Fall 10-2009

The Effects of Early Reading Interventions On Student Reading Levels and Achievement

Theresa F. Arnold
Lindenwood University

The Effects of Early Reading Interventions

On Student Reading Levels and Achievement

by

Theresa F. Arnold
October 2009

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

Doctor of Education

School of Education

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 here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Theresa F. Arnold

Signature: Theresa F. Arnold Date: 9-14, 2009

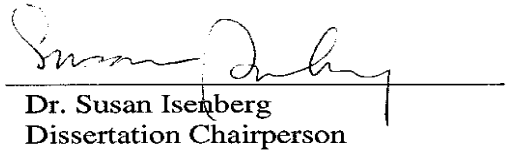
The Effects of Early Reading Interventions

On Student Reading Levels and Achievement

by

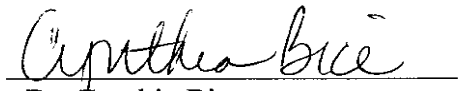
Theresa F. Arnold

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



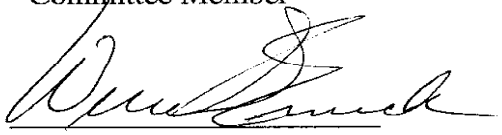
9-14-09

Dr. Susan Isenberg
Dissertation Chairperson — Date



9-14-09

Dr. Cynthia Bice
Committee Member — Date



9-14-09

Dr. Bill Emrick
Committee Member — Date

Acknowledgements

I want to express my sincere thanks and appreciation to all those who assisted me with the completion of this project. I wish to acknowledge my committee members and Dr. Cindy Vitale, my advisor and chairperson, for her inspiring leadership and counsel. I would like to thank Dr. Susan Isenberg for taking the time to edit and proofread my paper and for her guidance, support and encouragement throughout the completion of this paper. Thanks to Dr. Cynthia Bice who provided the leadership, motivation and understanding that I needed to complete this project. My sincere appreciation also goes to Dr. Bill Emrick for helping me to work around the obstacles and for his personal time meeting with me and providing me with guidance and feedback. In addition, I want to express my deepest thanks and gratitude to my peer committee members Shirley Washington-Cobbs and Janice Wiley for agreeing to be on my committee, for their support and for the vital role they each played in the successful completion of this project. Thanks also to Dr. Sherrie Wisdom for her expert advice and encouragement that enabled me to accurately define my data analysis. Further acknowledgement goes to the late Dr. Larry Matthews for his willingness to serve on my committee and spending time meeting with me to work on compiling data for my Methodology and Data Analysis chapters; I do not know how I would have completed the project without his help.

I also need to extend a huge thanks to my family, friends, and colleagues whose inspiration and support made this undertaking possible, and to my husband Eric Farrar who without his encouragement and dedication I would not have made it to where I am. Further thanks goes to my daughter, Joy Arnold, who inspired me to go higher and who provides me with encouragement during the difficult times. My sister Patricia Rowan has

been my greatest motivator; she and I have learned a lot together and I love and appreciate her very much. Most of all, I thank God, who brought me through this venture. Through faith in God, all things are possible. Finally, this dissertation is dedicated with much love to my mother, the late Elsie M. Toles, who taught me that you can be anything you want to be in life if you are willing to put in the dedication and hard work to be successful.

Abstract

The purpose of this study was to investigate the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure. Studies have indicated that educators become very concerned when the number of elementary students who struggle with reading increase. It is difficult for students to reach grade level reading expectation when they have a poor start at learning to read. The gap between these children and children who read well widens as they progress through the grade levels.

The research questions included 1) What gains are seen in reading abilities for children who are at-risk for reading failure and who receive intensive levels of reading interventions as defined by a scientifically based reading program? and 2) What changes, if any, could occur as a result of parents and educators gaining a better understanding of how children learn to read? In this mixed-methods study, the researcher conducted interviews and analyzed reading scores of students from two schools to determine the impact of reading interventions for children identified as at-risk for reading failure. School A was a Reading First School. Reading First is a program launched as a result of the No Child Left Behind Act of 2000. This program emphasized the implementation of scientifically based reading instruction for children at-risk for reading failure. School B was not a Reading First School, and it had no scientifically based early reading intervention program in place.

The two Schools (School A and B) were compared using year-end reading achievement scores. Findings from the comparison of the mean scores from quantitative and qualitative data revealed that there was no significant difference between the School

A and B reading achievement test scores. The variables that may have affected student test scores were teacher qualifications and motivation. As a result of the findings, parents and educators may be better prepared to help students with reading difficulties through a new understanding that these children need extra support—the kind of support that only a highly qualified teacher can provide.

Table of Contents

List of Tables Page

List of Figures Page

Chapter One – Introduction

Background of Study

In an age of high standards, standardized state tests and teacher and school accountability, the focus on student reading and other academic test scores has increased. Since the passage of No Child Left Behind in 2001, reading and math scores have been used to measure academic achievement. Although there are many programs designed to improve student reading and math skills, reading is still a challenge for many children (Allington & Walmsley, 1995). Unfortunately, teachers are not always able to provide the necessary support to specifically address the reading difficulties of various students. Traditionally, teachers relied on curriculum and assessments that they created themselves to help the struggling reader. As the focus on education increased, standards-based reform efforts prompted teachers and administrators to follow state expectation benchmark assessments (Hosp & Hosp, 2003).

According to Knight (2008), upwards of 40% of children do not read at grade level. Torgesen and Burgess (1998) suggested that children who struggle to read often have difficulties in phonemic awareness. Phonemic awareness refers to hearing and decoding spoken sounds. Torgensen (2001) pointed out that those children who are attuned to listening to the different sounds that form words have a better chance of learning to read and write.

