Fall 11-2015

The Study of Effective Tier II Reading Interventions for Primary Grade Students

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by

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November 2015

A Dissertation submitted to the Education Faculty of Lindenwood University in partial fulfillment of the requirements for the degree of

Doctor of Education

School of Education

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This Dissertation has been approved as partial fulfillment of the requirements for the degree of Doctor of Education Lindenwood University, School of Education

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work at Lindenwood University and that I have not submitted it for any other college or university course or degree.

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Acknowledgements

I would like to thank Dr. Sherry DeVore and Dr. Terry Reid of Lindenwood University. The guidance and support provided by these individuals throughout the research process has been invaluable. I would also like to extend appreciation to the Intervention Team Leaders of the participating school districts who took the time to share information, data, and program models regarding Title I reading interventions, differentiated instructional models, and progress monitoring programs and the effect on students' grade-level reading ability. Also, I would like to thank the educational professionals who have supported me in my professional journey for almost three decades. They are the people who work tirelessly day after day to give the students in their charge a wonderful foundation upon which to build their lives. I pray to be able to bless their lives in a way they have been a blessing to mine. Most importantly, I would like to convey my love and appreciation to my amazing and supportive family for their constant advice, support, and encouragement through the completion of this study and on a daily basis. My husband and son have always believed in me through all things and have strengthened my resolve. Thanks also to my mom, who always told me I had only to look in the mirror to find the person who had the power to change my life and circumstance. Lastly, I want to thank God! His divine power and grace have seen me through so many trials, and without Him, I could do nothing. As has been sung many times, "I can do all things through Christ who strengthens me!" No truer words have ever been spoken than those, and they have sustained and empowered me in my professional life, especially the last three years.

Abstract

The purpose of this study was to determine effective reading interventions for primary grade students, utilizing the Response to Intervention (RtI) model. The purpose of RtI is to enhance the quality of education for children, if appropriate levels of academic instruction are present (Hanover Research, 2015). The research questions were posed to garner perspectives of the Intervention Team (IT) leaders as to Tier II interventions that aided students who indicated difficulty with reading, and the duration of the intervention, prior to achieving progress toward the specified goal. Additionally, research questions were stated to determine which Tier II reading intervention yielded a significant gain, as measured by a Curriculum-Based Measurement (CBM) in one elementary school. Perspectives were ascertained of literacy educators in regard to student success following the interventions. Intervention Team leaders from Missouri's 11 regional professional development centers were interviewed and asked specific questions in an effort to identify tiered reading interventions and progress measures present in their schools. Results of progress monitoring utilizing CBMs were collected from one Missouri elementary school and were analyzed utilizing a paired sample *t*-test comparing pre-test and post-test scores before and following a reading intervention. The data revealed Tier II reading interventions are effective for primary grade students. Literacy educators serving in the districts of the IT leaders were surveyed to garner insight into the positive attributes gained from receiving the tiered reading intervention. The results of the literacy educator survey attributed gains in student achievement and indicated positive outcomes for students in other subject areas.

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Chapter One: Introduction

Background of the Study

In the last decade, educators across the country have worked to establish Response to Intervention (RtI) models within their schools (RTI Action Network, 2015). The RtI process is aimed at addressing the needs of students who struggle with certain content area skills, in order to help them succeed in the regular classroom (RTI Action Network, 2015). RtI as been specifically associated with literacy intervention, but the model can also be beneficial in other content areas as well (Shapiro, 2015). As many schools continue to refine and revise their current RtI models, educators continue to analyze the effects certain interventions have on a child's academic ability, in particular those interventions designed to improve literacy and reading success (Schaps, 2015).

This chapter details the conceptual framework of RtI, as well as proposes the significance of a study of effective tiered reading interventions for primary grade students. Additionally, certain research questions are posed within this chapter, pertinent to effective primary grade interventions and instruction. As well, this chapter will include the limitations and assumptions associated with this research, and defines pertinent key terms relevant to this topic and body of research.

Literacy statistics indicate a concerning reality of the reading ability of American students (Morgan & Horatio, 2014). The National Center for Educational Statistics. (2015b) indicated the average reading score for a nine-year-old increased by only nine points during the years the mandates for No Child Left Behind (NCLB) were in effect. Recent studies also indicate the NCLB reading program initiatives had little effect on increasing literacy achievement amongst children aged nine to 13 (Carbo, 2015). A U.S.

Department of Education Report revealed NCLB produced no significant gains in reading comprehension for first, second, and third grades, despite billions of dollars spent and mandated changes implemented (Hatalsky & Johnson, 2015). As Gow (2015) stated, "Experts from the White House to the Ivory Tower agree . . . reading is the most important skill school children must acquire" (p. 4).

As public schools usher in a new phase of mandated reform, educators continue to focus on instructional improvement for students and effective means to implement academic intervention to meet the demands of changing curricula and instructional practice. Response to Intervention (RtI) is an alternative instructional model that involves early intervention for students who are considered at risk for reading failure (Shapiro, Zigmond, & Wallace, 2011). The RtI method evolved from the revision and reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004 (Shapiro et al., 2011); whereas, legislation previously encouraged the use of intelligence (IQ) testing to identify children with learning disabilities (Shapiro, 2015).

The RtI model was introduced to public school districts in Missouri within the last two decades (Lembke, 2015). School districts across the state are continuing to assess what type of delivery system works best, while at the same time determining what types of intervention services are effective and plausible on their campuses (Shapiro et al., 2011). Much of what school districts have implemented to address students who are failing or falling behind their peers has come from resource room or special education assistance (Fuchs & Fuchs, 2006). Many students experiencing reading difficulties have received Title I services or Reading Recovery instruction prior to referral for special education evaluation (Lembke, 2015).

Current evaluative methods for students perceived to have learning difficulties have received criticism. Use of the intelligence/achievement discrepancy model to identify children with learning disabilities has been deemed a "wait-to-fail" model by researchers, while the framework of RtI designates a need for early intervention to occur prior to referral for special education evaluation (Fuchs & Fuchs, 2006, p. 96). The main focus of RtI tiered intervention is to prevent children in the primary grades from significantly falling behind their peers early in their academic experience (Lembke, 2015).

The RtI model is made up of three main components: tiered instruction, problem solving or standard treatment protocol, and ongoing progress monitoring through the utilization of curriculum-based measurements (CBMs) (Shapiro, 2015). Before any district can begin to consider the effects RtI will have on an existing instructional model, there must be an understanding of the requirements and descriptors of an RtI model. The following definition of RtI is based on the work of Shapiro (2015):

> Response to Intervention . . . is an early intervention model that utilizes both special and regular classroom instructional approaches. . . students who show signs of learning difficulty receive the benefit of team problem solving, changes in instruction and progress monitoring. Key components of RtI include:
>
> 1. Clear Benchmarks and Early Assessment
> 2. Problem Identification
> 3. Tiered Research-based Interventions
> 4. Progress Monitoring
> 5. Data-based Decision Making. (p. 8)

More recently, RtI proponents and experts have begun to caution educators about avoiding fads in intervention models and program practices (Burns, 2015). As Burns (2015) asserted, educators should question the research-based relevance of a given intervention prior to implementing the practice. Additionally, Burns (2015) encouraged educators to read studies including empirical evidence to support given interventions, rather than honing in on just one study, or one researcher, in order to support a decision to implement a given practice into their instructional techniques. To consider the prospect of RtI, one must understand what effects RtI will have for public school districts. Response to Intervention is designed around two protocols: standard treatment protocol and problem solving (Shapiro, 2015).

Standard treatment protocol is a research-based approach to intervention for children struggling with reading difficulties (Shapiro, 2015). In Tier I, a fixed duration of intervention services is provided to a student or a small group of students in the regular classroom setting to determine if each student can be successful in the regular classroom with modifications or interventions (Fuchs & Fuchs, 2006). If successful, the student is then determined to be remediated, and once again, the student receives regular classroom instruction (Lembke, 2015). If the student continues to struggle, more intensive Tier II instruction is provided (Lembke, 2015). When progress is attained, the student receives regular classroom instruction once again (DeLoach & Kelk, 2011). If after Tier II instruction insufficient progress is determined, a decision is made to further evaluate the student for a suspected learning disability (Fuchs & Fuchs, 2006).

The Problem Solving Approach of the RtI Model begins with requiring a parent-teacher conference at the initial start of Tier I in an attempt to remediate the academic

problem (Shapiro, 2015). During Tier II instruction, the school district's Intervention Team (IT) aids the teacher in selecting, implementing, and monitoring the effectiveness of the intervention (DeLoach & Kelk, 2011). If Tier III is needed, the IT designs and coordinates further interventions (DeLoach & Kelk, 2011). At this stage of intervention, a referral for a special education evaluation is considered (Shapiro, 2015).

Statement of the Problem

The NCLB Act has had major influence on the academic instruction millions of American school children receive (Horn & Wilburn, 2013). No other generation of educators have seen as much mandated change to the national public school system than have educators in the new millennium, all due to NCLB (No Child Left Behind, 2004). School personnel, from administration to staff members, have seen radical changes to federal testing requirements, school choice options, virtual instructional alternatives, and rising accountability standards, all within the last 10 years (Horn & Wilburn, 2013). A number of mandates resulted from NCLB legislation, many of which did not prove to have sustainable results (Walker, 2015). RtI is one mandate that evolved from NCLB through the reauthorization of IDEA (Kaloi, 2015). This mandate proposed an alternative method to early academic intervention rather than the previous "IQ-achievement discrepancy to identify children with learning disabilities" (Fuchs & Fuchs, 2006, p. 93).

Early intervention is a primary focus for educators, and the RtI model targets the primary-age learners, specifically in the areas of reading, math, and behavior (Lembke, 2015). Advocates for RtI believe the model is the answer to improve student performance due to data-driven decision-making involved with moving children through the tiers in response to each child's independent instructional needs (Shapiro, 2015).

Unfortunately, most Missouri public schools were not able to meet Adequate Yearly Progress (AYP) in 2014 as mandated by NCLB (Missouri Department of Elementary and Secondary Education [MODESE], 2014). It was apparent that as the AYP target delineated by NCLB neared its apex, the majority of schools across the state and nation would be declared as needing improvement (MODESE, 2014). These results have occurred while school districts were focused on making data-based decisions while higher accountability standards were delegated (Education infoZine, 2008).

Public school district educators had access to data and were able to design programs and instructional models to meet the needs of at-risk learners; however, none of these attempts at improving instruction and meeting accountability standards were able to assist public school systems in meeting AYP (Kaloi, 2015). Wright (2010) suggested the RtI model does not address all of the issues associated with students not progressing at an adequate academic rate. However, RtI may aid in diminishing the problem of over-identifying children for special education assistance (Wright, 2010).

Conceptual Framework

Four concepts interacted to inform and guide this study. These concepts included identifying students at-risk for academic failure due to reading difficulties, determining the need for instructional intervention, recognizing the effects of academic failure and the benefits of academic intervention, and identifying the available literacy programming for primary grade students. The concept of RtI was used as a framework to guide this study.

RtI can be traced back to the middle of the twentieth century with behavior analysis studies focusing on the use of experimental methods of data analysis to solve meaningful problems in social settings (Wright, 2010). Over time, educators began to

understand learning problems do not exist in isolation, but rather the instructional environment plays an important role in student success or failure (Wright, 2010). Wright (2010) also indicated, "By the 1980's, schools started to acquire academic monitoring tools that allowed them to regularly track and chart student academic progress in basic skill areas and to use that information to judge whether an intervention plan is effective" (p. 9). The reauthorization of IDEA in 2004 allowed for states to use a scientific, research-based approach to intervene when a child demonstrated difficulty with mastery of skills while receiving instruction in the regular classroom (Wright, 2010).

The RtI guidelines set forth by state education departments following the mandates of IDEA 2004 have emerged from multiple long-term studies which indicate students can learn when differentiated instructional strategies, expert-driven instruction, and scientifically validated curriculum are used in the regular classroom (Price & Nelson, 2013). Price and Nelson (2013) indicated at the core of RtI is the intent to support at-risk learners by removing barriers prohibitive to learning. The principles that guided the work on the reauthorization of IDEA included an increased focus on accountability for all students, flexibility in services being offered, and accountability for results (Shapiro, 2015). There was also a strong emphasis on effective instructional practices with a scientific-research basis; in short, differentiated instruction (Connecticut State Department of Education, 2008).

Differentiated instruction is not a new concept for educators. Teachers understand diversity in student learning behaviors in any classroom must be anticipated and addressed (Santangelo & Tomlinson, 2012). Academic diversity creates challenges for the general education teacher; some teachers avoid working with students who fall at

the extremes of the range, teaching mainly to the middle group (Murata, 2013). The RtI model rejects that practice, creating a need for professional development for all staff members in the area of modified, remedial instruction (Lembke, 2015). Educators who use differentiated instruction in their classrooms are offering research-driven, responsive, student-centered instruction that RtI requires (Price & Nelson, 2013). Neuman, Ross, and Slobach (2013) asserted the teacher's instructional practice must be supportive of literacy development for all students, representative of a wide range of academic ability and background.

Purpose of the Study

The purpose of this study was to provide insights and perspective into the effectiveness of reading support programs for struggling kindergarten through second-grade students. By utilizing a mixed-method approach of measuring both qualitative and quantitative data, the effectiveness of Tier II reading intervention services and the sustainable academic benefits to struggling readers were explored. For the purposes of this study, primary grades included kindergarten through second grade.

Participants were identified through referral to a building level Intervention Team (IT) that subscribed and implemented the intervention model and tiered instructional program suggested in the national model for RtI. The instructional leader may have served as a building-level administrator, Title I leader, or a regular classroom teacher for the elementary school. Data derived from the specific goal-centered Tier II intervention and the CBM utilized to monitor the progress of a student's academic growth were used as quantitative information.

Research Questions

Researching the effectiveness of reading interventions as instructional delivery models allows for an examination of the many facets of the RtI process. The following research questions guided this study:

1. What are the perspectives of IT leaders as to the Tier II interventions that are effective in reaching the greatest majority of primary grade students who are experiencing reading difficulty?

2. According to IT leaders, what is the length of time the Tier II intervention plan is implemented before significant progress toward students' literacy goals is achieved?

3. Which Tier II reading intervention indicates the most significant gain when evaluated through the use of a curriculum-based measurement (CBM) in one elementary school?

4. What are the perspectives of literacy educators regarding student success following Tier II interventions?

Significance of the Study

Presently, elementary educators have a plethora of responsibilities placed upon them amidst the daily demands of instructing students, developing lessons and curriculum that aligns to state standards, and maintaining the responsibilities of a classroom (Sykes & Wilson, 2015). In this respect, this study may provide teachers, administrators, and members of boards of education the information necessary to spend time and resources wisely in an effort to provide the most beneficial reading intervention services. This study also serves as a reference for understanding reading intervention services and the

need for differentiated instructional training for regular classroom teachers of students in the primary grades.

Limitations

The concept of RtI is ambiguous and unclear to some public schools in Missouri. A number of Missouri school districts have formed Intervention Teams without regard to providing professional development in the RtI model and fall short of adequately implementing appropriate tiered interventions; therefore, the number of schools that have a true RtI model in place are few (Lembke, 2015). One challenge to this study was finding a number of Missouri public schools that have all of the components of the RtI model in place (Lembke, 2015). Added to this challenge was the number of school districts that were able to offer more than Title I Reading or research-based tutoring as a Tier II intervention (Allington, 2007). Also, quantitative data collected to identify a relationship between specific intervention strategies and gains on the CBM were only collected from one, rural school district.

Assumptions

The amount of time a teacher has been in the position of reading specialist or coach specifically serving Title I Reading is a determining factor in the success rate of the Tier II intervention (Allington, 2007). A veteran reading educator will have a greater knowledge base upon which to determine modifications and interventions to children not responding positively to regular classroom instruction (Allington, 2007). As Allington (2007) asserted, “Principals frequently make adjustments in the assignments of existing personnel to provide assistance for low-achieving students . . . veteran teachers are used to teaching the lowest readers and to developing reading instruction specializations” (p.

24). For this research study it was assumed all educators were highly qualified and had received proper training in RtI in order to effectively implement the prescribed tiered reading intervention.

Educational programming and progress monitoring tools vary among school districts. As Price and Nelson (2013) indicated, it is important to understand no specific RtI model was prescribed or detailed in the reauthorization of IDEA. Due to the student population and the free and reduced price meal program (F/R), participants among the interviewed intervention team leaders and the type of reading programs offered to students needing Tier II instruction differed. A school district receives Title I funds based on the number of students in poverty (United States Department of Education, 2014). Specifically, poverty level is calculated by the number of students who are deemed eligible for the F/R program under the National School Lunch Act (United States Department of Education, 2014). The Title I funds allocated to each school will determine the availability of Title I services provided to the students who are served within that district or elementary school. Therefore, it was assumed the Title I reading intervention services provided in each elementary building whose building-level intervention team leader was interviewed were different according to the federal allocations received and the choices made at the Local Education Agency (LEA) level.

The universal screening process required under the RtI framework was different among the participating schools. Tiered interventions were deemed necessary for students through a determination made with the use of a CBM. Each district may have utilized a different CBM in order to ascertain a student's reading ability. As well, it can be assumed all of the participating schools utilized a CBM deemed appropriate to

measure progress in accordance with the RtI model and measured the success rate of the prescribed intervention with fidelity.

The amount of professional development training in the area of differentiated instruction differed among school districts across the state. The understanding and implementation of instructional interventions were of primary importance in order for an educator to provide needed classroom modifications prior to a referral into Tier II intervention. The requirement of proper training and professional preparation to implement an appropriate literacy intervention was assumed on the part of the participating educators.

