WHAT ARE ELEMENTARY GENERAL AND SPECIAL EDUCATORS READING AND RESPONSE TO INTERVENTION PRACTICES? A SURVEY OF TEACHERS

by

	Christina M. Diamond A Dissertation Submitted to the Graduate Faculty of George Mason University in Partial Fulfillment of The Requirements for the Degree of Doctor of Philosophy Education
Committee:	
	Chair
	Program Director
	Dean, College of Education and Human Development
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Christina M. Diamond Master of Science Old Dominion University, 1999 Bachelor of Science Virginia Polytechnic Institute and State University, 1996

Chairperson: Margo A. Mastropieri, University Professor College of Education and Human Development

> Summer Semester 2013 George Mason University Fairfax, VA

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DEDICATION

This is dedicated to my father who shared his passion for reading and writing with his children every day. He would have been very proud to witness this accomplishment.

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I would like to thank the many friends, relatives, colleagues, and faculty who have provided me with amazing support and encouragement throughout this entire process. My road to completing this dissertation has been long, and I appreciate all who believed I could reach this milestone.

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ABSTRACT

WHAT ARE ELEMENTARY GENERAL AND SPECIAL EDUCATORS READING AND RESPONSE TO INTERVENTION PRACTICES? A SURVEY OF TEACHERS

Christina M. Diamond, Ph.D.

George Mason University, 2013

Dissertation Director: Dr. Margo A. Mastropieri

The purpose of this mixed methods study was to better understand the instructional response to intervention (RTI) practices implemented by elementary level special and general educators responsible for teaching reading. Web-based survey research combined with follow-up interviews were used to gather information from a random sample of general education and special education teachers. This study provides a national picture of the most frequently implemented instructional practices in special and general education elementary reading (K-6), the source through which educators' acquired knowledge of the practices, and the overall level of confidence educators have in particular reading practices. In addition, this study examined the extent to which schools across the country are implementing a response to intervention (RTI) framework to address students' needs using a multi-tiered system of universal, supplemental, and intensive supports. Furthermore, information was gathered on whether schools are using

RTI to guide decision making about the identification of students with specific learning disabilities. Data were analyzed to determine whether differences exist between the practices reported by general and special educators, and qualitative data were used to see if there was corroborating and elaborative evidence provided during more in-depth interviews. The major findings of this study revealed the following: (a) there were no statistical differences between teacher type in frequency of use of reading practices, the source of knowledge of reading practices, and the level of confidence teachers had in the effectiveness of the reading practices they were using; (b) there were significant differences between teacher type in how the instruction was delivered (i.e., group size, number of minutes of daily reading instruction, and intensity of instruction); (c) higher education (teacher preparation coursework and field-based training) and inservice professional development contributed to teacher knowledge more than other sources identified in the survey; (d) while RTI is being implemented in 75% of the schools sampled, there is wide variability in its purpose and use; and (e) interview data provided supporting evidence and illustrative examples for qualitative findings. Findings are discussed in terms of their overall applicability to special and general education reading instruction as well as implications for research and practice for both special and general educators.

1. INTRODUCTION

Reading is critical to an individual's success and can lead to higher rates of school completion, higher rates of college attendance, and better long-term employment opportunities (Snow, Burns, & Griffin, 1998; Wagner, 2000). In fact, Barton (2000) documented that the 25 fastest growing professions had greater-than-average literacy demands while the fastest declining professions had lower-than-average literacy demands. Today's teachers must be prepared to provide students with high-quality instruction that enables them to achieve grade-level expectations leading to high school graduation and positive post-school outcomes. Over the past decade, educators, researchers, university teacher preparation programs, professional organizations, and policy-makers have all worked to improve what we know about effective practices for teaching children to read (National Institute of Child Health and Human Development [NICHD], 2000; Pressley, 2002; Rankin-Erickson & Pressley, 2000; Snow, Burns, & Griffin, 1998). The findings of Snow et al. (1998) and those of the National Reading Panel (NICHD, 2000) encouraged a multi-faceted approach to teaching reading. These findings became a first step in easing the "black and white/all or nothing" orientation that came about during the "Reading Wars" where educators were encouraged to assume either a "whole language" or "phonics-based" approach to teaching reading. Over time, many educators began adopting a combined, "balanced" approach to teaching children to read which incorporates phonemic awareness, phonics, vocabulary development,

comprehension, and fluency through controlled texts but also incorporates aspects of whole language such as trade books and authentic children's literature (Pressley, 2006). While debate still exists within the field on the most effective ways to combine these critical elements of reading, the need for and benefits of prevention of reading problems and early intervention for struggling readers is well documented (Cavanaugh, Kim, Wanzek, & Vaughn, 2004; Foorman & Torgesen, 2001; Juel, 1988; Snow et al., 1998; Torgesen, 2002).

Background of the Problem

According to Snow et al. (1998), research affirms that implementation of high quality classroom instruction in the early grades is the, "single best weapon against reading failure" (p. 343). The federal government recognized the need to assist schools with the implementation of scientifically based reading instruction and mandated its use through passage of the No Child Left Behind (NCLB) Act which established the Reading First program (2001). This grant program required federal funding to be applied to reading curricula and professional development for teachers that are consistent with scientifically based reading research. As specified in the legislation, all programs implemented under Reading First had to incorporate the five essential elements of effective reading instruction: phonemic awareness, phonics, vocabulary development, reading fluency, including oral reading skills, and reading comprehension strategies. Reading First programs were charged with providing high-quality reading instruction along with frequent assessment of student progress in order to increase reading performance and identify and address reading difficulties in the primary grades. The goal of this national effort was to reduce the number of students who experience reading

difficulties and ensure that all students had the ability to read at grade level by the end of the third grade (U.S. Department of Education, 2008).

As strong evidence that supported the research base on scientifically-based reading research continued to grow, researchers were also examining whether alternative approaches to the identification of students with specific learning disabilities (SLD) were likely to result in earlier, more accurate classifications and decrease inappropriate referrals to special education (Bradley, Danielson, & Hallahan, 2002; Fuchs, Mock, Morgan, & Young, 2003). This work resulted in emerging research around the concept of response to intervention (RTI). What researchers were finding was that if reading interventions were implemented early (e.g., in kindergarten or first grade), children who received the interventions were unlikely to experience reading difficulties by the end of the third grade (Vellutino, Scanlon, Small, & Fanuele, 2006). Multiple approaches to RTI emerged, and the federal government, once again, implemented policy that required the use of scientifically-based instructional practices through special education legislation. The reauthorization of Individuals with Disabilities Education Act (IDEA) in 2004, for the first time in history, allowed the use of a process that considers a child's response to scientific, research based interventions as part of the disability identification process. Furthermore, state educational agencies could no longer require the use of a discrepancy approach between intellectual ability and achievement to determine whether a child has a SLD.

Relevance of Study

Since the introduction of RTI in IDEA, growing attention has been placed on RTI not only as a means of disability identification, but also as a framework for delivering

instruction that has the potential to benefit all students by ensuring that they receive instruction that is matched with their educational needs and performance (Berkeley, Bender, Peaster, & Saunders, 2009; Denton, 2012; Fuchs & Vaughn, 2012). RTI research exists in academics (i.e., reading and math) and behavior; however, the majority of RTI research has been conducted in the area of early reading. While there are multiple approaches to implementing RTI, most RTI frameworks include four essential components (National Center on Response to Intervention, 2010). The first component is a school-wide, multi-level delivery system for implementing scientifically based instruction with fidelity. The second component is universal screening of all students for academic and/or behavioral problems at predetermined intervals. Continuous monitoring of student progress is the third component. And, the fourth component is data-based decision making about instruction, movement within the multi-level system, and disability identification.

Many of the components of RTI have been used in schools and have been considered best practices, for years; however, there has been a recent push on the part of policy makers, educators, and some researchers to demonstrate the effectiveness of RTI as a viable framework for meeting the needs of all students. Whether RTI will serve our students well depends on appropriate implementation of RTI. It must be implemented as a prevention model where increasingly intense (multi-tiered) reading intervention is provided to assist students with varying levels of instructional need (Lembke, McMaster, & Stecker, 2010; Bursuck et al., 2004).

The first step in prevention is to provide all students with effective reading instruction based on scientifically-based reading research. Progress is monitored to

identify students who receive effective instruction but fail to progress. These students would, then, receive progressively more intensive reading intervention in order to prevent reading failure. If a student continues to demonstrate insufficient response to more intensive interventions, this student may require a referral for special education evaluation to determine whether the child qualifies for special education services. Using an RTI framework enables educators to improve student achievement by providing scientifically-based instructional and behavioral interventions at an appropriate intensity and duration to all children, including children with specific areas of need, as soon as that need becomes apparent. Schools that use an RTI framework for delivering instruction have in place multiple levels (or tiers) of increasingly intense interventions, including special education services. Within each tier, scientifically based academic interventions are used to appropriately respond to students' needs, as determined by screening and progress monitoring assessments.

In order for teachers to provide reading instruction that is responsive to students' needs, teachers must be knowledgeable about and implement scientifically-based reading practices proven to be effective through research. Additionally, teachers responsible for implementing reading interventions within an RTI framework must possess the knowledge and skills to provide students with appropriate interventions. However, research on the preparation of teachers of reading draws troubling conclusions about the adequacy of current teacher preparation in reading (Smartt & Reschly, 2007; Walsh, Glaser, & Wilcox, 2006). Smartt and Reschly (2007) reported, "a frequent lack in IHE teacher preparation programs of explicit, direct guidance to teacher candidates in dealing adequately with students at risk for reading failure" (p.12). Walsh et al. (2006) found,

"most education schools are not teaching the science of reading" (p. 4). It is reasonable to assume that a teacher is likely to implement the practices learned through their teacher preparation program, once in the classroom. However, few large-scale studies exist that document the practices that teachers actually implement in their classrooms (Baumann, Hoffman, Duffy-Hester, & Ro, 2000; Drecktrah & Chiang, 1997; Mesmer, 2006; Pressley, Rankin, Yokoi, 1996; Rankin-Erickson & Pressley, 2000). Of these large-scale studies, only one was conducted after the publication of the National Reading Panel report (2000); therefore, there is a gap in recent research on the practices implemented by elementary reading teachers. Likewise, the research on the implementation and outcomes of RTI remains limited (Denton, 2012).

Statement of the Problem

Research in the area of early reading has built a solid knowledge base on the components of scientifically based reading instruction. Despite this knowledge base, reading performance of fourth grade students on the National Assessment of Educational Progress (NAEP) remains flat (National Center on Education Statistics [NCES], 2011). In 2011, 33% of our nation's fourth graders scored below basic in reading (NCES, 2011). Another 34% scored at the basic level indicating only partial mastery of fundamental reading skills. These statistics lead one to question why there is a disconnect between what is known about effective reading instruction and the performance demonstrated by our nation's students. One possible explanation to this disconnect may be that teachers are failing to implement effective reading instruction with fidelity, thus limiting student progress on this national assessment. There is limited understanding of whether teachers

responsible for teaching reading implement these research-based practices and whether they are successful with selecting and implementing interventions for students who are struggling to learn to read. The research base on RTI as a viable framework for preventing reading difficulties is emerging. Researchers have documented effectiveness of four essential components of RTI; however, questions about the implementation of RTI and whether RTI can truly serve "all" children remain (Chard, 2012). Cook, Tankersley, Cook, and Landrum (2008) assert that "[k]nowing what works and doing what works are separate considerations. Just because a practice has been identified as effective does not necessarily mean that many teachers will use it as designed over time" (p. 73). Furthermore, they suggest that surveys, classroom observations, and qualitative interviews are research strategies that should be utilized to determine whether teachers successfully implement effective practices (Cook et al., 2008).

Purpose and Research Questions

This study is intended to develop a better understanding of the strategies used by K-6 teachers for instructing students to read. A survey and qualitative interviews were conducted with a national sample of teachers. Because this study is national in scope, classroom observations were not conducted because of cost factors. Both general education and special education teachers were included so that results provide the broadest possible description of the reading instruction delivered to children in the elementary grades. Specifically, teachers were asked to report on: (a) how frequently they implement specific teaching practices, (b) the source through which they learned about the practice, and (c) how confident they are that the practice is effective. In addition, this study will examine the extent to which schools across the country are

implementing a response to intervention (RTI) framework to address students' needs using a multi-tiered system of universal, supplemental, and intensive supports. Furthermore, information was gathered on whether schools were using RTI to guide decision making about the identification of students with specific learning disabilities. Information about teachers' practices provides an understanding of the extent to which teachers are using practices that are proven effective for teaching children to read. Improved understanding of classroom practices in reading instruction can be used to fill gaps in professional development and training for teachers responsible for teaching special and general education reading. This knowledge can also inform gaps between research and practice related to RTI implementation. Research questions for this study are as follows:

- 1. What are the most frequently reported teaching practices used by K-6 teachers for teaching students how to read?
- 2. Do general and special educators differ in the teaching practices that they report using?
- 3. What is the primary mechanism through which K-6 teachers report learning about the teaching practices they use?
- 4. Do general and special educators differ in where/how they learn about the teaching practices they use?
- 5. Are the respondents confident that the teaching practices they report using are effective strategies for teaching students how to read?
- 6. Do general and special educators differ in their level of confidence in the effectiveness of the teaching practices they report using?

7. Are teachers/schools using a multi-tiered approach for teaching reading and/or finding students eligible for special education services as a student with a specific learning disability? If so, what does their RTI model look like and how is it used?

2. LITERATURE REVIEW

The purpose of this chapter is to provide a summary of the literature related to effective reading instruction, the use of RTI in early reading, and implementation of effective reading practices in general and special education. While there is an abundance of literature on effective reading instruction, this review highlights seminal work in early reading instruction. Similar to reading, the literature related to RTI is quickly growing. This review presents key works representative of the larger literature base in RTI for reading. The section on the instructional strategies used by general and special education provides a summary of teacher practices used to teach reading. The remainder of this chapter is divided into four major parts. First, the literature search procedures are described. Next, the widely accepted knowledge base on effective reading instruction is summarized followed by a review of studies that examined effective teachers of reading. The third part focuses on the use of RTI as an approach to preventing reading failure and the research on the large-scale implementation of RTI. The fourth and final part presents a summary of the only large-scale survey found in the research literature examining the practices of general and special education teachers.

Search Procedures

A literature search was conducted using the following databases: Education Resources Information Center (ERIC), PsycINFO, Education Research Complete, and Academic Search Complete. Key words were used (reading, elementary school, teaching practices, teaching methods, interventions, response to intervention, teaching reading, survey, general education teachers, special education teachers, and effective reading instruction) in appropriate combinations. The initial electronic searches yielded over 2,000 studies. Therefore, the search was narrowed to exclude research studies that exclusively utilized qualitative research techniques and RTI research related to areas outside of special and general education elementary reading. The search included the years between 2000 and 2013. Reference lists from relevant studies were reviewed to identify additional studies that were not captured through database searches. This review identified a number of studies that were published prior to 2000. Abstracts for these studies were reviewed to determine applicability to this study. If applicable, studies prior to 2000 were included in the review. Selected reports from prominent organizations such as the National Research Council were also included, as appropriate.

Effective Reading, Effective Teachers, and the State of Teacher Preparation

Today's knowledge base on effective reading instruction is strong. A convergence of evidence from years of research has been synthesized in two influential reports. First, *Preventing Reading Difficulties in Young Children* (Snow et al., 1998) was a report produced by the National Academy of Sciences to examine the effectiveness of reading interventions for young children at risk for reading difficulties. The committee summarized the research base and provided the field with key recommendations for improving reading practice that extended to all children, not just those at risk. Their recommendations are summarized here in two parts. Recommendations for early reading practices are presented first followed by recommendations for education and professional development for all teachers of reading.

Beginning reading instruction should be delivered explicitly with the goal of developing an appreciation that words are made up of small units of sound which make up printed words. Sight recognition of frequently occurring words, independent reading, and reading aloud are all skills that should be taught to early readers. Fluency should be taught through practice with a variety of authentic and engaging texts that are determined to be at the appropriate instructional level. Once students have begun to read independently, their reading instruction should encourage sounding out and confirming word identity of unfamiliar words through reading meaningful texts. A particular focus should be placed on word recognition through letter-sound relationships although context and pictures may be used, to a lesser extent, to assist with word recognition. A student's ability to gain meaning from text depends strongly on the development of word recognition accuracy and reading fluency; therefore, both skills should be regularly assessed to identify difficulty and deliver the appropriate instructional response if difficulty or delay is observed. Reading instruction should also focus on strengthening comprehension skills in both teacher directed reading and independent reading. Direct instruction of comprehension strategies such as prediction, summarization of main idea, drawing inferences, and monitoring for meaning are critical. Writing of letters, word parts, and whole words should be encouraged once students have learned some letters. Writing should take place regularly to further develop understanding of sound-letter relationships. Regular reading instruction should include individual student reading with materials that are below the student's frustration level to increase independence with text as well as daily, teacher-directed instruction that supports reading and rereading of

material that is more challenging to meet the goal of increasing student's reading abilities.

Snow et al. (1998) concluded that the teacher plays a critical role in the prevention of reading difficulties. They must possess knowledge of effective reading practices along with the skills to teach reading. Teacher knowledge and experience coupled with training and ongoing professional development are important. Snow and colleagues recommend that, in addition to coursework, supervised, field-based training in teaching reading should be included in preservice preparation. These placements assist teacher candidates to develop their teaching ability in an applied setting. They also suggest that training and professional development that extends beyond preservice preparation is important to the development of exemplary teachers. The most recent studies on the state of teacher preparation in reading along with recommendations for improving teacher preparation curriculum will be presented later in this chapter.

Next, the National Reading Panel (NICHD, 2000) examined decades of scientific research in reading instruction to determine how to teach all students to read accurately, efficiently, and with comprehension by the end of third grade. Results from this examination synthesized research from large-scale studies that utilized an experimental design to test the effectiveness of reading strategies. Findings from the panel were presented in a widely-publicized report by NICHD. A summary of those findings is included here. Throughout the literature, five critical components of reading were identified (phonemic awareness, phonics, fluency, vocabulary, and comprehension). These areas are essential to developing strong readers. The panel members acknowledged the existence of multiple approaches to teaching the five components, but

cautioned that the different approaches do not have equal efficacy. Based on the evidence, the panel recommended that systematic, explicit instruction be used as the most effective strategy for teaching reading. Systematic instruction is characterized by carefully planned, progressive, logically sequenced reading lessons which focus on clearly defined learning outcomes. It also includes multiple practice opportunities designed to help students master reading skills. Instruction is carefully planned to teach new reading skills, allow opportunities to apply new skills, and evaluate whether students have acquired the skills. Explicit instruction is characterized by the teacher providing a clear statement of what is being taught followed by effective modeling of how a skill is used. Teaching explicitly draws a student's attention to important aspects of the reading lesson. The findings presented by Snow et al. (1998) and corroborated by the National Reading Panel provide the field with a general understanding of reading instruction supported by strong scientific evidence.

In order to gain a better understanding of effective reading instruction as implemented in schools, research studies on effective teachers were reviewed (Pressley, Rankin, & Yokoi, 1996; Pressley, et al., 2001; Wharton-McDonald, Pressley, & Hampston, 1998; Rankin-Erickson & Pressley, 2000). Unlike the experimentally designed studies examined in the National Reading Panel report, these studies were nonexperimental in nature and utilized survey research, observations, and in-depth interviews to learn more about the instructional practices of effective teachers of literacy.

After review of the study abstracts, two were excluded from this review because they were limited to first grade reading. A synthesis of major findings from the two remaining studies follows.

Pressley, Rankin, and Yokoi (1996) surveyed elementary general education teachers of kindergarten through second grades. Participants were nominated by their supervisors as effective literacy teachers. In the first phase of the study, participants were asked to provide the research team with a list of 10 instructional practices that they considered essential to their literacy instruction. Over 300 different practices were identified through this process which informed the development of a survey that participants completed. In this initial study, researchers found that exemplary teachers use a wide variety of instructional practices to support reading development. The teachers implemented taught and modeled lower-order (e.g., decoding) skills and higherorder (e.g., comprehension) skills, created literacy-rich classrooms, provided frequent and diverse exposure to a variety of reading strategies such as guided reading, shared reading, and independent reading, and used information from student progress to make decisions about instruction. They also learned that exemplary teachers utilized a balance of reading practices, some more aligned with whole-language and some more consistent with skills instruction. The research team was surprised to learn that the practices used by effective teachers to teach struggling readers were not qualitatively different from the practices they used with other learners; however, the practices used were more intensive than those used with students who were not struggling.

Rankin-Erickson and Pressley (2000) replicated this line of research with elementary special education teachers who were nominated as effective teachers of literacy. Similar to the 1996 study, the survey involved two steps. First, they administered a 10-item, open-ended questionnaire to 40 special education teachers (20 who were identified as exemplary by an International Reading Association supervisor

and 20 randomly sampled special educators from a local school district) where teachers could indicate up to ten essential practices of quality literacy instruction. Using the responses from the open-ended questionnaire, researchers created a survey that included items related to all 436 practices that were reported on the questionnaire. Survey responses revealed teaching philosophies, learning environments, and instructional processes and practices that were frequently reported by special education teachers who had been characterized as effective teachers of reading and writing. The survey included 231 items about particular instructional practices, strategies, or materials. The survey also included 66 items where teachers could indicate the frequency with which they used certain instructional practices. Findings corroborated those from the earlier study where reported practices reflected a balance of teaching philosophies including whole language as well as targeted skills instruction. Rankin-Erickson and Pressley (2000) concluded that the practices implemented by special education teachers were not much different from the practices reported by general education teachers. The special education teachers reported implementing more intensive sound-, letter-, and word-level skills instruction, but their students also received a balance of literacy instruction. In both of the studies conducted by Pressley and colleagues (1996; 2000), they examined the practices implemented by effective teachers of reading. This unique group of teachers was identified by their supervisors because they demonstrated exemplary reading instruction and is likely not representative of the reading instruction provided by the average teacher. Further study of exemplary teachers to identify what they consider to be critical elements of teacher preparation could inform revisions to existing teacher preparation programs and lead to improvements in preservice teacher training in reading. The remainder of this

section will provide a national perspective on the state of preservice teacher preparation by summarizing findings from two national studies on teacher preparation in reading.