Flippo (2001) explained that it is the goal of every classroom teacher to ensure that all students develop effective reading skills. However, Flippo determined that many teachers find themselves searching for ways to help struggling readers. The author further implied that by providing quality instructions to children who lack proficient reading and

writing skills is essential, if they are to develop effective literacy skills. Flippo (2001) and Ziolkowska (2007) pointed out that the sooner educators provide support to the struggling readers the more it increases their chance for reading success.

According to Pikulski (1994), providing effective instructions to children who struggle with reading is essential during the early years. Pikulski stressed that if early interventions are incorporated into the regular classroom instructions, the two would balance each other. This is an indication that reading success is greater when intervention is provided on a regular basics and with a high level of commitment (Florida Center for Reading Research ([FCRR], 2007). Torgesen (2006) from the Florida Center for Reading Research (FCRR) stated "that the very best intervention programs are only as good as the level of their implementation with students" (p. 6). Research conducted by FCRR stressed that studies have repeatedly demonstrated the importance of implementing early instruction that include the five critical components of reading: Phonological Awareness, Phonics, Fluency, Vocabulary, and Comprehension.

To be most effective, the five critical components need to be taught explicitly within classrooms that are powerfully positive and engaging, use writing activities to support literacy, and provide students with as many opportunities as possible to read interesting text and complete challenging reading and writing assignments (FCRR, 2007). According to Taylor, Short, Shearer and Frye (1995), the Early Intervention in Reading (EIR) program, developed by Barbara Taylor of the University of Minnesota, provided an option to the practice where regular school staff would pull students needing remedial reading out of class, and instead encouraged first-grade classroom teachers to use supplemental instructions. Taylor et al. maintained that the program has been evaluated in

numerous places, and it has been confirmed that teachers can effectively support the struggling readers. Taylor et al. (1995) stated that “the purpose of EIR is to accelerate the learning of the lowest achieving readers by providing them with twenty minutes of daily supplemental reading instruction by the classroom teacher, in addition to the regular heterogeneous classroom reading lessons" (p. 160).

When focus for instruction is given to phonemic awareness, phonics, word recognition and writing, to a small group of students, on a daily basis, children develop better reading skills. These students also strengthen their ability to read aloud while concentrating on story context (Taylor et al., 1995). Taylor et al. further implied that reading skills are strengthened when reading selections are short so that children can read the entire story and children have the opportunity to retell the story while focusing on pictures in the books. Retellings of stories, according to Taylor et al. should be divided into four categories according to their length; this allows children to progress through the reading materials during the school year. When this occurs, it enhances the possibility that by late February or early March, children will be reading independently and working more effectively together in pairs.

Other benefits of EIR include the overall intensity of the intervention. It offers schools a different approach to teaching reading to first graders and it could initial an adjustment to the way reading instructions are implemented to early readers (Taylor et al., 1995). Furthermore, this program has a combination of benefits. It is an effective intervention program for the struggling readers because it has enhanced the opportunity for struggling readers to get off to a better start. Teachers, who have implemented the program, also approve of it. Moreover, it is not costly and painless to use (Taylor et al.).

Torgesen (2006) found that effective reading programs have systems in place to identify the students at-risk for reading failure. These systems allow educators to implement interventions designed to enhance specify reading skills. As a result, by the time these students reach third grade many are reading on grade level. Torgesen suggested that classroom instructions should be designed to improve reading skills for students, but the adoption of a high quality intensive reading intervention program will reinforce reading success for all students. Torgesen further maintained that an effective school-level intervention system has several essential elements.

Torgesen (2006) implied that these elements consist of (a) a system that makes it possible for teachers to identify those students who are struggling with reading and who need rigorous interventions; (b) a school culture that is motivated and experienced in implementing a monitoring system such as Dynamic Indicators of Basic Early Literacy (DIBELS), which is a reliable scientifically based monitoring system designed to help teachers monitor the effectiveness of the interventions and their instructions; (c) regular grade level meetings that encourage teachers to analyze data and make adjustment when needed; (d) adequate staff to implement effective interventions that consist of uninterrupted small group instructions; (e) adequate materials that are consistent with scientifically based research in reading and support; and (f) training for staff needing additional help with understanding the process of the intervention program.

According to Torgesen (2006), these elements seem critical for early reading intervention. How children are taught to read will determine their success. Students at risk for reading failure will profit if they are taught with the appropriate reading

intervention program. Children who are taught with inappropriate and ineffective reading intervention programs will fall further behind (Shapiro, 2008).

Problem Statement

Studies conducted by the U.S. Department of Health & Human Services (2000) revealed that functional illiteracy is one of the most significant problems facing any society. U.S. Department of Health & Human Services also revealed that youth between the ages of 16-21, who experience the inability to function appropriately because of illiterate, account for approximately 50% of the nation's unemployed youth, with limited possibility for obtaining employment. According to Daane, Campbell, Grigg, Goodman, and Oranje (2005), a report conducted by the National Assessment of Educational Progress (NAEP) in 2003 showed that 37% of fourth graders and 26% of eighth graders cannot read at the basic level (p. 22); and the authors also maintained that the NAEP, 2002 report showed that 26% of twelfth graders could not read at the basic level (p. 11). "These statistics indicated that when students are reading grade appropriate text they cannot extract the general meaning or make obvious connections between the text and their own experiences or make simple inferences from the text" (NAEP, 2002, p. 1). In other words, as maintained by Daane et al. (2005) children in this category cannot comprehend what they have read.

