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Special Education Teacher Perceptions of Effectiveness and Knowledge in Literacy Instruction: Implications of Literacy Coaching

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Special Education Teacher Perceptions of Effectiveness and Knowledge in Literacy Instruction: Implications of Literacy Coaching

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Abstract

Students with reading disabilities need explicit and systematic instruction provided by teachers knowledgeable in effective literacy instruction (Foorman & Torgesen, 2001; Moats, 1999; Piasta, Connor, Fishman, & Morrison, 2009). The National Reading Panel report (2000) outlines five areas necessary for effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Knowledge in these five areas is imperative to providing explicit instruction for students' struggling with reading (IDA, 2010; Moats, 1999). However, special education teachers often report being ill-prepared to provide the necessary instruction needed by students with reading disabilities (Amendum, 2014; Kennedy & Sheil, 2010).

Literacy coaching is an effective form of professional development which supports teachers in classroom literacy instruction (ILA, 2015a). It has shown to improve teachers' knowledge and understanding of literacy; furthermore, this knowledge and understanding impacts student achievement (Amendum, 2014; Kennedy & Sheil, 2010). However, there was limited research found on the impact of literacy coaching for teachers of students with reading disabilities.

The study explored relationships perceived knowledge and confidence levels of effective literacy instruction for students with reading disabilities. Correlational analysis using additional variables was employed. These variables included grade levels taught and years of experience teaching students with reading disabilities. Additionally, the study explored professional development opportunities reported by participants which impacted current perceived knowledge and confidence levels in the theory and practice for effective literacy instruction for students with reading disabilities. Furthermore, the study examined the relationships between participants receiving literacy coaching and those without literacy coaching and perceived knowledge and confidence levels in the theory and practice necessary to grow in literacy acquisition.

The results of the study revealed literacy coaching impacts participants' knowledge and confidence in the theory and practice of effective literacy instruction for students with reading disabilities. Participants with literacy coaching are more likely to perceive themselves as knowledgeable and confident in the theory of literacy instruction as outlined by the National Reading Panel report (2000). However, the practice of explicit instruction was statistically different in reported knowledge and confidence levels of participants than knowledge and confidence in theory outlined by the National Reading Panel report (2000). Furthermore, participants indicated professional development and literacy coaching provided the greatest impact on the current perceived knowledge and confidence.

Acknowledgements

This dissertation is a contribution to my community, which I believe will support the same desire that educational reform efforts and visions all agree on: All children can be successful learners. It is my hope that this dissertation is the beginning of work which will continue to support such efforts and visions.

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Chapter I: INTRODUCTION

Students with reading disabilities often need explicit and systematic instruction (Foorman & Torgesen, 2001; Moats, 1999; Piasta, Connor, Fishman, & Morrison, 2009). Explicit teaching of literacy requires knowledge in all components of literacy including: phonemic awareness, phonics, fluency, vocabulary, and comprehension (Moats, 2014; NICHD, 2000). Special education teachers of students with reading disabilities indicate being ill-prepared and lack knowledge in the components of literacy to provide the necessary explicit instruction for students with reading disabilities after teacher preparation college (McCombes-Tolis & Feinn, 2008). Of notable concern, special education teachers are often responsible for providing literacy instruction to students with reading disabilities and do not report being prepared to meet the needs of the students (Spear-Swerling, Brucker, & Alfano, 2005). Professional development including literacy coaching is one method of supporting teachers who report being ill-prepared or are lacking knowledge to provide explicit and systematic literacy instruction to students with reading disabilities (Amendum, 2014; Kennedy & Sheil, 2010).

In 2013, Minnesota implemented an initiative titled *World's Best Workforce* or WBWF. The initiative emphasis aims to prepare all students for career and college. World's Best Workforce (MDE, 2013) asserts by the year 2018, 70% of occupational positions will require a degree higher than a high school diploma. According to the Minnesota Department of Education's graduation rates, in 2015, students with disabilities were less likely to graduate from high school than those students without disabilities (MDE, 2015). Therefore, a need to provide support for students with disabilities to attain a high school diploma and potentially

achieve post-secondary educational studies is necessary. Ultimately, all students, including those with disabilities, need to be prepared to be career and college ready, which includes being proficient in reading and writing (NCLB, 2002; WBWF, 2013).

Significant numbers of students diagnosed with disabilities trail their peers in achieving grade-level literacy standards on Minnesota State examinations (MDE, 2015). During the 2015 school year, Minnesota State assessments indicated approximately 40% of students receiving special education services met standards in reading. The Minnesota average proficiency for all demographic groups was approximately 60%. Students with disabilities lag behind grade-level peers in achieving proficiency on Minnesota State examinations. Therefore, these students are in need of explicit instruction to make accelerated gains in reading and writing (Foorman & Torgeson, 2001; MDE, 2015).

Teachers delivering instruction to students with reading disabilities need to be prepared and knowledgeable in explicit literacy instruction (Moats, 1999). However, significant numbers of special education teachers report not being prepared after college graduation to teach students with significant needs in reading and writing (McCombes-Tolis & Feinn, 2008). Yet, these teachers are expected to teach students who need the most intensive, explicit, and systematic literacy instruction (McCombes-Tolis & Feinn, 2008). Studies suggest a greater probability for teachers with knowledge in content and pedagogy are more likely to address the needs of students struggling with literacy acquisition (Bos, Mather, Dickson, Podhajski, & Chard, 2001; Cunningham, Etter, Platas, Wheeler, & Campbell, 2015; Spear-Swerling & Zibulsky, 2014). However, universities identify challenges in preparing special education teachers as a result of various factors, including a broad focus of study (Bos

et al., 2001; Brownell et al., 2012; Leko, Brownell, Sindelar, & Kiely, 2015; McCombes-Tolis & Feinn, 2008).

Students with reading disabilities need explicit teaching with a focus on research-based literacy instruction (Spear-Swerling & Zibulsky, 2014). The National Reading Panel (NICHD, 2000) cited five instructional areas regarding the theory of reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Additionally, balanced literacy frameworks were found to be the most promising for addressing the needs of students developing in reading (Darling-Hammond, 2010; Vacca et al., 2012). Finally, students with reading disabilities require explicit and systematic instruction in reading beyond the content provided in the general education classroom setting (Foorman & Torgensen, 2001; Moats, 1999; Piasta et al., 2009).

Effective reading instruction requires great knowledge and skill (IDA, 2010). According to Moats (1999), teachers need knowledge of literacy acquisition to meet the needs of struggling readers. In addition, Vernon-Fegans et al. (2012) pointed out professional development, which includes literacy coaching, supports underprepared teachers. Literacy coaching is a form of professional development aimed at supporting teachers in classroom literacy development (International Literacy Association, 2015a). Literacy coaching has been demonstrated to support teachers and in turn promotes student literacy growth (Elish-Piper & L'Alier, 2011). When schools with strong and supportive leadership teams provide coaching, teachers are more likely to participate and provide effective instruction (Atteberry & Bryk, 2011). However, Amendum (2014) contends that the minimal empirical studies, in regards to the effects of coaching, are still in the early stages of research. Furthermore, limited research

was found related to the impact of literacy coaching, specifically with special education teachers.

The study will explore special education teacher knowledge and confidence levels in implementing explicit instruction and the theory of effective literacy instruction provided by the NRP. Additionally, this study will explore the role that literacy coaching support has for teachers in developing greater knowledge and confidence in the ability to deliver effective instructional practices for students with reading disabilities (NICHD, 2000; Vacca et al., 2012). The study examines practices which support students with reading disabilities and include the five instructional areas outlined by the NRP (Foorman & Torgesen, 2001; Lerner & Johns, 2012; Strickland, Boon, & Spencer, 2013; Swanson & Vaughn, 2010). Finally, the study explores professional development impacting special education teachers' knowledge and confidence levels for effective literacy instruction.

Statement of the Problem

Literacy coaching is an effective way of addressing professional development for teachers to gain knowledge and understanding of effective literacy instruction. Literacy coaching reflects positively on student outcomes in the classroom; further research is necessary to continue to support these developments (Amendum, 2014; Atteberry & Bryk, 2011; Kennedy & Sheil, 2010). The review of literature revealed limited research supporting literacy coaching for special education teachers. It also presented the underscored value of literacy coaching for special education teachers working with students with reading disabilities. Furthermore, only limited research was located discussing the impact literacy coaching has on special education teachers and their perceptions of effectiveness at

addressing the needs of students with reading disabilities. Effective reading instruction is well understood and helpful for all students, yet less is known about supporting special education teachers and about opportunities to become effective in supporting learners with reading disabilities (Klinger, Urbach, Golos, Brownell, & Menon, 2010).

Purpose of the Study

The purpose of the study is to examine the perceptions of special education teachers in a large Minnesota school district. The perceptions focus on literacy knowledge and confidence levels of the theory and practice necessary for literacy growth for students with reading disabilities. Knowledge and confidence levels of effective literacy instruction include the theory base outlined by the National Reading Panel Report (2000), which include instruction in these five areas:

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension

Furthermore, the study focuses on effective literacy practices for students with reading disabilities, which includes explicit instruction. Additionally, the study explores professional development, which select special education teachers perceive to impact current knowledge and confidence levels. Finally, the study examines the impact literacy coaching had on select special education teachers.

Research Questions

The research questions align with the problem statements and purposes of a study (Mills & Gay, 2016). Research questions provide an action plan for the development of the study and identify instruments to provide the necessary data collection tools to respond to the research questions (Mills & Gay, 2016).

The following research questions guided this study:

1. How did respondents report their knowledge and implementation of effective reading instruction to students with reading disabilities?
2. What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?
3. How do respondents with literacy coaching report on the benefits of coaching?
4. How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with reading disabilities?

Significance of the Study

Literacy coaching is an effective way to support teachers in meeting the reading and writing needs of students in the classroom (Vernon-Fegans et al., 2012). Teachers participating in literacy coaching believe it to be an effective opportunity to support the needs of struggling readers (Neuman & Cunningham, 2009). Coaching supports a teacher's growing knowledge base and students' gains are also directly impacted by classroom teachers increased literacy and explicit teaching methods (Piasta et al., 2009). However, there was limited research identified regarding the impact of literacy coaching on the perceptions of

effectiveness and the knowledge of literacy of special education teachers teaching students exhibiting reading disabilities.

Professional development, including literacy coaching, impacts general education teachers' perceptions of effectiveness, knowledge, and student growth (Neuman & Cunningham, 2009; Piasta et al., 2009). However, according to Copeland, Keefe, Calhoon, Tanner, and Park (2011), it is unknown or unclear if teachers of students struggling with literacy acquisition and those with reading disabilities are actually prepared to meet the needs of the students they service (p. 128). Copeland et al. (2011) pointed out the scarcity of research to indicate whether teachers are prepared to meet the needs of students with significant needs in literacy. Thus, further research is necessary to determine the importance of professional development for special education teachers of students with reading disabilities which contains an emphasis on literacy coaching (Moats, 1999). Professional development displaying improvements in knowledge will have positive effects on teacher preparation (Spear-Swerling et al., 2005). Also, Sayeski, Gormley, Budin, and Bennett (2015) indicate the increasing need of research to determine instructional practices providing the best support for the development of content and pedagogical knowledge (p. 88).

Delimitations

Roberts (2010) defines *delimitations* as the boundaries of a study. Delimitations are in the control of the researcher, make clear what will be included in the study, and what will be left out (Roberts, 2010). The study was limited to licensed special education teachers of students with reading disabilities. Participants were located in a select, large school district outside of the Twin Cities metropolitan area in Minnesota. Participants were limited to those

currently teaching students with reading disabilities and have individual education plans (IEP). The district selected provided professional development which focused on literacy and literacy coaching for special education teachers in primary and intermediate grade levels with limited professional development offered at the secondary levels.

The study was limited to a specific time of the school year and the number of responses received from participants necessary to garner enough data to support statistical significance. Such decisions afforded the researcher sufficient respondents to use inferential statistics with variables to include respondents with literacy coaching and those without. The researcher limited the study to one component within the definition of literacy (reading) due to the breadth of the other components within the definition of literacy: oral language, writing, and word work. Finally, the study was limited to a district which provides literacy coaching as one of the main opportunities for professional development.

Assumptions of the Study

Roberts (2010) defines assumptions of a study as those outcomes the researcher will "take for granted relative" to the study (p. 139). The study was focused on k-12 special education teachers in a large district outside of the Twin Cities metropolitan area in the State of Minnesota currently teaching special education and serving students with reading disabilities. The assumptions of this study were as follows:

- Study participants responded to survey questions openly and honestly and provided reflective responses of their current perceptions.
- Study participants had completed sufficient preparation programs to be licensed teachers of students with special education needs in the State of Minnesota.

- Study participants responded to the study voluntarily.
- Study participants and the researcher were free of bias towards social, cultural, ethnic, environmental, and ecological factors (Lyon & Moats, 1997)

Definition of Terms

There are a number of terms whose acquisition will assist the reader to more accurately understand the purpose and findings of the study.

Explicit teaching: Instruction which identifies the content and the concepts to be taught (Lerner & Johns, 2012). It may include examples of concepts, step-by-step strategies, experiences, frequent feedback, and adequate practice (Lerner & Johns, 2012).

Fluency: Fluency includes the following components: accuracy, reading speed or rate, prosody or intonation, stress, and phrasing (Fountas & Pinnell, 2009; Reutzel & Cooter, 2016).

Literacy: The International Literacy Association (2015b) defines literacy as "the ability to identify, understand, interpret, create, computer, and communicate using visual, audible and digital materials across disciplines and in any context" (Para. 1). The study focuses on reading and the instructional components of reading.

Literacy Coach:

> A person who is primarily responsible for improving classroom instruction by supporting teacher learning and facilitate literacy program efforts. They collaborate with individual and groups of teachers via coaching and professional learning activities to improve classroom, grade-level, departmental, and school wide literacy teaching and learning. (International Literacy Association, 2015b)

*Phonemic Awareness: "*The ability to notice, think about, and work with individual sounds in spoken words" (Lerner & Johns, 2012).

Phonics: Letter-sound correspondences and spelling patterns (NICHD, 2000).

*Reading Comprehension: "*The process of constructing meaning while reading text" (Fountas & Pinnell, 2009, p. 543).

Special Education Teachers:

> Work with students who have a wide range of learning, mental, emotional, and physical disabilities. They adapt general education lessons and teach various subjects, such as reading, writing, and math, to students with mild and moderate disabilities. They also teach basic skills, such as literacy and communication techniques, to students with severe disabilities. (United States Department of Labor, 2015)

Students with Disabilities in Reading: Students with a goal in reading on their individual education plan (IEP).

Teacher Preparation College: Schooling required to obtain a degree and licensure in special education.

Vocabulary: Knowledge of words and their meanings.

Organization of the Study

The contents of the study include five chapters, references, and appendices. Chapter I contains an introduction, purpose of the study, research questions, significance of study, delimitations, assumptions, definition of terms, and organization of the study. Chapter II focuses on a review of the related literature. The themes include special education teacher preparation, professional development with literacy coaching, and literacy approaches for students with reading disabilities. These themes supported the study. Chapter III provides a review of the research design and the methodology of the study. Chapter IV furnishes an analysis of the data and findings based on the study results. Chapter V delineates a summary of the results, conclusions based on those results, and recommendations. References and appendices support the research citations and study design.

Chapter II: REVIEW OF THE LITERATURE

The review of related literature focuses on three areas: pre-service training for special education teachers in literacy, professional development including literacy coaching, and literacy approaches for students with reading disabilities. Explored teacher preparation topics include: teacher quality, variable paths to licensure, university challenges and special education teachers' perception of readiness to teach literacy to students with reading disabilities. Next, the review of related literature focuses on how and why school leaders support literacy professional development for teachers, including literacy coaching and the impact coaching has on teacher perceptions of effectiveness and student achievement.

The final theme in the review of related literature focuses on literacy and instruction appropriate for students with disabilities in reading and writing. The research explores the National Reading Panel report from 2000. Additionally, the research explores effective literacy practices and characteristics special education teachers require to effectively teach students with reading disabilities.

Preservice Training for Special Education Preparation

Introduction. It is necessary for school leaders to be aware of the concerns and the impact special education licensure preparation programs have on student achievement and teacher retention (Darling-Hammond, Chung & Frelow, 2002; Feng & Sass, 2013). There are numerous, prominently discussed concerns within the literature encompassing special education teacher preparation. The shortage of special education teachers is one such prevalent concern (Brownell, Hirsch, & Seo, 2004). Billingsley and McLeskey (2004)

described teacher shortages in special education as "…severe, chronic, and pervasive, [which] threatens the quality of educational services that students with disabilities receive" (p. 2).

Teacher shortages elicited non-traditional licensure opportunities in order to fill the overwhelming need for special education teachers (Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005; Nougaret, Scruggs, & Mastropieri, 2005; Thorton, Peltier, & Medina, 2007). Such teacher demand has aligned with the influx of programs providing alternative pathways to licensure (Darling-Hammond et al., 2002). Furthermore, Nougaret et al. (2005) note the prevalence of such shortage and will not diminish in the near future. Consequently, this shortage is making it necessary for schools and districts to hire unlicensed or nontraditionally licensed teachers to support the need for special education teachers in great number of classrooms (Nougaret et al., 2005).

In addition to concerns surrounding teacher shortages and alternative licensures, traditional teacher preparation programs report difficulty in preparing teachers to meet the literacy needs of students with disabilities due to the broad focus of topics necessary before entering the field of special education (Brownell et al., 2012). The broad focus of teacher preparation programs pose concerns about the quality of special education teachers entering the field (Brownell et al., 2012; Leko et al., 2015). Finally, teacher perceptions of being prepared and effective vary (McCombes-Tolis & Feinn, 2008). Therefore, federal and state lawmakers, as well as special education leaders, district leaders, and building leadership, need to be cognizant to better support special education teachers entering schools (Nogaret et al., 2005).

Licensure acquisition and impact. Special education teacher preparation often exists in traditional university settings where teacher candidates are getting a bachelor's or master's degree specific to special education, yet there is no typical path for obtaining a license to teach special education (Nougaret et al., 2005). There are multiple possibilities for obtaining a license to teach special education (Darling-Hammond et al., 2005; Nougaret et al., 2005). Special education teachers may not only acquire a degree through a traditional 4-year program offered by universities, but may also pursue licensure through certification programs after noneducation-related 4-year degrees are earned (Darling-Hammond et al., 2005; Nougaret et al., 2005). Alternative and variance licensing programs are also available as provisional routes to obtain licensure (Darling-Hammond et al., 2005; Nougaret et al., 2005).

These varying routes provide opportunities for school leaders to remedy concerning teacher shortages. However, alternative licensure programs vary in quality and retention of the teacher candidates participating in these programs (Brownell et al., 2004). Not all teachers entering special education are being prepared to address such language and literacy specifics partially due to some alternative special education licensure programs offered to support the teacher shortage facing schools and districts (Nougaret et al., 2005).

Teacher certification matters in how teachers are prepared to meet literacy needs of students and student achievement (Feng & Sass, 2013; Nougaret et al., 2005). Recent studies indicate teacher preparation and the types of preparation can impact student achievement (Darling-Hammond et al., 2005; Feng & Sass, 2013; Nougaret et al., 2005; and Piasta, Connor, Fishman, & Morrison, 2009). The importance of having full credentials for special education teachers is explicitly noted in a study conducted by Darling-Hammond et al. (2005).

Teachers with a full certification in teaching are more effective at meeting literacy needs of students than teachers from alternative certification programs and programs providing emergency, alternative, or variance licensures (Darling-Hammond et al., 2005; Nougaret et al., 2005).

According to Darling-Hammond et al. (2005), teachers without full certification are less effective than those with a traditional certification. Furthermore, non-certified teachers have exhibited negative effects in the relationship of student achievement and teacher certification in the majority of assessments used within the study (Darling-Hammond et al., 2005, pp. 16-17). Certification impacts both teacher effectiveness and student achievement (Feng & Sass, 2013). Feng and Sass (2013) refer to teacher certification in special education as "associated with higher student achievement in special education courses" (p. 132). This was true for both reading and mathematics.

Nougaret et al. (2005) conclude teachers with traditional certification credentials in special education are better prepared than teachers with alternative or emergency licenses to teach special education. Fully-credentialed special education teachers from traditional teacher college preparation programs are more prepared and effective than those obtaining a teaching license and certificate in a non-traditional manner and are not fully credentialed (Darling-Hammond et al., 2002; McCombes-Tolis & Feinn, 2008; Nougaret et al., 2005). Additionally, teachers with full certification are not only more effective, but student achievement is higher for those students taught by fully-certified teachers (Darling-Hammond et al., 2005; Feng & Sass, 2013; Nougaret et al., 2005; Piasta et al., 2009). However, even traditional university

teacher preparation programs face challenges in preparing high quality special education teachers (Brownell et al., 2012).

Universities providing traditional licensure opportunities note challenges in addressing such a broad focus and the depth of study necessary for high quality special education teachers (Brownell et al. 2012, Copeland et al., 2011, Leko et al., 2015). High quality special education teachers are defined by Leko, Brownell, Sindelar, and Murphy (2012) as those encompassing the following characteristics:

> Extended preparation in special education, knowledge in how to teach reading and mathematics, ability to apply their knowledge to their pedagogical practices, high levels of student engagement, strong classroom management, ability to adjust instruction for the needs of the individual, motivation to improve their instruction and a sense of self-efficacy. (p. 2)

Thus, the focus must go beyond the ability to teach reading, writing, and mathematics. It must also include "…additional knowledge about disabilities, teaching basic skills to struggling readers, student motivation and classroom management, and social skill development" (Brownell et al., 2012, p. 392). Such broad focus of study in preparation programs is associated with spending the minimum time required on reading and writing theory and practices (McCombes-Tolis & Feinn, 2008).

Perceived challenges at the university level for providing literacy instruction to teacher candidates of students with disabilities vary (Brownell et al., 2012; McCombes-Tolis & Feinn, 2008; Podhajski, Mather, Nathan, & Sammons, 2009). Copeland et al. (2011) interviewed university teacher educators in programs for candidates prepared to work with students with "extensive support needs" (p. 130). Challenging themes beyond a broad context of knowledge (federal, state, and local policies and classroom practices) included teaching literacy courses in a university setting and literacy instruction related specifically to the

unique challenges of students with disabilities (Copeland et al., 2011). Often teacher candidates in programs did not have knowledge of the general education reading programs, making it difficult for teacher educators to teach literacy courses offered at the university level. Finally, university faculty participants indicated challenges in regards to the introduction of required state and federal mandates (Copeland et al., 2011). Challenges at the university level lead to difficulties addressing all the needs of special education teacher candidates, especially in reading (Copeland et al., 2011). As a result, a great number of special education teachers feel inadequately prepared to teach reading effectively after initial teacher preparation programs (McCombes-Tolis & Feinn, 2008).

Teacher shortages, varying paths to special education licensure, and traditional university program challenges are notable concerns within the review of related literature. Leko et al. (2012) simply state, "providing special education teachers with high-quality training is necessary and worthy work" (p. 1). The challenges leadership teams face stem from teacher shortages, multiple pathways to licensure, and broad focuses and depth necessary for high quality special education teachers.

Teacher perceptions of preparedness. Special education teachers have varying perceptions of their ability to meet the literacy needs of students with reading disabilities (Darling-Hammond et al., 2002). Perceived preparation and lack thereof may come from the broad focus and multiple reading programs special education teacher preparation programs are accountable (Brownell et al., 2012; Copeland et al, 2011). Furthermore, special education teachers are often responsible for meeting the needs of the most seriously impacted students

and may not be prepared to meet those student needs in literacy (McCombes-Tolis & Feinn, 2008; Spear-Swerling et al., 2005).

According to a study done by McCombes-Tolis and Feinn (2008), two-thirds of special education teachers in a Northeastern State admitted their teaching preparation program as not having adequately prepared them to teach children in kindergarten through third grade to read. However, these teachers were responsible for meeting the needs of students recognized as struggling readers or those with reading disabilities (McCombes-Tolis & Feinn, 2008). The majority of the participating special education teachers indicated teacher preparation programs did not prepare them to teach students how to read. Subsequently, teachers in this study expressed a need for research regarding best teaching practices to meet student needs in reading (p. 262). Furthermore, about one-third of special education teachers in the study indicated confidence meeting the needs of students struggling with literacy in the classroom. These results were based on teacher preparation programs attended by the participants.