The amount of parental support a child received during tiered instruction varied widely in this study. Due to one-parent households, apathetic parents, and time constraints, many parents were not able to devote needed attention to help the struggling student progress in reading ability. The assumption was that parents were supportive of their children during the tiered intervention and provided support throughout the duration of the prescribed program.

The final assumption was of honesty and truthful responses given by the literacy educators who completed the survey.

Definitions of Key Terms

The following key terms were utilized during the course of this mixed-method study:

Common Core State Standards. Common Core State Standards (CCSS) are the current educational curriculum standards designed to promote the idea that higher academic standards from kindergarten through high school will produce students who are

prepared to enter post-secondary education or a challenging career upon high school graduation (Myracle, 2014).

Curriculum-based measurements. Curriculum-based measurements (CBMs) are assessment and progress measuring tools teachers utilize in order to determine formatively and summatively how students are progressing in basic academic areas (McLane, 2015).

Data-based decision making. Data-based decision making is the term used when educational institutions want to develop goals for improvement based upon local and state achievement results (Center on Response to Intervention, 2015). Achievement results may indicate conditions that affect learning, any discrepancies that may exist in learning among various factors (Center on Response to Intervention, 2015).

Differentiated instruction. Differentiated instruction is an approach that recognizes the diversity of learners and learning styles in classrooms (Tomlinson, 2000). The premise behind differentiated instruction is that all learners can be reached through a variety of methods and activities (Santangelo & Tomlinson, 2012).

Every Child Achieves Act (ECAA). The ECAA was passed in July 2015 by the U.S. Senate, which if implemented will reauthorize the Elementary and Secondary Education Act (ESEA) and should begin the process of eliminating the legacy of NCLB (Walker, 2015).

Individuals with Disabilities Education Act (IDEA). The IDEA is a law ensuring services to children with disabilities throughout the nation. The IDEA is the mandate that specifies how states, schools, and other public agencies design appropriate

programming, early intervention, special education, and related services to children and youth with disabilities (Bateman & Schwilk, 2012).

Intervention. Intervention is the term used by educators to describe a different instructional strategy chosen to address specific academic needs when a child is not responding positively to regular classroom methods of instruction (Lembke, 2015).

Modification. Modification is the term used to describe change in instruction based on an individual student's academic progress (Kupzyk, Daly, Ihlo, & Young, 2012).

No Child Left Behind (NCLB). The NCLB Act reauthorized the Elementary and Secondary Education Act (ESEA), which is the main federal law affecting education from kindergarten through high school (No Child Left Behind, 2002). Proposed by President Bush shortly after his inauguration, NCLB was signed into law on January 8, 2002 (NCLB, 2002). The NCLB Act is built on four principles: accountability for results, more choices for parents, greater local control and flexibility, and an emphasis on doing what works based on scientific research (Yell, 2010b).

Progress monitoring. Progress monitoring is a practice used to assess students' academic performance and evaluate the effectiveness of instruction (Dexter & Hughes, 2015).

Research-based tutoring. Research-based tutoring is evidence-based instructional assistance that has been studied and researched and has demonstrated a record of success; there is reliable and valid evidence to suggest the tutoring is effective (Rothman & Henderson, 2011).

Response to Intervention (RtI). Response to Intervention integrates assessment and intervention within a multi-level prevention system to maximize student achievement and to reduce behavior problems (Wright, 2010).

Smarter Balanced Assessment. The Smarter Balanced Assessment is a new generation English language arts/literacy (ELA) and mathematics assessment developed to measure student progress toward college and career readiness (Smarter Balanced Assessment Consortium, 2015).

Student Success Act. The Student Success Act was passed in 2015 by the U.S. House of Representatives, which began the process of reauthorizing the Elementary and Secondary Education Act (ESEA). This legislation diminishes the federal role in advancing opportunity for students most in need (Walker, 2015). Primarily, the amendment seeks to protect schools from being punished by the 95% participation rule under NCLB, which erodes the federal role in advancing opportunity for students most in need (Walker, 2015).

Tiered instruction. Tiered instruction blends assessment and instruction and aligns complexity to the readiness levels and learning needs of students (Kingore, 2015).

Title I. Title I was reauthorized in 2001 under Public Law 107-110 as part of NCLB (NCLB, 2002). These programs were originally authorized under the ESEA of 1965 (Public Law 89-10), the first major program of federal assistance to the nation's public elementary and secondary schools (MODESE, 2015c).

Universal screening. Universal screening is an inclusive process that provides specific data to educators to indicate specific, content-related academic levels of all students using CBM tools (Price & Nelson, 2013). Screenings are systematic and

prescribed and are repeated periodically during the school year (Price & Nelson, 2013). Results are utilized to guide instructional decisions that will address the learning needs of students (Price & Nelson, 2013).

Summary

The true question of success in education is answered by the sustainability of academic achievement following a given program modification or implementation. The mandates placed on all public schools following the passage of NCLB left educators little time to examine the sustainable success of implemented programs, but rather challenged educators and administrators to keep pace with bureaucratic requirements and mounting pressures to improve (Magliaro, 2013). Through analysis of RtI and the components of the model, insight may be gained as to the sustainable effects the program can have for students in public schools. This study encompassed an analysis of the research base behind RtI and the guiding principles used to determine an appropriate intervention model. Also, analysis of the intervention programs currently available to public schools for delivery of Tier II interventions was conducted.

In the following chapter, research supporting Tier II reading intervention is presented, as well as the effects and benefits of certain literacy programs. Title I Reading, Reading Recovery, and RtI are examined, and the perceived success of these programs are considered. Additionally, Chapter Two includes an examination of differentiated instruction, along with an analysis of the latest educational reform, Common Core State Standards (CCSS), as educators transition from the mandates of NCLB to the requirements and stipulations spelled out in the legislative reform movements of the Every Child Achieves Act (ECAA) and the Student Success Act.

Chapter Two: Review of Related Literature

Educators have long understood the need to provide reading interventions to students who are at risk of academic failure due to poor literacy achievement. The overarching question emerging from this study was: Is there a benefit to providing reading interventions and assistance to students before they demonstrate a significant academic regression in reading skill and development? Specific programs and remediation services discussed in this chapter include Title I literacy programs, Reading Recovery, and Response to Intervention (RtI) as it relates to literacy. In this chapter is an examination and review of differentiated instruction provided in the regular classroom, as well as a description of Response to Intervention (RtI), the legislative mandate that derived from NCLB. Additionally, the most current educational reform movement, Common Core State Standards (CCSS), the educational learning standards that developed and led to the creation of the Every Child Achieves Act (ECAA) and the Student Success Act, along with the ramifications this movement will have on classroom instruction and intervention, are discussed.

Conceptual Framework

Three components integrate to create a basis for RtI. One component includes structure for allocating instructional resources with efficiency, and targeting the resource to effectively meet the needs of the student (RTI Action Network, 2015). Another component involves a commitment to use sound decision-making to guide instruction, and to utilize research-based approaches to effective intervene when a child is struggling in a content area (Shapiro, 2015). The final component is a systematic approach within the school setting to utilize the resources and research based approaches to provide the

best instruction to all students, and particularly those students who are struggling (Sansosti & Noltemeyer, 2012).

To guide and inform this study, four concepts interacted that included identification of at-risk students due to reading difficulties and the ability to determine the need for instructional intervention (Wright, 2010). As well, the ability to recognize the effects of academic failure and thus, the benefit of academic intervention in a timely and appropriate manner was a concept utilized, along with identify appropriate literacy programming for primary grade students (Buffman, Mattos, & Weber, 2010). The model and programming design within RtI was used as a framework to guide this study.

The origins of RtI can be discovered in the works of behavior analysis studies that were conducted in mid-twentieth century (Wright, 2010). These particular studies maintained a focus on the use of experimental methods of data analysis to enable a student to solve pertinent and meaningful problems in social, academic settings (Wright, 2010). In time, educators began to realize an important factor as to whether a child succeeds or fails in the instructional environment is contingent upon a number of factors within that setting (Wright, 2010). Wright (2010) indicated, "By the 1980's, schools started to acquire academic monitoring tools that allowed them to regularly track and chart student academic progress in basic skill areas and to use that information to judge whether an intervention plan is effective" (p. 9).

With the reauthorization of IDEA in 2004, states were allowed to use a scientific, research-based approach as a means to intervention when a child began to experience difficulty in a subject area, while continuing to be placed in the regular classroom (Wright, 2010). RtI guidelines that were set forth by state education departments

following the mandates of IDEA 2004, derived from lengthy studies and research based investigations that determined effective intervention practices (Price & Nelson, 2013). A number of these studies indicated that students, in a developmentally appropriate environment, with foundationally sound educational practices in place, can learn, grow, and succeed (Price & Nelson, 2013). Approaches that included differentiated instructional strategies, expert-driven instruction, and scientifically validated curriculum were determined as effective as well as particular RtI methods that should be utilized in the regular classroom (Price & Nelson, 2013). Price and Nelson (2013) contended that at the core of RtI is the intent to support at-risk learners by removing various barriers that prohibit effective learning. An in-depth focus on student accountability; flexibility in the type and duration of intervention services; and accountability for local, district-level results were guiding principles behind the reauthorization of IDEA (EdLights, 2015). Additionally, there must be an increasing emphasis on effective instructional practices with a basis in scientific research; in short, differentiated instruction (RTI with Differentiated Instruction, 2011).

The concept of differentiated instruction is not a new concept for public school educators. Educators understand that students are a diverse group of learners and children's behavior in a classroom is something that must be considered and reviewed as instructional decisions are made (Santangelo & Tomlinson, 2012). Snyder (2015) as well asserted, that prior to Tomlinson's work in differentiated instruction, professional educators have analyzed and researched methods to meet the needs of children in mixed-ability classrooms, although the work was not described as differentiated. Diversity in any classroom poses challenges for the main-streamed classroom educator; most

instructors teach to the middle group and tend to avoid teaching students who fall at the extremes of the grading range (Murata, 2013).

RtI rejects the practice of teaching to the middle and creates a need for professional development for all staff members in the area of modified, remedial instruction (Lembke, 2015). The practice of utilizing differentiated instructional approaches in a classroom offers students research-driven, responsive, student-focused instruction that RtI requires (Price & Nelson, 2013). Neuman et al. (2013) asserted the educator's instructional practices must be supportive of the literacy development of all students, representative of a broad range of academic ability and background.

Deno's model, developed in the 1970s, was an early effort towards an RtI model (Buffum, Mattos, & Weber, 2010). As Buffum et al (2010) asserted, Deno envisioned an educational environment where students with special needs could be served in the regular classroom before referring them for special education evaluation. With the improvement of teacher training programs and a resulting increased positive attitude, the impact of incorporating all children into the general education classroom was felt and attracted much-needed attention to the developing instructional concept (Olinger, 2013). The inclusion movement to integrate all students with special needs in the regular educational setting (aspects of this model remain relevant, most notably the development of curriculum-based measures (CBMs) to monitor student progress) led to the development of the RtI model (Buffum et al., 2010).

The research and studies of two notable twentieth century educational psychologists should not be overlooked when examining the influence of instructional intervention (Bolch, 2010). Burrhus Frederic "B. F." Skinner delineated the importance

of overcoming learning obstacles in order for students to respond more positively to instruction (Bolch, 2010). Skinner influenced a challenge to educators to provide immediate feedback to learners, to break tasks into smaller steps, and to work from the simple to the complex (Bolch, 2010).

Benjamin S. Bloom's "stairway for learning" also contributed to the intervention instructional model by classifying instructional objectives for learning mastery (Bolch, 2010, p. 34). This concept of instructional intervention allows for Bloom's theories to be applied through instructing the student from basic skills and building upon those skills in order to attain a higher level of understanding (Bolch, 2010). The initiation of Bloom's concepts allowed for monitoring student progress throughout the mastery of skill acquisition in order to determine when a student is able to cognitively understand the next level of instruction (Bolch, 2010).

The Missouri guidelines subscribe to the integration of assessment and intervention as a multi-level academic failure prevention program within its RtI conceptual framework (Missouri Department of Elementary and Secondary Education, 2015b). These guidelines require school districts to identify struggling students, monitor progress, provide researched-based interventions, and adjust the interventions accordingly depending on the student's responsiveness (Missouri Department of Elementary and Secondary Education, 2015b). The vision and paradigm that define Missouri's RtI vision includes leadership, collaborative culture, community partnership, and systematic implementation (Missouri Department of Elementary and Secondary Education, 2015b).

Children At-Risk

Educators have long understood the need to address the academic difficulties of struggling students. It is of paramount importance to address academic weaknesses early in a child's schooling, or an uncertain future of struggling, frustration, and hopelessness is inevitable (Jensen & Tuten, 2012). According to Vaughn et al. (2009), "A substantial research base exists for implementing effective interventions for students at risk due to reading difficulties in the elementary grades . . . For the majority of students, these interventions result in significantly improved reading performance over time" (p. 166).

Torgeson (2015) found students who do not experience educational success in literacy have a difficult time catching up to their peers. Research also indicates, when children do not achieve the ability to read proficiently by the end of third grade, they are likely to drop out of school (Hernandez, 2012. If children have not made the leap to fluent reading by third grade, they are most likely to fall behind their peers, and learning gaps will continue to expand (Paul, 2012). Hernandez (2013) also included:

- One in six children who are not reading proficiently in third grade do not graduate from high school on time, a rate four times greater than that for proficient readers. (p. 4)
- The rates are highest for the low, below-basic readers: 22 percent of these children drop out or fail to finish high school on time, compared to 9 percent of children with basic reading skills and 4 percent of proficient readers. (p. 9)
- Among children who never lived in poverty, all but 2 percent of the best third grade readers graduated from high school on time. (pp. 3-4)

When a child does not meet the milestone of becoming a proficient reader by the end of third grade, it is predicted that he or she will not graduate high school (Allington, 2007).

The earlier children at-risk for reading difficulties are identified and proper intervention is prescribed through both a modified and differentiated instructional model, the more likely a positive outcome will result, as indicated through a number of research studies (Nemours, 2015). As well, studies have indicated the appropriate time to implement instructional intervention and treatment is prior to third grade (Pool & Johnson, 2015). Most evident is that reading skills should be a primary focus throughout the elementary years and in upper grades as well (Antilla, 2013). Additionally, researchers from the National Institute of Health (NIH) indicated nearly 50% of students in the U.S. experience difficulty when reading, and nearly 20% of U.S. public school students have been diagnosed with reading disabilities (Savage, 2015). The NIH study indicated reading failure exists among all ethnic groups and socioeconomic levels (Savage, 2015). Recently, a web article from the Education and the Workforce Committee (2015) indicated the country's K-12 educational system is broken, making it hard for numerous children to enjoy a lifetime of opportunity and success. The work of this committee also indicated as many as 38% of graduating students cannot read at grade level (Education and the Workforce, 2015).

The National Center for Learning Disabilities (2015) identified risk factors and behaviors present in a number of children who struggle with grasping early reading skills. Young children may experience trouble because they have little to no exposure to pre-school literacy experience, or the literacy learning rate for these students can be slowed due to stalled development (National Center for Learning Disabilities, 2015). It has been

noted that in order for struggling children to develop beginning reading skills, more intensive instruction is required of educators (National Center for Learning Disabilities, 2015).

Effects of academic failure. When educators are faced with a variety of avenues to explore when they encounter a student who is struggling academically, retention is often considered (Cannon & Lipscomb, 2011). Allington and Walmsley (2007) stated students who are considered in the low-achievement groups are "far more likely to (1) leave school before graduating, (2) fail a grade, (3) be placed in special education, (4) become a teenage parent, (5) commit a juvenile criminal offense, and (6) remain less than fully literate" (p. 2). When students continue to experience academic failure, they can develop a condition termed *learned helplessness* (Pressley & Allington, 2015, p. 235). The pessimism associated with low achievement and learned helplessness continues to contribute to the plight of the struggling reader (Vacca, Vacca, & Mraz, 2013).

According to Hernandez (2013), "Interventions for struggling readers after third grade are seldom as effective as those in the early years" (p. 4). Children who struggle in third grade often become frustrated fourth graders who are placed in a world with classmates and are expected to operate under the reading-to-learn model, where school assignments require students to be able to acquire knowledge from books in not just literacy instruction, but also in science, socials studies, and mathematics (Paul, 2012). As Musen (2010) indicated, "Students who fall behind in the early grades have a harder time catching up, making it particularly important to identify struggling students early" (p. 1).

Bempechat (2008) ascertained, "When struggling readers perceive little or no improvement despite sincere effort, they may draw the conclusion their difficulties exist

due to a basic lack of innate ability; which may lead them to feel even more incompetent" (p. 79). Educators recognize the importance of providing reading assistance to students who struggle, specifically addressing students in the primary grades (Gersten & Dimino, 2011). According to Gersten and Dimino (2011), "Until recently, identification [of reading difficulties] was linked to referral for special education services, and the thought of labeling a 5 or 6 year old as learning disabled was deemed improper" (p. 100).

If students read poorly, most generally they learn slowly (Children's Reading Foundation, 2013). A recent Children's Reading Foundation (2013) article related, "Academic failure in high school, is almost always preceded by academic failure in middle school, and in turn this failure is preceded by the failing to learn to read at or near grade level by third grade" (p. 1). Subsequently, educators have realized that grade-level reading skills must be obtained by "second and third grade if students are to achieve high academic standards in junior high and high school" (Children's Reading Foundation, 2013, p. 1).

Moreover, Antilla (2013) found, "The student that struggles throughout school in developing literacy skills will continue to struggle in their adult life, creating harsh implications for career options" (p. 19). Reading ability at the elementary level has a direct link to future occupational achievement (Antilla, 2013). Children who have mastered only a low level of reading ability at the elementary level are less likely to achieve placement in certain career tracks if the educational system does not include a component to maximize reading potential (Antilla, 2013). The current technological world and growing literacy expectations delineate that if a student does not achieve on

target and attain the appropriate reading level ability, the opportunities afforded to the child will be limited at the post-secondary level (Antilla, 2013).

