing reading curriculum. The curriculum efficacy summed scale was tested for reliability and was used for further data analysis. As shown in Tables 4 and 5, the difference between pre- and post-survey means was -.18. This score indicates that participants' confidence in understanding and implementing reading curriculum fell within the medium range on the 5-point Likert-type scale.

Subscale 5: Assessment Efficacy

The assessment efficacy subscale consisted of 12 questions addressing the student teachers' overall confidence in affecting student learning through knowledge, analysis, and implementation of assessment. Although the construct was directly related to the assessment subscale, it went beyond understanding and addressed student teachers' confidence levels related to utilizing diagnostic, formative, and summative assessments, anecdotal records, conferencing, portfolios, rubrics, standardized tests, and student self-assessments in their elementary classrooms. Students reported their confidence levels correlated to understanding, analyzing, and implementing assessments during the reading process. The assessment efficacy summed scale was tested for reliability and was used for further data analysis. Referenced in Tables 4 and 5, the difference between pre- and post-survey means was +.07. This score indicates that participants' confidence in understanding and implementing reading assessments remained in the high range for both the pre- and post-survey results. Scores were based on a 5-point Likert-type scale.

Subscale 6: Instruction Efficacy

The final construct analyzed for this survey was the instruction efficacy subscale. The instruction efficacy subscale was made up of 15 questions addressing the student teachers' overall confidence in affecting student learning through understanding reading instruction. The construct was directly related to the instruction subscale. However, it did include student teachers' self-reported levels of confidence when planning and implementing reading instruction. It focused on the following reading instructional strategies from the literature: Common Core standards, read alouds, shared reading, interactive reading, guided reading, independent reading, core curriculum/basals, Reading Workshop, mini-lessons, conferencing, share time, zone of proximal development, Cambourne's conditions, gradual release of responsibility, "think aloud" strategies, comprehension strategies, and self-monitoring strategies. The instruction efficacy summed scale was tested for reliability and was used for further data analysis. As shown in Tables 4 and 5, the difference between pre- and post-survey means was +.21. This score indicates that participants' confidence in understanding and implementing reading instruction remained in the high range on the 5-point Likert-type scale between pre- and post-survey results.

Overall, the mean levels for each construct fell in the medium to high range on the 5-point Likert-type scale. This suggests that participants generally reported high confidence on the curriculum, assessment, instruction, and efficacy constructs. Self-reported levels varied to a small and random extent from pre-to post survey, fluctuating up and down slightly. However, the data was not tested statistically because of the small

sample size and therefore, analysis cannot confidently determine if results were more than just sampling error.

Participant Survey Results

Although this section is dedicated to the analysis of quantitative data collected through pre- and post-surveys, it is important to understand how mixed methods research design of this study employs both quantitative and qualitative analysis to answer the research questions. Creswell and Plano Clark (2011) provide several characteristics of mixed methods research, focusing on the methods, philosophy, and design orientation of qualitative and quantitative research. The authors note that researchers often use the two methodologies sequentially or the methodologies can be mixed, merged, or embedded within one another.

For the purposes of this study, quantitative data was collected and subsequently informed the collection and analysis of qualitative data, therefore an explanatory sequential mixed method design was chosen. In Figure 2, a modified version of the basic procedures for conducting an explanatory sequential mixed methods study presented by Creswell and Plano Clark (2011) is outlined. These procedures were not only implemented in the research design phase; they were also used throughout the collection and analysis of data.

In accordance with the modified procedures for conducting an explanatory sequential mixed methods research study, quantitative data from the survey was collected and analyzed before qualitative interviews were conducted. The descriptive statistics for each of the seven interviewees can be found in Table 7 and Table 8. Table 7 indicates overall means and change in means for self-reported perceptions of curriculum,

assessment, and instruction. Table 8 reveals overall means and change in means for self-efficacy related to curriculum, assessment, and instruction. These quantitative results helped to inform the semi-structured interview questions (found in Appendix C). Based on their survey responses of perceived knowledge and efficacy in reading curriculum, assessment, and instruction, interview questions were aimed at better understanding how that perceived knowledge developed from the beginning to the end of a student teachers' education program.

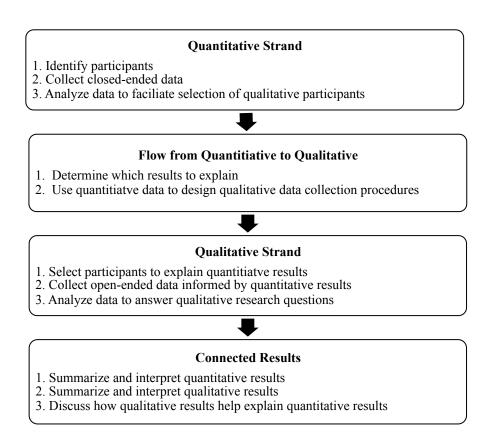


Figure 2. Flowchart for procedures related to an explanatory sequential design (modified from Creswell & Plano Clark, 2011).

Forty-three percent of participants reported a lower level of perceived knowledge toward reading curriculum after their student teaching experience. Another 57% reported a lower level of knowledge regarding assessment techniques, while an additional 57%

Table 7. Overall Means for Pre- and Post-Survey Results, Curriculum, Assessment, and Instruction

Name	Pre- Survey Curriculum	Post- Survey Curriculum	Change in Mean	Pre- Survey Assessment	Post- Survey Assessment	Change in Mean	Pre- Survey Instruction	Post- Survey Instruction	Change in Mean
Elsa	3.6	4.3	+0.7	3.3	3.6	+0.3	3.2	4.0	+0.8
Josie	-	3.3	-	-	3.5	-	-	3.8	-
Kate	4.8	3.6	-1.2	3.3	2.9	-0.4	4.1	3.9	+0.2
Pete	4.3	4.4	+0.1	3.8	3.5	-0.3	4.2	3.6	-0.6
Ana	4.4	3.5	-0.9	4.3	4.1	-0.2	4.0	3.7	-0.3
Gabby	4.1	3.3	-0.8	4.1	3.7	-0.4	4.0	3.6	-0.4
Lila	4.1	4.3	+0.2	4.7	4.7	0.0	4.6	4.9	+0.3

😤 Table 8. Overall Means for Pre- and Post-Survey Results, Curriculum Efficacy, Assessment Efficacy, and Instruction Efficacy

Name	Pre-Survey Curriculum Efficacy	Post-Survey Curriculum Efficacy	Change in Mean	Pre-Survey Assessment Efficacy	Post-Survey Assessment Efficacy	Change in Mean	Pre-Survey Instruction Efficacy	Post-Survey Instruction Efficacy	Change in Mean
Elsa	3.1	4.0	+0.9	4.1	4.0	-0.1	3.7	3.9	+0.2
Josie	-	3.3	-	-	3.9	-	-	3.2	-
Kate	3.7	3.3	-0.4	3.3	3.5	+0.2	2.7	3.9	+1.2
Pete	4.4	3.1	-1.3	4.1	3.5	-0.6	4.3	3.8	-0.5
Ana	3.6	3.7	+0.1	4.5	4.8	+0.3	4.4	4.3	-0.1
Gabby	4.0	3.3	-0.7	-	3.8	-	-	3.5	-
Lila	4.3	4.4	+0.1	4.6	4.8	+0.2	4.6	4.9	+0.3

reported a lower level in their understanding of instructional strategies for reading in the elementary classroom. These self-reported scores indicate a lower level of understanding assessment and instruction after student teaching for a majority of the participants in this study.

Self-efficacy in this study was reported and measured through the three efficacy constructs on the survey (Appendix B). Forty-three percent of participants reported a higher level of self-efficacy for reading curriculum during the course of their student teaching experience. An additional 43% of participants reported a higher level of confidence with implementing and analyzing assessment techniques. In terms of student teachers' confidence with implementing various instructional strategies for reading in the elementary classroom, 43% reported a higher sense of self-efficacy. Table 9 provides more information about self-reported means for separate curriculum, assessment, and instructional skill scores across participants. Further discussion related to data analysis is addressed in Chapter V.

Summary of Survey Results

In summary, the first phase of data analysis was completed using quantitative survey results. The survey included statements regarding student teachers' perceptions of their knowledge and application of reading curriculum, assessment, and instruction. The survey was administered twice, once at the beginning of participants' student teaching semester and once again at the end. Although findings revealed that most student teachers reported a high level of understanding with regards to reading curriculum as a result of their student teaching semester, the majority reported lower levels of understanding assessment and instruction. In terms of self-efficacy, less than half of

participants reported a high sense of confidence in implementing reading curriculum, assessment, and instruction. Individual scales scores for participants are included in qualitative data analysis as a way to mix the quantitative and qualitative data. This action helped to further understand participants' perspectives when analyzing the qualitative data. Further discussion related to data analysis is addressed in Chapter V.

Table 9. Self-Reported Means for Curriculum, Assessment, and Instructional Skills

Curriculum Skill	Pre- Survey Mean	Post- Survey Mean	Assessment Method	Pre- Survey Mean	Post- Survey Mean	Instructional Strategy	Pre- Survey Mean	Post- Survey Mean
Phonemic awareness	3.93	4.47	Diagnostic assessments	3.69	4.33	Read alouds	4.85	4.79
Phonics	3.93	4.41	Formative assessments	4.15	4.33	Shared reading	4.23	4.64
Fluency	4.33	4.41	Summative assessments	4.08	4.40	Interactive reading	4.00	4.64
Vocabulary	4.20	4.35	Anecdotal records	4.08	4.47	Guided reading	4.38	4.57
Comprehension	4.40	4.47	Checklists	4.00	4.60	Independent reading	4.69	4.79
Semantic cueing system	3.60	3.53	Interest inventories	4.31	4.53	Basals	3.54	3.79
Syntax cueing system	3.67	3.53	Interviews	3.92	4.53	Mini-lessons	4.31	4.50
Graphophonics cueing system	3.53	3.47	Conferencing	4.15	4.60	Conferencing	4.08	4.00
Common Core State Standards	3.80	4.59	Portfolios	2.69	3.73	Share time	3.85	4.29
			Rubrics	4.23	4.67	"Think aloud"	4.15	4.50
			Standardized tests	2.67	3.87	Self-monitoring	4.54	4.57
			Student self- assessments	3.92	4.47	Comprehension strategies	3.92	4.29

Note. Scale ranges from 1=Strongly disagree to 5=Strongly agree on a Likert-type scale

Analysis of Interview Results

The second phase of data analysis was based on the results of participant interviews. Qualitative data such as interviews create "rich and thick descriptions of the phenomenon being studied" (Lodico, Spaulding, & Voegtle, 2010, p. 112). This study

aimed at examining the phenomenon of student teachers' lived experiences with teaching reading, specifically, to understand the factors that influence student teachers' beliefs and practices regarding reading curriculum, assessment, and instruction. As an explanatory sequential mixed method study, interviews made up a significant portion of the data collection. The purpose of using interviews was to understand what factors affect student teachers' perceptions of preparedness in reading curriculum, assessment, and instruction. By entering their email address during the survey portion of the research, 12 participants indicated an interest in taking part in the interview phase. After contacting the 12 interested participants via email, seven student teachers responded and stated they were still interested in being interviewed.

Based on survey responses of perceived knowledge and efficacy in reading curriculum, assessment, and instruction, interview questions were aimed at better understanding how that perceived knowledge developed over the course of each participant's teacher education program. Semi-structured interview questions focused on understanding both the knowledge gained through teacher preparation and how that knowledge was implemented during the student teaching experience. Interview questions ranged from: "What beliefs and practices did you learn about reading in your courses and during student teaching?" to "What do you wish you would have learned more about, in terms of reading curriculum, assessment, and instruction, during your teacher preparation?" A complete list of interview questions can be found in Appendix C.

To ensure valid and reliable analysis for this study, qualitative data was analyzed using Moustakas' (1994) modified Stevick-Colaizzi-Keen's method of organizing and analyzing phenomonolgical data. The four steps of this method are outlined here:

- 1. Reflect on one's own experiences of the phenomenon.
- 2. Using the verbatim transcript, complete the following:
 - a. Read through all transcripts and decide if the statement has significance toward the phenomenon.
 - b. Reduce verbatim transcript into significant statements and list each.
 - c. Record all statements that neither repeat nor overlap. These become units or codes.
 - d. Group these codes by similarity into categories.
 - e. Synthesize the categories into themes based on what participants experienced and how they experienced it to convey an essence of the phenomenon that was experienced.
- 3. Complete steps a e for each verbatim transcript.
- 4. Finish by developing an assertion or "universal description of the experience representing the group as a whole" (Moustakas, 1994, p. 122).

In accordance with Moustakas (1994) data analysis procedures, the interviews were audio recorded, with permission, and later transcribed by an outside source. After removing any identifable information, the transcriptions were sent back to the participant to review in a process known as member checking. Each participant reviewed the documents and analysis continued with slight changes to the data including removal of school and district names.

Once transcriptions and member checking were complete, further qualitative data analysis was conducted to develop an audit trail consisting of: significant statements, codes, categories, themes, and assertions. Coding is a process by which significant

based on nonrepeating, nonoverlapping patterns (Moustakas, 1994). Upon reading through the transcripts, verbatim answers related to the interview questions were placed in the first column of an Excel spreadsheet. The researcher then condensed each verbatim answer into a series of significant statements. These significant statements were placed in the second column of the spreadsheet. From there, the researcher read through and coded keywords relevant to the survey construct and research questions related to reading curriculum, assessment, and instruction. Initial codes were placed in the third column of the spreadsheet and were used as a guideline to analyze subsequent transcripts, thus informing new, unique codes. Related or repetitive topics were identified by the same code in several different places. From this point, 73 codes were developed. Following this preliminary code development, significant statements were reread and codes were reorganized into 12 categories (column four).

After reviewing the signficiant statements, codes, and categories, it was evident that the participants in this study shared various perceptions about their reading preparation, yet each provided unique insights regarding knowledge and skills gained through the student teaching experience. Some felt extremely well prepared to teach reading while others felt ill-equipped to enter the classroom. Analysis of the interview data revealed four themes. Not only were these themes related to the research questions and survey constructs, they also represented an overall summary of perceptions of the interviewees as a whole. What follows is a description of each theme with supporting data from interview results.

The first theme was: Beliefs are influenced by experience, coursework, and interactions with other professionals. Every interview participant discussed the influence of courses, cooperating teachers, and field experiences on their beliefs about teaching reading. Several others mentioned the influence of professors, textbooks, and professional development opportunities on their beliefs about reading. The second theme was: Student teaching experience had a significant impact on beliefs and practice regarding reading. As participants gained experience during student teaching, they were able to apply theory to practice. In general, participants attributed a significant change in beliefs about reading to hands-on experiences in the classroom setting.

The third theme to emerge from the data was: Self-efficacy in teaching reading is affected by knowledge and experience. Student teachers reported lower feelings of self-efficacy in reading due to a lack of knowledge and lack of experience when applying reading curriculum, assessment, and instruction in an elementary classroom. The fourth and final theme was: Several factors affect student teachers' perceptions of preparedness when teaching reading. Factors that affect student teachers' perceptions of preparedness to teach reading include: time spent in student teaching and coursework learning related to lesson planning, curricular skills, instruction models, and assessments types. A figure identifying the interview codes, categories, themes, and assertions will be presented in Chapter V.

Theme I: Beliefs are Influenced by Experience, Coursework, and Interactions with Other Professionals

The basis of this and any research study is grounded in the research questions.

The first research question guiding this study was: What are student teachers' beliefs

about their preparedness to teach reading, and to what extent does that change over the course of their student teaching semester? Data was analyzed with this research question in mind, specifically the first part of the question relating to student teachers' beliefs about their preparedness to teach reading. Several similarities amongst participants' perceptions were discovered. The first similarity was the positive impact that experiences had on student teachers' perceptions of preparedness.