Bos et al. (2001) studied the perceptions and knowledge of pre-service and in-service teachers using an assessment tool referenced as the Teacher Knowledge Survey (TKS). According to Bos et al. (2001), although pre-service special education teachers had more knowledge about early, systematic literacy instruction than their general education counterparts, they still scored below two-thirds correct on the TKS. Furthermore, the actual knowledge of the participants is lower than the teachers' perceptions of their knowledge for reading. Bos et al. (2001) state, "These results suggest that educators who are directly

responsible for teaching children how to read have relatively limited knowledge about the structure of the English language" (p. 114).

In a study conducted by Washburn, Joshi, and Cantrell (2011) regarding pre-service elementary teachers and knowledge of literacy acquisition in phonemic awareness, phonics, and vocabulary, the researchers found the number of teachers able to accurately identify phonics principles is particularly troublesome. Washburn et al., (2011) state in the study:

> Effective reading instruction includes teaching phonics systematically, therefore, it seems logical that explicit knowledge of phonics principles is needed to teach decoding and spelling. Therefore, the fact that approximately half of the PST's [pre service teachers] in this study were able to correctly identify when to use certain reliable phonics principles is worrisome. (p. 37)

Knowledge of effective reading instruction is necessary to provide instruction for students struggling with literacy acquisition (Washburn et al., 2011). However, teachers preparing to work with students struggling with literacy acquisition are not as knowledgeable as they perceive themselves (Bos et al., 2001).

Spear-Swerling (2009) also raised questions about the accuracy of teacher perceptions of knowledge and actual knowledge. In a study regarding teacher knowledge development, Spear-Swerling (2009) discovered teacher candidates lack the knowledge on several reading tasks and perform below the ceiling on knowledge tasks even after course instruction. Participants' perceived preparedness was much higher than actual knowledge and preparedness, which is concerning (Spear-Swerling, 2009).

General education teachers may believe it is not their responsibility to meet the needs of struggling readers in the classroom and also are not prepared with the necessary literacy knowledge to provide explicit instruction (Washburn et al., 2011). Some general education

classroom teachers indicate they are not responsible for addressing needs of students with emergent literacy development and perceive this as someone else's responsibility (McCombes-Tolis & Feinn, 2008). Consequently, interventionists, such as special education teachers, become responsible for addressing phonemic awareness and phonics instruction (early and emergent literacy skills) of struggling readers and students with disabilities. However, due to the lack of preparation and knowledge about literacy, it is possible special education teachers may not be sufficiently qualified to intervene (McCombes-Tolis & Feinn, 2008). Perceived lack of preparation and lack of knowledge introduces "…the possibility for some children to miss out entirely on this key component of literacy instruction" (Bos et al., 2001; McCombes-Tolis & Feinn, 2008, p. 261). Of notable concern is specialists in buildings are providing instruction to the most seriously impaired students and the knowledge base of these teachers may be lacking (Spear-Swerling et al., 2005, p. 289).

Leadership. Even special education teachers trained and specialized in disabilities are often not aware of the literacy needs for students with disabilities (Moats, 2014). Additionally, these same special education teachers may not be aware of the explicit teaching necessary to accelerate literacy growth (Moats, 2014). As a special education teacher, Moats (2014) reflects on her own teacher preparation and practice to meet the needs of her students:

> None [schooling] had provided me with theoretically sound perspectives that made sense in explaining good and poor reading, and I was unable to see what was confusing to my students or how to respond to them. I for years was unconsciously unskilled, although licensed with a Master's degree and 'specialist' title. (pp. 75-76)

Solely pre-service teacher preparation is not sufficient to support teachers working with students with disabilities (Piasta et al., 2009).

Further understanding of the support for teachers with emergency credentials or non-traditional certification is needed. In addition, school leaders may consider the broad focus of knowledge special education teachers require, as well as the depth of content and pedagogical knowledge necessary to meet struggling readers' needs. This understanding will help school leaders' better support special education teachers in meeting the needs of students with reading disabilities (Nougaret et al., 2005).

Leko et al's. (2012) definition of high quality special education teachers, which includes an array of knowledge, underscores the necessity to further support special education teachers once in the schools. Special education teachers' perception on ability varies and school leaders can support teachers by facilitating quality professional development (Billingsley, 2002). Effective reading instruction is well understood and helpful for all students, yet less is known about the support for teachers and learning opportunities to become effective in supporting learners with disabilities in reading and writing (Klinger et al., 2010).

Professional Development and Literacy Coaching

Introduction. Beyond intensive teacher preparation programs for special education teachers, there is a need for increased ongoing professional development in the teaching field (Spear-Swerling et al., 2005). Building on teacher knowledge impacts instruction, therefore it is important for leaders in schools and districts to be aware of research-based and quality professional development which focuses on literacy (Cunningham et al., 2015). Teachers participate in quality professional development to expand their knowledge and to have more instructional impact with their students (Bell, 2013; Brownell et al, 2004). Also, teachers

receiving quality professional development are more likely to use the knowledge they learned in the classroom and become more responsive to their student needs (Dingle, Brownell, Leko, Boardman, & Hagger, 2011). Quality professional development, including a focus on content and pedagogical knowledge and coaching, results in greater outcomes in student achievement, as well as improved teacher perceptions of literacy instruction (Kennedy & Shiel, 2010; Neuman & Cunningham, 2009).

Participation and instructional impact of quality professional development. Districts can support schools, administrators, and teachers by providing quality professional development and promoting instructional leadership within the school (Sanzo, Clayton, & Sherman, 2011). Furthermore, it is important to bridge the leadership of school and district administration with special education resource teachers in order to further prepare teachers with the necessary requisite to work with students with disabilities (Sanzo et al., 2011). This partnership establishes opportunities where students receive the most current and effective literacy practices (Sanzo et al., 2011). Teachers further trained in literacy instruction are more likely to use learned instructional practices and strategies for students with disabilities (Goldman, Aldridge & Worthington, 2004). Additional course work and professional development for special education teachers can help support students with disabilities to make gains in literacy (Cunningham et al., 2015; Elish-Piper & L'Allier, 2011; Goldman et al., 2004; Neuman & Cunningham, 2009; Spear-Swerling & Zibulsky, 2014).

A number of professional development models, including literacy coaching, professional learning communities, and teacher study groups, promote significant student outcomes and develop teacher pedagogical and content knowledge (Cunningham et al., 2015;

Neuman & Cunningham, 2009). Teachers of literacy requisite high-quality professional development opportunities; opportunities which support the specific processes of literacy development, as well as the most recent research-based instructional approaches (Moats, 1999). Teachers can improve their knowledge and skill with focused professional development (Podhajski, et al., 2009). Podhajksi et al. (2009) state, "special and general education teachers must receive supportive, professional development in the explicit, systematic teaching of reading" (p. 414). School leaders may benefit from being cognizant of professional development opportunities, which support special education teachers in learning about explicit and systematic reading instruction (Leko & Brownell, 2009).

School leaders should know quality professional development is successful when it includes key components as outlined by Cunningham et al. (2015):

> (1) is intensive and ongoing, (2) includes a sequence of active learning experiences that build on each other, (3) emphasizes specific skills and goals rather than general ones, (4)provides opportunities for application and practice of newly acquired knowledge and skills and, (5) incorporates feedback as well as reflection and self-assessment. (p. 64)

According to Cunningham et al. (2015), teachers participating in a professional development model as indicated above significantly improve their knowledge base in both content and pedagogy and significantly improve classroom instructional practices. As a result of quality professional development, including practical application in the classroom, student outcomes also significantly improve (Cunningham et al., 2015, p. 72). Neuman and Cunningham (2009) indicate quality professional development "…improved the quality of the structural and process features of the language and literacy environment" (p. 556). Quality professional development enhances teacher knowledge base, instructional practices, and the literacy environment (Cunningham et al, 2015; Neuman & Cunningham, 2009).

Teachers need to be willing to participate in quality professional development opportunities (Kennedy & Shiel, 2010). Such willingness to participate impacts instructional decisions (Dingle et al., 2011). Teachers are motivated to participate in professional development by a desire to support and teach based on student needs (Bell, 2013; Brownell et al, 2004). Likewise, teachers participate in literacy professional development to learn more about reading to be better able to meet the needs of the students they teach (Bell, 2013; Brownell et al., 2004). A key motivator for teachers is to extend their own knowledge to better meet the needs of learners (Bell, 2013, p. 109). Specifically, special education teachers are more responsive to student needs when they are provided with and willingly participate in professional development opportunities. These opportunities may include monthly meetings, collaboration online, coaching, and reflection of practice. Such opportunities help teachers make changes in their instruction and develop lessons based on their professional development (Dingle et al., 2011).

Quality professional development increases teachers' knowledge base (Brady et al., 2009). Consequently, teacher knowledge base impacts classroom instruction (Spear-Swerling & Zibulsky, 2014). Brady et al. (2009) indicate first grade teachers participating in professional development, which includes mentorship or literacy coaching, increase their knowledge base on specific topics provided in professional development. Furthermore, Brady et al. (2009) state, "Knowledge base sets the stage for quality application in the classroom" (p. 428). According to Spear-Swerling and Zibulsky (2014), teachers' participation in research-based professional development significantly improves their knowledge base and positively impacts instruction in the classroom. The more teachers know about a content area, the more

instructional time is devoted to the specific content area (e.g., phonemic awareness, phonics, fluency, vocabulary, and comprehension).

Moats (2014) and Spear-Swerling and Zibulsky's (2014) reflections on teacher preparation reinforces the need for a strong understanding of content and pedagogy. Professional development, which focuses on pedagogy and content knowledge, is an essential element. Such professional development can be provided through professional readings in the five instructional areas of literacy noted in the National Reading Panel report (Kennedy & Shiel, 2010; NICHD, 2000). Furthermore, providing research-based professional development opportunities can support teachers in content and pedagogical knowledge of literacy instruction and will positively impact classroom instruction (Spear-Swerling & Zibulsky, 2014).

Quality professional development focused on literacy should include content knowledge and pedagogical components (Cunningham et al., 2015; Spear-Swerling & Zibulsky, 2014). Teachers indicate improvement in ability and confidence to work with students' literacy development after receiving a strong content knowledge base through quality professional development (Kennedy & Shiel, 2010). Moreover, teachers with more knowledge and confidence improve students' confidence and literacy scores (Kennedy & Shiel, 2010).

Literacy coaching. Quality professional development enhances instructional practices. Furthermore, professional development, including coaching, greatly impacts classroom instructional practices. Neuman and Cunningham (2009) state,

> Professional development plus coaching seems to matter. Participants who received coursework and coaching demonstrated higher quality practices, after taking into

> account pretest measures of quality, than counterparts who received no treatment or course-based professional development only. (p. 556)

There are numerous professional development models used in schools (Cunningham et al., 2015; Neuman & Cunningham, 2009). However, the focus in the related literature is on professional development with literacy coaching (Kennedy & Shiel, 2010; Neuman & Cunningham, 2009). Literacy coaching, along with quality research-based professional development, results in more effective practices in the classroom, as well as greater student outcomes (Cunningham et al., 2015; Elish-Piper & L'Allier, 2011; Neuman & Cunningham, 2009; Spear-Swerling & Zibulsky, 2014). Additionally, coaching can focus on specific skills-based instruction for teachers, which can reinforce both content and pedagogical knowledge (McCollum, Hemmeter, & Hsieh, 2013). According to a study focusing on coaching around research-based literacy skills, prekindergarten teachers with coaching on specific skills were more likely to use these skills in the classroom (McCollum et al., 2013). In general, it was determined teachers participating in literacy coaching show impact classroom quality, as well (McCollum et al., 2013).

The coaching model can vary, but there are a few commonalities to occur within most coaching scenarios: relationships, knowledgeable other, content knowledge and leadership support (Kennedy & Shiel, 2010). Kennedy and Shiel (2010) state, "A key element of the change process was the nature of the relationship between the facilitator (a teacher educator) and the participants" (p. 374). However, having another adult in the classroom can feel evaluative and cause the teacher to become anxious (Gerstein & Morvant, 1995). Gerstein and Morvant (1995) reinforce the need for a trusting relationship and a coaching opportunity where the "teachers [are] encouraged to suggest strategies and define instructional problems

on their own, rather than to consistently comply with suggestions" (n.p.). Cognitive coaching is a unique form of coaching which supports teachers and provides an opportunity for non-judgmental, self-directed learning (Costa & Garmston, 2002). This type of coaching supports building relationships, building on a knowledgeable other, and providing support in the development of content and pedagogy through expanding the internal state of mind of the teacher being coached (Costa & Garmston, 2002; Kennedy & Sheil, 2010).

Literacy coaching is an effective model of professional development to support the growth of teachers' literacy knowledge and students' literacy growth (Amendum, 2014; Kennedy & Sheil, 2010). Amendum's (2014) study focused on professional development programs and literacy approaches to include ongoing professional development, along with a balanced literacy instructional framework. According to Amendum, students' participation in programing, including a teacher being coached, made sizeable gains on four of the reading assessments used as a measure within the study. Amendum (2014) noted:

> During the study members of the teaching team noted the positive aspects of the ongoing coaching, including additional learning, accountability, and deepened understandings. Teachers also noted the significant progress made by students, which may have even reduced the number of first-grade students at the school at risk of reading failure. (p. 370)

Coaching is an effective way at increasing teacher knowledge and increasing students' literacy growth (Amendum, 2014; Kennedy & Shiel, 2010).

Students make more progress in literacy when their teachers participate in professional development with coaching (Vernon-Feagans et al., 2012). Carlisle and Berebitsky's (2011) survey examined literacy coaching and professional development. It included teacher attitude towards professional development, instructional practices provided in the classroom, and student outcomes. The study was designed to investigate the effects professional development

had on students, as well as teachers' instruction and attitudes towards literacy instruction. Carlisle and Berebitsky (2011) incorporated two groups of teachers, one of which received coaching and professional development (PD Coach) and the other group of teachers received professional development as a standalone (PD No Coach). The results from the two groups vary in the three areas investigated. Based on a study of teacher attitude and knowledge of reading concepts, there were minimal differences between the two groups, yet there was a significant difference on student outcomes when looking at at-risk students in each of the participants' classrooms:

> That is, students in PD Coach classrooms were significantly more likely to move to lower risk categories than their peers in PD No Coach classrooms…Put simply, an initially at-risk student had a much better chance of improving over the year if he or she was in a PD Coach classroom. (Carlisle & Berebitsky, 2011, pp. 790-791)

Professional development with opportunities to work with literacy coaches can be effective at raising students' literacy outcomes (Amendum, 2014; Carlisle & Berebitsky, 2011; Vernon-Feagans et al., 2012) A study on the implementation of a research-based intervention approach for struggling readers conducted by Vernon-Feagans et al. (2012) indicated struggling readers receiving support from teachers involved in professional development, and weekly or biweekly literacy coaching, made more progress than those in the control group where no professional development with coaching was provided.

According to Amendum (2014), teacher participants in the study also changed their perceptions of teaching literacy and learning. Similarly, Kennedy and Sheil (2010) describe teachers with professional development and coaching opportunities have "…stronger beliefs in themselves and their power to change things" (p. 377). The teachers involved in the study believe their understanding of literacy improved, which increased their ability to respond to

challenges they faced daily. Coaching increases teacher confidence, which "fueled the teachers' desire to learn more about the literacy process, introduce more changes which are in-line with the research base, and share expertise with colleagues not yet involved in the intervention" (Kennedy & Shiel, 2010, p. 381). Finally, research done by Gerstein and Morvant (1995) indicated teachers "…who engaged in this coaching process realized that they could promote student learning through a variety of teaching strategies and techniques" (n.p.).

School support of literacy coaching. Sanzo et al. (2011) stated, "School districts must do a better job with the professional development of current teachers and administrators" (p. 14). Coaching provides a stronger impact when leadership is supportive and the environment of the school is supportive of the "active engagement in coaching" (Atteberry & Bryk, 2011, p. 374). Atteberry and Bryk's (2011) research considered the effectiveness of literacy coaching in schools. Findings revealed there were three major components influencing school-based coaching: "role conception, willingness to engage innovation and prior professional experience" (p. 374). It was determined more coaching occurs in schools where teachers indicate a "greater control over school wide decisions" (Atteberry & Bryk, 2011, p. 374). Coaching initiatives are complex and include many variables, but school leadership plays a key role in the effectiveness of coaching (Atteberry & Bryk, 2011).

Leaders of schools and districts need to be aware of the reasons teachers participate in professional development; quality, research-based professional development has greater instructional impact. Additionally, providing literacy coaching along with professional development shows greater impact for teachers' instruction, as well as student achievement (Amendum, 2014; Carlisle & Berebitsky, 2011; Vernon-Feagans et al. 2012). Finally, schools

with strong leadership support and teachers with greater control of school-wide decisions were more likely to partake in coaching activities (Atteberry & Bryk, 2011).

Literacy Approaches and Learning Disabilities

Introduction. It is important for school leaders to understand the most current research supporting effective literacy instruction and approaches, and the way effective teachers meet the literacy needs of students with reading disabilities. Effective teachers with more knowledge in literacy are better prepared to teach reading and align with research-based instruction (Piasta et al., 2009). Teachers' understanding of emergent literacy and their ability to apply explicit teaching in their classrooms impact student outcomes (Piasta et al., 2009). Teacher knowledge is a key component to the "…successful implementation of research-based literacy recommendations" (Spear-Swerling & Zibulsky, 2014, p. 1356). The National Reading Panel (NRP) report completed in 2000 examined areas within reading where knowledge is necessary in order to teach and reinforce students' literacy acquisition. Furthermore, knowledge is not the only matter of importance when meeting the needs of students with reading disabilities; instructional approaches are also critical to how students acquire literacy (Spear-Swerling & Zibulsky, 2014).

Effective special education teachers of literacy. Louisa Moats (1999) confirms the ability of children to learn to read regardless of the way instruction is presented. However, there are concerns some children will never learn unless presented literacy instruction in an organized and systematic way by a knowledgeable teacher on how to provide such instruction (p. 7). Moats (1999) argument persists on pointing out the difficulty of teaching reading. The researcher also notes the required expertise and knowledge in the subject area (p. 11).

Therefore, students with reading disabilities need such an expert to provide explicit, systematic instruction (Copeland et al., 2011). Unfortunately, students with reading issues may not receive the necessary expert literacy instruction by a trained, knowledgeable other due to lack of knowledge and preparation in the content and pedagogy of literacy (Brownell et al. 2012; Copeland et al., 2011).

Leko et al's (2012) definition of high quality special education teachers includes preparation in knowledge of reading, math, pedagogical practices, engagement and promoting high levels of engagement, motivation, and how to provide opportunities for students to practice self-efficacy (p. 2). Effective teachers of students with reading needs and those with reading disabilities must be capable of addressing all the components of literacy acquisition (Moats, 2014, p. 79). Effective teachers have specific knowledge in the components of reading and are more likely to teach and respond to student need (Spear-Swerling & Zibulsky, 2014). The need to be knowledgeable about literacy is necessary for effective teachers to provide the explicit and systematic literacy instruction needed for struggling readers and those with reading disabilities to make accelerated gains (Bos et al., 2001; Moats, 2014; Piasta et al., 2009). Piasta et al. (2009) conclude, "Effective teachers have acquired a highly specialized body of knowledge about language and early literacy acquisition and enact this knowledge in the classroom" (p. 245). This observation further emphasizes the need for special education teachers to have a strong knowledge base in both content and pedagogy of reading to support struggling readers and students with reading disabilities (Cunningham et al., 2015; Sayeski et al., 2015).

A further concern is the need for students with significant needs in literacy to have the most current research-based literacy instruction (Copeland et al., 2011), otherwise, students are at greater risk of falling behind. Therefore, teachers of these students need to have the most current understanding of recent and up-to-date research-based literacy strategies which meet the needs of the student populations they serve (p. 128). Furthermore, Moats (1999) determines the need of familiarity by teacher educators with research-based practices used in the classrooms. She states, "Teachers must be educated to identify, read, respect, and apply the findings of scientific research to their practice" (Moats, 1999, p. 23).

Effective special education teachers servicing students with reading disabilities need to have a strong understanding of literacy instruction, as well as pedagogical theory in support of student growth (Dingle et al., 2011). Content knowledge and pedagogical knowledge, which supports effective reading instruction, is critical in the role of developing effective special education teacher learning (Dingle et al., 2011; Leko et al., 2012). The International Reading Association's position statement on *Using Multiple Methods of Beginning Reading Instruction* (1999) states, "Teachers must have a strong knowledge of multiple methods for teaching reading and a strong knowledge of the children in their care so they can create the appropriate balance of methods needed for the children they teach" (para. 3). Teachers with the pedagogical knowledge for emergent readers are more effective and able to "…facilitate the learning process through scaffolding, linking formative assessment and differentiated instruction, implementing effective classroom management techniques, and tailoring instruction for dual language learners and children with special needs" (Cunningham et al., 2015, p. 63).

Spear-Swerling and Zibulsky (2014) correlate the amount of time teachers spend on teaching some of the specific areas of reading (phonemic awareness, phonics, and letter knowledge) to scores the teachers received on a Teacher Knowledge Survey (TKS). The study reveals a positive correlation between teacher knowledge and time teaching specific components of literacy. Therefore, teachers with greater knowledge of reading are more likely to spend time on areas of reading, such as phonemic awareness, phonics, and letter knowledge, as well as teach using research-based practices.

Additionally, in a study conducted by Brownell et al. (2012), content knowledge and pedagogical practices were examined with beginning special education teachers. It was noted that "special education teachers struggled more with pedagogical practices in reading" (Brownell et al., p. 405). The teachers in the study have knowledge of reading, but often do not implement sophisticated instructional practices and rather focused on the generic and isolated processes of literacy acquisition (Brownell et al., 2012). Content and pedagogical knowledge in reading, specifically around emergent and early literacy acquisition, is an area of need for special education teachers (Brownell et al., 2012; Leko & Brownell, 2009).

Literacy approaches. In response to a congressional request, the National Reading Panel constructed a report focusing on effective research-based reading instruction (NICHD, 2000). The National Reading Panel report (2000) indicated reading is a complex set of processes requiring a large knowledge base of the five instructional areas of reading: phonemic awareness, phonics, fluency, comprehension, and vocabulary. In addition to the five instructional areas, teachers of students with reading disabilities must be expert in teaching reading, have knowledge of English language structure, and deliver systematic,

explicit teaching of specific processes (Moats, 1999). Finally, teachers must remember to keep at the forefront of literacy instruction the reason for reading, which is to "…learn, enjoy and understand" (Moats, 1999, p. 11). The five areas of reading, language structure, explicit instruction, and the purpose for reading underscore the complex process, not just of reading, but teaching of reading, as well. Reading is rocket science (Moats, 1999)

Teaching children to read and write is a "complex process" (NICHD, 2000, sec. 2-7). The NRP report indicates there is "…no single key to success" in literacy acquisition and teaching in only one form or manner does not "…ensure that children will learn to read and write" (sec. 2-7). Fountas and Pinnell (2006) point out the complexity of thinking required for students to gain understanding of text and to further analyze and critique text (p. 41). The complex process includes strategic actions such as: solving words, monitoring and correcting, searching for and using information, summarizing, maintaining fluency, adjusting, and predicting, making connections, inferring, synthesizing, analyzing, and critiquing (Fountas & Pinnell, 2006). These 12 areas of processing occur simultaneously and teachers must be prepared to support students in assimilating, applying, and coordinating these systems of strategic actions (Fountas & Pinnell, 2006, p. 45).

Best practice in addressing the strategic processing systems in reading has been highly debated for several years (Vacca et al, 2012). *Skills based instruction* or *phonics and whole language* have been two widely used and discussed forms of teaching reading. However, Vacca et al. (2012) contend, "Teachers who use a more balanced or comprehensive approach to teaching reading will meet the needs of their students when their instructional decisions and practices reflect the interactive nature of the reading process" (p. 37). According to Vacca et

al. (2012), balanced literacy instruction was developed to intertwine the two most widely used approaches: skills-based and whole language instruction.

Balanced literacy is defined as a practice of both skills-based curricula and whole language curriculum (Vacca et al., 2012). Additionally, Kennedy and Sheil (2010) indicate the balance literacy framework includes oral language, reading, writing, and word work. Literacy should not be taught in a manner solely incorporating isolated skills-process, but rather incorporate opportunities to include all of the components of the reading process to support the meaning-making and sense-making process of literacy (Lipson & Wixson, 2009; Swanson & Hoskyn, 1998; Swanson & Vaughn, 2010).