Too many children struggle with learning to read. Armbruster Lehr, and Osborn (2001) indicated, many teachers and parents confirm that struggling readers face long-term consequences. Their poor reading skills can have a lasting effect on self-confidence and the drive to learn. When students experience poor literacy skills in elementary school, it creates a vicious circle that expands as they go from one grade level to the next,

promoting academic failure that reaches it deepest point at the middle or high school level. Struggling readers faces long-term consequences. Their poor reading skills can have a lasting effect on self-confidence and the drive to learn. An alarming number of eighth graders lack the ability to read fluently, and approximately 70% are poor readers (Armbruster, et al., 2002). Educators must re-evaluate the way children are taught to read. The conventional ways of tracking a students' performance is no longer effective, and grade retention has shown to have minimum effect. (Shepard & Smith, 1989; McGill-Franzen & Allington, 1993).

Snow, Burns and Griffin (1998) stressed that reading is essential to success in society. According to Snow et al., being able to read is a quality that is treasured in most socialites, as it greatly contributes to financial success. They further claimed that the decline in the levels of literacy skills was created when the demand to enhance literacy skills became an issue rather than from declining reading levels. Snow et al. also argued that because of the continuous expansion in technology more emphasis is placed on literacy improvement, creating an excessive hardship for those who are unable to maintain at the expected levels.

The public has heard little about research on effective reading interventions for children who struggle with reading. Allington and Walmsley (1995) suggested that the gap between those who are proficient readers and those who are struggling readers continues to expand throughout each grade level. Documentation illustrates that poor reading skills creates a dilemma (Harris & Sipay, 1990). Vaughan (2007) emphasized that evidence shows that knowledge and the psychological or cognitive process is linked to reading disabilities.

Clark and Akerman (2008) argued that pupils receiving free school meals (used in the study as an indicator of low socio-economic status) consistently experience barriers, both self-imposed and external, which influence their reading. These include the following:

- attitudes towards reading – pupils held generally negative attitudes towards reading;
- reading enjoyment – pupils, especially boys stated that they do not enjoy reading at all and never or almost never read outside school;
- reading confidence – pupils were less confident readers than their peers;
- access to educational materials (books, computers, magazines) – pupils had more limited access to educational materials and had fewer books at home than their peers; and
- parental influence – pupils reported that their parents read at home less and received less encouragement to read, especially from their fathers. (¶ 3)

Goldenberg (1994); Hiebert & Taylor (1994); and Reynolds (1991), pointed out that there is a increasing "body of evidence that suggests that reading problems are preventable for the vast majority of students who encounter difficulty in learning to read, if these students receive extra support in the form of an early intervention program" (as cited in Pikulski, 1994, p. 1). To investigate this theory, this study examined the direct correlations between early reading intervention programs and student achievement, as demonstrated by standardized test score performance, for students entering the third grade.

Purpose of the Study

The general purpose of this study was to investigate whether students identified as at-risk for reading failure in kindergarten through third grade, who receive increasing levels of interventions in reading, will have a higher level of achievement than those students who receive limited interventions. Increasing levels of reading interventions are extensive interventions designed for students who are at risk for reading problems. Many *Response to Intervention* models are used to help educators understand the duration of intensity of providing research-based interventions to students with learning disabilities or at-risk readers (Scammaca, Vaughn, Roberts, Wanzek, & Torgesen, 2007).

According to Scammaca et al. (2007), Response to Interventions (RTI) is a different approach to identifying students in need of special education and is based on new innovative research. Scammaca et al. further concluded that commonly used terms that refer to reading instructions are sometimes misunderstood with the objective for RTI. For instances, educators and psychologists often mistake RTI as a model for teaching students with learning disabilities. The authors also claimed that there is no clear description for individualize implementation of interventions for students. However, the author emphasized that if teachers and school leaders are to achieve their goals and help students with reading difficulties, they need to gain a better understand about the uniqueness of the interventions, they need to examine varying lengths and its effect on interventions. Scammaca et al. further argued that students who receive limited interventions are those who may receive some form of reading intervention, but research indicated that it is not scientifically based.

At-risk readers are children in kindergarten through third grade who have been identified through various assessments as having weak reading skills (FCRR, 2007). FCRR emphasized that many of these children need extra help to become good readers. These at-risk students normally received interventions for reading instructions at least 30 minutes a day. Students are divided into small groups which consist of two to four students that are all reading on the same grade level. These intervention groups engage in guided reading practices where they read from text appropriate for their reading level. FCRR further maintained that early intensive levels of reading interventions also promote explicit, systematic instructions. Explicit, systematic instructions provided by teachers focus on five essential components of early literacy skills. These components, according to FCRR, are phoneme awareness (the ability to hear the individual sounds in a word and to segment the sound), phonics (the ability to associate sounds with letters and use these sounds to form words), vocabulary (the ability to understand and use word meaning), comprehension (the ability to convey meaning from text), and reading fluency (the ability to read words in connected text).

This study may enable educators to remediate reading difficulties earlier and lessen the ultimate severity for students having weak literacy skills. In addition, teachers and parents may develop a better understanding of what they can do to help students overcome or deal with reading difficulties. The researcher in this study evaluated the reading progress of at-risk children who participated in an intensive beginning reading intervention in kindergarten through third grade, and compared their level of achievement with students who received limited interventions. Reading scores of children who were identified as being at-risk for experiencing reading difficulties were evaluated and

compared. In addition, the researcher examined open-ended questionnaires, prepared the educators and conducted interviews with school administrators to evaluate the effectiveness of the reading programs and reading instruction that focused on the five major areas of reading: phonemic awareness, phonics, fluency, comprehension, and vocabulary.

Rationale of the Study

NRP (2000a) and Torgesen (2006) found that many educators are concerned about the numbers of elementary children who struggle with reading. The National Reading Panel and Torgesen also claimed that struggling readers experience many difficulties; for example, they often have to repeat grades, some are assigned to special education classrooms and others may receive individualized instructions based on their level of understanding. Torgesen concluded that as these children advance through the grade levels, the gap between them and proficient readers are well-defined. Children experiencing reading difficulty in kindergarten through the primary grades have been a major focus point for state and federal government since 1996. Studies show that when instructions for early readers are research based it enhances the opportunity for success for the struggling reader. (NRP, 2000a). Balajthy and Lipa-Wade (2003) suggested that concerned educators and parents want to know and understand how to help struggling readers. In addition, Balajthy and Lipa-Wade indicated that educators are eager to learn what causes reading difficulties and how they can use various assessment tools to teach struggling readers effectively.