Positive influence of experience. A thread of influential experiences was woven throughout each of the seven interviews. Each of the participants indicated that experiences, such as student teaching, were the most influential part of their teacher education preparation. One interviewee, Lila (University G), explains the impact of her preparation: "I honestly feel like that, in anything, my experience has been my greatest success. My greatest strength." Gabby (University G) agrees that experiences positively impacted her:

I think what really prepared me to actually teach definitely in my practicum and student teaching experiences just getting in the classroom and seeing what you need to do...how it is managing that many students and just attending to their needs as best you can. I think those are the biggest things that actually prepared me to teach are those hands-on experiences, just interacting with students and learning how to differentiate for those students.

A third interviewee, Kate (University D), shares similar feelings of confidence in her preparation when she says, "I think that working in a classroom, that field experience, was the biggest benefit to being a teacher ed student. That's where I learned the most in the shortest amount of time, the biggest amount of learning." The second similarity

among participants was the positive influence of their cooperating teacher on their perceptions of preparedness.

Positive influence of cooperating teacher. The data revealed that student teachers often credited their cooperating teachers for positively influencing their beliefs about teaching reading as well. Lila (University G) speaks highly of her cooperating teacher when she says, "She was very open-minded choosing and trying new things. With me as a student teacher, that was helpful. If I wanted to try something new, she was like, 'Go for it.'" When asked what the strongest influence was to her beliefs about teaching reading, Gabby (University G) shared:

I think my cooperating teacher...I observed her small groups a couple times and I really liked how she ran her small groups. She was very good at making those accommodations very graciously. Her lessons flowed very smoothly and just how she engaged each of her small group students. I think that was really valuable for me. She's just a [sic] very positive, working very hard to make sure her students were successful. That really impacted how ... just even seeing her teach small group lessons was very helpful just seeing that practical application.

Not only did the experience of student teaching influence student teachers' perceptions of preparedness to teach reading, but their experience in reading methods courses also impacted their beliefs. The third commonality among interviewees was the influence of methods courses and professors on their perceptions of preparedness.

Positive influence of courses and professors. To be effective, teacher education programs need to offer content and pedagogical knowledge based on research and theory (Cochran-Smith, 2003). The content of reading methods courses should focus on current

research and includes: phonemic awareness, phonics, fluency, vocabulary, and comprehension, cueing systems, reading curriculum, practical instructional strategies, and understanding and application of reading assessment (Ellery, 2009; Moats, 1999; Wilde, 2000). Several participants identified reading methods courses, along with professors and course textbooks, as having an impact on their beliefs about teaching reading. Some participants held positive feelings about their coursework, while others believed their courses and professors were to blame for feelings of inadequacy when teaching reading in the elementary classroom.

Lila (University G) was one such participant who identified a positive connection between her coursework and teaching reading during student teaching. She discusses her understanding of instructional and assessment strategies for reading:

In my reading methods course, doing all of those literature circles and learning about that and those sort of things, reading [sic] records, those were all helpful, too. I think that I've used a lot of what I've learned in my methods course in the classroom.

When recollecting how coursework influenced their feelings of preparedness, several participants recounted fond memories of professors' attempts to engage them in learning to teach reading. One interviewee, Josie (University C), discussed how her reading methods professor read a picture book to them on the first day of class. She shared: "Even with college students, we still enjoy being read to, picture books. Just something like that just made the atmosphere even more welcoming. Right away setting a stage for learning and I don't know ... Learning together and enjoying literature together."

Pete (University F) also complimented a former reading professor by stating that the way "she teaches college is how college should be taught." He explained that she modeled a contagious love and excitement for reading. When asked why his methods courses were so influential, Pete responded: "The more methods the better because you don't know what you don't know until you get out there and you do it." Ana (University F) agreed that her professors "did a good job in college preparing us. Heard a lot about [reading], learning a lot about it, implemented it a lot."

Negative influences of courses and professors. Not all interviewees shared the same positive feelings about their teacher preparation programs. Several student teachers criticized their reading courses and professors for not providing a sufficient knowledge base or opportunities to apply reading curriculum, assessment, and instruction. This lack of experience has direct impact on student teachers' feelings of preparedness. When discussing her reading methods course, Elsa (University B) remembers doing reading activities, but cannot remember what reading concepts were discussed. She shared her feelings of preparedness here:

Well, quite honestly, through the courses that I went through, I didn't feel prepared to teach reading at all. I mean, we're sort of taught some activities and different strategies and whatnot to use, but I didn't feel like we quite practiced enough.

When asked how that affects her confidence when teaching reading, she responded:

It definitely doesn't help at all. Those classes were supposed to help a lot and they didn't. I guess it makes me feel like it was a waste of time. That I could've been even just doing something more on my own...I wish we would've gotten more out

of the classes. It doesn't help me to feel prepared. I don't feel like I know as much as I should.

Josie (University C) agreed that she lacks confidence in teaching reading because she was not exposed to enough curriculum, assessment, and instruction in her college courses. Kate (University D) recalls the adage of practicing what you preach when she shares the following:

You can tell, tell a student, but if you show them and then let them do it themselves, that's going to be a lot better. We know that in education, but for some reason, that fell to the waste [sic] side in teaching educators. They forgot that we should probably show and let them do it as well as tell them.

Regardless of individual experiences, each participant discussed influences that affected their beliefs about reading. Again, the common thread was the positive impact of experience, specifically student teaching. The second theme to emerge from data analysis relates to the power of applying theory to practice during the student teaching experience.

Theme II: Student Teaching Experience had a Significant Impact on Beliefs and Practice Regarding Reading

The first theme, related to the influence of experience, courses, and interactions with other professionals, correlated to the beginning of the first research question: What are student teachers' beliefs about their preparedness to teach reading? The second theme relates to student teaching experience and it correlates to the last portion of the research question: what extent does that change over the course of their student teaching semester? The student teaching semester evokes a variety of emotions for student

teachers. In this particular study, feelings of preparedness among participants ranged from "terrified" to "overconfident". These feelings were affected by the connection student teachers were able to make between theory learned in college coursework and practical applications necessary for survival in the elementary classroom. Overall, student teachers attributed time spent in student teaching as having the strongest impact on their change in beliefs about teaching reading. Although changes in beliefs were positive and neutral in nature, both focused on the application of theory to practice.

Positive influence on beliefs. When reflecting on influences related to beliefs about reading curriculum, assessment, and instruction, several participants identified the student teaching semester as the most influential experience of their teacher preparation program. When asked to what extent did their beliefs change as a result of student teaching, most participants revealed that the student teaching semester had a significant positive influence on their beliefs about how to teach reading. Lila (University G) reinforces this idea of a significant positive impact by stating:

I was able to become familiar with [a particular reading instruction model] and I think that that's kind of [sic] my belief has changed. Reading isn't just sitting down and reading with the kids for an hour and switching through to read with everybody. There are so many other ways that you can teach reading. That's probably where my greatest eye opening experience has been.

When asked what situation or event had the most positive influence on her beliefs about teaching reading, Ana (University F) responded:

Probably student teaching, because that is where you learn everything. You can learn about everything in classes, in college courses, but until you actually get out

there and you're with students in a school with a school schedule and resources and actually working with tangible things is [sic]...I don't know. That's kind of, I would say, the biggest influence, student teaching.

Kate (University D) also agrees that a significant amount of learning takes place during student teaching. She emphasizes the link between theory and practice as she shares that, "Overall, the biggest part of my learning took place in student teaching, when you're learning in the classroom that application of your knowledge. As we know from teaching, knowledge only goes so far. You can have as much in your brain as you want, but actually carrying it out is something different."

Kate makes another powerful point about the connections made between theory and practical applications: "I cannot tell you that there was a single day without that connection. At least one time, every day, while I was out on the field I made a connection." While Lila (University G) reflects on a connection made to a specific reading skill that she became more comfortable with as a result of her student teaching: "I feel like my [knowledge of] cueing systems, you know that I grew on that from the beginning of the year", Elsa (University B) focuses on some teacher characteristics that changed as result of her student teaching experience:

I definitely became more flexible and I was able to...it's a play on words, but read my students a little more. Towards the end, or kind of in the beginning, it was a little more structured and you know, this is what we're going to do each day, but then towards the end, it's like, 'Oh, my kids, they need to sit down in a circle, a big group circle, and we're going to read together, instead of reading off on their own.' So it kind of changed a little bit that way where I was able to read my

students a little better. I became a little bit more relaxed. At the beginning, when I started teaching reading, I had them in groups and they were around the room. Then towards the end, it was all of us together in a big group. We're able to talk about it a little more relaxed like. We were laying on the floor when we were reading. Then if someone came in they might have thought, 'What the heck [sic] are you doing?'

Elsa did not always feel relaxed or at ease addressing students' needs. These are rather powerful reflections compared to her initial reaction when asked to describe perceptions about teaching reading at the beginning of her student teaching experience:

It was terrifying. I definitely tried to watch my teacher as much as possible, because that was the only experience I had. Not having that practicing experience was, I'm not going to say detrimental, but it hurt the confidence level for sure. I didn't know I could do it yet, because I hadn't practiced [teaching guided reading]. As evidenced by Elsa, student teaching can have a significant positive influence on a student teacher's perceptions of preparedness to teach reading. However, this is not always the case.

Neutral influence on beliefs. Although there were very few negative influences on student teachers' perceptions of preparedness to teach reading, some student teaching experiences left students feeling that the amount of learning was inadequate. Josie (University C) says it best when she openly states:

I feel like I still have a lot to learn about teaching reading. I'm trying to think how to even answer that. I feel like [my beliefs] changed somewhat, but I feel like ... I don't know. I have a lot to learn still.

Although there is a lot to learn about how to teach reading, that learning is affected by the opportunity to implement curriculum, assessment, and instruction during the student teaching semester. Ana (University F) agrees that exposure and practice are important aspects in learning to teach reading: "I with I could've done more reading ...

Teaching reading in student teaching. In the specific classroom I was in, there wasn't ...

How do I want to say this? I never really did guided reading or anything." When asked to further explain her experiences with teaching reading, she said, "I really haven't been able to really teach reading yet, I wouldn't say, the way that I want to. It's not that I wasn't able to, it just, it didn't happen...just the way things worked out, I guess." Ana stated that she learned several reading strategies in her teacher preparation program but was unable to implement them in student teaching due to a disconnect between the cooperating teachers' methods of teaching reading and those she learned about in coursework.

Unfortunately for Ana, her beliefs did not change because of a lack of opportunity to experiment with different reading strategies that she learned about in her teacher preparation program. Gabby (University G) had a similar situation and reflects on it by saying:

I don't think [my beliefs] changed through student teaching, but I wasn't able to necessarily do what I would have wanted to do as far as reading goes...I don't think my beliefs really did change. I think I just was more informed about what was needed to teach reading. I don't think any views on how to teach it changed necessarily, just getting some more of those practical tools and feeling more equipped by seeing what actually went on during teaching reading.

In addition, Gabby could not think of a time when her preparation linked to actual practice; not because her preparation failed her, but because her student teaching placement was not as flexible as she would have hoped. She was unable to implement previously learned strategies, because her cooperating teacher had already established the way reading would operate in the classroom. This lack of flexibility was one of the factors that affected Gabby's sense of self-efficacy when it came to teaching reading.

Theme III: Self-Efficacy in Teaching Reading is Affected by Knowledge and Experience

Data analysis revealed a relationship between self-efficacy in teaching reading and application of knowledge in the field. Theme III identifies this relationship and helps answer the third research question of the current study: What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching? Although this question is quantitative in nature, the mixed methods design allowed the qualitative data to help answer the question as well.

Current research in the field of reading instruction in teacher education has revealed a connection between preparedness and feelings of self-efficacy. For the purposes of this study, self-efficacy and confidence are used synonymously. Bandura (1997) explains self-efficacy as the belief in one's capabilities to perform in a way that influences the outcome of a particular event. In this case, the outcome would be student learning. This connection between preparedness and self-efficacy supports the notion that confidence is affected by the amount of knowledge and experience in which student teachers engage. While high levels of knowledge and experience correspond to high feelings of self-

efficacy, low levels of knowledge and experience correspond to low levels of self-efficacy when teaching reading. One particular interviewee, Kate (University D), captures the essence of self-efficacy when teaching reading as the mix between wanting to be portrayed as confident, yet thinking the students' needs are not being met as well as they would be if the cooperating teacher was in charge. She says:

In student teaching, you want to present yourself as confident. That's part of the in-class [sic] standards, is self-confidence, that being assured in your abilities. At the same time, it's also important to ask for help but not too much. You want to put together this presentation of yourself as a confident, capable teacher, but at the same time, you don't want to ruin these kids, and that's your biggest worry going in, there's no way that I can be as good as this mentor teacher who they put me with. They put you in this classroom and you feel like you're going to fail these kids. That you're going to give them a poorer experience than they would've had with the original teacher. That is scary.

These feelings of uncertainty and fear are all too common for student teachers. Some student teachers overcome these feelings, and in turn, their self-efficacy increases. Yet others believe their confidence decreases as they are exposed to the challenges and realities associated with teaching reading. What follows is a collection of evidence that supports both increases and decreases in student teachers' sense of self-efficacy.

Increases in self-efficacy. Only two of the seven interviewees in this study mentioned that their confidence had increased as a result of their student teaching experience. When asked if student teaching had affected his confidence in teaching reading, Pete (University F) quickly answered, "Oh, yes, definitely. The more practice

that you get the more confident you are with teaching reading. The more resources you have." While Pete credited student teaching as a time to practice and gather resources, Kate (University D) attributes her increase in confidence to experiencing reading first hand. When discussing how knowledge and experience have affected her beliefs about reading, Kate responded:

Part of it is confidence, I think for me. The more experience you have, the more confident you become. I get that experience of observing these assessments taking place and talking with teachers about them and saying, 'I'm scared of this. Can you reassure me a little?'

While Pete (University F) and Kate (University D) agree that their confidence increased as a result of observing and experiencing the art of reading, several other interviewees described that their confidence had decreased as a result of student teaching.

Decreases in self-efficacy. As the interviews transpired, it was immediately evident that each student teacher felt strongly about their preparation. Some praised their teacher preparation programs for providing them with the knowledge, experience, and confidence to teach reading effectively. The compelling praise for some teacher preparation programs was evenly matched with disappointed frustration for other programs. Several student teachers blamed their lack of confidence on lack of experiences in teaching reading.

Ana (University F) shares how her confidence was affected: "I mean, it was a little frustrating and it probably affected my confidence, because I think if I were to have [done balanced literacy] in student teaching, my confidence in teaching reading would have increased." Ana had learned about balanced literacy in her college coursework but

did not get the opportunity to apply it in practice because of previously established procedures for teaching reading in her student teaching classroom. Ana reported a level of understanding reading instruction, such as balanced literacy, as a mean of 4.0 on the pre-survey and 3.7 on the post-survey. This medium level of understanding may support the idea that the lack of opportunity to implement reading instruction during student teaching negatively impacted her sense of self-efficacy when teaching reading.

Elsa (University B) laments about her own lack of experience and how it affected her self-efficacy in teaching reading. She talked openly about her preparation:

I guess a lot of it comes from just not having that experience...an online class with [professor], I had to do a guided reading experience with a child, which I ended up doing it with [my roommate] so it didn't really help...He knew all those words, but he was supposed to. I mean, I did this guided reading activity with the fake students, and I mean I got to do it, but it wasn't real, I guess. We didn't really get to see it done before we did it. I was kind of just shooting in the dark there, trying to do it, and not having the natural student was kind of difficult...I guess it's a lot goes down to having those experiences and being able to practice those things. Going into guided reading, I was watching [cooperating teacher] like a hawk, trying to figure out exactly how to do it and do it well, because I'd only ever done it once, and it wasn't a great experience when I did it.

Interestingly enough, Elsa reported that her self-efficacy in teaching guided reading fell in the high range (4 on a 5-point Likert-type scale) on both the pre- and post-survey. This may suggest that she had confidence in teaching reading because she was able to observe

guided reading taking place with actual students very early on in her student teaching experience.