According to a meta-analysis conducted by Swanson and Hoskyn (1998), using a balanced approach to literacy instruction is an effective approach to teaching. Whereas having a focus on skills-based instruction in isolation "…may not be appropriate as processing components seldom act independently of other processes" (p. 306). An additional study focuses on students with received interventions to balance instruction in letter identification, word work, spelling, and passage comprehension make significant gains in all areas of literacy (Amendum, 2014). Teaching literacy should be balanced and incorporate all components indicated in NRP report (NICHD, 2000; Swanson & Hoskyn, 1998; Vacca et al., 2012).

Beginning with *No Child Left Behind* (NCLB, 2002), the federal government, teachers, schools, and states had to ensure "…that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards" (sec. 1001). Beyond best

practice being highly debated, it is necessary for teachers to be aware of the most current research-based practices in support of all students' growth in literacy in order to obtain a high-quality education as charged by NCLB (Spear-Swerling & Zibulsky, 2014). Vacca et al. (2012) also noted the ongoing debate between skills-based, whole language, and balanced methodological approaches to literacy, and more so now than ever, research-based approaches to literacy are critical for teachers, schools, districts, and states to implement for all students, including those with disabilities (NCLB, 2002). Additionally, a teacher knowledgeable in multiple methods of research-based literacy is critical for differentiating instruction for students with needs in reading and writing and students with reading disabilities (IRA, 1999).

Teacher knowledge is important to support students struggling with literacy acquisition (IRA, 1999; Moats, 1999; Washburn et al., 2011). However, teacher knowledge alone "…is not sufficient; the type and amount of reading instruction also matters" (Spear-Swerling & Zibulsky, 2014, p. 1358). Beyond an expert knowledgeable teacher, students struggling with literacy acquisition need explicit instruction of skills to make accelerated growth (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). Vacca et al. (2012) describe explicit instruction as relying on research-based best practices to model skills, explain them, and then guide students "…in their acquisition of the skill or strategy" (p. 6). Current research indicates the positive impact of explicit instruction for students struggling with literacy acquisition, including students with disabilities (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). The research conducted by Foorman and Torgesen (2001) indicates, "Instruction for children who enter school with severe weaknesses in talent and

preparation for learning to read must be more explicit and comprehensive than is typically provided in the regular classroom" (p. 207).

Denton, Fletcher, Anthony, and Francis (2006) focused on intensive intervention for students with reading disabilities. Implications indicate students with persistent reading difficulties can make gains when presented with intensive interventions which provide explicit and systematic instruction (p. 464). Teacher knowledge and explicit instruction are necessary for student growth. Piasta et al. (2009) indicate the stronger knowledge base or teacher, the more likely (and effective) they are at providing explicit instruction.

National reading panel topics and strategies. Providing explicit instruction within the five areas outlined by the NRP report is critical to supporting students with reading disabilities (Piasta et al., 2009). Knowledge in these areas is necessary for teachers of students with disabilities in reading and writing. The five areas outlined include phonemic awareness instruction and phonics instruction, fluency, vocabulary instruction, and comprehension instruction (NICHD, 2000). Each topic in the NRP's report was intensively studied. The panel collected, and was guided by, research based on strict methodology. The five areas were closely examined and the panel published the recommendations for congress and then disseminated the information (NICHD, 2000).

Phonemic awareness. Phonemic awareness gains attention within the reading world (Vacca et al., 2012). Lerner and Johns (2012) define phonemic awareness as the "…ability to notice, think about, and work with individual sounds in spoken words" (p. 364). The NRP (2000) describes phonemic awareness as a critical component to literacy acquisition, yet it should not be considered the only "key to success" (sec. 2-7). According to research by

Swanson and Vaughn (2010), students struggling with acquiring word-reading skills require "focused instruction in higher-level phonemic awareness skills (e.g., segmenting and blending phonemes) that are closely tied to explicit instruction in applying phonemic awareness skills to connect with word reading" (p. 490). Entry into understanding the alphabetic system required for reading can depend on a child's ability to recognize some sounds are represented by symbols within the written English language system (Lerner & Johns, 2012). Instruction with representation of these sounds using letters shows positive effect sizes for students with literacy acquisition issues, including those with reading disabilities (Foorman & Torgesen, 2001). Students with disabilities, particularly in reading, often display difficulty with distinguishing phonemes (sounds) into graphemes (print), which may impact their ability to recognize the sound symbol relationship: phonics.

Phonics. Phonics is the next area of instruction outlined in the NRP report. Noted for being an essential component to the process for beginning readers, phonics instruction is designed for students still focusing on beginning reading. It is described as letter-sound correspondences and spelling patterns (NICHD, 2000). Mastery of the alphabetic principles, such as phonics, is one of the components involved in the complex process of reading (Foorman & Torgesen, 2001). Foorman and Torgesen (2001) discuss the positive impact of explicit phonics instruction on students improving in their understanding of sound-letter correspondences and spelling. They also report through a meta-analysis that phonics instruction benefits students in grades k-6, especially when targeting students with reading disabilities (Foorman & Torgesen, 2001). Similarly, the NRP (2000) reports the impact of systematic phonics instruction on kindergarteners and first graders and concluded phonics

instruction "significantly improved the reading performance of disabled readers (i.e., children with average IQs but poor reading)" (sec. 2-94). Phonics, along with phonemic awareness encompasses the elements of the principle "alphabetics," according to the NRP report. Therefore, reading success is dependent on the "…mastery of the alphabetic principle" (Foorman & Torgesen, 2001, p. 205).

Fluency. The third component addressed by the NRP (2000) is fluency. A consensus of researchers and reading theorists agree fluency includes the following components:

- accuracy
- reading speed or rate
- prosody or intonation
- stress
- phrasing (Fountas & Pinnell, 2009; Reutzel & Cooter, 2016).

Fluency is an essential component to reading and the NRP researched approaches that supported fluency development: repeated reading and guided oral reading and the "…effect of procedures that encourage students to read more" (sec. 3-28). Repeated reading and guided oral reading instruction "improve fluency development and overall reading achievement" (sec. 3-28). In a review of fluency strategies focused on repeated reading, Strickland, Boon and Spencer (2013) found repeated reading as an effective strategy to support students with reading disabilities in increasing their reading fluency. The authors of this study state: "Repeated reading as the primary intervention, in combination with other reading interventions, or as part of a reading program has been shown to increase students' reading fluency skills and may be beneficial to promote reading comprehension, as well" (p. 15).

Reading fluency and comprehension are interrelated and supported by research with high correlations between oral reading fluency and reading comprehension (Gersten, Fuchs, Williams, & Baker, 2001).

Reading comprehension and vocabulary. The NRP (2000) asserts comprehension as a critical component to reading instruction. It was determined to have two critical instructional elements to the process: vocabulary and text comprehension. The NRP discusses these two components as closely related and they are difficult to separate. The NRP also indicated the research to support the relationship between reading ability and vocabulary. In addition, NPR points out the lack of evidence to conclude a "causal link" (NICHD, 2000, sec. 4-15). The NRP indicates there is not a "large database of studies that satisfied the NRP criteria for inclusion" (sec. 4-15) within the report, but data was included based on the most available research which indicated there are many methods to vocabulary instruction. Some methods included explicit instruction, indirect instruction, multimedia methods, capacity methods, and association methods (NICHD, 2000). In regards to vocabulary, Gersten et al. (2001) state "…students with learning disabilities typically bring less of this knowledge to the reading task than do those without disabilities, and their comprehension suffers accordingly" (p. 283).

Marie Clay (1991) defines reading as a "message-getting, problem-solving activity" (p. 6). Comprehension is at the center of reading and every act of reading must involve creating meaning of the text (Lyons & Pinnell, 2001, p. 119). The NRP (2000) reports comprehension strategies and the instruction of "cognitive strategies improve[s] reading comprehension in readers with a range of abilities" (sec. 4-47). Gersten et al. (1998) note that

research supports students with learning disabilities having limited knowledge of text structures in both narrative and expository texts (p. 282). Text structure knowledge is important to comprehension (Fountas & Pinnell, 2012). Furthermore, Gersten et al. (1998) discuss the possibility of students with learning disabilities having inefficient cognitive processing (p. 280). Therefore, it is important to teach multiple strategies for engagement of students with reading disabilities in understanding text structure, as well as engage in metacognitive strategies supporting more effective cognitive processing for comprehension (Gersten et al. 1998).

All five areas of reading instruction are important for special education teachers to understand and effectively teach. The International Dyslexia Association (IDA) (2010) further emphasizes the need to understand the reciprocal nature of these areas. The relationships between the areas outlined by the National Reading Panel report are related to the complexity of the reading process (NICHD, 2000). Sayeski et al. (2015) also indicate the need for teachers to understand the components and "their relation to each other" (p. 85). The IDA states, "Teaching reading effectively, especially to students experiencing difficulty, requires considerable knowledge and skill" (n.p.).

Leadership. School leaders must understand the critical components of reading instruction necessary to work with students struggling with reading acquisition and students with reading disabilities. Students with reading disabilities need knowledgeable and effective teachers (Dingle et al, 2011). Effective teachers are aware of multiple methods of teaching reading and have a strong understanding of content and pedagogical practices (IDA, 2010; ILA, 2015a; Sayeski et al., 2015). Students with reading disabilities need an expert and the

instruction should provide a balanced framework and research-based literacy approaches (Moats, 1999). The research-based instruction should be implemented, explicitly taught, and include strategies which support students with disabilities in the five instructional areas outlined by the NRP report, as well as teachers' knowledge of the reciprocal nature of all five areas (Foorman & Torgessen, 2001; IDA, 2010; Moats, 1999; NICHD, 2000, Piasta et al, 2009; Sayeski et al., 2015).

In conclusion, the expectation of numerous reform efforts revolves around the need for all students in America to become successful learners (Lyons & Pinnell, 2001; NCLB, 2002; WBWF, 2013). However, according to the IDA (2010), failure and underachievement are often caused by reading difficulties. Leko et al. (2012) refer to arming teachers with "…high-quality training is necessary and worthy work" (p. 1). From *Our Responsibility, Our Promise* from the Council of Chief State School Officers (2012), leadership must be aware of "…higher expectations for students have led to higher expectations of teaching and learning" (p. 27). Literacy coaching along with quality professional development increases teacher knowledge and student growth. Leadership should be aware of these opportunities for teachers in regards to the higher expectations required in schools today.

Chapter III: METHODOLOGY

Introduction

Students with reading disabilities need to be as prepared to enter the workforce as their peers (WBWF, 2013). Special education teachers require content and pedagogical knowledge in literacy to best meet the explicit and systematic instructional needs of students with reading disabilities (Moats, 1999). Professional development models for literacy vary, though models, including literacy coaching, show growth in teacher knowledge, greater belief in their ability to meet students struggling with literacy, and improved student achievement (Carlisle & Berebitsky, 2011; Kennedy & Sheil, 2010). Explicit, systematic, and research-based instruction is necessary to support students with severe weaknesses in literacy (Foorman & Torgesen, 2001). Unfortunately, special education teachers often leave teacher preparation programs feeling ill-prepared to meet the needs of students struggling with literacy (McCombes-Tolis & Feinn, 2008).

Special education teachers have to be prepared to teach a broad range of subjects, understand etiology and characteristics of disabilities, and meet the requirements of federal, state, and local laws pertaining to students with disabilities (Copeland et al. 2011). However, special education teachers often expressed their lack of preparation to address the literacy needs of students with reading disabilities (McCombes-Tolis & Feinn, 2008). Spear-Swerling and Zibulsky (2014) indicated the correlation between knowledge in literacy and the effectiveness of the teacher. Atteberry and Byrk (2011) draw attention to the positive implications from literacy coaching for classroom teachers, however, there is limited empirical research around the effects of coaching as it is still in the early stages (Amendum,

2014). Furthermore, a lack of research found on the implications literacy coaching has on the reported knowledge and perceived effectiveness of special education teachers was also evident.

Statement of the Problem

Literacy coaching is an effective way of addressing professional development for teachers to gain knowledge and understanding of effective literacy instruction. Literacy coaching reflects positively on student outcomes in the classroom; further research is necessary to continue to support these developments (Amendum, 2014; Atteberry & Bryk, 2011; Kennedy & Sheil, 2010). The review of literature revealed limited research supporting literacy coaching for special education teachers. It also presented the underscored value of literacy coaching for special education teachers working with students with reading disabilities. Additionally, only limited research was located discussing the impact literacy coaching has on special education teachers and their perceptions of effectiveness at addressing the needs of students with reading disabilities. Effective reading instruction is well understood and helpful for all students, yet less is known about supporting special education teachers and about opportunities to become effective in supporting learners with reading disabilities (Klinger et al., 2010).

Purpose of the Study

The purpose of the study was to examine the perceptions of special education teachers in a large Minnesota school district. The perceptions focused on literacy knowledge and confidence levels of the theory and practice necessary for literacy growth for students with reading disabilities. Knowledge and confidence levels of effective literacy instruction

included the theory base outlined by the National Reading Panel report which included instruction in these five areas:

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension

Furthermore, the study focused on effective literacy practices for students with reading disabilities, which included explicit instruction. Additionally, the study explored professional development which select special education teachers perceived to impact current knowledge and confidence levels. Finally, the study examined the impact literacy coaching had on select special education teachers.

Research Questions

Research questions align with the problem statements and purposes of a study (Mills & Gay, 2016). Research questions provide an action plan for the development of the study and identify instruments to provide the necessary data collection tools to respond to the research questions (Mills & Gay, 2016).

The following research questions guided this study:

1. How did respondents report their knowledge and implementation of effective reading instruction to students with reading disabilities?

2. What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?
3. How do respondents with literacy coaching report on the benefits of coaching?
4. How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with reading disabilities?

Research Design

The design of the study outlines the specific procedures utilized to appropriately analyze the research which allows the researcher to "adequately judge the results" obtained and consequently to allow others replicate the study (Roberts, 2010, p. 148). This study employed a blend of quantitative research designs using a survey to collect the data.

Survey research was used to collect opinions and answer questions (Mills & Gay, 2016). Survey research in the study collected data on special education teachers' reported perceptions of knowledge and implementation of effective literacy practices when teaching students with reading disabilities. Survey research was also applied to collect data on the types of skills teachers learned which positively impact their own learning and understanding to further support students with reading disabilities. This survey represents a cross-sectional design which is a stand-alone study (Mills & Gay, 2016).

Questions within the survey used the most current research included in the review of literature. Survey questions were a blend of structured format items such as the Likert scale response; select all applicable responses and demographic information, including number of years teaching, education level, and grade levels taught (Appendix D). Questions from the

survey were tabulated and analyzed using descriptive statistics and hypothesis testing to determine if there are relationships between categorical variables.

Respondents excluding information beyond question nine of the survey were eliminated from the pool of participants. Furthermore, survey questions, including certification levels, were also excluded from the analysis. The data from these questions proved to not be helpful in responding to the four research questions. The errors were evaluated by the researcher as faulty certification selections and it was determined the results did not yield valid data. Finally, question 18 of the survey, with a focus on coaching hours, was also determined to be faulty and the data was not sufficiently reliable to draw any conclusions.

Participants

The researcher used a nonprobability selection for sampling. This selection of sampling procedures was used because the participants were available to the researcher and they represented the characteristics necessary for the study. The study included k-12 special education teachers currently working with students with reading disabilities in a large school district in the State of Minnesota. The district services approximately 27,000 students; 16% are students with disabilities. The survey was delivered to 251 teachers. The response rate was 51%. Survey research design requires a 50% response rate (Mills & Gay, 2016) Two responses were not included due to denying consent to participating in the survey. The total number of responses, after the 11 omissions based on exclusionary factors, were 116 (n = 116) for a 46.2% response rate. The last section on literacy coaching included 65 respondents (n = 65). Of the 116 participants, 65 confirmed their opportunity to participate in literacy

coaching. All 116 participants held a valid teaching license in the State of Minnesota. Two participants, though valid, were on variance licensures. Furthermore, 88.8% of participants were responsible for the reading goals of students with reading disabilities on their current individual education plans (IEP).

This district was chosen for being known to provide some literacy coaching to special education teachers working with students with reading disabilities. This coaching primarily occurs at the elementary level (k-5). There were also similarly classified teachers without literacy coaching. This district provided two subgroups of teachers to use as variables within the study: teachers with literacy coaching and teachers without coaching. The district is also recognized for its participation in professional development in literacy for the elementary level, as well as some literacy professional development at the secondary level.

Participants worked with students with reading disabilities during the 2016-2017 school year. The number of years of teaching varies from first-year teachers to teachers with 35 years of teaching experience. Participants hold valid teaching licenses in the State of Minnesota. This sample of participants serves to address the perceived knowledge and implementation of effective reading instruction for students with reading disabilities. This sample also serves to address the implications of literacy coaching for teachers working with students with disabilities in reading.

Permission to conduct the study was obtained from the district's special education director. The researcher of the study met with the district’s special education director to propose and ask for permission to conduct the study. The author completed a request form provided by the specified district for the use of employees in this district for research

(Appendix A-C). Permission was granted and the researcher collected emails of special education teachers at five high schools (grades 9-12), six middle schools (grades 6-12), three alternative schools (various k-12), and the 18 elementary schools (k-5). Participants were sent a link to the survey through the St. Cloud State University Statistical Research Center. The study included a cover letter regarding the purpose of the study.

Human Subject Approval-Institutional Review Board (IRB)

Participants of the study were informed and granted consent to participate in this study. Anonymity was assured to participants. Data collected from the survey was not attached to participant names. Results were reported honestly and objectively. The risk of participation in this study was minimal. No minors were used in this study. Data was stored and will be destroyed after three years from the researcher's defense date.

Instruments

The overarching purpose of the survey was to solicit information from participants about their perceptions of knowledge and confidence in the implementation of effective literacy instruction and readiness to meet the literacy needs of students with reading disabilities. Furthermore, the study solicited information on teacher demographics including: years of teaching, professional development background, grade levels taught, and education levels. Finally, the survey solicited information from participants indicating their participation in literacy coaching and the perceived impact literacy coaching has had on their instruction, as well as skills they have developed through literacy coaching opportunities.

The survey was developed using Survey Monkey, a web-based survey application. The survey consisted of four sections. The first section of the survey consisted of

demographic information including years of teaching, educational background, and special education certifications. Question three on the survey was eliminated after the survey closed for further participation. The decision to eliminate question three was related to the faulty character of selections of the licensure and deemed invalid to provide support for the designated research questions. The second section of the survey included questions reporting current knowledge in effective literacy practices for students with disabilities in reading. Survey questions designed on knowledge base were constructed in connection with the work of Sayeski et al. (2015) and the key research findings related to reading development, instruction, and implementation (pp. 85- 87). Teachers were asked to reflect on confidence in their ability to implement effective literacy practices to teach students with reading disabilities. Confidence levels for effective literacy instruction included the five areas outlined with the National Reading Panel report and explicit instructions (Copeland et al., 2011; Swanson & Hoskyn, 1998). The third section consisted of questions focusing on professional development. Further courses taken after Teacher Preparation College for their initial licensure in special education were also documented (Bishop, Brownell, Klinger, Leko & Galman, 2010). The fourth section focused on information on the impact of professional development including coaching was collected. The impacts included skills gained and the participant's perception of impact on students' skill development.

The survey was piloted with a group of doctoral students from St. Cloud State University to increase reliability of responses. The pilot study provided feedback on clarity of the questions. The pilot survey was collected and reviewed. The survey was piloted again

with five select individuals from the selected school district for feedback and clarity of questions. These five individuals were excluded from the actual survey.

An initial email with a link to the survey was sent on October 3, 2016. The survey was active for 5 weeks, closing on November 7, 2016. Six reminders were sent through email where respondents were encouraged to complete the survey (Appendix A). Multiple reminders were sent due to a holiday break within the study time period and opportunities to solicit greater response rate from teachers during a designated teacher workshop (Appendices B and C). A final reminder was sent on November 3, 2016. This reminder was received a day after an email was sent by the special education director to encourage participation. Results of the survey will be shared with respondents interested in the study, the director of special education, and the district's superintendent. A copy of the survey is located in Appendix D.

The researcher created the survey based on information from the review of related literature as a guide to the proposed questions. Using Cronbach's Alpha (α) as an internal consistency measure, the survey was measured for reliability (Mills & Gay, 2016). Questions 9-16 on the survey were deemed reliable with a Cronbach's Alpha of .951 (α = .951). Questions 20 and 21 of the survey were also deemed reliable with a Cronbach's Alpha of .673 (α = .673). Table 1 reflects these results.

Table 1

Reliability Statistics of Survey Instrument

Items	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Questions 9-16	.951	.952	26
Questions 20-21	.673	.757	11

Data Collection

An email was delivered to the participants with a link to the survey created through Survey Monkey, an explanation of the study, and an introduction letter. The cover letter outlined the purpose of the research and possible future implications for special education teachers, as well as students with disabilities in reading. Participants were aware all submissions were to be anonymous and requested informed consent to participate in the study. The survey was voluntary, therefore, incentives were offered in a form of offering results of the study to participants, and results and implications were provided to the director of special education and superintendent of the specified district.

Data Analysis

Once the results were collected, the data analysis and interpretation commenced. Each research question was analyzed using the data provided from the survey results. Descriptive statistics, hypothesis testing using Chi-square (X^2), and correlational analysis using paired t-tests were applied. In this study, descriptive statistics included frequencies, central tendency measures, standard deviations, and percentages of responses. Hypothesis testing was used to determine if relationships existed between variables. The null hypothesis (Ho) indicated that no relationship existed between selected variables from the study. The alternative hypothesis (Ha) indicated that a relationship existed between selected variables from the study. Finally, significance in determining these relationships was defined by the researcher as a p-value of $< .05$ or a 95% confidence level.

Research Question One: How did respondents indicate their knowledge and implementation of effective reading instruction to students with disabilities in reading?

The author used descriptive statistics to respond to this research question. Ratings of teacher knowledge in the five instructional areas of literacy, as outlined by the NRP (2000), indicated central tendency measures and included standard deviations mean, median, and modes of respondents having no knowledge, some knowledge, knowledge, or highly knowledgeable. Descriptive statistics was also used to report the frequency of respondents indicating levels of knowledge in explicit instruction. The same analysis was applied to confidence levels of implementation of literacy instruction for the same areas of literacy.

Correlational analysis of specific groups of teachers were also be used. Subgroups, including years of teaching students with reading disabilities and educational level, were two variables analyzed. Results indicated if there was any relationship between the participants' levels of overall knowledge and confidence with these particular subgroups as independent variables. The null hypothesis (Ho) stated no relationships exist between particular subgroups, years of experience and grade levels taught, and the participants' knowledge and confidence levels. The alternative hypothesis (Ha) stated no relationships exist between particular subgroups, years of experience and grade levels taught, and the participants' knowledge and confidence levels of effective literacy instruction. Furthermore, the means of Likert responses to the five areas of the NRP and explicit teacher were examined to determine significant differences.

Research Question Two: What professional development has attributed to the participants current knowledge and implementation of effective reading instruction for students with reading disabilities?

The researcher used descriptive statistics to respond to this research question. The researcher ranked professional development opportunities based on respondents' ratings. The researcher also used central tendency measures to respond to this question and respondents overall beliefs in the impact of professional development opportunities. The ranking of professional development was analyzed using Chi-square to determine if there was a significant professional development opportunity participants indicated as being the most effective form of professional development.

Research Question Three: How do respondents with literacy coaching report on the benefits of coaching?

Descriptive statistics were used to report findings based on respondents' answers to receiving literacy coaching, hours of coaching, skills gained through coaching, and impact of literacy coaching. Examination of the relationships between the skills learned and indicated as positively impacting students and the perceived knowledge and confidence of the skill occurred. A null hypothesis (Ho) indicated that no relationship exists between selected variables, whereas the alternative hypothesis (Ha) indicated that a relationship did exist between selected variables. Chi-square analysis was used for this examination.

Research Question Four: How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with disabilities in reading?

Initial results from the study examined the relationship between the numbers of survey respondents with literacy coaching to those without coaching. Consequently, the survey results were sorted by participants with literacy coaching and those without. Next,

relationships between the participants perceived readiness in meeting the needs of students with significant needs in reading and writing and whether or not they have had coaching was determined. Finally, all participants, with and without coaching, were used to determine a relationship between perceived knowledge of literacy and readiness of meeting the needs of students with reading needs at various times in the participants careers.

Correlational research was used to determine if and to what degree a relationship exists between variables (Mills & Gay, 2016). In this study, comparative research was used to determine whether a relationship exists between special education teachers of students with reading disabilities with literacy coaching and those without literacy coaching. The null hypothesis (Ho) stated not relationship exists between selected variables, whereas the alternative hypothesis (Ha) stated a relationship did exist between the selected variables. Furthermore, the study examined how they report being able to meet the literacy needs of their students. Rationale for variables selected was driven from the review of related literature. Literacy coaching is an effective approach to providing professional development (Kennedy & Sheil, 2010). However, the research was limited to the impact it has with special education teachers.