In 2006, the National Council on Teacher Quality published a study on teacher preparation in reading. The purpose of the study was to better understand how teachers are being prepared to teach reading. They randomly selected 72 teacher preparation programs from across the country and reviewed the syllabi of 223 required reading courses as well as the required textbooks for these courses to determine the extent to which the courses presented the essential components of effective reading instruction.

Findings indicated that only 15% of the 72 programs provided minimal coverage of the evidence-based reading instruction through required coursework. An analysis of course syllabi revealed that there was "a tendency to dismiss the scientific research in reading, continuing to espouse approaches to reading that will not serve up to 40 percent of all children" (Walsh, Glaser, & Wilcox, 2006, p. 3). In addition, only four out of 227 required textbooks were found to be considered acceptable as comprehensive textbooks for reading instruction. Finally, despite the availability of valid and reliable assessments for predicting students' future reading achievement, few of the textbooks used in these courses recommended valid and reliable assessments. While there may be some limitations with using course syllabi and required textbooks to evaluate program content, the researchers acknowledged that "it is reasonable to assume that college professors give thought and consideration to their syllabi and course readings, which represent the intended structure of their courses and emphasize what they view as essential knowledge" (Walsh et al., 2006, p. 9). The next study utilized a different methodology to examine

whether the essential components of reading were adequately covered by a national representative sample of teacher education programs.

In 2010, the Institute of Education Sciences (IES) published the Study of Teacher Preparation in Early Reading Instruction (Salinger et al., 2010). This study was designed to gain a national perspective on how well teacher candidates enrolled in teacher preparation programs are prepared to teach the essential components of reading and set out to answer two primary research questions: (a) to what extent do the curricula of teacher preparation programs include the essential components of early reading instruction?; and (b) to what extent are graduates of teacher preparation programs knowledgeable about the essential components of reading instruction?

Data were gathered from a sample of 2,237 teacher candidates enrolled in a nationally representative sample of 99 teacher preparation programs across the country. For a program to be included in the sample, it had to graduate a minimum of 50 new teachers per year. The graduates obtained various degrees (i.e., bachelor's, post-bachelor's certificate, or master's) resulting in eligibility for initial teacher licensure and were enrolled in a variety of program types (i.e., general education, elementary education, early childhood education, reading teacher education, and multidisciplinary or interdisciplinary studies). In addition, this sample only included programs where teacher candidates completed their preparation primarily on-site and not through online coursework.

Data were collected through a survey instrument titled, "Preservice Teacher Preparation Program and Knowledge Survey" which consisted of two parts. The first part was the program survey which included questions designed to gather information

about teacher candidates' background characteristics and solicit the candidates perspective about the extent to which the essential components of early reading instruction were included in their coursework and preservice field experiences. The essential components included in this survey were: phonemic awareness, phonics, fluency, vocabulary, and comprehension. These components were consistent with those identified by the National Reading Panel. The second part of the survey was a teacher knowledge assessment that included multiple-choice questions designed to assess the teacher candidates' knowledge of scientifically based research in teaching reading and their knowledge of each of the five essential components of early reading. The survey was administered in the spring and summer of 2007 to coincide with teacher candidates' graduation from their respective training program. Responses were received from teacher candidates in 24 states graduating from both public and private teacher preparation programs. Every program trained teachers to teach elementary level content from kindergarten through sixth grade.

Findings from this study reveal that, on average, teacher candidates believed that their teacher preparation program placed little to moderate emphasis (1.76) on the essential components of reading when evaluated on a four-point scale (0 =none; 1 =little; 2 = moderate; and 3 = considerable). Findings broken down by coursework and field experience show that teacher candidates felt that emphasis on the essential components of reading was slightly higher through field experiences (1.86) than through coursework (1.66). Field experiences included activities such as school-based practica or student teaching that exposed teacher candidates to such the essential components of reading either through observation or applied practice teaching.

Furthermore, results revealed a discrepancy between teachers' self-reported level of preparation when compared to their performance on the knowledge assessment. For each of the five areas of reading, teachers were asked whether they had learned what students must know and be able to do. Teachers rated their level of preparation on a four-point scale (0 = not at all prepared; 1 = somewhat prepared; 2 = mostly prepared, and 3 = definitely prepared). Findings show that overall, teacher candidates rated their level of preparation as slightly above the "mostly prepared" category (2.13) to teach the essential components of early reading. It interesting to note that teachers felt mostly prepared to teach the essential components of reading when the results of the knowledge assessment reveal what one would consider to be "failing grades" in in teacher knowledge of these components. On average, teacher candidates correctly answered 57% of the knowledge assessment items indicating that teachers' self-reported rating of preparation may not reflect their actual knowledge of reading instruction.

It is important to recognize that teacher preparation programs are responsible for preparing the "whole" teacher in a number of subject areas that go beyond reading; however, findings from both the Walsh et al. (2006) study and the Salinger et al. (2010) study certainly reveal room for improvement in the extent to which the essential components of reading are emphasized within teacher preparation programs. These findings also point to the need for school districts to provide high-quality mentoring and coaching to new teachers in order to further develop and enhance their knowledge and skills in reading instruction.

The studies by Walsh et al. (2006) and Salinger et al. (2010) provide us with a better understanding of the state of teacher preparation for general educators responsible

for teaching reading; however, special education teacher preparation programs were not included in these research studies. In an attempt to understand whether the same issues exist in special education teacher preparation, a search was conducted to determine whether research exists on the extent to which the essential components of reading were included in special education teacher preparation programs. An older study on the critical features of special education teacher preparation conducted by Brownell, Ross, Colon, and McCallum (2005) examined special education teacher preparation program descriptions and evaluations published during a 13-year time frame and compared them to research on exemplary general education teacher preparation programs. While this study did not focus on the whether reading content was included in special education teacher preparation programs, they concluded that special education programs focused more on generic pedagogy such as instructional methods and assessment when compared to exemplary programs in general education. General education programs defined as exemplary demonstrated a strong programmatic emphasis on subject-matter teaching (i.e., reading, math, and science); however, there was limited evidence to show a similar emphasis on subject-matter preparation in special education programs. Therefore, Brownell and colleagues raised the question, "can special education teachers implement validated interventions for individual students without a deep understanding of the content area and how students might develop that content area?" (p. 249). While no large-scale study similar to the Salinger et al. (2010) was found, three more recent studies summarized below provide more up-to-date research on the state of special education teacher preparation and the knowledge and skills of special education teachers who teach reading.

Brownell et al. (2009) conducted a study that examined beginning teacher knowledge and the practices they use during elementary reading instruction. While this was not a direct investigation of the teacher preparation programs where these beginning teachers were trained, findings certainly have implications for special education teacher preparation. In addition to examining teacher knowledge and practice, researchers assessed the reading achievement gains for students with high-incidence disabilities who were taught by beginning special education teachers. The researchers agreed that, "The role of a special educator is quite complex. At the elementary level, there is a consensus that a qualified special educator should know how to teach students to read and should possess some knowledge about mathematics and writing instruction. However, in order to provide a high-quality special education, teachers need additional knowledge about disabilities, teaching basic skills to struggling readers, student motivation and classroom management, and social skill development." (p. 392). The primary objectives for this research were to measure beginning teachers' knowledge of reading instruction and to examine the extent to which their classroom practice reflects this knowledge. Specifically, the Brownell et al. (2009) set out to answer the following research questions:

How much engaged knowledge for teaching reading do beginning special education teachers have? What are the classroom practices of beginning special education teachers related to reading, as well as more generic practices, such as direct instruction and classroom management? What contribution does knowledge for teaching reading make in predicting the classroom reading practice of beginning special education teachers? What are the relationships between

observed classroom practice and reading growth of intermediate grade students taught by special education teachers? (p. 395).

To better understand the classroom practices used by beginning special educators, the researchers observed 34 beginning teachers from Florida, Colorado, and California who were in their first three years of teaching. Teachers represented nine school districts and were evenly distributed across years of teaching experience (12 first-year teachers, 10 second-year teachers, and 12 third-year teachers). Teachers were observed three times each during a scheduled time and completed a pre-observation questionnaire to provide researchers with information about the lesson ahead of time. In addition to conducting classroom observations, teachers were asked to complete a survey about their knowledge of reading. Student reading performance was measured by conducting pre- and posttests with 165 students who were identified as having learning disabilities and exhibited significant reading difficulties. All of these students spent the majority of their school day in general education, but were in a special education setting for reading instruction.

The researchers used an observation instrument that incorporated reading research and research on effective special education teaching. The observation instrument included 22 items and observers rated each item on a four-point scale (1 = low quality and 4 = high quality). Items included instructional practice, classroom environment, decoding, comprehension, classroom management, and overall teaching practice. Next, the researchers assessed teachers' content knowledge in teaching reading using a general education teacher knowledge survey that has been previously validated by other researchers (see Phelps & Schilling, 2004). This survey was divided into two subscales. One subscale included items related to word analysis and the other included items related

to reading comprehension. Finally, student reading performance was evaluated using two subtests from the Woodcock Johnson, Reading Mastery Test, Revised, the Oral Reading Fluency Test, and the Gray Oral Reading Test, 4th Edition.

Findings from this study demonstrated that beginning special educators demonstrated knowledge about teaching reading that was, "slightly below the midpoint of the distribution for a population of experienced elementary teachers (i.e., average 15 years experience)." (p. 400). Classroom observations identified that beginning special educators' skills in classroom management and organization are slightly above average and skills in specific areas of teaching reading (i.e., decoding, comprehension, word study in connected text) were slightly below average. Results related to the relationship between knowledge for teaching reading and classroom practice indicated that teachers' knowledge in both word analysis and reading comprehension was not significantly related to their classroom practice. When examining the relationship between teacher practice and student achievement gains, statistical analysis suggest that teachers relied on their classroom management practices and more general teaching practices than reading practices to influence student achievement. Furthermore, teachers who engaged students in more intensive, continuous reading instruction had a stronger influence on oral reading fluency and word identification achievement.

Brownell et al. (2009) concluded that, "beginning special education teachers likely rely more on their general knowledge about instructional and classroom management practice than on any domain-specific knowledge they have for teaching reading, when operationalizing classroom practice." (p. 406). They also presented a potential connection between the profiles of beginning special education teachers and the
strengths and weaknesses of the teacher preparation programs they attend; however, this connection warrants further research. This study demonstrated that despite strengths and weaknesses in teaching practices, beginning special educators demonstrated knowledge about the essential components of reading instruction. This is promising as one would hope that as beginning teachers gain teaching experience and engage in additional professional development they will build their professional skills and implement their knowledge of effective reading practices in the classroom.

The majority of RTI research has been in the area of elementary reading, but there is limited research connecting teacher knowledge of reading to the implementation of RTI. Spear-Swerling and Cheesman (2011) conducted a study of teachers' knowledge related to the essential components of reading, assessment, and the implementation of RTI at the elementary school level. Their study included both general education and special education teachers as well as teacher candidates attending teacher preparation programs in two different states. A total of 142 participants were recruited in two different ways. Teacher candidates comprised 69% of the participants and were recruited through their preservice teacher preparation program. Practicing teachers comprised 30.9% of the participants and were recruited via emails sent to their principals. Both SEAs had recently begun initiatives focused on the implementation of RTI and also had issued guidelines requiring the use of RTI in the identification of students with specific learning disabilities.

The main goal of the study was to examine the knowledge base of participants (teacher candidates, general education, and special education teachers) for implementing RTI in elementary reading. There were four research questions: (1) How would teachers

and teacher candidates perform on different sections of a knowledge survey tapping their knowledge about different components of reading, assessment, and RTI practices?; (2) How would years of experience teaching reading, amount of reading-related course work, certification status, and code-focused professional development relate to participants' performance on different sections of the knowledge survey?; (3) Would participants have familiarity or experience with specific assessments, instructional programs, and interventions that are potentially useful in RTI models?; and (4) How would the professional background variables mentioned previously relate to participants' familiarity or experience with specific assessments, instructional programs, and interventions? (p. 1696). A questionnaire of participants' background in reading, as well as their knowledge of specific assessments, instructional models, and interventions common to RTI implementation was administered to collect information related to teacher certification, reading-related course work, teaching experience, participation in professional development. In addition, a knowledge survey was administered to assess participants' knowledge about the essential components of reading, reading assessment, and RTI implementation.

Findings indicated that participants' knowledge varied across the components of reading. The highest scores on the knowledge survey were on the subscale measuring fluency/vocabulary/comprehension knowledge and the lowest scores were on the subscale involving assessment/RTI practices. Scores on the subscale measuring phonemic awareness/phonics were in the middle. Mean percentages of items correct on the subscales ranged from a low of 58% to a high of 65% correct. However, participants who had completed "code-focused professional development" (i.e., professional

development that includes explicit instruction in phonological awareness and phonics) performed better than those who had not experienced this type of professional development on all survey subscales. No differences were reported between general and special education elementary teachers on two of the three subscales and the practicing teachers outperformed the teacher candidates. On the assessment/RTI subscale special educators performed better than both the teacher candidates and the general educators. The majority of participants had basic familiarity with the essential components of RTI, but lacked knowledge of instructional approaches and scientifically based interventions that were described in the questionnaire. Once again, participants who had participated in code-focused professional development demonstrated more familiarity with certain interventions. In summary, results suggest that both classroom experience and professional development on explicit phonological awareness and phonics play an important role in the successful implementation of RTI in elementary reading. The next section provides an overview of RTI in early reading and describes several large-scale studies on the implementation of RTI to prevent reading difficulties.

RTI in Early Reading

The National Center on Response to Intervention (NCRTI) offers the following definition of RTI:

Response to intervention integrates assessment and intervention within a multilevel prevention system to maximize student achievement and to reduce behavioral problems. With RTI, schools use data to identify students at risk for poor learning outcomes, monitor student progress, provide evidence-based interventions and adjust the intensity and nature of those interventions depending

on a student's responsiveness, and identify students with learning disabilities or other disabilities (NCRTI, 2010, p. 2).

NCRTI further provides detailed descriptions of what they assert to be the four "essential components" of RTI. These components include: (a) screening, (b) progress monitoring; (c) multi-leveled instruction; and (d) data-based decision making. NCRTI's definition of RTI was not specific to early reading; therefore, additional sources were consulted to gain a better understanding of how these components would fit together as a model designed to prevent reading failure in the elementary grades.

The search for RTI implementation recommendations related to early reading uncovered a freely available "practice guide" published by the IES. This guide, developed by Gersten et al. (2009), includes considerable overlap with the NCRTI components, but also provides the field with a rating of the strength of the research evidence on the practices they recommend. This practice guide provides and describes five recommendations for RTI in early reading: (a) universal screening for all students; (b) differentiated instruction for all students based on assessments of current reading level; (c) intensive, systematic, small group instruction (Tier 2) for students scoring below benchmark on universal screening; (d) progress monitoring of students receiving Tier 2 at least monthly; and (e) daily intensive instruction (Tier 3) on various components of reading to students who make minimal progress in Tier 2. Recommendations for how to implement RTI in reading along with a checklist for carrying out the recommendations are included in the practice guide. This practice guide, the NCRTI's essential components, and a wealth of research studies provide teachers with concrete guidance on how to implement RTI. What is not known is whether teachers are able to use this

information in practice and implement RTI within their school setting. Therefore, recent studies on the implementation of RTI were perused to understand whether teachers were using RTI in their schools. Several studies providing descriptions of RTI implementation were identified (see Bradley, et al., 2011; Jenkins, et al., 2013; Mahdavi & Beebe-Frankenberger, 2009; Mellard, McKnight, & Jordan, 2010; Mellard, McKnight & Woods, 2009; Orosco & Klingner, 2010; Tackett, Roberts, Baker & Scammacca, 2009). Because the purpose of this study is to gain a better understanding of the current state of RTI implementation on a large scale, only studies that investigated implementation in 10 or more schools were included in this review. After applying this limitation, three studies remained; however, reviews of Mellard et al. (2009; 2010) revealed that their research was conducted prior to the inclusion of RTI in IDEA. Therefore, this work was excluded from this review because it was unlikely to provide a current perspective of RTI implementation.

The IDEA National Assessment Implementation Study (IDEA-NAIS) was conducted in early 2009 (Bradley, et al., 2011). This descriptive study was commissioned by the U.S. Department of Education's IES and provides the results of survey data from state education agency (SEA) leaders in the 50 states and the District of Columbia as well as leaders from a nationally representative sample of 1,200 local education agencies (LEAs). The response rate for SEA surveys was 100% and the response rate for LEA surveys was 96%. The scope of this study was broad; therefore, this discussion is limited to the RTI portion of the study. Survey responses from both SEAs and LEAs describe activities related to RTI implementation, leadership of RTI, and funding of RTI training and implementation. This study provides the most complete

examination of the national picture of RTI implementation to date. For the IDEA-NAIS, RTI was defined as:

a multi-step approach to providing early and progressively intensive intervention and monitoring within the general education setting. In principle, RTI begins with research-based instruction and behavioral support provided to students in the general education classroom, followed by screening of all students to identify those who may need systematic progress monitoring, intervention, or support. Students who are not responding to the general education curriculum and instruction are provided with increasingly intense interventions through a "tiered" system, and they are frequently monitored to assess their progress and inform the choice of future interventions, including possibly special education for students determined to have a disability (p. 48).

Results indicate that all states were engaged in state-level initiatives for RTI. These initiatives included activities such as a state-supported task force, commission or internal work group on RTI (49 states), conducting training on RTI (40 states), and developing guidelines for RTI implementation (39 states). The LEAs sampled indicated that 71% of school districts were implementing RTI. Use of RTI was most prominent at the elementary level. In fact, it was estimated that 61% of elementary schools were implementing RTI during the 2008-2009 school year. Although the vast majority of RTI related research is reported in the special education literature, RTI in school districts received a great deal of support from general education. Approximately 75% of districts reported that RTI efforts are led collaboratively by staff from both general and special education. Forty-eight percent of school districts reported that the primary source of

funding for RTI comes from their districts' general funds. SEAs and LEAs also reported information related to the policies and practices used for the identification of students with SLD. The majority of SEAs (73%) reported that they allow the use of an IQ-achievement discrepancy model as well as the inclusion of RTI data; however, LEAs reported that a lower percent of districts (53%) use both RTI and discrepancy data in eligibility determination for SLD.

The next largest study of RTI implementation was conducted by Jenkins, Schiller, Blackorby, Thayer, and Tilly (2013). In their study, they present findings on the RTI implementation at 62 elementary schools from 17 states. Their sample was derived from a larger group of conference participants at a September 2009 national conference on RTI. Conference participants who had detailed knowledge of the RTI practices in their elementary school were asked to complete a paper and pencil survey during the final session of the conference. Many schools had multiple representatives attending the conference; therefore, teams were asked to complete only one survey per school. Followup telephone interviews were held with 45 schools that provided contact information to clarify ambiguous answers or complete missing items. The survey and follow-up interviews included questions about differentiation of instruction in Tier 1 (i.e., core instruction), screening/benchmarking procedures, the setting in which Tier 2 interventions were delivered, group size and the minutes per day of intervention delivered in Tiers 2 and 3, and how students receiving special education services in reading were served in the RTI model.

On average, schools in this study had been implementing RTI for 3.1 years and 84% of schools were implementing RTI in all elementary grade levels. Findings

indicated that the majority of schools had adopted a commercially available reading program (85%) and were consistently differentiating instruction in Tier 1 (80%). Universal screening and benchmarking practices were conducted three times per year in 98% of schools, with 90% of schools identifying a form of curriculum-based measurement (CBM) (Deno, 1985) as the assessment technique. Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and AIMSweb were the most frequently cited CBM tools used. Tier 2 instruction for these elementary schools occurred in a variety of settings. In almost half of the schools (48%), Tier 2 was delivered in a separate setting from Tier 1. Another 20% reported that Tier 2 occurred within the Tier 1 setting, and 32% of schools reported Tier 2 occurred both within and outside of the Tier 1 setting. Group sizes ranged for both Tier 2 and Tier 3 instruction. Tier 2 groups ranged from three to 15; whereas Tier 3 groups were much smaller in size (i.e., one to six students in a group). In addition to smaller group sizes in Tier 3, interventions at this level were reported to be more intensive than in Tier 2 with more frequent progress monitoring in Tier 3. Finally, over 10 different approaches for teaching reading to special education students were reported within the schools. Jenkins et al. (2013) found this variation not only across schools, but also within schools. That is, most schools reported multiple models for serving students with disabilities within the same school building.

Across these two studies perspectives about RTI were gained through the lens of SEA leadership, LEA leadership, and school-level leadership and staff responsible for the implementation of RTI. The IDEA-NAIS study included all states and a nationally representative sample of school districts while the Jenkins et al. (2013) study was a purposeful sample of school-level individuals with "intimate knowledge" of the RTI

practices within their particular school. The findings present a convergence of evidence that RTI is being widely implemented for both the purposes of preventing poor learning outcomes and as a source of data in the determination of SLD. The IDEA-NAIS study provides a picture of state and district level policies and practices that support RTI, but does not provide the specific details about what RTI looks like when implemented at the school level. The Jenkins et al. (2013) study provides us with much more detail about RTI implementation at the school level, but only included schools which had been implementing RTI for several years. It can be assumed that the participants in their survey had a strong commitment to RTI as evidenced by their participation in a national professional development conference on RTI implementation and therefore, are not necessarily representative of school-based personnel without this experience or commitment. This study will combine methodological aspects of the IDEA-NAIS and Jenkins studies to provide a school level perspective on the implementation of RTI from a nationally representative sample of teachers.