Teacher education programs need to hear the voices of students like Ana (University F) and Elsa (University B) and understand the role they play in a student teacher's sense of self-efficacy when teaching reading. Ultimately, teacher education programs are responsible for developing highly qualified graduates who are prepared to enter the field. One of the purposes of this study was to identify the factors that affect student teachers' perceptions of preparedness to teach reading. These factors are related to Theme IV and are discussed in the following paragraphs.

Theme IV: Several Factors affect Student Teachers' Perceptions of Preparedness when Teaching Reading

One purpose of the current study was to examine what factors affect a student teacher's understanding and implementation of the methods learned during coursework to planning and delivering reading instruction in the classroom setting. The conceptual framework for the current study is based on Ellery's (2009) curriculum, assessment, and instruction (CAI) framework for teaching reading. The following research question helped in the development of Theme IV: What factors influence student teachers' perceptions of preparedness to teach reading? Data analysis revealed several factors related to student teachers' feelings of preparedness to teach reading. These factors are discussed in the following paragraphs and are organized into: exposure to curriculum, exposure to assessment, exposure to instruction, and lesson planning implementation.

Factor 1: Exposure to curriculum. Shaw and Mahlios (2008) explain that curriculum forms the foundational knowledge of what student teachers need to know

about the reading process. The curriculum portion of the CAI framework focuses on essential components of teaching reading, including: phonemic awareness, phonics, fluency, vocabulary, comprehension, cueing systems, and Common Core State Standards. The researcher made a point to have interviewees clarify the difference between curriculum as reading skills and core curriculum as the basal program available in most schools. Interviewees' various definitions of curriculum can be found in Table 10.

Table 10. Participants' Definition of the Term: Curriculum

Participant	Definition of "Curriculum"		
Elsa (University B)	Curriculum means what I'm going to teach. Like through Math because I consider the curriculum an everyday Math book or those types of materials. Yeah, I guess that's what I consider the curriculum to be is what I'm going to teach.		
Josie (University C)	Well, [the school] had the LBDs, Literacy By Design curriculum, the book. I don't know if that's considered a basal then or the book that kind of, paste it and we gave you a passage to read and then the kids worked on.		
Kate (University D)	I think that curriculum is what you teach. It doesn't always imply how. A lot of the basal curriculums try to tell you how, and that's instruction, not curriculum. I think that curriculum is what you are teaching. It's based off of the standards and appropriate practices for that grade level, but then how you carry it out is your teaching, your instruction. What you teach is the curriculum.		
Pete (University F)	I think of what the teacher sets for you in order to learn. To me, I know that's probably not right, because a basal or something is probably considered the curriculum.		
Ana (University F)	I don't like reading curriculum, because Well, if it's what I'm What I'm thinking of is Reading Street and stuff, which was in What was used in the classroom I student taught at. I don't think that's very authentic. I was thinking basals.		
Gabby (University G)	For student teaching, we were I forget the guy's name but it was like the whole ELA curriculum. In our grade, it focuses mainly on writing but also on some reading strategies and summarizing and some of those higher level things.		
Lila (University G)	Curriculum is the same as your basal reader.		

With these interpretations of curriculum in mind, the data analysis moved forward by identifying how the factor of curriculum (knowledge and application) affected student teachers' feelings of preparedness. Josie (University C) explains her feelings of discomfort with using the basal curriculum program:

I don't feel comfortable looking at reading. We never really looked at curriculum a whole lot in our courses. It was mostly like, here's the textbook, here's the levels that they go through, and talking about strategies and maybe challenges to teaching reading in your class, but we didn't really look at curriculum. In that aspect, I don't really feel a whole lot ready.

In addition, Josie explains that she lacked experience with curricular reading skills in her coursework but was able to learn about them in her student teaching. She expressed her thoughts by stating: "Well, one thing I think I learned about that I didn't have much experience with before, in both college and student teaching, would be like at the lower level, the invented spelling and that early writing stages." This exposure to curricular reading skills allowed Josie to feel more confident in her ability to teach those skills to students. Lila (University G) also shares feelings of wanting more exposure to curriculum:

I still need to learn more about the other curriculums, but I feel comfortable and confident in using Journeys because it's something that I have read about, it's something that I've actually used and taught. I haven't learned a lot about other curriculums available.

Here, Lila is referring to Journeys, the name of the basal curriculum used in her student teaching classroom. Another interviewee, Ana (University F), also eluded to feelings of

confidence with the basal. She says, "I was confident in using it, because it was very nicely laid out for me."

In comparison, Josie's (University C) experience was riddled with a lack of structured curriculum to guide her instruction. She says:

I felt like there was no guidance for what to do, what to work on. It was just like, 'Oh this looks good, let's work on this.' But it was really hard because I didn't really have any guidance, so there was no curriculum, which is hard as a brand new person to that building and the curriculum and the standards. We just kind of, we let the kids pick the novel or picked the books and worked on strategies for helping with comprehension. Yeah, I feel like that's one of my weaker points because we didn't really talk a lot about guided reading groups in my courses at [my University] and we did a lot of the strategies and the whole group and the developmental stages of reading and writing. I wish we would have learned how to facilitate groups better because I feel like I don't know what I'm doing for next year, you know? I'll learn.

Lila (University G) recounts how the basal curriculum was used in her student teaching classroom:

They're kind of pretty specific about the things they want you to cover in Journeys [a basal reading program]. There's not a lot of leeway. It was a matter of making sure we covered all the information in [Journeys] but kind of mixing it up in how we covered it...I don't think you necessarily have to cover in that order as long as you cover it. I try to look at, when I was in there teaching, I kind of look at okay, day one, this is what it wants you to cover. We'd go over it. We'd do a pretest for

the spelling words. We'd talk about those words. Talk about some vocab words. Then they have a reading that they have every week. We would do the reading, they would do it usually read to someone, read to self. That kind of program.

When asked if there were any challenges associated with using the basal curriculum, Lila said the challenge was "trying to find meaningful, I don't want to necessarily say meaningful because for Journeys they're still meaningful, but to me they're not real literature." Ana (University F) agrees that the basal curriculum was not meaningful because it lacked authenticity. She said, "I don't like reading curriculum, because ... well, if it's what I'm thinking of is [Reading Street, a basal reading program] and stuff, which was used in the classroom I student taught at, I don't think that's very authentic." She goes on to say that the basal curriculum was "kind of dry and boring."

Not all student teachers used the basal curriculum during student teaching. Pete (University F) focused on developing one's own curriculum through standards-guided teacher choice. When asked what he thinks of when he hears the word curriculum, he said:

I think of what the teacher sets for you in order to learn. Because a lot of learning is independent and I would say that the independent learning, which is far more important than curriculum itself, is done by the child. But the curriculum, when I say that word, I say chosen by the teacher in order to meet the Common Core Standards. To me, I know that's probably not right, because a basal or something is probably considered the curriculum, but I would say the resources you use and the way that you set it up, you kind of create your own curriculum with the resources you pick and choose to make for your classroom.

Pete also had an answer for a question relating to his thoughts about teaching reading using the basal, or core curriculum: "I bet I could teach out of a basal if I needed to because I remember being taught out of one myself but we never did that, not even once during my teaching." These opposing views of curriculum are factors affecting student teachers' feelings of preparedness, as they will be implementing curriculum in their own classrooms in the near future. A second factor affecting student teachers' perceptions of preparedness is exposure to assessments used to evaluate student learning.

Factor 2: Exposure to assessment. While curriculum can be referred to as the content of reading preparation, assessment is more closely related to analyzing and interpreting students' interactions with that content. The focus of this study was to examine the types of assessments student teachers study in their coursework and the degree to which they feel confident implementing and analyzing each particular assessment during student teaching. Throughout the interviews, participants listed a variety of assessments that they were exposed to during their preparation program; they are as follows: Academic Improvement Measurement System (AIMSweb), checklists, comprehension questions, conferences, Children's Progress Academic Assessment (CPAA), curriculum-based measures, Dynamic Indicators of Basic Early Literacy Skills (DIBELS), feedback, formal, formative, Fountas and Pinnell benchmarks, informal, Measures of Academic Progress (MAP), Minnesota Comprehensive Assessment (MCA), pre-tests, quizzes, reading levels, Rigby, rubrics, running records, standardized tests, student samples, summative, and surveys.

Throughout their student teaching semester, several students had the opportunity to observe and even apply various forms of assessment. Josie (University C) recalls her

experience with assessment during a Kindergarten placement, "We did AIMSweb every week with the kids for letter identification, depending on what stage they were at, or their letter sound fluency or letter naming or the nonsense words for chunking those words."

Ana (University F) also listed a variety of assessments used in student teaching:

Checklists, interest surveys, what else? Conferencing and then ... I don't know. That kind of continues all the time throughout your teaching. And then post-assessments, as far as reading goes, let me think. Checking for comprehension, whether that's through the comprehension questions or maybe another running records or [Fountas and Pinnell] to see where they are at compared to when they started.

Lila (University G) took time to think aloud between the difference between assessment and instruction, "I know that in our reading methods we spent a lot of time talking about reading records and those sorts of things. I know that those aren't necessarily teaching strategies, more of assessment." Although he understood their purpose, Pete (University F) also had difficulty identifying the name of certain assessments:

We talked about all the different kinds of assessments. I do them by accident. I don't know that I'm doing them and so I know it's an informal assessment when I just talk to [the student] first one-on-one and we talk about it. I call that just a conference and I would say that I do a lot of conferences but there are lots of different kinds of conferences that I do. I have no idea what kind of assessment that would be called.

Regardless of being able to name them or not, the data revealed that student teachers held certain beliefs about assessment after being exposed to them during student teaching.

When asked about her feelings toward assessment, Kate (University D) said:

Part of the problem with student teaching, this is my first experience with the assessment. Some of them, I went, 'We're doing some kind of standardized assessment. I have no idea what's going on,' or carry it out but I don't exactly know what ... What we're assessing, what the test is, who it comes from? There's more than just the assessment part. It's not just a question, it's not just a way to ask them, it's not just the skills we're trying to evaluate. It's also about how we actually carry out the test, how we help the kids through it, that worries me.

Obviously passionate about the subject, Kate continued:

[Assessment's] not the most important part, but it's definitely one of the scariest parts...Just being able to understand the results of them, to carry out the assessment, to understand even just the purposes sometimes of why they ask things the way they do ... It's nice to have that exposure."

The exposure Kate eludes to is directly related to the factor affecting student teachers' feelings of preparedness. Without exposure, student teachers feel ill-equipped to use assessment in their future classrooms. Gabby (University G) confirms this notion with the following statement:

[Assessing is] another thing that I don't feel very equipped to do necessarily. I did get a tiny bit of exposure to it during my practicum but during my courses we talked about it a couple times, really not a lot of any type of assessment. Not a lot

of practical strategies or how to do it or anything like that. Anything I got from that was from my practicum.

Elsa (University B) agrees that before student teaching, she knew reading assessments were used in elementary classrooms, but she "didn't know really how to do them." Exposure to assessment during student teaching is an important factor in preparing student teachers to confidently use assessment with their future readers.

Kate (University D) finished the discussion her confidence in assessment by saying:

I can't say that I'm afraid of it anymore. It still makes me a little nervous, a little squeamish maybe because it's not authentic assessment, which is just that, again, doing what you preach sort of thing, but it's there. It's a reality of teaching, and I think a little bit more familiarity with it, which I gained during my field experience, allowed me to feel more confident. I'm not ready to take on the world, but I'm getting there.

Kate's increased feeling of confidence is a true testament to the importance of exposing student teachers to a variety of opportunities to interact with not only curriculum and assessment, but also reading instructional strategies. Exposure to reading instruction was the third factor affecting a student teacher's feelings of preparedness.

Factor 3: Exposure to instruction. Classroom instruction includes the approaches, strategies, and pedagogical practices used to educate students about specific content (Cambourne, 1995; Ellery, 2009). Engaging instructional strategies provide students with structure and support as they learn to read. Each student teacher in the current study discussed their exposure and application of various instructional strategies

for teaching reading. Throughout the interviews, participants mentioned a variety of instructional strategies they were exposed to during student teaching. Again, they are as follows: Balanced Literacy, cooperative learning, Daily 5, direct instruction, guided reading, I do, we do, you do, independent reading, literature circles, mini-lessons, modeling, novel studies, partner work, read alouds, shared reading, small group, whole group, and writing connections.

Most of the interview discourse on instruction related to the various instructional strategies student teachers learned as well as what reading looked like in their student teaching classrooms. Lila (University G) shared a glimpse of what the reading block looked like for her and her students:

We usually always started reading with whole groups, something whole group. Then something small group and then individual. I guess it's more of changing it up. Here's a little direct instruction, here's a little whole group, here's a little independent practice to practice what we taught you during whole group, small group. Those sort of a thing [*sic*].

Josie (University C) also provides a description of what reading instruction looked like in her classroom. She discussed the use of Daily 5 but that students "only did read-to-self, read-with-a-partner, and listen-to-reading. Then they did work on writing. They didn't do word work."

Pete's (University F) portrayal of reading instruction during student teaching was similar, because he also used the Daily 5 instructional model. He explains:

During student teaching I was with the low level reading group in fourth grade. We used, every day, the three models of [Daily 5] read to self, work on writing, and

listen to reading. Then once in a while we had a reward day was read to someone.

Pete went on to list Reading Workshop, mini-lessons, and components of Balanced

Literacy as instructional strategies that he had been exposed to as a result of his teacher preparation program and subsequent student teaching.

Ana (University F) shared several components of a balanced literacy approach and said that she worked hard to offer students choices when teaching guided reading, shared reading, read alouds, and independent reading. While Ana preferred using a variety of instructional strategies in student teaching, Elsa (University B) was more focused on having students work in small groups. She explains:

I really like to have them work in partners, though. That's kind of my ... I love centers. I don't know why I love it so much, but I do. I love centers and having them do different things in groups...I have them do partner work and group work. I did guided reading with my kindergartners...we had a [paraprofessional] that would come in during guided reading times. We would have her do guided reading with five kids. I was doing guided reading with five kids.

Kate (University D) also prefers providing reading instruction in small groups. She describes her use of small group instruction during student teaching: "It could be centers. Daily 5 is really neat for [small groups], because there's five things they could be doing while practicing reading readiness and reading skills."

Although the majority of participants shared insights about what instructional strategies they utilized in student teaching, a small number of participants discussed how their perception of preparedness changed as a result of exposure to various reading strategies for instruction. Lila (University G) claims that her university supervisor

offered advice on a particular instructional strategy after observing one of her lessons:

I started [using Kagan cooperative learning] when I started my student teaching. My university supervisor kind of got me onto that, because she knew I could do a lot of those things. She got me started on them. I have used it and love every minute of it, and I try to incorporate that.

Although a university supervisor did not influence Gabby's (University G) choice of instructional strategy, a course textbook enlightened her on a particular style of guided reading:

Something I did in practice was Jan Richardson's guided reading at the first half of my reading practicum. Just pulling those small groups and going through word recognition, replacing letters, getting them more fluent, just all that they covered during those small group sessions; I thought that was really interesting and really effective based on the students I was observing.

Gabby shared another instructional strategy that she enjoyed. She did not give it a specific name but described it as "whole group collaborative group" where there was a "progression from whole group, small group, individual." She says that it was "really effective."

Josie (University C) also shared an effective instructional strategy. She explained that her cooperating teacher did a read aloud with students every day. She describes the enjoyment that came out of this community-building event:

I feel like I even looked forward to that every day, so I think with enjoying literature and just having reading being a time of community and something in

common and just enjoying a story together, I think that's definitely a huge ... That was one of my favorite parts of my student teaching, reading to the kids.

Josie's (University C) enjoyment of reading aloud to her class, gets at the heart of exposing student teachers to effective instructional strategies used to engage young readers. As student teachers begin planning for instruction, these strategies are essential components to include in a successful lesson plan.