Summary

The purpose of this research is to determine the relationships of literacy coaching and perceived knowledge and effective implementation of literacy instruction for special education teachers working with students with reading disabilities. It also aids in determining relationships between number of years teaching and the grade levels participants taught and reported effectiveness and knowledge of meeting the needs of students with reading

disabilities. Finally, this dissertation should be considered by special education, district, and building leadership to determine if literacy coaching along with literacy professional development supports special education teachers.

Chapter IV: RESULTS

Introduction

Students with reading disabilities need explicit and systematic instruction provided by knowledgeable teachers in effective literacy instruction (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). The National Reading Panel report (NICHD, 2000) outlines five areas necessary for effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Knowledge in these five areas is imperative to providing explicit instruction for students struggling with reading acquisition (IDA, 2010; Moats, 1999). However, special education teachers often report being ill-prepared to provide the necessary instruction needed by students with reading disabilities (Amendum, 2014; Kennedy & Sheil, 2010).

Literacy coaching is an effective form of professional development which supports teachers in classroom literacy instruction (ILA, 2015). It has been shown to improve teachers' knowledge and understanding of literacy; this knowledge and understanding impacts student achievement (Amendum, 2014; Kennedy & Sheil, 2010). However, there is limited research on the impact of literacy coaching for teachers of students with disabilities.

Purpose of the Study

The purpose of the study was to examine the perceptions of special education teachers in a large Minnesota school district. The perceptions focused on literacy knowledge and confidence levels of the theory and practice necessary for literacy growth for students with reading disabilities. Knowledge and confidence levels of effective literacy instruction

included the theory base outlined by the National Reading Panel report, which included instruction in these five areas:

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Comprehension

Furthermore, the study focused on effective literacy practices for students with reading disabilities, which included explicit instruction. Additionally, the study explored professional development select special education teachers perceived to impact current knowledge and confidence levels. Finally, the study examined the impact literacy coaching had on select special education teachers.

Research Design

The researcher explored quantitative research design to investigate the questions regarding this study. Mills and Gay (2016) describe quantitative research as a method of describing current conditions and investigating relationships between variables. Survey research and correlational research are two approaches to quantitative research design.

The researcher constructed a survey to include questions which were developed through the review of related literature. The survey was used to collect data and interpret relationships between specified variables. Causation of relationships was not included in the research design.

Research Questions

Research questions align with the problem statements and purposes of a study (Mills & Gay, 2016). Research questions provide an action plan for the development of the study and identify instruments to provide the necessary data collection tools to respond to the research questions (Mills & Gay, 2016).

The following research questions guided this study:

1. How did respondents report their knowledge and implementation of effective reading instruction to students with reading disabilities?
2. What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?
3. How do respondents with literacy coaching report on the benefits of coaching?
4. How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with reading disabilities?

Description of the Sample

The sample group in the study initially included 251 special education teachers currently employed in a large school district in the State of Minnesota. The researcher selected the participants with approval from the school district's director of special education. District sponsorship and approval were gained prior to teacher selection. The electronic survey was distributed to respondents through an approved email address. The researcher was given permission for the study to be allowed through district filters.

The electronic survey (Appendix D) included four sections. The first section of the survey included demographic information: years of teaching students with disabilities, licensing, level of education, and level of students serviced (primary, intermediate, secondary middle, and secondary high school). The second section of the survey contained information regarding the participants' current perception of knowledge of effective literacy instruction and his/her confidence levels in providing effective literacy instruction to students with disabilities in reading. The third section of the survey included information regarding professional development opportunities. The final section of the survey focused on literacy coaching. Participants were able to omit responding to questions throughout the survey if they deemed select questions as irrelevant. The final section of the survey was to be completed by participants with experience in literacy coaching. Those without experience in literacy coaching were excluded from responding to the final four questions of the survey.

The number of respondents totaled 128. This equated to a 51.0% response rate. Mills and Gay (2016) indicated survey response rates should achieve a 50% or higher level. The researcher excluded respondents who did not complete the survey after question nine. The respondents after exclusions totaled 116 (n = 116, 46.2%). Participants taught students with disabilities in reading from primary to secondary high school grade levels. Participants were allowed to select multiple grade levels. Table 2 describes the frequency of each grade level category and percent

Table 2

Grade Levels Serviced by Participants

Grade Levels	Frequency	Percent
Primary (k-2)	46	39.7%
Intermediate (3-5)	48	41.4%
Secondary Middle School (6-8)	27	23.3%
Secondary High School (9-12)	35	30.2%

Participants were allowed to select all applicable grade level options due to the nature of special education services provided in the selected district. Teachers teach across grade levels. Forty-six out of 116 participants taught students at the primary level (k-2) and 48 of 116 participants taught students at the intermediate level (3-5). Meanwhile, 27 of the 116 participants taught at the secondary middle school level (6-8) and 35 of the 116 participants taught at the secondary high school level (9-12).

Participants ranged in the number of years of experience they taught students with disabilities. Participants submitted the number of years they have been teaching students with disabilities in whole numbers. Responses ranged from 1 to 35 years. The results were tabulated and three categories representing years of teaching were created: 10 or less, 11-20, and 21+ years. The categories were selected to further analyze the number of years of teaching and confidence and knowledge levels. To determine if years of teaching impacted perceptions of knowledge and confidence, Table 3 presents the respondents' frequencies of years of teaching students with disabilities.

Table 3

Respondents' Years of Teaching Students with Disabilities (n = 116)

Years	Frequency	Percent
10 or less	39	33.6%
11-20	56	48.3%
21+	21	18.1%
Total	116	100%

Participants with 10 or less years of experience totaled 39 (n = 39, 33.6%). Participants with 11-20 years of experience totaled 56 (n = 56, 48.3%). Finally, there were 21 participants with 21 or more years of experience (n = 21, 18.1%).

Participants were asked to report their current level of education. Levels of education included Bachelor of Science/Bachelor of Arts (BA/BS), Master of Science/Master of Arts (MA/MS), Educational Specialists (Ed.S), and Educational Doctorate or Doctor of Philosophy (Ed.D/Ph.D). When appropriate, participants were provided the opportunity to select more than one educational level; for example, if they held a specialist degree and a doctoral degree. None of the participants reported having both of these specified degrees. However, some participants selected both BA/BS and MA/MS options. These responses were coded at the highest level of education reported by participants and the other selections (lower level) were eliminated. Participants were also provided an opportunity to select "other". Examples of responses from participants in this category reflected pay grades specific to the participating district. Some of these responses included: Masters plus 30 credits, beginning of graduate courses, starting doctoral courses, and bachelors plus 54. The six "other" responses in this were coded and placed into one of the four education level categories.

Table 4

Education Level of Participants (n = 116)

Educational Level	Frequency	Percent
BA/BS	21	18.1%
MA/MS	90	77.6%
Ed.S	3	2.6%
Ed.D/Ph.D	2	1.7%
Total	116	100.0%

Twenty-one (n = 21, 18.1%) participants held a Bachelor of Science or Arts degree. The majority (n = 90, 77.6%) of participants earned a master's degree in science or the arts.

Research Question One

The first research question for this study was related to the knowledge and confidence level of effective reading for the participants. The research question was: How did respondents report their knowledge and implementation of effective reading instruction to students with disabilities in reading?

The analysis of research question one was divided into three sections. The first section examined the participants' responses to their perceptions of overall knowledge, knowledge in the five areas of the NRP (2000), and knowledge of explicit instruction. Hypothesis testing was conducted to identify significant relationships between participants' perceived knowledge of effective literacy practices, the five areas of the NRP, explicit instruction, and the number of years the participant has been teaching students with disabilities. Hypothesis testing was also conducted to determine if there were relationships between grade levels the participants taught students with reading disabilities.

The second section related to research question one examined the participants' responses to their overall confidence level of implementation of effective literacy instruction, confidence of implementing the five literacy areas of the NRP, and their confidence in providing explicit instruction to students with disabilities in reading. Hypothesis testing was conducted to determine the significance of relationships between years of teaching students with disabilities on one hand and confidence levels on the other. Finally, hypothesis testing was conducted to examine relationships between confidence levels and the grade levels taught by the participants.

The final section of analysis related to research question one explored respondents' perceived knowledge and confidence included hypothesis testing to determine the relationship between teachers' knowledge level and their confidence level of effective literacy instruction for students with disabilities. The final section of analysis also employed with correlational research to ascertain differences between knowledge and confidence levels. Correlational research was also used to determine if there are significant differences between the five areas outlined by the NRP report: phonemic awareness, phonics, fluency, vocabulary, and text comprehension.

Section 1: Perceived knowledge

Descriptive results. In order to examine the characteristics included in this section, the researcher used questions nine and ten regarding overall knowledge and knowledge of the five areas outlined in the NRP (2000), as well as select demographic questions to conduct comparative statistical analysis. Respondents reported their overall perceived knowledge and understanding of effective literacy instruction for students with disabilities in reading. Likert

scales were used to measure responses. The Likert scale rated responses from one to four. A score of one indicated the respondent had no knowledge of the concept, a score of two indicated some knowledge, a score of three indicated knowledge and, finally, a score of four denoted very knowledgeable in the literacy concept.

On average, participants reported themselves as knowledgeable in effective literacy practices for students with disabilities in reading. Participants' mean responses on the Likert scale reflecting overall knowledge and understanding of effective literacy instruction for students with disabilities in reading was 3.1638. Table 5 reports the frequency of responses for knowledge of effective literacy practices.

Table 5

Perceived Overall Knowledge of Effective Literacy Practices (n = 116)

Response	Frequency	Percent
No Knowledge	0	00.0%
Some Knowledge	13	11.2%
Knowledgeable	71	61.2%
Very Knowledgeable	32	27.6%
Total	116	100%

Thirteen participants (n = 13, 11.2%) indicated they have some knowledge of effective literacy practices, 71 (n = 71, 61.2%) indicated they are knowledgeable, and 32 (n = 32, 27.6%) responded they were very knowledgeable. No participants indicated having no knowledge of overall literacy practices.

Respondents reported their knowledge of effective literacy instruction for students with disabilities in reading based on the research reported by the National Reading Panel

report and the research areas supporting literacy growth for students with reading disabilities, including explicit teaching (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). Table 6-11 report respondents' perceived knowledge in each of these skill areas.

Table 6

Perceived Knowledge of Phonemic Awareness (n = 116)

Phonemic Awareness	Frequency	Percentage
Some Knowledge	26	22.4%
Knowledgeable	57	49.1%
Very Knowledgeable	33	28.4%
Total	116	100%

The mean response of participants' knowledge of phonemic awareness was 3.0603. This mean indicates on average, participants expressed having knowledge of phonemic awareness. Fifty-seven (n = 57, 49.1%) respondents indicated they were knowledgeable of phonemic awareness. Thirty-three respondents (n = 33, 28.4%) reported being very knowledgeable of phonemic awareness. However, 26 respondents (n = 26, 22.4%) expressed having some knowledge of phonemic awareness.

Table 7

Perceived Knowledge of Phonics (n = 116)

Phonics	Frequency	Percentage
Some Knowledge	23	19.8%
Knowledgeable	56	48.3%
Very Knowledgeable	37	31.9%
Total	116	100%

The mean response of participants' knowledge of phonics was 3.1207. This mean indicates on average, respondents indicated were knowledgeable of the concept of phonics. Fifty-six (n = 56, 48.3%) respondents reported they were knowledgeable about phonics. Thirty-seven respondents (n = 37, 31.9%) perceived themselves as being very knowledgeable in phonics. Twenty-three (n = 23, 19.8%) indicated having some knowledge of phonics.

Table 8

Perceived Knowledge of Fluency (n = 116)

Fluency	Frequency	Percentage
Some Knowledge	18	15.5%
Knowledgeable	64	55.2%
Very Knowledgeable	34	29.3%
Total	116	100%

The mean response of participants' knowledge of fluency was 3.1379. This mean indicates on average, respondents indicated they were knowledgeable of the concept of fluency. Sixty-four respondents (n = 64, 55.2%) indicated they were knowledgeable about the

literacy concept of fluency. Thirty-four respondents reported (n = 34, 29.3%) they were very knowledgeable of the concept. Eighteen respondents (n = 18, 15.5%) indicated having some knowledge of the concept of fluency.

Table 9

Perceived Knowledge of Vocabulary (n = 116)

Vocabulary	Frequency	Percentage
Some Knowledge	16	13.8%
Knowledgeable	66	56.9%
Very Knowledgeable	34	29.3%
Total	116	100%

The mean response of participants' knowledge of vocabulary was 3.1552. The mean indicates on average, participants indicated they were knowledgeable of the concept of vocabulary. Sixty-six respondents (n = 66, 56.9%) reported of being knowledgeable of the literacy concept, vocabulary. Thirty-four respondents (n = 34, 29.3%) perceived themselves as being very knowledgeable of the concept. Sixteen respondents (n = 16, 13.8%) indicated having some knowledge of the concept of vocabulary as it related to effective literacy instruction for students with disabilities in reading.

Table 10

Perceived Knowledge of Reading Comprehension (n = 116)

Reading Comprehension	Frequency	Percentage
Some Knowledge	8	6.9%
Knowledgeable	65	56.0%
Very Knowledgeable	43	37.1%
Total	116	100%

The mean response of participants' knowledge of reading comprehension was 3.3017. This mean indicates on average, the responses of the participants indicated their perceptions were between knowledgeable and very knowledgeable. Sixty-five respondents (n = 65, 56%) reflected having knowledge. Forty-three respondents (n = 43, 37.1%) indicated being very knowledgeable. Eight respondents (n = 8, 6.9%) reported having some knowledge in the area of providing effective instruction of reading comprehension.

Of the five areas outlined by the NRP (2000), participants reported the greatest knowledge of reading comprehension. Rated somewhat lower by participants were the literacy concepts of phonics, fluency, and vocabulary, all with similar means. Phonemic awareness received the lowest mean response from participants. Reading comprehension had the highest mean, in other words, participants had more perceived knowledge of reading comprehension than other areas outlined in the survey.

Table 11

Perceived Knowledge of Explicit Teaching (n = 116)

Explicit Teaching	Frequency	Percentage
No Knowledge	6	5.2%
Some Knowledge	35	30.2%
Knowledgeable	53	45.7%
Very Knowledgeable	22	19.0%
Total	116	100%

The mean response of participants' knowledge of explicit teaching was 2.1810. This mean indicates on average, respondents indicated they have some knowledge of explicit teaching. Of the 116 respondents, 6 (n = 6, 5.2%) reported having no knowledge of explicit teaching as it relates to effective instructional practice for students with disabilities in reading. Thirty-five respondents (n = 35, 30.2%) reported having some knowledge of explicit teaching. Fifty-three respondents (n = 53, 45.7%) reported being knowledgeable. Twenty-two respondents (n = 22, 19.0%) expressed being very knowledgeable with this instructional practice for students with disabilities in reading.

Paired sample t-tests were conducted to examine differences between the respondents' knowledge of the five areas, as well as explicit teaching. The null hypothesis (Ho) for each of the pairings is that the mean on the individual reading concept is equal to the mean of the paired reading concept. The alternate hypothesis (Ha) is the mean of the individual reading concept is not equal to the paired reading concept. A confidence level of 95% or higher is

accepted as significant. Table 12 provides the mean of each of the five areas and explicit instruction. Table 13 provides the results of these paired t-tests.

Table 12

Mean Knowledge of the Five Areas Provided by the NRP and Explicit Instruction

	Mean	N	Std. Deviation	Std. Error Mean
Phonemic Awareness (PA)	3.0603	116	.71370	.06627
Phonics (PH)	3.1207	116	.71207	.06611
Fluency (F)	3.1379	116	.65801	.06110
Vocabulary (V)	3.1552	116	.64070	.05949
Text Comprehension (TC)	3.3017	116	.59300	.05506
Explicit Teaching (EX)	2.1810	116	.90984	.08448

Table 13

Paired Sample T-Tests of Mean Scores of Five Concepts of the NRP and Explicit Instruction

	Paired Differences					t	df	Sig. (2-tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
PA-PH	-.06034	.33071	.03071	-.12117	.00048	-1.965	115	.52
PA-FL	-.07759	.51332	.04766	-.17199	.01628	-1.628	115	.106
PA-V	-.09483	.67216	.06241	-.21845	.02879	-1.519	115	.131
PA-TC	**-.24138**	**.61320**	**.05693**	**-.35415**	**-.12860**	**-4.240**	**115**	**.000**
PA-EX	**-.87931**	**.95239**	**.08843**	**.70415**	**1.05447**	**9.944**	**115**	**.000**
PH-FL	-.01723	.52722	.04895	-.11420	.07972	-.352	115	.725
PH-V	-.03448	.65847	.06114	-.15558	.08662	-.564	115	.574
PH-TC	**-.18103**	**.61289**	**.05691**	**-.29375**	**-.06832**	**-3.181**	**115**	**.000**
PH-EX	**.93966**	**.97168**	**.09022**	**.76095**	**1.11836**	**10.415**	**115**	**.000**
FL-V	-.01724	.64583	.05996	-.3602	.10153	-.288	115	.774
FL-TC	**-.16379**	**.55863**	**.05187**	**-.26653**	**-.06105**	**-3.158**	**115**	**.002**
FL-EX	**.95690**	**.95455**	**.08863**	**.78134**	**1.13245**	**10.797**	**115**	**.000**
V-TC	**-.14655**	**.48011**	**.04458**	**.23485**	**-.05825**	**-3.288**	**115**	**.001**
V-EX	**.97414**	**.96424**	**.08953**	**.79680**	**1.15147**	**10.881**	**115**	**.000**
TC-EX	**1.1206**	**.91514**	**.08497**	**.95238**	**1.28900**	**13.189**	**115**	**.000**

Note: PA=Phonemic Awareness, PH=Phonics, FL=Fluency, V=Vocabulary, TC=Comprehension, EX=Explicit Instruction

The null hypothesis was accepted indicating no significant differences in respondents' knowledge of the following paired reading concepts:

- Phonemic awareness and phonics
- Phonemic awareness and fluency
- Phonemic awareness and vocabulary

- Phonics and fluency
- Phonics and vocabulary
- Fluency and vocabulary

The alternate hypothesis was accepted indicating a significant difference in respondents' knowledge of the following concepts (Note: the concept with a higher mean precedes the concept which is significantly lower in mean):

- Reading comprehension and phonemic awareness
- Phonemic awareness and explicit instruction
- Reading comprehension and phonics
- Phonics and explicit instruction
- Reading comprehension and fluency
- Fluency and explicit instruction
- Reading comprehension and vocabulary
- Vocabulary and explicit instruction
- Reading comprehension and explicit instruction

Respondents were significantly more knowledgeable in text comprehension than phonemic awareness, phonics, fluency, and vocabulary. Furthermore, respondents indicated significantly more knowledge in the five areas than with explicit instruction.

Overall, respondents indicated on average being knowledgeable in the five concepts provided by the NRP (2000): phonemic awareness, phonics, fluency, vocabulary, and comprehension. Participants' perceptions were significantly less knowledgeable with the concept of explicit teaching than the five areas of the NRP. Furthermore, reading

comprehension was rated by participants at a significantly higher level than the other four areas of the NRP report findings and explicit teaching.

Significant findings of perceived knowledge. Hypothesis testing was conducted to examine relationships between years of experience teaching with students with disabilities in reading and knowledge and confidence levels of effective literacy instruction. Testing was also undertaken to examine relationships between participants' education levels and their perceived confidences and knowledge levels. Finally, hypothesis testing was used to examine relationships between participants' grade levels served and perceived knowledge.

Years of experience and knowledge. Hypothesis testing was conducted to determine if there was a significant relationship between years of experience teaching students with reading disabilities and the participants' perceived overall knowledge of effective literacy instruction. The null hypothesis (Ho) stated no relationship existed between the years of experience and participants overall knowledge. The alternative hypothesis (Ha) stated a significant relationship existed between the years of experience and the participants overall knowledge. Chi-square statistical testing was used to examine the relationship of these two variables. Results of the test indicated a Pearson Chi-square value of .011. This p-value fell within the 95% confidence level outlined by the researcher to denote significance. Therefore, there was a relationship between years of experience and the participant's overall knowledge. Table 14 depicts the cross tabulation of this testing. Table 15 denotes the Chi-square analysis of these categories.

Table 14

Chi-square Crosstab for Overall Knowledge and Years of Experience

			Overall Knowledge			
			Some Knowledge	Knowledgeable	Very Knowledgeable	Total
How many years have you taught students with reading disabilities?	10 or fewer	Count	3	**32**	**4**	39
		Expected Count	4.4	**23.9**	**10.8**	39.0
		% within How many years taught students with disabilities?	7.7%	82.1%	10.3%	100.%
		% within overall knowledge	23.1%	45.1%	12.5%	33.6%
		% of Total	2.6%	27.6%	3.4%	33.6%
	11 to 20	Count	8	30	18	56
		Expected Count	6.3	34.4	15.4	56
		% within How many years taught students with disabilities?	14.3%	53.6%	32.1%	100.0%
		% within overall knowledge	61.5%	42.3%	**56.3%**	48.3%
		% of Total	6.9%	25.9%	15.5%	48.3%
	21 or more	Count	2	**9**	**10**	21
		Expected Count	2.4	**12.9**	**5.8**	21.0
		% within How many years taught students with disabilities?	9.5%	42.9%	47.6%	100.0%
		% within overall knowledge	15.4%	12.7%	31.3%	18.1%
		% of Total	1.7%	7.8%	8.6%	18.1%
Total		Count	13	71	32	116
		Expected Count	13.0	71.0	32.0	116.0
		% within How many years taught students with disabilities?	11.2%	61.2%	27.6%	100.00
		% within overall knowledge	100.0%	100.0%	100.0%	100.0%
		% of Total	11.2%	61.2%	27.6%	100.0%

Table 15

Chi-square Results for Overall Knowledge and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	13.136[a]	4	.011
Likelihood Ratio	13.829	4	.008
Linear-by-Linear Association	4.750	1	.029
N of Valid Cases	116		

Note: 2 Cells (22.2%) have expected count less than 5. The minimum expected count is 2.35.

The Chi-square analysis indicated teachers with greater years of experience have higher perceptions of knowledge than those with fewer years of experience. Participants with greater years of experience indicated a higher count than expected in the very knowledgeable category according to the Chi-square analysis. Participants with 11 to 20 years of experience were 56.3% more likely to perceive themselves as knowledgeable in effective teaching of students with reading disabilities. Furthermore, participants with 21 or more years of experience teaching students with reading disabilities were 31.3% more likely to perceive themselves as very knowledgeable in effective literacy practices. Participants with 10 or fewer years of experience indicated counts less than expected in the very knowledgeable category according to the Chi-square analysis. Teachers with 10 or fewer years of experience perceived themselves as more knowledgeable than expected according to the Chi-square analysis.

The second hypothesis testing conducted examined the relationship between years of experience and understanding of the five skill areas outline by the National Reading Panel report. These five areas included phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The null hypothesis (Ho) stated no relationship existed between the years of experience and knowledge of the five areas of the NRP (2000). The alternative hypothesis

(Ha) stated a significant relationship existed between the years of experience and the participants' knowledge of the five areas of the NRP. Chi-square statistical testing was used to examine the relationship of these two variables. Results of the test yielded a Pearson Chi-square value of .093. This p-value fell outside of the 95% confidence level determined by the researcher to denote significance. However, it is reasonable to state a 90.7% confidence level for the relationship between participants' years of experience and their knowledge of the five areas of the NRP (2000). Table 16 reports the cross tabulation of these data. Table 17 reports the results of the Chi-square tests.