Instructional Strategies Used by General and Special Educators

Through the course of the literature search, no recent, large-scale studies were found that simultaneously collected data from both general and special education teachers about the practices they use to teach reading. However, one study published in 1997 was located through ancestral searches of reference lists in other research articles (Drecktrah & Chiang, 1997). This study sampled 300 randomly selected licensed teachers in Wisconsin. Teachers were identified from the Department of Public Instruction licensing database in Madison, Wisconsin. The purposes of the study were two-part: first, to determine what instructional practices were actually used by elementary general and

special educators and, second, to learn about the teachers' philosophical approach along with what influenced their adoption of that approach. The researchers developed a survey which was completed by 183 out of the 300 sampled teachers. The sample included 100 second grade teachers (59 responses), 100 fifth grade teachers (70 responses), and 100 elementary special education teachers (54 responses) and yielded a 61% response rate. The survey included three parts. Part 1 requested demographic information such as years of teaching experience, district size, and grade level of instruction. In part 2, participants provided information about their instructional approach (i.e., whole language or direct instruction). Whole language was defined as a holistic approach that emphasizes meaning in reading. Direct instruction was defined as a, "systematic carefully sequenced approach that emphasizes student participation with teacher feedback including corrections and reinforcement" (p. 176). Also in this part participants could indicate the degree to which each approach was used in their classroom and their perception of the effectiveness of their approach. The third part of the survey listed 21 instructional strategies and teachers were asked to indicate whether they used the strategies listed. Additional information was gathered from special education teachers to determine whether they used the same instructional materials as the general education classroom teachers.

Results from this study show that a whole language approach was used more frequently by fifth grade teachers (64.3%) than second grade teachers (12.7%) and special education teachers (37%). Direct instruction was used by more than half of all teacher types. Special education teachers used direct instruction most frequently (61.1%), followed by second grade teachers (59.4%), and fifth grade teachers (58.6%).

Participants were able to indicate more than one instructional approach; therefore, percentages for each grade and for special education teachers could exceed 100%. All teachers indicated that a combined approach (use of both whole language and direct instruction) is effective for teaching reading. Philosophical approaches for teaching reading were influenced by three factors: school district philosophy, colleague influence, and teacher training program philosophy. Both second grade teachers and special education teachers indicated that the philosophy touted by their teacher training program had the most significant influence on their instructional approach (55.9% for second grade teachers and 51.9% for special education teachers). In comparison, the school district philosophy was most influential in the instructional approach of fifth grade teachers (52.9%). An examination of the frequency of use for specific instructional strategies shows variation across teacher types. All three types (second grade, fifth grade, and special education) indicated a high level of use of guided reading (93.2%, 82.9%, and 90.7%, respectively). Special educators were unique in that 87% reported using individualized reading frequently. Approximately 65% of second and fifth grade teachers used individualized reading. Furthermore, a statistically significant, greater portion of special education teachers used practices such as ability grouping, teaching of controlled vocabulary, guided reading, and individualized reading more often than general educators.

In summary, this study identified that the majority of teachers (over 70% of each group) surveyed believed that a combination of whole language and direct instruction practices was effective for teaching elementary reading. Results are in agreement with the scientific evidence on reading research (NICHD, 2000) and the research on effective

teachers of literacy (Pressley et al., 1996; Rankin-Erickson & Pressley, 2000) that recommend a balanced approach to reading instruction and demonstrate that effective teachers of literacy balance their instruction. Finally, Drecktrah and Chiang (1997) suggest that the effective instructional strategies that were mutually agreed upon by general and special education teachers can be used in inclusive, collaborative and coteaching arrangements to meet the needs of all students.

The research summarized in this chapter highlights what we know about effective reading instruction, the strategies used by effective teachers, and strengths and weaknesses in general education and special education teacher preparation. In addition, research on the state of RTI demonstrates that RTI is gaining momentum as a strategy for preventing reading difficulties and is being implemented in the majority of school districts across the country. While we know that implementation is taking place, it still leaves questions about whether teachers are using the best of what we know from research and practice. The next chapter presents the methodology for this study where I will examine the practices used by a nationally representative sample of special and general education elementary teachers.

3. METHODS

Design

This was a mixed methods study that utilized Web-based survey research as well as telephone interviews with selected participants from a pool of volunteers from the original sample. The sample was a national random sample of kindergarten through sixth (K-6) grade general and special education teachers responsible for teaching reading. The sample was selected by a professional marketing company.

The purpose of this study was to determine the frequency of use, knowledge source, and level of confidence in the teaching practices reported by K-6 teachers responsible for teaching reading. It provided the field with a better understanding of whether differences exist between the practices reported by general and special educators. This study was primarily descriptive (non-experimental) in nature, but identified on a national level the most frequently implemented instructional practices in elementary reading, the source through which educators' acquired knowledge of the practice, and the overall level of confidence educators have in particular reading practices. In addition, this study examined the extent to which school districts across the country are implementing an RTI framework to address students' needs using a multi-tiered system of universal, supplemental, and intensive supports. Furthermore, information was gathered on whether schools are using this framework to guide decision making about the identification of students with specific learning disabilities.

Sample

Market Data Retrieval (MDR), a professional marketing company, provides national random samples of education personnel from its databases and mailing lists for school marketing purposes. Its database currently has over 3.5 million educators across multiple categories of education (e.g., elementary, middle, high school). MDR was contacted via phone and e-mail to obtain a random sample of educators of K-6 general and special education teachers based on the following characteristics: (a) they must teach children in kindergarten through sixth grade, and (b) they must be a classroom teacher/teacher of record for either general (n=500) or special (n=500) education. Teachers classified as reading specialists or other interventionists who were not classroom teachers or the teacher of record were not included in the sample. General and special education teachers were targeted because they are most commonly the teachers responsible for providing core reading instruction in grades K-6. Teachers classified as reading specialists or other interventionists were excluded because they typically provide instruction beyond the core curriculum. In addition, these teachers are likely to have received more intensive, specialized training in strategies for teaching reading and are therefore, not considered to be "typical" elementary teachers.

MDR provided the researcher with a random sample of 1,000 K-6 general and special education teachers mailing addresses at school and disseminated e-mail requests to the same 1,000 educators through its in-house e-mailing service, therefore providing the participants two channels through which they were invited to participate in the study.

Survey Development

The literature review and synthesis identified numerous studies that were relevant to this study's purpose or methodology; however, a few selected studies provided the basis for the survey development (Pressley, Rankin, & Yokoi, 1996; Wharton-McDonald, Pressley, Hampston, 1998; Rankin-Erickson & Pressley, 2000; Phelps & Schilling, 2004; Rowan, Correnti, & Miller, 2002). Pressley et al. (2001) conducted several survey research studies of effective teachers of reading (Pressley, Rankin, & Yokoi, 1996; Wharton-McDonald, Pressley, Hampston, 1998; Rankin-Erickson & Pressley, 2000). One study focused on K-2 general education teachers, another study focused on first grade teachers, and the most recent study examined elementary special education teachers. In order to build upon this work, Dr. Erickson, the Co-Director of the Great Plains Institute of Reading and Writing and the University of Nebraska-Lincoln Reading Center and lead author on the special education teacher study, was contacted via e-mail to request a copy of a survey earlier (personal communication, October, 10, 2006); however, the researcher no longer had access to the survey instrument used in her research. Review of the above article, literature on reading research (Kamil, Mosenthal, Pearson, & Barr, 2000), as well as, review of several other surveys of teachers related to teaching reading (Phelps & Schilling, 2004; Rowan, Correnti, & Miller, 2002) informed the content and structure of this survey.

Using information on survey design and reading, a web-based questionnaire informed by the works of Drecktrah and Chiang (1997), Pressley, Rankin, and Yokoi (1996) and Rankin-Erickson and Pressley (2000) was developed. This web-based questionnaire went through several iterations before it was opened for data collection. The original draft of the survey began with the George Mason University Human Subjects Review Board (HSRB) informed consent form and was divided into six parts with a total of 30 questions. Part one included demographic content, including questions about the teachers, their school, and the currently-used reading curriculum. This section included a combination of multiple choice, short answer, and yes/no questions. Part two included multiple choice questions about the instructional practices used by the respondents to teach reading. For each question, a teaching method or strategy was described, and teachers responded by indicating how frequently (if at all) they used each of the methods/strategies described. Part three included questions about how and where respondents learned specific instructional methods or strategies. They were asked to select the top three ways they learned about each method/strategy. Part four included multiple choice questions about the teachers' level of confidence related to the selected instructional practices. Part five included one, open-ended question in which the teachers included information about any other instructional practices, methods, or strategies they used to teach reading or monitor student progress in reading. Part six included a combination of multiple choice and open-ended questions about the practices used in the teacher's schools and their involvement in the identification and/or evaluation of students who have specific learning disabilities (SLD).

The original draft of the survey was pilot tested by a group of doctoral students enrolled in EDSE 842: Application of Research Methodology in Special Education at George Mason University. Feedback from the pilot test and follow-up discussions with the advising professor resulted in several changes to the survey. The revised survey had a reduced number of demographic questions and was different in structure. That is, the

questions previously in parts two, three, and four were consolidated into one section so that participants could more easily respond to all items related to a particular practice in one, three-part question rather than responding to separate questions about the same reading practice in several parts of the survey.

Final Survey

The final version of the online survey is included as Appendix A and was posted online using a University web-based survey program. It begins with the George Mason University HSRB informed consent form, and the remainder of the survey is divided into four parts with a total of 37 questions. Each part of the survey is described in this section.

Part one included 15 general questions about the participants and their teaching assignment (i.e., general education versus special education), characteristics of their school and the reading curriculum used in their school, the grade level of students, ability/disability status for students in the main reading class, and type of reading instruction provided to students (i.e., core curriculum, targeted instruction, or intensive instruction). There was a combination of multiple choice, short answer, and yes/no questions.

Part two included nine, three-part questions. The first part of each question was a multiple choice question about the instructional practices used by participants to teach reading. For each question, a teaching method or strategy was described and the participant was asked to respond by indicating how frequently (if at all) they used each of the methods/strategies described. Response options included: never, less than once a month, one to three times per month, one to two times per week, three to four times per

week, and daily. The second part of each question allowed multiple responses. For each teaching method or strategy, the participant indicated the source through which they learned about the described practice. Respondents checked all response options that applied to their knowledge of the teaching practice. Response options included: college/university course (e.g., lecture, demonstration, or textbook); student teaching/internship/practicum; professional development/training/workshop offered by my school/district; professional development/training/workshop offered by an external source; another teacher, mentor, or colleague (e.g., explanation, observation, or demonstration); state, regional, or federal technical assistance center; personal experience/trial-and-error; never learned this practice; and other source, please specify. Finally, the third part of each question in part two was a multiple choice question in which the respondents indicated their level of confidence in the effectiveness of each teaching method or strategy. Response options included: not at all confident, not very confident, neutral, somewhat confident, and very confident.

Part three included one, open-ended question requesting information about any other instructional practices, methods, or strategies used to teach reading or monitor student progress in reading that were not included in part two of the survey. For each additional practice participants reported they were asked to comment on how frequently they used the practice, how they learned it, and how confident they were in the effectiveness of the practice.

Part four included a combination of multiple choice and open-ended questions about the practices used for the identification and/or evaluation of students who have specific learning disabilities (SLD). The final question in part four thanked the

participants for completing the survey and asked them to provide contact information if they were willing to participate in a follow-up telephone or e-mail interview.

Interview Protocol

The final interview protocol consisted of six questions designed to gather additional information about several aspects of the survey. Questions included the following:

- 1. Can you tell me more about your reading curriculum?
- 2. Can you tell me more about the strategies and methods you use to teach reading?
- 3. Can you tell me more about where and how you learned about the methods you use to teach reading?
- 4. Can you tell me more about any other methods or strategies you use to teach students to read?
- 5. Can you tell me more about your school's process for identifying students with learning disabilities?
- 6. Can you tell me more about the how your tiered instructional program works?

Approval to Conduct Research involving Human Subjects

Prior to distributing the survey, an application to conduct research involving human subjects was submitted to the George Mason University HSRB. HSRB approval was obtained and renewed annually throughout the course of this research (see Appendix F for final HSRB Informed Consent Form).

Procedures

Following approval from HSRB, completion of the final survey instrument, and contact with MDR the survey was deployed using an email request (see Appendix D). Table 1 in Chapter 4 displays the sequence of events.

First, potential participants received the email request. A total of 1,000 e-mails were distributed to a random sample of general (n=500) and special (n=500) education teachers generated by MDR that provided recipients with a link to a web-based questionnaire about their teaching practices for reading or an option to download the questionnaire from a website. If individuals selected to participate, they linked to the electronic web-based survey. The first item required them to consent to participate. The consent form included names and contact information of the researchers providing opportunities for participants to contact researchers with any questions, issues, or problems accessing the site.

A reminder follow-up e-mail was sent 10 days after the initial e-mail deployment (see Appendix E). Simultaneous to the e-mail deployment, participants were mailed a postcard which included a link to the web-based questionnaire as well as the option to download the questionnaire from a website (see Appendix B). A follow-up (reminder) postcard was sent 14 days after the initial e-mail deployment (see Appendix C). The participants were asked to complete either a web-based or hard copy questionnaire that was estimated to take approximately 20-30 minutes. The estimated time to participate in a telephone interview was 15 minutes.

Finally, follow-up interviews were conducted with 14 participants selected from a pool of volunteers. All individuals who volunteered to participate in follow-up

interviews were contacted via e-mail to schedule a telephone interview. Although 39 participants indicated a willingness to participate when they completed the survey, only 14 individuals responded to schedule an interview. Seven e-mails were unable to be delivered to the e-mail addresses provided on the survey. Follow-up interviews were conducted via telephone with the exception of one interview which was conducted via telephone and e-mail. This participant was interrupted by the school principal during the interview and requested to respond to the remaining questions via e-mail. The researcher took notes during each interview and transcribed those notes following each interview.

Ethical Considerations

MDR does not release e-mail addresses to the public, but rather uses an in-house e-mailing service to distribute messages to those in its database. Participants were not asked to provide their name, but rather to provide general information about their role as teachers. Participants were not targeted based on age, sex, ethnic background or health status, and there was no known relationship between the researcher and study participants. Furthermore, the researcher had no pre-existing relationship with the database supplier.

Data Analysis Procedures

Both quantitative and qualitative data analysis procedures were used to examine the data from the web-based survey. Qualitative procedures were used to analyze the data from the telephone interviews.

Quantitative Analysis. The information from the survey questionnaire was analyzed using the Statistical Package for Social Sciences (SPSS) Version 17.0 (2008). First, responses from the web-based survey were downloaded into Microsoft Excel.

Using Excel, incomplete surveys were deleted before uploading the data into SPSS. For the purposes of analysis, the survey was divided into three subscales with nine questions per subscale. Subscales are described in the next chapter. Statistical techniques used to analyze each portion of the survey are presented along with the results of those analyses in the next chapter.

Qualitative Analysis. Open-ended survey responses and follow-up interviews were analyzed using a categorizing strategy to code and evaluate qualitative responses (Maxwell, 1996). This strategy is used to arrange data into categories to assist researchers with comparing data. After identifying themes and concepts that appeared among the open-ended responses, NVivo 10 (QSR International, 2012) qualitative data analysis software was used to query concept frequencies to validate themes and concepts identified through the categorizing strategy. Major themes and concepts identified through the qualitative analyses are presented in the next chapter.

4. RESULTS

This mixed methods design study was conducted to understand and describe the specific instructional strategies that kindergarten through sixth grade general and special education teachers use to teach reading through survey research and telephone interviews. Results of the study are presented in this chapter. The first section provides a description of the instrument, a description of the sample, followed by the results of both quantitative and qualitative survey data. The second section provides qualitative analyses of the follow-up telephone interviews. The final section provides a synthesis of survey and qualitative findings.

Survey Instrument

The survey instrument was divided into four parts with a total of 37 questions (see Appendix A). The first part included questions about participants, their teaching situations, and the adopted reading curriculum. Questions in this part included a combination of multiple choice, short answer, and yes/no questions. The second part of the survey instrument included questions about the instructional practices used by the participant. In this part, questions were formatted using both a Likert scale and multiple choice options. Part three of the survey instrument was open-ended and designed to collect information about instructional strategies that were not included in the previous section. The final part of the survey included a combination of multiple choice and openended questions related to the use of practices to identify students with specific learning

disabilities. Finally, participants willing to be contacted for a follow-up, telephone interview could provide their contact information at the end of part four. The interview protocol consisted of six questions designed to gather additional information about several aspects of the survey. Questions included the following:

- 1. Can you tell me more about your reading curriculum?
- 2. Can you tell me more about the strategies and methods you use to teach reading?
- 3. Can you tell me more about where and how you learned about the methods you use to teach reading?
- 4. Can you tell me more about any other methods or strategies you use to teach students to read?
- 5. Can you tell me more about your school's process for identifying students with learning disabilities?
- 6. Can you tell me more about the how your tiered instructional program works?

For the purposes of analysis, the survey was divided into three subscales with nine questions per subscale. The first subscale related to the teacher's perspective on teaching, curriculum, and lesson preparation (see survey items 10 a, 10b, 10c, 14a, 14b, 14c, 15a, 15b, & 15c). The second subscale gathered information on the frequency of use of specific teaching practices. The question described a teaching practice and the participant selected from one of six response options to indicate the frequency with which they used the practice (see survey items 16a, 17a, 18a, 19a, 20a, 21a, 22a, 23a, & 24a). The third subscale included questions where participants could rank their confidence in

the effectiveness of each of nine reading practices (see survey items 16c, 17c, 18c, 19c, 20c, 21c, 22c, 23c, &24c).

Reliability of Instrument

Internal consistency analysis was completed on the survey using Cronbach's alpha for the total measure and the following subscales: perspective on teaching, curriculum, and lesson preparation; frequency of use; and confidence. The value for Cronbach's alpha was .84 for the total measure indicating good reliability. Reliability scores of the subscales were found to be somewhat smaller due to the smaller number of items in each section, but overall satisfactory: perspective on teaching, curriculum, and lesson preparation ($\alpha = .73$); frequency of use ($\alpha = .72$); and confidence ($\alpha = .72$).

Response Rate

Surveys were distributed to a national random sample of 1,000 kindergarten through sixth grade teachers including 500 general education teachers and 500 special education teachers. Completed surveys were returned by 79 teacher participants (7.9%) including both general and special education teachers. Two of those surveys were found to be unusable because the respondents did not teach K-6 reading. Participants did not always respond to every item in the survey; however, the majority of items were completed in the 77 usable surveys.

Adequacy of the Sample

Market Data Retrieval (MDR) sent the web-based survey through e-mails to 1,000 teachers who fit the following criteria: public school teachers in all 50 states who taught reading at the kindergarten through sixth grade level, 500 of whom were general education teachers and 500 of whom were special education teachers. Further, the

teachers who were reading specialists were excluded from the sample. A list of mailing addresses was obtained for these teachers so that follow-up postcards could be sent to the teachers who received the e-mails. A postcard was sent to the 1,000 addresses on the same day that the initial e-mail was sent. A second e-mail was sent by MDR to all 1,000 participants eight days after the initial e-mail. Finally, a second, follow-up postcard was mailed six days after the second e-mail. The survey was deployed to participants in three waves. The dates, methods of deployment and return rates are presented in Table 1. The initial launch of the survey by MDR to 1,000 teachers was March 17. MDR provided detailed follow-up data after the survey was launched with totals of the numbers of teachers who viewed the initial e-mail. The number of teachers who opened or read the e-mail containing an explanation of the survey is listed as "E-mails opened" in Table 1. The number of teachers who clicked the web-based survey link after opening the e-mail list listed as "Clicks to survey" in Table 1.

Also on March 17 a postcard was sent to the 1,000 mailing addresses provided by MDR. The postcard explained the survey and contained the link for the accessing the survey on-line. Appendix X includes the contents of the postcard which required participants to type the survey web address into their computer to access the survey. It should be noted that the survey did not require participants to indicate whether they were responding to the survey from the MDR emails or from the postcard. Therefore, the number of responses obtained via e-mail versus the postcards could not be determined.

A second email reminding participants about the survey was sent through MDR on March 25 to 1,000 e-mail addresses. MDR was not able to suppress the e-mail addresses from the original launch of 1,000 e-mails for those participants who had

already responded; therefore, the text of the message was modified from the first message to thank those participants who had already responded. It is impossible to determine whether the responses from the second e-mail resulted from the initial e-mail on March 17 from the postcard sent the same day, from the second e-mail on March 25 or from the second postcard on March 31. No responses were received after May 3, and access to the survey was closed on June 3.

Table 1

Dates	Deployment	Number	E-mails	Clicks to	Number of	Percent
(2010)	type	sent	opened	survey	responses	response
3/17	Survey launch by e-mail	1,053	136	44	19	1.8
3/17	Postcard reminder	1,000	N/A	N/A	N/A	N/A
3/25	E-mail reminder	1,052	173	74	34	3.2
3/31	Postcard reminder	1,000	N/A	N/A	N/A	N/A
Total		1,000	309	118	79	7.9

Survey Responses by Dates and Types of Deployment

*Note: Responses were as follows by date range: between 3/17 and 3/24, 19 responses; between 3/25 and 4/1, 34 responses, and between 4/2 and 5/2, 26 responses.