NRP (2000a) suggested that studies have been done to identify the most effective reading interventions for students who struggle with reading. NRP (2000a) pointed out

that by identifying specific teaching methods and instruction components that prove to be more effective for increasing the reading skills for at-risk readers, educators should have a better understanding of how to promote word recognition and/or reading comprehension skills. NRP (2000a) implied that this is important because a child's literacy skills not only affect the individual, but also affect the family, the classroom, the school and the community.

Research Questions

1. What is the academic impact of reading interventions provided to kindergarten through third grade, students identified as at-risk for reading failure as defined by a scientifically based reading program?
2. What changes, if any, could occur as a result of parents and educators gaining a better understanding of how children learn to read?

Dependent Variable

The dependent variable in this study was the effectiveness of intensive reading instruction interventions for students in kindergarten through third grade, as measured by the Iowa Tests of Basic Skills (ITBS) and the Illinois Standards Achievement Test (ISAT).

Independent Variable

The independent variable in this study was the use of selected and implemented reading interventions in an attempt to increase reading skills for students in kindergarten through third grade.

Hypothesis

The academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is greater when compared to schools with limited reading interventions.

Definitions

> *Research-based reading programs* are those that incorporate practices and activities that research has shown to be effective and that have been tested in a controlled research study to assess their efficacy…When reading programs are tested, student achievement outcomes are measured, and any program that increases student achievement significantly is considered to be an effective research-based program (Southwest Educational Development Laboratory, 2007, p 1).

Reading First is "a bold, new national initiative aimed at helping every student in every state become a successful fluent reader by the end of third grade" (U.S. Department of Education, 2004, p. 1).

> Through the application of rigorous, scientifically based research, Reading First helps states and localities implement effective practices for classroom reading instruction and improve student achievement … Reading First grants support programs and strategies that are based upon evidence related to how children learn to read. Since no child will become an effective reader without an effective teacher, Reading First funds place a heavy emphasis on professional development and instruction for teachers. (U.S. Department of Education, 2006, p. 23)

Early Literacy Intervention (ELI) programs involve children in kindergarten through second grade; these programs are set up to provide assistance to students in a one-on-one or small group setting, in order to help them achieve grade level skills in reading and writing. This program recognizes every child as an individual and tutorials focus on individual readiness, learning styles, and rates of learning. Early Literacy Intervention is also designed to meet the needs of each child participating in the program by striving to increase students' literacy confidence self-esteem while providing them with strategies that allow them to function independently at grade level (Walker, 2001).

Differentiated instruction is an approach to planning allowing teachers to meet the individual needs of students within each lesson. To address individual learning styles, the teacher begins where students are, based on their individual styles and rates of learning. Classroom content and instructional strategies are then designed around each child's level of understanding. When teachers are able to teach the content and differentiate their instructions they enhance their abilities to meets each child's individual need (Tomlinson & Allan, 2000).

> *The No Child Left Behind Act of 2001*, which reauthorizes the Elementary and Secondary Education Act (ESEA), incorporates the principles and strategies proposed by President Bush. These include increased accountability for States, school districts, and schools; greater choice for parents and students, particularly those attending low-performing schools; more flexibility for States and local educational agencies (LEAs) in the use of Federal education dollars; and a stronger emphasis on reading, especially for our youngest children (U. S. Dept. of Ed., 2008, p. 1).

Limitations of The Study

McMillan (1999) maintained that there are limitations to any study. These include external validity, or the generalizability of the study. McMillan stated that "it is particularly noteworthy that the judges review the difficulty of the items, since appropriate difficulty is key to establishing reliability and standards for reaching acceptable levels of performance" (p. 13). According to McMillan data measuring test scores should be reliable. This is essential to determining the fairness of the assessment and verifies if the test accurately measures the student's academic skills. McMillan further implied that whether it is student or teacher competence or school accountability, decisions are best made using multiple factors; and educators must balance test data with other information. Student participants in this study were pre-selected on the basis of need for reading interventions. Therefore, the option of randomly selecting participates for this study or comparison was not offered. Instead new and old test data was used to evaluate student progress. However, it is possible that participants' classification and need assignments may have been based on teacher ability to analyze data and teacher observation and recommendation. The researcher in this study examined how one school focused on putting proven methods of early reading intervention programs to use in classrooms through the Reading First Grant and compared the reading achievement of this Reading First school to the reading outcome in a non-Reading First school. Other limitations included the duration of the study. It is possible that a longer study would have revealed more results. Furthermore, only two schools in the same geographic region were examined, this also created a limitation.

The risk of research bias is common in education research. Awareness of one's biases, blind spots, and cognitive limitations should be of the highest priority. Various interacting elements may affect the findings. These elements are as follows:

Data measurement bias. When data is used to evaluate test scores, it is critical to avoid bias, which may unjustly influence examinees' findings (Gay & Airasian, 2000). Bias that results in differential performance for individuals of the same ability could be presence in some characteristics of a test. To avoid any type of bias, the same type of questions were included on all evaluation forms. In addition, the participants in this study were all elementary school age students in the same grade levels. All students were also in the same age range during the dates of testing. Subjects at each school were identified, by the reading specialists and the classroom teachers as candidates for early reading interventions, and interventions began at the same time for each student. The test scores used in this analysis were from the same instrument, the ITBS and the ISAT. Furthermore, all students were tested during the same testing periods.