Benefits of academic success. Educators, nationwide, view reading competence as vital and necessary for school success (Keskin, 2013). The ability to gain reading competence requires many different elements, implemented together, in order to achieve a proficient level of reading ability (Jensen & Tuten, 2012). When an educator receives appropriate training, he or she is able to identify fluency issues and correct reading deficiencies, preferably early in a child's educational journey (Jensen & Tuten, 2012). Studies have long indicated knowledgeable teachers are the best investment for students who struggle (Reading Recovery Works, 2013).

A child's desire to read must develop with the active involvement of the educator cognitively engaging the child throughout the reading process (Cambria & Guthrie, 2010). As well, when students experience a supportive and nurturing learning environment that ensures their success, they become less likely to become involved in substance abuse, violence, and other behavior problems (Schaps, 2015). Reflective teachers base effective instruction on refined instructional practices, and impact a child's ability to learn and grow in reading achievement (Antilla, 2013).

Undeniably, the primary elementary classroom maintains the best capacity to provide a quality educational experience and to support the interaction and strengthening of literacy development (Antilla, 2013). Students are more likely to develop positive attitudes toward school and promote a connectedness to school and others when they experience academic success (Schaps, 2015). Researchers have suggested classroom

teachers who use effective instructional methods and create positive learning environments optimize a child's literacy development (Antilla, 2013).

When a child learns to read on target and on grade-level alongside his or her peers, the advantages contribute to both the psychological and social well-being of the child (Teach Reading Early, 2015). Early academic success conveys a lifelong love of learning for children and thus can ultimately lead to higher grades in other academic subject matter (Teach Reading Early, 2015). A number of case studies have indicated children who have developed strong literacy skills have a much greater knowledge base, a vast vocabulary, and become more fluent in reading informational texts from other subject matter (Teach Reading Early, 2015).

Studies have shown when a child experiences school success, society as a whole benefits from having a reduced dropout rate, greater rates of adult productivity, and a high level of social and emotional functional behaviors that results in adults living up to their full potential (World Bank, 2015). As a student becomes an adult, additional benefits exists for individuals who have experienced success with academics. Additionally, increased schooling and positive classroom performance have proven to result in increased earnings and a reduced enrollment in welfare programs (World Bank, 2015). As Musen (2010) indicated:

> People with higher literacy skills have higher salaries, higher employment rates, higher civic participation rates, lower public assistance rates, and lower crimes rates than people with lower literacy skills. (p. 9)

Musen (2010) asserted there continues to be a growing demand for literacy that accompanies technological developments in an increasingly competitive, global economy.

Literacy Programming

Musen (2010) most importantly noted, "Literacy has emerged as key to success in twenty-first-century America" (p. 9). A number of literacy programs have been implemented in public elementary schools in the last five decades. The most available and prominent programs include Title I/Early Literacy, Reading Recovery, and most recently, RtI. All of these programs serve students beginning in the primary grades in an effort to offer early literacy remediation. Antilla (2013) stated, "Consideration for incorporating different literacy intervention plans according to the needs of all students must be a priority to ensure the success" (p. 29) of all children. These programs differ in the level of intervention offered to the student and the intensity of the reading instruction.

Essential literacy components. Effective literacy programs are inclusive to give all children the opportunity to learn and develop into lifelong, fluent literacy students (Trehearne, 2015). Any program selected by a school district must contain certain elements in order to build a proper and supportive literacy foundation. Researchers have identified essential components of effective literacy instruction:

- Phonemic awareness is an awareness of and the ability to manipulate the individual sounds (phonemes) in spoken words;
- Phonics is the study and use of sound/spelling correspondences and syllable patterns to help students read written words;

- Fluency in reading text with sufficient speed, accuracy and expression to support comprehension;
- Vocabulary is the body of words and their meanings that students must understand to comprehend text;
- Text comprehension and the ability to make meaning requiring specific skills and strategies, vocabulary, background knowledge and verbal reasoning skills. (Walsh & Rickenbrode, 2013, p. 1)

As Lane (2014) asserted, reading is a fundamental basis for a plethora of life activities and is possibly the most imperative, essential skill a child will learn during formal schooling. Teachers must understand the roles a variety of factors contribute to the ability to read proficiently (Lane, 2014).

Phonemic awareness. The ability to hear, manipulate, and identify individual letter sounds when words are spoken is a rudimentary definition of phonemic awareness (Begin to Read, 2015). Prior to a child's ability to read the printed word, he or she must first be aware of how sounds work together to form words (Begin to Read, 2015). A broad understanding of speech sounds, or phonemes, is necessary in order for a child to begin to piece unknown words together (Begin to Read, 2015). Phonemic awareness is fundamentally important, because it improves a child's ability to read a passage and adequately comprehend the meaning of the text (Begin to Read, 2015).

A plethora of activities and instruction can develop phonemic awareness in children. Most notably, students can be taught to manipulate phonemes by having exposure and instruction utilizing alphabet letters and by segmenting instruction to include just one or two focus letters (Begin to Read, 2015). Primarily it is important to

understand phonemic instruction must occur during the early years of both formal and informal education (Begin to Read, 2015). Children can successfully demonstrate they have acquired phonemic awareness by doing the following:

- Recognizing words, in a set of words, that start with the same beginning sound
- The ability to isolate and say the first and last sound in a given word
- Blending separate sounds in a word, in order to recognize and say the word
- The ability to segment a word into parts to separate sounds. (Begin to Read, 2015, pp. 1-2)

It is imperative a child develop phonemic awareness in order to become a successful reader (Begin to Read, 2015). Without this ability, a child is not able to discern the relationship between letters and the spoken word (Hoover, 2015). The ability to develop phonemic awareness allows the child a greater opportunity to learn valuable relationships between letters and sounds (Hoover, 2015). It becomes of paramount importance for primary grade educators to focus on developing phonemic awareness in order to support children through literacy attainment (Hoover, 2015).

Phonics. One of the most controversial literacy topics in the last few decades has been the phonics versus whole language approach to the teaching of reading. Critics of teaching phonics feel phonics instruction can be mundane and contrived at times, much like the text in the Dick, Jane, and Spot materials of previous decades (Succeed to Read, 2015). Proponents of the whole language approach feel children begin the foray into writing much earlier, and thus connect to print and language skills, making the process of reading much more interesting and engaging (Succeed to Read, 2015). These same

proponents assert children who struggle to memorize phonics rules are unable to improve their reading because they are unable to apply the rules to print (Succeed to Reed, 2015).

Experts agree phonic instruction should allow for children to practice new phonics skills in stories that are real and relevant to their life experiences (Succeed to Read, 2015). Allowing a child to practice the application of a newly learned phonic skill to connected print is invaluable (Succeed to Read, 2015). The conflict emerging from the whole language versus phonics debate is that there is a value to each approach, and each avenue could potentially compliment the other in an effective method of teaching reading (Cromwell, 2015).

Vocabulary. According to the National Reading Panel, vocabulary has been identified as a major component of reading (Butler et al., 2010). Generally, vocabulary is thought to be the knowledge of words and their meanings and references the types of words children must have a general knowledge of in order to meet the demands of becoming a proficient reader (Butler et al., 2010). Vocabulary is a reading attribute that is ever-expanding and deepening with practice, modeling, and experience (Butle et al., 2010). Butler et al. (2010) identified eight categories that point to an appropriate foundation for the model of multifaceted vocabulary lessons:

- Direct instruction for vocabulary words within a specific text
- Repetitive and systematic exposure to vocabulary in a variety of text
- Newly introduced words should be useful
- Vocabulary words should be learned in developmental stages
- Vocabulary instruction should be engaging and go beyond general recall of words

- Computer based instruction should be incorporated to facilitate engagement of the reader
- Vocabulary learning can be incidental, rather than intentional
- Vocabulary instruction should not be dependent on a single, vocabulary instructional model. (pp. 1-2)

Experts agree vocabulary instruction is a necessary component of good reading lessons, with the goal of learning new words in order to gain the ability to effectively communicate and to achieve academically (Butler et al., 2010). It is imperative students receive strong instruction in vocabulary on which to build a strong foundation for acquiring word knowledge (Butler et al., 2010).

Fluency. In order for students to make gains in reading, they must first put their focus on becoming more fluent readers (Busy Teachers Café, 2015). Ultimately, fluency creates a bridge between the ability to recognize words and comprehension (Busy Teachers Café, 2015). Fluency may not ensure that a student comprehends text, but it is difficult to comprehend a passage if a reader is not able to read fluently (Busy Teachers Café, 2015). The constant starting and stopping of reading due to difficulty decoding unknown words can become laborious (Busy Teachers Café, 2015). As children become more fluent in reading text, they begin to reassign their focus to comprehension skills and analyzing texts, as well as interpreting and inferring meaning from the texts they have read (Busy Teachers Café, 2015). Fluent readers have the ability to read with proper tone, in a smooth manner, and with expression, similar to when someone is talking (K12 Reader, 2015).

Non-fluent reading students place much effort on the process of decoding words, and by the time they are finished reading a sentence, they may completely forget the content of the sentence (K12 Reader, 2015). Comprehension is also affected by the non-fluency of the child reading, because the short-term memory is unable to grasp the information that was processed due to the fragmentation (K12 Reader, 2015). In contrast, a more fluent reader utilizes smooth, continuous phrasing in a way the brain can retain and comprehend what was read (Busy Teachers Café, 2015).

Literacy educators cannot ignore the importance of fluency and providing guidance to students who have yet to progress beyond simple decoding skills (K12 Reader, 2015). Researchers have identified specific strategies that improve reading fluency, which include modeling appropriate reading through read alouds and independent reading, which can garner substantial gains in a child's ability to read (K12 Reader, 2015). Fluent readers are more likely to choose to read because they enjoy it more, find it rewarding, and have to apply little effort in order to be successful (Helping Early Literacy with Practice Strategies [HELP], 2015).

As noted by researchers, a student's success on fluency assessments is a predictor of measures of success on other reading assessments and evaluations (HELP, 2015). Rasinski (2015) asserted, "Modeling, assistance, and practice are the keys to developing fluency in any endeavor and is especially true for reading fluency" (p. 3). Increasingly, fluency is recognized as a primary key to reading success for students at any age, but especially those in the primary grades (Rasinski, 2015).

Comprehension. The ability to comprehend a written text is largely fueled by a child's ability to read fluently (K12 Reader, 2015). Lane (2014) indicated the primary

purpose of reading is the ability to comprehend text, albeit there are a number of influences that contribute to that skill. In order for a reader to comprehend, a student must read a text with the ability to make sense of word structures and language patterns, as well as develop the ability to connect the content in the text with prior knowledge and utilize literacy strategies which monitor and correct comprehension (Lane, 2014). The child's content knowledge, life experiences, and ability to activate prior knowledge, combine together to affect the ability to comprehend in an effort to meet the demands of the selected text (Lane, 2014). The combination of all of these factors, contribute to the success of the child and his or her ability to read on or above grade level (Lane, 2015).

Five recommendations to improve reading comprehension were determined in 2010 by the U.S. Department of Education. Those recommendations include:

- Teach students how to use several reading comprehension strategies individually or in combination with allowing the student more responsibility over their own level of comprehension learning.
- Teach students the ability to recognize informational texts and to connect the parts of narrative texts.
- Facilitate discussions with students about the meaning of texts and require students to engage high-order thinking strategies during these discussions.
- Select purposeful texts for students, including multiple genres and texts that maintain a high-quality of depth and literary richness.
- Engage and motivate students through opportunities to view themselves as successful readers. (Shanahan et al., 2010, p. 1)

As Shanahan et al. (2010) pointed out, reading comprehension skills lead to both academic and professional success in life. The ability to learn adequate comprehension skills builds a great capacity to learn independently and to enjoy literary experiences more fully (Shanahan et al., 2010).

Title I reading. Title I services began in 1965 as part of President Johnson's War on poverty efforts (Torstensson, 2013). Power (2012) indicated, "Title I program is the largest federal initiative that supports elementary and secondary education through ensuring that all children have the opportunity to obtain a high-quality education" (p. 64). As indicated by the Center on Education Policy (2011):

> The purpose of Title I, as stated in the authorizing legislation, is to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging state academic achievement standards and state academic assessments. (p. 3)

During the 2009-2010 school term, Title I served more than 21 million students in fifty-six thousand public schools (National Center for Educational Statistics, 2015a). Title I provides resources primarily to high-poverty districts and schools (Power, 2012). Following the federal mandates in the Individuals with Disabilities Education Act (IDEA) of 2004, funds were available to school districts nationwide to provide intervention services for children who struggle in the area of literacy (Vaughn et al, 2009).

Most often, "Elementary schools are served by Title I because many districts believe it is more effective from an educational and cost standpoint to identify and

address academic problems when children are still young" (Center on Education Policy, 2011, p. 4). As reported by Hightower et al. (2011), there are six key elements of Title I:

1. Maintain a clear focus on raising standards for all students.
2. Strengthen accountability in districts and schools.
3. Reward improvement and success.
4. Increase funding to promote student performance.
5. Emphasize high quality teachers.
6. Strengthen school wide efforts in high poverty school districts with an emphasis on those exhibiting a student population of 50 percent or higher at the poverty level, as determined by the U.S. Department of Education. (p. 3)

A Title I program is offered through either school wide or targeted models that take a comprehensive view of strategies designed to improve the educational programming, and ensure all students demonstrate proficiency on statewide achievement assessments (Center on Education Policy, 2011).

Many districts nationwide have implemented Title I at the elementary level by offering supplemental instruction in small group settings through remedial reading (Joseph, 2015). Students receive remedial daily instruction in reading from an educator who is trained and certified in the area of reading (Joseph, 2015). Literacy weaknesses of the student are identified and addressed through frequent instruction and targeting of deficient reading skills (Joseph, 2015).

Title I services are also being utilized as a Tier II intervention through instructional models at the district level (Lembke, 2015). The Center on Education Policy (2011) ascertained, "Title I students are unlikely to become proficient learners

without intensive efforts to address their academic and economic needs" (p. 18). The reading teacher is regarded as an expert in the field of reading instruction, and can assist in reading curriculum development and implementation, as well as a team member on a special education referral team for a student who is not responding successfully to reading instruction in the Title I program (Allington & Gabriel, 2012). Students in the primary grades are targeted to be served, as research supports reading skills develop early in a child's cognitive development (Allington & Gabriel, 2012).

The No Child Left Behind Act of 2001 (NCLB) expanded assessment and accountability provisions for numerous programs, including Title (NCLB, 2003). These increased standards were intended to "improve the quality and effectiveness of the entire elementary and secondary system, including those programs implemented through Title I" (Stullich, Eisner, & McCrary, 2007, p. 17). Admittedly, the requirements of NCLB created new accountability challenges to existing Title I services and the program's ability to sustain and expand services (National Association for the Education of Young Children, 2015).

NCLB compelled states and districts to make dramatic changes in their educational systems (National Association for the Education of Young Children, 2015). This legislation's impact was felt by many district officials through budgetary concerns as well as statutory requirements that forced some school districts to cut back or eliminate Title I services altogether (Bowman, 2011). There is evidence to suggest the requirements of NCLB and the diminishing funding available were putting district administrators in a difficult position of choosing whether or not to continue the Title I programs in their districts (Stevenson, 2010).

Stullich et al. (2007) reviewed the National Title I Assessment and made this assumption:

> Among the states that had consistent elementary reading assessment data for low-income students, 12 states (29 percent) would meet the 100 percent goal by 2013-14 if they sustained the same rate of growth that they achieved from 2002-03 to 2004-05. States with a relatively low percentage of students performing at the proficient level defined by the state were often less likely to be predicted to meet the 100 percent goal. (p. 72)

The prediction of Stullich et al. (2007) was that only the state of Nebraska would reach 100% proficiency on the requirements of NCLB testing mandates by the year 2014. Statistics for Missouri public school districts indicated that of 552 school districts, only 116 (21.07%) met Adequate Yearly Progress (AYP) measures for the 2009-2010 school term (MODESE, 2014).

The Missouri Department of Elementary and Secondary Education (2012) requested a waiver from the United States Department of Education in June, 2012. This waiver gave Missouri flexibility from the mandates and requirements of NCLB (Missouri Department of Elementary and Secondary Education, 2012). The waiver allowed the state-level department to use its own system of accountability to identify and effectively change struggling public school districts and to use its discretion in directing resources to these schools (Missouri Department of Elementary and Secondary Education, 2012). Missouri's waiver included the following requisites: implementing higher academic standards, creating a system of accountability, allowing more flexibility in spending Title

I monies, focusing on school improvement initiatives, and improving/revising the teacher evaluation system (Missouri Department of Elementary and Secondary Education, 2012).

Success of Title I reading. For 50 years, school districts have offered Title I services to students who were not able to make adequate progress in the regular classroom through daily instruction (Blumenfeld, 2014). Stullich et al. (2007) stated, "Title I, Part A funds went to nearly all [93 percent] of the nation's school districts and to 56 percent of all public schools in 2004-05, serving an estimated 18.0 million students" (p. 45). More recently, statistics show that $14.4 billion have been allocated from federal dollars towards Title I, making it the largest educational investment (Miller, 2015). The question of the effectiveness of the program has been considered and analyzed for the last few decades.