There is limited research about online surveys, whether email or web-based (Fowler, 2009). Fowler (2009) suggests that the dynamics and challenges of web-based surveys are likely to mirror those of mail surveys. Therefore, the following steps were taken to reduce nonresponse. First, multiple modes of contact were used to request

participation (e-mail and post card). Second, repeated contact was made with nonresponders via multiple modes. Third, gift card incentives were offered to participants who agreed to be contacted for a follow-up interview. Finally, the researchers' personal contact information was included so that participants could communicate questions or responses directly to the researcher.

A search of previous survey research in elementary reading was conducted to compare response rates for this survey to previous studies. Only one national study was found that surveyed elementary teachers; however, this study was not web-based. Mesmer (2006) conducted a national survey of 1,000 primary teachers' reported uses and beliefs about beginning reading materials. The sample was randomly selected from a list 5,000 members of the International Reading Association and yielded a 38% response rate. This response rate was similar to that obtained by Burns and Ysseldyke (2009) who obtained response rates of 34.8% and 33.3% for surveys of special education teachers and school psychologists, respectively. In an effort to extend the research, Burns and Ysseldyke (2009) suggest selecting a sample of educators from a source other than a professional organization database; therefore, MDR was used to obtain the sample. According to Sue and Ritter (2007) response rates for web-based surveys are approximately 30%, but there are few studies available. However, Mehrenberg (2009), Sandford (2009), Morrison (2010), and Bradley-Black (2013) had response rates of 9%, 4.1%, 16.4%, and 6.5%, respectively, for their research using online surveys. The response rate of 7.9% (7.7% for usable surveys) for this study's survey is well below the 50% rate that is considered adequate (Sue & Ritter, 2007). Therefore, the survey results should be interpreted with caution.

There are reasons, however, to support the credibility of the findings. This was a randomly selected national sample of K-6 teachers; therefore, the sample should be representative of teachers nationally. The sample included teachers from all fifty states as well as the District of Columbia, so overall the sample is broad even though it is not deep. When response rates are very low, response bias can occur if the responses do not reflect the views of the overall sample or population (Creswell, 2005). Responses from those who do complete the survey may be overly negative or overly positive. To check for response bias, a wave analysis was used. Response rates from the first two weeks of survey deployment (n=53) were compared on a few key items with responses after the second postcard reminder (n=24). Early and late responders were compared by conducting a *t*-test of their responses to each of the three subscales. First, an independent samples *t*-test was conducted to compare subscale one (perspective on teaching, curriculum, and lesson preparation) across early and late responders. There were no significant differences found between early (M = 30.08, SD = 3.44) and late (M = 29.14, M = 29.14)SD = 3.65) responders; t(70) = 1.03, p = .31). Next, an independent samples t-test was conducted to compare subscale two (frequency of use) across early and late responders. There were no significant differences found between early (M = 31.19, SD = 6.20) and late (M = 29.90, SD = 5.51) responders; t(66) = .81, p = .42). Finally, an independent samples *t*-test was conducted to compare subscale three (confidence) across early and late responders. There were no significant differences found between early (M = 31.49, SD =3.62) and late (M = 30.68, SD = 4.14) responders; t(62) = .78, p = .44). Therefore, comparisons of early and late responders suggest no major differences in samples which lends more credibility to the obtained findings.

Survey Results

Part 1 Responses. A total of 77 K-6 teachers responded to the survey. Of the 77, 35 were general education teachers and 42 were special education teachers. The responses regarding teacher type (i.e., general education/special education) resulted in a sample which was 45% general education teachers and 55% special education teachers. The respondents included teachers who taught across the elementary grades. The number of teachers responsible for teaching each grade level follows: 11 kindergarten teachers, four first grade teachers, 11 second grade teachers, seven third grade teachers, seven fourth grade teachers, six fifth grade teachers, six sixth grade teachers, and 25 teachers indicated that they taught multiple grade levels. The grade levels taught by the participants are presented in Table 2.

Table 2

Grade Level Taught

	Frequency	Percent
Kindergarten	11	14.3
First Grade	4	5.2
Second Grade	11	14.3
Third Grade	7	9.1
Fourth Grade	7	9.1
Fifth Grade	6	7.8
Sixth Grade	6	7.7
Multiple Grades	25	32.1
Total	77	100.0

The teachers were asked to report on the ability levels of the students in their main reading class. Of the 77 participants, forty (51.9%) indicated that the students in their main reading class were mostly students receiving special education services. Twenty-two out of 77 participants (28.6%) taught mostly general education students. The remaining fifteen (19.5%) indicated that their main reading class was comprised of students with a variety of educational needs including special education students, general education students, and students who are English learners (see Table 3).

Table 3

Ability Level of Students in Main Reading Group

	Frequency	Percent
General Education	22	28.6
Special Education	40	51.9
Mixed (Gen Ed., Spec Ed., EL)	15	19.5
Total	77	100.0

The respondents also varied in the type of reading instruction they provided to their main reading group (see Table 4). When asked to rank the level of intensity of their reading instruction, 36 teachers (46.8%) indicated they taught the core curriculum to their primary reading group (e.g., school-wide reading program for all students). Eighteen (23.4%) taught supplemental reading instruction that was targeted to a smaller, at-risk groups of students. Almost 30% (23 teachers) taught intensive reading instruction targeted to the individualized needs of remedial readers.

Table 4

Primary Type of Reading Instruction

	Frequency	Percent
Core Curriculum	36	46.8
Supplemental	18	23.4
Intensive	23	29.9
Total	77	100.0

To gain a better understanding of which teachers were responsible for teaching core curriculum, supplemental instruction, and intensive instruction, responses were examined by teacher type. Figure 1 displays the breakdown of the primary type of reading instruction provided by teacher type. General educators taught core curriculum more frequently than special educators (35.1% versus 11.7%). However, special educators taught supplemental and intensive reading instruction more frequently than general educators 15.6% and 27.3%, respectively. General educators who taught supplemental reading instruction comprise 7.8% of respondents. A very small percentage of general educators (2.6%) indicated they were responsible for intensive reading instruction. A Mann-Whitney U-test was conducted to evaluate the hypothesis that general educators were more likely than special educators to teach core curriculum over supplemental or intensive reading instruction. The results of the test were in the expected direction and significant, z = -5.08, p = .00, indicating that special education teachers taught more intensive reading than general education teachers. General educators had an average rank of 25.84 on the level of intensity, while special educators had an average rank of 49.96.



Figure 1. Level of intensity of instruction.

Group size among reading groups ranged from individualized instruction where the teacher worked with students one-to-one to a group size as large as 54 students. For the purposes of this analysis, the group sizes were divided into three categories (10 or fewer students, 11-20 students, and 21 or greater students). Table 5 displays the group sizes by each of the three categories. Thirty teachers (39%) indicated they worked with groups of 10 or fewer students. Twenty-five teachers (32.5%) taught reading to groups that ranged from 11-20 and 18 teachers (23.4%) taught groups of 21 or more students. Four teachers did not provide responses. A Mann-Whitney *U*-test was conducted to evaluate the hypothesis that general educators were more likely than special educators to teach larger groups of students. The results of the test were in the expected direction and significant, z = -6.21, p = .00, indicating that special education teachers taught reading to much smaller groups. General educators had an average rank of 52.04 on the size of the main reading group, while special educators had an average rank of 23.14.

Table 5

Size of Main Reading Group

	Frequency	Percent
10 or fewer students	30	39.0
11-20 students	25	32.5
21 or greater students	18	23.4
Total	73	94.8
Missing	4	5.2
Total	77	100.0

Teachers indicated the number of daily minutes typically spent teaching reading to their main reading class. Responses ranged from 10 minutes daily to 200 minutes daily with an average of 77 minutes of reading instruction per day (see Table 6). Responses were grouped into five categories (less than 60 minutes, 60-89 minutes, 90-119 minutes, 120-179 minutes, and 180 minutes or greater). The majority of teachers spent 90-119 minutes per day teaching reading (29.9%); however, 28.6% of teachers indicated that they taught reading for less than 60 minutes per day. A Mann-Whitney *U*-test was conducted to evaluate the hypothesis that general educators were more likely than special educators to teach reading for more minutes per day than special educators. The results of the test were in the expected direction and significant, z = -3.34, p = .001,

indicating that general education teachers taught reading for more minutes per day than special education teachers. General educators had an average rank of 46.01 on the number of minutes per day, while special educators had an average rank of 29.86.

Table 6

Number	of	^C Minutes	of	^c Read	ing	Instruction	Dail	v
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	Frequency	Percent
Less than 60 minutes	22	28.6
60-89 minutes	16	20.8
90-119 minutes	23	29.9
120-179 minutes	9	11.7
180 minutes or greater	4	5.2
Total	74	96.1
Missing	3	3.9
Total	77	100.0

Additional information was collected to gain further insight about administrative aspects of reading instruction in each teacher's school (i.e., how students are assigned to reading groups and what primary reading program is used in the school). The teachers indicated that they provided reading instruction through a variety of grouping arrangements. The majority of participants (36 teachers) indicated that the students in their reading group came from their homeroom class (46.8%). Twenty-eight teachers (36.4%) indicated that they taught students from two or more classrooms in the same

grade level. A smaller number of teachers, 13 (16.9%) taught students from two or more classrooms across multiple grade levels.

There was a high degree of variability among the primary reading curricula used in schools. The majority of teachers reported that their school used a single reading program as the primary reading curriculum (57 out of 77 teachers); however, there was a high degree of variation among the programs used (see Table 7). Almost 20% of teachers indicated that their school used a variety of primary reading programs instead of one. Five teachers (6.5%) provided no response. This item was an open-ended question where the respondents could type their own answer. Although the survey stated, "Indicate Title, Publisher, and Year Published, if known," the level of specificity differed among responses. Therefore, it was not clear whether general responses such as, "Houghton Mifflin," (n=7) represented more specific programs such as, "Houghton Mifflin Harcourt Literacy by Design," (n=2) or another program produced by that publisher. The same is true for the Scott Foresman programs.
Primary Reading Curriculum Used in School

	Frequency	Percent
No Response	5	6.5
Harcourt Storytown	4	5.2
Harcourt Treasures	3	3.9
Harcourt Trophies	5	6.5
Houghton Mifflin	7	9.1
Houghton Mifflin Harcourt Literacy by Design	2	2.6
LANGUAGE! Sopris West	2	2.6
Macmillan/McGraw Hill	2	2.6
Open Court	4	5.2
Other	12	15.6
Scott Foresman	5	6.5
Scott Foresman Reading Street	5	6.5
State or local curriculum	4	5.2
Variety	15	19.5
Wilson	2	2.6
Total	77	100.0

Teachers were asked to report on use and selection of the primary curriculum. The majority of respondents indicated they used the primary reading curriculum (64.8%). When broken down by general education and special education teachers, 31% of general education teachers and 33.8% of special educators reported that they used the primary reading curriculum. Approximately half of the teachers indicated that the primary reading curriculum was selected outside of their school building (51.9%). However, almost 40% reported that the primary curriculum was selected by various decision

makers at the school building level. Table 8 shows the breakdown of who determined the primary reading program within the schools sampled.

Table 8

Who selects the primary reading curriculum?

	Frequency	Percent
School district or central office	40	51.9
Principal/Administrator	7	9.1
Curriculum specialist	8	10.4
Grade level team	13	16.9
Self-selected	3	3.9
Other	6	7.8
Total	77	100.0

Teachers who reported that they did not use the primary reading curriculum were asked to provide more information about the practices they used. A wide variety of approaches were used by those teachers who did not use the primary reading curriculum. The general education teachers who did not use the primary reading curriculum provided limited information about the practices they used. For example, one teacher reported using, "various sight word, comprehension, and fluency strategies." Others reported practices such as: novels, *Day Book, National Geographic, Weekly Reader*, and books from different genres. Only two general educators provided specific responses. These two teachers used "Café in the Classroom" and "Reading Mastery" respectively. The special education teachers who did not use the primary reading curriculum provided more specific titles of the programs they used. For example, two teachers reported using Read

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Naturally and two others reported using Wilson Fundations. Other titles included: Scott Foresman: My Sidewalks, Wilson Reading System, Sopris West Language Book A, SRA Corrective Reading, and Reading A to Z. Other practices used by the special educators included the Orton Gillingham approach, direct instruction, reading recovery, books on tape, and sight words.

Participants were also asked to respond to questions related to the efficacy of the primary reading curriculum they use most often with their main reading group. They rated their level of agreement with whether the primary program/curriculum contained useful information about the content they teach, whether the program/curriculum provided useful information about how to teach specific skills, and whether the program/curriculum provided useful information about by teach specific skills, and areas of difficulty. Responses are presented in Figures 2, 3, and 4 by teacher type.



The program/curriculum contains useful information about the content I am teaching.

Figure 2. The program/curriculum contains useful information about the content I am teaching.

As is evident in Figure 2, the majority of both general and special educators agreed or strongly agreed (92.2%) that the program/curriculum they used most often contained useful information about the content they teach. Only 7.8% of respondents disagreed or strongly disagreed with this statement.





Figure 3. The program/curriculum provides me with useful information about how to teach particular skills, strategies, texts, or other topics.

Furthermore, the majority of both teacher types agreed or strongly agreed (81.8%) that the program provided useful information about how to teach particular skills, strategies, texts, or other topics (see Figure 3). However, 18.2% of respondent disagreed or strongly disagreed with this statement.



The program/curriculum provides me with useful information about what my students know and difficulties they have.

Figure 4. The program/curriculum provides me with useful information about what my students know and difficulties they have.

When asked whether the program/curriculum provided useful information about what students know and the difficulties they have, once again, the majority of general and special educators agreed or strongly agreed (71.4%). Almost 29% of general and special educators indicated that the primary program/curriculum provided useful information about what their students know and areas of deficit (see Figure 4).

The participants were also asked to indicate their level of agreement with three items related to how they prepare for reading lessons with their main reading class. These items asked about the frequency with which they refer to and use information found in state or local curriculum frameworks or standards, the frequency with which they use information from the teachers' guides associated with the primary reading program/curriculum materials they use, and the frequency with which they use student performance (i.e., outcome data) to guide their instruction. Results by teacher type are presented in Figures 5, 6, and 7, respectively.





As seen in Figure 5, the majority of general and special educators indicated that they frequently referred to and used information found in state or local curriculum to prepare their reading lessons. However, 18.4% of educators indicated that they did not frequently refer to state or local curriculum when preparing their reading lessons.



Figure 6. I frequently refer to and use information from the teachers' guides associated with the primary reading program/curriculum materials used at my school.

The majority of both general and special educators (72.4%) indicated that they frequently refer to and use information from the teachers' guides associated with their school's primary reading program/curriculum to prepare their reading lessons (Figure 6).

A much smaller percentage (27.6%) reported that they did not frequently use the teachers' guides when preparing reading lessons.



I frequently refer to student performance (i.e., outcomes) on reading assessments and use the data to guide instruction.

Figure 7. I frequently refer to student performance (i.e., outcomes) on reading assessments and use the data to guide instruction.

Finally, as displayed in Figure 7 both general and special educators overwhelmingly agreed (96.1%) that they frequently refer to student performance on reading assessments and use these data to guide their reading instruction. Only 3.9% of respondents indicated that they did not frequently refer to student performance data. An independent samples *t* test was conducted to compare subscale one (teacher perspectives on teaching, curriculum, and lesson preparation) across general and special educators. There were no significant differences found between general (M = 30.00, SD = 3.24) and special (M = 29.65, SD = 3.73) educators; t(70) = .42, p = .68).

Part 2 Responses. This part of the survey instrument included nine, three-part items structured around the following reading practices: word analysis, reading fluency, listening comprehension, reading comprehension, adjusting the difficulty of reading materials, use of informal reading assessments, use of formal reading assessments, grouping by reading level, and differentiation of instruction. The results are presented here in three sections. First, I present the results on the teachers' frequency of use of each reading practice. Next, are the results on how the teacher learned to use each of the reading practices. Finally, I present the results on the teachers' confidence that each of the nine reading practices is effective for improving their students' reading performance.

Frequency of use. In this section, teachers indicated how frequently they used each of nine reading practices. Response options for frequency included: never (0), less than once a month (1), one to three times per month (2), one to two times per week (3), three to four times per week (4), and daily (5). The frequency of use of each reading practice is presented in Table 9.

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	Daily	3-4 times per week	1-2 times per week	1-3 times per mo.	Less than once a mo.	Never
Word analysis	37	21	15	2	0	0
Reading fluency	31	18	20	2	4	1
Listening comprehension	31	15	14	9	3	3
Reading comprehension	33	23	15	4	1	0
Adjust difficulty level	31	10	16	11	5	1
Use informal assessments	7	4	24	23	15	2
Use formal assessments	1	1	5	17	41	7
Group students by level	23	12	15	7	10	5
Differentiation of instruction	33	17	13	10	0	0

Frequency of use of reading practices

Descriptive statistics were used to determine the most frequently reported reading practices among all teachers. Means and standard deviations are presented in Table 10. Overall, participants reported using three of the nine reading practices (word analysis, reading comprehension, and differentiation of instruction) at least three times per week. On average word analysis was taught more frequently than any of the nine reading practices (M = 4.24, SD = .87). Formal reading assessments were used the least often (M = 1.38, SD = .91).

Reading practices	п	М	SD
Word analysis	75	4.24	.87
Reading comprehension	76	4.09	.98
Differentiation of instruction	73	4.00	1.09
Reading fluency	76	3.88	1.21
Listening comprehension	75	3.71	1.42
Adjust difficulty level	74	3.65	1.40
Group students by level	72	3.22	1.65
Use informal assessments	75	2.45	1.22
Use formal assessments	72	1.38	.91
Valid N (listwise)	68		

Means and Standard Deviations of frequency of use of reading practices

An independent samples *t*-test was conducted to compare subscale two (frequency of use) across general and special educators. There were no significant differences found between general (M = 30.55, SD = 5.61) and special (M = 31.03, SD = 6.37) educators; t(66) = -.33, p = .75). In the remaining sections, the results are presented first, across all respondents, next broken down by general and special education teachers.

Word analysis. The majority of teachers (48.1%) reported teaching word analysis skills including decoding, word families, context cues, and sight words daily. A smaller percentage of teachers (27.3%) taught word analysis three to four times per week. An even smaller percentage, 19.5%, reported teaching word analysis skills one to two times

per week. A small percentage of teachers (2.6%) taught word analysis only one to three times per month. Two teachers did not provide a response to this item. These data are presented in Table 11.

Table 11

Frequency of teaching word analysis

	Frequency	Percent
Daily	37	48.1
3-4 times per week	21	27.3
1-2 times per week	15	19.5
1-3 times per month	2	2.6
Missing	2	2.6
Total	77	100.0

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of word analysis practices between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (3, N = 75) = 5.34, p = .15. Responses by teacher type are presented in Figure 8.



Figure 8. Frequency of teaching word analysis by teacher type.

Reading fluency. The majority of teachers (40.3%) reported teaching reading fluency skills including repeated reading and guided oral reading daily. A smaller percentage of teachers (23.4%) taught reading fluency three to four times per week. Twenty six percent reported teaching reading fluency skills one to two times per week. The remaining 7.8% of teachers taught reading fluency one to three times per month or less than once per month. One teacher did not provide a response to this item and one teacher reported never teaching reading fluency. These data are presented in Table 12.

	Frequency	Percent
Daily	31	40.3
3-4 times per week	18	23.4
1-2 times per week	20	26.0
1-3 times per month	2	2.6
Less than once per month	4	5.2
Never	1	1.3
Missing	1	1.3
Total	77	100.0

Frequency of teaching reading fluency

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of reading fluency practices between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 76) = 7.63, p = .18. Responses by teacher type are presented in Figure 9.



Figure 9. Frequency of teaching reading fluency by teacher type.

Listening comprehension. The majority of teachers (40.3%) reported teaching listening comprehension daily. A smaller percentage of teachers (19.5%) taught listening comprehension three to four times per week. An even smaller percentage, 18.2%, reported teaching listening comprehension one to two times per week. A small percentage of teachers (11.7%) taught listening comprehension one to three times per month and 3.9% taught listening comprehension less than once per month. Two teachers did not provide a response to this item and three teachers indicated that they never taught listening comprehension (see Table 13).

Frequency of teaching listening comprehension

	Frequency	Percent
Daily	31	40.3
3-4 times per week	15	19.5
1-2 times per week	14	18.2
1-3 times per month	9	11.7
Less than once per month	3	3.9
Never	3	3.9
Missing	2	2.6
Total	77	100.0

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of listening comprehension practices between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 75) = 4.66, p = .46. Responses by teacher type are presented in Figure 10.



Figure 10. Frequency of teaching listening comprehension.

Reading comprehension. The majority of teachers (42.9%) reported teaching reading comprehension skills including questioning and retelling daily. A smaller percentage of teachers (29.9%) reading comprehension three to four times per week. An even smaller percentage, 19.5%, reported teaching reading comprehension skills one to two times per week. A small percentage of teachers (5.2%) taught reading comprehension one to three times per month and one teacher (1.3%) taught reading comprehension less than once per month. One teacher did not provide a response to this item (see Table 14).

	Frequency	Percent
Daily	33	42.9
3-4 times per week	23	29.9
1-2 times per week	15	19.5
1-3 times per month	4	5.2
Less than once per month	1	1.3
Missing	1	1.3
Total	77	100.0

Frequency of teaching reading comprehension

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of reading comprehension practices between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (4, N = 76) = 5.85, p = .21. Responses by teacher type are presented in Figure 11.



Frequency of teaching reading comprehension by teacher type

Figure 11. Frequency of teaching reading comprehension by teacher type.