Table 16

Chi-square Crosstab of Knowledge of NRP Concepts and Years of Experience

			Knowledge of NRP Concepts			
			Low	Medium	High	Total
How many years have you taught students with reading disabilities?	10 or fewer	Count	**10**	21	**8**	39
		Expected Count	**7.4**	17.1	**14.5**	39.0
		% within How many years taught students with disabilities?	25.6%	53.8%	20.5%	100.0%
		% within overall knowledge	**45.5%**	41.2%	**18.6%**	33.6%
		% of Total	8.6%	18.1%	6.9%	33.6%
	11 to 20	Count	10	22	24	56
		Expected Count	10.6	24.6	20.8	56.0
		% within How many years taught students with disabilities?	17.9%	39.3%	42.9%	100.0%
		% within overall knowledge	45.5%	43.1%	**55.8%**	48.3%
		% of Total	8.6%	19.0%	20.7%	48.3%
	21 or more	Count	2	8	**11**	21
		Expected Count	4.0	9.2	**7.8**	21.0
		% within How many years taught students with disabilities?	9.5%	38.1%	52.4%	100.0%
		% within overall knowledge	9.1%	15.7%	**25.6%**	18.1%
		% of Total	1.7%	7.8%	8.6%	18.1%
Total		Count	22	51	43	116
		Expected Count	22.0	51.0	43.0	116.0
		% within How many years taught students with disabilities?	19.0%	44.0%	37.1%	100.00
		% within overall knowledge	100.0%	100.0%	100.0%	100.0%
		% of Total	19.0%	44.0%	37.1%	100.0%

Table 17

Chi-square Results of Knowledge of NRP Concepts and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	7.967[a]	4	.093
Likelihood Ratio	8.445	4	.077
Linear-by-Linear Association	6.678	1	.010
N of Valid Cases	116		

Note: 1 cells (11.1%) have expected count less than 5. The minimum expected count is 3.98.

Participants with greater years of experience were more likely to express a higher knowledge base in the five skill areas outlined by the NRP (2000) than those with lesser experience. Participants with 11-20 years of experience were 55.8% more likely to perceive themselves as knowledgeable in these skill areas. Participants with 21 or more years of experience were 25.6%. Participants with 10 or fewer years of experience were 18.7% more likely to express higher knowledge of the five skill concepts in the NRP. Teachers with 10 or fewer years of experience were also 45.5% more likely to perceive lesser knowledge in the five literacy concepts.

Hypothesis testing was conducted to examine relationships between years of experience and knowledge of the explicit teaching cycle. The null hypothesis (Ho) stated no relationship existed between the years of experience and knowledge levels in explicit teaching for students with reading disabilities. The alternative hypothesis (Ha) stated a significant relationship existed between the years of experience and the participants' knowledge in effectively using explicit teaching for students with reading disabilities. Chi-square statistical testing was used to examine the relationship of these two variables. Results of the test revealed a Pearson Chi-square value of .444. This p-value fell well outside of the 95%

confidence level established by the researcher to denote significance. Therefore, the null hypothesis was accepted; there was no relationship between years of experience and teachers knowledge of the explicit teaching cycle for students with reading disabilities. The categories knowledgeable and very knowledgeable were combined to provide validity for the test. Table 18 reflects the Chi-square results for overall confidence levels and years of experience.

Table 18

Chi-square Results of Knowledge of Explicit Teaching and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	3.728[a]	4	.444
Likelihood Ratio	3.921	4	.417
Linear-by-Linear Association	1.172	1	.279
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected counts less than 5. The minimum expected count is 5.25.

The findings reveal teachers with greater number of years of experience are more likely than those with less experience to have a stronger perception of overall knowledge in literacy. Additionally, participants with greater years of experience are more likely to perceive themselves as knowledgeable with the five areas of the NRP report. However, there was no established relationship between years of experience and perceived knowledge of explicit instruction.

Grade level served and knowledge. Relationships between grade levels served and participants' overall knowledge, knowledge of the five areas outlined by the NRP, and explicit instruction were examined using hypothesis testing. Grade levels served ranged from primary (k-2), intermediate (3-5), secondary middle school (6-8), and secondary high school

(9-12). There was overlap of grade levels participants taught students with reading disabilities. These categories were combined to eliminate overlap between categories.

The first hypothesis testing was conducted to determine whether or not there was a significant relationship between the grade levels at which the participants currently provided service to students with reading disabilities and their perceived overall knowledge of effective literacy instruction. The null hypothesis (Ho) stated no relationship existed between the grade level served and participants' overall knowledge. The alternative hypothesis (Ha) stated a significant relationship existed between the grade level served and the participants' overall knowledge. Chi-square statistical testing was used to examine the relationship of the two variables. Results of the test revealed the Pearson Chi-square value was .013. The p-value fell within the 95% confidence level established by the researcher to denote significance. Therefore, the variables were deemed not independent of each other and the alternate hypothesis was accepted. Table 19 depicts the cross tabulation of these categories. Table 20 denotes the Chi-square analysis of this testing.

Table 19

Chi-square Crosstab for Overall Knowledge and Grade Levels Taught

			Grade Level Taught			
			Secondary HS	Secondary Middle School	Primary and/or Intermediate	Total
Overall Knowledge	Some Knowledge	Count	**6**	3	4	13
		Expected Count	**3.9**	2.7	6.4	13.0
	Knowledgeable	Count	24	18	29	71
		Expected Count	21.4	14.7	34.9	71.0
	Very Knowledgeable	Count	**5**	**3**	**24**	32
		Expected Count	**9.7**	**6.6**	**15.7**	32.0
Total		Count	35	24	57	116
		Expected Count	35.0	24.0	57.0	116.0

Table 20

Chi-square Results for Overall Knowledge and Grade Levels Taught

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	12.659[a]	4	**.013**
Likelihood Ratio	13.027	4	.011
Linear-byLinear Association	9.460	1	.002
N of Valid Cases	116		

Note: 2 cells (22.2%) have expected count less than 5. The minimum expected count is 2.69.

Respondents from the intermediate (3-5) and primary (k-2) grade levels were more likely than expected to perceive themselves as very knowledgeable of overall literacy instruction. Secondary high school (9-12) participants were more likely than expected to perceive themselves as having some knowledge of overall literacy instruction. Both secondary middle school (6-8) and secondary high school were less likely than expected to perceive themselves as very knowledgeable with overall literacy instruction for students with disabilities in reading.

The second hypothesis testing within the section examined the relationship between grade levels in which respondents served students in special education and their perceived understanding of the five areas outlined by the National Reading Panel report. These five skill areas included phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The null hypothesis (Ho) stated no relationship existed between the grade levels served and knowledge of the five areas of the NRP (2000). The alternative hypothesis (Ha) stated a significant relationship existed between the grade level served and the participants' knowledge of the five areas of the NRP. Chi-Square statistical testing examined the relationship of these two variables. Results of the test yielded a Pearson Chi-square value of .076. The p-value fell outside of the 95% confidence level established by the researcher to denote significance. However, it was reasonable to state with 92.4% confidence a relationship exists between grade levels participants served and their perceived knowledge of the five areas five areas of the NRP. Table 21 reports the crosstabs of these data. Table 22 reports the results of the Chi-square tests.

Table 21

Chi-square Crosstab for Overall Knowledge of NRP Concepts and Grade Levels Serviced

			Grade Level Service			
			Secondary HS	Secondary Middle School	Primary and/or Intermediate	Total
Overall Knowledge of the NRP Concepts	Low	Count	**9**	**6**	7	22
		Expected Count	**6.6**	**4.6**	10.8	22.0
	Medium	Count	14	14	23	51
		Expected Count	15.4	10.6	25.1	51.0
	High	Count	12	**4**	**27**	43
		Expected Count	13	**8.9**	**21.1**	43.0
Total		Count	35	24	57	116
		Expected Count	35.0	24.0	57.0	116.0

Table 22

Chi-square Results for Overall Knowledge of NRP Concepts and Grade Levels Serviced

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	8.465[a]	4	**.076**
Likelihood Ratio	9.006	4	.061
Linear-byLinear Association	3.625	1	.057
N of Valid Cases	116		

Note: 1 cell (11.1%) has an expected count less than 5. The minimum expected count is 4.55.

The Chi-square analysis distribution of participants across grade levels served and their perceived knowledge level was likely not due to chance. Therefore, it may be noted participants serving students at the primary (k-2) and intermediate (3-5) levels are more likely to perceive themselves as knowledgeable in the five areas of the National Reading Panel report. Also secondary high school and secondary middle school participants were likely to rank their knowledge levels lower in the five areas. Another conclusion drawn from the

relationships presented in the Chi-square analysis is secondary middle school teachers were less likely to express high levels of knowledge in the five areas.

Finally, hypothesis testing was conducted to examine relationships between the grade levels in which participants were served students with reading disabilities and their knowledge of the explicit teaching cycle. The null hypothesis (Ho) stated no relationship existed between grade levels served and knowledge levels in explicit teaching for students with reading disabilities. The alternative hypothesis (Ha) stated a significant relationship existed between grade levels served and the participants' knowledge in effectively using explicit teaching for students with reading disabilities. Chi-square statistical testing was used to examine the relationship of these two variables. Results of the test obtained a Pearson Chi-square value of .444. The p-value fell well outside of the 95% confidence level established by the researcher to denote significance. Therefore, the null hypothesis was accepted; no relationship existed between grade levels served by the participants and their knowledge in the explicit teaching cycle. Due to the limited number of responses in certain categories, knowledgeable and very knowledgeable categories were combined to execute a valid Chi-square analysis. Table 23 reflects the Chi-square results for overall confidence levels and years of experience.

Table 23

Chi-square Results of Grade Levels Serviced and Knowledge of Explicit Teaching

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	3.728[a]	4	**.444**
Likelihood Ratio	3.921	4	.417
Linear-byLinear Association	1.172	1	.279
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected count less than 5. The minimum expected count is 5.25.

Grade levels taught and years of experience of the respondents were found to influence perceptions of overall literacy knowledge and knowledge of the five areas within the NRP. Participants in the primary and intermediate grade levels had higher perceived knowledge than those in the secondary school setting. However, categories did not divulge any significant relationships in perceived knowledge of explicit teaching.

Section 2: Perceived confidence. In order to examine the characteristics included in this section, the researcher employed questions regarding confidence levels of instructional practices, as well as questions from the demographic section of the survey to conduct comparative statistical analysis. Respondents reported their overall confidence in implementing effective literacy instruction for students with reading disabilities. Likert scales were used for responses. The Likert scale rated responses from one to four. A score of one indicated the respondent was not confident in the concept, a score of two indicated some confidence, a score of three indicated confidence, and a score of four denoted very confident.

Descriptive analysis. The mean response on a Likert scale reflecting overall knowledge and understanding of effective literacy instruction for students with disabilities was 2.9828. On average, participants indicated they were confident in effectively implementing literacy practices for students with disabilities. Table 24 reports the frequency of responses for knowledge of effective literacy practices.

Table 24

Overall Confidence in Implementing Effective Literacy Instruction (n = 116)

Response	Frequency	Percent
Not Confident	2	1.7%
Somewhat Confident	25	21.6%
Confident	62	53.4%
Very Confident	27	23.3%
Total	116	100%

Twenty-five participants (n = 25, 21.6%) were somewhat confident in implementing effective literacy practices, while 62 participants (n = 62, 53.4%) were confident and 27 participants (n = 27, 23.3%) noted they were very confident.

Respondents reported their confidence level in the implementation of effective literacy instruction for students with reading disabilities, based on the research reported by the National Reading Panel report (2000) and the research areas support literacy growth for students with disabilities including explicit teaching (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). Tables 25-30 report frequencies and percentages of respondents' perceived knowledge of these areas.

Table 25

Confidence Level in Phonemic Awareness Instruction (n = 116)

Phonemic Awareness	Frequency	Percentage
Not Confident	4	3.4%
Somewhat Confident	40	34.5%
Confident	44	37.9%
Very Confident	28	24.1%
Total	116	100%

The mean response of participants' confidence level in phonemic awareness was 2.8276. Forty-four (n = 44, 37.9%) respondents indicated they were confident implementing instruction effectively in the area of phonemic awareness. Twenty-eight participants (n = 28, 24.1%) reported they were very confident in this area, while four participants (n = 4, 3.4%) expressed no confidence. Forty participants (n = 40, 34.5%) indicated they were somewhat confident in the area of phonemic awareness.

Table 26

Confidence Levels of Phonics Instruction (n = 116)

Phonics	Frequency	Percentage
Not Confident	4	3.4%
Somewhat Confident	30	25.9%
Confident	52	44.8%
Very Knowledgeable	30	25.9%
Total	116	100%

The mean response of participants' confidence in implementing effective instruction in the area of phonics was 2.9310. Fifty-two (n = 52, 44.8%) participants reported they were confident in the literacy concept, phonics. Thirty respondents (n = 30, 25.9%) revealed being very confident in phonics. Thirty (n = 30, 25.9%) participants expressed being somewhat confident. Four respondents (n = 4, 3.4%) reported having no confidence in the area of effectively implementing phonics instruction.

Table 27

Confidence Levels of Fluency Instruction (n = 116)

Fluency	Frequency	Percentage
Not Confident	4	3.4%
Somewhat Confident	29	25%
Confident	56	48.3%
Very Confident	27	23.3%
Total	116	100%

The mean response of participants' confidence level in the area of effectively implementing fluency instruction was 2.9138. Fifty-six respondents (n = 56, 48.3%) indicated they were confident with the concept of fluency instruction. Twenty-seven respondents reported (n = 27, 23.3%) they were very confident with the concept. Twenty-nine respondents (n = 29, 25.0%) expressed having some confidence with fluency instruction. Four (n = 4, 3.4%) respondents indicated having no confidence in this instructional area.

Table 28

Confidence Levels in Vocabulary Instruction (n = 116)

Vocabulary	Frequency	Percentage
Somewhat Confident	26	22.4%
Confident	64	55.2%
Very Confident	26	22.4%
Total	116	100%

The mean response of participants' confidence in effective vocabulary instruction was 3.00. Sixty-four respondents (n = 64, 55.2%) reported being confident in the literacy concept, vocabulary instruction. Twenty-six respondents (n = 26, 22.4%) revealed being very confident with the concept. Twenty-six respondents (n = 26, 22.4%) indicated being somewhat confident in the vocabulary instruction concept as it related to students with reading disabilities.

Table 29

Confidence Levels of Reading Comprehension Instruction (n = 116)

Reading Comprehension	Frequency	Percentage
Somewhat Confident	21	18.1%
Confident	58	50.0%
Very Confident	37	31.9%
Total	116	100%

The mean response of participants' confidence level of reading comprehension instruction was 3.1379. On average, respondents indicated they were confident in their ability to provide reading comprehension instruction to students with reading disabilities. Fifty-eight respondents, or 50.0%, reflected having confidence in the concept, reading comprehension instruction. Thirty-seven respondents (n = 37, 31.9%) indicated being very confident. Twenty-one respondents (n = 21, 18.1%) reported having some confidence in effective instruction of reading comprehension as it relates to students with reading disabilities.

Table 30

Confidence in Providing Instruction using Explicit Teaching (n = 116)

Explicit Teaching	Frequency	Percentage
Not Confident	32	27.6%
Somewhat Confident	42	36.2%
Confident	36	31.0%
Very Confident	6	5.2%
Total	116	100%

The mean response of participants' confidence in implementing explicit teaching was 2.1379. Of the 116 respondents, 32 (n = 32, 27.6%) indicated not being confident in instruction students with reading disabilities using explicit teaching. Forty-two respondents (n = 42, 36.2%) indicated being somewhat confident in explicit teaching. Thirty-six respondents (n = 36, 31.0%) reported being confident. Six respondents (n = 6, 5.2%) cited they were very confident with this instructional practice for students with disabilities in reading.

Paired sample t-tests were conducted to examine differences between the five areas from the NRP and explicit teaching. The null hypothesis (Ho) for each of the pairings states the mean on the individual reading concept is equal to the mean of the paired reading concept. The alternate hypothesis (Ha) states the mean of the individual reading concept is not equal to the paired reading concept. Table 31 provides the mean of each of the five areas and explicit instruction. Table 32 provides the results of the paired t-tests.

Table 31

Mean Confidence Levels of the Five Areas Provided by the NRP and Explicit Instruction

	Mean	N	Std. Deviation	Std. Error Mean
Phonemic Awareness (PA)	2.8276	116	.83693	.07771
Phonics (PH)	2.9310	116	.80998	.07521
Fluency (F)	2.9138	116	.78651	.07303
Vocabulary (V)	3.000	116	.67244	.06243
Text Comprehension (RC)	3.1379	116	.69653	.06467
Explicit Teaching (Ex)	2.1379	116	.88363	.08204

Table 32

Paired Sample T-Tests of Mean Confidence Scores of Five Concepts of the NRP and Explicit Instruction

	Paired Differences					t	df	Sig. (2-tailed)
				95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
PA-PH	**-.10345**	**.35824**	**.03326**	**-.16933**	**-.03756**	**-3.110**	**115**	**.002**
PA-FL	-.08621	.69243	.06429	-21355	.04114	-1.341	115	.184
PA-V	**-.17241**	**.77208**	**.07169**	**-.31441**	**-.03042**	**-2.405**	**115**	**.018**
PA-RC	**-.31034**	**.72728**	**.06753**	**-.44410**	**-.17659**	**-4.596**	**115**	**.000**
PA-EX	**.68966**	**.98169**	**.09115**	**.50911**	**.87020**	**7.566**	**115**	**.000**
PH-FL	.01724	.68503	.06360	-.10874	.14323	.271	115	.787
PH-V	-.06897	.73098	.06787	-.20340	.06547	-1.016	115	.312
PH-RC	**-.20690**	**.70424**	**.06539**	**-.33642**	**-.07738**	**-3.164**	**115**	**.002**
PH-EX	**.79310**	**1.00015**	**.09286**	**.60916**	**.97704**	**8.541**	**115**	**.000**
FL-V	-.08621	.66684	.06191	-.20885	.03643	-1.392	115	.167
FL-C	**-.22414**	**.57614**	**.05349**	**-.33010**	**-.11818**	**-4.190**	**115**	**.000**
FL-EX	**.77586**	**1.04745**	**.09725**	**.58322**	**.96850**	**7.978**	**115**	**.000**
V-RC	**-.13793**	**.50899**	**.04726**	**-.23154**	**-.04432**	**-2.919**	**115**	**.004**
V-EX	**.89207**	**.99474**	**.09236**	**.67912**	**1.04501**	**9.334**	**115**	**.000**
RC-EX	**1.0000**	**.99564**	**.09244**	**.81689**	**1.18311**	**10.817**	**115**	**.000**

Note: PA=Phonemic Awareness, PH=Phonics, FL=Fluency, V=Vocabulary, RC= Reading Comprehension, EX=Explicit Instruction

The means of the pairings were equal, indicating no significant differences in respondents' knowledge of the following paired reading concepts:

- Phonemic awareness and fluency
- Phonics and fluency
- Phonics and vocabulary
- Fluency and vocabulary

The means of parings were not equal, indicating significant differences in respondents' knowledge of the following concepts: (note: the concept with a higher mean precedes the concept which is significantly lower in mean)

- Phonics and phonemic awareness
- Vocabulary and phonemic awareness
- Reading Comprehension and phonemic awareness
- Reading comprehension and fluency
- Reading comprehension and vocabulary
- Reading comprehension and phonics
- Reading comprehension and explicit instruction
- Phonemic awareness and explicit instruction
- Phonics and explicit instruction
- Fluency and explicit instruction
- Vocabulary and explicit instruction

Respondents were significantly more confident with instructional practices focused on reading comprehension than phonemic awareness, phonics, fluency, and vocabulary.

Furthermore, respondents were significantly more confident in the five NRP (2000) areas than with explicit instruction. Additionally, respondents were significantly more knowledgeable with vocabulary and phonics than confident in phonemic awareness instruction.

Overall, respondents indicated on average being confident with effective instructional practices, as well as with instruction of the five NRP concepts: phonemic awareness, phonics, fluency, vocabulary, and text comprehension. However, the respondents reported significantly less confidence in explicit teaching than the five NRP concepts. Participants were significantly less confident with the concept of explicit teaching than the five NRP areas.

Significant findings of perceived confidence Hypothesis testing was conducted to examine relationships between years of experience and confidence levels; also relationships between participants' education level and confidence levels. Finally, relationships between grade levels taught and confidence levels were addressed.

Years of experience and confidence levels. The first section focused on examining years of experience and confidence levels. Results from the study question were divided into three categories: 10 years and less, 11-20 years, and 21+ years of experience. These results were used to analyze the two categories using Chi-square analysis.

The first hypothesis testing conducted was whether or not there was a significant relationship between years of experience teaching students with disabilities and the participants' overall confidence level in implementing effective literacy instruction. Likert scale options not confident and somewhat confident were combined, as were confident and very confident options to provide necessary expected cell sizes to produce valid Chi-square analyses. The null hypothesis (Ho) stated no relationship existed between the years of

experience and participants overall confidence level. The alternative hypothesis (Ha) stated a significant relationship existed between the years of experience and the participants overall confidence level. Table 33 reflects the Chi-square results for overall confidence levels and years of experience.

Table 33

Chi-square Results for Overall Confidence Levels and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	.333[a]	2	.847
Likelihood Ratio	.340	2	.844
Linear-by-Linear Association	.318	1	.573
N of Valid Cases	116		

Note: 1 cell (16.7%) have expected counts less than 5. The minimum expected count is 4.89.

Chi-square statistical testing was used to examine the relationship of these two variables. Results of the test yielded a Pearson Chi-square value of .847. This p-value did not meet the 95% confidence level established by the researcher to denote significance. Therefore, there was no significant relationship between years of experience and teachers confidence in overall effective literacy practices for students with reading disabilities.

The second hypothesis tested the relationship between years of experience and confidence in providing effective instruction within the five areas outlined by the National Reading Panel report (2000): phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The null hypothesis (Ho) stated no relationship existed between the years of experience and confidence in effective instruction of the five areas of the NRP. The alternative hypothesis (Ha) stated a significant relationship existed between the years of experience and the participants' confidence in effective instruction of the five areas of the

NRP. Chi-square statistical testing was used to examine the relationship of these two variables. Table 34 reflects the Chi-square results for overall confidence levels and years of experience.

Table 34

Chi-square Results of Confidence Levels of NRP Concepts and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	7.073[a]	4	.132
Likelihood Ratio	7.461	4	.113
Linear-by-Linear Association	4.017	1	.045
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.34.

Results of the test obtained a Pearson Chi-square value of .132. This p-value fell outside of the 95% confidence level established by the researcher to denote significance. Therefore, the null hypothesis was accepted; there was no relationship between years of experience and teachers' confidence in instruction within the five areas of the NRP (2000).

Finally, hypothesis testing was conducted to examine relationships between years of experience and confidence in instruction using explicit teaching. The null hypothesis (Ho) stated no relationship existed between the years of experience and confidence levels in effectively using explicit teaching for students with reading disabilities. The alternative hypothesis (Ha) stated a significant relationship between the years of experience and the participants' confidence level effectively using explicit teaching for students with reading disabilities. Likert scale options not confident and somewhat confident were combined, as were options confident and very confident, to provide appropriate cell sizes to produce a valid Chi-square analysis. Chi-square statistical testing was used to examine the relationship of

these two variables. Table 35 reflects the Chi-square results for overall confidence levels and years of experience.

Table 35

Chi-square Results of Confidence Levels of Explicit Teaching and Years of Experience

	Value	df	Asymp.Sig. (2-sided)
Person Chi-square	.040[a]	2	.980
Likelihood Ratio	.040	2	.980
Linear-by-Linear Association	.020	1	.887
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected counts less than 5. The minimum expected count is 7.60.

Test results yielded a Pearson Chi-square value of .980. This p-value fell well outside of the 95% confidence level established by the researcher to denote significance. Therefore, the null hypothesis was accepted; no relationship between years of experience and teachers' confidence in using explicit teaching for students with reading disabilities was evident.

Overall, there were no significant relationships between years of experience and the respondents' confidence in literacy instructional for students with reading disabilities. Furthermore, no relationships were noted for confidence in instruction using the five concepts of literacy outlined by the NRP and explicit instruction.

Grade level serviced and knowledge. Hypothesis testing was conducted to ascertain if there was a significant relationship between grade levels in which participants currently teach students with reading disabilities and perceived overall confidence in implementing effective literacy instruction. The null hypothesis (Ho) stated no relationship existed between the grade level taught and participants overall confidence. The alternative hypothesis (Ha) stated a significant relationship existed between the grade level taught and the participants overall

confidence. Chi-square statistical testing was used to examine the relationship of these two variables. Table 36 reports the results of the Chi-square analysis conducted for these variables.

Table 36

Chi-square Results for Overall Confidence and Grade Levels Taught

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	.800[a]	1	**.371**
Likelihood Ratio	.455	1	.500
Linear-byLinear Association	.805	1	.370
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.03.

Test results revealed a Pearson Chi-square value of .371. This p-value fell outside of the confidence level established by the researcher. Therefore, these variables were deemed to be independent of each other and the null hypothesis is accepted. For this analysis the Likert scale results were combined to provide a valid analysis. Not confident and somewhat confident options were combined, as well as were confident and very confident options.