Each year, the United States Department of Education (2014) conducts an analysis of the Title I program through required data collection from designated schools. The report published in 2011 indicated recent trends on the National Assessment of Educational Progress (NAEP) assessment showed gains for fourth-grade students overall in reading and mathematics, as well as students considered at-risk in the categories of minority students and students identified as living in high poverty (Center on Education Policy, 2011). The Center on Education Policy (2011) found since 2002, achievement results in Title I schools have improved in most states, and of those states that indicated gains, the growth made by Title I students was greater than gains made by non-Title I students. Additionally, the Center on Education Policy (2011) asserted:

> In the states with sufficient data for a recent study conducted by the Center on Education Policy, (Missouri included), achievement on state tests generally

> improved for Title I students since 2002, and whether mean scores, or percentages of proficient scores, roughly four-fifths or more of the states with sufficient data showed gains for Title I participants. (p. 6)

Stullich et al. (2007) also stated, "Looking at 4th grade students in high-poverty schools, defined as those with 76 percent or more of their students eligible for free or reduced price lunches, average scale scores rose from 2000 to 2005 by 14 points in reading" (p. 75). Additionally, Stullich et al. (2007) included student results on mandated state assessments indicated growth from 2002-2003 to 2004-2005 for the majority of student groups in states that made consistent assessment data available, and as measured by the percentages of children obtaining a proficient result or higher on the assessment. In 2009, Title I students showed a 9% gain in the number of students scoring at or above the proficient level on the NAEP assessment as compared to 1998 (National Center for Educational Statistics, 2010).

Opposition to Title I programming. In a 35-year study of the effectiveness of Title I programming, experts ascertained the program had failed to contribute to reducing the achievement disparity in student performance and academic understanding (Blumenfeld, 2014). Blumenfeld (2014) also asserted that in 1969, preliminary reports were already indicating Title I was not producing positive results for students, especially those children indicated as being termed the highest need for services. Dyer and Binkney (2007) claimed, "Chapter I programs, synonymous with Title I Reading programs, generally had little impact on reading achievement after the third grade, and there is not sufficient data to support continuing remedial reading programs after the primary grades" (p. 65). Furthermore, the students who participated in the Title I literacy program failed

to show academic gains and remained enrolled in the Title I program longer, at an average of rate of five years, or until the student was no longer to be in the program because it would not be offered at the next grade level (Dyer & Binkney, 2007).

Researchers of Title I program academic effectiveness utilized state standardized testing results and focused solely on reading gains of the total school population rather than focusing on Title I students as a subgroup (Donalson, 2008). Donalson (2008) also asserted individual class needs must be reviewed and analyzed in regard to the reading curriculum utilized in order to determine the true effectiveness of the program. Further, Title I results for fourth-grade students from 2009-2011 showed no significant changes for the average reading student, nor for any of the racial/ethnic groups reported for those assessment years (National Center for Educational Statistics, 2012). Legislators have recently asserted the formula behind Title I funding should undergo revamping to effectively aid all students throughout their education (Miller, 2015).

Reading Recovery. The Reading Recovery program is designed as an early intervention program for struggling readers (Johnson & Keier, 2010). The goal of Reading Recovery is to serve first grade students who demonstrate extreme difficulty in learning to read and write (Colvin, 2012). Reading Recovery is an inclusive evidence-based intervention program instituted primarily in first grade that requires data collected on every child who receives lessons (Reading Recovery Works, 2013).

The originator of the program was Dame Marie Clay, a New Zealand educator and child psychologist, whose literacy research in the late 1970s and early 1980s evolved into the Reading Recovery program (Johnson & Keier, 2010). During the mid-1960s, Clay came to the realization that of the nearly 60% of students who were referred to

school psychologists, many referrals were a result of academic difficulties, specifically in the area of reading (Colvin, 2012). Clay began observing 100 five- and six-year-old children as they read to determine what skills distinguished good readers from poor ones (Colvin, 2012). According to Colvin (2012), her aim was to discover what "high-progress students do well, and to teach low progressing children to emulate it" (p. 2). Some advocates have even indicated Marie Clay was the first to envision the RtI concept while a special education teacher (Reading Recovery, 2010).

Clay analyzed literacy and the problems posed to the educational community in regard to literacy instruction (Reading Recovery, 2010). She delineated two areas for educators to address: ". . .how to deliver good first instruction in literacy and what kind of supplementary opportunity should be provided for children who are low-achieving in the regular classroom" (Reading Recovery, 2010, p. 4).

The instruction available through Reading Recovery involved tailoring a program to meet the literacy needs of first-grade students through remedial, daily instruction for 30 minutes including an emphasis on meaning and fluency in the reading text (Johnson & Keier, 2010). For a period of 12 to 20 weeks, a student's reading abilities are analyzed and reviewed with the intent to accelerate a student's instruction in order to catch up to peers (National Center on Intensive Intervention, 2015).

Reading Recovery advocates claim students continue to progress and continue to learn on their own without further intervention (Holliman, Hurry, & Bodman, 2014). Gay Su Pinnell, the first professor to pilot Reading Recovery in the United States, has written numerous articles advocating the positive effects of Reading Recovery (Colvin, 2012). Pinnell asserted the positive effects the Reading Recovery program has on a

student's reading ability are sustained for most children through the third grade, and "there isn't any other approach that can claim that" (Colvin, 2012, p. 3). Reading Recovery builds on an individual child's strengths and teaches strategies that allow the student to become an independent learner without the need for future remediation (Reading Recovery Council of North America, 2015a). The ultimate goals of Reading Recovery are to promote literacy skills, thereby reducing the number of struggling readers, and to alleviate and possibly prevent long-term reading difficulties (Reading Recovery Council of North America, 2015a).

Driving the growth of the program has been the desire of school districts to use alternatives to traditional remedial programs, such as Title I literacy, as a way to reduce the costs of serving children who are deemed to have learning difficulties due to experiencing slow reading achievement (Colvin, 2012). For the school term of 2011-2012, Reading Recovery teachers served nearly 282,000 students (Reading Recovery Works, 2013). Schools across the country have utilized Reading Recovery as their primary first-grade literacy intervention plan (Reading Recovery, 2010).

Success of Reading Recovery. In 2008, four Reading Recovery studies were completed that included 700 first-grade students across the nation (Reading Recovery Works, 2013). In a more recent evaluation, results for more than 2 million students indicates that in the United States, no other reading program has determined a more thorough database, including a strong accountability record, than the Reading Recovery program (Reading Recovery Works, 2013). Based on these studies, Reading Recovery was found to be largely successful in the program's ability to teach phonetics as well as to demonstrate a large gain in general reading achievement (Reading Recovery Works,

2013). These studies also found Reading Recovery had positive effects (46 percentile points) in the area of fluency (Reading Recovery Works, 2013).

As well, "Over the years since 1984, about 75% of students who completed the full 12- to 20-week series of lessons met grade-level expectations in reading and writing" (Reading Recovery Works, 2013, p. 1). Reading Recovery advocates feel the program prevents social and psychological problems associated with long-term reading failure (Reading Recovery Council of North America (2015a). The positive outcomes delineated in Reading Recovery include that the child responds to the literacy intervention and ultimately meets grade-level reading ability, along with continuing to receive regular classroom instruction and making literacy progress (Reading Recovery, 2010). Within the framework of RtI, Reading Recovery is felt to be an ideal fit (Reading Recovery, 2010). Research indicates 90% of students are successful in Reading Recovery and fewer than 2% of students who have received services get referred on for further testing (Reading Recovery Council of North America, 2015b).

The intensive training of Reading Recovery teachers is also touted as a positive attribute of the program, because it focuses the educators' observations on the reading behaviors of the child and thereby an improved instructional decision-maker results (Holliman et al., 2014). According to Johnson and Keier (2010), the teacher's ability to learn a new way of thinking about reading and the reading process is the main contributor to Reading Recovery's success. The involvement of parents throughout the Reading Recovery process and the application of the most recent research in early literacy theory are also positive aspects of this literacy program (Benefits of Reading Recovery: 2011).

As Strauss (2013) shared, “Reading Recovery is the only reading program that has received the highest rating for evidence of positive effects from the Institute for Education Sciences What Works Clearinghouse” (p. 1).

Opposition to Reading Recovery. Educators in New Zealand, where Reading Recovery originated, question the effectiveness of the program (Colvin, 2012). According to Colvin (2012), a lead New Zealand researcher found children made greater gains while going through the Reading Recovery program, but the gains were modest following a year or so after discontinuation. An independent study sponsored by the Ohio State Department of Education found, “As many as a third of the students who succeeded in the Reading Recovery Program would have reached that level of proficiency unaided, simply by virtue of growing older” (Colvin, 2012, p. 3). Further, Colvin stated, “Gains made by children while in the program fade quickly and hardly can be detected by fourth grade” (p. 2).

Additionally, researcher G. Reid Lyon with the National Institute of Child Health and Human Development, has determined that 20-30% of students do not respond to the instructional techniques learned during Reading Recovery lessons (Colvin, 2012). Even Gay Su Pinnell, the most notable national Reading Recovery advocate, admitted no one program alone is “enough to guarantee a successful reading program” (Colvin, 2012, p. 3). Allington as well pointed out children need teachers who know how to teach and have a wealth of tools in their toolboxes upon which to meet individual learning needs; there is no evidence of a packaged program that will be as effective as a highly qualified educator (Rebora, 2010).

The cost of the Reading Recovery program is an issue that causes school districts to pause before considering a commitment to institute the program within their schools. University of Arkansas Assistant Professor, Anne Allen, a renowned trainer for the Reading Recovery program, stated the costs associated with Reading Recovery implementation, training, and certification are one of the first issues mentioned when she meets with superintendents (Colvin, 2012). Colvin (2012) found a cost estimate per pupil in the program can be more than $9,000 above the normal per-pupil spending allotment.

Colvin (2012) also asserted those who support the instructional regimen designed and implemented through the Reading Recovery program are those who are directly involved with Reading Recovery. Additionally, Colvin (2012) included, "Most articles written in praise of the program are authored by researchers involved in some capacity with Reading Recovery" (p. 2). Colvin (2012) also detailed that Reading Recovery needs to revamp its approach, or possibly be replaced by a more contemporary program, one that was devised more recently than the 1970s.

Response to intervention. Response to Intervention (RtI) is a model school districts across the nation were mandated to implement under the federal guidelines of NCLB (James-Ward, Fisher, Frey, & Lapp, 2013). The prototype was adopted due to criticisms of the IQ/Achievement Discrepancy model currently used to determine if a child qualifies for services as a student with a specific learning disability (Lembke, 2015). The RtI model became part of federal and state law through the Individuals with Disabilities Education Act of 2004; therefore, it is frequently viewed within the realm of special education (East 2006). East (2006) contended RtI is a collaborative, whole-school effort, and the key components are grounded in general education practice,

curriculum, and intervention. As research has suggested, "Although RTI was conceived as a means of early identification and determination of special education eligibility, it is increasingly becoming an overall approach to school improvement through general education," (Reading Recovery, 2010, p. 2).

Within the RtI framework, students who struggle are provided interventions at varying levels of intensity in an effort to accelerate their present level of learning (RtI Action Network, 2015). The progress of students is monitored for both the rate of learning and the ability of the students to perform at that level (RtI Action Network, 2015). Additionally, decisions made in regard to the students' education are based on the response to the prescribed intervention, very much like a student who is under an Individualized Education Plan (IEP) (RtI Action Network, 2015).

According to Lembke (2015), the outdated discrepancy model was perceived as a wait-to-fail design, which prevented students from receiving assistance when they were developing learners and when they were cognitively ready for the content. The RtI model is a more current approach to identifying learning disabilities in children, and in some ways it is a much simpler approach (Vaughn et al. 2009). Vaughn et al. (2009) reported, "As schools, districts, and states consider the usefulness of students' response to intervention for identifying students with learning disabilities . . . the question of what constitutes appropriate intervention is critical" (p. 167).

Conceptual framework of RtI. The reauthorization of IDEA in 2004 allowed for states to use a scientific, research-based approach to intervene when a child demonstrates difficulty with mastery of skills while receiving instruction in the regular classroom (Wright, 2007). The recent RtI guidelines set forth by state education departments

following the mandates of IDEA 2004 have "emerged from multiple long-term studies which indicated that students can learn when differentiated instructional strategies, expert-driven instruction, and scientifically validated curriculum are used in the regular classroom" (Humphreys, Goodman, Grant, & Maggs, 2008, p. 4). Humphreys et al. (2008) also stated, "At its core, RtI aims to support at-risk students by removing barriers to learning" (p. 4).

The guiding principles behind the reauthorization of IDEA included an in-depth focus on accountability for all children, including students receiving instruction in resource classrooms and special services; more flexibility in services being offered; and higher accountability for results (Myers, 2013). Myers (2013) asserted, "There was also a strong emphasis on effective instructional practices with a scientific-research basis, in short, differentiated instruction" (p. 10).

Model components. The RtI model is a tiered instructional approach that includes ongoing progress monitoring utilizing curriculum-based measurements (CBMs) (James-Ward et al., 2013). As Burns (2015) delineated, "An effective RTI model should begin with quality core instruction that adequately addresses the needs of most of the students" (p. 3). Public schools should be focusing their efforts, professional development, and monies to make sure tiered programming is implemented with fidelity, and that any packaged programs are analyzed and reviewed before purchase to be true RtI interventions (Shapiro, 2015). The fundamental purpose of RtI is to enhance the quality of instruction for every child, because all children can learn if the correct, appropriate level of academic instruction is in place (Hanover Research, 2015).

Tier I. In Tier I, a fixed duration of intervention services is to be provided to a student or a small group of students in the regular classroom setting to determine if each student can be successful in the regular classroom with modifications or interventions, incorporating the effective use and implementation of differentiated instruction (Fuchs & Fuchs, 2006). Allington and Gabriel (2012) found in a study of exemplary teachers, "Educators tailor instruction to individual student's needs and spend less time on whole group recitation activities" (p. 11). Teachers considered exemplary were also found to use authentic literacy methods, rather than a scripted, prescribed program (Allington & Gabriel, 2012).

In keeping with that paradigm, Zipke (2011) believed struggling readers should be placed in the same classrooms as their peers when they receive remedial reading instruction. The practices of secluding students from their peers to receive direct, remedial reading instruction has had negative effects on children, and many students have carried a lifelong aversion to reading with them as a result of these practices (Allington & Gabriel, 2012). Allington (2007) asserted, "Intervention for struggling readers should occur throughout the school day by supporting students within the context of regular content area classes" (p. 12). It is imperative interventions be correctly prescribed and targeted in order to be effective, and students must also receive quality, balanced regular classroom instruction in addition to tiered services (Burns, 2015). Allington (2007) also stressed practitioners should revise schedules and practices for literacy intervention as an instructional model that should be occurring daily and in a sustained, consistent manner.

The ability of the regular classroom teacher to facilitate learning through social behaviors and interactions would aid in involving "children in . . . structured activities

with the guidance, support, and challenge of companions who transmit a diverse array of knowledge and skills" (Berk & Winsler, 1995, p. 20). Early childhood psychologists believe learning precedes development, and during the interaction of social dialogue, young students develop language and reading skills necessary for academic success (Vygotsky, 2014). For at-risk reading students, reading instruction must be authentic, purposeful, and contain a level of relevance to their lives (Allington & Gabriel, 2012).

Support must be available to struggling readers in a viable context that encourages the student through instructional materials which are challenging, yet appropriate to the child's determined reading level and development (Allington, 2007). The most well-balanced literacy programs are facilitated by reading educators who include a wide variety of literacy activities and who incorporate accommodations for each student's individual learning style (Tyner, 2012). A recent report of the Children's Reading Foundation (2013) found, "Only kindergarten, first, second and third grade teachers can acquire and provide the extended repertoire of skills, knowledge, diagnostics and interventions to assure that these children receive excellent reading instruction and intervention" (p. 1).

Proponents of differentiated instruction assert this alternative practice is ideal to include all learners in the classroom by utilizing instructional approaches that reach the diversity of all learners through varied methods and activities (Tomlinson, 2000). Tomlinson (2000) argued more students are successful when they are taught based on their own readiness levels, interests, and learning profiles. Differentiating instruction means providing separate, unrelated activities for students based on individual needs, ensuring all readers grasp the skill or idea (Good, 2006). Keck and Kinney (2005)

believed, “Equity in the learning process is obtained when teachers learn the needs of their students and incorporate strategies to meet those needs through classroom instruction” (p. 15).

If a student is determined to be remediated at Tier I with the use of differentiated instructional practices, then once again the student receives regular classroom instruction (Lembke, 2015). It is important to note no more 20% of a school’s population require intervention instruction beyond Tier I (Burns, 2015). As Allington stated, “The most important part of the three tiers is the first one: regular classroom instruction” (as cited in Rebora, 2010, p. 2).

Tier II. If the student continues to struggle following Tier I instruction, then more intensive Tier II instruction is provided (Lembke, 2015). Tier II instruction involves the student receiving supplemental instruction in a small group by the regular education teacher or a specialist such as a reading teacher (Shapiro, 2015). There is an increasing level of intensive instruction matched to the levels of performance required of the student, and consideration for the rates of learning progress is frequently given during the duration of the intervention (RtI Action Network, 2015).

Throughout Tier II instruction, students continue to be progress monitored to determine success (Lembke, 2015). The school district’s Intervention Team (IT) also aides the teacher in selecting, implementing, and monitoring the effectiveness of the prescribed intervention during Tier II instruction (DeLoach & Kelk, 2011). Students receiving Tier II level instruction should be receiving daily instruction in small groups for

a duration of 20 to 30 minutes (Burns, 2015). When students continue to show little progress at the Tier II level of intervention, then a Tier III intervention is considered (RtI Action Network, 2015).

Tier III. If Tier III is deemed necessary, following failure of the student to show progress at the Tier II level, the IT designs and coordinates further interventions (DeLoach & Kelk, 2011), or may refer the student for a special education evaluation (Shapiro, 2015). As Burns (2015) pointed out, "Most RTI models rely on a problem-solving team to identify interventions within Tier III" (p. 5). Burns (2015) also asserted, "Schools implementing effective Tier I and Tier II instruction should find no more than five percent of students requiring more intensive interventions than those provided in Tier II" (p. 4). The authenticity of a true Tier III intervention is the intensity of the prescribed intervention, rather than the delivery model (Burns, 2015). Tier III interventions should be specific to meet the needs of the individual student and involve the appropriate resources to meet those prescribed needs (Burns, 2015).