Adjusting the difficulty of reading materials. The majority of teachers (40.3%) reported adjusting the difficulty level of the reading materials their students use daily. A much smaller percentage of teachers (13.0%) made adjustments three to four times per week. A little over 20% of teachers reported adjusting the difficulty level of the reading materials their students use one to two times per week. Approximately 14% of teachers adjusted the difficulty of reading materials one to three times per month. A very small percent of teachers (6.5%) adjusted the difficulty of reading materials less than once per

month. One teacher reported never adjusting their students' reading materials and three teachers did not provide a response to this item (see Table 15).

Table 15

	Frequency	Percent
Daily	31	40.3
3-4 times per week	10	13.0
1-2 times per week	16	20.8
1-3 times per month	11	14.3
Less than once per month	5	6.5
Never	1	1.3
Total	74	96.1
Missing	3	3.9
Total	77	100.0

Frequency of adjusting the difficulty of reading materials

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of adjusting the difficulty level of reading materials between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 74) = 3.55, p = .62. Responses by teacher type are presented in Figure 12.



Figure 12. Frequency of adjusting the difficulty of reading materials.

Use of informal reading assessments. The majority of teachers indicated that they use informal reading assessments such as running records to assess their students' reading level, make instructional decisions, and measure student progress one to two times per week (31.2%). The next most commonly reported frequency was one to three times per month (29.9%). A smaller percentage of teachers, 19.5%, reported they used informal reading assessments less than once per month. Almost 15% of teachers used informal reading assessments more than three times per week. Two teachers never used informal assessments, and two did not respond to this item (see Table 16).

	Frequency	Percent
Daily	7	9.1
3-4 times per week	4	5.2
1-2 times per week	24	31.2
1-3 times per month	23	29.9
Less than once per month	15	19.5
Never	2	2.6
Missing	2	2.6
Total	77	100.0

Frequency of use of informal reading assessments

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of informal reading assessments between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 75) = 8.87, p = .11. Responses by teacher type are presented in Figure 13.



Figure 13. Frequency of use of informal reading assessments.

Use of formal reading assessments. More than half of teachers surveyed (53.2%) indicated that they used formal reading assessments less than once per month. A little over 22% of teachers reported that they used formal reading assessments one to three times per month. Less than ten percent of teachers administered formal reading assessments more than once per week. The same percentage of teachers (9.1%) reported that they never used formal reading assessments. Five teachers did not provide a response to this item (see Table 17).

	Frequency	Percent
Daily	1	1.3
3-4 times per week	1	1.3
1-2 times per week	5	6.5
1-3 times per month	17	22.1
Less than once per month	41	53.2
Never	7	9.1
Missing	5	6.5
Total	77	100.0

Frequency of use of formal reading assessments

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of formal reading assessments between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 72) = 6.12, p = .29. Responses by teacher type are presented in Figure 14.



Figure 14. Frequency of use of formal reading assessments.

Grouping by reading level. A small majority of teachers (29.9%) reported that they group students into reading groups who have similar reading levels daily. Fifteen percent grouped by similar reading level three to four times per week. Almost 20% (19.5%) grouped students by similar reading levels one to two times per week. The smallest percentage of teachers who responded to this item indicated grouping by similar reading level one to three times per month (9.1%). Thirteen percent of teachers group students by similar reading levels less than once per month. Five teachers did not respond to this item (see Table 18).

Frequency of grouping by reading level

	Frequency	Percent
Daily	23	29.9
3-4 times per week	12	15.6
1-2 times per week	15	19.5
1-3 times per month	7	9.1
Less than once per month	10	13.0
Missing	5	6.5
Total	77	100.0

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of grouping students by similar reading level between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (5, N = 72) = 10.91, p = .05. Responses by teacher type are presented in Figure 15.



Figure 15. Frequency of grouping by reading level.

Differentiation of instruction. The largest percentage of teachers who responded to this item (42.9%) reported that they differentiate instruction by trying a different teaching strategy daily. Another 22.1% of teachers tried different teaching methods when students did not demonstrate understanding three to four times per week. Almost 17% (16.9%) differentiated instruction one to two times per week. The smallest percentage of teachers who responded to this item indicated differentiating instruction one to three times per month (13%). Four teachers did not respond to this item (see Table 19).

Frequency	of differ	entiation	of	instruc	ction

	Frequency	Percent
Daily	33	42.9
3-4 times per week	17	22.1
1-2 times per week	13	16.9
1-3 times per month	10	13.0
Missing	4	5.2
Total	77	100.0

A Chi-square analysis was conducted to evaluate whether there were significant differences in the frequency of use of differentiation of instruction between general education teachers and special education teachers. There were no significant differences between the teacher types, X^2 (3, N = 73) = 4.16, p = .25. Responses by teacher type are presented in Figure 16.



Figure 16. Frequency of differentiation of instruction.

Source of knowledge. Participants responded to a series of questions in which they indicated how they learned each of the nine reading practices identified in the previous section. Sources for how they learned the reading practices included seven options. The options included: college or university courses; student teaching or internship/practicum experiences; professional development such as an inservice training or workshop; a peer, such as a mentor or colleague; state, regional or federal technical assistance center; personal experience or trial-and-error; or other source. Teachers could indicate multiple sources by checking as many sources as applied. Results are reported in Table 20. In the table, two of the response options were combined to calculate a "Combined Higher Education" column. This column represents the respondents' attribution of both college/university coursework and student teaching/internship/ practicum as the source of their knowledge about the reading practices. Overall, higher education preparation was the most frequently reported source for how teachers learned about seven out of the nine reading practices. Inservice, professional development (e.g., training or workshops) was the most frequently reported source for learning about the use of both informal and formal reading assessments. Two more informal sources (peer or mentor teacher and personal experience or trial-and-error) accounted for the third most frequently reported source of teacher knowledge.

		Student Teaching/	Combined Higher Education	Professional Development	Another Teacher	State; Regional; or Federal Technical	Personal experience	Never	
	College/ University	Internship/ Practicum	(Column 1 + Column 2)	Training/ Workshop	Mentor; or Colleague	Assistance (TA) Center	Trial-and- error	this practice	Other source
Word analysis	s 48	30	78*	60	40	3	35	2	9
Reading fluency	38	22	60*	60*	36	2	35	2	5
Listening comprehensio	41	26	67*	49	31	2	39	3	2
Reading comprehensio	53 on	31	84*	60	33	2	39	1	6
Adjusting the difficulty of reading materials	41	23	64*	55	30	1	41	3	2
Use of informal reading assessments	31	21	52	57*	36	3	28	0	4
Use of formal reading assessments	29	17	46	51*	22	2	24	6	3
Grouping by reading level	35	32	67*	55	29	2	35	0	3
Differentiation of instruction	n 41	32	73*	49	36	1	43	1	3

Frequency of source of knowledge by reading practice

Note. An * is used to indicate most frequently reported source of knowledge for each reading practice.

Word Analysis. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about teaching word analysis (78 responses out of a total 227 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving 60 responses out of a total of 227 responses. The frequencies of source of knowledge for the remaining reading practices are as follows:

another teacher, mentor, or colleague (40 out of 227 responses); personal experience, trial-and-error (35 out of 227 responses); other source (nine out of 227 responses); technical assistance center (three out of 227 responses); and two respondents indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 17.



Figure 17. Source of knowledge for word analysis by teacher type.

Reading fluency. Across all respondents combined higher education and inservice, professional development (e.g., training or workshops) were tied as the most frequently reported sources of teacher knowledge about teaching reading fluency (both receiving 60 responses out of a total 200 responses). The next two most frequently reported sources of teacher knowledge about this teaching practice were another teacher,

mentor, or colleague (36 out of 200 responses); personal experience, trial-and-error (35 out of 200 responses). The frequencies of source of knowledge for the remaining reading practices are as follows: other source (five out of 200 responses); technical assistance center (two out of 200 responses); and two respondents indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 18.



Figure 18. Source of knowledge for reading fluency by teacher type.

Listening comprehension. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about teaching listening comprehension (67 responses out of a total 193 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving 49 responses out of a total of 193 responses. The frequencies of source of knowledge for the remaining reading practices are as follows: personal experience, trial-and-error (39 out of 193 responses); another teacher, mentor, or colleague (31 out of 193 responses); other source (two out of 193 responses); technical assistance center (two out of 193 responses); and three respondents indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 19.



Figure 19. Source of knowledge for listening comprehension by teacher type.

Reading comprehension. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about teaching reading comprehension (84 responses out of a total 225 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving 60 responses out of a total of 225 responses. The frequencies of source of knowledge for the remaining reading practices are as follows: personal experience, trial-and-error (39 out of 225 responses); another teacher, mentor, or colleague (33 out of 225 responses); other source (six out of 225 responses); technical assistance center (two out of 225 responses); and one respondent indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 20.



Figure 20. Source of knowledge for reading comprehension by teacher type.

Adjusting the difficulty of reading materials. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about adjusting the difficulty of reading materials (64 responses out of a total 196 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving
55 responses out of a total of 196 responses. The frequencies of source of knowledge for the remaining reading practices are as follows: personal experience, trial-and-error (41 out of 196 responses); another teacher, mentor, or colleague (30 out of 196 responses); other source (two out of 196 responses); technical assistance center (one out of 196 responses); and three respondents indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 21.



Figure 21. Source of knowledge for adjusting the difficulty of reading materials by teacher type.

Use of informal reading assessments. Across all respondents inservice, professional development (e.g., training or workshops) was the most frequently reported source of teacher knowledge about how to use informal reading assessments (57 responses out of a total 180 responses). The next most frequently reported source of teacher knowledge about this teaching practice was combined higher education receiving 52 responses out of a total of 180 responses. The frequencies of source of knowledge for the remaining reading practices are as follows: another teacher, mentor, or colleague (36 out of 180 responses); personal experience, trial-and-error (28 out of 180 responses); other source (four out of 180 responses); and technical assistance center (three out of 180 responses).

Responses by teacher type are presented in Figure 22.



Figure 22. Source of knowledge for use of informal reading assessments by teacher type.

Use of formal reading assessments. Across all respondents inservice, professional development (e.g., training or workshops) was the most frequently reported source of teacher knowledge about how to use formal reading assessments (51 responses out of a total 154 responses). The next most frequently reported source of teacher knowledge about this teaching practice was combined higher education receiving 46 responses out of a total of 154 responses. The frequencies of source of knowledge for the remaining

reading practices are as follows: personal experience, trial-and-error (24 out of 154 responses); another teacher, mentor, or colleague (22 out of 154 responses); other source (three out of 154 responses); technical assistance center (two out of 180 responses); and six respondents indicated that they never learned to teach this practice.

Responses by teacher type are presented in Figure 23.



Figure 23. Source of Knowledge for Use of Formal Reading Assessments by Teacher Type.

Grouping by reading level. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about grouping by reading level (67 responses out of a total 191 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving 55 responses out of a total of 191 responses. The frequencies of source of knowledge for the remaining reading practices

are as follows: personal experience, trial-and-error (35 out of 191 responses); another teacher, mentor, or colleague (29 out of 191 responses); other source (three out of 191 responses); and technical assistance center (two out of 191 responses).

Responses by teacher type are presented in Figure 24.



Figure 24. Source of knowledge for grouping by reading level by teacher type.

Differentiation of instruction. Across all respondents combined higher education was the most frequently reported source of teacher knowledge about differentiation of instruction (73 responses out of a total 206 responses). The next most frequently reported source of teacher knowledge about this teaching practice was inservice, professional development (e.g., training or workshops) receiving 49 responses out of a total of 206 responses. The frequencies of source of knowledge for the remaining reading practices are as follows: personal experience, trial-and-error (43 out of 206 responses); another

teacher, mentor, or colleague (36 out of 206 responses); other source (three out of 206 responses); technical assistance center (one out of 206 responses); and one respondent indicated they never learned this practice.

Responses by teacher type are presented in Figure 25.



Figure 25. Source of knowledge for differentiation of instruction by teacher type.

Confidence in reading practices. Participants responded to a series of questions in which they indicated their level of confidence that each of the nine reading practices identified in the previous section were an effective strategy for improving students' reading performance. Response options in this section included: very confident (4), somewhat confident (3), neutral (2), not very confident (1), and not at all confident (0). Means and standard deviations are reported in Table 21 and frequencies across all respondents are reported in Table 22. Overall, participants had a high level of confidence

in all nine of the reading practices. The highest level of confidence was in reading comprehension (M = 3.66, SD = .56) and differentiation of instruction (M = 3.66, SD = .51). Participants indicated the least amount of confidence in the use of formal reading assessments (M = 3.25, SD = .87). An independent samples *t* test was conducted to compare subscale three (confidence) across general and special educators. There were no significant differences found between general (M = 31.17, SD = 3.57) and special (M = 31.32, SD = 3.98) educators; t(62) = -.17, p = .87).

Table 21

Means of	and standard	deviations for	confidence in	reading practices

	М	SD
Reading comprehension	3.66	.56
Differentiation of instruction	3.66	.51
Adjust difficulty level	3.51	.69
Use informal assessments	3.48	.76
Reading fluency	3.47	.70
Listening comprehension	3.41	.77
Word analysis	3.41	.79
Group students by level	3.34	.95
Use formal assessments	3.25	.87

Table 22 presents the frequencies of confidence ratings for each of the nine reading practices included in the survey. In general, participants indicated confidence in all practice areas.

Table 22

	Very Confident	Somewhat Confident	Neutral	Not Very Confident	Not at all Confident
Word analysis	42	26	5	3	0
Reading fluency	42	30	3	0	1
Listening comprehension	41	27	4	3	0
Reading comprehension	51	22	0	1	0
Adjust difficulty level	45	23	5	1	0
Use informal assessments	42	20	5	2	0
Use formal assessments	34	25	11	1	1
Group students by level	40	25	3	3	2
Differentiation of instruction	48	22	1	0	0

Frequency of confidence rating by reading practice

Word analysis. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of word analysis. There were no significant differences between the teacher types, X^2 (3, N = 76) = .78, p = .86. Confidence ratings for word analysis by teacher type are presented in Figure 26.



Figure 26. Confidence in word analysis by teacher type.

Reading fluency. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of reading fluency. There were no significant differences between the teacher types, X^2 (3, N = 76) = 1.38, p = .71. Confidence ratings for reading fluency by teacher type are presented in Figure 27.



Figure 27. Confidence in reading fluency by teacher type.

Listening comprehension. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of listening comprehension. There were no significant differences between the teacher types, X^2 (3, N = 75) = 5.73, p = .13. Confidence ratings for listening comprehension by teacher type are presented in Figure 28.



Figure 28. Confidence in listening comprehension by teacher type.

Reading comprehension. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of reading comprehension. There were no significant differences between the teacher types, X^2 (2, N = 74) = 1.54, p = .46. Confidence ratings for reading comprehension by teacher type are presented in Figure 29.



Figure 29. Confidence in reading comprehension by teacher type.

Adjusting the difficulty of reading materials. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in the effectiveness of adjusting the difficulty of reading materials to improve reading performance. There were no significant differences between the teacher types, X^2 (3, N = 74) = 1.40, p = .71. Confidence ratings for adjusting the difficulty of reading materials by teacher type are presented in Figure 30.



Figure 30. Confidence in adjusting the difficulty of reading material by teacher type.

Use of informal reading assessments. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of the use of informal reading assessments. There were no significant differences between the teacher types, X^2 (3, N =69) = 6.68, p = .08. Confidence ratings for the use of informal reading assessments by teacher type are presented in Figure 31.



Figure 31. Confidence in use of informal reading assessments by teacher type.

Use of formal reading assessments. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in terms of the use of formal reading assessments. There were no significant differences between the teacher types, X^2 (4, N =72) = 4.69, p = .32. Confidence ratings for the use of formal reading assessments by teacher type are presented in Figure 32.



Figure 32. Confidence in use of formal reading assessments by teacher type.

Grouping by reading level. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in grouping students by similar reading level. There were no significant differences between the teacher types, X^2 (4, N = 73) = 7.65, p = .11. Confidence ratings for grouping by reading level by teacher type are presented in Figure 33.



Figure 33. Confidence in grouping by reading level by teacher type.

Differentiation of instruction. A Chi-square analysis was conducted to evaluate whether the confidence level of general education teachers differed from the confidence level of special education teachers in differentiation of instruction. There were no significant differences between the teacher types, X^2 (2, N = 71) = 1.97, p = .37. Confidence ratings for differentiation of instruction by teacher type are presented in Figure 34.



Figure 34. Confidence in differentiation of instruction by teacher type.

Part 3 Responses. In Part 3, participants were asked one, open-ended question about any additional instructional practices, methods, or strategies that they use to teach reading or monitor student progress in reading. Out of the 77 participants, 44 teachers provided responses to this item. Responses were analyzed to determine the most frequently reported additional instructional practices. The most frequently reported additional strategy was progress monitoring (n=9). Participants appeared to be using AIMSweb, DIBELS, and other commercially available progress monitoring systems. Comprehension and fluency were mentioned as the next most frequent additional strategy (n=7); however, some participants specifically mentioned the program Read Naturally

(n=5) which is designed to improve both fluency and comprehension. Phonics and vocabulary strategies were both mentioned four times as additional strategies used by the participants. Finally, guided reading and sight word instruction were each mentioned three times. Strategies mentioned less than three times were not included.

Part 4 Responses. In Part 4, participants described the procedures used by their school to identify students with specific learning disabilities (SLD). In addition, participants provided information specific to their involvement in the identification and/or evaluation of students with SLD. First, frequencies are presented followed by summaries of qualitative responses to open-ended questions. A categorizing strategy was used to code and analyze qualitative responses (Maxwell, 1996). This strategy is used to arrange data into categories that "facilitate the comparison of data" (Maxwell, 1996, p. 78). After identifying themes and concepts that appear among the open-ended responses, NVivo 10 (QSR International, 2012) qualitative data analysis software was used to query concept frequencies to validate themes and concepts identified through the categorizing strategy.

Role in identifying students with SLD. Participants provided detailed information about their role in the process used in their school for identifying students with SLD. Open-ended responses were all focused on ways to support students with their reading instruction. Initial coding of the data produced three major themes: student data, reading instruction, and consultation. Student data included practices such as gathering student performance records, examining past performance, conducting observations, referring students for additional assessments/evaluations, and monitoring student progress (including IEP goals). Reading instruction included practices such as

implementing classroom instruction, modifications, or intervention programs, and implementing a multi-tiered intervention process. Consultation included problem-solving or discussions with parents or education professionals, including general and special educators, school psychologists, school counselors, or other professionals. Concept frequencies were examined using NVivo 10 (QSR International, 2012) to validate these themes. It is not surprising that the word cloud (Figure 35) presents concepts related to supporting students reading instruction considering poor reading performance is the primary basis for identifying students with specific learning disabilities. The larger the words in the word cloud, the more frequently those words and similar concepts words were reported. The top five words were: students (4.55%), reading (2.9%), school (2.46%), uses (2.39%), and education (2.17%). Each of these percentages included the use of similar words determined to encompass the concept for that word. For example, the count for students included similar words such as pupil and scholarly. Likewise, the count for reading included similar words such as learns, reads, and understands. 15 2 3 achievement additional also areas asked assessments based believes called child classroom complete comprehension currently data described determine different disabilities discrepancy district **education** evaluation experience first fluency formal general get going grade group help however identification implemented includes indicated **instruction** interventions interview language learning lessons level look lot make may meeting minutes model monitoring must need one parent part participant per performance phonics please points principal problem **process program** progress provide psychologist qualify **reading** referred responsible rti school skills small special specific standard strategies students. support sure teacher team

testing tier time USES week well work writing year

Figure 35. Concept frequencies for role in the process for identifying students with SLD.

Procedures used to identify students with SLD. Participants were asked to report whether their schools used two of the most common procedures for identification of SLD (discrepancy approach and response to intervention). Out of the 77 participants, 65% (n=50) indicated that their school is currently using a discrepancy approach to identify students with SLD. However, only 14 reported the number of points required to find a child eligible for special education services. Thirteen of the 50 reported that they were unsure of size of the discrepancy required for eligibility. Another 11 participants described the discrepancy required by providing a narrative description. Two participants

indicated that their school required a 1.5 point standard deviation difference between a child's expected performance and their actual performance. One indicated that 2.5 standard deviations were required. Three participants indicated that the discrepancy is based exclusively on a student's academic achievement. In these schools, children had to demonstrate a minimum of one grade level delay in academic achievement. Finally, one participant indicated that their school psychologist makes recommendations for eligibility based "almost exclusively" on processing deficits.

Seventy-five percent (n=58) of participants reported that response to intervention (RTI) is used as part of their school's procedures for identifying students with SLD. Participants further described their school's RTI process by responding to additional multiple-choice and open-ended questions. Three models of RTI were described in the survey.

The first model known as standard protocol is a process in which standardized protocols of interventions that have been validated as effective are used (Fuchs, Mock, Morgan, & Young, 2003; Lembke, McMaster, & Stecker, 2009). In this process educators are expected to implement specific research-based interventions to address the student's difficulties. The interventions are not accommodations to existing curriculum; rather, they are instructional programs targeted to remediate specific skill deficits. The research on standard protocol interventions specifies the conditions under which the intervention has proven successful, including the number of minutes per day, the number of days per week, and the number of sessions required. Developers of an intervention program should describe the specific skills addressed, where the instruction should be

provided, who should provide the instruction, and the materials used for instruction and assessing progress.

The second model, known as a problem-solving model, is a process where individually designed instructional interventions are provided based on a child's area of weakness (Griffiths, VanDerHeyden, Parson, & Burns, 2006). Most schools have an existing form of a problem-solving team, such as a student instructional team (SIT), student assistance team (SAT), child study team (CST), pre-referral team, or building assistance team (BAT). These teams develop an accommodation or modification plan that can be implemented in the general education classroom to support the targeted child. Under an RTI service-delivery system, these teams adopt a problem-solving approach that is based on data and ongoing evaluation. Problems need to be objectively defined, observed, and measured directly in the general education classroom. The data collected are then analyzed, using information to develop hypotheses about the cause of the problem and the appropriate selection of evidence-based strategies to remedy them.