Factor 4: Lesson planning implementation. In addition to survey and interview data, lesson plan analysis played an important part in answering the study's research questions. Lesson plan analysis is discussed in the next section. This section, however, is dedicated to understanding how student teachers learned about and implemented reading lesson plans during student teaching. Interestingly enough, student teachers shared consistent opinions on where the lesson planning process should start. Figure 3 indicates their responses to: where do you start when planning reading lessons?

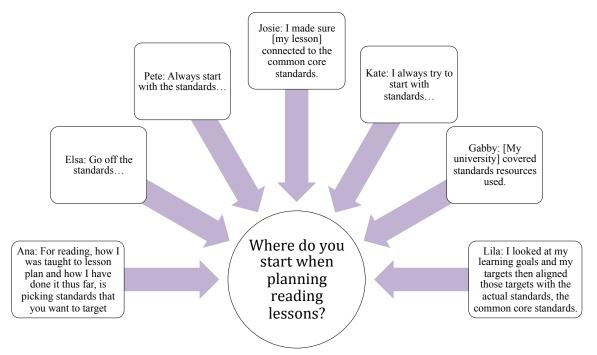


Figure 3. Student responses to: Where do you start when planning reading lessons?

This automatic answer of "standards" offers evidence that teacher education programs are focusing their efforts on preparing high-quality candidates ready to enter the standard-driven world of teaching. Although all student teachers began the lesson planning process by aligning standards to curriculum, assessment, and instruction, there were several differences in the format used by individual students.

Josie (University C) used the edTPA format for her student teaching lesson plans. She explained that TPA stands for Teacher Performance Assessment and the requirements of the lesson plan were "very stressful". Pete and Ana, both from University F, discussed the Understanding by Design (UBD) lesson planning format. Pete commented, "I did a UBD in every single education course that I had to take which was really nice." Kate (University D) explained that her university required a version of the Madeline Hunter lesson plan format, and that she, "wrote lesson plan upon lesson plan, because [professors] want to get it into your head that this is the format you should use." The remaining interviewees did not mention a specific format when discussing lesson planning. No matter what format was used, lesson planning was an important part of learning to become a teacher of reading.

For some students, the practice of writing lesson plans was an intregal part of their course and field work. For others, the preparation they received in terms of lesson planning was insufficient. Kate (University D) was one student who received ample practice with writing and implementing lesson plans. She claims that:

Lesson planning is absolutely beneficial because you get that extra time so you can think through what you want to say, how you want to approach it, is it best for me to teach, what you're trying to help them learn.

She explains that as a teacher education student, she wrote a lot of lesson plans and was also able to implement them in various classroom settings. Gabby (University G), on the other hand, was a student who reported that her experiences made lesson planning "challenging". She explains:

[Lesson planning is] something that I wish would've been maybe touched on more in my actual coursework. During my practicum, I was given a few activities to choose from so I would introduce the activity we'd be doing and talk about 'hello this is what we're going to be talking about', kind of review the concept... We did a few plans but just not a lot of implementation. I think that implementation is really key to understanding the whole process.

Effective educators would agree with Gabby about the idea that implementaiton is the key to feeling confident about teaching reading. Lesson planning is a process; a process that begins with standards, is infused with curriculum, assessment, and instruction, and ends with implementation. This implementation directly relates back to each theme as it influences beliefs, impacts self-efficacy, and affects student teachers' perceptions of preparedness to teach reading. Another aspect of data analysis that links back to the themes is the open-ended survey question results.

Open-Ended Survey Question Results

In another attempt to merge quantitative and qualitative methods in this explanatory sequential mixed methods design, one open-ended question was given at the end of the survey. The question was as follows: "Based on your teacher preparation program, what would you change to better prepare yourself for teaching reading in the classroom?" Although this data was collected via the quantitative survey, it was analyzed

qualitatively through the creation of significant statements, codes, categories, and themes. Each of the seven interview participants provided a response to the open-ended question. All of the data collected from the open-ended survey question was analyzed alongside qualitative interview data. To ensure all voices were heard, Figure 4 was constructed to represent participants who did not take part in the interview phase of the study and shows the connection between participants' answers and corresponding themes.

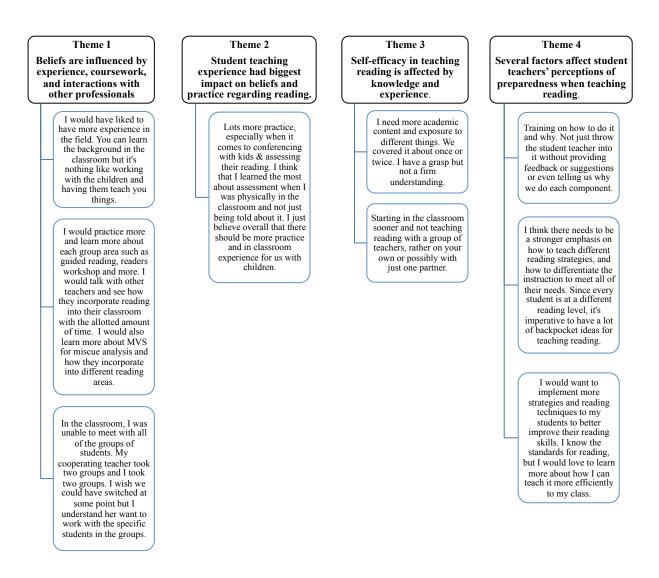


Figure 4. Non-interviewee data from open-ended survey question and theme correlation.

The similarities between open-ended survey responses and themes strengthens the connection between the survey and the interview results. It also emphasizes the importance of providing student teachers with worthwile educational experiences related to curriclum, assessment, and instruction. The final segment of data analysis focuses on the evaluation of lesson plan documents. A future section is dedicated to examining and analyzing the extent to which participants' lesson plans addressed the concepts of curriculum, assessment, and instruction.

Summary of Interview Results

In summary, the second phase of data analysis was completed using the qualititative interview results. The semi-structured interviews were conducted with seven participants who had completed their elementary student teaching in the spring of 2015. The purpose of the interviews was to understand what factors influence student teachers' beliefs and practices in terms of reading curriculum, assessment, and instruction and how those beliefs changed as a result of student teaching. In an explanatory sequential mixed method design, the initial survey responses were used to inform the semi-structured interview questions. Based on their survey responses of perceived knowledge and efficacy in reading curriculum, instruction, and assessment, interview questions were aimed at better understanding how that perceived knowledge developed over the course of each participant's teacher education program. Results revealed four themes, as follows:

 Theme 1: Beliefs were influenced by coursework, experience, and interactions with other professionals.

- Theme 2: Student teaching experience had the strongest impact on beliefs and practices regarding reading.
- Theme 3: Self-efficacy in teaching reading was affected by knowledge and experience.
- Theme 4: Several factors affected student teachers' perceptions of preparedness when teaching reading.

Overall, student teachers credited student teaching as the most powerful influence on their beliefs and practices. Participants reflected on their experiences learning about how to teach reading in their coursework and their ability to apply that knowledge to practice in the elementary classroom. Further discussion related to data analysis is addressed in Chapter V.

Analysis of Documents Results

Evaluating lesson plan documents against a rubric and checklist comprised the third and final phase of data analysis. Upon request, five of the seven participants voluntarily emailed one lesson plan to the researcher. The lesson plans were analyzed to assess the degree to which student teachers were applying content knowledge of curriculum, assessment, and instruction in their lesson planning process. This analysis was used to gather information about both the overall quality of lesson plans (rubric – Appendix D) and how frequently participants referenced reading components in their lesson plans (checklist – Appendix E), specifically those components listed in the quantitative survey.

Lesson Plan Rubric

The rubric was modified from an original version created by the Undergraduate Assessment Committee (UAC) at the University of North Dakota (UND). The UAC created the rubric based on InTASC standards as aligned with the conceptual framework guiding UND's Teacher Education Program (D. Pearson, personal communication, May 17, 2015). The modified rubric measured the three components of curriculum, assessment, and instruction in terms of understanding, implementation, and analysis. The rubric was used to determine an overall "CAI score" for each lesson plan. Each of the three components had a potential score of 12 points, with a possible overall score of 36 points. Score results for each participant's lesson plan can be found in Table 11. A copy of the lesson plan rubric used to obtain the scores can be found in Appendix D.

Table 11. Rubric Score Results for Participants' Lesson Plans

Participant	University	Curriculum Score	Assessment Score	Instruction Score	Overall Score
Lila	University G*	10	9	12	31
Josie	University C	11	8	10	29
Pete	University F	9	6	9	24
Elsa	University B	8	6	9	23
Gabby	University G*	8	5	6	19

^{*} Lila and Gabby both earned degrees from University G, but took classes on separate campuses.

The results of the rubric indicate a variety of CAI scores among participants.

Only two of the five participants' lesson plans scored above 80% of the possible 36

points. Lesson plans ranked highest in terms of understanding, implementing, and analyzing curriculum and instructional strategies. Assessment scores ranked the lowest among the three components. Further discussion on lesson plan analysis via the rubric is examined in Chapter V.

Lesson Plan Checklist

While the lesson plan rubric measured the participants' lesson planning abilities compared to a standard, the checklist identified the frequency at which specific components of reading were referenced in the lesson plan, either explicitly or inferred. The reference to specific curriculum, assessment, and instructional strategies is evidence that student teachers were both exposed to that content and subsequently applied it through the implementation of their lesson plan. The researcher developed the checklist by aggregating curriculum, assessment, and instructional components from the comprehensive review of literature. In addition, these same components were examined through the quantitative survey used in this study. Frequency data collected from the checklist can be found in Table 12.

Table 12. Checklist Frequency Results for Participants' Lesson Plans

Curriculum Skill	Frequency	Assessment Method	Frequency	Instructional Strategy	Frequency
Phonemic awareness	2 of 5	Diagnostic assessments	2 of 5	Read alouds	1 of 5
Phonics	2 of 5	Formative assessments	3 of 5	Shared reading	4 of 5
Fluency	2 of 5	Summative assessments	2 of 5	Interactive reading	2 of 5
Vocabulary	4 of 5	Anecdotal records	1 of 5	Guided reading	3 of 5
Comprehension	5 of 5	Checklists	2 of 5	Independent reading	4 of 5
Semantic cueing system	2 of 5	Interest inventories	0 of 5	Basals	2 of 5

Table 12. cont.

Syntax cueing system	2 of 5	Interviews	0 of 5	Mini-lessons	3 of 5
Graphophonics cueing system	2 of 5	Conferencing	2 of 5	Conferencing	2 of 5
Common Core State Standards	5 of 5	Portfolios	0 of 5	Share time	3 of 5
		Rubrics	0 of 5	"Think aloud"	2 of 5
		Standardized tests	0 of 5	Self-monitoring	2 of 5
_		Student self- assessments	0 of 5	Comprehension strategies	4 of 5
Total Potential References	26 of 45		12 of 60		32 of 60

For each of the lesson plans submitted, the checklist was used to determine how frequently student teachers were referencing each of the specific curriculum, assessment, and instruction components. With five submitted lesson plans, there was a potential total of five points for each of the elements listed. Therefore, curriculum would represent a total of 45 occurrences (nine skills with one opportunity for individual skills to appear in each of the five lesson plans). Following similar guidelines, assessment and instruction both had the potential to be referenced 60 times throughout the frequency analysis.

The results from the checklist indicated that participants made 26 of 45 potential references to curriculum (58%) and 12 of 60 assessment techniques (20%) in their lesson plans. In addition, participants referenced 32 of 60 instructional strategies (53%) when calculated using the checklist (found in Appendix E). Further discussion on lesson plan analysis is discussed in Chapter V.

Summary of Documents Results

In summary, the third and final phase of data analysis was completed using document analysis, specifically reading lesson plans. The lesson plans were analyzed

using a rubric and a frequency checklist, both developed by the researcher with support from experts in the field. The rubric was used to evaluate the degree to which student teachers were understanding, implementing, and analyzing elements of curriculum, assessment, and instruction. The analysis revealed that two of the five participants scored above 80% on the lesson plan rubric. For all participants, understanding, implementation, and analyzing assessment data received the lowest scores on the rubric. In addition, checklist data analysis exposed a similar finding: student teachers only referenced assessment techniques in 20% of the lesson plan content, while curriculum and instruction were both referenced in at least 50% of the lesson plan content. Further discussion on lesson plan analysis is discussed in Chapter V.

Chapter IV Summary

Throughout this chapter, findings from surveys, interviews, and documents were presented. Survey results indicated that most student teachers reported a high level of understanding reading curriculum and a low level of understanding assessment and instruction as a result of their student teaching semesters. Reported levels of self-efficacy revealed a lower range in sense of confidence with reading curriculum, assessment, and instruction for more than half of participants.

Through thematic analysis, interview data revealed four themes. Theme one was:

Beliefs were influenced by coursework, experience, and interactions with other

professionals. Theme two focused on the idea that the student teaching experience had
the strongest impact on beliefs and practices regarding reading. Theme three supported
the idea that self-efficacy in teaching reading was affected by knowledge and experience.

Finally, theme four identified several factors that affect student teachers' perceptions of

preparedness when teaching reading. Descriptions of this preparedness to teach reading showcased various levels of self-efficacy. Students generally credited student teaching as the most powerful influence on their beliefs and practices regarding reading instruction.

In conjunction with survey and interview data analysis, lesson plan analysis supported the notion that student teachers were aware of several curricular, assessment, and instructional strategies inherent in the lesson planning process. Results indicated that only two of five participants scored above 80% on the lesson plan rubric. Elements relating to assessments received the lowest score on the rubric. Checklist data was used to calculate the frequency at which participants referenced curricular, assessment, and instructional elements in their lesson plans. Again, assessment was referenced the least often throughout skill checklist analysis. A more in-depth look at survey, interview, and lesson plan results is found in Chapter V. Recommendations, limitations, need for further research, and conclusions is also presented in Chapter V.

CHAPTER V

DISCUSSION

More than any other factor, effective classroom instruction is critical in teaching reading and preventing reading problems (Moats, 1999). Today's classrooms require high-quality teachers who are prepared to meet the diverse needs of their learners.

Teacher education programs play a vital role in educating tomorrow's reading teachers.

The need to make teacher education programs more comprehensive in the area of reading curriculum, assessment, and instruction is essential. One purpose of this explanatory sequential mixed methods study was to investigate the extent to which teacher education programs were preparing student teachers to teach reading. Another purpose was to examine student teachers' perceived knowledge of reading curriculum, assessment, and instruction and its effect on self-efficacy.

Phenomenology was used to understand student teachers' perceptions of their reading preparation. Vygotsky's (1978) theory of constructivism provided the conceptual framework for this study. Student teachers construct knowledge through coursework, experiences, and interactions with other professionals. Through this knowledge construction, student teachers build self-efficacy, or confidence, in their ability to influence students' learning. To study this sense of self-efficacy in teaching reading, data was collected through surveys, interviews, and lesson plan documents. Quantitative data was collected through a survey, which informed the semi-structured qualitative

interviews. Along with survey and interview data, lesson plan documents were collected as a means to identify what curriculum, assessment, and instructional strategies student teachers were using during their student teaching semester. The following three research questions guided this study:

- 1. What are student teachers' beliefs about their preparedness to teach reading, and to what extent does that change over the course of their student teaching?
- 2. What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching?
- 3. What factors influence student teachers' perceptions of preparedness to teach reading?

In an attempt to answer these research questions, this chapter includes: a summary of the study, a discussion of the results, recommendations, limitations, need for further research, and conclusions.

Summary

This explanatory sequential mixed methods study was designed to examine student teachers' perceptions of their preparedness to teach reading. Throughout their teacher education program, student teachers were exposed to a variety of knowledge regarding reading curriculum, assessment, and instruction. Their student teaching semester falls at the end of their program and is dedicated to applying that knowledge into practice. Participants in this study included student teachers completing their student teaching semester in the spring of 2015. Seven participants took part in all facets of data collection. To ensure results were valid, triangulation of data for each participant was an

important part of data collection and analysis (Maxwell, 2013). Data was collected in three ways: surveys, interviews, and lesson plan documents.