Environmental conditions. According to Gay and Airasian (2000), “A comfortable, quiet environment is more conducive to learning” (p. 189). Environmental conditions in the classrooms can create a difficult situation for students and teachers. It can hinder concentration and affect student outcome. A student’s attitude, motivation and level of attention at the time of testing can also influence test results. One school had air conditioning, and the other did not; however, school administrators confirmed that students at both schools were tested in classrooms conducive for teaching and learning. Test scores used in this analysis were the results from tests that were given in the spring

of each year. This is an indication that each test was implemented in a comfortable environment.

Sampling bias. The two groups examined in this study were similar in demographics. However, in each school setting, there were a variety of student identifiers that defined each child's unique style; these could influence performance in the classroom and, ultimately, achievement. Some of these variables were gender, race, age, social and economic background and learning styles. To avoid bias, classification of these variables were consistent for grouping under the study.

Summary

In summary, the problem statement for this study was based on the concern that too many children struggle with learning to read. Often these children fall further behind each year and by the time they enter middle or high school their abilities to read efficiently has declined. Of all the skills children learn, reading is perhaps the most important. It is a means of gaining knowledge about many different subjects and of understanding the world. In today's society, reading is considered a fundamental skill required for success.

In this chapter, the researcher identified the need for additional research for early reading intervention programs designed to meet the needs of children in kindergarten through third grade who are at risk for reading failure. Providing effective interventions for these students may enhance their abilities to become good readers. Teachers in today's classrooms are teaching a diverse population of students, and they are expected to have expertise in many areas. Research predicts that twenty to thirty percent of students will experience reading difficulties and the method in which they are taught to read will

have a tremendous impact on their success (Clark-Edmands, 2004). This suggests the need for effective, extensive reading intervention programs.

The purpose of this study was to investigate whether students identified as at-risk for reading failure in kindergarten through third grade who receive increasing levels of interventions in reading will have a higher level of achievement than those students who receive limited interventions. The hypotheses along with the research questions, definition of terms, and limitations of study have been presented. Chapter two will examine literature that relates to the theoretical basis of this study, the question of how to best meet the needs of children identified as struggling readers.

Chapter Two - Literature Review

There is much controversy over how to best teach young children to read efficiently. Many believe that in order to make reading meaningful, readers must first develop an awareness of a variety of reading strategies and skills. (Baker & Brown, 1984). By the time most children complete the third grade they should be reading on grade level; however many still lack the ability to read fluently and comprehend the more difficult texts (Vacca, 2002). The following literature was used to explore many of the elements that influence reading success for children identified as at-risk for reading failure. Each section outlined below is a component that serves as the basis for this research study.

Students At-Risk for Reading Failure

Learning to read is a difficult process for many children. Some children learn to read and expand their reading abilities as they grow. However, there are many groups of children for whom learning to read is a struggle. These students create a difficult situation for teachers. As a result, educators are constantly searching for new and most effective interventions and strategies to strengthen the reading skills of these struggling readers. (Quatroche, 2000).

According to Lyon (2003), the relationship between language and cognitive development plays an important part in a child's ability to become an efficient reader. Lyon believed that cognition and language generally become more interdependent as development progresses. Lyon discussed two important concepts. First, learning is a process of discovery, of finding out what one needs to know to solve a particular problem. Second, knowledge results from active thought, from constructing a meaningful

reality for understanding. Lyon further argued that research has repeatedly demonstrated that when children fail to learn and use language effectively, they experience weak communication and reading skills. Lyon stressed that if children fail to develop proficiency in reading by the time they reach the age of nine, it increases the possibility that they will experience difficulty with reading and writing throughout their lifetime. "Unless these children receive the appropriate instruction, more than 74% of the children entering first grade who are at-risk for reading failure will continue to have reading problems into adulthood" (Lyon, p. 3).

The public has heard little about research on effective reading interventions for children who struggle with reading (Allington & Walmsley, 1995). According to Allington and Walmsley, the differences between students who are proficient in reading, and those who struggle with reading, are increasing throughout the grade levels. Documentation illustrates that poor reading skills create a dilemma (Harris & Sipay, 1990). Vaughan (2007) emphasized that evidence shows that socio-economic background and the psychological or cognitive process is linked to reading disabilities.

Children who are successful readers in elementary school are typically those who have a history of successful reading in their early years (Schickedanz, 1983). Schickedanz believed that reading is not a natural skill, but one that must be acquired. He suggested that the reader must gain knowledge and understanding of written and spoken sounds and letters. Shaywitz (1996) insisted that before a reader can read a simple word like the word cat, he or she must understand the grammatical process. If the reader can understand the word patterns and identify the separate phonic sounds, word recognition is enhanced.

Quatroche (2000) explained that many children have difficulty manipulating sounds in words, For example, if the student lacks the ability to rhythm words or has difficulty with using words in games or identifying letters with the same sound. Quatroche suggested that often these children have articulation problems and need to be monitored and tested for reading difficulty. The researcher learned that these are some of the criteria that teachers use to identify students who need early reading interventions.

A research study conducted by the NAEP showed that students continued to progress in their reading abilities; however, the reading growth was only basis. Basic, proficient, and advanced are the three reading levels reported by the NAEP reading report card and basic advancement was shown for grades four, eight, and twelve (Donahue, Voelkl, Campbell & Mazzeo, 1999). Success at the basic reading level demonstrates that students have the ability to succeed as they advance through the grades. Success at the proficient level predicts academic stability and the capability to handle complex work assignments, and reading achievement at the advance level demonstrated accelerated performance. (Donahue et al., 1999). According to Quatroche (2000) and Snow et al. (1998), the NAEP report indicated that the average reading scores for all grade levels increased. However, these authors suggested that there were low percentages for grades four, eight, and twelve for those students performing at or above the proficient level. In addition, both studies implied that grade four has had no significant changes since the 1994 and 1992 assessments in reading achievement.