Finally, a combined model of RTI is a model that includes any combination of the standard protocol and problem-solving approach (Christ, Burns, & Ysseldyke, 2005). This combined model was the most frequently reported model by participants (57%). The standard protocol model was reported by 24% of participants and the problem-solving model was reported by 19% participants who responded to this item. Further survey questions were designed to gather more information about the RTI models in use across the country. RTI models are described in the literature as multi-tiered or multi-level systems designed to provide the interventions to students based on a students measured performance. An overwhelming majority of participants reported that the RTI

model used in their school included three tiers (66%). Four-tiered models were reported by five participants. It was interesting to note that nine participants did not know the number of tiers in their RTI model. Nine participants indicated that their RTI model did not use tiers indicating that they may have been unaware of what RTI actually meant.

Interventions used for increasing reading performance in RTI model.

Participants reported a large number of strategies and specific interventions that were used in their school for increasing a child's reading performance. The most popular strategies used include: individual assistance, small group instruction, progress monitoring, and targeted reading instruction such as pull-out programs or "double dipping" to provide additional reading time to students. The most popular published interventions that were used include: Fundations, Wilson Reading, and Read Naturally (3 mentions each). Additional published programs, mentioned by two participants each, included: Reading Mastery, Corrective Reading, Six Minute Solution, AIMSweb, and Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessments.

Process for collecting data and monitoring student progress. As with interventions, a wide variety of methods were reported for collecting data and monitoring student progress. The primary concept captured through this open-ended question is that student progress in reading is monitored by collecting reading data through teacher administered tests and assessments. Participants cited use of both commercially available progress monitoring systems as well as school-based or teacher-made assessments. The most frequently reported progress monitoring system was DIBELS. DIBELS is a commercially available set of assessments used in grades K-6 for universal screening and progress monitoring. DIBELS was reported by 20% of those who responded to this item,

but when looking at the total sample, this practice was reported by nine out of 77 participants resulting in a total of 11.6% for the total sample. The next most frequently reported strategy for monitoring student progress were school-based benchmark tests (n=8). Benchmark tests are administered at least three times per year and are designed to measure student progress against quantitative standards. These tests are often used to prepare students for end-of-year standardized achievement tests. AIMSweb, another commercially available universal screening and progress monitoring system, was used by seven of the 45 participants (15.5%) who provided information about how they collect and monitor student progress; however, the percentage using AIMSweb drops to 9% when compared to the total sample. The Developmental Reading Assessment, 2nd Edition (DRA2) which is often used as a benchmark assessment was used to monitor student progress by five of the participants in this study. Some additional strategies identified by four or fewer participants include state assessments, unit tests, fluency tests, running records, and sight word tests. Concept frequencies were examined using NVivo 10 (QSR International, 2012) to validate these themes. The word cloud (Figure 36) presents concepts related to teacher administered reading tests and assessments, reading data, and other concepts consistent with commonly used strategies for monitoring student progress (e.g., weekly assessments, observation, charting, etc.). The larger the words in the word cloud, the more frequently those words and similar concepts words were reported. The top five words were: tests (4.22%), data (3.38%), reading, (3.11%), teacher (3%), and use (2.91%). Each of these percentages included the use of similar words determined to encompass the concept for that word. For example, the count for

reading included similar words such as learning, records, and study. Likewise, the count for use included similar words such as practice, uses, and using.

1 2 3 3x 5 6 academic accelerated access aims aimsweb along assessments attendance based beginning benchmark bits board called charting classroom close **COllect** comprehension computer couple criterion daily data decides developed developmental dibels discuss dra entered etc every fair fluency formatives forms gather given grade identify individual information intervention interventionist just kids know even link may means meetings monitoring need new observation opinion organization part passages performance practice printed process program progress provide reading really records regular reports rti running school scores see sheets sight state student taks teacher team tests time tracker unit use various web weekly year

Figure 36. Concept frequencies for collecting and monitoring student progress.

Professionals responsible for providing interventions. Fifty participants provided information about the professionals responsible for providing targeted reading instruction for students receiving more intense reading interventions. The majority of participants indicated that there were multiple professionals responsible for providing interventions. In fact, in four schools the entire faculty has some level of involvement in the intervention process. Table 23 displays the frequencies of professionals cited as responsible for providing reading interventions.

Table 23

Professionals responsible for providing interventions

Professional Role	Frequency
General education (classroom) teacher	29
Reading specialist/interventionist	21
Special education teacher	18
Paraprofessional/assistant/aide	16
Entire faculty	4
Other	9

General education (classroom) teachers were cited most frequently as the professional responsible for providing interventions to students who are not reading at the expected level. Additional professionals including reading specialists (n=21), special educators (n=18), paraprofessionals (n=16), and others (n=9) all share responsibility for administering reading interventions.

Next steps in the RTI process. While it is likely that students who receive the appropriate reading intervention will demonstrate improvement in their reading skills,

some students will continue to struggle with reading. Participants were asked to describe what happens when a student does not demonstrate sufficient progress at each tier and, if referred for special education, what data are needed to determine whether the child qualifies for special education services. Forty-nine participants provided information about what happens when a student who received focused interventions does not make sufficient progress. Some responses provided more detail than others. Therefore, it is difficult to interpret whether the responses apply to the early, middle, final, or all tiers of the RTI model. Twenty-five participants indicated that a referral is made to an evaluation team where testing for special education eligibility is the likely next step. Twenty-two participants indicated that additional or different interventions or strategies are attempted either within the same tier or by continuing to a more intensive tier of the RTI model. Finally, five participants indicated that they discuss the student's progress or problem-solve with colleagues prior to determining what next steps are taken.

Determining whether a child qualifies for special education services typically requires many forms of both quantitative and qualitative data. For example, evaluation teams tend to look at quantitative data including results of norm-referenced ability and achievement assessments, standardized assessments, progress monitoring data, among a variety of other data sources (MacMillan & Siperstein, 2002; Francis, Fletcher, Stuebing, Lyon, Shaywitz & Shaywitz, 2005). In terms of qualitative data, teams often look at classroom observations, social/emotional history, and parent interviews, just to name a few. The participants in this study confirmed the use of many of the commonly used data sources and provided some additional details in the following selected responses. Examples of the types of data required included descriptions such as this: "We look at all

data for student in the area of reading and math; oral expression; listening comprehension; in one or more of the following areas. If the student doesn't make adequate progress to me meet chronological age or grade level standards. Data must demonstrate that the student was provided well-delivered scientific research-based instruction and interventions addressing the identified area." Another participant shared the following: "Many data points need to be collected on a specific area of concern for a student. Data is to be collected while a very specific targeted intervention is provided. When there is enough data to make the decision." This next teacher was candid in describing a challenge to identification: "The determining factor will be the score on the test that is given by the Special Ed. department. The information obtained from the teacher is valuable; but if the child scores even a point above the cut-off score; there is a possibility that he or she will not be placed in the program. It is very difficult for students to be placed in Special Education now. The paperwork is extremely lengthy and most times we are told that the students are just 'slow learners'." This teacher, who is one of the evaluation team members, provided more specifics: "I need a body of evidence that provides progress monitoring data (at least 6 data points) from the intervention; assessment scores; work samples; AIMSweb Benchmark scores (at least 6 data points); DPS's Benchmark assessment scores; CSAP scores; in class assessments; and observations." Some participants were unsure of what data were needed or provided vague responses such as "testing completed by the school psychologist."

Follow-up Interview Results

A series of follow-up telephone interviews were conducted with a sample of participants who provided their contact information when they completed the survey.

The purpose of the interviews was to verify information collected through the survey and to learn more specifics about the reading practices used by K-6 general and special education teachers. A total of 14 interviews were completed. As with the survey participants, interview participants were from a national sample and represented both general and special education teachers (seven of each). Participants were from ten different states: California, Colorado, Florida, Ohio, Michigan, New Mexico, Nevada, Rhode Island, Texas, and Vermont. Table 24 displays the states, the number of follow-up interviews completed in each state, and the teacher type. Data from the interviews were compared with information reported in the survey for each participant. Interview notes verified responses provided by each of the participants in their survey.

Table 24

			Teacher Type (# of each)	
State	Interviews Conducted		General Education	Special Education
California		2	1	1
Colorado		1	0	1
Florida		1	0	1
Ohio		2	0	2
Michigan		1	0	1
New Mexico		1	1	0
Nevada		1	1	0
Rhode Island		1	1	0
Texas		3	2	1
Vermont		1	1	0

State, Number of Interviews Conducted, and Teacher Type

The remainder of this section summarizes the themes and concepts that were generated through coding the interview notes. As described earlier in this chapter, a categorizing strategy was used to code and analyze qualitative responses. After identifying themes and concepts, NVivo 10 (QSR International, 2012) qualitative data analysis software was used to query concept frequencies to validate themes and concepts identified through the categorizing strategy.

Four primary themes were identified through coding of interviews. These themes include: (a) helping students become more effective readers, (b) monitoring and measuring student progress, (c) gaining professional knowledge, and (d) implementing a new program is challenging (related to RTI implementation). A discussion of each theme follows.

Helping students become more effective readers. While there were many approaches to teaching reading discussed during the follow-up interviews including phonics, fluency, vocabulary, and comprehension, one common theme emerged through our discussions. All teachers who participated in the interview process were highly committed to helping their students become more effective readers. Excerpts from follow-up interviews about the strategies that teachers use to teach reading are provided. One teacher indicated that she reads aloud to her students every day and models "think aloud" comprehension strategies. Another teacher described how she groups students by the same ability level (based on skill area not reading level) and changes the strategies that she uses to "meet students where they are at." This teacher indicated that she did not believe in using reading ability level groupings. Rather she chooses to form reading groups with students who have similar skill weaknesses: "Therefore, students who need

comprehension instruction are grouped together. Students needing accuracy instruction are grouped together. Students who need more work on fluency are grouped together and students who need expanded vocabulary instruction are grouped together so that I can target the specific skills." Finally, when asked about the other programs that one participant used in her reading lessons, she cited Tucker Signing Strategies. These strategies were developed by Bethanie Tucker, a professor of reading in Virginia. She described the program as one that builds phonemic awareness and helps children decode words. Specifically, "every sound has a hand sign and as they sound out words children use the hand side and sound out the words. They hear it, say it, and feel it."

Monitoring and measuring student progress. As seen in the survey, over 95% of teachers indicated that they frequently refer to student performance on reading assessments and use these data to guide their reading instruction. The follow-up interviews corroborated these findings, but uncovered variability in the types of assessments used and the frequency with which progress was monitored. Excerpts from teacher interviews revealed that teachers are using some of the following types of assessments: DIBELS, AIMSweb, benchmark assessments, running records, and previous years' tests. Additionally, the frequency with which progress was monitored ranged from weekly for below-level readers to three times per year. Notes from the teacher interviews are provided for a deeper description of how teachers monitored and measured student progress. One teacher noted: "In my school, students involved in RTI are monitored using DIBELS weekly for below-level readers, every two weeks for on-level readers, and three times per year for high performers." Another teacher indicated that "progress monitoring is performed every 2 to 3 weeks by an intervention teacher." A general

education teacher shared that she monitors students' progress by testing their reading levels three times per year. This is done by giving multiple assessments at the start, middle, and end of the school year. Additionally, she changes her instruction based on benchmark test results that are given every six weeks. She expressed satisfaction with her student's reading progress by boasting that her class from last year had a 93% pass rate on the end of the year reading test. Running records were used by a third grade teacher to assess students' reading levels and select the "leveled book" appropriate to the student's instructional level. A special education teacher from Michigan indicated that students involved in RTI are monitored using AIMSweb three times per year. A second grade teacher from Texas used STAR testing to monitor her students' progress. She described STAR testing as, "a computer-based testing program that is administered three times per year. This assessment helps to determine levels of reading achievement and serves as a benchmark test after each reading unit." Finally, a fourth grade special education teacher indicated that her school uses DIBELS data in grades K-3 to monitor student progress. In addition, they look at students' formal and informal assessments.

Gaining professional knowledge. Follow-up interviews brought light to the importance of teacher preparation and the role of professional development as a means of continuously gaining professional knowledge. Teachers attributed a variety of sources as contributing to their professional knowledge. It appears that both preservice preparation and inservice professional development assist in building the overall professional knowledge for how to teach reading. In fact, some teachers learned more about certain practices through university coursework or student teaching while others learned more through inservice professional development, trial-and-error, or through colleagues and

mentors. During follow-up interviews, participants shared more about how they learned to teach various reading practices. A fourth grade teacher from Texas indicated that she learned how to teach reading fluency, listening comprehension, and informal assessments in her college preparation; however, she learned to teach reading fluency, listening comprehension, and to adjust levels of instruction through professional development. Additional skills were gained in word analysis, reading fluency, listening comprehension, and reading comprehension through personal practice. Therefore, she was able to build upon the skills she learned in her college preparation program and develop those further through inservice training and personal practice. Another general education teacher from Rhode Island indicated that her college experience introduced her to many reading strategies, but she has learned "how to" mostly through professional development. She stated that student teaching helped her to improve her skills in teaching reading comprehension and ways to differentiate instruction. A special education teacher from California shared that she learned about teaching reading through a combination of college courses, personal experiences, and colleagues. She did not have a formal student teaching experience, but she learned a lot on the job prior to earning her teaching license because she worked as a teaching assistant for 17 years before becoming a teacher. A second grade teacher from Texas indicated that she learned most of the reading strategies she uses through inservice professional development offered by her school district. She stated that her college preparation program taught her some of the strategies that she uses to teach reading comprehension, administer assessments, and make decisions about how to best group students for reading instruction, but she learned more about teaching reading comprehension and grouping strategies through her practicum experience. After

she began teaching, she learned strategies for differentiating instruction from other teachers in her school and through personal experience. Finally, one special education teacher credited her colleagues for contributing to her professional knowledge. She stated that she has "learned a lot about reading instruction from working with other teachers." In summary, it was evident that teachers do not gain all professional knowledge through one single source. Rather it is a variety of sources and practice opportunities that come together to create the full repertoire of teacher knowledge and skills.

Implementing a new program is challenging (related to RTI

implementation). RTI was being implemented in all of the schools of the teachers who participated in follow-up interviews. Although RTI was in place in all 14 schools, it appeared to be at different levels of implementation and has been met with different levels of enthusiasm among school staff. Participants shared both optimism and frustration with the way RTI was being implemented in their schools. Excerpts from follow-up interviews provide a glimpse of the challenges some teachers have experienced and the range of opinions about RTI implementation. A first grade teacher from California shared her frustration with RTI implementation because "it takes up to a year for a student who needs special education services to get into the special education program." Teachers, in her opinion, are not being given enough flexibility to use their professional judgment. A special education teacher from California revealed that RTI implementation had made a slow start; however, she said that it will be mandated starting next school year. When asked to describe their RTI process she reported that, "they screen using a program called the Gateway program where a student needs to score at

least 80% or they'll be put into the Gateway for 2 1/2 hours a day. It's a small group class that has no more than 18 students." She said that it was not clear to her how students would move between the tiers once RTI is mandated. A special education teacher from Florida shared that her school is in their third year of RTI implementation and they seem to be refining the process each year. In fact, this year is the first year that she believes they have consensus on how RTI implementation will work. Since the start, her school team has been working on improving tier two services, but they still have concerns about tier one, "not serving students well." She was optimistic that refinements over the next year would help build stronger consensus. A general education teacher from Rhode Island noted that RTI was in its second year of implementation. She indicated that, "it's too early to tell whether the RTI process works, but it's important for students to get extra help when they need it." A special education teacher from Michigan had a positive opinion of the RTI process in his school and stated that, "kids are getting structured interventions targeted to their areas of weakness." He also noted that, "many kids are not getting identified (for special education services) that would have been previously." While some teachers in his school shared concerns about students not being identified, it is unclear whether the students who were previously identified actually had a disability. A special education teacher from Colorado revealed that that some of her colleagues are having a hard time adjusting to the RTI process: "As with all change, it's taking time for people to adjust to this new way of doing things." Although it takes longer for students to be referred to the special education staffing team, she said that RTI is changing the thinking (in a positive way) about what can be done for children. The mixed opinions about the implementation of RTI are not surprising. As with the implementation of

almost any new innovation in schools, some staff tend to be enthusiastic "early implementers." Others tend to meet new programs with resistance and skepticism.

In closing, Figure 37 provides a visual representation of the overarching concepts identified through qualitative analysis of interview notes using NVivo 10 (QSR International, 2012) qualitative data analysis software. The larger the words in the word cloud, the more frequently those words and similar concepts words were reported. The five most frequently occurring concepts were: students (4.55%), reading (2.9%), school (2.46%), uses (2.39%), and education (2.17%). Each of these percentages included the use of similar words determined to encompass the concept for that word. For example, the count for students included similar words such as "pupil" and "scholarly." Similarly, the count for uses included words such as "exercises," "practices," and "utilizes." These concepts were undoubtedly central to the purpose of this study, and the discussions held with teachers during the follow-up interviews.

15 2 3 achievement additional also areas asked assessments based believes called child classroom complete comprehension currently data described determine different disabilities discrepancy district **education** evaluation experience first fluency formal general get going grade group help however identification implemented includes indicated **instruction** interventions interview language learning lessons level look lot make may meeting minutes model monitoring must need one parent part participant per performance phonics please points principal problem process program progress provide psychologist qualify **reading** referred responsible rti **school** skills small special specific standard strategies **students** uses support sure teacher team testing tier time USES week well work writing Year

Figure 37. Concept frequencies for follow-up interviews.
5. DISCUSSION

This mixed methods study was descriptive in nature and focused on reading practices used by a national sample of kindergarten through sixth grade teachers. Specifically, this study identified on a national level the most frequently implemented instructional practices in elementary reading, the source through which educators acquired knowledge of the practice, and the overall level of confidence educators have in particular reading practices. In addition, this study examined the extent to which schools across the country are implementing an RTI framework to address students' needs using a multi-tiered system of universal, supplemental, and intensive supports. Furthermore, information was gathered on whether schools are using this framework to guide decision making about the identification of students with specific learning disabilities. Chapter 4 presented the results to the research questions generated from the quantitative and qualitative data analyses. A web-based survey and follow-up interviews served as data sources to answer the research questions posed. Thus, this chapter will discuss the findings gleaned from the data analyses, their overall applicability to elementary reading instruction, as well as implications for research and practice. This study provided answers to the following research questions:

1. What are the most frequently reported teaching practices used by K-6 teachers for teaching students how to read?

- 2. Do general and special educators differ in the teaching practices that they report using?
- 3. What is the primary mechanism through which K-6 teachers report learning about the teaching practices they use?
- 4. Do general and special educators differ in where/how they learn about the teaching practices they use?
- 5. Are the respondents confident that the teaching practices they report using are effective strategies for teaching students how to read?
- 6. Do general and special educators differ in their level of confidence in the effectiveness of the teaching practices they report using?
- 7. Are teachers/schools using a multi-tiered approach for teaching reading and/or finding students eligible for special education services as a student with a specific learning disability? If so, what does their RTI model look like and how is it used?

Major Findings

The major findings of this study indicated (a) the majority of teachers (both general education and special education) report using a balanced approach to teaching students how to read; (b) both general and special education teachers depend on a variety of sources for gaining the knowledge and skills used to teach reading in their classrooms; (c) overall confidence in the effectiveness of the reading practices used by the teachers surveyed was high; (d) no significant differences exist between general education and special education teachers in their frequency of use, the source of knowledge, or their level of confidence; (e) significant differences exist by teacher type in how the instruction

was delivered (i.e., group size, number of minutes, and intensity of instruction); and (f) RTI is being implemented with wide variability in 75 percent of schools. A detailed discussion of each of these findings follows.

Balanced Reading Instruction. The results of this study indicate that the majority of teachers (both general education and special education) report using a balanced approach to teaching students how to read. That is, they were implementing both explicit skills instruction along with instruction using authentic literature. Teacher comments further describe their balanced approach. For example, one teacher stated: "I use Reading Recovery Strategies and supplemental materials for phonics, phonemic awareness and fluency as the data indicates." Another teacher described her balanced approach as follows: "I use many different strategies that I have learned over the years and changed them to meet the needs of my students. I cannot say that there is one specific practice or strategy that I use. I use phonemic, whole word and many different comprehension and fluency strategies to help students improve their reading performance." One teacher was specifically trained in balanced literacy. She stated: "We were taught Balanced Literacy in a workshop. I think it is very effective because I choose books that are interesting and the students love to participate in the teaching of the different concepts and love to listen to the daily or biweekly reading of the same book."

Teachers reported using a variety of teaching practices that are considered to be the essential components of effective reading instruction as outlined in the findings of the National Reading Panel Report and further verified by years of research in teaching reading (National Institute of Child Health and Human Development [NICHD], 2000; Pressley, 2006; Snow, Burns, & Griffin, 1998). An example from one teacher's survey

response demonstrates her use of these essential components: "I use CAFE in the Classroom and the Daily Five by Moser and Boushey. Rather than group students by reading level, I group students by the following general strategies: comprehension, accuracy, fluency, and expanded vocabulary.... Students move in and out of these groups as needed. Students read "good fit" books of their choosing - books that are interesting to them and that they can read with at least 90 percent accuracy. Students in a strategy group may be reading at different instructional levels."