The first phase of data collection involved a survey that was sent out to 231 student teachers from three different Midwestern states. Of the 231, 19 student teachers completed the survey for an 8% completion rate. Ten of the 19 participants completed both the pre-survey (administered in January 2015) and post-survey (administered May 2015). Both surveys were identical and were developed by the researcher based on current literature and consultation with experts in the reading field. Participants were asked to respond to statements regarding their perceived understanding and implementation of reading curriculum, assessment, and instruction over the course of their student teacher semester. Initially, the researcher attempted to run paired samples *t* tests on the data. However, due to low response rates, quantitative data analysis was limited to descriptive statistics. Discussion related to survey results is presented later in this chapter.

One-on-one interviews served as the second set of data used in triangulation. The interviews were conducted over the phone upon completion of the post-survey. The purpose of the interviews was to clarify survey results and to gain information about factors that impact student teachers' feelings of preparedness to teach reading. Twelve student teachers entered their email addresses on the post-survey indicating an interest in participating in the interview phase of data collection. After contacting the 12 interested participants via email, seven student teachers were still willing to be interviewed. Based on their survey responses of perceived knowledge and efficacy in reading curriculum, assessment, and instruction, interview questions were structured to obtain a better

understanding of how that knowledge and efficacy developed over the course of each student teachers' preparation program. Interview data was analyzed according to Moustakas' (1994) modified Stevick-Colaizzi-Keen's method of organizing and analyzing phenomonolgical data. This method involves the creation of codes, categories, and themes developed from interview transcriptions.

Four themes emerged during interview data analysis. These themes include:

1) Beliefs were influenced by experience, coursework, and interactions with other professionals; 2) student teaching experience had a significant impact on beliefs and practice regarding reading; 3) self-efficacy in teaching reading was affected by knowledge and experience; and 4) several factors affected student teachers' perceptions of preparedness when teaching reading. Connections to research questions and assertions made from themes is presented later in this chapter.

The third and final set of data used in triangulation was lesson plan documents. Upon request, five participants voluntarily submitted a reading lesson plan. The researcher evaluated the lesson plans for overall quality as well as frequency of reading curriculum, assessment, and instructional elements. The lesson plans were evaluated using a rubric and checklist, both developed by the researcher, with assistance from the literature review and experts in the field (Rubric and checklist can be found in Appendices D and E, respectively). Results revealed that most student teachers did not include components of curriculum, assessment, or instruction in their lesson planning process. In the following section, results will be presented and discussed related to further data analysis as ascertained by the research questions guiding this study.

Interpretation of Results

The purposes of this study were to 1) understand student teachers' beliefs about their preparedness to teach reading, 2) identify factors that influenced those beliefs, and 3) examine the extent to which those beliefs changed over time. To establish the essence of these beliefs, student teachers were initially asked to rate their agreement to several survey items regarding knowledge of reading curriculum, assessment, and instructional elements. Follow-up interviews were used to clarify survey results, inform the research questions, and build contextual understanding of the student teachers' lived experiences. Lesson plan analysis aimed at identifying the extent to which students were using elements of curriculum, assessment, and instruction in the elementary classroom over the course of their student teaching semester.

This triangulation of data led to several important features worth noting in this discussion. First, the research questions guiding the study were answered through data analysis. Second, four themes surfaced as a result of that analysis. Finally, the triangulation of data led to the development of two key assertions. Saldaña (2012) posits that a key assertion evolves from specific to more broad concepts by conveying a transfer of that knowledge to separate situations. Figure 5 represents the association of specifics, such as codes and categories to more broad subjects, such as themes and assertions, as a result of data analysis. Answers to research questions, theme development, and key assertions are presented in the following section.

Assertion 1: Even though student teachers believed content learned from coursework and interactions with educational professionals influenced their preparedness to teach reading, they attributed time spent in student teaching as having a significant impact on their change in beliefs about teaching reading because they were afforded opportunities to apply theory to practice.

Figure 5. Codes, categories, themes, and assertions of the current study

To answer the first research question, "What are student teachers' beliefs about their preparedness to teach reading, and to what extent does that change over the course of their student teaching?", it was important to first identify what beliefs student teachers held about teaching reading. Descriptive statistics, as presented in Chapter IV, provided evidence that student teachers reported high levels of knowledge about the majority of curriculum, assessment, and instructional strategies as documented in survey data.

Together with several data points worth noting, interpretation of interview and lesson plan data is presented in the following section. The section is divided into two categories, program improvement and effective program practices.

Program Improvement

The results of this study indicated several areas of improvement that teacher education programs must make to better prepare their student teachers to be effective teachers of reading. Programs can be improved by exposing student teachers to knowledge and experience in reading curriculum, assessment, and instruction. The next section is organized around those three areas with references to specific elements of each. The importance of lesson plan implementation to program improvement is highlighted, along with a discussion of open-ended survey results.

Curriculum: Cueing systems. First, the self-reported scores of understanding the role of graphophonic cueing systems in reading curriculum were consistently low in both the pre- and post-survey data, with means of 3.53 and 3.47 respectively. In the instruction subscale of the survey, each of the three cueing systems (syntactic, semantic, and graphophonic) produced the lowest overall mean among all elements of reading instruction (more information can be found in Table 9). Several student teachers

mentioned their desire for more practice in coursework focusing on the three cueing systems. Kate (University D) admitted that she had not heard of the syntactic, semantic, and graphophonic cueing systems until her final reading class. She was adamant that more reading classes should delve into the basic foundations of reading instruction and that more practicum hours should be spent in real classrooms, observing real students and teachers. Lila (University G) mentioned that she learned how to use the three cueing systems to teach reading during student teaching, not her college coursework. Worthy and Patterson (2001) argue that college coursework is disconnected from real work in the field, leaving student teachers unprepared to enter the classroom. The theory to practice connection from Assertion 1 was evident in this interview exchange. Student teachers believe most learning occurs as a result of experiences in the field.

Curriculum: CCSS. A second noteworthy data point was related to the Common Core State Standards (CCSS). According to Table 9, student teachers reported an average score of 3.80 in their understanding of the role CCSS play in reading curriculum on the pre-survey. Their post-survey score was 4.59, representing an overall change in mean of +.79. This high range score indicates that the understanding may be attributed to a heightened responsibility for student teachers to use CCSS to guide instruction (Council of Chief State School Officers, 2013). Cassidy and Grote-Garcia (2014) claim teachers and teacher educators across the nation are focusing on the CCSS. Through interview and lesson plan data, it is evident that student teachers learned a great deal about applying CCSS to their instruction during their student teaching experience.

As stated in Chapter IV, all participants mentioned exposure to and experience with CCSS during their student teaching semester. Each gave a separate, yet similar

description of how standards were used in the reading lesson planning process. Student teachers stated that discussions about CCSS in coursework with professors and also with cooperating teachers in the field led to a better understanding of the standards' impact on student learning. However, the most significant source of knowledge related to CCSS took place when it was implemented by student teachers in the field. This increase in knowledge came as a result of applying standards during the creation and implementation of lesson plans.

Before student teachers can implement CCSS in the field, they must learn to include them in their lesson plans. Of the five participants who voluntarily submitted lesson plans for data analysis, 100% of the lesson plans included a reference to CCSS. In the majority of cases, the standards were listed near the top of the lesson plan. When asked why the standards held such a prominent position, student teachers explained that standards guide reading curriculum, assessment, and instruction and must be considered at the very onset of planning. Through the lesson planning process, both in student teaching, and coursework, student teachers were able to apply knowledge of CCSS to practice in the elementary classroom.

Assessment: Standardized testing. The third data point worth noting is the self-reported scores for understanding the results of standardized tests when evaluating reader behaviors. Results indicated a mean of 2.62 on the pre-survey to 3.87 on the post-survey in Table 9. Although data suggests the mean changed considerably (1.25 points on a 5 point scale), student teachers were still neutral (3 on a 5 point scale) in their beliefs about using the results of standardized testing to impact student learning. Both statistical findings are interesting as they focus on answering the research question about the extent

to which beliefs changed over the course of student teaching. First, this discussion focuses on the 1.25 points growth in beliefs regarding standardized testing over the course of the student teaching semester.

Similar to expectations set forth with new, rigorous CCSS, classroom teachers are feeling the pressure related to standardized testing and their student achievement outcomes. Potentially, that pressure is being passed onto the student teachers they are mentoring. Standardized high stakes tests are summative in nature, because they are typically given at the end of a school year or particular grade. Some agree that these tests not only measure student learning, but also a teacher's ability to present the concept in such a way to impact student learning (Valencia & Buly, 2004). As a common form of assessment in today's classrooms, student teachers need to be aware of and accountable for the results of standardized tests.

When asked to discuss their experiences with standardized testing, most student teachers referred to standardized assessments that were used in their student teaching classroom. Assessment references included: Academic Improvement Measurement System (AIMSweb), Children's Progress Academic Assessment (CPAA), Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Fountas and Pinnell benchmark, Measures of Academic Progress (MAP), Minnesota Comprehensive Assessment (MCA), and Rigby assessments. When asked about how the use of standardized testing affected her beliefs and practice regarding reading instruction, Lila (University G) mentioned that it was "an eye opener" and she did not realize "how much effort goes into [standardized] testing and how strenuous it is" but now she "gets it". This new knowledge and experience with standardized testing can be used to explain why student teachers'

perceptions of preparedness to use this form of assessment increased over the course of their student teaching semester (1.25 points on a 5 point scale).

Related to the stringent format of standardized testing, student teachers likely experienced it second-hand in the form of an observation, rather than an opportunity to engage. Researchers define student teaching as the portion of teacher education preparation designed to allow participants various opportunities to observe and apply previously learned theories and techniques (Bailey & Johnson, 2000). Even though all student teachers were able to observe standardized testing in their student teaching classrooms, not all of them were pleased with the opportunity to observe and apply theories and techniques related to standardized testing. Ana (University F) stated that she was not comfortable with standardized tests because she got "sick of hearing about them so much". She stated that standardized testing was a concept that was repetitious in both her teacher preparation program and her student teaching classroom. She stated there were "probably just some philosophy differences" between her and standardized testing and that she did not look forward to using them in her future career.

Elsa (University B) stated that she looked at standardized testing throughout her program and learned about the pros and cons, but "mostly cons." She went on to explain that she knows implementing standardized tests is "going to be draining no matter what." Among others, these examples explain why the mean score for post-survey results related to standardized testing fell in the neutral range (3 on a 5 point scale) among all participants' survey results. Some student teachers understood and supported the use of standardized testing while others were wary about the topic and its implications for their

future students. Either way, standardized testing is an important part of their future careers as teachers.

Assessment: Portfolios. After cueing systems, CCSS, and standardized tests, a fourth data point worthy of notation was the fact that student teachers reported a mean score of 2.69 on the pre-survey and 3.73 on the post-survey for their understanding of using portfolios to assess readers (as indicated in Table 9). This is quite interesting, as there was no specific mention of portfolios in the interviews or lesson plans. In an attempt to explain student teachers' increased feelings of preparedness to use portfolios as a form or assessment, it is important to consider the definition of portfolios. Maki (2010) provides a simple definition – portfolios are a collection of student work. The work included in a portfolio should demonstrate the knowledge students construct from their learning, how they will apply that knowledge in future situations, and how their thinking has changed as a result of the knowledge construction. Perhaps student teachers were able to observe and/or use portfolio assessments during student teaching; yet because of the broad definition, did not identify the assessment as a portfolio. Several student teachers mentioned that they had collected students' reading and writing samples to share with parents. This collection of student work would be declared a portfolio but student teachers never specifically called the collection a portfolio.

Instruction: Read alouds. A fifth and final data point worth mentioning from the results of data analysis included student teachers' self-reported scores as related to read alouds. Consistent between pre- and post-survey results in Table 9, student teachers reported the highest scores on implementing read alouds among all elements of reading curriculum, assessment, and instruction. Many student teachers discussed modeling

reading strategies as a powerful way to engage students in the act of reading. Teacher modeling is an essential part of instruction in any content area (Baumgartner, Buchanan, & Casbergue, 2011). Whether in the elementary classroom or college classroom, teacher modeling offers a first hand account of master teaching. Pete (University F) mentioned the purpose behind read alouds was to "expose [students] to high-level, high-quality text." Josie (University C) emphasized the importance of read alouds when she stated: "I feel like I even looked forward to [the read aloud] everyday... That was one of my favorite parts of my student teaching, reading to the kids." She said she looked forward to creating a community of readers through modeling and discussion during read aloud time. Just as interview data supported the high scores related to using read alouds in reading instruction, lesson plan results revealed a multitude of read aloud opportunities as well. Oftentimes, student teachers used read alouds of mentor texts as a mini-lesson to introduce a topic. Others utilized read alouds to model reading strategies. No matter the purpose, read alouds represented a significant portion of survey, interview, and lesson plan results.

In addition to self-reported means for individual curriculum, assessment, and instructional skills, descriptive statistics from Chapter IV revealed that most beliefs about overall curriculum, assessment, instruction and self-efficacy remained the same as calculated by the pre- and post-survey data. Although survey results indicated that student teachers' beliefs remained relatively constant from pre- to post-survey, interview data presented information to the contrary. Research question three attempted to uncover what factors influenced student teachers' perception of preparedness to teach reading.

The results of this study suggest that beliefs about teaching reading are shaped by a variety of knowledge and experiences. Student teachers' knowledge of reading curriculum, assessment, and instruction derives from an array of sources, including: coursework, interactions with professors, and professional discourse with cooperating teachers. Darling-Hammond (2006) suggests that students enter teacher preparation programs with prior knowledge about learning to read or how to teach reading, based on their experiences as a student. Smith (2009) takes it one step further and argues that teacher preparation programs exercise positive influences on student teachers' perspective of reading instruction. These sources provide student teachers with knowledge and experience with lesson planning, curriculum, types of assessment, and instructional models.

Lesson Planning Implementation

Curriculum, assessment, and instruction are fundamental elements of any reading lesson plan. Writing and implementing reading lesson plans is another area where teacher education programs can improve their practice. As student teachers discussed the lesson planning process in their interviews, they explained the professors' role in using curriculum and assessment to plan instruction. Professors played the role of sounding boards and lighthouses, listening to ideas and guiding student teachers toward lesson planning that would effectively impact student learning. These professional interactions likely shaped student teachers' perceptions of preparedness to teach reading before entering student teaching, as the lesson planning was applicable to real life situations.

However, not all student teachers were pleased with lesson planning during college coursework. Several student teachers discussed their disdain for teaching lesson

plans to their college-aged peers rather than elementary-aged students. When discussing a guided reading lesson taught to peers during a reading methods course, Elsa (University B) mentioned phrases such as "fake students", "wasn't real", "shooting in the dark", and "not having the [actual] student was difficult." Chesley and Jordan's (2012) research supports this notion that student teachers encounter several factors, such as lack of real experiences and reading coursework being too general and not applicable to real classroom situations, that affect their perceptions of preparedness to teach reading. Chesley and Jordan (2012) also report that exposure to lesson planning related to reading instruction was simulated and of minimal value in a real classroom. Kate (University D) shares this sentiment when she says:

We wrote endless amounts of lesson plans even during blocks, that methods semester. We wrote lesson plan upon lesson plan because [professors] want to get it into your head that this is the format you should use. A lot of times we would practice the lesson, which is much better than just writing a lesson that nobody ever reads, because that is the most frustrating thing in the world.

Oftentimes, these simulated experiences are the only opportunities student teachers have to practice their ability to implement lesson plans before student teaching. According to Wasserman (2009), most reading methods courses fail to impact a student teachers' classroom instruction, because there are limited structured opportunities to practice these skills with real students. As referenced in Chapter IV, the practice of writing lesson plans was an integral part of course and field work for the majority of participants. Student teachers who had ample opportunities to practice writing lesson plans in their coursework claim that it had a positive impact on their ability to write and

implement reading lesson plans in the elementary setting. On the other hand, student teachers who had opportunities to write lesson plans during their coursework, but were unable to implement them with real readers, had a difficult time applying lesson plan theory to practice during student teaching. Cochran-Smith (2003) strengthens this argument by stating that effective teacher education programs offer content and pedagogical knowledge through conceptual frameworks based on research and theory, with ample opportunities to practice this knowledge in real life classroom situations. It is evident that student teachers view these opportunities to practice curriculum, assessment, and instruction as indicators of future success in the classroom.