The second hypothesis testing conducted examined the relationship between grade levels taught by respondents and their confidence in providing instruction in the following five areas outlined in the National Reading Panel report (2000): phonemic awareness, phonics, fluency, vocabulary, and text comprehension. The null hypothesis (Ho) states no relationship existed between the grade levels serviced and confidence of instruction of the five areas of the NRP. The alternative hypothesis (Ha) stated a significant relationship existed between the grade level taught and the participants' confidence in instruction in the five areas of the NRP. Chi-square statistical testing was used to examine the relationship of these two

variables. Test results yielded a Pearson Chi-square value of .038. This p-value was within the 95% confidence level established by the researcher to denote significance. Table 37 reports the cross tab analysis for this hypothesis test. Table 38 reports the results of the Chi-square tests.

Table 37

Chi-square Crosstab for Overall Instructional Confidence of NRP Concepts and Grade Levels Serviced

			Grade Level Service			
			Secondary HS	Secondary Middle School	Primary and/or Intermediate	Total
Overall Instructional Confidence of the NRP Concepts	Low	Count	**15**	**13**	12	40
		Expected Count	**12.1**	**8.3**	19.7	40.0
	Medium	Count	10	7	24	41
		Expected Count	12.4	8.5	20.1	41.0
	High	Count	10	**4**	**21**	35
		Expected Count	10.6	**7.2**	**17.2**	35
Total		Count	35	24	57	116
		Expected Count	35.0	24.0	57.0	116.0

Table 38

Chi-square Results for Overall Knowledge of NRP Concepts and Grade Levels Serviced

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	10.162[a]	4	**.038**
Likelihood Ratio	10.427	4	.034
Linear-byLinear Association	3.912	1	.048
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected count less than 5. The minimum expected count is 7.24.

The Chi-square analysis distribution of participants across grade levels taught and their confidence in implementation of the five areas outlined in the NRP (2000) was not a

result occurred by chance. Therefore, it may be noted participants teaching students at the primary (k-2) and intermediate (3-5) levels were more confident in providing instruction in the five areas of the National Reading Panel report than expected. Also, secondary high school and secondary middle school participants were found to be more likely to rank lower confidence levels than their elementary colleagues in the five areas. Another conclusion drawn from the relationships presented in the Chi-square analysis was secondary middle school teachers were less likely to express high levels of confidence in instruction within the five areas.

Finally, hypothesis testing was conducted to examine relationships between grade levels in which participants were teaching students with reading disabilities and confidence in using the explicit teaching cycle. The null hypothesis (Ho) stated no relationship existed between grade levels taught and confidence in explicit teaching for students with reading disabilities. The alternative hypothesis (Ha) stated a significant relationship existed between grade levels taught and the participants' confidence in effectively using explicit teaching for students with reading disabilities. Chi-square statistical testing was used to examine the relationship of these two variables. Test results of the test revealed a Pearson Chi-square value of .283. This p-value fell well outside of the 95% confidence level established by the researcher to denote significance. Hence, the null hypothesis was accepted; there was no relationship found between grade levels taught and participants' confidence in providing explicit teaching for students with reading disabilities. Table 39 reflects the Chi-square results for grade levels serviced and confidence in providing explicit instruction.

Table 39

Chi-square Results between Grade Levels Serviced and Confidence Levels in Explicit Instruction

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	2.523[a]	2	**.283**
Likelihood Ratio	2.534	2	.282
Linear-byLinear Association	.795	1	.372
N of Valid Cases	116		

Note: 0 cells (0.0%) have expected count less than 5. The minimum expected count is 14.00.

Overall, respondents teaching in the primary and intermediate grades (k-5) were more likely to report higher confidence levels in providing instruction regarding the NRP's five areas of literacy for students with reading disabilities than respondents teaching at the secondary levels, both middle school and high school. No relationship existed between overall confidence levels and confidence levels of explicit instruction and grade levels taught was determined.

Section 3: Knowledge and Confidence Comparisons. The final section of analysis for research question one focused on the relationship between perceived knowledge and confidence. Chi-square analysis was conducted to examine these relationships. Hypothesis testing was used to examine the relationships between confidence and knowledge levels of participants. The analysis explored the following hypothesis no relationship existed between the respondents' overall perceived knowledge of effective literacy instruction and their confidence levels of implementing effective literacy instruction. The alternate hypothesis (Ha) stated a relationship existed between the respondents' knowledge and confidence levels. Table 40 denotes the cross tabulation for this analysis. Table 41 reports the analysis findings of this test.

Table 40

Chi-square Crosstab for Overall Perceived Literacy Knowledge and Overall Confidence in Effective Instruction

			Confidence of Implementation Effective Instruction		
			Not Confident and Somewhat Confident	Confident/Very Confident	Total
Perceived Knowledge of Effective Literacy Instruction	Some Knowledge	Count	**11**	**2**	13
		Expected Count	**3.0**	**10.0**	13.0
	Knowledgeable	Count	16	55	71
		Expected Count	16.5	54.5	71.0
	Very Knowledgeable	Count	0	**32**	32
		Expected Count	7.4	**24.6**	32.0
Total		Count	27	89	116
		Expected Count	27.0	89.0	116.0

Table 41

Chi-square Results for Overall Perceived Literacy Knowledge and Overall Confidence in Effective Instruction

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	37.119[a]	2	**.000**
Likelihood Ratio	38.947	2	.000
Linear-byLinear Association	31.522	1	.000
N of Valid Cases	116		

Note: 1 cells (16.7%) have expected count less than 5. The minimum expected count is 3.03.

The results of the analysis indicated those who responded as confident or very confident in the overall literacy instruction for students with reading disabilities also perceived themselves as very knowledgeable in literacy. The Pearson Chi-square of .000 indicates this relationship is not likely due to chance. Therefore, there was a relationship

between confidence levels and perceived knowledge of participants. Higher perceived knowledge is more likely to indicate higher confidence levels in instructional practices.

Research Question Two

The second research question of this study focused on professional development that has attributed to the participant's current knowledge of effective reading instruction. The research question was: What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?

Section three of the survey, Professional Development and Preparation, examined research question two. Participants were asked to rank-order attributes which have provided them with their current confidence and preparation to teach students with reading disabilities. Participants were also asked to state their current belief in how professional development had impacted their knowledge and instruction for students with reading disabilities. Descriptive analysis was used to report responses to the research question.

Descriptive analysis. Participants responded to rank-order question with five options which may have influenced their current confidence and knowledge levels. The five options were: literacy professional development, literacy professional development including literacy coaching, additional college course work, additional readings (texts, articles, etc.), and teacher preparation college. Respondents ranked the options from one to five; one indicated the activity/option which had a great impact on their current understanding and confidence levels, while five indicated the activity had a low impact. High impact indicates the participants ranked the attribute as a one or two as influencing current perceptions of their understanding

and confidence in teaching students with reading disabilities, whereas, low impact indicated the activity was ranked as a three, four, or five. Table 42 includes the frequencies of each area and Table 43 includes the mean and standard deviations of each.

Table 42

Frequencies of Activities Contributing to Current Knowledge and Confidence

		Frequency	Percent
Literacy Professional Development Including Coaching	High Impact	87	75.0%
	Low Impact	29	25.0%
Literacy Professional Development	High Impact	82	70.7%
	Low Impact	29	29.3%
Additional College Coursework	High Impact	25	21.6%
	Low Impact	91	78.4%
Additional Readings/Research	High Impact	16	13.8%
	Low Impact	100	86.2%
Teacher Preparation College	High Impact	21	18.1%
	Low Impact	95	81.9%

Eighty-seven, or 75%, of participants ranked literacy professional development, including literacy coaching, as one of the two activities having the greatest impact on their current understanding and confidence in literacy instruction for students with reading disabilities, whereas, 29, or 25%, of participants ranked this activity as having a low impact on their current understandings and confidence. Eighty-two, or 70.7%, of respondents indicated literacy professional development had the greatest impact on their current understandings and confidence levels. Twenty-nine respondents, or 29.3%, indicated this attribute had a low impact. Additional college course work impacted 25, or 21.6%, of participants at a high level. Ninety-one participants, or 78.4%, rated this activity as having a low impact. Additional readings and research was ranked lowest by participants with 16, or 13.8%, of them indicated this activity had a greater impact on their current understandings

and confidence levels. Finally, teacher preparation college was reported to have a lower impact on confidence and understanding. Twenty-one, or 18.1%, of participants indicated teacher preparation college had a great impact on their current understanding and confidence levels for providing effective literacy instruction to students with reading disabilities.

Table 43

Mean Level of Participants Responses to Attributes Impacting their Current Understandings and Confidence Levels

Attribute	*M*	*Mode*	*SD*
Professional Development Including Literacy Coaching	**2.0172**	**2**	1.03825
Literacy Professional Development	**2.1724**	**2**	1.14418
Readings (Books and Articles on Literacy)	3.3276	3	1.00240
Additional College Course Work	3.3793	4	1.12409
Teacher Preparation College	**3.8793**	**5**	1.31318

According to the measures of central tendency provided, participants ranked professional development including literacy coaching and literacy professional development as having the highest impact on current understandings and confidence levels. Most often, participants ranked these two categories as the top two choices. The mode of both professional development including coaching and literacy professional development is two (mode = 2) and the mean is 2.0172 and 2.1724 respectively. Teacher preparation college was on average (M = 3.8793) ranked lowest for the impact it had on participants current understanding and confidence. Most often, participants ranked teacher preparation college as having had the least impact on the participants current understanding and confidence levels.

Finally, overall teachers' belief in opportunities for professional development have led to changes in instruction for students with reading disabilities and a greater understanding of how to provide effective instruction. Table 44 indicates frequencies with which respondents

agreed professional development opportunities have led to changes in teaching literacy to students with reading disabilities (Carlisle & Berebitsky, 2011). Respondents were given the following rating options: strongly disagree, disagree, agree, and strongly agree. Table 45 provides participants' responses regarding their belief that professional development had enriched their understanding of literacy instruction for students with reading disabilities. Table 46 provides the central tendency measures for each of these questions.

Table 44

Frequency Table for Professional Development Impacting Instruction

	Frequency	Percent
Strongly Disagree	2	1.7%
Disagree	8	6.9%
Agree	64	55.2%
Strongly Agree	42	36.2%
Total	116	100%

The majority of participants (N = 106, 91.4%) expressed agreement or strong agreement with the statement that professional development had impacted their instructional practices with students with reading disabilities, while 10 (N = 10, 8.6%) participants disagreed or strongly disagreed with the statement.

Table 45

Frequency Table for Professional Development Enriching Understanding of Literacy Instruction

	Frequency	Percent
Strongly Disagree	4	3.4%
Disagree	12	10.4%
Agree	61	52.6%
Strongly Agree	39	33.6%
Total	116	100%

The majority of participants (N = 100, 86.2%) indicated they agreed or strongly agreed with the statement that professional development had enriched their understanding of literacy instruction for students with reading disabilities. Sixteen (N = 16, 13.8%) participants disagreed or strongly disagreed with this statement.

Table 46

Central Tendency Measures for Professional Development Impacting Instruction

	M	*Mode*	*SD*
Professional Development Impacting Instruction	**3.2586**	3	.66097
Professional Development Enriching Understanding of Literacy Instruction	**3.1638**	3	.74535

The mean response to both statements indicated respondents agreed professional development has deepened their understanding of literacy instruction and impacted how they instruct students with disabilities in reading.

Overall, respondents indicated professional development for literacy and professional development including literacy coaching have had the most impact on their current confidence and understanding of literacy concepts and instructional practices. Teacher preparation college was ranked as least likely to have impacted the respondents current understanding and confidence levels. Most respondents agreed professional development had increased their understanding of literacy instruction and had impacted instructional practices.

Research Question Three

The third research question of this study related to literacy coaching and the impact coaching had on participants. The research question was: How do respondents with literacy coaching report on the benefits of coaching?

The fourth section of the survey (Appendix D): Literacy Coaching gathered data for research question three. The section provided responses only from participants with literacy coaching within the last three years. Sixty-five, or 56%, of the participants in the study reported having received literacy coaching. Forty-nine, or 42.2%, of participants had not received literacy coaching in the last 3 years. The majority of respondents from the overall sample had coaching. Furthermore, 52 of the 65 respondents included responses for the number of hours of coaching in the past 3 years. Table 47 reflects the central tendency measures for the number of coaching hours participants had received from a literacy coach.

Table 47

Central Tendency Measures for the Number of Hours of Coaching

	Range	*M*	*Mode*	*SD*
Number of hours of Literacy Coaching	39	**8.6731**	5.0[a]	9.18166

Note: Multiple modes, lowest value was selected.

The average number of hours a participant received literacy coaching in the past 3 years was 8.7 hours. The range of responses extended from less than 1 hour to 40 hours. However, the number of hours of coaching participants was excluded from further analysis because the question was determined to be faulty with 13 participants responding inaccurately to the question.

Participants reported having had literacy coaching identified skills acquired which were believed to positively impacted students with reading disabilities. Skills identified were determined through the review of literature as effective for students with reading disabilities. Table 48 indicates the frequencies of responses for skills identified as effective and necessary for students with reading disabilities. The frequencies indicate the number of respondents

reported receiving literacy coaching and perceived the specified skill to positively impact students with reading disabilities.

Table 48

Frequencies of Skills Learned Through Coaching Which Positively Impact Students with Reading Disabilities

	Frequency	Percent
Progress Monitoring	34	52.3%
Explicit Instruction	35	53.8%
Reading and Writing Reciprocity	40	61.5%
Data Analysis (analyzing progress monitoring tools)	**44**	67.7%
Data Informed Decision Making	**48**	73.8%
Phonics and Word Work Instruction	41	63.1%
Comprehension Instruction	**49**	75.4%
Vocabulary Instruction	27	41.5%

Forty-nine participants, or 75.4%, indicated they found coaching provided them with skills in comprehension instruction which positively impacted the students they taught. Data informed decision making was another highly ranked skill: 48 respondents, or 73.8%, expressed learning this skill through literacy coaching. Forty-four respondents, or 67.7%, reported literacy coaching taught them data analysis. Participants believed this skill positively impacted students with reading disabilities. All of the skills, with the exception of vocabulary instruction, were perceived by more than half of the respondents as positively impacting students with reading disabilities.

Additionally, respondents identified skills they believe coaching had increased their current understanding. Respondents indicated from the five options outlined by the NRP (2000) as well as explicit teaching a yes or no response. “Yes” indicated the skill was learned through coaching and had increased their understanding of the skill. “No” revealed the skill

was not believed to have increased their current understanding. Participants had the option to not respond to either option provided. Frequencies of responses are outlined in Table 49.

Table 49

Frequencies of Skills which Coaching Increased Understanding

	Frequency Yes	Percent	Frequency No	Percent	Total
Phonemic Awareness	**29**	**48.33%**	31	51.67%	60
Phonics (letter-sound correspondence)	31	52.54%	28	47.46%	59
Fluency (rate, prosody, stress and phrasing of reading)	**40**	**64.52%**	22	35.48%	62
Vocabulary (knowledge of words and word meanings)	32	55.17%	26	44.26%	58
Reading Comprehension (Creating meaning of text)	**51**	**79.69%**	13	20.31%	64
Explicit Instruction	**36**	**61.02%**	23	38.98%	59

Reading comprehension was identified as a skill that coaching has increased the participants' current understanding: 51 (n = 51, 79.69%) of respondents. Fluency and explicit teaching also were believed to have had increased the respondents' understanding: 40, or 64.52%, and 36, or 61.02%, respectively. Phonemic awareness received the lowest amount of participants indicating knowledge of the skill increased because of coaching: 29, or 48.33%.

Finally, hypothesis testing was conducted to determine the relationship between respondents with literacy coaching increased understanding of a specific skill and the knowledge and confidence levels of the skill. The null hypothesis stated no relationship existed between the skill learned and the respondents' perceived knowledge of the skill. The alternative (Ha) hypothesis stated a relationship existed between the skill learned and the respondents' perceived knowledge of the skill. There was only one skill which revealed a significant relationship between both knowledge and confidence levels of the participants and

the skill learned, explicit teaching. Table 50 illustrates the Chi-square analysis of the relationship between the impact of explicit teaching and the perceived knowledge level of explicit teaching. Table 51 presents the Chi-square results for the same categories.

Table 50

Chi-square Crosstabs between Impact of Explicit Teaching and Knowledge of Explicit Teaching

			Explicit Teaching Cycle				
			No Knowledge	Some Knowledge	Knowledgeable	Very Knowledgeable	Total
Impact of Explicit Teaching	Yes	Count	**4**	13	**15**	4	36
		Expected Count	**7.9**	13.4	**11.0**	3.7	36.0
	No	Count	**9**	9	**3**	2	23
		Expected Count	**5.1**	8.6	**7.0**	2.3	23.0
Total		Count	13	22	18	6	59
		Expected Count	13.0	22.0	18.0	6.0	59.0

Table 51

Chi-square Analysis between Impact of Explicit Teaching and Knowledge of Explicit Teaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	8.884[a]	3	**.031**
Likelihood Ratio	9.230	3	.026
Linear-byLinear Association	6.139	1	.013
N of Valid Cases	59		

Note: 2 cells (25.0%) have expected count less than 5. The minimum expected count is 2.34.

The Pearson Chi-square result for the impact of explicit teaching and perceived knowledge level of explicit teaching was .031. At a confidence level of 96.9%, the Chi-square value indicates a significant relationship exists between these two variables. Respondents who perceived explicit teaching as a skill they learned which positively impacted students reported

greater perceived knowledge than expected. Conversely, teachers not reporting explicit teaching as a skill learned which positively impacted teachers were more likely to perceive themselves as less knowledgeable.

Hypothesis testing was also conducted to determine relationships between respondents receiving literacy coaching and the skills reported being learned through coaching. Skills reported positively impacted students with reading disabilities and their confidence level of providing instruction for the specified skill. The null hypothesis stated no relationship existed between the skill learned and the respondents' confidence level of the skill. The alternative (Ha) hypothesis stated a relationship existed between the skill learned and the respondent's confidence level of the skill. Table 52 illustrates the Chi-square analysis of the relationship between the perceived positive impact of explicit teaching from coaching and the confidence level of explicit teaching. Table 53 reports the Chi-square results for the same categories.

Table 52

Chi-square Crosstabs between Impact of Explicit Teaching from Coaching and Confidence Level of Explicit Teaching

			Explicit Teaching Cycle				
			Not Confident	Some Confidence	Confident	Very Confident	Total
Impact of Explicit Teaching	Yes	Count	**4**	13	**16**	3	36
		Expected Count	**9.8**	11.0	**12.8**	2.4	36.0
	No	Count	**12**	5	**5**	1	23
		Expected Count	**6.2**	7.0	**8.2**	1.6	23.0
Total		Count	16	18	21	4	59
		Expected Count	13.0	22.0	18.0	6.0	59.0

Table 53

Chi-square Analysis between Impact of Explicit Teaching and Confidence Level of Explicit Teaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	12.037[a]	3	**.007**
Likelihood Ratio	12.087	3	.007
Linear-byLinear Association	8.355	1	.004
N of Valid Cases	59		

Note: .2 cells (25.0%) have expected count less than 5. The minimum expected count is 1.56.

The Pearson Chi-square for explicit teaching confidence and indicating the skill as positive was .007. This indicates a confidence level of 99.3%, which indicates a significant relationship between these two categories. Teachers who perceived explicit teaching as a skill they learned through literacy coaching which would positively impact their students reported greater confidence in using explicit teaching than expected. Conversely, teachers who did not report this as a skill learned which positively impacted students were more likely to perceive themselves as less knowledgeable.

Finally, respondents with literacy coaching reported on the belief that literacy coaching had deepened their current understanding of literacy instruction for students with reading disabilities. Table 54 reports the frequencies of these responses.

Table 54

Frequencies of Responses to Belief in Literacy Coaching Statement

Grade Levels	Frequency	Percent
Strongly Disagree	2	3.1%
Disagree	8	12.5%
Agree	29	45.3%
Strongly Agree	25	39.1%
Total	64	100.0%

The majority of respondents (n = 51, 84.4%) expressed agreement or strong agreement that literacy coaching had deepened their understanding of literacy instruction for students with reading disabilities. Ten respondents, or 15.6%, disagreed or strongly disagreed with this statement.

Overall, respondents with literacy coaching identified several skills they believed positively impacted students with reading disabilities including, data analysis, data informed decision making, phonics and word work instruction, and comprehension instruction. Additionally, reading comprehension, fluency, and explicit teaching were skills respondents reported a deepened understanding of due to coaching. There was a relationship between those participants with coaching focused on explicit teaching and their knowledge of explicit teaching. Respondents who believed explicit instruction had a positive impact on students with reading disabilities were more likely to be knowledgeable of explicit teaching than those who did not perceive this as a skill positively impacting students with reading disabilities. Respondents citing explicit teaching as a skill positively impacting students with reading disabilities were more likely to be confident in explicit instruction than those who did not identify the skill as having a positive impact on students.

Research Question Four

The fourth research question for this study related to the relationships between participants knowledge and implementation of effective literacy instruction and literacy coaching. The fourth research question was: How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with disabilities in reading?

Relationships between respondents' with literacy coaching and those without literacy coaching were explored. Six relationships were examined within research question four:

- Overall Perceived Literacy Knowledge and Literacy Coaching
- Overall Confidence Levels of Effective Literacy Practices and Literacy Coaching
- Perceived Knowledge of the National Reading Panel Report's Findings and Literacy Coaching
- Confidence in Instruction of the National Reading Panel Report's Findings and Literacy Coaching
- Perceived Knowledge of Explicit Teaching and Literacy Coaching
- Confidence in Providing Explicit Teaching and Literacy Coaching

Findings, in general indicated significant relationships exists between participants with literacy coaching and those without had literacy coaching.

The first relationship explored was the perceived knowledge of the respondent and participation in literacy coaching. Hypothesis testing was conducted to examine the relationships. The null hypothesis (Ho) stated no relationship existed between the respondents' perceived knowledge of literacy instruction for students with reading disabilities and their participation in literacy coaching. The alternative hypothesis (Ha) indicated a relationship existed between the respondents' perceived knowledge and literacy coaching. Table 55 depicts the Chi-square cross tabulation of these categories. Table 56 denotes the Chi-square analysis.

Table 55

Chi-square Crosstabs for Knowledge Levels and Participation in Literacy Coaching

			Perceived Overall Knowledge of Literacy			Total
			Some Knowledge	Knowledgeable	Very Knowledgeable	
Participated in Literacy Coaching	Yes	Count	**4**	36	**25**	65
		Expected Count	**7.4**	39.9	**17.7**	65.0
		% within Participation in Literacy Coaching	6.2%	55.4%	38.5%	100.0%
		% within overall knowledge	30.8%	51.4%	**80.6%**	57.0%
		% of Total	3.5%	31.6%	21.9%	57.0%
	No	Count	**9**	34	**6**	49
		Expected Count	**5.6**	30.1	**13.3**	49.0
		% within Participation in Literacy Coaching	18.4%	69.4%	12.2%	100.0%
		% within overall knowledge	**69.2%**	48.6%	19.4%	43.0%
		% of Total	7.9%	29.8%	5.3%	43.0%
Total		Count	13	70	31	114
		Expected Count	13.0	70.0	31.0	114.0
		% within How many years taught students with disabilities?	11.4%	61.4%	27.2%	100.00
		% within overall knowledge	100.0%	100.0%	100.0%	100.0%
		% of Total	11.4%	61.4%	27.2%	100.0%

Table 56

Chi-square Analysis between Perceived Knowledge and Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	11.608[a]	2	**.003**
Likelihood Ratio	12.290	2	.002
Linear-byLinear Association	11.329	1	.001
N of Valid Cases	114		

Note: 0 cells (0.0%) have expected counts less than 5. The minimum expected count is 5.59.

The Pearson Chi-square of .003 indicates a significant relationship existed between the two categories. Therefore, the alternate hypothesis was accepted: There was a relationship between the respondents' overall knowledge of effective literacy practices for students with

reading disabilities and their participation in literacy coaching. Respondents who had literacy coaching were 80.6% more likely to be very knowledgeable than those not participating in literacy coaching. Conversely, respondents who had not received literacy coaching were 69.2% more likely to state they were somewhat knowledgeable with overall literacy practices are effective for students with reading disabilities.

The second relationship examined was respondents' confidence levels in instruction for students with reading disabilities and participation in literacy coaching. Hypothesis testing was conducted using Chi-square analysis. The null hypothesis (Ho) stated no relationship existed between respondents' participation in literacy coaching and their confidence in instruction students with reading disabilities. The alternate hypothesis (Ha) stated a relationship existed between the two categories. Table 57 depicts the Chi-square cross tabulation of this testing. Table 58 denotes the Chi-square analysis.