Throughout the process, it is important educators understand the RtI process is not a denial, nor a delay, for formal, comprehensive evaluation to special education (RtI Action Network, 2015). The collection of data during the intervention of the previous two tiers can be utilized by the intervention team as a basis for making a referral decision (RtI Action Network, 2015). It is of paramount importance to note that tiered interventions that are provided within the regular education classroom are not intended to serve as replacement for special education services (RtI Action Network, 2015).

Success of RtI. When an appropriate infrastructure is in place, RtI can result in successful outcomes for students (Florida Department of Education, 2012). This

infrastructure must include appropriate progress monitoring tools, as well as supportive assessment, intervention, and supplemental resources (Florida Department of Education, 2012). Educators should implement the three-tiered RtI model confidently, if they have utilized research-based approaches and are engaging students in beneficial instruction (Burns, 2015). The determining factor of RtI success is the ability of the identified student to sustain the academic gains demonstrated, as well as the ability of all of the students identified to narrow the achievement gap between them and students who were not identified as at-risk for reading failure (Florida Department of Education, 2012).

The most successful implementation of RtI is done in phases, with a clear focus on the quality of the services rather than the amount of services, and includes a measure of success over a length of time (Florida Department of Education, 2012). As Burns (2015) pointed out:

> RtI is a promising practice that already has positively influenced the lives of countless children . . . RTI may be a collection of parts accumulated and pieced together over decades of research and practice, but the result of this compilation of parts is a sum that equals positive outcomes for kids. (p. 6)

Paul (2012) stated, “Well-timed interventions can reverse the direction of failure, turning a vicious cycle into a virtuous one” (p. 2).

One key element that must be in place in order to have an effective RtI model is program evaluation. If a district is to understand whether their RtI program is reaching students and producing desired outcomes, schools must be willing to analyze, adjust, and evaluate the quality of the programs being provided (Hanover Research, 2015). Indicators of a successful RtI model include the following:

- Increased student learning and achievement
- Reduction of Special Education referrals
- Decreasing percentage of students being considered at-risk
- Student improvement rate on progress monitoring measures. (Hanover Research, 2015, pp. 3-4)

A quality RtI program serves as an example of critical thinking on the part of schools about quality instruction and improved achievement for all children (Hanover Research, 2015). The development, management, organization, and cultivation of successful RtI models are essential to help students overcome learning deficits and enable them to bridge learning gaps in their educational foundation (Hanover Research, 2015).

Opposition to RtI. The concerns regarding appropriate implementation of RtI programs have begun to mount as districts are developing, formulating, and revising appropriate tiered instructional interventions (Gersten & Dimino, 2011). Gersten and Dimino (2011) posited concerns regarding the degree of teacher aptitude and interest in implementing interventions in the regular classroom. An educator's ability to adjust instruction based on the result of progress monitoring has also been a concern raised by researchers in this field of study (Gregory, 2011). Due to budget constraints and staffing shortages, interventions are often implemented by paraprofessionals or special education teachers who have a limited expertise in the area of literacy or reading instruction (Rebora, 2010).

RtI was supposed to result in a number of positive changes for students nationwide, but very few models have been implemented with true fidelity to the program (Rainbow Readers, 2015). Some researchers say the RtI framework does not do a good

job of providing appropriate interventions that are effective or modifying the intervention if it is unsuccessful (Kelleher, 2011). Kelleher (2011) also asserted opponents say that RtI is not implemented consistently from one district to the next. Parents also believe RtI may slow down the process of identifying students for special education (Kelleher, 2011).

Literacy educators, as well as classroom teachers, must receive adequate professional development in order to obtain necessary skills to properly implement RtI (Sansosti & Noltemeyer, 2012). It is of paramount importance that practitioners implement RtI with fidelity, but they feel a general lack in confidence, professional development, and research knowledge base to accomplish this objective (Burns, 2015).

Sansosti and Noltemeyer (2012) further asserted the RtI model in practice demands more time for planning for instruction, as well as an increased need for training for the educators, which leads to effective change in instructional practice. Educators may not have a high level of comfort with RtI, and the need to develop these behaviors over time, before implementing RtI, is beneficial for teachers and ultimately their students (Sansosti & Noltemeyer, 2012). Sansosti and Noltemeyer (2012) found, "The fidelity with which an RtI model is implemented relies heavily on consistent behavior among educators" (p. 1). Further, RtI is limited in its implementation success due to the programming decisions being made as a top-down model of change (Sansosti & Noltemeyer, 2012).

Jimerson, Burns, and VanDerHeyden (2007) found some schools have implemented RtI by alleviating the barriers to change for the classroom educator, while others seem confused as to how to put intervention practices in place and how to approach assessment and progress monitoring within their classrooms. Fuchs (2003)

further indicated confusion exists among education professionals in regard to RtI implementation at the basic to advanced stages when making instructional decisions. The need for a detailed discussion and research-based practices should move from a top-down approach to a process that is understood and accepted by educators who share a belief in the need for the RtI model within their school (Sansosti & Noltemeyer, 2012). The RtI initiative may be doomed for failure unless responsible educators understand the implementation model and the need for such reform, as well as begin reflective practice on their own attitudes and beliefs related to this intervention model (Sansosti & Noltemeyer, 2012).

Educational Reform

Currently, there exists a nationwide perception that student outcomes have declined and that the current educational system is not able to meet the demands and requirements of community and employer expectations (Jones, 2012). Concerns about public education are not new; however, the focus has shifted to concerns about declining national and state test scores since the inception of NCLB (Hempenstall, 2015). As the 13 years of educational erosion resulting from NCLB mandates wind down, Congress is once again looking at steps to equalize educational opportunities for all students (Moldauer, 2015). One pervasive theme throughout the educational reform conversation surrounds the importance for all teachers of literacy to understand how important their roles are and to have an "understanding of the history that led to current policies and practices" (Lane, 2014, p. 7).

The first country to offer every young citizen the opportunity to receive a free public education was the United States (Paine & Schleicher, 2010). As a result of this,

the country reaped overwhelming economic rewards, even though by 1910 only 9% of young people finished high school (Paine & Schleicher, 2010). The country's economy was growing at a rapid rate during the early 20th century as a result of educating the nation's young adults (Paine & Schleicher, 2010). By 1945, the United States led one of the most well-educated workforces in the world (Paine & Schleicher, 2010). Business experts agree the United States can still provide job opportunities and economic security for young adults, but the country must reform and revamp the current level of required educational achievement levels if young citizens are to compete with top-performing students from other countries (Paine & Schleicher, 2010).

No discussion on school reform can be conducted without mentioning, *A Nation at Risk* (Yell, 2010a). Gorlewski and Porfilio (2013) indicated the history of modern day high-stakes standardized testing had its inception following this publication, thus carrying the nation through a 30-year trajectory of educational assessments meant to reform public education. This report detailed several deficiencies in the educational system of America. Of particular note was the lack of scientific/technological skills of high school graduates, as well as their lack of preparation to meet the demands of the workforce (Yell, 2010a). This report questioned the performance of not only students, but of teachers, administrators, and school systems, which began the inception of the age of accountability and standards-based educational reform (Biesta, 2014).

The No Child Left Behind Act (NCLB) continued the emphasis of assessment and increased standards for all school districts. This legislation built upon the Improving America's Schools Act (IASA) and expanded the role of the federal government in public

education (Plunkett, 1997). The IASA focused on providing proficiency benchmarks for Title I schools to retain their funding (United States Department of Education, 2015).

The lofty goal of all students achieving 100% proficiency by 2014 as prescribed by NCLB sadly missed the mark, and political leaders from both the Democratic and Republican parties continue to promote mandated educational reform through high-stakes testing measures (Gorlewski & Porfilio, 2013). As the remnants of NCLB still linger in the minds of educators nationwide, thoughts are increasing about the newest educational mandate that has evolved from political maneuvering and funding prospects under the catchy phrase "Race to the Top"(Gorlewski & Porfilio, 2013). In 2009, President Obama announced a competitive grant program that would offer more than $4 billion in funds for states in an effort to reform current educational programming and academic standards, which led to the adoption of the Common Core State Standards (CCSS) by 48 states (Myracle, 2014). This funding initiative was based on a points system whereby states received money for program adoption in compliance with the CCSS (Blumenfeld, 2014).

The implementation of the CCSS has ushered in the new mandates that once again tout high-stakes assessment as a means to measure and determine learning has occurred and teaching is effective (Myracle, 2014). As Myracle (2014) asserted, "Implementing the Common Core Standards represents one of the most widespread educational reform movements in the history of public education" (p. 1). The following educational shortcomings are addressed through the CCSS:

- Raise the bar for students in grades K-12. Higher rigor and demand in the classroom, with the intent of students mastering essential skills and concepts.

- Clarify expectations for students, teachers, and parents. The CCSS are intended to be consistent and clear so all stakeholders can collaborate on meeting assessment expectations.
- Standardize benchmarks for academic achievement across all 50 states. This will ensure that students from different states are being held to similar standards of academic achievement.
- Ensure that all students are prepared for college or career. Higher, more-consistent standards are important at all grade levels to enable students to be prepared to pursue goals after they graduate from high school.
- Communicate real-world expectations. It is vital that students understand the demands of the real world, so the same skills and concepts used in higher learning or the job market are to be taught in schools. (Myracle, 2014, pp. 9-10)

The CCSS build on higher standards across the country on which to define children's knowledge and skills that are necessary at the college level and in preparation for career readiness (Myracle, 2014).

Historically, efforts to create and agree upon a common set of standards for nationwide students have failed due to disagreements between state departments of education and the fear of overinvolvement of federal entities (Myracle, 2014). The barriers identified that prevented successful implementation and results of common standards include the following:

- State leaders want to retain oversight. Differences of opinion and a desire to remain competitive with other states have made agreement on CCSS difficult.

- Educators want to maintain local control over curriculum. Fear of government overreach continues to be a barrier to some in acceptance of CCSS.
- Reaching consensus is difficult. Agreement on what should be taught nationwide has been a contributing factor to the failure of previous education-reform efforts. (Myracle, 2014, pp. 11-12)

Blumfeld (2014) contended a number of states are rethinking the adoption of the CCSS because of growing controversy from educators, parents, and government officials, and the belief the CCSS will lead to the adoption of a federal curriculum.

In the Spring of 2015, Missouri public school districts administered the first round of Smarter Balanced Assessment (SBAC) (Missouri Department of Elementary and Secondary Education, 2015a). Within a few months, the Missouri Legislature banned the test from being administered again and gave the education department nine months to develop another standardized assessment (Crouch, 2015). Not assessing is not an option due to federal mandates that require standardized testing (Crouch, 2015).

At the onset of 2015, legislators and policymakers were busy hammering out new amendments to aid educators and educational policymakers in steering the course of educational reform (Walker, 2015). The most recent legislation has included a Senate version referred to as the Every Child Achieves Act (ECAA) and the House of Representatives version that is called the Student Success Act (Walker, 2015). Federal-level education committee members are currently in discussion about the differences of the two bills and the possibility of forming a final version for approval (Moldauer, 2015).

The hope is that the final bill will reduce the focus on high-stakes testing and elevate the voices of educators in the new legislation (Moldauer, 2015).

The ECAA proposes to eliminate the mandate of the measure of Annual Yearly Progress (AYP), promotes the requirement of multiple measures in evaluating student success, and provides for broader access to early childhood education (Walker, 2015). Recently, the Senate approved amendments to the bill to make career and technical education a core subject, to protect the privacy of student data, to apprise parents of opting out options for standardized testing, and to set requirements for states to limit time spent on test preparation in public school classrooms (Walker, 2015). The ECAA continues to uphold the importance of standardized testing and the data it provides, but the act encourages the measures to capture student performance under a growth model, suggesting testing that would be administered throughout the school year rather than at the end of the year when the data are less useful (Hiler & Johnson, 2015).

The House of Representatives version of the bill, the Student Success Act, focuses on protecting schools from being sanctioned when participation on standardized testing falls below 95% (under NCLB, consequences existed for public schools when more than 5% of students did not participate on standardized testing) (Walker, 2015). Policymakers believe this bill will reduce the federal grasp on public education and help to restore local control, thereby empowering educational leaders to hold schools and educators accountable for conveying an effective education to children (Education and the Workforce, 2015). Both pieces of legislation give more flexibility and freedom to state departments of education than the mandates that fell under NCLB (Klein, 2015). In addition, both versions allow states to determine their own accountability systems to hold

school districts responsible for achievement, rather than the top-down accountability measures spelled out in NCLB (Klein, 2015).

As state and federal leaders continue to navigate the path of high-stakes testing, instructional intervention and modification remain a priority for classroom educators. Classroom teachers' goals are not only to see all children develop into well-prepared, career-ready high school graduates, as determined by measures on standardized assessments, but for students to experience success through appropriate instruction and intervention in order to experience success on a daily basis (Nguyen & Oudeyer, 2012). In a recent study, Paine and Schleicher (2010) found improving the current school systems ultimately will improve the learning experiences for students, and those improvements need to be seen in modifying curriculum and improving the process upon which teachers instruct.

At the heart of the CCSS are the key principles behind RtI (DeRuvo & Sassone, 2012). Deruvo and Sassone (2012) indicated an effective multi-tiered RtI model could aid schools in closing the knowledge gap in order to meet the demands of the CCSS. The rigor and ambitions behind the standards include high cognitive demands for all students and require deep learning and application of concepts and skills, which is where the relationship exists between the CCSS and RtI (Waite, 2015). Schools must have support frameworks in place for students to allow schools to successfully teach the standards, and that is where RtI comes into play (Waite, 2015).

According to Wright (2015), commonalities between RtI and the CCSS focus on setting and achieving ambitious expectations for students and delivering the most important instruction and intervention in the general education classroom. Both RtI and

the CCSS recognize not all students learn the same way and some need interventions to help them be successful (Wright, 2015). As Clayton (2013) asserted, the CCSS challenges children, and a number of students will experience academic struggles; it is the responsibility of the educators to differentiate instruction in order to help students experience success. An unwavering focus on quality instruction and instructional intervention will allow educators to unlock the potential within students, allowing them to grow as learners (Clayton, 2013).

The implications for these standards will provide imperative goals for teachers to prepare students for college and work (Council of Chief State School Officers, 2010). The standards are meant to help teachers create, develop, and implement effective instructional strategies for students by delineating benchmarks for learning and skill acquisition students should be able to demonstrate each school year (Council of Chief State School Officers, 2010). Ideally, the CCSS should help college-level teacher training programs and professional development programs better prepare teachers, as well as assist educators to develop high-quality assessments that determine achievement of standards (Council of Chief State School Officers, 2010).

Manno (2013) posited, "The idea of holding all students accountable for the same content, regardless of social, economic and/or academic background, is just one complaint within a myriad of issues facing the new Common Core Standards Initiative" (p. 1). Since NCLB came into play, the focus has changed from teachers who motivate to teachers who assess, basically from focusing on teaching to a focus on testing (Manno, 2013). A student's test score seems to have a greater value to school districts than a student's understanding of lesson content (Manno, 2013). It would appear from the most

recent school reform efforts that standardized assessments will continue to impact educators and students for decades to come (Manno, 2013). Test anxiety is not just experienced by students anymore; teachers also feel an increase of testing pressure now that student testing performance is tied into evaluation models (Manno, 2013).

Summary

The need for early academic intervention when a child experiences reading difficulty has been addressed through a number of literacy programs since 1965 (Dombey, 2010). Title I and Reading Recovery are both programs designed to deliver targeted intervention to students during their early academic years. Response to Intervention differs in the approach to intervene when a child experiences difficulty by addressing the instruction occurring in the classroom, as well as the support that can be provided through a Tier II Intervention.

Currently, education professionals have witnessed a plethora of educational initiatives which have been abandoned (Sansosti & Noltemeyer, 2012). A high level of cynicism and opposition has resulted in educators viewing reform with decreasing enthusiasm (Sansosti & Noltemeyer, 2012). Researchers have declared RtI is not an isolated effort (Allington, 2007). RtI represents an initiative and paradigm shift that requires program change and participation of all education professionals (Sansosti & Noltemeyer, 2012). Sansosti and Noltemeyer (2012) stated, “Failing to plan effectively may result in haphazard decision-making that could lead to the demise of the RtI initiative, as has happened with so many educational reforms in the past” (p. 7).

In the following chapter, the methodology used for this study is presented. The need for a mixed-method study to determine the effectiveness of a certain reading

intervention is discussed. The research questions are restated, and the rationale for quantitative and qualitative research is synthesized. Additionally, the research methodology and design are discussed in detail. The instrumentation is outlined, and the population and participants are specified in order to present the progression of the study. The data collection and analysis methods are also discussed to give a clear picture of this research study in its entirety.

Chapter Three: Methodology

Background Information

Student achievement is the purpose of all public education from preschool through graduate school. How to intervene when achievement is not occurring has been the question educators have asked most consistently since the passage of NCLB (Little & Akin-Little, 2014). This question continues to plague educators as the passage of the Every Child Achieves Act (ECAA) is introduced by federal leaders (Walker, 2015).

The purpose of this study was to provide insight and perspective on the effectiveness of Tier II reading interventions for kindergarten through second-grade students. Additionally, types of CBMs utilized by Missouri school districts were analyzed, and literacy educators were surveyed to determine the effect receiving a tiered intervention had on student success in other subjects and on raised student confidence toward school. Research is warranted examining intervention effects for students experiencing reading difficulties to determine appropriate instruction that will most successfully meet student needs.

Research Questions

Researching the effectiveness of reading interventions and instructional delivery models allows for an examination of the many facets of the RtI process. The following research questions guided this study:

1. What are the perspectives of IT leaders as to the Tier II interventions that are effective in reaching the greatest majority of primary grade students who are experiencing reading difficulty?