Open-Ended Survey Responses Related to Curriculum, Assessment, and Instruction

The correlation of open-ended survey responses to themes in Chapter IV not only strengthened the connection between survey and interview results, it also emphasized the importance of providing student teachers with worthwile educational experiences related to curriclum, assessment, and instruction. Overall, student teachers who provided a response to the open-ended survey question highlighted the importance of taking part in field experienes early and often to practice the art of teaching reading. Furthermore, several student teachers discussed specific challenges with curriculum, assessment, and instruction. While certain student teachers wanted to learn more about assessing students through conferences, others yearned for more experiences with instructional strategies for guided reading and Reader's Workshop. Grisham (2000) suggests that consistent and comprehensive teacher education programs are influential in preparing effective teachers. The challenge in preparing effective teachers is choosing effective ways to educate student teachers about the complex profession of teaching. Although teacher preparation

programs are guided by state and federal requirements, there continue to be opportunities for programs to decide how to best meet the needs of their students. Unfortunately, this flexibility can lead to perceptions of unpreparedness among student teachers as important reading concepts may be abandoned in order to cover content deemed necessary by the course professor or textbook.

Another topic that surfaced as a result of open-ended survey question analysis was the desire to learn how to manage time during reading instruction. Although the literature review in Chapter II offered neither positive nor negative support for this topic, it is interesting to note student teachers' supplications. Student teachers requested more exposure and experience incorporating reading into the elementary classroom within the allotted time frame. They wanted to know how to fit all components, mandated by the district, into the 90 minute reading block. Still, others yearned for practice with managing small and whole group instruction during reading. Ellery (2009) argues that reading forms the foundation for all other content areas. This distinction should remind teacher education programs to become more comprehensive in the area of reading curriculum, assessment, and instruction.

Effective Program Practices

The discussion thus far has focused on highlighting areas for improvement among teacher education programs and their role in preparing reading teachers. It is also worth mentioning survey and interview data that supported effective practices of teacher education programs. This section highlights what preparation programs are doing well with regard to training student teachers to implement reading curriculum, assessment, and instruction.

As stated previously, survey data was collected using an instrument with a 5 point Likert type scale with the following options: 1= Strongly disagree, 2= Disagree, 3= Neutral, 4=Agree, and 5= Strongly agree. Pre-survey data was analyzed to examine what elements of reading curriculum, assessment, and instruction student teachers had knowledge of prior to student teaching. One can assume this knowledge was gained through teacher education coursework and previous experiences working with children. This knowledge would inform the role teacher education programs play in successfully preparing student teachers. Found in Figure 6 are student teachers' agreement with survey items related to self-efficacy in curriculum, assessment, and instruction on the presurvey. Items are organized first by category (curriculum, assessment, and instruction) and then by mean score. Only statements that ranked 4.00 or higher on the 5 point scale were included as they reflect a strong level of agreement.

Curriculum	Assessment	Instruction
• Fluency=4.00 • Comprehension=4.30 • Common Core State Standards=4.31 • Vocabulary=4.38	• Anecdotal records=4.08 • Rubrics=4.08 • Formative=4.17 • Interest inventories=4.17 • Checklists=4.33	Mini-lessons=4.00 Think aloud strategy=4.00 Interactive reading=4.17 Shared reading=4.25 Guided reading=4.25 Independent reading=4.25 Read alouds=4.50

Figure 6. Survey items ranked 4.00 or higher by student teachers.

As is the case in any explanatory sequential mixed methods design, the survey results were analyzed and followed up with qualitative data analysis. Results indicated that student teachers referenced several of these skills and that they were learned as a result of their coursework and student teaching. For example, when asked what she learned about being a teacher through coursework and student teaching, Ana (University

F) noted that she learned about comprehension and fluency and that her preparation program "did a very good job" and she "got lots of practice out in the [public] schools actually doing little activities and little lessons on reading, on comprehension, on fluency."

Lila (University G) had a similar response as she highlighted the theory to practice application related to reading comprehension and fluency. When describing how she learned how to teach reading, she reflected on learning about comprehension and fluency in coursework. When asked how she felt when applying her knowledge to practice during student teaching, she excitedly responded:

Oh! I already know about all of this because I've already seen it. I think that [applying my previous knowledge to practice] probably helped me in the most way [sic], but then when I got into 5th grade [student teaching], it was more ... I think the reading program more so in 5th grade is about comprehension more than anything else and fluency.

Not only did student teachers share insights about their preparedness to implement reading curriculum, their survey and interview data provided evidence of high self-efficacy levels related to reading assessment and instruction developed over the course of their teacher preparation program. Ana (University F) was asked to discuss assessments that she learned in her courses and student teaching. Her response contained a considerable number of assessments:

Running records would be one way, right? Checklists, interest surveys, what else? Conferencing and then...post-assessments, as far as reading goes, let me think. Checking for comprehension, whether that's through the comprehension

questions or maybe another running records or [Fountas and Pinnell benchmark] to see where they are at compared to when they started.

This comprehensive list supports the idea that teacher education programs are providing student teachers with a variety of opportunities to learn about and implement various assessment techniques. Kate (University D) discussed the use of assessments in her student teaching experience. She mentioned:

[Cooperating teachers] would also take into consideration that formative assessments that took place in an actual classroom setting, which I think was a little bit more effective of a model because some kids get nervous when you pull them out one on one and they're doing something that's not normal.

The student teachers' preparation program should be acknowledged for this exposure to formative assessments.

Pete (University F) praises his preparation program for exposing him to the importance of allowing readers the opportunity to work independently. When asked what the focus of his reading methods course was, he said, "the emphasis was more on the independent [reading] and the more choice the students have the better." Josie (University C) listed Reader's Workshop mini-lessons, independent reading, and share time as an instructional strategy she learned about in coursework and then was able to implement in student teaching. When describing what kinds of methods or instructional strategies were used when he taught reading, Pete (University F) responded with specific instructional strategies and the importance of that theory to practice connection:

[Strategies included] reader's workshop, mini lessons, balanced literacy...we were taught all of those things and then we were able to go into the school and do a

hands-on study...that was the most beneficial thing we did before student teaching.

In summary, effective educators would agree, the idea of positive experiences with implementation is the key to perceiving oneself as confident about teaching reading. This implementation relates back to the first key assertion, student teachers attributed time spent in student teaching as having an impact on their change in beliefs about teaching reading, because they were afforded opportunities to apply reading theory to practice. Data from surveys, interviews, and lesson plans supported the idea that student teaching had the most powerful influence on student teachers' beliefs regarding reading curriculum, assessment, and instruction. The second key assertion and underlying themes are presented in the following section.

Assertion 2: While the majority of student teachers credited their preparation program for adequately preparing them in the areas of lesson planning, curriculum skills, assessment techniques, and instruction models, some student teachers criticized their preparation programs for low levels of self-efficacy attributed to lack of knowledge and experience in applying reading beliefs to practice.

As referenced in Figure 5, the second key assertion of this study was developed through data analysis related to theme three and the second research question: What is the relationship between student teachers' reported level of preparation and their beliefs about their practice of reading curriculum, assessment, and instruction during student teaching? The following section is organized around the answer to this question, theme three, and the second assertion of the study.

Theme three states that self-efficacy in teaching reading is affected by knowledge and experience. Survey, interview, and lesson plan analysis revealed that lower feelings of self-efficacy in reading were attributed to lack of knowledge and lack of experience

when applying reading curriculum, assessment, and instruction in a classroom setting. Survey data analysis was based on low response rates, which affected the statistical significance of the results. Therefore, the relationship between student teachers' reported levels of preparation and beliefs about their practice was answered qualitatively through interview analysis. However, it is worth mentioning that descriptive statistics revealed the largest difference in student teachers' beliefs between pre- and post results for curriculum efficacy and instruction efficacy. Student teachers' instruction efficacy increased while curriculum efficacy decreased over the course of the student teaching semester. In the next section, interview data is used to explain why these two facets changed the most over the course of student teaching and what influenced those changes in beliefs.

Increase in Instruction Self-Efficacy

As the second assertion implies, the majority of student teachers felt prepared to teach reading as a result of their teacher preparation programs, encompassing coursework and student teaching. One such reason for these feelings of confidence was related to student teachers' experience with various instructional strategies throughout their preparation. Monroe, Blackwell, and Pepper (2010) agree that student teachers need a firm understanding of theory related to reading instruction, as well as practical classroom applications. In the previously mentioned review of the literature, Cambourne's Conditions of Optimal Learning can be used to explain why student teachers perceived an increase in self-efficacy related to reading instruction. Cambourne (1995) maintains that instruction is driven by theories of learning. These theories are inherent in college coursework, preparing student teachers to use instruction effectively. The theories come

to life in elementary classrooms, as they are used to create conditions for optimal learning. Cambourne's (1995) eight conditions for optimal learning include: immersion, demonstration, expectation, engagement, use, approximations, response, and responsibility. Not only are these conditions prominently used with elementary and secondary learners, but they may also play a part in educating student teachers as well.

Ellery (2009) identifies Cambourne's Conditions for learning as a model to help teachers implement effective strategies for learning in their classrooms. Student teachers benefit from learning about Cambourne's Conditions as well as implementing them. Of Cambourne's eight conditions for optimal learning, student teachers referenced several in their interviews. References included professors or cooperating teachers demonstrating or modeling specific reading tasks. Others mentioned the importance of being engaged in the college classroom by understanding the purpose of learning and passing that same knowledge of purpose onto elementary students. The majority of student teachers referenced being allowed to practice using newfound knowledge in realistic ways as a positive influence on their confidence or self-efficacy.

For example, when asked how coursework and field experiences affected his confidence in teaching reading, Pete (University F) said that it increased his confidence and he agreed that "the more practice that you get the more confident you are with teaching reading." Kate's (University D) example supports the application of knowledge in realistic ways. She stated: "You could [read textbooks] and have this knowledge in your head, but until you see it with actual kids, until it applies, I'm not sure that I really have confidence in that knowledge." These references provide evidence that student

teachers' self-efficacy increased as a result of engaging experiences during their teacher preparation program.

As previously mentioned, several interview participants identified experiences with lesson planning as a factor that positively affected their beliefs about reading. One interview question was specifically designed to discover the details inherent in lesson planning for reading instruction. Each interviewee discussed the process of planning instruction by beginning with the standards and then writing lesson objectives to meet the standards. Evidence of this was found in lesson plan analysis, as all formats listed a specific space for standards and objectives. From here, lesson plan formats and interviewees accounts of the lesson planning process varied. Some lesson plan formats continued with assessment, while others went directly to the lesson introduction. Few were required to reflect on skills students already possessed before engaging in planning the lesson. Others simply listed step-by-step procedures for the reading activity. (Appendix F provides the four different lesson plan formats provided by participants.) Lesson plan analysis revealed very few references of instructional strategies from the review of literature and survey construct for instruction. The vast array of available instructional strategies used to teach reading explains this disconnect. Suggestions for how to rectify this disconnect are found in the recommendation section.

Just as choosing an instructional strategy is part of the art of teaching, deciding what instructional strategies to include in the survey and lesson plan checklists were based on the researcher's choices. Among the variety of instructional strategies available, Allington (2006) identifies the importance of choosing an instructional approach that offers numerous opportunities for students to read. With that in mind, the

researcher selected several instructional approaches to include on the survey, each creating opportunities for students to become deeply engaged in reading. Interview and lesson plan analysis revealed a variety of instructional strategies not mentioned in the literature review or through conversations with reading experts. These strategies include: direct instruction and reading/writing connections. This breadth of instructional strategies is evidence that student teachers presented unexpected information that ultimately guided the creation of themes and assertions for this study. Theme three is based on the idea that lack of knowledge and experience attributes to lower reported levels of self-efficacy in reading. The next section highlights how survey results indicated a decrease in self-efficacy as it pertains to curriculum. Interview and lesson plan results are used to support the survey results.

Decrease in Curriculum Self-Efficacy

Moats (1999) asserts that teacher preparation programs must be founded on "rigorous, research-based curriculum and opportunities to practice a range of predefined skills and knowledge" (p. 8). As results of this study indicate, student teachers report low levels of self-efficacy when opportunities to practice and implement research-based curriculum are insufficient. This link between theory and practice lays the groundwork for the relationship between student teachers' reported levels of preparation and their beliefs about teaching reading. Compared to peers who participated in a variety of field experiences, student teachers who lacked adequate practice in the field reported lower levels of confidence in teaching reading. This decrease in self-efficacy presented itself in the analysis of survey data.

As stated in Chapter IV, the curriculum efficacy subscale addressed student teachers' overall confidence in affecting student learning through knowledge and application of curriculum. The difference in pre- and post-survey means was -0.18 and could indicate that participants' confidence in understanding and implementing reading curriculum fell in the average range after their student teaching semester. Interview and lesson plan data was used to support this finding.

Throughout the interviews, participants recalled using reading curriculum extensively during their student teaching semester. With so much experience, why then did perceptions of self-efficacy decrease from the beginning to end of student teaching? Perhaps this can be explained by interpreting participants' definitions of curriculum. As summarized in Chapter IV, some participants defined curriculum as the basal, or teacher's manual, provided by the district. Others defined curriculum as the standards and skills teachers decide to teach. As defined by Allington (2006), curriculum is an organized body of information that guides instruction and learning within a course or content area. Ellery (2009) explains curriculum as "what [teachers] want students to know and be able to do" (p. 7). The researcher understands reading curriculum as a framework addressed in the standards, including the reading process and the five essential components of reading – phonemic awareness, phonics, fluency, vocabulary, and comprehension. These various definitions might explain why perceptions of selfefficacy with curriculum decreased over the course of student teaching. Perhaps the survey was not measuring the same aspect of reading, because participants viewed the word curriculum in different ways.

Another explanation for the decrease in self-efficacy in curriculum was the influence of cooperating teachers. The majority of participants discussed their cooperating teachers' preferences and influences when considering how to address curriculum in reading instruction. Some cooperating teachers taught directly from the reading basal, or teacher's manual, while others used the standards to create engaging reading lessons. In each case, student teachers addressed curriculum in the same way as their cooperating teachers.

It is safe to assume that cooperating teachers play an important role in educating student teachers (Borko & Mayfield, 1995). This role is often misinterpreted by student teachers, as was the case in this study. Several participants described the disconnect between their teaching philosophies and the beliefs and practices of their cooperating teacher. Due to cooperating teachers' constraints, several student teachers were not afforded the flexibility to create and implement a curriculum of their own. In addition, most student teachers reported that curricular expectations were passed on to them from not only their cooperating teachers, but from administration as well.

Not only were decreases in self-efficacy for reading curriculum related to influences of cooperating teachers and administrators, the failure to apply theory to practice also affected student teachers' perceptions of preparedness to teach reading. While some interviewees were satisfied with their preparation and made comments supporting theory to practice, others were unable to answer the interview question about describing a time when theory of reading instruction related to their work in the field. Few could not promptly come up with a response. Knowing the theory but not being able to live and experience it with real readers, made that link to practice virtually impossible.

It is also important to note the need for a delicate balance between learning content and pedagogy and then getting to apply that knowledge to real life experiences prior to student teaching. More experiences with implementation early on in teacher preparation programs would likely strengthen student teachers' self-efficacy in reading. Coffey (2010) suggests that early field experiences "facilitate more social awareness" (p. 336). This awareness can guide student teachers as they participate in field experiences prior to student teaching. Mallette, Kile, Smith, McKinney, and Readence (2000) discuss the importance of structuring teacher education programs in such a way as to enhance and change the beliefs student teachers have upon entry into the program. The authors discuss that the role of teacher education programs is to influence a teacher's philosophy toward being more learner-centered. Offering student teachers opportunities to explore their beliefs about reading can help build their personal philosophies.