Snow et al. (1998) further found that the decline in the levels of literacy skills was created when the demand to enhance literacy skills became an issue rather than from declining reading levels. For example, students did not abruptly begin to lack proficient

reading skills, but the demand to increase literacy skills highlighted the reading problem and revealed that a significant number of students were underperforming in reading. Snow et al. further emphasized that because of the continuous expansion in technology more emphasis is placed on literacy improvement, creating an excessive hardship for those who are unable to maintain at the expected levels. Learning to read can be very difficult and hinder the process of other skills such as the desire to succeed, concentration, recall, and language acquisition. For example, reading intertwines with language which is the ability to communicate and socialize with others (Snow et al.).

Factors that Affect Early Childhood Reading Abilities

Lyon (2000) suggested that the reading success for at least 60% of students is largely determined by the type of reading instruction they receive in the early years. Several authors such as Goldenberg, 1994; Hiebert & Taylor, 1994; and Reynolds, 1991 also embraced this idea by suggesting that effective early reading instructions greatly influence reading success. Lyon (2000) indicated that good readers often possess phonemic awareness, they are familiar with words and letter pronunciation, have good vocabulary and speaking skills, and the capability to read fluently and bring background knowledge to their reading. He discovered that difficulties in any of these areas can create a reading dilemma. Lyon also believed that children who are exposed to literacy while in the infant stage and continuously throughout their childhood comprehend better, have increased vocabulary knowledge, and have expanded reading and writing skills.

Unfortunately, some children have limited exposure to extended reading outside of school (Lyon, 2000). For example, children from poverty stricken homes, who lack language proficiency, raised by parents with poor reading skills and those with linguistic,

speech or hearing impairments are more likely to experience reading problems, because these dilemmas influence the ability to read effectively.

According to Drummond (2005), the number of children with learning disabilities or children who require special services is very broad, and these children are likely to continue to encounter reading problems. The following was outlined in a report from the Committee on the Prevention of Reading Difficulties in Young Children and the National Research Council, and quoted by Snow et al. (1998):

> Reducing the number of children who enter school with inadequate literacy-related knowledge and skill is an important primary step toward preventing reading difficulties. Although not a panacea, this would serve to reduce considerably the magnitude of the problem currently facing schools. (p. 137)

Snow et al. (1998) further noted that children who encounter reading problems are those who have little exposure to reading prior to the primary grades. For example, they have poor speaking and listening skills, difficulty interpreting text, or they lack the ability to understand the alphabet principle and letter sound recognition. The final factor emphasized by Snow et al. is that children who struggle with reading and who rarely achieve reading success are those who typically live in property with parents who have poor reading skills, lack early literacy development, lack proficiency with the English language, and experience hearing impairments.

In summary, many factors affect early reading abilities. According to the literature, children who face the greatest risk for learning to read effectively are those who enter school without quality literacy exposure. Arguments also indicate that many poor readers have very little knowledge about and experience with reading, their

interaction with language has been limited, and they have not been able to develop phonemic awareness or familiarity with the alphabets. Likewise, studies performed by the U. S. Department of Education. National Center for Education Statistics (2006), also suggested these children have limited exposure to extended reading outside of school.

Early literacy development. Educators today use the term *emerging literacy* to describe stages in literacy development (Rubin, 2002). These levels of literacy are the continuous development that young children experience as they become more involved in language and their attempts to master reading and writing (Rubin). According to Lane and Pullen (2004) children generally move through four developmental stages as they learn to read. The early emergent and upper emergent levels are usually found in kindergarten and first-grade students. Students in the first and second grade are typically at the early fluency level, and students in third grade and up have usually reached the fluency level. Lane and Pullen denoted that children at all four levels may be found in kindergarten through second-grade classrooms, indicating the significance of implementing effective early reading instructions and providing early interventions for students who have difficulty learning to read.

Early emergent readers are children who are at the early stage of understand how letters make sounds to form words. Starting with consonant-vowel-consonant patterns, these children have become familiar with the decoding system and they use it to help them recognize high-frequency words and to blend letter sounds (Snow, Burns, & Griffin 1998). Emergent readers are readers who use strategies to help them understand the alphabet principle, awareness of the letter sound relationship and the connection it has with word pronunciation. Their knowledge of high-frequency words have developed, and

they are gaining a better understanding of comprehension strategies and word-attack skills (Snow et al.). At this stage readers can also distinguish the difference between fiction and nonfiction and understand their purpose for reading (Snow et al.).

Snow, et al. (1998) suggested that by the time these children reach the early fluent stage, they are independent in comprehending text and better able to comprehend story elements. believed that these readers are beginning to make a connection with the text and becoming more familiar with genre type and writing styles. Fluent readers have successfully advanced from learning how to read and are now reading to learn. Their reading is fluent, and they read with expression (Snow et al.). The more various types of text they read, the more they develop their reading skills through encountering difficult material. Even more important is the more they read and improve their reading skills, the better they become at selection reading materials (Snow et al.).

In summary, the process of learning to read and write begins very early in a child's life. Children experience the early emergent, the upper emergent, early fluency and fluency levels. The writers conveyed that each level of development is an ongoing process that increases children's language and communication skills. Reading and writing develop at the same time in young children and are interrelated.

Teacher effectiveness. Substantial quantitative and qualitative research has been devoted to the subject of teacher effectiveness. Rice (2003) reviewed "the empirical evidence that multiple dimensions of teacher characteristics, including subject content-specific and pedagogic preparation, preparation credentials, experience, and certification test scores interact to influence overall individual, school and district teacher

quality" (p. 2). For instance, Rice claimed that highly qualified teachers have a positive impact on learning. He implied that student achievement is a reflection of a teacher's academic or intellectual ability. In particular, Rice suggested that when teaching reading, skilled teachers employ various strategies to help students understand and learn from their readings. According to Rice, these strategies are linked to a teacher's character, experiences, values and beliefs.