2. According to IT leaders, what is the length of time the Tier II intervention plan is implemented before significant progress toward students' literacy goals is achieved?

3. Which Tier II reading intervention indicates the most significant gain when evaluated through the use of a curriculum-based measurement (CBM) in one elementary school?

4. What are the perspectives of literacy educators regarding student success following Tier II interventions?

Research Perspective

The mixed-methods design of this research study included both quantitative and qualitative data. The quantitative data derived from pre-test and post-test measurement, gained through the use of a CBM. The CBM assisted in understanding the relationship between the tiered reading intervention and the gains obtained as measured by the CBM. The CBMs allowed for determining the gain obtained through Title I intervention by measuring reading fluency and comprehension on the Developmental Reading Assessment (DRA) progress monitoring assessment.

The CBM data tracked the students' ability to obtain and sustain grade-level reading ability before and after the intervention. Additionally, the quantitative data obtained through the use of a survey helped the researcher gain an understanding of the perspectives of literacy educators and the academic success of the intervention, as well as the ability of the students to apply the knowledge in other subject areas. Determining whether a positive increase occurred in the students' confidence level and attitude was also achieved through the use of the survey data.

The qualitative data were derived from interviews with Intervention Team (IT) leaders from each school randomly selected from the 11 Missouri Regional Professional Development Centers (RPDCs), which helped to further explain the data. The purpose of qualitative research is not to assign a number to the researched properties, but instead to characterize the condition of the variable being measured (Merriam, 2014). Qualitative research is a naturalistic approach that interprets phenomenon in terms of the meanings people bring to the results (Patton, 2014).

Methodology

An IT leader from one school in each of the state's 11 RPDCs was randomly selected to be interviewed. Each participant was trained by the RtI expert in their designated RPDCs in appropriate methods and implementation of the RtI model. Eleven building-level intervention team leaders were interviewed regarding their perspectives on effective Tier II interventions, time specifications, and gains attained through the evaluation of a CBM. Additionally, up to three educators from each of the 11 schools were surveyed.

Secondary data from one Midwestern school district were also used. The data selected were pre-assessment and post-assessment grade-level reading ability scores following a prescribed Tier II reading intervention received in the Title I classroom and delivered by a properly certified and trained educator. The assessments were administered utilizing a specific CBM, the Developmental Reading Assessment (DRA).

Each of the state's RPDCs was contacted to ascertain which elementary schools had been trained and were appropriately implementing RtI as designated by the national model. A stratified random sample method was then utilized to select the 11 elementary

schools for this study. These schools represented various geographical locations and included both rural and urban elementary school sites.

One IT leader from each of the 11 schools was contacted and asked to participate in an interview. Prior to the interview, the IT leader received a letter of participation (see Appendix A), an informed consent for participation (see Appendix B), and a copy of the interview questions (see Appendix C). Additionally, up to three literacy educators from each of the participating elementary schools were asked to complete a survey via Survey Monkey. Prior to the survey, the literacy educator received a recruitment e-mail (see Appendix D), an informed consent for participation (see Appendix E), and a copy of the survey (see Appendix F).

Research questions guided the study, and data were evaluated from IT leader interviews (qualitative) and literacy educator surveys (quantitative). Curriculum-based measurements results from one elementary school were also utilized to explore the effectiveness of the Tier II reading intervention received by the students and the academic gain the student achieved. These data also provided additional quantitative measures.

Data instruments used in this study were an IT leader interview and a literacy educator survey. All of the questions used in the interviews and surveys were field-tested in 2012 with leaders and educators involved with implementing and designing Tier II reading interventions. This process allowed for refinement of the instruments. Following comments and suggestions, corrections to the interview and survey questions were made.

Data Instruments

Interviews. Interviews were conducted and recorded using audio and written field notes. This was done to ensure proper transcribing. Audio taping was used with permission from the participant before each recording. The interview probed the ideas of the interviewees about the effectiveness of Tier II reading interventions for primary grade students. The interview responses were reviewed using open and axial coding while looking for emerging ideas, common words and phrases, and themes (Merriam, 2014).

The qualitative data instrument utilized was an interview. The purpose of the interview was to gain more information and to further integrate the findings of the quantitative data. Patton (2014) implied the purpose of interviewing is to obtain a specific kind of information and to probe the ideas of the interviewees about the phenomenon of interest. The interviewing process was used to answer questions, exchange in-depth information, and access the educator or administrator thoughts regarding certain reading intervention programs.

Curriculum-based measurement (CBM). Data from the CBM included pre- and post-test scores from students in one Missouri school who were administered a DRA before, during, and following the Tier II intervention. The average gain ascertained from the CBM was then calculated utilizing a paired sample *t*-test to determine the difference of the specific reading intervention and the gains made in grade-level reading ability. The main quantitative data instrument was the DRA. The pre- and post-test data were utilized.

Survey. Surveys were electronically sent to each literacy educator of the participating schools. The surveys were completed via SurveyMonkey. The results were

analyzed in an effort to determine the perspectives of the educators regarding the success the students following the Tier II intervention. Additionally, the survey garnered insight from the educators as to the confidence level of the students following the intervention and whether the students utilized the skills and knowledge gained through the intervention in other content areas.

Limitations

There were seven identifiable, critical limitations that had potential to affect the outcome of the study:

1. Factors beyond the scope of the study;
2. Amount of time spent implementing the intervention;
3. Educational programming among school districts;
4. Determination of student in need of Tier II intervention;
5. Methodology
6. Student attendance; and
7. Teacher longevity, experience, and attitude.

As in most studies, limitations make some aspect of these results less likely to be accurate.

Certain assumptions were made during the course of this study. The basic guidelines of NCLB, the IDEA, and the ECAA remained intact. It was also assumed all participating schools followed the Missouri Grade-Level Expectations and CCSS throughout this project. Measurement techniques were also assumed to be valid and significant.

Educators. Building principals, leaders of building level Intervention Teams (ITs), certified classroom teachers, and literacy educators involved in the implementation of the Tier II intervention were included in this research study.

Data Analysis

Analytic procedures. In naturalistic inquiry, the researcher studies real-world situations as they occur in a non-manipulated manner (Patton, 2014). The qualitative data derived from face-to-face interviews. During this study, 11 building-level IT leaders were interviewed. The data collected through the interviews were categorized utilizing coding procedures, and responses given during the interview were sorted into categories and themes. The data allowed the researcher to gain a holistic understanding (Merriam, 2014) of the situation and to construct an explanation of the success of Tier II reading interventions.

Quantitative data (scores on reading assessments) were used to provide triangulation and to further support qualitative findings. Inferential statistics were used to explain the difference between the reading intervention and the gains made when evaluated through a particular progress monitoring tool. By analyzing the DRA results, the findings provided a summary of the gains achieved. The survey was used to explain perspectives regarding the effect intervention had in promoting student success after Tier II intervention, as well as to ascertain gains in the students' confidence level and attitude toward school.

Ethical Considerations

This study was conducted using secondary data as the major source of information. Interviews were conducted with adults following their informed consent.

An expedited IRB (see Appendix G) was submitted indicating there was no direct involvement with students. There were no risks or sensitive topics related to this study. Confidentiality and anonymity of participants were respected by assigning a data code to each school.

Summary

This study involved investigation of reading interventions and instructional delivery models available to first- and second-grade students. Through a mixed-methods design, the difference between the type of Tier II intervention and specific reading program was explored. Over the course of one academic year, data were collected and measured through a CBM, and analysis was ongoing. Interviews were conducted with leaders of building level Intervention Teams. The survey was also completed by literacy educators to garner their perspectives regarding the effect intervention had in promoting student success while receiving the Tier II intervention, as well as to ascertain gains in the students' confidence level and attitude toward school.

Chapter Four: Analysis of Data

The purpose of this study was to ascertain if a significant difference existed between student achievement and Tier II reading interventions. The specific intervention model examined was Response to Intervention (RtI) and the tiered model of instructional intervention, specifically Tier II services. While the Missouri Department of Elementary and Secondary Education (MODESE) recognizes the RtI conceptual framework originating at the federal level, no key components have been stipulated at the state level to measure effectiveness of programs, fidelity to the process, or the overall improvement of students (MODESE, 2015b). The conceptual framework adopted by the MODESE encapsulates the vision and implementation of RtI (MODESE, 2015b).

In an effort to ascertain the effectiveness of Tier II reading interventions for primary grade students, the following research questions were utilized in this study:

1. What are the perspectives of IT leaders as to the Tier II interventions that are effective in reaching the greatest majority of primary grade students who are experiencing reading difficulty?

2. According to IT leaders, what is the length of time the Tier II intervention plan is implemented before significant progress toward students' literacy goals is achieved?

3. Which Tier II reading intervention indicates the most significant gain when evaluated through the use of a curriculum-based measurement (CBM) in one elementary school?

4. What are the perspectives of literacy educators regarding student success following Tier II interventions?

Intervention Team leaders from each of the RPDCs in Missouri were randomly selected and interviewed to garner responses regarding specific literacy interventions available and utilized in their districts. The RtI model was analyzed specifically in connection to Title I programming. Additionally, CBM data were collected from one Missouri school prior to and following a Tier II intervention. The average gain indicated by the CBM was then calculated by utilizing a *t*-test to determine the difference of the specific reading intervention (Title I) and the gains made in grade-level reading ability. Finally, surveys were sent to each literacy educator of the schools participating in the interviews. The survey results were analyzed via SurveyMonkey, and the results indicated the perspectives of educators in regard to student success following the intervention.

Analysis of Interview Responses

Interviews were conducted via phone and in person with building-level intervention team leaders from each of the Regional Professional Development Centers in Missouri. The questions asked are synthesized in the following paragraphs. The purpose of the interview questions was to gain greater insight into the perceptions of intervention team leaders relative to Tier II literacy interventions and primary grade students' ability to read at grade level following a designated intervention.

Interview question 1. What type of Tier II reading intervention programs are offered in your school?

The majority of IT leaders interviewed stated the primary Tier II intervention utilized in their schools was Title I reading. Four team leaders shared that in addition to Title I services, students may also receive additional intervention through Reading

Recovery. Two team leaders attributed student literacy success to district-level literacy programs that extend Title I services to a Tier III model or to a supplemental reading program that focuses on one-on-one instruction for students. The instructional delivery model that allows a Title I teacher to push-in to a regular education classroom was also noted by two districts as effective, and offering daily one-on-one RtI instruction within the course of the school day was noted by two additional school districts as an effective instructional model.

Interview question 2. How are reading success and sustainability measures determined toward the effectiveness of the reading programs offered?

The majority of IT leaders interviewed listed three main curriculum-based measurements (CBMs) as progress monitoring tools for prescribed literacy interventions. Those CBMs included the Standardized Testing and Reporting (STAR) Assessment, Developmental Reading Assessment (DRA), and Dynamic Indicators of Basic Early Literacy Skills (DIBELS). One team leader indicated AimsWeb, a web-based assessment used for universal screening, progress monitoring, and data management (Pearson Education, 2015), was utilized frequently to gauge the reading level of students in Title I reading. Another team leader noted the Basic Reading Inventory (BRI), an informal reading progress monitoring tool (Kendall-Hunt, 2015), was also utilized by Title I literacy staff in order to gauge student literacy success.

Interview question 3. What role does differentiated instruction offered in the regular classroom play in your current reading intervention program?

Most of the IT leaders interviewed indicated regular classroom educators are required to have students remain in the regular education classroom for a period of at

least six weeks to receive instruction, whether differentiated or not. Two IT leaders indicated the use of guided reading groups is the only differentiated instruction required of a regular education classroom teacher. Another IT leader stated a teacher must have utilized differentiated instructional strategies prior to a student being referred to an Intervention Team for instructional assistance. One IT leader stated students are allowed to enter the Title I literacy program without having to receive differentiated instruction but must be receiving regular progress monitoring with DIBELS. Two IT leaders stated there are no requirements for classroom educators to utilize differentiated instruction in the regular classroom.

Interview question 4. Does your school follow the RtI recommendations made for 12- to 20-week duration of intervention in order to determine the effectiveness of the prescribed reading intervention? If so, how is the effectiveness determined?

Three of the IT leaders stated their school does not follow the RtI recommendations for duration of intervention services, nor were any other time constraints made mandatory. Two IT leaders indicated six-week duration is required in their schools, while two other IT leaders stated 12 weeks of intervention are required. Another two IT leaders asserted interventions are for duration of no less than 18 weeks. If a student was required to receive 12 or more weeks of intervention services, the effectiveness was determined by weekly progress measurement or quarterly DRA measures.

Interview question 5. If Tier II is unsuccessful, is a modified intervention put in place, or is a Tier III intervention utilized? If so, what Tier III options are available for your students?

The IT leaders' responses to this question were quite varied. Six of the interviewees stated if the Tier II intervention was not successful, then a referral for special education evaluation was very likely. Of those six, one leader asserted the child continues with the intervention in order to compile data for an impending referral. One leader also stated if the student receiving the intervention is a second grader, than most definitely a special education referral is made. Four IT leaders mentioned a Tier III intervention might be considered by the team, and potentially, one-on-one tutoring would be prescribed. One IT leader stated retaining the student might also be a possibility.

Interview question 6. What CBM is utilized by the reading educator or regular classroom teacher?

The main curriculum-based measurement used to progress monitor within the regular education classroom was DIBELS, according to six of the IT leaders interviewed. Additionally, DRAs and STAR tests were used on a monthly or quarterly basis. Generally, the classroom teacher did the weekly and monthly progress monitoring, but on occasion the reading educator was asked to progress monitor throughout the duration of the intervention. When the reading educator administered the progress measurement, the DRA was utilized, according to eight of the IT leaders interviewed. One IT leader included that a computer-based progress monitoring tool, iReady, had begun to be utilized by classroom teachers. The iReady program is online, includes lessons at each student's reading level, and provides diagnostic data to educators (Curriculum Associates, 2015).

Interview question 7. How often is the CBM utilized within the time frame of the reading intervention?

The frequency of progress monitoring throughout the intervention was quite varied within the schools of the IT leaders interviewed. Three IT leaders stated progress measures were recorded at weekly intervals utilizing a grade-level benchmark assessment or running record, and two IT leaders asserted bi-weekly measures were taken as well with the same measurement tools. Monthly progress measures were taken in each of the schools represented by the IT leaders interviewed with a CBM, mainly the DRA or SRI.

Interview question 8. How frequent is the CBM utilized for each individual student who is prescribed a Tier II intervention?

For each student who has a literacy intervention prescribed, generally the frequency of progress monitoring utilizing a DRA or STAR test occurs at the beginning, middle, and end of the intervention, according to most of the IT leaders interviewed. Almost all of the IT leaders stated progress monitoring with a CBM occurs three times during the intervention, with the exception of one school, whose IT leaders asserted CBM progress measurements are taken four times during the intervention.

Interview question 9. How often is progress monitoring data analyzed and reviewed by the building level Intervention Team?

The responses to this question were consistent among the IT leaders interviewed. Nearly every IT leader stated the data are reviewed three times a year, with the exception of two IT leaders who asserted data analysis is done four times during the school year (quarterly). One IT leader did say the data are only reviewed once during the school year, at the end of the fourth quarter.

Curriculum-Based Measurement and Developmental Reading Assessment

Developmental Reading Assessment (DRA) data were collected from one Missouri school before and following the Tier II intervention. The specific Tier II reading intervention occurred within a pull-out Title I program, with measured results of primary grade students served by one literacy educator. The progress monitoring data of students over the course of the Tier II intervention were compared from the beginning of the intervention and at the end of intervention service. A paired sample *t*-test was calculated to compare the mean pre-test score to the mean post-test score. The mean on the pre-test was 11.27 (SD = 4.67), and the mean on the post-test was 21.81 (SD = 6.83). A significant increase from pre-test to post-test was found ($t(10) = 8.138$, $p < .001$).

Survey Results

The perspectives of the literacy educators of each school participating in the interviews were collected through an online survey via SurveyMonkey. The survey questions included items to determine the educators' perception of the student achievement in the area of reading, as well as in other subject areas. Educators were asked to rank the level of confidence (based on a 1-5 scale) gained by students through the intervention. Additionally, educators were asked if the intervention contributed to the students' attitudes toward school. Finally, educators provided what type of CBM the school was utilizing as a pre- and post-intervention progress monitoring tool.

Survey question 1. Has the student shown an increase in achievement in the area of the intervention?

All of the surveyed educators indicated students did demonstrate an increase in achievement in the area of the intervention. Therefore, a result of 100% of the literacy

educators viewed the intervention as effective in increasing achievement in the area of reading. A conclusion was made that Tier II reading interventions did have an effect on achievement, as evidenced by the survey results.

Survey question 2. Does the student use skills and knowledge gained through the intervention in other subject areas?

Figure 1 shows the majority of educators surveyed (91%) perceived students were utilizing the skills and knowledge they had learned during the intervention to aid them in other subject areas. Although there was a small percentage (9%) who indicated students did not utilize learned skills and knowledge in other content areas, the overall percentage indicated students did use the newly learned intervention skills and knowledge to aide them in other subjects. A conclusion was made students did use skills and knowledge gained through the Tier II intervention to aid them in other content areas.