Table 57

Chi-square Crosstabs for Confidence Levels and Participation in Literacy Coaching

			Overall Confidence in effective Literacy Instruction				
			Not Confident	Somewhat Confident	Confident	Very Confident	Total
Participated in Literacy Coaching	Yes	Count	0	12	33	**20**	65
		Expected Count	1.1	14.3	34.8	**14.8**	65.0
		% within Participation in Literacy Coaching	0.0%	18.5%	50.8%	30.8%	100.0%
		% within overall Confidence	0.0%	48.0%	54.1%	**76.9%**	57.0%
		% of Total	0.0%	10.5%	28.9%	17.5%	57.0%
	No	Count	2	13	28	**6**	49
		Expected Count	.9	10.7	26.2	**11.2**	49.0
		% within Participation in Literacy Coaching	4.1%	26.5%	57.1%	12.2%	100.0%
		% within overall Confidence	**100%**	**52%**	45.9%	23.1%	43.0%
		% of Total	1.8%	11.4%	24.6%	5.3%	43.0%
Total		Count	2	25	61	26	114
		Expected Count	2.0	25.0	61.0	26.0	114.0
		% within How many years taught students with disabilities?	1.8%	21.9%	53.5%	22.8%	100.0%
		% within overall knowledge	100%	100.0%	100.0%	100.0%	100.0%
		% of Total	1.8%	11.4%	61.4%	27.2%	100.0%

Table 58

Chi-square Analysis between Confidence Levels and Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	7.898[a]	2	**.048**
Likelihood Ratio	8.923	2	.030
Linear-byLinear Association	6.473	1	.011
N of Valid Cases	114		

Note: 2 cells (25.0%) have expected counts less than 5. The minimum expected count is .86.

The Pearson Chi-square signifies a confidence level of 95.2%, or .048. Therefore, the alternate hypothesis was accepted; there was a significant relationship between the respondents' participation in literacy coaching and their confidence levels in providing instruction for students with reading disabilities. Respondents with literacy coaching were 76.9% more likely to express they were very confident in instructing students with reading disabilities. Conversely, respondents without literacy coaching were more likely to indicate they were not confident or somewhat confident in providing effective literacy instruction. Caution must be taken when examining the not confident category. Only two respondents indicated they were not confident and both respondents had not participated in literacy coaching.

The third relationship examined literacy coaching and the respondents' perceived knowledge of the National Reading Panel's report on the findings of reading instruction, which included phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Hypothesis testing was conducted using Chi-square analysis. The null hypothesis (Ho) indicated no relationship existed between the perceived knowledge of the five areas of the NRP and participation in literacy coaching. The alternate hypothesis (Ha) stated a relationship between these two categories existed.

The perceived knowledge of the NRP was classified in high, medium, and low categories. These categories used the Likert scale sums of all five NRP concepts. Survey item 10 (Appendix D) had five questions using a response to a Likert scale. One (1) on the Likert scale indicated the respondent was not knowledgeable on the NRP area. Two (2) indicated the respondent had some knowledge of the concept. Three (3) on the Likert scale indicated the

respondent was knowledgeable. Four (4) on the Likert scale indicated they respondent perceived him or herself as very knowledgeable of the concept. “High” denoted the respondents’ total scores of the five areas was 17-20. Medium revealed the respondents’ total scores in the five areas were 14-16. Finally, a score of Low indicated the respondents’ total scores in the five areas were 10-13. Table 59 depicts the cross tabulation of the two categories. Table 60 provides the Chi-square analysis of the two categories.

Table 59

Chi-square Crosstabs for Perceived Knowledge of the Five Concepts of the NRP and Participation in Literacy Coaching

			Knowledge of the Five Concepts in the NRP			
			Low	Medium	High	Total
Participated in Literacy Coaching	Yes	Count	7	24	**34**	65
		Expected Count	12.0	29.1	**23.9**	65.0
		% within Participation in Literacy Coaching	10.8%	36.9%	52.3%	100.0%
		% within overall Confidence	33.3%	47.1%	81.0%	57.0%
		% of Total	6.1%	21.1%	29.8%	57.0%
	No	Count	**14**	27	**8**	49
		Expected Count	**9.0**	21.9	**18.1**	49.0
		% within Participation in Literacy Coaching	28.6%	55.1%	16.3%	100.0%
		% within overall Confidence	**66.7%**	**52.9%**	19.0%	43.0%
		% of Total	12.3%	23.7%	7.0%	43.0%
Total		Count	21	51	42	114
		Expected Count	12.0	51.0	42.0	114.0
		% within How many years taught students with disabilities?	18.4%	44.7%	36.8%	100.0%
		% within overall knowledge	100%	100.0%	100.0%	100.0%
		% of Total	18.4%	44.7%	36.8%	100.0%

Table 60

Chi-square Analysis between Perceived Knowledge of the Five Concepts of the NRP and Participation in Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	16.688[a]	2	**.000**
Likelihood Ratio	17.626	2	.000
Linear-by-Linear Association	15.444	1	.000
N of Valid Cases	114		

Note: 0 cells (0.0%) have expected counts less than 5. The minimum expected count is 9.03.

The Pearson Chi-square established a significant relationship existed between a teachers perceived knowledge of the five concepts within the NRP (2000) and their participation in literacy coaching (p = .000, 100%). Therefore, the alternate hypothesis was accepted. Respondents with literacy coaching were 81.1% more likely to have perceived themselves as very knowledgeable or knowledgeable with NRP's findings. Conversely, respondents with no literacy coaching were 66.7% more likely to have perceived themselves as less knowledgeable.

The fourth relationship examined was literacy coaching and the respondents' confidence in effectively instructing students using the National Reading Panel's report findings, which include phonemic awareness, phonics, fluency, vocabulary, and text comprehension. Hypothesis testing was conducted using Chi-square analysis. The null hypothesis (Ho) indicated no relationship existed between the confidence of instruction within the five areas of the NRP and the respondent's participation in literacy coaching. The alternate hypothesis established there was a relationship between these two categories.

The confidence levels of the NRP were categorized using the headings of high, medium, and low. These categories used the Likert scale sums of all five NRP concepts. Survey item 10 (Appendix D) had five questions using a response to a Likert scale. One (1) on the Likert scale indicated the respondent was not confident with the NRP concept. Two (2) revealed the respondent was somewhat confident of the concept. Three (3) on the Likert scale established the respondent was confident. Four (4) on the Likert scale indicated the respondent was very confident with the concept. High indicated the respondents' total scores of the five areas were 17-20. "Medium" indicated the respondents' total scores in the five areas were 14-16. Finally, a score of Low indicated the respondents' total scores in the five areas were 10-13. Table 61 depicts the cross tabulation of the two categories. Table 62 provides the Chi-square analysis of the two categories.

Table 61

Chi-square Crosstabs for Confidence in Instruction of the Five Concepts of the NRP and Participation in Literacy Coaching

			Confidence of the Five Concepts in the NRP			
			Low	Medium	High	Total
Participated in Literacy Coaching	Yes	Count	14	25	**26**	65
		Expected Count	22.2	23.4	**19.4**	65.0
		% within Participation in Literacy Coaching	21.5%	38.5%	40.0%	100.0%
		% within overall Confidence	35.9%	61.0%	**76.5%**	57.0%
		% of Total	12.3%	21.9%	22.8%	57.0%
	No	Count	**25**	16	8	49
		Expected Count	**16.8**	17.6	14.6	49.0
		% within Participation in Literacy Coaching	51.0%	32.7%	16.3%	100.0%
		% within overall Confidence	**64.1%**	39.0%	23.5%	43.0%
		% of Total	21.9%	14.0%	7.0%	43.0%
Total		Count	39	4	34	114
		Expected Count	39.0	41.0	34.0	114.0
		% within How many years taught students with disabilities?	34.2%	36.0%	29.8%	100.0%
		% within overall knowledge	100%	100.0%	100.0%	100.0%
		% of Total	34.2%	36.0%	29.8%	100.0%

Table 62

Chi-square Analysis between Confidence in Instruction of the Five Concepts of the NRP and Participation in Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	12.610[a]	2	**.002**
Likelihood Ratio	12.917	2	.002
Linear-byLinear Association	12.256	1	.000
N of Valid Cases	114		

Note: 0 cells (0.0%) have expected counts less than 5. The minimum expected count is 14.61.

The Pearson Chi-square confirmed a significant relationship existed between a respondent's confidence in instruction of the five concepts within the NRP (2000) and their participation in literacy coaching (p = .002, 99.8%). Therefore, the alternate hypothesis was accepted. Respondents with literacy coaching were 76.5% more likely to have perceived themselves as very knowledgeable or knowledgeable with NRP's findings. Conversely, respondents had no literacy coaching were 64.1% more likely to have perceived themselves as less knowledgeable.

The final two relationships explored in research question four were focused on confidence and knowledge of explicit instruction for students with reading disabilities. The null hypothesis (Ho) stated no relationship existed between explicit instruction knowledge and confidence and participation in literacy coaching. The alternate hypothesis (Ha) stated a significant relationship existed between the respondents' knowledge and confidence of explicit instruction and participation in literacy coaching. In both relationships the null hypothesis was accepted. Therefore, no relationship existed between the respondents' perceived knowledge of explicit instruction and their participation in literacy coaching. The Pearson Chi-square value was .891. Furthermore, there was no relationship between their participation in literacy coaching and their confidence in explicit teaching (p value=.589). Table 63 and 64 denote the Chi-square analysis of each of these relationships.

Table 63

Chi-square Analysis of Explicit Teaching Knowledge and Participation in Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	.625[a]	3	**.891**
Likelihood Ratio	.634	3	.889
Linear-byLinear Association	.442	1	506
N of Valid Cases	114		

Note: 1 cells (12.5%) have expected counts less than 5. The minimum expected count is 3.87.

Table 64

Chi-square Analysis of Confidence in Explicit Teaching and Participation in Literacy Coaching

	Value	df	Asymp.Sig. (2-sided)
Pearson Chi-square	1.923[a]	3	**.589**
Likelihood Ratio	1.923	3	.589
Linear-by Linear Association	.272	1	.602
N of Valid Cases	114		

Note: 2 cells (25.0%) have expected counts less than 5. The minimum expected count is 2.58.

The two tables establish literacy coaching did not impact the respondents' understanding and confidence in using explicit teaching.

Summary of findings for research question four. The analysis of research question four affirmed respondents with literacy coaching were more likely to perceive their knowledge of literacy concepts for students with reading disabilities as higher than those without literacy coaching. Furthermore, participants with literacy coaching were found to have higher confidence levels of instruction for students with reading disabilities than those without literacy coaching. Finally, there was no relationship revealed between coaching and explicit teaching knowledge and confidence.

Chapter V: SUMMARY, CONCLUSIONS, AND RECOMENDATIONS

Summary

Chapter V includes a summary of the study. Furthermore, conclusions from the study were identified and recommendations were made based on the data analysis. Future research and implications of the research were also conducted.

Purpose of the Study

The purpose of the study was to examine the perceptions of special education teachers in a large Minnesota school district. The perceptions focused on literacy knowledge and confidence levels of the theory and practice necessary for literacy growth for students with reading disabilities. Knowledge and confidence levels of effective literacy instruction included the theory base outlined by the National Reading Panel report (2000) which included instruction in these five areas:

- Phonemic Awareness
- Phonics
- Fluency
- Vocabulary
- Reading Comprehension

Additionally, the study focused on effective literacy practices for students with reading disabilities, which included explicit instruction. Additionally, the study explored professional development which select special education teachers perceived to impact current knowledge and confidence levels. Finally, the study examined the impact literacy coaching had on select special education teachers.

Research Questions

Research questions align with the problem statements and purposes of a study (Mills & Gay, 2016). Research questions provide an action plan for the development of the study and identify instruments to provide the necessary data collection tools to respond to the research questions (Mills & Gay, 2016).

The following research questions guided this study:

1. How did respondents report their knowledge and implementation of effective reading instruction to students with reading disabilities?
2. What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?
3. How do respondents with literacy coaching report on the benefits of coaching?
4. How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with reading disabilities?

Research Design

Quantitative research design was used to examine and interpret the results of the study. The survey tool was administered electronically through a web based servicer, Survey Monkey. The questions developed in the survey aligned with research from the review of related literature. Cronbach's Alphas was used to test for internal consistency and to estimate the reliability of the survey. The survey was deemed reliable with an internal consistency measure of .951 for questions 9-16 and .673 for questions 20-21.

Study Method

Special education teachers of a Twin Cities metropolitan school district were asked to participate in the study. The researcher accessed emails through the participating school district with the permission of the district's Director of Special Education. The survey was emailed to participants on multiple occasions to maximize participation. The Director of Special Education also made a request to possible participants to urge their completing the survey.

The data from the survey were analyzed using frequency analysis, central tendency measures, Chi-square analysis, and paired t-tests to determine statistically significant relationships and correlations.

Limitations of the Study

The following are limitations of the study:

- The study had an initial response rate of 51% of the participating school district's special education teachers. However, due to invalid responses, the percent of participants in the survey was approximately 46%. After the study was completed and reviewed, data from approximately 5% of respondents was eliminated due to incomplete responses to questions beyond the demographic section. These responses would have influenced the generalizations regarding demographics within the study.
- Select data categories were combined to provide valid results for Chi-square analysis. These included combining primary and intermediate grade levels taught and combining the Likert scale categories "not confident" with "somewhat

confident" and "knowledgeable" with "somewhat knowledgeable" in certain instances. These combinations were created after analyses of the study were completed. Results indicated some Chi-square tables had cell results indicating more than two cells had less than an expected count of five. Multiple cell counts of less than five indicate there were not enough data to conclude in a valid analysis. Therefore, some categories were combined to increase data points. This combination may impact study results by indicating broader statements about the confidence and knowledge levels of participants, as well as the grade levels taught by participants.

- The comparison of participants' education level was excluded due to lack of relevance to the study questions. There was limited data found to support that education level impacted study results.
- Data in the number of hours of coaching were not used due to the question being faulty and reflecting inaccurate responses. Participants indicated various responses regarding the amount of time coaching. The range of responses was from zero hours to 300 hours. The author of the study determined that responses above 40 were improbable and the number of participant responses above forty indicated that the question was not clear enough to produce valid results, therefore the variable was eliminated from the use in responding to research question four.

Conclusions

Research question one. The first research question for this study was related to the knowledge and confidence level of effective reading for the participants. The research

question was: How did respondents report their knowledge and implementation of effective reading instruction to students with disabilities in reading?

Participants in the study significantly indicated they were knowledgeable about effective literacy practices and theory necessary for use with students with reading disabilities. Very few participants (11.2%) expressed having some knowledge of these literacy practices and theory. The National Reading Panel report cites five areas of theory necessary for effective reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The study results revealed most respondents are knowledgeable in all of these areas. However, there were significant differences in knowledge of reading comprehension and the other four areas. Furthermore, explicit teaching knowledge was significantly lower than all five areas reported by the National Reading Panel.

Years of teaching indicate significant differences in respondents' perceptions of their overall knowledge and knowledge of the five areas identified by the NRP (2000). Participants with more years of teaching experience reported significantly more knowledge in the five areas than those with fewer years of teaching experience. However, years of experience did not influence the respondents' perceptions of knowledge of explicit teaching. The overall reported average perception of explicit teaching was significantly less than the five areas of the NRP. In conclusion, years of experience did not influence perceived knowledge of the explicit instruction for students with reading disabilities.

Grade levels taught by respondents noted significant differences in overall knowledge levels of effective literacy instruction and the five areas outlined by the NRP. Respondents teaching students in primary (k-2) and intermediate (3-5) grade levels were significantly more

likely to perceive themselves as more knowledgeable about literacy instruction for students with reading disabilities than in secondary grade levels (middle school (6-8) and high school (9-12)) respondents. This was also true for respondents' perceived knowledge of the five concepts provided by the NRP. However, there was no significant difference between the grade levels taught by the respondents' and their knowledge of explicit teaching.

Knowledge of explicit instruction and confidence of implementation were statistically different from overall literacy knowledge and confidence, as well as knowledge and confidence in the five areas of the NRP report. Explicit instruction was notably lacking in all areas and it is research-based and necessary instruction for students with disabilities (Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). It was concerning survey respondents expressed significantly less confidence in delivering explicit instruction. However, this finding coincides with McCombes-Tolis and Fein (2008) conclusion: Students who most need the intense intervention provided by the most prepared and knowledgeable teachers are not receiving the instruction required to achieve growth in literacy. The results of this study are consistent with the work of Podhajksi et al. (2009) and reinforce the need for professional development which supports teachers in developing an understanding of the explicit, systematic teaching of reading (p. 414).

It is noteworthy that the research of Piasta et al. (2009) affirmed the notion indicating more knowledge provides more effective practices using explicit instruction. Contrary to these findings, the study revealed even though the participants had greater knowledge and higher confidence levels in their literacy practices, they were not as confident and knowledgeable with explicit teaching practices.

Additionally, Moats (1999) expressed students with disabilities need instruction from knowledgeable teachers who can provide explicit and systematic instruction. Therefore, the results of the study indicated participants' displayed knowledge of effective instruction, though they lacked knowledge of explicit instruction.

The second section of question one involved the participants' confidence in providing effective instruction to students with reading disabilities. According to paired t-test analysis between the means of the five areas of literacy instruction outlined by the NRP and explicit teaching, there were significant differences in confidence levels of the following categories:

- Confidence in phonics and vocabulary instruction were significantly greater than phonemic awareness
- Confidence in text comprehension was significantly greater than phonics, phonemic awareness, fluency, and vocabulary
- Confidence in explicit instruction was determined to be significantly less than phonics, phonemic awareness, fluency, vocabulary, and text comprehension

No significant relationships were noted among years of experience and confidence levels. Confidence in the five areas of the NRP and explicit instruction did not relate to respondents' years of experience and there were no relationships between the grade levels taught by respondents and overall confidence in the implementation of effective instruction and the implementation of explicit instruction. However, a relationship did exist among the grade levels taught by respondents and their confidence in the five NRP areas. Respondents who taught in the primary (k-2) and intermediate (3-5) grades were more likely to express higher confidence in implementing instruction regarding the five NRP areas. These results

may be influenced by the needs of primary and intermediate teachers to have a deeper understanding of early literacy practices due to the number of students they teach with significant emergent and early literacy needs. Special education teachers at the secondary level may not encounter many students with early and emergent literacy needs. Their current knowledge and confidence might be lower due to diminished needs at the upper grade levels. Furthermore, in the participating district, literacy coaching and professional development was more focused on elementary grades (k-5).

The final section of question one related to knowledge and implementation of effective reading practices for students with reading disabilities examined the relationship between confidence and knowledge base. A significant relationship was found to exist in regard to these two categories. Respondents with higher perceptions of overall knowledge were more confident in implementing effective practices for students with reading disabilities.

Research question two. The second research question of this study focused on professional development that has attributed to the participant's current knowledge of effective reading instruction. The research question was: What professional development has attributed to the participants' current knowledge and implementation of effective reading instruction for students with reading disabilities?

Participants reported professional development, which included literacy coaching, had the greatest impact on their current understanding and confidence in providing instruction to students with reading disabilities. Literacy professional development followed closely to literacy coaching as having the greatest impact on participants' current understanding and confidence levels.

Participants found teacher preparation college training had the least impact on their current understandings and confidence in providing literacy instruction to students with reading disabilities. These findings coincide with the research conducted by McCombes-Tolis and Fein (2008), which revealed teachers believe themselves to be ill-prepared to meet the needs of students with reading disabilities after the completion of their teacher preparation in college. Pre-service teacher preparation alone is not sufficient to support teachers working with students with disabilities (Piasta et al., 2009).

Overall, respondents agreed professional development impacted their instructional practices and deepened their understanding of literacy instruction for students with reading disabilities. These results support existing research indicating that quality professional development expands knowledge and teachers are more likely to use that knowledge in their instructional practices (Bell, 2013; Brownell et al., 2004; Dingle et al., 2011).

Research question three. The third research question of this study related to literacy coaching and the impact coaching had on participants. The research question was: How do respondents with literacy coaching report on the benefits of coaching?

Special education teachers responding to the survey with literacy coaching strongly believed coaching had deepened their current understanding of literacy instruction for students with reading disabilities. They expressed belief that coaching provided skills which positively impacted students with reading disabilities. Skills the majority of respondents cited included (in order of highest response rate to lowest):

- Comprehension instruction
- Data informed decision making

- Data Analysis
- Phonics and word work instruction
- Reading and Writing reciprocity
- Explicit Instruction
- Progress Monitoring

Additionally, participants indicated reading comprehension, fluency, and explicit teaching as skills believed to be better understood because of literacy coaching. Teachers who participate in quality professional development are more likely to use acquired knowledge and be responsive to student needs (Dingle et al., 2011). The data analysis of teachers' responses to skills learned through literacy coaching and the relationship connected to perceived knowledge supports Dingle et al. (2011).

There was a statistically significant relationship determined to have existed between the knowledge of explicit instruction and the respondents' identification of explicit instruction as a skill developed through literacy coaching. Respondents identifying explicit instruction as a skill developed through literacy coaching were likely to be more knowledgeable than those not identifying explicit instruction as a skill developed in literacy coaching. Furthermore, a statistically significant was determined to have existed relationship between confidence in implementation and skill development through coaching. Respondents were also likely to be more confident in the implementation of explicit instruction. Those results were supported by the findings of McCollum et al. (2005): Those receiving literacy coaching focused on research-based skills more often use those skills in the classroom, furthermore, impacted classroom quality.

No other relationships were determined to influence explicit instruction from the study.

Research question four. The fourth research question for this study related to the relationships between participants knowledge and implementation of effective literacy instruction and literacy coaching. The fourth research question was: How has literacy coaching impacted respondents' knowledge and implementation of effective literacy instruction for students with reading disabilities?

With the exception of explicit instruction, participants in the study with literacy coaching were found to be more likely to have had higher perceptions of knowledge and confidence levels in implementing effective literacy practices for students with reading disabilities. There were statistically significant data supporting the relationships between literacy coaching and respondents' increased knowledge and confidence levels of overall literacy instruction and the five areas outlined by the National Reading Panel report. However, literacy coaching was determined to have had no bearing on knowledge and confidence levels of explicit instruction.

The results of question four slightly contradict the findings of Carlisle and Berebitsky (2011), which reported that those teachers participating in standalone professional development and those whose professional development included coaching displayed minimal differences between attitude and knowledge. Further investigation of this finding would require an experimental group of teachers to whom coaching would be provided with literacy professional development and a control group of teachers to whom literacy professional development would be provided as a standalone.

Discussion

Recommendations for practice. The following are recommendations offered for practitioners:

- Leaders supporting special education teachers are encouraged to provide literacy professional development that supports deepening knowledge in both literacy content and pedagogy. A strong focus on how to provide explicit instruction is also recommended.
- The relationship between literacy coaching and teachers' higher knowledge and confidence suggests school leaders who provide coaching for special education teachers can support growth in skills necessary for students struggling with reading and who have reading disabilities.
- Since the study found that teachers have lower knowledge and confidence levels in literacy during the early years of teaching, principals might consider providing these teachers with professional development with a focus on literacy and coaching.
- Respondents in secondary settings would benefit from professional development and literacy coaching to strengthen their knowledge and confidence levels of literacy instruction.
- Teachers who had had coaching affirmed that it had impacted their current knowledge and confidence levels. It is recommended that school leadership teams consider employing literacy coaching when developing teachers' knowledge and implementing effective literacy practices for students with disabilities.

Recommendations for Future Research

The following recommendations for further study are included as a result of the information found within the study.

- Further research is suggested including a broader definition of literacy. Extending the work completed by the National Reading Panel in 2000 is recommended.
- It is recommended to replicate Amendum's (2014) study on coaching with an emphasis on special education teachers and students with reading disabilities. This research may further support the need for leadership teams to provide literacy coaching to special education teachers.
- Future research is recommended regarding professional development, including literacy coaching with a specific focus on explicit teaching and the impact it has on special education teachers' knowledge and confidence in implementing effective literacy practices.
- Further research focused on perceived literacy knowledge and actual literacy knowledge is recommended. Replication of portions of Spear-Swerling's (2009) work with a focus specifically on special education teachers.
- Further research is recommended which focuses on the impact professional development, including literacy coaching has on beginning special education teachers and those who are new to the field of special education.
- Future research is recommended on the causes knowledge in theory and practice of effective literacy instruction. Variables, including literacy coaching and other

forms of professional development models may be included to determine relationships and possible causation.