Similarly, the Center on Instruction (2006), which is a national research corporation, highlighted the key findings of existing research on the attributes of teachers and the correlative effects on student achievement. The Center on Instruction found that effective teachers constantly look for ways to improve. Furthermore, the Center on Instruction pointed out that these teachers foster a good learning atmosphere by encouraging active learning. For example, as noted by the Center on Instruction and revealed during this study, when teaching reading, effective teachers often (a) give prompt feedback, (b) provide clear guidelines for interaction with students, and (c) implement well designed reading lessons.

The literacy level of the teacher may also have an impact on that of the students. While focusing on teacher certification, Laczko-Kerr and Berliner (2002) suggested that certification statutes remain uniform in school districts nationwide. Yet, according to Laczko-Kerr and Berliner, teacher performance on certification tests in pre-service recruitment of new teachers and hiring standards of experienced teachers may vary widely between school districts. Pre-service and existing teacher certification tests that specifically assess the literacy levels or verbal abilities of teachers have shown that when teachers score high on these tests they are better able to help students achieve at higher

levels (Rice, 2003). However, students of under-certified teachers and those teachers whose certification scores rank in the lower 50th percentile demonstrate approximately "20% less academic growth than do students of regularly certified teachers and those with higher initial certification scores" (Laczko-Kerr & Berliner, 2002, p. 2).

Evidence from teacher-effectiveness studies indicated that parent and student engagement in learning, combined with the instructional setting and the adaptability of teachers to differential learning levels within the classroom, had significant impact on student achievement in all subject areas. Teachers who communicated with parents more frequently were considered to have greater efficacy in the classroom (Taylor, Pearson, Clark, & Walpole, 1999). According to Taylor and Pearson (2000), schools are most effective in providing instruction for measurable student achievement when communication with children and families is a high priority and teaching methods heavily incorporate extensive small group instruction. Taylor et al. (1999) further stated the following:

> The practice of accomplished teachers within schools that are promoting high achievement among students for whom failure is a common experience is the strong relationship found between school effectiveness and teacher communication with parents (which, by the way, is even stronger when examined as a building level phenomenon). Finally, the interaction between strong building communication and the capacity to offer high levels of small group instruction is reassuring; undoubtedly, the one begets the other. (p. 13)

Teachers who adjust the difficulty level of material to student ability have higher rates of achievement in their classes (Kemp & Hall, 1992). Effective teachers are more

adept at keeping students in their classes on task and actively engaged in learning throughout the day (Taylor et al., 1999). Additionally, studies have demonstrated that the most engaged learning environments are linked to advanced student cooperation, student success, and task assignments (Kemp & Hall, 1992). In such scenarios where the encouragement of positive social interaction is promoted and students are actively engaged in the learning process or self-motivation is common, educators have more time throughout the day to devote to small group instruction (Taylor et al., 1999). Small group instruction is an element emphasized by Reading First.

Torgesen (2006) noted that many factors affect a student's ability to be an efficient reader. For example, the type of reading instruction that children receive in grades kindergarten through third grade is critical. Torgesen further implied that students at risk for reading failure need intensive levels of reading interventions. They need teachers who understand how children learn to read and they need consistent monitoring to ensure that the intervention program is implemented with high quality and fidelity (Torgesen).

Authors have noted that effective teachers foster their expectations of reading and learning as purposeful and meaningful acts. They foster learning through the diversity of each learners' knowledge and the careful selection of reading materials and activities. This implies that these teachers know their students as well as their subject content. Furthermore, it has been revealed that teaching preparation, credentials and experience are factors that influence quality teaching. This concept has suggested that highly qualified teachers play a significant role in promoting student performance and school effectiveness.

Reliable Indicators of Early Reading Abilities

Phonemic awareness. Phonemic awareness has been recognized as one of the most dependable methods for determining how well a student will learn to read. The Orton-Gillingham Multisensory Institute's study in 2006 (as cited in Scheffel, Shaw & Shaw, 2008) was designed to evaluate the effectiveness of the reading programs across three inner city elementary schools in a single school district. This study (Scheffel et al., 2008) revealed that phonemic awareness is a skill that children need to establish as early as kindergarten. The researchers argued that phonemic awareness is a skill that must be mastered if students are to be proficient readers. Scheffel et al. described this study as a program that allowed teachers to teach the basic structure of language, stating with the recognition of letter sound relationship and progressing to phonemic awareness and decoding strategies. One of the measures used to assess the effectiveness of this program and considered to be an integral part of the Reading First program was the DIBELS reading assessment. This assessment was designed to assess the five major skill areas in early reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. Scheffel et al. further suggested that utilizing these results could impact the way reading is taught and emphasize the need for phonemic awareness instructions.

A key finding in phonemic awareness research is that it contributes to children's reading abilities (Manyak, 2008). Manyak argued that phonemic awareness makes reading instructions useful for children. Yopp (1992) maintained that phonemic awareness enhances children's acquisition of the alphabet principle. He further pointed out that it is the ability to hear and identify the sounds of spoken words and a child's

interpretation of what they hear and their understanding of syllables and how they help segment sound.

When students develop phonemic awareness skills, their ability to blend the alphabetical sounds is enhanced when they decode words, additionally their recognition of sight words and their ability to spell phonetically becomes easier. It is critical that teachers become more aware of phonemic awareness and effectively teach it to their students (NRP, 2000a). Manyak (2008) and Castiglioni-Spalten and Ehri (2003) implied that when teaching is designed to helps children concentrate on spoken language, it increases their ability to develop phonemic awareness skills, and it strengthens their word recognition during reading.