Providing these opportunities is one of the essential roles of teacher education programs. To improve their practice, teacher education programs need to hear the voices of former student teachers by granting them opportunities to state their beliefs. This strategy can be done through post-graduate surveys, alumni communications, informal discourse, or something in the form of the current research study. These conversations are important, because teacher education programs must understand the role they play in a student teacher's sense of self-efficacy when teaching reading. To demonstrate the importance of giving student teachers a chance to be heard, participants in this study provided a response to the open-ended question at the end of the survey. All of the data collected from the open-ended survey question was analyzed alongside qualitiative interview data.

Some of the participants who completed the survey declined the opportunity to take part in the interview phase of the study. Nevertheless, it was important to pay attention to their beliefs and include them in data analysis. Non-participant results of the open-ended survey question were correlated with themes created through qualitative interview analysis. Theme three is directly related to self-effiacy in teaching reading and the effects of knowledge and experience on that self-efficacy. Two survey participants provided evidence of such effects. Maria (University E) commented on the need for more class content and exposure to a variety of reading topics in college coursework, because she had "a grasp but not a firm understanding" of reading content. Due to a simple response to an open-ended survey question, it is difficult to know what the participant meant by "a variety of reading topics". More specific details would likely have come out of conversations about his perceptions of preparedness during an interview.

Gabe (University A) requested more opportunities to teach in classrooms earlier in his preparation. This desire for exposure and experience is indicative of the need for teacher preparation programs to adjust their practices to better serve the needs of student teachers. Starnes, Saderholm, and Webb (2010) assert that student teachers often have difficulty applying their knowledge and skills in real-life classroom situations because of limited experiences. The role of teacher education programs is to provide opportunities for pre-service teachers to know, understand, and be able to implement various elements of reading curriculum, assessment, and instruction. Without this quality preparation, student teachers will likely continue to maintain low levels of self-efficacy in their first years as reading teachers.

In summary, in this section evidence was provided to support Assertion 2 related to the role teacher education programs play in student teachers' perceptions of preparedness and self-efficacy. Teacher preparation programs are responsible for providing student teachers with exposure and experience to practice components of reading curriculum, assessment, and instruction. Ample opportunities to apply theory to practice increased students' sense of self-efficacy in reading instruction. Results also revealed that limited experiences in the classroom with real students presented lower levels of curriculum efficacy over the course of the participant's teacher preparation program. Data from surveys, interviews, and lesson plans supported the idea that self-efficacy is affected by experience and exposure. Recommendations, limitations, need for further research, and conclusions are presented in the following sections.

Recommendations

Several recommendations arose as a result of this study. The study aimed at improving teacher education programs in the area of reading preparation. Analysis and subsequent results highlight key information that teacher education programs can use to enhance their practice. The researcher highly recommends that teacher education programs should consider an increase in the number of field experiences related to reading, knowledge of best practices in reading curriculum, assessment, and instruction, and stronger partnerships with elementary schools. In addition, fresh ideas on how to bridge theory and practice promotes the development of highly qualified student teachers in all areas of reading.

Increased Number of Field Experiences

The previous discussion provided insights regarding results of survey, interview, and lesson plan data analysis. Essentially, it amounts to exposing student teachers to a variety of experiences both in the college classroom and beyond. Specifically, the results of this study indicated a desire for more hands-on experiences with teaching reading throughout the teacher education program. To create more opportunities for student teachers to interact with actual students throughout their program, teacher educators, such as myself, should structure courses around delivering content with concurrent opportunities for students to go out and apply that theory to practice in the elementary classroom. Student teachers could then come back to the college classroom and reflect on their learning experiences. Learning takes place through reflecting on lived experiences.

Reflection is a common practice in many teacher education programs. Huba and Freed (2000) would agree that an overall goal of college education, in a learner-centered paradigm, is for students to develop into more reflective thinkers. Rosko, Vukelich, and Risko (2001) discuss reflection as it links to the actions, thinking, development, awareness, beliefs, and assessment of student teachers. This link between theory and practice creates a strong foundation for developing effective, reflective educators.

Best Practices in Reading Curriculum, Assessment, and Instruction

Another recommendation warranted by the results of this study is the need for teacher educators in reading to be knowledgeable about best practices in reading curriculum, assessment, and instruction. Although teacher educators cannot provide student teachers with knowledge about every situation they may encounter, it is important

for them to create classroom experiences that increase student teachers' self-efficacy and ability to think critically about making decisions regarding student learning. The results of this study indicated that student teachers desired more knowledge about the curricular skill of the three cueing systems and how assessments such as standardized testing, are used to guide instruction. Perhaps more teacher preparation programs need to design a course specifically for assessment. This course would provide student teachers with insights about assessments used in elementary classrooms, how to analyze and interpret results of those assessments, and how to use the data to plan for appropriate and effective instruction.

Partnerships with Elementary Schools

A final recommendation worthy of mentioning is the need for teacher education programs to create strong partnerships with local elementary schools. This partnership would offer opportunities for teacher educators to observe and stay current on how reading curriculum, assessment, and instruction is applied in elementary classroom situations. The partnership would also allow student teachers the opportunity to practice teaching reading with actual students in actual classrooms throughout their preparation programs. An important piece of this would be to ensure that classroom teachers are utilizing effective reading strategies so that student teachers would be observing and practicing along effective teachers who employ best practices. Without a focus on best practices, both in the college and elementary classroom, student teachers will continue to have difficulties becoming confident, effective educators. With our ultimate goal of developing effective educators, it is vital to seriously consider these recommendations.

This recommendation to place student teachers with cooperating teachers who are knowledgeable about best practices in reading curriculum, assessment, and instruction can become a complex issue. This issue creates several thought-provoking questions to consider:

- What if teacher preparation programs teach best practices, aligned with current research of content and pedagogy, but cooperating teachers in the field teach a different, personal version of best practices?
- What if teacher preparation programs are teaching authentic assessments for reading and student teaching classrooms are driven by standardized tests?
- What guidelines do teacher education programs use to ensure they are teaching current best practices, while maintaining their philosophical beliefs, when perhaps practices and beliefs do not align?

Although the answers to these questions were not the aim of the current study, each question elicits interesting thoughts about decisions teacher preparation programs need to make in order to better serve their student teachers.

Limitations and Need for Further Research

Marshall and Rossman (2006) state that "critiquing and demonstrating the limitations of quantitative, positive approaches can be an excellent strategy for justifying use of qualitative methodology" (p. 53). To control for possible limitations, this study was designed and conducted using an explanatory sequential mixed methods approach. Quantitative data was collected, analyzed, and then used to inform qualitative data

collection and analysis. Although, there were precautions in place to reduce the number of limitations, no research is without shortcomings.

Three limitations were noted in this study and should be considered. First, the study was limited to one semester worth of data collection. To complete the research within appropriate timelines, the researcher was only able to collect pre- and post-survey, interview, and lesson plan data for one student teaching semester. This timeline restricted the range of perspectives as teacher education programs and teacher educators adjust and refine their practices from semester to semester. Based on this limitation, future research would benefit from studying student teachers over the course of several semesters or perhaps throughout their preparation program, offering a wider range of perspectives. Student teachers' perceptions on their preparedness to teach reading might be gathered through a longitudinal study over several semesters. Data gathered would provide a more comprehensive representation of student teachers' beliefs regarding their preparation to teach reading. Results of a longitudinal study would include a larger sample size and, therefore, would impact a wider range of teacher education programs and their practices.

Although the sample size of the current study represented the population of student teachers as a whole, a second limitation lies in the low number of individuals who participated in this study. After calculating the number of students enrolled in student teaching in the spring 2015 semester, the study was designed to recruit from a population of over 230 elementary student teachers from seven different universities. In order to detect enough statistical power to run analyses, the sample size of this study was projected to be between 50 and 100 participants. Related to low response rates, the

number of participants dwindled, significantly affecting statistical power needed for analysis. Furthermore, the researcher believes that addressing the issue of low response rates on surveys is of utmost importance. The researcher would have had more success with response rates if student teachers had filled out paper copies of the survey. However, due to geographical constraints across three states and seven universities, this form of data collection would have been nearly impossible.

A third and final limitation present in this study was that it relied on participants' self-reporting. It is possible that student teachers neglected to recall previously learned knowledge about the important components of reading, as they were self-reporting on the survey. Self-reporting is not always an accurate indicator of true knowledge and understanding. It is more closely related to perceived opinions about experiences.

Although self-reporting is a limitation, little can be done to correct the issues, as they are inherent in a survey about perceptions.

One final way to examine the attitudes and beliefs of student teachers' preparedness to teach reading is to further investigate their perceptions once they are hired and teach reading in a classroom of their own. Student teachers can only teach content permissible by the school and cooperating teacher. As an in-service teacher in the field, participants would be required to implement a variety of reading curriculum, assessment, and instructional strategies. Student learning will be their number one priority and that responsibility will cause them to reexamine their attitudes and beliefs about teaching reading. An additional study following student teachers into their first year of teaching would yield interesting results and implications for future practice.

Conclusions

One purpose of this explanatory sequential mixed methods study was to investigate the extent to which teacher education programs were preparing student teachers to teach reading. Another purpose was to examine student teachers' perceived knowledge of reading curriculum, assessment, and instruction and its effect on self-efficacy. Participants included elementary student teachers from five different Midwest universities. Data was collected and analyzed through surveys, interviews, and lesson plan documents.

Results indicated that even though student teachers believed content learned from coursework and interactions with educational professionals influenced their preparedness to teach reading, they attributed time spent in student teaching as having an impact on their change in beliefs about teaching reading, because they were afforded opportunities to apply theory to practice. While the majority of student teachers credited their preparation program for adequately preparing them in the areas of lesson planning, curriculum skills, assessment techniques, and instruction models, some student teachers criticized their preparation programs for low levels of self-efficacy (attributed to lack of knowledge and experience in applying reading beliefs to practice).

The results of this research hold implications and consequent recommendations for teacher educators to improve their practice and their preparation programs as a whole. The conclusion of this dissertation provides a great place for conversations about improving teacher preparation programs to start. It is recommended that teacher education programs should consider increasing the number of reading field experience for their students as well as staying informed about current best practices for reading

curriculum, assessment, and instruction. An additional recommendation is to establish positive partnerships with elementary schools so that student teachers are able to observe master teachers at work.

All in all, teaching reading is a complex task for any teacher. Considering the difficult task student teachers have before them, it is vital to make teacher education programs more comprehensive in the area of reading instruction. Improved practices will further impact teacher education programs' ability to better prepare future teachers.

Better-prepared teachers equates to higher levels of student learning. The success of young readers hangs in the balance. Student teachers and teacher education programs alike need to be ready to accept the challenge of improving their practice.

APPENDICES

Appendix A ELA Common Core Anchor Standards

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Reading Standards for Literature K-5

	Kindergartners:		Grade 1 students:		Grade 2 students:
Ā	Key Ideas and Details				
₽.	With prompting and support, ask and answer questions about key details in a text.		Ask and answer questions about key details in a 1. text.	<u></u>	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
6	With prompting and support, retell familiar stories, including key details.	6	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	2	Recount stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
мi	With prompting and support, identify characters, settings, and major events in a story.	ю	Describe characters, settings, and major events in 3 a story, using key details.	мi	Describe how characters in a story respond to major events and challenges.
Ū	Craft and Structure				
4	Ask and answer questions about unknown words in a text.	4	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	4	Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
ri,	Recognize common types of texts (e.g., storybooks, poems).	ம்	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	ம்	Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
ø	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	9	Identify who is telling the story at various points efin a text.	ø	Acknowledge differences in the points of view of characters, including by speaking in a different voice for each character when reading dialogue aloud.
드	Integration of Knowledge and Ideas				
7.	With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).	2	Use illustrations and details in a story to describe 7 its characters, setting, or events.	2.	Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
αi	(Not applicable to literature)	œ	(Not applicable to literature)	œ	(Not applicable to literature)
oi	With prompting and support, compare and contrast the adventures and experiences of characters in familiar stories.	oi .	Compare and contrast the adventures and experiences of characters in stories.	6	Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.
œ	Range of Reading and Level of Text Complexity	ţ			
0,	 Actively engage in group reading activities with purpose and understanding. 	Ö.	With prompting and support, read prose and poetry of appropriate complexity for grade 1.	0.	By the end of the year, read and comprehend literature, including stories and poetry, in the grades 2–3 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Reading Standards for Literature K-5

Key .					
	Key Ideas and Details				
	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	-	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.	÷	Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
7	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the text.	5	Determine a theme of a story, drama, or poem from details in the text; summarize the text.	6	Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
mi	Describe characters in a story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	ю	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).	мi	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the text (e.g., how characters interact).
Craf	Craft and Structure				
4	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.	4	Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., Herculean).	4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
ហ់	Refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.	ம்	Explain major differences between poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text.	rų.	Explain how a series of chapters, scenes, or stanzas fits together to provide the overall structure of a particular story, drama, or poem.
ý	Distinguish their own point of view from that of the narrator or those of the characters.	9	Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.	ė,	Describe how a narrator's or speaker's point of view influences how events are described.
Inte	Integration of Knowledge and Ideas				
۲.	Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting).	23	Make connections between the text of a story or drama and a visual or oral presentation of the text, identifying where each version reflects specific descriptions and directions in the text.	7	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).
œί	(Not applicable to literature)	œi	(Not applicable to literature)	œ	(Not applicable to literature)
ത്	Compare and contrast the themes, settings, and plots of stories written by the same author about the same or similar characters (e.g., in books from a series).	oi .	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.	ത്	Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
Rang	Range of Reading and Level of Text Complexity				
0.	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2-3 text complexity band independently and proficiently.	ō.	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	ō.	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4-5 text complexity band independently and proficiently.

Appendix B Copy of Survey Codebook

Study Purpose:

This study investigated the extent to which pre-service teacher training programs prepare preservice teachers on the reading process and pre-service teachers' knowledge, implementation, and self-efficacy toward reading curriculum, assessment, and instruction.

Research Question(s):

- 1. To what extent are graduating pre-service teachers knowledgeable about teaching reading, including curriculum, assessment, and instruction?
- 2. How does knowledge about curriculum, assessment, and instruction relate to preservice teachers' perceptions of preparedness for teaching reading?
- 3. What is the relationship between teacher education preparation and the application of content knowledge in reading instruction during field experiences?

Independent Variables:

Gender (categorical)
Age (continuous-text box)
Ethnicity (categorical)
Level (categorical)
Grade level preference (categorical)
University (categorical)
Curriculum knowledge (continuous-Likert)
Assessment knowledge and implementation (continuous-Likert)
Instruction knowledge and implementation (continuous-Likert)

Dependent Variables:

Self-efficacy (continuous-Likert)

Instructions to participants:

"The following statements concern your beliefs about experiences during your teacher education experiences, reading in particular. Although some of the items are similar, there are differences between them, so please treat each one as a separate question. Read each item carefully and respond using the scale provided."

DEMOGRAPHIC VARIABLES

Name	Item		
lastname	Last name of participant		
firstname	First name of participant		
gender	What is your gender?		
	(1) Female (2) Male (3) Other		
age	What is your age in years?		
	- Text box		
ethn	(1) White/Caucasian	(5) Asian American/Asian	
	(2) African American/Black	(6) Puerto Rican American	
	(3) American Indian	(7) Other Latino	
	(4) Mexican American/Chicano		
stand	(1) Freshmen	(4) Senior	
	(2) Sophomore	(5) Other	
	(3) Junior		
glpref	(1) Preschool - Kindergarten		
	(2) First – Third		
	(3) Fourth – Sixth		
uni	(1)	(5)	
	(2)	(6)	
	(3)	(7)	
	(4)		

SURVEY CONSTRUCTS

cur	Construct examining foundational knowledge of reading cur riculum
assess	Construct examining knowledge and implementation of assess ment techniques in reading
inst	Construct examining degree to which foundational knowledge is implemented during inst ruction
eff	Construct examining feelings of eff icacy in curriculum, assessment, and instruction
openend	Feedback on how to improve learning about reading curriculum, assessment, and instruction

Reading Preparation CURRICULUM

Following is a set of elements that refer to your experiences with reading preparation. Please read each item carefully and select your initial response.