Conclusion

The purpose of the study was to determine special education teachers' perceived knowledge and confidence of effective literacy practices for students with reading disabilities. The analysis revealed significant findings about the lack of knowledge and confidence in explicit teaching, which is a research-based instructional practice necessary for students struggling with reading and those with reading disabilities (Denton et al., 2006; Foorman & Torgesen, 2001; Moats, 1999; Piasta et al., 2009). Furthermore, the study established literacy coaching as a form of professional development had an impact on teacher knowledge and confidence levels in effective literacy instruction for students with reading disabilities. Teacher preparation colleges were not determined to provide the most effective opportunities for participants to acquire the necessary knowledge and confidence to teach students with reading disabilities. Therefore, it was concluded teachers are entering education with a need to strengthen their knowledge and confidence in meeting the needs of students with reading disabilities. Leaders of schools and universities are encouraged to explore professional development options which include literacy coaching to support teachers of students with reading disabilities.

References

Amendum, S. J. (2014). Embedded professional development and classroom-based early reading intervention: Early diagnostic reading intervention through coaching. *Reading & Writing Quarterly*, *30*(4), 348-377. doi:10.1080/10573569.2013.819181

Atteberry, A., & Bryk, A. S. (2011). Analyzing teacher participation in literacy coaching activities. *The Elementary School Journal*, (2), 356.

Bell S. (2013, January). Professional development for specialist teachers and assessors of students with literacy difficulties/dyslexia: 'To learn how to assess and support children with dyslexia'. *Journal of Research in Special Educational Needs* [serial online], *13*(1). 104-113. Available from: PsycINFO, Ipswich, MA. Accessed March 29, 2016.

Billingsley, B. S. (2002). Improving special education teacher retention: Implications from a decade of research. *Journal of Special Education Leadership*, *15*(2), 60-66.

Billingsley, B. S., & McLeskey, J. (2004). Critical issues in special education teacher supply and demand: Overview. *Journal of Special Education*, *38*(1), 2-4.

Bishop, A. G., Brownell, M. T., Klingner, J. K., Leko, M. M., & Galman, S. C. (2010). Differences in beginning special education teachers: The influence of personal attributes, preparation and school environment on classroom reading practices. *Learning Disability Quarterly,* (2). 75.

Boe, E. E., deBettencourt, L. U., Dewey, J., Rosenberg, M., Sindelar, P., & Leko, C. (2013). Variability in demand for special education teachers: Indicators, explanations, and impacts. *Exceptionality, 21*(2), 103-125.

Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia*, p. 97.

Brady, S., Gillis, M., Smith, T., Lavalette, M., Liss-Bronstein, L., Lowe, E., & ... Wilder, T. D. (2009). First grade teachers' knowledge of phonological awareness and code concepts: Examining gains from an intensive form of professional development and corresponding teacher attitudes. *Reading and Writing,* (4), 425.

Brownell, M. T., Bishop, A. G., Gersten, R., Klingner, J. K., Penfield, R. D., Dimino, J., & ... Sindelar, P. T. (2012). The role of domain expertise in beginning special education teacher quality. *Exceptional Children*, (4), 391.

Brownell, M. T., Hirsch, E., & Seo, S. (2004). Meeting the demand for highly qualified special education teachers during severe shortages: What should policymakers consider? *Journal of Special Education*, *38*(1), 56-61.

Carlisle, J. F., & Berebitsky, D. (2011). Literacy coaching as a component of professional development. *Reading and Writing*, *14*(7), 773-800.

Clay, M. M. (1991). *Becoming literate: The construction of inner control.* Portsmouth, NH: Heinemann.

Copeland, S. R., Keefe, E. B., Calhoon, A. J., Tanner, W., & Park, S. (2011). Preparing teachers to provide literacy instruction to all students: Faculty experiences and perceptions. *Research & Practice for Persons with Severe Disabilities*, *36*(3/4), 126-141.

Costa, A. L., & Garmston, R. J. (2002). *Cognitive coaching: A foundation for renaissance schools*. Norwood, MA: Christopher-Gordon Publishers, Inc.

Council of Chief State School Officers. (2012). Our responsibility, our promise: Transforming educator preparation and entry into the profession. Washington, DC: Author.

Cunningham, A. E., Etter, K., Platas, L., Wheeler, S., & Campbell, K. (2015). Professional development in emergent literacy: A design experiment of teacher study groups. *Early Childhood Research Quarterly*, *31*, 62-77.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* New York, NY: Teachers College Press.

Darling-Hammond, L., Chung, R., & Frelow, F. (2002). Variation in teacher preparation: How well do different pathways prepare teachers to teach.. *Journal of Teacher Education*, (4), 286-302.

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Heilig, J. V. (2005). Does teacher preparation matter? Evidence about teacher certification, teach for America, and teacher effectiveness. *Education Policy Analysis Archives*, *13*(42), 1-51.

Denton, C., Fletcher, J., Anthony, J., & Francis, D. (2006). An evaluation of intensive intervention for students with persistent reading difficulties. *Journal of Learning Disabilities*, *39*(5), 447-466.

Dingle, M. P., Brownell, M. T., Leko, M. M., Boardman, A. G., & Haager, D. (2011). Developing effective special education reading teachers: The influence of professional development, context, and individual qualities. *Learning Disability Quarterly*, *34*(1), 87-103

Elish-Piper, L., & L'Allier, S. K. (2011). Examining the relationship between literacy coaching and student reading gains in grades K–3. *The Elementary School Journal,* (1). 83. doi:10.1086/660685

Feng, L., & Sass, T. R. (2013). What makes special-education teachers special? Teacher training and achievement of students with disabilities. *Economics of Education Review, 36*, 122-134. doi:10.1016/j.econedurev.2013.06.006

Foorman, B., & Torgesen, J. (2001). Critical elements of classroom and small-group instruction promotes reading success in all children. *Learning Disabilities Research & Practice*, *16*(4), 203-212.

Fountas, I. C., & Pinnell, G. S. (2006). *Teaching for comprehending and fluency: Thinking, talking, and writing about reading, K-8.* Portsmouth, NH: Heinemann.

Fountas, I. C., & Pinnell, G. S. (2009). *When readers struggle: Teaching that works.* Portsmouth, NH: Heinemann.

Fountas, I. C., & Pinnell, G. S. (2012). *Genre study: Teaching with fiction and nonfiction books.* Portsmouth, NH: Heinemann.

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). Teaching reading comprehension strategies to students with learning disabilities: A review of research. *Review of Educational Research*, *71*(2). 279-320.

Gersten, R., Williams, J., Fuchs, L., & Baker, S. (1998). *Improving reading comprehension for children with disabilities: A review of research*. (Final report: Section 1, U.S. Department of Education Contract HS 921700). Washington, DC: U.S. Department of Education.

Gerstein, R, & Morvant, M. (1995). Close to the classroom is close to the bone: Coaching as a means to translate research into. *Exceptional Children, 62*(1), 52-66. EBSCO MegaFILE, EBSCOhost. Accessed October 16, 2015.

Goldman, R., Aldridge, J., & Worthington, L. A. (2004). Improving literacy instruction of special education teachers through additional course work and support. *Journal of Instructional Psychology*, (2), 167.

International Dyslexia Association (IDA). (2010). *Knowledge and practice standards for teachers of reading.* Baltimore, MD: Author.

International Literacy Association (ILA), (2015a). *The multiple roles of school-based specialized literacy professionals. Position statement.* Retrieved December 20, 2015, from http://www.literacyworldwide.org/docs/default-source/where-we-stand/literacy-professionals-position-statement.pdf.

International Literacy Association (ILA), (2015b). *Why literacy?* Retrieved December 20, 2015, from http://www.literacyworldwide.org/why-literacy.

International Reading Association (IRA). (1999). *Using multiple methods of beginning reading instruction. A position statement of the International Reading Association.*

Kennedy, E., & Shiel, G. (2010). Raising literacy levels with collaborative on-site professional development in an urban disadvantaged school. *The Reading Teacher*, *63*(5), 372-383.

Klingner, J. K., Urbach, J., Golos, D., Brownell, M., & Menon, S. (2010). Teaching reading in the 21st century: A glimpse at how special education teachers promote reading comprehension. *Learning Disability Quarterly*, *33*(2), 59-74.

Leko, M. M., & Brownell, M. T. (2009). Crafting quality professional development for special educators. *Teaching Exceptional Children*, *42*(1), 64-70.

Leko, M. M., Brownell, M. T., Sindelar, P. T., & Kiely. (2015). Envisioning the future of special education personnel preparation in a standards-based era. *Exceptional Children, 82*(1), 25-43.

Leko, M. M., Brownell, M. T., Sindelar, P. T., & Murphy, K. (2012). Promoting special education preservice teacher expertise. *Focus on Exceptional Children*, *44*(7), 1-16.

Lerner, J. W., & Johns, B. H. (2012). *Learning disabilities and related mild disabilities: Teaching strategies and new directions* (12th ed.). Australia: Wadsworth Cengage Learning.

Lipson, M.Y., & Wixson, K. K. (2009). *Assessment & instruction of reading and writing difficulties: An interactive approach*. Pearson Education, Inc.

Lyon, G. R., & Moats, L. C. (1997). Critical conceptual and methodological considerations in reading intervention research. *Journal of Learning Disabilities*, *30*(6), 578.

Lyons, C. A., & Pinnell, G. S. (2001). *Systems for change in literacy education.* Portsmouth, NH: Heinemann.

McCollum, J. A., Hemmeter, M. L., & Hsieh, W. (2013). Coaching teachers for emergent literacy instruction using performance-based feedback. *Topics in Early Childhood Special Education*, *33*(1), 28-37.

McCombes-Tolis, J., & Feinn, R. (2008). Comparing teachers' literacy-related knowledge to their state's standards for reading. *Reading Psychology*, *29*, 236-265.

Mills, G. E., & Gay, L. R. (2016). *Educational research: Competencies for analysis and applications* (11th ed.). Boston, MA: Pearson.

Minnesota Department of Education (MDE). (2013). *World best work force*. Retrieved June 24, 2015, from http://www.education.state.mn.us/MDE/SchSup/ WorldsBestWorkforce/index.html.

Minnesota Department of Education (MDE). (2015). *Minnesota report card*. Retrieved November 11, 2015, from http://rc.education.state.mn.us/#.

Moats, L. (1999). Teaching reading is rocket science: What expert teachers should know and be able to do. Washington, DC: American Federation of Teachers.

Moats, L. (2014). What teachers don't know and why they aren't learning it: Addressing the need for content and pedagogy in teacher education. *Australian Journal of Learning Difficulties, 19*(20), 75-91.

National Institute of Child Health and Human Development (NICHD). (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: U.S. Government Printing Office.

Neuman, S., & Cunningham, L. (2009). The impact of professional development and coaching on early language and literacy practices. *American Educational Research Journal*, *46*(2), 532-566.

No Child Left Behind Act, 2002 (NCLB). Retrieved August 5, 2015, from http://www2.ed.gov/ policy/elsec/leg/esea02/107-110.pdf.

Nougaret, A. A., Scruggs, T. E., & Mastropieri, M. A. (2005). Does teacher education produce better special education teachers? *Exceptional Children*, (3), 217.

Piasta, S. B., Connor, C. M., Fishman, B. J., & Morrison, F. J. (2009). Teachers' knowledge of literacy concepts, classroom practices, and student reading growth .*Scientific Studies of Reading*, *13*(3), 224-248.

Podhajski, B., Mather, N., Nathan, J., & Sammons, J. (2009). Professional development in scientifically based reading instruction: Teacher knowledge and reading outcomes. *Journal of Learning Disabilities*, *42*(5), 403-417.

Reutzel, D. R., & Cooter, R. B. (2016). *Strategies for reading assessment and instruction in an era of common core standards*. Boston, MA: Pearson.

Roberts, C. M. (2010). *The dissertation journey: A practical and comprehensive guide to planning, writing, and defending your dissertation.* Thousand Oaks, CA: Corwin.

Sanzo, K., Clayton, J., & Sherman, W. (2011). Students with special needs, reading education, and principals: Ridging the divide through instructional leadership. *The International Journal of Educational Leadership Preparation*, *6*(1), 1-20.

Sayeski, K. L., Gormley Budin, S. E., & Bennett, K. (2015). Promising practices in the preparation of special educators to provide reading instruction. *Intervention in School and Clinic, 51*(1), 82-89.

Spear-Swerling, L. (2009). A literacy tutoring experience for prospective special educators and struggling second graders. *Journal of Learning Disabilities*, *42*(5), 431-443.

Spear-Swerling, L., Brucker, P. O., & Alfano, M. P. (2005). Teachers' literacy-related knowledge and self-perceptions in relation to preparation and experience. *Annals of Dyslexia*, (2), 266-296.

Spear-Swerling, L., & Zibulsky. (2014). Making time for literacy: Teacher knowledge and time allocation in instructional planning. *Reading and Writing: An Interdisciplinary Journal*, *27*(8) 135-1378.

Strickland, W. D., Boon, R. T., & Spencer, V. G. (2013). The effects of repeated reading on the fluency and comprehension skills of elementary-age students with learning disabilities (LD), 2001-2011: A review of research and practice. *Learning Disabilities—A Contemporary Journal,11*(1), 1-33.

Swanson, H. L., & Hoskyn, M. (1998) Experimental intervention research on students with learning disabilities: A meta-analysis of treatment outcomes. *Review of Educational Research*, *68*(3), 277-321.

Swanson, E. A., & Vaughn, S. (2010). An observation study of reading instruction provided to elementary students with learning disabilities in the resource room. *Psychology in the Schools, 47*, 481-492.

Thornton, B., Peltier, G., & Medina, R. (2007). Reducing the special education teacher shortage. *Clearing House*, *80*(5), 233-238.

United States Department of Labor, Bureau of Labor Statistics. (2015). *Occupational outlook handbook: Special education teachers.* Retrieved December 19, 2015, from http://www.bls.gov/ooh/education-training-and-library/special-education-teachers.htm.

Vacca, J. L., Vacca, R. T., Gove, M. K., Burkey, L. C., Lenhart, L. A., & McKeon, C. A. (2012). *Reading and learning to read* (8th ed.). Boston: Pearson.

Vernon-Feagans, L., Kainz, K., Amendum, S., Ginsberg, M., Wood, T., & Bock, A. (2012). Targeted reading intervention: A coaching model to help classroom teachers with struggling readers. *Learning Disability Quarterly*, *35*(2), 102-114. doi:10.1177/0731948711434048

Washburn, E. K., Joshi, M., & Cantrell, E. B. (2011). Are preservice teachers prepared to teach struggling readers? *Annuls of Dyslexia*, *61*, 21-43.

Appendix A: First Email to Participants

Dear Colleague,

This research survey is part of the requirements for a doctoral degree in Educational Administration and Leadership through St. Cloud State University. The purpose of the research is to gather information about the perceptions of effectiveness and knowledge of literacy instruction from special education teachers working with students with reading disabilities.

The results of the study will help to better understand how to support teachers who work with students with reading disabilities. Any information that is obtained in connection with this study will remain anonymous. Your participation in this study is voluntary.
The survey should take less than 15 minutes to complete. Please take the survey now. The survey deadline is October 19th, 2016.

Please remember this information is confidential and is designed to better understand the perceptions of literacy instruction of special education teachers and guide leadership to make decisions that will support the special education teachers who work with students with disabilities in reading.

If you have any questions regarding the survey, contact Sarah Papineau, (612) 968-6140 sjpapineau@stcloudstate.edu or Dr. John Eller, Director of Center for Doctoral Studies and Advisor, (320) 308-4220, jfeller@stcloudstate.edu.

Thank you for your participation.

Appendix B: Second Email to Participants

Dear Colleague,

You have been selected to participate in a research survey involving special education and literacy. Your participation is requested because of your current role in your district as special education teacher who works with students with disabilities in reading. This information will help to better support special education teachers in providing literacy instruction to students with disabilities in reading.

Furthermore, this research survey is part of the requirements for a doctoral degree in Educational Administration and Leadership through St. Cloud State University. The purpose of the research is to gather information about the perceptions of effectiveness and knowledge of literacy instruction from special education teachers who work with students with disabilities in reading. The results of the study will help to better understand how to support teachers who work with students with disabilities in reading. Any information that is obtained in connection with this study will remain anonymous. Your participation in this study is voluntary.

The survey should take less than 15 minutes to complete. Please take the survey now. The survey deadline is October 24th, 2016.

Please remember this information is confidential and is designed to better understand the perceptions of literacy instruction of special education teachers and guide leadership to make decisions that will support the special education teachers who work with students with disabilities in reading.

If you have any questions regarding the survey, contact Sarah Papineau, (612) 968-6140 sjpapineau@stcloudstate.edu or Dr. John Eller, Director of Center for Doctoral Studies and Advisor, (320) 308-4220, jfeller@stcloudstate.edu.

Thank you for your participation.

Appendix C: Final Email to Participants

Dear Colleague,

We are sending a reminder because you have been selected to participate in a research survey involving special education and literacy. Your participation is requested based on your current role and expertise as special education teacher who works with students with disabilities in reading. Your voluntary participation will greatly support state and district decisions on ways to best support special education teachers in providing literacy instruction to students with disabilities in reading.

Furthermore, this research survey is part of the requirements for a doctoral degree in Educational Administration and Leadership through St. Cloud State University. The purpose of the research is to gather information about the perceptions of effectiveness and knowledge of literacy instruction from special education teachers who work with students with disabilities in reading. The results of the study will help to better understand how to support teachers who work with students with disabilities in reading. Any information that is obtained in connection with this study will remain anonymous. Your participation in this study is voluntary.

The survey should take less than 15 minutes to complete. Please take the survey now. The survey deadline is October 24th, 2016.

Please remember this information is confidential and is designed to better understand the perceptions of literacy instruction of special education teachers and guide leadership teams to make decisions that will better support the special education teachers who work with students with disabilities in reading.

If you have any questions regarding the survey, contact Sarah Papineau, (612) 968-6140 sjpapineau@stcloudstate.edu or Dr. John Eller, Director of Center for Doctoral Studies and Advisor, (320) 308-4220,jfeller@stcloudstate.edu.

Thank you for your participation.

Appendix D: Survey Instrument

Special Education Teacher Perceptions of Effectiveness and Knowledge in Literacy Instruction: Implications of Literacy Coaching

Section 1: Demographics:

1. Are you currently a special education teacher employed by (specified) district? (If no, please end survey)
   - **a.** Yes
   - **b.** No
2. Are you currently working with students with disabilities in reading? (If no, please end survey)
   - **a.** Yes
   - **b.** No
3. What current and valid teaching certifications do you hold in the State of Minnesota?
   - **a.** Learning Disabilities (SLD)
   - **b.** Other disabilities areas (EBD, ASD, DCD, PI, DHH, VI, ABS, ECSE)
   - **c.** Elementary Education
   - **d.** Secondary Education-Language Arts
   - **e.** Secondary Education-Other Content Areas
   - **f.** Reading Certificate
   - **g.** Early Childhood Education
   - **h.** English as a Second Language
   - **i.** Other:
4. What grade levels do you currently service students with disabilities in reading? (Select all that apply)
   a. Primary (k-2)
   b. Intermediate (3-5)
   c. Secondary Middle School
   d. Secondary High School
5. How many years have you taught students with disabilities?
   - **a.** Enter the number of years in whole numbers (i.e.: 12th year of teaching=12; 1st year of teaching = 1)

     [ ]
6. Indicate your highest level of education (May select Ph.D/Ed.D and Specialists)
   - **a.** B.A./B.S.
   - **b.** M.A./M.S
   - **c.** Ed.S
   - **d.** Ed.D/Ph.D
   - **e.** Other

7. Are you directly responsible for the reading goals of students with disabilities in reading? (Small group instruction, one-on-one instruction, co-taught, and/or monitoring service)
    a. Yes
    b. No

Section 2: Knowledge and Implementation of Effective Literacy Practices for Students with Disabilities: All questions are in regard to working with students with learning disabilities in reading.

8. Rate your current knowledge and understanding of effective literacy instruction for students with learning disabilities in reading:

No Knowledge	Some knowledge	Knowledgeable	Very Knowledgeable

9. Rate your current knowledge of the following instructional reading concepts:

No Knowledge	Some knowledge	Knowledgeable	Very Knowledgeable

a. Phonemic Awareness (sounds to spoken words)
b. Phonics (letter-sound correspondence)
c. Fluency (rate, prosody, stress and phrasing of reading)
d. Vocabulary (knowledge of words and word meanings)
e. Reading Comprehension (creating meaning of text)
f. Reciprocity of the above five areas
g. Explicit Teaching Cycle
h. Balanced Literacy Instruction
i. Whole Language Instruction
j. Skills Based Literacy Instruction

10. Rate your current overall confidence level to effectively teach literacy to students with learning disabilities in reading: (Confident=self-assured in your beliefs of effectiveness)

Not Confident	Somewhat Confident	Confident	Very Confident

11. Rate your current confidence level to implement instruction on the following concepts:

Not Confident	Somewhat Confident	Confident	Very Confident

a. Phonemic Awareness (sounds to spoken words)
b. Phonics (letter-sound correspondence)
c. Fluency (rate, prosody, stress and phrasing of reading)
d. Vocabulary (knowledge of words and word meanings)
e. Reading Comprehension (creating meaning of text)

12. Rate your current confidence level to effectively use the following skills and strategies:

Not Confident	**Somewhat Confident**	**Confident**	**Very Confident**

a. Differentiated Instruction
b. Data Informed Decision Making/Formative Assessment
c. Scope and Sequence of beginning reading concepts
d. Explicit Teaching Cycle
e. Balanced Literacy Instruction
f. Whole Language Instruction
g. Skills Based Literacy Instruction

Section 3: Professional Development and Preparation

13. Rank up to the top three attributes to your current confidence and preparation to meet the literacy needs of students with learning disabilities in reading? (1 is highest or top attribute and 3 is lowest of top three attributes) ***Choose N/A if you believe none of these options have supported your current confidence and preparation***

____ Professional development that includes literacy coaching
____ Literacy professional development
____ Additional college course work
____ Readings (books and articles on literacy)
____ Teacher Preparation College
____ N/A

14. Follow up: Please note specifics of your top three choices (Reading Recovery, Leveled Literacy Intervention, in-building literacy professional development, literacy academy, strategic reading professional development, reading licensure courses, literacy coaching, college courses, etc) OPEN RESPONSE

15. Rate your belief in the following statement: overall, my professional development opportunities have led me to make changes in teaching literacy to students with disabilities (Carlisle and Berbesky, 2010).

Strongly Disagree	Disagree	Slightly Agree	Strongly Agree

16. Rate your belief in the following statement: Overall, my professional development has led me to a deeper understanding of literacy instruction for students with disabilities in reading.

Strongly Disagree	Disagree	Slightly Agree	Strongly Agree

Section 4: Literacy Coaching

17. As a special education teacher, have you had any personal one-on-one experience with a **literacy** coach? Definition: one-on-one coaching experience in which the visit was specifically focused on **literacy** and the coach's purpose is to support **literacy instruction**. *Not a Qcomp coaching visit*. (If no, end survey)

a. Yes
b. No

18. Estimate how many hours of literacy coaching have you received in the past three years?

a. 1-2 hours
b. 3-4 hours
c. 5-6 hours
d. 7-10 hours
e. 10+ hours

19. After literacy coaching, report skills you have learned that you perceive to positively impact students with learning disabilities in reading? (Select all that apply)

a. Progress Monitoring
b. Explicit Instruction
c. Reading and Writing reciprocity
d. Data analysis (analyzing progress monitoring tools)
e. Data informed decision making (using data to make decisions)
f. Systems of Strategic Actions for Processing Written Text
g. Phonics and word work instruction
h. Comprehension instruction
i. Vocabulary instruction
j. Other:
k. Other:
l. Other

20. Identify those in the list below in which you believe coaching increased your understanding. *Yes/No Responses

a. Phonemic Awareness (sounds to spoken words)
b. Phonics (letter-sound correspondence)
c. Fluency (rate, prosody, stress and phrasing of reading)
d. Vocabulary (knowledge of words and word meanings)
e. Reading Comprehension (creating meaning of text)
f. Explicit Instruction
g. Data Informed Decision Making
h. Differentiation
i. Reciprocity of reading and writing
j. Systems of Strategic Actions for Processing Written Text

21. Rate your belief in the following statement: Overall, literacy coaching (as defined above) has led me to a deeper understanding of literacy instruction for students with disabilities in reading.

Strongly Disagree	Disagree	Slightly Agree	Strongly Agree