Through examination of the survey responses, there were three reading practices that were implemented on average a minimum of three to four times per week (i.e., word analysis, reading comprehension, and differentiation of instruction). While 95% of teachers indicated that they differentiated instruction, 65% of teachers were implementing differentiated instruction at least 3-4 times per week. Differentiation is one of the five recommended practices in the IES practice guide on RTI for reading (Gersten, et al., 2009). The percentage of teachers using differentiated instruction in this study is lower than what Jenkins et al. (2013) found in their study of schools using RTI. Their results indicated that 80% of teachers were systematically differentiating instruction within the core curriculum. Considering Jenkins et al.'s study used a purposeful sample of schools that had been implementing RTI for an average of 3.1 years, it is not surprising that differentiated instruction was more common in their study. There were four practices that were implemented on average a minimum of one to two times per week, but not more than three times per week. These practices include: reading fluency, listening comprehension, adjusting the difficulty level of reading materials, and grouping students by similar ability levels. Both informal and formal reading assessments were

administered with the least frequency (one to three times per month and less than once a month, respectively). It is not surprising that assessments which are used to measure student progress rather than teach reading skills would be the least frequently implemented practices in reading lessons. Because this was a national sample of teachers, it was not possible to conduct observations to verify whether the teachers were actually implementing these practices as often as they report using them. Additionally, it is unclear whether the practices are being implemented in the way in which they were designed to be implemented. Verification of self-reported frequencies along with checks for fidelity of implementation could be gathered through follow-up observations; however, this was beyond the scope and budget of this study.

Source of Knowledge. Results indicated that both general and special education teachers depend on a variety of sources for gaining the knowledge and skills used to teach reading in their classrooms. The most cited sources of knowledge about reading practices came from four out of the seven response options. These sources included combined higher education, which includes university coursework as well as student teaching or practicum experiences, inservice professional development, personal experience or trial-and-error, and other teachers, mentors, or colleagues. When looking at the two most highly cited sources of knowledge, combined higher education and inservice professional development, at least 59% of participants cited that they learned about each reading practice through both sources. These findings imply that teacher knowledge is an accumulation of knowledge and skills pieced together over time and includes sources from formal education (college/university coursework), practical training (student teaching or practicum experiences), on-the-job training (inservice

professional development), and professional practice (practice opportunities and consultation with peers). Examples of the various sources of knowledge cited in openended survey responses follow:

"I recently began using a program called Read Naturally with my struggling readers 2-3 times a week. I learned about this program from my colleagues. I think this program will definitely help improve my students' reading performance."

"Inferencing--I learned these strategies from college; an internship; from other teachers; professional development; and through trial and error. I am very confident that this strategy is affecting student reading performance."

"My school district focuses on LIFT - Literacy Instructional Framework for Teachers which scaffolds instruction for all grades and ability levels. I learned about LIFT as professional development that all staff are required to take within the first two years of working in the district. I feel as though I continue to improve on certain parts each year; but I'm very confident with my guided reading groups."

It is evident that no single source served as the primary method through which teachers gained the majority of their knowledge about reading practices.

There is an abundance of literature on effective teacher preparation (Learning Point Associates, 2004; Risko, Roller, Cummins, Bean, Block, Anders & Flood, 2008; Sayeski, 2013; Washburn, Joshi, & Binks, 2010) and effective strategies of inservice professional development (Bos, Mather, Dickson, Podhajski, & Chard, 2001; Goldschmidt & Phelps, 2010; L'Allier & Elish-Piper, 2007); however, there is limited

knowledge about how all of these pieces should best fit together to improve how teachers teach children to read and ultimately how their practices result in improved reading outcomes for our nation's children. A recent study published by the National Council on Teacher Quality (NCTQ), indicated that the majority of university teacher preparation programs were failing to adequately prepare the next generation of teachers (Greenberg, McKee, & Walsh, 2013). NCTQ (2013) stated, "[t]hree out of four elementary teacher preparation programs still are not teaching the methods of reading instruction that could substantially lower the number of children who never become proficient readers from 30% to under 10%" (p. 2). This claim is not substantiated by the findings of this research which shows that teachers do learn about effective reading practices from both their university preparation programs as well as inservice professional development training. Additionally, teachers in this study indicated a high frequency of use of effective reading strategies which brings one to further question the NCTQ claim because it seems unlikely that teachers would frequently use practices that they were never taught. Further carefully designed research is recommended to provide insights into effective teacher preparation in reading.

Confidence in Reading Practices. The overall confidence in the effectiveness of the reading practices used by the teachers surveyed was high. On average teachers ranked their level of confidence between somewhat confident and very confident on all areas of reading instruction included in the survey. Confidence in practices used by teachers was especially evident in the open-ended responses provided by participants. The following comments demonstrate high levels of teacher confidence across a variety of instructional practices:

"I use guided reading; paired reading; chorus reading once or twice a week to give students extra practice in reading. I learned these strategies through a workshops and professional development training. I am very confident that these practices help to improve a child's reading ability."

"I do Sustained Silent Reading 3-4 times per week for 15 minutes. The students look forward to dedicated, quiet time just to read. I learned to do this from watching others; and from some videos at professional development events. I am very confident that this improves their reading."

"I read aloud to my class almost every day. I learned to do this from my teacher training and from watching other teachers. I am very confident that it helps my students be better readers; as I often think aloud and model comprehension strategies as I read; plus I read very well to help them visualize; and we discuss what they are seeing in their 'mind movie'."

It is not uncommon for teachers to possess a high level of confidence in teaching practices; however, it is not possible to discern from this study whether the teachers were actually implementing these practices with fidelity or whether implementation of these practices result in improved reading outcomes (Hong-Nam & Swanson, 2011; Viel-Ruma, Houchins, Jolivette, & Benson, 2010).

Examining Differences between General and Special Educators

Although there were no statistically significant differences between teacher type in frequency of use of reading practices, the source of knowledge of reading practices, and the level of confidence teachers had in the effectiveness of the reading practices they were using, there were significant differences in how the instruction was delivered (i.e.,

group size, number of minutes, intensity of instruction). For example, there was a significant difference in the group size/number of students in the main reading group by teacher type. Special education teachers were much more likely to teach students in smaller group settings. In fact, 29 out of 38 special educators taught reading to groups of 10 or fewer while only one out of 35 general education teachers taught a group of 10 or fewer. This is consistent with the literature in special education demonstrating that students with special needs require more of their instruction delivered in small group settings (Bos & Vaughn, 2002). According to Harn, Linan-Thompson, and Roberts (2008): "Small group instruction focused on prioritized skills increases the instructional support in meaningful ways by allowing instruction to be efficient by targeting the specific skill needs for students" (p. 116). There is no consensus in the literature as to the ideal group size for special education instruction to be effective; however, we do know that larger groups decrease the likelihood that interventions can be tailored to individualized student needs and often decrease the number of opportunities for students to engage in supported practice with corrective feedback. Furthermore, it is not uncommon to find no statistically differences between general and special education teachers. Other researchers have found no differences in teacher knowledge or implementation of reading practices (Rankin-Erickson & Pressley, 2000; Spear-Swerling & Cheesman, 2012) and no difference in teacher knowledge of evidence-based practices (Bradley-Black, 2013). Although not statistically significant, differences were observed in the frequency of use for word analysis (see Figure 8). Similar to research conducted by Rankin-Erickson and Pressley (2000) who reported that special educators implement more intensive sound-, letter-, and word-level skills instruction, special education

teachers in this study reported more frequent use of word analysis strategies; however, additional research with a larger sample size is needed to examine this relationship.

Most teachers of students with learning disabilities have more limited daily instructional time with their students than do teachers of general education students. This scheduling limitation may explain why there were significant differences in the number of minutes of reading instruction provided daily by teacher type. General education teachers reported providing reading instruction for longer periods of time than special education teachers. Strategies for scheduling instructional time for reading in elementary schools can vary from grade to grade and school to school. However, over 70% of general educators in this study reported teaching reading for at least 90 minutes daily while less than 30% of special educators taught for this length of time. With more than half of our nation's special education students receiving instruction in the regular classroom for 80% or more of their school day, it is not uncommon for students receiving special education services to receive a portion of their reading instruction from the general educator and a portion of their reading instruction from the special educator. Therefore, it is possible that the amount of time special educators reported teaching reading should actually be considered supplementary to the time general educators spend teaching reading, thus resulting in students with special needs actually receiving more minutes of reading instruction daily than their general education peers.

Assuming students with special needs are receiving more reading instruction daily than their general education peers, special educators in this study were implementing one of the most common practices used for at-risk students (Linan-Thompson & Hickman-Davis, 2002; O'Connor, 2000). Increased instructional time in reading has been

documented throughout the literature for improving student literacy. In fact, a synthesis examining reading intervention studies for at-risk students concluded that reading interventions delivered to small groups at least two to three times per week or daily for a minimum of 15 to 30 minutes produced the greatest improvements (Cavanaugh, Kim, Wanzek, & Vaughn, 2004). Another possible explanation for special education teachers to engage in fewer minutes of reading instruction daily may be that it takes less time for a special educator to deliver a lesson that is targeted to a student's specific deficit area identified in their individualized education program than it does for a general education teacher to deliver a lesson that includes all aspects of effective reading instruction.

Finally, there were differences in the intensity of instruction provided by teacher type. Special educators were four times more likely to be delivering supplemental or intensive, individualized reading instruction than were general education teachers. This too is consistent with what we know about best practices within special education. That is, the intensity of the instruction is most effective when delivered systematically and explicitly (Simmons et al., 2007). Teachers of students with SLD are trained to provide intensive remedial instruction in specific deficit areas; therefore, it makes sense that the intensity of the instruction they provide would be significantly different from the intensity of instruction provided by general education teachers who are mostly responsible for teaching the core reading curriculum.

Use of RTI in Elementary Schools

The results related to RTI implementation in schools paint a very eclectic picture. While RTI is being implemented in 75% of the schools, there is wide variability in how it was described. Similar variability across RTI models has been documented by other

researchers (Berkeley et al., 2009; Hoover, Baca, Wexler-Love, & Saenz, 2008). Most descriptions of the RTI models being used provided a general acknowledgement of the multi-tiered nature of RTI; however, the descriptions lacked details about what each tier looked like and how decisions were made for placement within the tiers. Results from Spear-Swerling and Cheesman's (2012) research corroborate these findings. They noted that teachers were generally familiar with the essential components of RTI, such as the three tiered model, but lacked familiarity with the evidence-based instructional approaches and interventions commonly used in an RTI model (2012). These findings are consistent with those identified by Berkeley et al. (2009) who found considerable variation in how states and districts were describing the components of RTI, the appropriate number of tiers, and whether they supported a standard protocol, problem solving, or combined model of RTI.

There is agreement in the RTI literature that students must be provided with high quality core reading instruction with universal screening to identify those students at risk for reading difficulties (Denton, 2012). Therefore, it would be reasonable to assume that the core programs schools report using, especially in the schools implementing RTI, would be those with a high level of research evidence. A search for evaluation studies that compared commercially available published reading programs yielded no results. Studies, mostly supported by the publishers of the reading programs, were found that showed efficacy of individual programs; however, nothing was found that offered a comparison across the wide number of programs available. Recognizing that there is no research-based evidence comparing the quality of these programs, it was found that the top three published programs reported by teachers who listed a commercially published

core reading programs were: Harcourt Reading, Houghton-Mifflin, and Scott Foresman. These findings were corroborated by Jenkins et al. (2013) who identified these same three commercial reading programs as the most frequently implemented Tier 1 reading curricula.

It was interesting to note that although 75% of participants reported that RTI was being used for SLD identification, 65% of participants reported use of a discrepancy approach indicating that the two approaches are not mutually exclusive. The high percentage of schools reporting the use of RTI for the purposes of LD identification in this study (75%) was much higher than the percentage of states that reported plans to use RTI for LD identification in 2007 (Hoover et al., 2008).

These data also bring into question whether RTI is being used for broader school improvement purposes rather than for SLD identification alone. The early literature on RTI primarily focused on the feasibility of this approach for replacing the discrepancy approach to SLD identification (Mastropieri & Scruggs, 2005). More recent literature suggests that RTI holds promise for improving educational outcomes for all students (Basham et al., 2010; Moore & Whitfield, 2009). This shift in the purpose of RTI has undoubtedly led to confusion about exactly what RTI is and how it should be implemented. In a recent article reflecting on the last decade of RTI research, Fuchs and Vaughn (2012) conclude the following regarding the need for continued research on RTI:

What's less clear is how extensively RTI has actually been implemented in schools and the extent to which those implementations represent tenable prevention models, guided by best practices. Issues persist related to implementation and effective use of data sources, procedures, and practices for

decision making around these data, as well as viable strategies for differentiating general education classroom instruction and validated methods for intervention. Moreover, educators continue to ask thoughtful questions about how to effectively organize the various tiers of intervention and how to efficiently provide them within the context and realities of schools (p. 195).

Limitations

A number of limitations were present in this study. This section will describe those limitations with regards to the survey participants as well as the survey instrument, and the implications for the validity and reliability of the findings.

Survey Participants. Participants in this study were a nationally representative sample of general and special educators teaching reading to students in kindergarten through sixth grade. While this sample was certainly appropriate for the collection of data regarding reading practices implemented by the teacher, it may not have been the appropriate sample for collecting comprehensive information about the implementation of RTI. The descriptions of the RTI models gathered through this study were limited by the participant's involvement, or lack thereof, in the RTI model at his or her school. It is likely that an elementary school principal, a school psychologist, or school-based RTI coordinator could have provided a richer, comprehensive explanation of the study.

Survey Instrument. The next limitation involves the survey instrument. The data reported through this survey were self-reported data which are reliant on teacher perceptions and honesty. Therefore, these data may or may not represent actual practice in the classroom. Because the current study uses teacher perception and self-report as the

dependent measures, observational studies are needed to verify the extent to which actual reading practices match teacher self-reports. Although not feasible for this study, an observational component could have served as a reliability check for self-reported data.

Implications for Future Research and Practice

Findings from this study have implications for future research and practice. Future research should expand beyond a survey approach and examine multiple sources of data to measure teacher knowledge, implementation, and confidence of scientifically based reading instruction. Studies should be designed that not only collect teacher reported data related to knowledge, implementation, and confidence, but also directly measure reading instruction through classroom observations and interviews. Classroom observations would allow researchers to look at the complete reading lesson rather than the individual practices examined through this survey to determine whether the practices when combined reflect best reading practice. A study that employs multiple sources of data would provide a more complete picture of how teachers implement reading instruction and would be useful in identifying aspects of instruction that need to be strengthened.

Based on the limited information collected regarding the nature of the RTI models used in this study, further research is needed to understand how schools across the country are conceptualizing and implementing RTI. Another next step related to RTI would be to conduct school-based studies that examine intervention intensity, duration, and grouping practices in schools implementing RTI. Observations within schools would be the best strategy to understand whether RTI, when implemented as a school

improvement model, can meet the promise of improving educational outcomes for all students.

The results related to sources of teacher knowledge have implications for preservice teacher preparation as well as inservice professional development. In this era of increased accountability where teachers will be measured by the success of their students and teacher preparation programs will be measured by the effectiveness of the teachers they produce, both teacher preparation programs and the school districts that employ teachers have an obligation to provide teachers with the best preparation, professional development, and ongoing support possible. Because teachers appear to accumulate knowledge and skills through multiple sources and over time, it is critical that our nation's teacher preparation programs include coursework as well as field-based practice opportunities on the essential components of effective reading. This will enable newly trained teachers to enter the classroom with a strong foundation on all aspects of reading and build upon this foundation through ongoing professional development.

In terms of classroom practice, use of similar approaches to teach reading across general and special education may have implications for collaboration or co-teaching. It is helpful if general and special education teachers working to improve the reading skills of their students use consistent and compatible approaches to teaching. Building on what is known about the differences in the roles of general and special education teachers, further research on how general education and special education teachers work together to teach reading could identify unique preparation and training needs of educators responsible for teaching elementary reading in inclusive classrooms. Another popular aspect of classroom practice reported in this study was differentiation of instruction. It is

understandable that teachers want to differentiate their instruction to meet the individualized needs of their students; however, caution should be exercised when doing so as some teachers actually modify interventions to the point that the intervention is no longer being implemented in a way that is consistent with the research that proved it to be effective. Fidelity of implementation is critical to achieving the expected intervention outcome; however, the availability of fidelity checklists or tools to monitor fidelity is sparse.

Conclusion

Extensive research exists in the field of education on the practices that are most effective for teaching early reading. Further research exists on interventions designed to be implemented with those children who, despite receiving classroom reading instruction, are still struggling to learn to read. There is still much to be learned about RTI and how the essential components of that model should be implemented to best meet the needs of struggling readers including those identified as needing special education services. Recent research in the area of implementation science has brought about an increased awareness in the field of education on the core aspects of implementation and the importance of fidelity (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Additional research is needed to understand the complex nature of how teacher preparation and professional development influence the teaching practices used by elementary teachers and ultimately whether those practices, implemented with fidelity, lead to the ultimate goal of increased student achievement in reading.

APPENDIX A

Survey: What are K-6 Teachers' Practices for Teaching Reading?

What are K-6 Teachers' Practices for Teaching Reading?

What are K-6 Teachers' Practices for Teaching Reading?

INFORMED CONSENT FORM

RESEARCH PROCEDURES

This research is being conducted to understand and describe the specific instructional strategies that K-6 general and special education teachers use to teach students to read. In addition, I am seeking to determine how teachers learn about the instructional strategies they use and whether or not they believe these strategies are effective for increasing students' reading levels. If you agree to participate, you will be asked to complete and submit an on-line questionnaire that asks you to report on: (1) the frequency with which you use various instructional strategies for teaching students to read, (2) how you learned the strategy, and (3) whether you believe the strategy is effective for increasing your students' reading levels. You will also be asked to report on the process your school uses to identify students with specific learning disabilities. The estimated time required to complete the questionnaire is 20-30 minutes. If you indicate that you are willing to provide me with additional information, I will contact you directly using the preferred method of contact you specify. The estimated time to respond to follow-up e-mails or participate in a telephone interview is 15 minutes.

RISKS

There are no foreseeable risks for participating in this research.

BENEFITS

There are no benefits to the participants other than to further research on instructional strategies for teaching elementary students to read.

CONFIDENTIALITY

All data gathered from this on-line questionnaire and through follow-up interactions (if any) will be kept confidential. In order to maintain confidentiality, your name will not be included on the questionnaire or other collected data; however, a unique code (numerical identifier) will be included in the e-mail and postcard correspondence you receive to avoid duplicate responses. This code will allow the researcher to link responses to the questionnaire to individual respondents through the use of an identification key. The researcher will have exclusive access to the identification key.

While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmissions. To further protect your responses, it is recommended that you close your internet browser after completing and submitting your responses.

PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other

party. Should you agree to be contacted for follow-up, you will be entered into a drawing to win a \$25 gift card to Barnes & Noble. Limit: one entry per person.

CONTACT

This research is being conducted by Christina Diamond, a doctoral candidate at George Mason University, under the supervision of her advisor Dr. Margo A. Mastropieri, Professor of Special Education at George Mason University. Christina Diamond may be reached at **Decempend** and Dr. Mastropieri may be reached at **Decempend** for questions or to report a research-related problem. You may contact the George Mason University Office of Research Subject Protections at **Decempend** if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT

The George Mason University Human Subjects Review Board has waived the requirement for a signature on this consent form. However, if you wish to sign a consent form, please contact: Christina Diamond, **Information Construction Christian** E-mail:

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We recommend that you print a copy of this page and keep a copy of this informed consent for your records.

Version date: 01/21/10

What are K-6 Teachers' Practices for Teaching Reading?

This survey is divided into 4 parts with a total of 37 questions.

- PART 1 includes questions about you, your school, and the reading curriculum you use. There is a combination of multiple choice, short answer, and yes/no questions.
- PART 2 includes questions about the instructional practices you use, how you learned those methods or strategies, and your level of confidence related to the instructional practices.
- PART 3 includes one, open-ended question where you can tell me about any other instructional practices, methods, or strategies you use to teach reading or monitor student progress in reading.
- PART 4 includes a combination of multiple choice and open-ended questions about the practices your school uses and your involvement in the identification and/or evaluation of students who have specific learning disabilities (SLD).

If you are willing to be contacted by phone or e-mail with follow-up questions related to this survey, please indicate consent by providing your name, phone number, and/or e-mail address before you click "submit."

Thank you, again, for your participation!

To begin, please enter the NID (Name Identification Number) that was provided on your postcard. Leave this item blank if you linked to the survey through the e-mail you received.

ID number (postcards only):

PART 1: About You, Your School, & Your Reading Curriculum

1. Which best describes your Main Teaching Assignment?

- General Education Teacher
- Special Education Teacher
- Other, please specify:

2. When completing this questionnaire, please refer to your main reading class.

In order to determine your **main** reading class, please answer the 3 items (Items a through c) below.

(a) Do you **only** teach reading to your homeroom students (i.e., you teach reading only to the students on your class roster)?

Yes

If yes, your ${\bf main}$ reading class is the group of students in your homeroom. (Proceed to question 3).

If no, continue to (b).

(b) Do you teach reading to **several different** groups of students who are periodically reassigned to a different teacher for reading instruction throughout the year?

Ves

If yes, your ${\bf main}$ reading class is the group of students whom you currently teach. (Proceed to question 3).

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If no, continue to (c).
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(c) Do you teach reading to **more than one class or group** of students each day (e.g., you team with other teachers and rotate your reading groups)?

No

If yes, your **main** reading class is the first class/group of the week to which you teach.