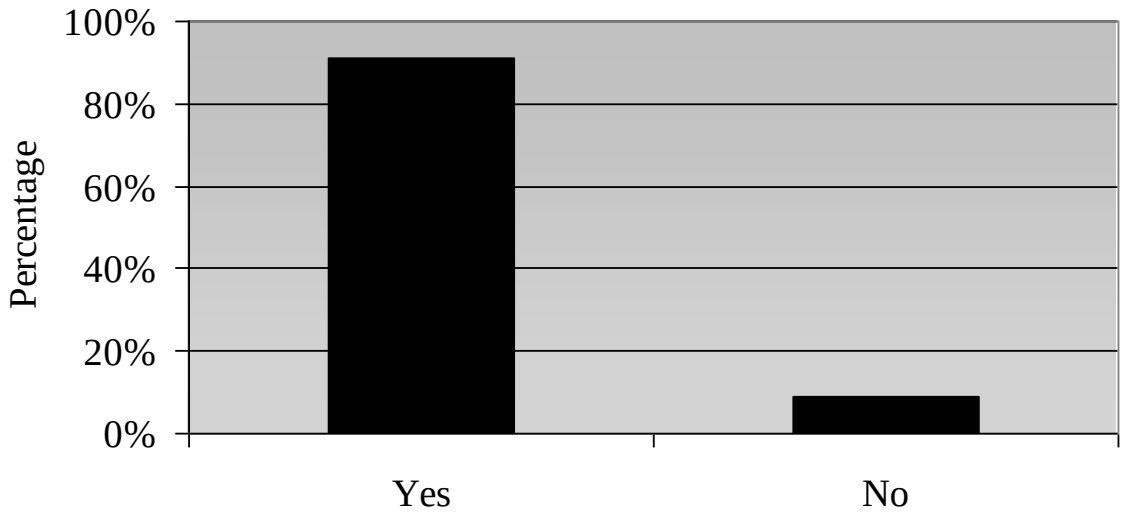

Figure 1. Percentage of educators who determined the students used the intervention skills/knowledge in other subject areas. Percentages indicated 91% utilized the intervention skill in other subject areas, and 9% were not determined as using the intervention skills/knowledge in other subject areas.

Survey question 3. On a scale of 1-5 (5 being the highest), what is the level of confidence gained by the student through the intervention?

On this survey measurement, no educator indicated a score of one, two, or three. The majority of educators responded the level of confidence gained by the student was a four, with the remaining respondents indicating a confidence level of five. The difference in the level of confidence gained by the students through the intervention indicates 27% of the educators surveyed scored the confidence level gained by the students at a level of 5, with 73% of the surveyed educators scoring the confidence level gained at a level of 4. A conclusion was made students did gain confidence through the intervention. Figure 2 indicates these results.

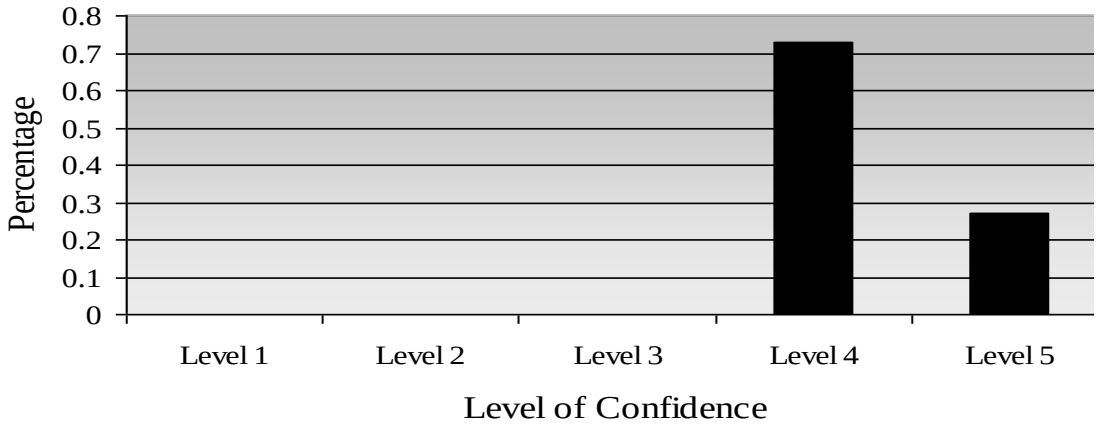

Figure 2. Percentage of the confidence level of students throughout the intervention as determined by the perception of literacy educators. Percentages indicate a score of four (73%) and five (27%).

Survey question 4. Has the success of the intervention contributed to the student's attitude toward school?

All of the surveyed educators indicated the intervention's success contributed to the students' attitudes toward school. Therefore, a result of 100% of the literacy educators viewed the intervention as contributing to the students' attitudes toward school. A conclusion was made that Tier II reading interventions did have an effect on the students' attitude, as evidenced by the survey results.

Survey question 5. What curriculum-based measurement is currently being used by your district to measure student success before, during, and after the Tier II intervention?

The literacy educators were given four choices with which to respond to what CBM was utilized. Those choices included the following: Developmental Reading Assessment (DRA), AimsWeb, DIBELS, or Other. Of the four choices, the responding educators indicated 73% utilized the DRA and 27% utilized DIBELS, as shown in Figure 3. A conclusion was made the majority of schools utilized the DRA as the progress monitoring tool for Tier II reading interventions.

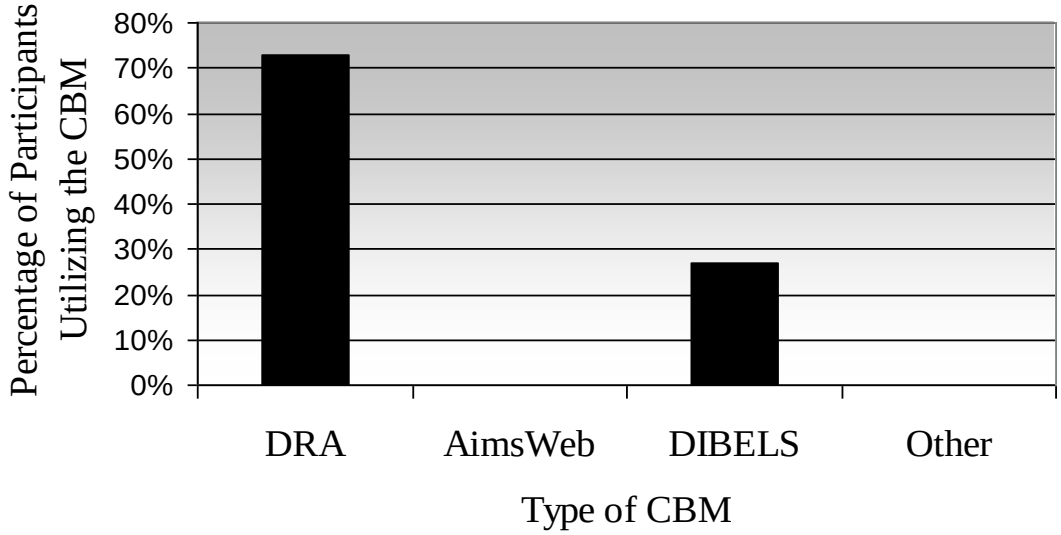

Figure 3. Percentage of participants using a certain Curriculum Based Measurement to measure student success before, during, and after the Tier II intervention. Seventy-three percent utilized the Developmental Reading Assessment, 27% utilized Dynamic Indicators of Basic Early Literacy Skills, and no participants utilized AimsWeb or other progress monitoring tools.

Summary

In conclusion, evidence exists that Tier II reading interventions are effective for primary grade students. This was apparent through the analysis of the data, including the IT leader interview responses, the CBM data collection of the Tier II reading intervention in one Missouri school before and following the intervention, as well as through the literacy educator survey results.

The interviewed IT leaders indicated consistent programming models and CBMs were utilized within their schools, and collectively regular classroom educators were charged with referring students for the intervention service. Differences existed among schools as to the length and requirements of differentiated instruction occurring prior to referral for intervention. The Response to Intervention (RtI) recommendations for

intervention duration were generally shorter than recommended, but there was adherence to progress monitoring requirements.

Most IT leaders indicated referral for special education was considered if the Tier II reading intervention did not show progress through the CBM. The IT leaders indicated DIBELS was the main progress monitoring tool utilized within the regular classroom, and Title I teachers utilized the DRA as the main CBM within the pull-out program model. The frequency of the CBM utilized within the intervention timeframe by the intervention provider was varied with responses indicating weekly, bi-weekly, and monthly progress measurements. Measurement data collection typically occurred three times during the intervention (beginning, middle, and end), as indicated by the IT leaders. The analysis of data by the IT leader consistently occurred three to four times during the school year, according to the interviewees.

The collection of CBM data from one Missouri school indicated a significant difference (increase) from pre-test to post-test as determined by a paired sample *t*-test. The results indicated an increase of 8.138 was found during the duration of the literacy intervention. Through these results, it was concluded Tier II reading interventions are effective for primary grade students.

The literacy educator survey results yielded unanimous agreement students showed an increase in achievement in the area of the intervention, and the intervention contributed to the overall attitude of the students toward school. Additionally, the majority of the respondents indicated the students receiving the intervention utilized the skills and knowledge gained through the intervention in other subject areas. The surveyed educators also scored the confidence level gained by the students at a level 4 or

5 (on a scale of 1-5, with 5 being the highest) through the Tier II intervention period. The literacy educators also indicated the DRA as the most widely utilized CBM amongst the participating districts.

The following chapter summarizes the study in its entirety. Research questions are discussed, as well as the findings of the data analysis. Conclusions are made relative to the outcomes of this study, and hindrances to the study are addressed. Implications for future practice and research are noted, and the addition of future research is considered.

Chapter Five: Summary and Conclusions

The purpose of this study was to provide insight and perspective on the effectiveness of Tier II reading interventions for kindergarten through second-grade students. This study was completed through the analysis of interviews of one Intervention Team (IT) leader from each of the 11 Missouri Regional Professional Development Centers (RPDCs). Additionally, pre- and post-curriculum-based measurement (CBM) intervention data were collected from one Missouri elementary school, and the data were analyzed utilizing a paired sample *t*-test. Finally, literacy educators from the schools the IT leaders served were surveyed in regard to their perceptions to aid in the findings of the study.

The findings relative to this study are discussed in detail in this chapter, and pertinent information brought forth through the completion of this study is addressed. Conclusions drawn from the completion of this study are analyzed, and the implications for future research are identified and discussed.

Findings: Interviews

Interviews were conducted with IT leader relative to Tier II reading interventions, in order to gain insight and perceptions. One IT leader from each of the 11 Missouri RPDCs was randomly selected and interviewed, in order to gain an understanding of their perceptions of RtI, and the models currently present within their own schools and districts. Additionally, the interviews garnered the perception of the IT leaders in regard to how prescribed Tier II interventions effect a students' ability to read at grade level before and after the implementation of the intervention plan.

Consistent throughout the interviews, IT leaders indicated that Title I was the primary program through which prescribing and implementing Tier II reading interventions were received by primary grade students. Some IT leaders indicated that in addition to Title I services, student may also receive additional intervention through the Reading Recovery program. As well, two of the IT leaders attributed student literacy success to literacy programs that extend Title I services to a Tier III model, or by the additional support of supplemental reading programs that focus on individualized instruction for students. Additionally, some IT leaders indicated that Title I programming within their schools were utilizing a push-in model in the regular education classroom, along with offering a separate RtI instructional program daily, in a one-on-one basis within the regular school day.

There was commonality amongst the IT leaders interviewed in the area of CBMs utilized by the participating schools. Three main CBMs for progress monitoring and data collection before, during, and after the prescribed literacy interventions were noted by the IT leaders interviewed. Those CBMs included the Standardized Testing and Reporting (STAR) Assessment, Developmental Reading Assessment (DRA), and Dynamic Indicators of Basic Early Literacy Skills (DIBELS). AimsWeb, a web-based assessment utilized for universal screening and progress monitoring (Pearson, 2015), was utilized by on school, in an effort to create a data management system, and to gauge the reading levels of all children not only throughout an intervention plan, but throughout the entire school year. The Basic Reading Inventory (BRI), an informal reading progress monitoring tool (Kendall-Hunt, 2015) was utilized by another school in their Title I

program in an effort to gauge literacy achievement through the duration of the intervention plan.

The majority of IT leaders interviewed had mixed reactions to the topic of differentiated instruction in the regular classroom prior to a student referral to receive a tiered reading intervention. Most IT leaders interviewed stated that all students receive no less than six weeks of regular, whole class instruction in the regular classroom, prior to receiving a referral for reading interventions, but there were no requirements in place for a child to be afforded differentiation in the regular classroom if he or she begins to experience or demonstrate reading deficits. Only one IT leader indicated that regular classroom educators were required to provide and utilize differentiated instructional methods for students who struggle prior to intervention referral.

Guided reading groups were noted by two of the IT leaders, and they asserted this reading group practice is the only differentiation that is required of the regular classroom teacher, prior to reading intervention referral. Some students were allowed to begin Title I literacy program prior to receiving differentiated instruction, in one school, and as well, these students received regular progress monitoring utilizing DIBELS. In two schools, IT leaders asserted there were no requirements for classroom teachers to use any differentiated instructional techniques in the regular classroom.

The most response inconsistencies were to the interview question involving the length and duration of Tier II interventions and the timeframe each school used to determine if the tiered intervention was effective and successful. Three schools did not follow the RtI recommendations for duration of tiered intervention services, as candidly stated by the IT leaders. Additionally, at these schools there were no local mandates over

time constraints. The IT leaders at the remaining schools, stated that the average duration of intervention services ranged from six to 18 weeks. A student requiring 12 or more weeks of intervention services, received a weekly progress measurement or quarterly DRA measures in order to ascertain effectiveness.

Six of the IT leaders interviewed stated that a referral for special education was likely, if the Tier II intervention was not determined to be effective through progress monitoring measures. Only one IT leader asserted that the student would continue to receive the intervention service in order to gather data for an impending referral. As well, another IT leader stated if a student receiving an intervention was in second grade, then a special education referral would be made. Another IT leader stated that retention might be a possibility for the non-progressing student. Four of the IT leaders mentioned that a Tier II intervention might be considered and developed by the team, and potentially the student might be prescribed an intervention and receive one-on-one instruction

There was more consistency with interview responses in regard to the type of CBM tools used by educators in the participating schools of the interviewed IT leaders. The DIBELS was utilized by the majority of schools, and the DRA and STAR assessments were also utilized. Classroom educators administered the progress monitoring assessment more frequently to the student receiving the intervention, while the literacy educator conducted an analysis of the data gathered from the CBM. In the majority of the participating schools, the literacy educator used the DRA throughout the prescribed intervention.

Progress monitoring occurred at a frequency of weekly, bi-weekly, and monthly throughout the intervention. As well, consistency existed amongst the IT leaders that

progress measures occurred monthly in each school, and the results were analyzed with a CBM, most often using the DRA or SRI. The IT leaders of the school were consistent in analyzing of the progress monitoring data three times per year, for the entirety of students receiving Tier II reading interventions.

The use of Title I reading class as a Tier II reading intervention for primary grade students was one commonality amongst the participating schools. Varied responses were received in regard to the program models participating schools utilized to address the Tier II intervention. Most schools were consistent with the RtI model for a Tier II intervention by providing a pull-out model of instruction, delivered in small groups. As well, the IT leaders indicated that educators utilized CBMs to collect data, and progress measuring tools to gauge student success before, during, and after the tiered intervention, and similar CBMs were consistently utilized by participating schools.

Findings: Curriculum-Based Measurement and Developmental Reading Assessment

Developmental Reading Assessment data were collected from one Missouri school before and following a Tier II intervention. The specific Tier II reading intervention occurred within a pull-out Title I program, and measured results of primary grade students were served by one literacy educator. The progress monitoring data of students over the course of the Tier II intervention were compared from the beginning of the intervention and at the end of the intervention service. A paired sample *t*-test was calculated to compare the mean pretest score to the mean posttest score. The mean on the pretest was 11.27 (SD = 4.67) and the mean on the posttest was 21.81 (SD = 6.83). A significant difference (increase) from pretest to posttest was found ($t(10) = 8.138$, $p < .001$). For future consideration, collecting data from students who did not receive a Tier

II reading intervention, but remained in the regular classroom to receive reading instruction might be helpful in order to make a comparison in order to ascertain the effectiveness of the intervention.

Findings: Surveys

Literacy educators were surveyed online via SurveyMonkey from each school represented by the IT leader who had been interviewed. The survey was conducted to garner perceptions of the literacy educators in regard to the effectiveness of the tiered reading interventions, the ability of the student to use the interventions skills and knowledge in other content areas, and the level of confidence and increased positive attitude toward school gained by the student due to receiving the intervention. Additionally, the educators were surveyed as to the type of CBM used during the course of the reading intervention.

Through the surveys, the perception that the Tier II reading intervention had a positive impact on student achievement in reading, as well as in other content areas was apparent in all of the participating schools. Additionally, students utilized skills and knowledge in other content areas that were learned during the intervention, and demonstrated an increase in confidence, as well as displayed a more positive attitude toward school. The survey also showed that the most widely used CBM amongst the literacy educators surveyed was the DRA.

Research Questions

RQ1. What are the perspectives of Intervention Team (IT) leaders as to the Tier II interventions that are effective in reaching the greatest majority of primary grade students who are experiencing reading difficulty?

Based on the results of the interviews, conclusively, most IT leaders utilized Title I as the program through which to implement tiered reading instruction. The responses of the interviewees indicated all of the participating schools used the Title I program as a means to implement Tier II reading instruction, and most of the schools utilized a pull-out model, where the student is working within a small group to aid in targeting skills during a prescribed intervention. A few of the IT leaders mentioned utilizing Reading Recovery as a tiered reading intervention, but the Reading Recovery model is designed as a Tier III intervention and thus cannot be considered as a viable Tier II intervention option. The use of differentiated instruction in the regular classroom prior to an intervention referral was minimal amongst the participating districts.

RQ2. According to IT leaders, what is the length of time the Tier II intervention plan is implemented before significant progress toward the students' literacy goals are achieved?