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

	In reading development, I understand the role of	
cur1	phonemic awareness	
cur2	phonics	
cur3	fluency	
cur4	vocabulary	
cur5	comprehension	
cur6	semantic cueing system	
cur7	syntax cueing system	
cur8	graphophonics cueing system	
cur9	Common Core State Standards	

Curriculum:

Addresses a student teacher's foundational knowledge of elements related to reading curriculum, including: the Big 5, the reading process, and common core standards.

Reading Preparation ASSESSMENT

Following is a set of items that refers to a variety of experiences with regards to your reading preparation. Please read each item carefully and select your initial response.

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

	When evaluating reader behaviors, I understand the role of
assess1	diagnostic assessments
assess2	formative assessments
assess3	summative assessments
assess4	anecdotal records
assess5	checklists
assess6	interest inventories
assess7	interviews
assess8	conferencing
assess9	portfolios
assess10	rubrics
assess11	standardized tests
assess12	student self-assessments
	When evaluating reader behaviors, I have analyzed the results of
assess13	diagnostic assessments
assess14	formative assessments
assess15	summative assessments
assess16	anecdotal records
assess17	checklists

assess18	interest inventories
assess19	interviews
assess20	conferencing
assess21	portfolios
assess22	rubrics
assess23	standardized tests
assess24	student self-assessments

Assessment:

Addresses a student teacher's understandings and implementation of elements related to assessment, including: diagnostic, formative, summative, anecdotal records, conferencing, portfolios, rubrics, standardized tests, and student self-assessments.

Reading Preparation INSTRUCTION

Following is a set of items that refers to a variety of experiences with regards to your reading preparation. Please read each item carefully and select your initial response.

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

	When planning reading lessons, I consider
inst1	phonemic awareness
inst2	phonics
inst3	fluency
inst4	vocabulary
inst5	comprehension
inst6	semantic cueing system
inst7	syntax cueing system
inst8	graphophonics cueing system
inst9	Common Core State Standards
	In my reading instruction, I have implemented these approaches
inst10	read alouds
inst11	shared reading
inst12	interactive reading
inst13	guided reading
inst14	independent reading
inst15	Core curriculum (basals, anthology, teacher's manuals, etc.)
inst16	Reading Workshop mini-lessons
inst17	Reading Workshop conferencing
inst18	Reading Workshop share time
inst19	"think aloud" strategies
inst20	key comprehension strategies: questioning, predicting, summarizing, clarifying, etc.
inst21	self-monitoring strategies

Instruction:

Addresses a student teacher's understandings and implementation of elements related to instruction including: Common Core standards, Balanced Literacy (read aloud, shared reading, interactive

reading, guided reading, independent reading), Core Curriculum, Reading Workshop, pedagogy – zone of proximal development, Cambourne's Conditions, gradual release of responsibility, modeling, comprehension, and self-monitoring strategies.

Reading Preparation EFFICACY

Following is a set of items that refers to a variety of experiences with regards to your reading preparation. Please read each item carefully and select your initial response.

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

	I feel confident with my ability to plan and implement lessons related to		
effc1	phonemic awareness		
effc2	phonics		
effc3	fluency		
effc4	vocabulary		
effc5	comprehension		
effc6	semantic cueing system		
effc7	syntax cueing system		
effc8	graphophonics cueing system		
effc9	Common Core State Standards		
effa1	diagnostic assessments		
effa2	formative assessments		
effa3	summative assessments		
effa4	anecdotal records		
effa5	checklists		
effa6	interest inventories		
effa7	interviews		
effa8	conferencing		
effa9	portfolios		
effa10	rubrics		
effa11	standardized tests		
effa12	student self-assessments		
effi1	read alouds		
effi2	shared reading		
effi3	interactive reading		
effi4	guided reading		
effi5	independent reading		
effi6	Core curriculum (basals, anthology, teacher's manuals, etc.)		
effi7	Reading Workshop mini-lessons		
effi8	Reading Workshop conferencing		
effi9	Reading Workshop share time		
effi10	Zone of Proximal Development		
effi11	Cambourne's Conditions for optimal learning		

effi12	Gradual Release of Responsibility
effi13	"think aloud" strategies
effi14	key comprehension strategies: including questioning, predicting, summarizing, clarifying, etc.
effi15	self-monitoring strategies

Perceived self-efficacy:

Addresses a teacher's overall confidence in affecting student learning through knowledge of curriculum (effc), assessment (effa), and instruction (effi).

Opened ended question: Based on your teacher preparation program, what would you change to better prepare yourself for teaching reading in the classroom?

Appendix C Semi-structured Interview Questions

Interview Time: 30 – 45 minutes **Interviewer:** Brittany D. Hagen

Timeline: Spring 2015

Consent: Consent for being interviewed was indicated by interviewees by clicking "Yes, I agree to participate" on the survey portion of this research. Inform the participant they are under no obligations to participate in the project and may end the interview at any time they wish. Inform participant that the interview will take about 30 - 45 minutes

- 1. Tell me what you learned about being a teacher through your courses, field experiences, and now student teaching.
 - a. What beliefs and practices did you learn about reading in particular?
- 2. In your opinion, which part of your teacher preparation has most positively influenced your beliefs and practices? Why? How?
- 3. Have your beliefs about reading instruction changed as a result of your student teaching experience? How?
 - a. What do you think the teacher's role is in reading education?
- 4. Tell me about the lesson planning process for reading instruction.
 - a. Where do you begin?
 - b. What resources do you utilize?
 - i. What influences the use of those resources?
 - c. Have you taught the lesson?
 - i. Did teaching the lesson go according to planned?
 - ii. What would you do differently?
- 5. Tell me a time when your teacher preparation connected/linked to your work with real students during student teaching. Please explain.
- 6. What challenges have you faced when trying to apply your beliefs about reading instruction into practice?
 - a. Did any person/setting/event affect the application of your beliefs?
- 7. What do you wish you would have learned more about in your teacher preparation?
 - a. What would have helped you feel more prepared?
 - b. Was there repetition? Gaps?

Appendix D Lesson Plan Rubric

	Criteria	Distinguished (4)	Proficient (3)	Basic (2)	Unsatisfactory (1)
Curriculum (InTASC 4)	Understanding The teacher candidate possesses deep knowledge of content and learning progressions in the discipline(s) s/he teaches.	Mastery of content knowledge and learning progressions allow flexible adjustments to address learners at their current level of understanding to either remediate or deepen their understanding.	Displays thorough content knowledge. Instructional practices reflect understanding of learning progressions within the discipline.	Displays basic content knowledge. Instructional practices indicate some awareness of learning progressions, although such knowledge may be incomplete or inaccurate.	Displays minimal content knowledge. Instructional practices indicate little awareness of learning progressions and such knowledge is incomplete or inaccurate.
	Implementation The teacher candidate engages students in learning experiences in the discipline(s) s/he teaches that encourage learners to understand, question, and analyze ideas from diverse perspectives so that they master the content.	Creates an interactive environment where learners take the initiative to understand, question and analyze ideas from diverse perspectives within the discipline.	Applies strategies designed to engage learners in understanding, questioning, and analyzing ideas from diverse perspectives within the discipline.	While not always effective, attempts to apply strategies designed to engage learners in understanding, questioning, and analyzing ideas from diverse perspectives within the discipline.	Does not apply strategies designed to engage learners in understanding, questioning, and analyzing ideas from diverse perspectives within the discipline.
	Analysis The teacher candidate understands how to analyze curriculum to determine its value in the classroom.	Models and demonstrates the process for using curriculum and content knowledge to guide planning and instruction	Uses curriculum and content knowledge to guide planning and instruction.	Beginning to use curriculum and content knowledge to guide planning and instruction.	Curriculum and content knowledge is not used to guide planning and instruction.
Assessment (InTASC 6)	Understanding The teacher candidate understands the range, types, purposes, and impact of assessments that are linked to learning objectives and knows how and when they are appropriate to use.	Demonstrates mastery of formative and summative assessments and uses assessments that vary in range, type, purpose, and are linked to learning objectives.	Demonstrates a thorough understanding and appropriate use of formative and summative assessments that are linked to learning objectives.	Demonstrates a basic understanding and use of formative and summative assessments that may or may not be linked to learning objectives.	Demonstrates a minimal understanding of the types of assessments and their use.
	Implementation The teacher candidate works independently and collaboratively to use both formative and summative assessments to identify student learning needs and strengths to inform instruction.	Analyzes and interprets a variety of student assessment data, independently and with colleagues, resulting in a continuous feedback loop of effective assessment informing effective instruction.	Analyzes, and interprets a variety of student assessment data, independently and with colleagues, to identify individual student learning needs, trends, and patterns among groups of learners to inform instruction.	Analyzes, and interprets limited student assessment data independently and with colleagues and/or assessment data is sometimes used to identify student learning needs.	Uses assessment solely as a means of determining a grade and/or neither examines assessment data independently with colleagues to inform decisions.
	Analysis The teacher candidate understands how to analyze and report assessment data to guide planning and instruction and provide students with effective descriptive feedback to guide their progress	Models and demonstrates the process for providing descriptive and specific feedback to individual learners and involves them in examining and assessing their work.	Uses test and performance data to guide planning and provide effective feedback to learners that aids in the improvement of the quality of their work.	Beginning to use test and performance data to guide planning and provide learners with feedback for improving the quality of their work.	Assessment data is not used to guide planning and instruction or inform learners of their progress.
8)	Understanding The teacher candidate plans learning experiences that meet students' needs and are aligned to learning goals and standards (content and/or curriculum).	Planning reflects understanding of prerequisite relationship between goals and standards. Proactive in anticipating misconceptions and prepares to address them.	Planning for learning experiences are aligned with learning goals and standards and are designed to meet student needs.	Planning for learning experiences demonstrate an attempt to align with goals, standards, and student needs.	Planning is not adequately aligned with learning goals and does not demonstrate an understanding of student needs.
Instruction (InTASC 8)	Implementation Uses a variety of instructional strategies to support and expand learners' communication with various audiences through speaking, listening, reading, writing, and other modes.	Uses instructional strategies to create an interactive environment where learners independently select and use a variety of communication modes.	Uses instructional strategies that provide regular opportunities for learners to develop and use a variety of methods for communicating to various audiences.	Sometimes uses instructional strategies that provide opportunities for learners to communicate. May not allow for a variety of methods for communicating to various audiences.	Rarely uses instructional strategies that provide opportunities for learners to communicate.
	Analysis The teacher candidate evaluates and adjust plans based on student learning needs.	Is able to predict and plan ahead to customize instructional plans based on student needs.	Uses information gained from assessment findings to customize instructional plans and tailors instruction based on student needs.	Occasionally customizes instructional plans based on assessment findings, modifying as needed based on student needs.	Does not evaluate or customize instructional plans according to learners' learning differences or needs.

Appendix E Lesson Plan Reading Component Checklist

The table below is used to identify how frequently the participant mentioned each component of reading curriculum, assessment, and instruction in their lesson plan, either explicitly or inferred.

Participant ID					
	Components	Frequency	Explicit	Inferred	
	Phonemic awareness				
	Phonics				
	Fluency				
Ε	Vocabulary				
nĮn	Comprehension				
Curriculum	Semantic cueing system				
Cm	Syntax cueing system				
	Graphophonics cueing system				
	Common Core State Standards				
		Totals			
	Diagnostic assessments	otais			
	Formative assessments				
	Summative assessments				
	Anecdotal records				
nt	Checklists				
me	Interest inventories				
ess	Interviews				
Assessment	Conferencing				
7	Portfolios Rubrics				
	Standardized tests				
	Student self-assessments				
		Totals			
	Read alouds				
	Shared reading				
	Interactive reading				
	Guided reading				
	Independent reading				
uo	Core curriculum (basals, anthology)				
cti	Reading Workshop mini-lessons				
nstruction	Reading Workshop conferencing				
Ins	Reading Workshop share time				
	"Think aloud" strategies				
	Self-monitoring strategies				
	Key comprehension strategies: including questioning,				
	predicting, summarizing, clarifying, etc.				
	Totals				
	1 otais				

Appendix F Lesson Plan Formats

Format 1: University B – Backwards Design

Teacher:	Date:			
Class/Time:	Room Number:			
Number of Students:	Grade Level:			
Anticipatory Set:				
Objectives:				
Standards:				
Materials:				
Procedures:				
Adaptations/Differentiation:				
Curriculum Connections:				
Closure:				
Lesson Evaluation				

Format 2: University C - edTPA Lesson Plan Format

- 1. Objectives & Standards
 - Learning Objectives
 - Content Objective
 - "I CAN" Statement
 - Behavioral Objective
- 2. <u>Language</u> (list vocabulary, academic language demands, communication functions)
 - Key vocabulary
 - Academic Language
- 3. Materials Needed
- 4. Prior Knowledge/ Justification/ Prerequisite Learning
- 5. Procedure
 - Introduction/Motivation/Anticipatory Set
 - Instructional Strategies (direct instruction, modeling, demonstration, etc.)
 - o Guided
 - Independent
 - Closing: (activity to summarize or review of content objectives of the lesson).
- 6. <u>Accommodations/Modifications-</u> to instruction, activities and assessments based on specific needs of students in your classroom
 - Extension/Enrichment
- 7. Assessment of Learning- Must be directly connected to the learning objective(s)
 - Checks for understanding during lesson instruction
 - Formative or summative assessments after instruction

Format 3: University F - Understanding by Design

Descriptive Data Teacher: Lesson Topic: Grade Level: Teaching Date(s):	
Stage 1 – Desired Results	
Content Standards/Goals:	
Understandings:	
Essential Questions:	
Knowledge:	
Skills:	
Stage 2 – Assessment Evidence	
Performance Tasks:	
Other Evidence:	
Evaluative Criteria:	
Stage 3 – Learning Plan	
Preparation Prior to Teaching	
Pre-Assessment: Differentiated Instruction: Accommodations: Technology: Extensions & Enrichment: Sources:	
Procedure for Teaching	
Step-by-Step Lesson Flow: Materials:	
Reflection following Teaching	

Planning: What is the purpose of the lesson? Main goal?

What are the objectives and/or Standards (CCSS)? Are the objectives listed in such a way that you understand what the students should know when they complete the lesson? In other words, it should be stated exactly what the students will be able to do at the end of the lesson. Another teacher should be able to know what should be taught after reading the definition and seeing the objectives. For elementary grades, state the objectives as "I can..." statements.

Standards:

Objectives:

What materials or technology equipment will I need to have ready before class?

Am I considering and differentiating for the needs and backgrounds of all my students? Is the lesson developmentally appropriate? Is student prior knowledge identified? What do students need to know to be successful with this lesson?

Do I have a backup plan for anything that may not work due to equipment or time constraints?

Research

Where did you find background knowledge for this lesson? List websites, if used.

Rationale

• Why is this lesson important for students?

Focus Questions

• What do you want your students to learn from this lesson?

Learner Outcomes & Standards

- What will your students be able to do as a result of this lesson? Label them as knowledge, skills, or dispositions.
- Which standards are targeted with this lesson?

Materials & Resources

- What materials, texts, etc., will you need for this lesson?
- What technological resources (if any) will you need?

Learner Factors

- How does this lesson accommodate different developmental levels of students?
- What instructional strategies will you use (cooperative learning, direct instruction, discovery learning, whole group discussion, independent study, interdisciplinary instruction, concept mapping, inquiry)?
- How will you group your students for instruction (whole, small, cooperative, independent)?

Assessment Activities

• What tools will you use to determine what the students know and are able to do during and as a result of this lesson?

Reflection

• What questions will you ask yourself to reflect on the lesson?

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