3. Indicate the grade level of the students in your main reading class (check all that apply).

□ Kindergarten □ 1st Grade □ 2nd Grade □ 3rd Grade □ 4th Grade □ 5th Grade □ 6th Grade

4. Indicate the ability levels of the students in your main reading class (check all that apply).

- General Education: Performing on or above grade level
- At-risk: Performing below grade level
- English Language Learners
- Gifted
- Special Education: Learning Disabilities
- Special Education: Emotional Disabilities

- Special Education: Other Health Impaired (including AD/HD)
- Special Education: Speech & Language Disordered/Delayed
- Special Education: Mental Retardation

Special Education: Other (e.g., autism, deaf, blind, physical, and or multiple disabilities) Other, please specify:

5. Indicate the primary type of reading instruction you provide to your main reading class.

Core curriculum (e.g., school-wide reading program for all students).

Supplemental reading instruction (e.g., targeted instruction to a smaller at-risk group). Intensive, targeted reading instruction (e.g., individualized for remedial readers).

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Other (please describe):
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6. Indicate the number of students in your <u>main</u> reading class. Number of students:

7. On a typical school day, how many minutes do you spend teaching reading to your main reading class?

Number of minutes:

8. How are the students in your main reading class assigned to you?

All of the students in my main reading class come from my homeroom class.
The students in my main reading class come from two or more classrooms of the <u>same</u> <u>grade</u> in this school.

• The students in my **main** reading class come from **two or more** classrooms at <u>different</u> <u>grade levels</u> in this school.

Other, please describe:

9. How frequently does the <u>main</u> group of students to whom you teach reading change?

- I teach the **same** group for more than one academic year.
- I teach the **same** group for an entire school year.
- My group changes **one or two** times during the school year.
- My group changes every six to eight weeks.
- My group changes once or twice a month.
- Other, please describe:

10. To what extent do you agree or disagree with the following statements about your main reading class?

(a) Most of the students in my **main reading class** can learn what I teach them. Strongly Disagree Disagree Agree Strongly Agree

(b) I can significantly affect my students' reading achievement by trying different teaching methods.

Strongly Disagree Disagree Agree Strongly Agree

(c) I feel a great deal of satisfaction when students in my reading class learn what I teach them. Strongly Disagree Disagree Strongly Agree **11. What primary reading program/curriculum is used in your school?** (Indicate Title, Publisher, and Year Published, if known - or - indicate general approach if not using a published program/curriculum).

12. Do you use the primary reading program/curriculum with your main reading class?

Yes No • If no, what do you use?

13. Who is responsible for selecting the primary reading program/curriculum that is used in your school?

- My school district (e.g., central office or school board)
- My principal/administrator
- My school curriculum specialist or reading specialist
- My grade-level team (or school-based committee)
- I make my own selection
- Other, please describe:

14. To what extent do you agree or disagree with the following statements about the primary reading program/curriculum you use most often with your main reading class?

(a) The program/curriculum contains useful information about the content I am teaching. Strongly Disagree Disagree Agree Strongly Agree

(b) The program/curriculum provides me with useful information about how to teach particular skills, strategies, texts, or other topics.

• Strongly Disagree • Disagree • Agree • Strongly Agree

(c) The program/curriculum provides me with useful information about what my students know and difficulties they have.

Strongly Disagree Disagree Agree Strongly Agree

15. To what extent do you agree or disagree with the following statements about how you prepare reading lessons for your main reading class?

(a) I frequently refer to and use information found in state or local curriculum frameworks or standards.

Strongly Disagree
 Disagree
 Agree
 Strongly Agree

(b) I frequently refer to and use information from the teachers' guides associated with the primary reading program/curriculum materials used at my school.
 Strongly Disagree
 Agree
 Strongly Agree

(c) I frequently refer to student performance (i.e., outcomes) on reading assessments and use the data to guide instruction.

Strongly Disagree Disagree Agree Strongly Agree

PART 2: Instructional Practices: What you do. How you learned to do it. Do you think it works?

In this section, there are <u>eight, 3-part questions</u>. Please respond to the following questions by first, indicating **how often** you use each of the following teaching methods/strategies. Second, indicate **how you learned** about the practices. Finally, indicate your **level of confidence** in the selected instructional practices. **16.**

(a) I teach word analysis (e.g., decoding, word families, context cues, sight words). Never

- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned how to teach word analysis words through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that teaching word analysis is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
 Neutral
- Neutral
- Somewhat confident
- Very confident

17.

(a) I teach reading fluency (e.g., repeated reading, guided oral reading). • Never

- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned how to teach reading fluency through these sources (check all that apply).

College/University course (e.g., lecture, demonstration, or textbook)

Student Teaching/Internship/Practicum

- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.

Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that teaching reading fluency is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

18.

(a) I teach listening comprehension. Never

- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned how to teach listening comprehension through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that teaching listening comprehension is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

19.

(a) I teach reading comprehension (e.g., questioning, retelling).

- Never
- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned how to teach reading comprehension through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that teaching reading comprehension is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

20.

(a) I adjust the difficulty level of the reading materials my students use during reading lessons.

- Never
- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned strategies for monitoring and adjusting the difficulty level of reading materials I use to teach reading through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that adjusting the difficulty level of the reading materials your students use during reading lessons is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

21.

(a) I use informal reading assessments (e.g., running records given periodically) to assess my students' reading levels, make instructional decisions, and measure student progress.

Never

- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned strategies for administering and interpreting informal reading assessments (e.g., running records) to make instructional decisions and measure student progress through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that administering and interpreting informal reading assessments (e.g., running records) is an effective strategy for making instructional decisions and measuring student progress in reading?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

22.

(a) I use a reading assessment/reading inventory (e.g., IRI, QRI) to assess my students' reading levels, make instructional decisions, and measure student progress.

Less than once a month

- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned strategies for administering and interpreting reading assessments/reading inventories (e.g., IRI, QRI) to assess students' reading levels, make instructional decisions, and measure student progress through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that administering and interpreting reading assessments/reading inventories (e.g., IRI, QRI) is an effective strategy for assessing students' reading levels, making instructional decisions, and measuring student progress in reading?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

23.

(a) I group students into reading groups who have similar reading levels.

Never

- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned strategies for grouping students for reading instruction based on their reading level through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that grouping students with similar reading levels into reading groups is an effective strategy for improving your students' reading performance?

Not at all confident

- Not very confident
- Neutral
- Somewhat confident
- Very confident

24.

(a) I try using a different teaching method/strategy when a student does not demonstrate understanding.

- Never
- Less than once a month
- 1-3 times per month
- 1-2 times per week
- 3-4 times per week
- Daily

(b) I learned to adjust my teaching methods/strategies when a student does not demonstrate understanding through these sources (check all that apply).

- College/University course (e.g., lecture, demonstration, or textbook)
- Student Teaching/Internship/Practicum
- Professional Development/Training/Workshop
- Another Teacher, Mentor, or Colleague (e.g., explanation, observation, or demonstration)
- State, Regional, or Federal Technical Assistance (TA) Center
- Personal experience/Trial-and-error
- I NEVER learned to use this practice.
- Other source, please specify in the space provided.

Enter other source here.

(c) How confident are you that trying different teaching methods/strategies when a student does not demonstrate understanding is an effective strategy for improving your students' reading performance?

- Not at all confident
- Not very confident
- Neutral
- Somewhat confident
- Very confident

25. PART 3: Tell Me About Other Instructional Practices You Use

In the space below, please list any practices/strategies (not included in this survey) that you use to teach or monitor student progress in reading. Please comment on: (1) how frequently you use the practice or strategy, (2) how you learned about the practice or strategy, and (3)

how confident you are that the strategy is effective in improving your students' reading performance.

PART 4: Practices for Identification of Students with Specific Learning Disabilities (SLD)

This section includes questions about the procedures your school uses to identify students with specific learning disabilities (SLD), as well as your involvement in the identification and/or evaluation of students for SLD.

26. Please describe your role in the process for identifying students with specific learning disabilities.

If you are not involved, please respond with "none."

My role is:

27. In Your School . . .

(a) Does your school's process for identifying students with specific learning disabilities involve determining whether there is a discrepancy between ability and academic achievement? (For example: Assessing a student's ability (IQ) as measured by the Wechsler Intelligence Scale for Children (WISC) or similar instrument and comparing it to the student's performance on an academic achievement test such as the Woodcock Johnson Tests of Achievement (WJ-R))? Yes No Unsure

(b) If yes, are there specific criteria for how large the discrepancy must be (e.g., 10 points, 15 points, other)?

28. In Your School . . .

(a) Does your school's process for identifying students with specific learning disabilities involve a process commonly referred to as response to intervention/instruction?
 (If unsure, see What is RTI? below.)
 Yes
 No
 Unsure

What is RTI?

In an RTI process, ALL students are provided with the same core reading instruction in the general classroom and their reading performance is screened and progress is monitored on a regular basis. Those students who are not making adequate progress, according to their assessments, are provided with a higher intensity of instruction by their teacher or other instructional support provider. This instruction is in addition to the reading instruction provided to ALL students. Most RTI models involve at least 3 levels or tiers of instructional intensity and students can move up or down from level-to-level or tier-to-tier depending on their performance and rate of progress. The core reading program provided in the general classroom must be shown to be based on scientific, research-based practices.

(b) If yes, please respond to the remaining questions.

If no (or unsure), you <u>do not</u> need to respond to the remaining questions; however, if your school's process was not described by either Question 27 or Question 28, <u>please describe</u> your school's process in the space below.

If you answered "no" above, YOU DO NOT NEED TO RESPOND TO THE REMAINING QUESTIONS. HOWEVER, PLEASE SCROLL TO THE BOTTOM OF THE PAGE AND <u>CLICK SUBMIT</u> SO YOUR RESPONSES WILL BE RECORDED. Thank you for your participation!

If you answered "yes" above, please continue.

29. How many levels (or tiers) of instruction are in your school's RTI model? Two Three Four Five or more We don't use levels (or tiers) On't know

30. Read the descriptions below, and indicate whether your school's RTI process is a standard protocol model or a problem-solving model.

Standard Protocol Model

Standardized protocols are interventions that researchers have validated as effective and teachers know that these strategies work. School staff are expected to implement specific research-based interventions to address the student's difficulties. These interventions are not accommodations to existing curriculum; rather, they are instructional programs targeted to remediate a specific skill. Research for standard protocol interventions should specify the conditions under which the intervention has proven successful, including the number of minutes per day, the number of days per week, and the number of weeks (typically eight to 12) required for instruction with the intervention. Information about each research-based intervention also should describe the specific skills addressed, where the instruction should be provided, who should provide the instruction, and the materials used for instruction and assessing progress

(adapted from Fuchs et al., 2003).

Problem-Solving Model (Individually Designed Instructional Package for each child) Most schools currently have an existing form of a problem-solving team, such as a student instructional team (SIT), student assistance team (SAT), child study team (CST), pre-referral team, or building assistance team (BAT). The purpose of these teams is to develop an accommodation or modification plan for the instructional program in the general education classroom to support the targeted student, while simultaneously providing a positive effect on the instructional program for all students. Under an RTI service-delivery system, these teams would adopt a problem-solving approach that is based on data and a continuing system of evaluation. Problems need to be objectively defined, observed, and measured directly in the general education classroom. The data collected are then analyzed, using information to develop hypotheses about the cause of the problem and the appropriate selection of evidence-based strategies to remedy them.

Combined Model

Any combination of the two models discussed above.

- Standard Protocol Model
- Problem-Solving Model
- Combined Model
- Other Model, please describe:

31. What interventions or strategies are used for increasing the child's performance and rate of learning in your school's model?

32. Please describe how your school collects and monitors student progress.

33. Who is responsible for providing targeted reading instruction for students receiving more intense reading interventions or strategies? (e.g., general education teacher, reading specialist, special education teacher, para professional, other)

34. What happens when a student does not demonstrate sufficient progress (at each level or "tier"), after receiving focused interventions or assistance?

35. What data are needed to determine whether a child qualifies for special education services as a child with a specific learning disability?

36. Please describe your role in the learning disabilities.	process for i	dentify	ving students wit	h specific

37. Thank you for your participation in this survey. Are you willing to be contacted by phone or e-mail for follow-up questions related to this survey?

Yes. By Phone (please provide information below).

Yes. By E-mail (please provide information below).

No. Please do not contact me.

Phone or E-mail:

Please indicate the best way to contact you.

Provide name, phone number and/or e-mail address below.

Again, thank you for your participation!

I appreciate you taking the time to complete this survey. Requests for copies of the survey findings can be sent to me at cdiamond@gmu.edu.

DON'T FORGET TO CLICK SUBMIT

Submit

APPENDIX B

Post Card #1

Dear Educator,

Name ID Number: see address label

What? -- Please take a few minutes out of your busy schedule to tell me about the specific instructional strategies that you use to teach reading by completing my on-line questionnaire, "What are K-6 Teachers' Practices for Teaching Reading?"

Why? -- I am currently working on my dissertation project and want to learn more about the strategies that K-6 general and special education teachers use to teach students to read.

How? – It's easy. Just complete and submit the on-line questionnaire. The questionnaire can be accessed online by going to: http://websurvey.gmu.edu/survey/entry.jsp?id=1235662322667

If you do not have access to the Internet, please contact me by phone (703) 909-8764 or e-mail:

<u>cdiamond@gmu.edu</u> and I will send you a hard copy version of the questionnaire along with a postage paid return envelope.

When? - Please complete the questionnaire by April 15, 2010

What's in it for me? – By participating, you will be entitled to receive a copy of the study results, if requested. In addition, if you agree to be contacted for a follow-up interview you will be entered into a drawing to win a \$25 gift card to Barnes & Noble. Limit: one entry per person.

I would like you thank you in advance for taking the time to complete this questionnaire. Please do not hesitate to call if you have any questions or comments about this study.

<u>Please note</u>: The on-line questionnaire must be completed in one session, if closed before submitting, your answers will not be transmitted.

APPENDIX C

Post Card #2

Dear Educator,

Name ID Number: <u>see address label</u>

Questionnaire on Teaching Reading -- Please share your strategies! My name is Christina Diamond. I am a doctoral student at GMU in Fairfax, VA. About a week ago, I sent you a request to complete a questionnaire titled, "What are K-6 Teachers' Practices for Teaching Reading?" According to my records, I have not received your reply. If you have already submitted your questionnaire, please accept my thanks and disregard this card.

I'm sure that you are very busy, especially at this time of the school year. I would truly appreciate if you would take a moment to complete the on-line questionnaire by going to: <u>http://websurvey.gmu.edu/survey/entry.jsp?id=1235662322667</u> If you do not have access to the Internet, please contact me by phone (703) 909-8764 or e-mail:

<u>cdiamond@gmu.edu</u> and I will send you a hard copy along with a postage paid return envelope.

By participating, you will be entitled to receive a copy of the study results, if requested. In addition, if you agree to be contacted for a follow-up interview you will be entered into a drawing to **win a \$25** gift card to Barnes & Noble. Limit: one entry per person. Please complete the questionnaire by April 30, 2010.

Thank you in advance for taking the time to complete this questionnaire. Please do not hesitate to call me at (703) 909-8764 if you have any questions or comments about this study.

APPENDIX D

First E-mail

Dear Educator,

What? -- Please take a few minutes out of your busy schedule to tell me about the specific instructional strategies that you use to teach reading by completing my on-line questionnaire, "Teaching Reading in Grades K-6: What Practices Do Teachers Use to Teach Reading?"

Why? -- I am currently working on my dissertation project and want to learn more about the strategies that K-6 general and special education teachers use to teach students to read.

How? – It's easy. Just complete and submit the on-line questionnaire. The questionnaire can be accessed online by going to: http://websurvey.gmu.edu/survey/entry.jsp?id=1235662322667

If you do not have access to the Internet, please contact me by phone (703) 909-XXXX or e-mail: <u>cdiamond@gmu.edu</u> and I will send you a hard copy version of the questionnaire along with a postage paid return envelope.

When? – Please complete the questionnaire by April 15, 2010

What's in it for me? – By participating, you will be entitled to receive a copy of the study results, if requested. In addition, if you agree to be contacted for a follow-up interview you will be entered into a drawing to win a \$25 gift card to Barnes & Noble. Limit: one entry per person.

I would like you thank you in advance for taking the time to complete this questionnaire. Please do not hesitate to call if you have any questions or comments about this study.

Please note: The on-line questionnaire must be completed in one session, if closed before submitting, your answers will not be transmitted.

APPENDIX E

Second E-mail

Dear Educator,

My name is Christina Diamond. I am a doctoral student at George Mason University in Fairfax, VA. About a week ago, I sent you a request to complete a questionnaire titled, "Teaching Reading in Grades K-6: What Practices Do Teachers Use to Teach Reading?" I have not received many responses and would really appreciate your participation! If you have already responded, I thank you for your time.

Please take a moment to complete the on-line questionnaire by going to: http://websurvey.gmu.edu/survey/entry.jsp?id=1235662322667

If you do not have access to the Internet, please contact me by phone (703) 909-XXXX or e-mail: <u>cdiamond@gmu.edu</u> and I will send you a hard copy version of the questionnaire along with a postage paid return envelope.

By participating, you will be entitled to receive a copy of the study results, if requested. In addition, if you agree to be contacted for a follow-up interview you will be entered into a drawing to win a \$25 gift card to Barnes & Noble. Limit: one entry per person. Please complete the questionnaire by April 15, 2010.

I would like you thank you in advance for taking the time to complete this questionnaire. Please do not hesitate to call me at (703) 909-XXXX if you have any questions or comments about this study.
APPENDIX F

GMU HSRB Informed Consent

CDiamond Dissertation Informed Consent Form

What are K-6 Teachers' Practices for Teaching Reading?

INFORMED CONSENT FORM

RESEARCH PROCEDURES

This research is being conducted to understand and describe the specific instructional strategies that K-6 general and special education teachers use to teach students to read. In addition, I am seeking to determine how teachers learn about the instructional strategies they use and whether or not they believe these strategies are effective for increasing students' reading levels. If you agree to participate, you will be asked to complete and submit an on-line questionnaire that asks you to report on: (1) the frequency with which you use various instructional strategies for teaching students to read, (2) how you learned the strategy, and (3) whether you believe the strategy is effective for increasing your students' reading levels. You will also be asked to report on the process your school uses to identify students with specific learning disabilities. The estimated time required to complete the questionnaire is 20-30 minutes. If you indicate that you are willing to provide me with additional information, I will contact you directly using the preferred method of contact you specify. The estimated time to respond to follow-up e-mails or participate in a telephone interview is 15 minutes.

RISKS

There are no foreseeable risks for participating in this research.

BENEFITS

There are no benefits to the participants other than to further research on instructional strategies for teaching elementary students to read.

CONFIDENTIALITY

All data gathered from this on-line questionnaire and through follow-up interactions (if any) will be kept confidential. In order to maintain confidentiality, your name will not be included on the questionnaire or other collected data; however, a unique code (numerical identifier) will be included in the e-mail and postcard correspondence you receive to avoid duplicate responses. This code will allow the researcher to link responses to the questionnaire to individual respondents through the use of an identification key. The researcher will have exclusive access to the identification key.

While it is understood that no computer transmission can be perfectly secure, reasonable efforts will be made to protect the confidentiality of your transmissions. To further protect your responses, it is recommended that you close your internet browser after completing and submitting your responses.

PARTICIPATION

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other party. Should you agree to be contacted for follow-up, you will be entered into a drawing to win a \$25 gift card to Barnes & Noble. Limit: one entry per person.

CONTACT

This research is being conducted by Christina Diamond, a doctoral candidate at George Mason University, under the supervision of her advisor Dr. Margo A. Mastropieri, Professor of Special Education at George Mason University. Christina Diamond may be reached at 703-909-8764 and Dr. Mastropieri may be reached at 703-993-4136 for questions or to report a research-related problem. You may contact the George Mason University Office of Research Subject Protections at 703-993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures governing your participation in this research.

CONSENT

The George Mason University Human Subjects Review Board has waived the requirement for a signature on this consent form. However, if you wish to sign a consent form, please contact: Christina Diamond, 1225 Martha Custis Drive, Unit 907, Alexandria, VA 22302-2021. E-mail: cdiamond@gmu.edu Phone: 703-909-8764.

We recommend that you print a copy of this page and keep a copy of this informed consent for your records.

Version date: 11/29/10

Approval for the use of this document EXPIRES

DEC 0 4 2011

Protocol # 7248 George Mason University

APPENDIX G

Follow-up Interview

Semi-Structured Follow-up Interview Protocol

The estimated time to respond to follow-up e-mails or participate in a telephone interview is 15 minutes.

Sample Interview Questions:

- (1) Can you tell me more about your reading curriculum?
- (2) Can you tell me more about the strategies and methods you use to teach reading?
- (3) Can you tell me more about where and how you learned about the methods you use to teach reading?
- (4) Can you tell me more about any other methods or strategies you use to teach students to read?
- (5) Can you tell me more about your school's process for identifying students with learning disabilities?
- (6) Can you tell me more about the how your tiered instructional program works?

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BIOGRAPHY

Christina M. Diamond received her Bachelor of Science in Human Nutrition and Foods with a concentration in Exercise Science from Virginia Polytechnic Institute and State University in 1996. She received her Master of Science in Education with a concentration in Special Education from Old Dominion University in 1999. Ms. Diamond entered the field of education as a special education teacher in Fairfax County Public Schools in Virginia. She worked as an elementary special education teacher for three years where she served children with learning disabilities, autism, and multiple disabilities. After leaving the classroom, Ms. Diamond spent the next five years as a Research Scientist for the American Institutes for Research where she worked on special education projects funded by the U.S. Department of Education's Office of Special Education Programs (OSEP). Since 2006, Ms. Diamond has served as an Education Program Specialist at OSEP where she administers discretionary grants funded through Part D of the Individuals with Disabilities Education Act. Her grant portfolio includes Technical Assistance and Dissemination projects, Personnel Preparation projects, and State Personnel Development Grants.