It was somewhat difficult to ascertain a specific length of implementation time for the intervention due to the varied responses given by the IT leaders during the interview. Responses ranged from six to 12 to no less than 18 weeks of tiered intervention received before evidence of success was determined. Consequently, all of the interviewed IT leaders stated it was important to progress monitor throughout the intervention to ascertain if a Tier III intervention should be considered, or a possible referral into special education.

RQ3. Which Tier II reading intervention indicates the most significant gain when evaluated through the use of a curriculum-based measurement (CBM) in one elementary school?

Based on the analysis of the Developmental Reading Assessment data collected from one Missouri school before and following the Tier II intervention, there was a significant increase from pre-test to post-test scores. A paired sample *t*-test was calculated to compare the mean pre-test score to the mean post-test score. The mean on the pre-test was 11.27 (*SD* = 4.67), and the mean on the post-test was 21.81 (*SD* = 6.83). A significant increase from pre-test to post-test was found ($t(10) = 8.138$, $p < .001$).

The specific Tier II reading intervention occurred within a pull-out Title I program, and results were measured of primary grade students served by one literacy educator. The progress monitoring data of students over the course of the Tier II intervention were compared from the beginning of the intervention and once again at the end of the intervention.

RQ4. What are the perspectives of literacy educators regarding student success following Tier II interventions?

Based on the responses of the literacy educators surveyed, conclusions were drawn that supported the Tier II reading intervention had a positive impact on student achievement in reading, as well as in other content areas. Literacy educators also attributed an increase in confidence on the part of the student due to the tiered intervention and responded students utilized the intervention skills and knowledge in other content areas.

Conclusions

The data analysis and information retrieved from the completion of this study revealed Tier II reading interventions, specifically those received through pull-out Title I literacy programs, are effective for primary grade students. This was identified by

utilizing the responses garnered from the interviews of the IT leaders from 11 school districts in Missouri, and through data analysis of the CBMs from one elementary school. Additionally, IT leaders are varied in their adherence to the framework of the RtI model as set forth by both the Missouri Department of Elementary and Secondary Education and through federal mandates.

There was also support for Tier II reading interventions for primary grade students amongst the surveyed literacy educators who participated in the study. The analysis of responses within the survey indicated when students received tiered reading interventions, it not only academically aided the area of reading achievement, but had positive impact on other content areas. Additionally, literacy educators perceived students who received the tiered reading intervention demonstrated an increase in their level of confidence, and these students had an improved attitude toward school.

Also within the scope of the literacy survey data was the designation of reliable and valid CBMs used consistently among educators across the state. The interview and survey results both cited the DRA as the progress monitoring tool most widely utilized in the participating schools for this study.

Implications for Practice

Research. One issue raised through the research process was the fact few studies have been conducted to ascertain which reading interventions have been most effective when adhering to the RtI model set forth by educational entities at both the state and federal levels. Other than Title I, most school districts do not offer any additional programming options that have students receiving prescribed services for literacy skill attainment, other than Reading Recovery. As well, the RtI model needs to be analyzed at

the state level to determine if the process has shown a decrease in special education referrals, and if early intervention has shown a decline in the number of students unable to attain grade-level reading ability at the end of the second grade.

The concept of RtI was driven by the reauthorization of IDEA in 2004, and as of yet, Missouri has not mandated trainings for regular classroom educators who are at the forefront of intervention instruction. Special education teachers and leaders have been made abreast of the stipulations associated with qualifying a child through the RtI process, but few classroom teachers understand the need for quality interventions in the regular classroom and the paramount importance of differentiated instruction. Many building-level administrators consider RtI to be a topic discussed in special education forums and fail to understand the importance of the regular classroom teacher in the process or the shared ownership all stakeholders should feel.

Awareness. One commonality among the school leaders interviewed was the sentiment more could be done to meet students at their reading instructional level when they enter the classroom. Requiring teachers to receive professional development in differentiated instruction is a starting point for change. It is a difficult conundrum faced by school leaders today to change veteran, sage educators.

If the state required teachers to renew training in an effort to be more accepting of educational mandates and programs, it would provide a foundation for all educators to adapt and grow as professionals, instead of viewing differentiation as another "buzz word" that will run its course in the educational gamut. The number of mandated changes in the last two decades have overwhelmed educators with underwhelming results. The idea of differentiation is more favorably looked upon by newer educational

graduates due to changes in teacher training programs and offerings. It would behoove the Missouri Department of Elementary and Secondary Education to get veteran educators on board with the concept and practices of instructional differentiation for the benefit of all students.

Implementation. To correctly and fully implement effective Tier II reading interventions under the auspices of the RtI model, one must seek to overcome hurdles such as budgetary constraints, stakeholder buy-in, and parental/educator support. When reflecting on district funding over the past decade, one would be challenged to find a public school district in Missouri that is bragging about excessive money at its disposal. In order for any change, mandated or otherwise, to be successful, there must be resources available for all stakeholders.

Teachers need to be able to receive professional development and visit schools that are successfully managing an effective intervention program. Parents need to understand the process as well and understand their role in helping their child be successful. Additionally, educators need to feel supported in their roles as classroom interventionists and should feel open to talking to their co-teachers and administrators for professional support. Most importantly, a positive climate within the school culture needs to be adopted in order to demonstrate to students teachers believe in them and their ability to achieve.

Recommendations for Future Research

As RtI continues to develop and grow in the state of Missouri, further research is needed as educators adapt to changing learning and teaching standards. With the implementation of the Missouri Learning Standards, research is critical to ensure the

intervention process offers support to both the students and the educators. Currently, districts in the state are facing a quagmire trying to figure out what the next state assessment will look like and in what form of testing mechanism the assessment will be delivered. It would seem public education is in a state of flux nationwide with more questions than answers. Questions revolving around curriculum, the role technology will play in assessment, and the need for quality professional development to encourage professional growth among educators who have seen one or more decades in the profession are just a few of the important unanswered queries effective educators have been asking themselves in the past year. Research could include how schools that are implementing reading interventions are having to alter their designs in an effort to meet the new state standards in an era of educational flux.

Additionally, more widespread surveying of Missouri educators could occur, garnering unanswered questions in regard to effective interventions at all grade levels and how to incorporate interventions in a regular education classroom, rather than through a pull-out model. Administrators could be surveyed as to what impact the new learning standards and assessment have on classroom interventions and differentiated instruction.

Finally, creating user-friendly tools to delineate essential interventions in all subject areas could be created and utilized to provide a basis for a study of effective cross-curricular interventions. Currently, the DRA is widely used as a progress monitoring CBM in the area of literacy. In order to effectively utilize the DRA and to uphold fidelity to the design, one must be trained in consistent assessment procedures. Other commercially produced programs are available, but cost can be prohibitive for some districts. With a universal screening being required as a model component of RtI, it

would seem practical to provide universal documentation for all educators to utilize. In addition, universal documentation would provide a common measurement from which to retrieve data and would allow researchers access to more pertinent data respective to Missouri public school students.

Summary

The purpose of this study was to provide insight and perspective into the effectiveness of Tier II reading interventions for kindergarten through second-grade students. The study revealed Intervention Team (IT) leaders in 11 school districts in the Missouri deemed Title I reading as the most widely used tiered reading intervention. Additionally, data from one elementary school in Missouri showed a significant increase from pre-test to post-test scores on a paired sample *t*-test for students receiving Tier II reading intervention in a pull-out Title I classroom. Surveyed literacy educators agreed Tier II reading interventions have positive effects in helping students gain confidence and have improved attitudes toward school. The majority of students utilize skills and knowledge learned from the intervention in other subjects and content areas.

As previously stated, the IT leaders indicated adherence to RtI model components is lacking, but all of the participating districts subscribed to utilizing a research-based CBM. The data indicated by the literacy educators through the survey consistently supported the use of the same widely accepted CBM utilized by the majority of schools, which was the DRA.

The research on the field of RtI continues to grow and is ever-changing as the instructional needs for students continue to be revised and revamped to meet new assessment requirements under the Common Core State Standards and assessments. It is

evident more research needs to be done in regard to tiered interventions at all grade levels and in various content areas. Utilizing this information could garner benefits for educators and school districts, as well as students. Additionally, implementation of any intervention program requires all stakeholders be required to give due diligence to ensure the program is successful and results in student success. Considering the needs RtI poses for proper teacher training and professional development, local districts should discuss how to spend funds wisely in order to garner the best academic experiences for students.

This research study involved analysis of effective Tier II reading interventions in Missouri elementary schools and the garnering of literacy educator perceptions in regard to intervention programming. Educators need to continue their efforts to bring about desired results through properly prescribed and implemented interventions. As RtI becomes more commonly accepted in school districts, awareness will increase for necessary interventions throughout grade levels and content areas.

For school districts seeking to promote positive student growth, skill attainment, and high achievement, continued professional development and training in the area of differentiated instruction, research-based interventions, and RtI is essential. Educators must recognize they no longer exist and instruct in a one-size-fits-all educational system. Diverse and varied instruction, along with diverse and varied methods, will be necessary to create an educational legacy that will not only sustain the culture, but will provide an avenue to exceed current educational limits.

Appendix A

Letter of Participation

<Intervention Team Leader Interview>

<Date>

<Title> <First Name> <Late Name>
<Position>
<School District>
<Address>

Dear <Title> <First Name> <Last Name>,

Thank you for participating in my research study, *A Study of Effective Tier II Reading Interventions for Primary Grade Students.* I look forward to meeting with you on <date> <time> to gather your perceptions and insights into the effective reading interventions that are being utilized with primary grade students in your school. I have allotted one hour to conduct the interview. Additionally, I would like to collect Progress Monitoring Reports / Information to allow for a more comprehensive understanding of the effectiveness of your tiered interventions, specifically Tier II services.

Enclosed are the interview questions to allow time for reflection before our interview. I have also enclosed the Informed Consent Form for your review and signature. If you agree to participate in the study, please sign the consent form.

Your participation in this research study is voluntary and you may withdraw at any time. Confidentiality is assured. If you have questions, please call (417-[redacted]) or send an e-mail ([redacted]). Once this study has been completed, the results will be available to you via an educational blog maintained by the primary investigator.

Sincerely,

Sheila Cox-Hines
Doctoral Candidate
Lindenwood University

Appendix B

E-mail Recruitment

<Literacy Educator – Survey>

Dear <Title> <First Name> <Last Name>,

This is an invitation for ___<Name of Group/Sample>___ to participate in a survey for a research study entitled, *A Study of Effective Tier II Reading Interventions for Primary Grade Students.* I am completing this study in partial fulfillment of the requirements for a doctorate in Educational Leadership through Lindenwood University. Below you will find a letter of consent and what would be required of you to participate in the survey. Results of this survey will be available via the educational blog located at www.sheilacoxhines.blogspot.com.

Sheila Cox-Hines

Doctoral Candidate

Lindenwood University

Appendix C

Lindenwood University

School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

<Intervention Team Leader – Interview>

Informed Consent for Participation in Research Activities

"A Study of Effective Tier II Reading Interventions for Primary Grade Students"

Principal Investigator Sheila Cox-Hines
Telephone: [redacted] E-mail: slc263@lionmail.lindenwood.edu

Participant_____Contact Info _____

1. You are invited to participate in a research study conducted by Sheila Cox-Hines under the guidance of Dr. Sherry DeVore. The purpose of this research is to analyze the effectiveness of Tier II reading interventions as detailed in the Response to Intervention model.

2. The purpose of the interview is to obtain information about Tier II reading interventions that are being utilized by Missouri Public School Teachers for primary grade reading students (Kindergarten through Second Grade).

A total of eleven (11) Intervention Team leaders, from eleven different school districts in Missouri, will be invited to participate in the interview.

a) Your participation will involve:

- ➢ Verbally answering open-ended questions in a face-to-face interview to obtain your opinion regarding effective Tier II Reading interventions.

b) The amount of time involved in your participation will be approximately 60 minutes. The face-to-face interview will be video-taped.

***I give my permission for the interview to be video-taped (participant's initials ___).**

3. There are no anticipated risks associated with this research.

4. There are no direct benefits for your participating in this study. However, your participation will contribute to the knowledge about Tier II Intervention Services and may help school districts, elementary schools, and educators of primary grade students [Kindergarten through Second Grade].

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Sheila Cox-Hines ([redacted]) or Faculty Advisor, Dr. Sherry DeVore (417-881-0009). You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

I have read this consent form and have been given the opportunity to ask questions. I will also be given a copy of this consent form for my records. I consent to my participation in the research described above.

_____	_____	_____
Participant's Signature	Date	Participant's Printed Name
_____	_____	_____
Signature of Principal Investigator	Date	Investigator Printed Name

Appendix D

Lindenwood University

School of Education
209 S. Kingshighway
St. Charles, Missouri 63301

<Literacy Educator - Survey>

Informed Consent for Participation in Research Activities

"A Study of Effective Tier II Reading Interventions for Primary Grade Students"

Principal Investigator Sheila Cox-Hines
Telephone: [redacted] E-mail: slc263@lionmail.lindenwood.edu

Participant_____Contact Info _____

1. You are invited to participate in a research study conducted by Sheila Cox-Hines under the guidance of Dr. Sherry DeVore. The purpose of this research is to analyze the effectiveness of Tier II reading interventions as detailed in the Response to Intervention model.

2. The purpose of the survey is to obtain information regarding student academic success following goal-based Tier II reading interventions that are being utilized by Missouri Public School Teachers for primary grade reading students (Kindergarten through Second Grade).

Three (3) educators from 11 different school districts in Missouri will be invited to participate in the survey, for a total of thirty three (33).

a) Your participation will involve:

- ➢ Completing a brief survey through the website Survey Monkey.com concerning effective Tier II reading interventions and how the intervention contributes to student success.

b) The amount of time involved in your participation will be approximately 10 minutes.

3. There are no anticipated risks associated with this research.

4. There are no direct benefits for your participating in this study. However, your participation will contribute to the knowledge about Tier II Intervention Services and may help school districts, elementary schools, and educators of primary grade students [Kindergarten through Second Grade].

5. Your participation is voluntary and you may choose not to participate in this research study or to withdraw your consent at any time. You may choose not to answer any questions that you do not want to answer. You will NOT be penalized in any way should you choose not to participate or to withdraw.

6. We will do everything we can to protect your privacy. As part of this effort, your identity will not be revealed in any publication or presentation that may result from this study and the information collected will remain in the possession of the investigator in a safe location.

7. If you have any questions or concerns regarding this study, or if any problems arise, you may call the Investigator, Sheila Cox-Hines ([redacted]) or her Faculty Advisor, Dr. Sherry DeVore (417-881-0009). You may also ask questions of or state concerns regarding your participation to the Lindenwood Institutional Review Board (IRB) through contacting Dr. Jann Weitzel, Vice President for Academic Affairs at 636-949-4846.

By completing the survey, you consent to participate in the study.

Thank you for your time,

Sheila Cox-Hines _____

Doctoral Student Date

Lindenwood University

Appendix E

Interview Questions

1. What type of Tier II reading intervention programs are offered in your school?

2. How are reading success and sustainability measures determined toward the effectiveness of the reading programs offered?

3. What role does differentiated instruction offered in the regular classroom play in your current reading intervention program?

4. Does your school follow the RtI recommendations made for 12 to 20 week duration of intervention in order to determine the effectiveness of the prescribed reading intervention? If so, how is the effectiveness determined?

5. If Tier II is unsuccessful, is a modified intervention put in place, or is a Tier III intervention utilized? If so, what Tier III options are available for your students?

6. What CBM is utilized by the reading educator or regular classroom teacher?

7. How often is the CBM utilized within the timeframe of the reading intervention?

8. How frequent is the CBM utilized for each individual student who is prescribed a Tier II intervention?

9. How often is progress monitoring data analyzed and reviewed by the building level Intervention Team?

Appendix F

Literacy Educator Survey

1. Has the student shown an increase in achievement in the area of the intervention?

    □ Yes
    □ No

2. Does the student use skills and knowledge gained through the intervention in other subject areas?

    □ Yes
    □ No

3. On a scale of 1-5 (5 being the highest), what is the level of confidence gained by the student through the intervention?
    □ 1
    □ 2
    □ 3
    □ 4
    □ 5

4. Has the success of the intervention contributed to the student's attitude toward school?

    □ Yes
    □ No

5. What Curriculum Based Measurement is currently being used by your district to measure student success before, during, and after the Tier II intervention?

    □ Development Reading Assessment (DRA)
    □ AimsWeb
    □ DIBELS
    □ Other

Appendix G

Lindenwood University
Institutional Review Board Disposition Report

To: Sheila Cox-Hines
CC: Dr. Sherry DeVore
IRB Project Number 12-37
Title: A Study of the Relationship Between Student Achievement and Tier II Reading Interventions

The IRB has reviewed your clarification points on your application for research, and it has been approved.

Thank you.

Dana Klar

Dana Klar 2/3/12
Institutional Review Board Chair Date

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Vita

Sheila Cox-Hines was born in Los Angeles, California, but moved as a young child to a small, mid-western town in southwest Missouri. She is a passionate educator and administrator and serves as an elementary principal in a small, rural school. This research study was prompted by her desire to learn more about the Response to Intervention model and the benefits it could have for students in her local district.

Sheila received her Bachelor of Science in Education in 1991 from Missouri State University (formerly Southwest Missouri State University). She served as a kindergarten and second grade teacher for 11 years. She received her Masters Degree in Educational Administration from Missouri State University in 1998. In 2003, Sheila accepted a position as an elementary principal and has served in that role for the last 13 years.

Her future goals are to become a published author, writing books and articles specific to leadership and functional versus dysfunctional organizations. As well, she hopes to teach at a local university training new educators and helping fulfill their dreams of becoming quality educational leaders. Currently, she is working to implement one-to-one technology within her district and is revising curriculum to fulfill the mandates of the Common Core and Missouri Learning Standards. Sheila hopes to continue to touch the lives and hearts of students and teachers in all aspects of the educational process.