Armbruster et al. (2001) indicated that when children learn to read, they are able to use reading strategies to help them pronounce the text contained in books. This text is composed of words that are made up of letters. Sounds are associated with each letter and/or letter combinations. Knowing the letter sounds allows children to decode or pronounce unfamiliar words. The ability to decode words is a primary and critical skill that children need to develop if they are to be good readers. Armbruster et al. further found that there has been some debate about the methods of reading instruction that enhance children's reading skills; however, there appears to be an increasing consensus that children benefit from instruction that focuses on associating sounds with letters and letter combinations.

Studies conducted by the NRP (2000a) noted that elements of Reading First such as, phonemic awareness instruction, which focuses on blending and segmenting letter sounds and the letters that symbolize the sounds, expand students' capability to achieve

reading and spelling success. Scheffel et al. (2008) further insisted that children achieve significant gain when they participate in activities that focus on the fundamentals of phonemic awareness such as segmenting, blending and alphabetical sound combinations. "Good readers (a) are phonemically aware, (b) understand the alphabetic principle, (c) apply these skills in a rapid and fluent manner, (b) possess strong vocabularies and syntactical and grammatical skills, and (e) relate reading to their own experiences" (Lyon, 2000, p. 1). The Reading First program considered each of these elements to be significant for the enhancement of reading skills.

To help children at the early emergent reader stage learn the names of the letters in the alphabet, they also need to understand the alphabetic principle. Alphabetic principle is the ability to understand that there are relationships between written letters and spoken sounds (Armbruster et al., 2001). Studies indicate that before a child can become a successful reader, he must acquire an understanding of the alphabetic principle (Stanovich, 2000). When teachers teach phonic instruction, they help children develop alphabetic principle (Stanovich). Phonological awareness is the foundation for decoding, fluent reading, blending sounds and formulating sounds into words (Lane & Pullen, 2004). However, when children have reading difficulty, they struggle in all of these areas, especially phonological awareness. An example would be a child with dyslexia (Ziegler, Johannes & Goswami, 2005). Some studies have shown that school-age children have three consistent phonological processing abilities that need to be effective with reading and writing. These are phonological awareness, memory, and the ability to utilize the phonological skill to retrieve lexical storage (Anthony et al, 2007).

> The process of reading remains a slow and difficult task. The inability to retrieve the correct word along with poor phonemic awareness skills create a world where reading and writing are difficult, confusing, laborious, and often without meaning for the dyslexic child. (Skotheim, 2009, p. 36)

A direct approach may include a systematic study of phonics. Specifically, the reading intervention will require the child to hear, see, say, and do something to enhance his understanding of text (Anthony et al., 2007). This suggests that phoneme awareness also plays an important role in acquiring literacy for students diagnosed with dyslexia, reading differences, and reading problems (Anthony et al.). At least two of the students in this study were diagnosed with dyslexia.

Snow et al. (1998) noted that learning to read requires understanding the context and having some vocabulary knowledge. Studies show that when children read they can only make meaning of what they read when they are able to process the information from the text and apply it to their background experiences. Most importantly, when any child is taught to read, reading instruction should be designed to teach the relevant vocabulary and background knowledge he needs for reading (Wesseling & Reitsma, 2001). The necessary language skills for learning to read include vocabulary skills, grammar, pragmatics and phonemic awareness. A child with phonemic awareness skills has the capability to distinguish phonological segmentations and attack words at the phoneme level and syllable and rime depth (Blachman, 1991; Manyak, 2008; Treiman & Zukowski, 1991).

Vocabulary. Vocabulary refers to knowledge of words and their meanings. Children in preschool and early childhood classes should learn new words everyday

(Torppa et al., 2007). Vocabulary is a reliable indicator of early reading abilities because it dictates how well a student will be able to understand what he reads (Pearson, Hiebert, & Kamil, 2007). According to Pearson et al., vocabulary is one of the five elements described in the NCLB legislation as being an essential part of reading comprehension.

Furthermore, studies performed by the NRP (2000a) confirmed that with good vocabulary skills children are able to read fluently and comprehend what they read. Students reading to improve their comprehension skills and, vocabulary recognition is an important part of reading comprehension (NRP, 2000a). To comprehend text, children must be able to make connections, ask questions, infer and visualize. Learning occurs when children are able to connect new information to what they already know (Willingham, 2006). This is emphasized by the Reading First program.

Reading should be meaningful. Facts learned should not be simply memorized but cognitively connected. Facts are only useful when they become meaningful. This can only occur when educators provide opportunities for students to ask question, make predictions and connect prior knowledge to what they read (Willingham, 2006). According to Willingham mindless drilling is not an effective vehicle for building students' store of knowledge. Some implied that reading is not really reading if children do not have some type of understanding about what they are reading (Willingham). Likewise, Reading First relates this to effective comprehension and states that "comprehension strategies are sets of steps that purposeful, active readers use to make sense of text" (U.S. Dept. of Ed., 2002, p. 5).

Students will never be able to derive meaning if they cannot decode the words. Lane and Pullen (2004) contended that when children decode words it enhances their

understanding of unfamiliar words. Since reading is a process of interpreting printed symbols, decoding usually increases vocabulary knowledge. Lane and Pullen further suggested that readers need direct instruction in decoding words. Without this skill, children will have problems with syllables, sentence segmentation, and blending and manipulating sounds. These factors implied that the development of word-recognition skills plays a critical role in children's abilities to be efficient readers (Pressley, 2000). Moreover, the Reading First program (2002) suggested that this is a strategy that children much master to become effective readers.

When teaching vocabulary strategies, it is important to focus on grammar and pragmatics skills (Graves & Watts-Taffe, 2002). Grammar refers to the system of rules for combining words into phrases and sentences that make sense. Pragmatics refers to the appropriate use of language to communicate effectively. It also involves extended discourse, which refers to expanding responses beyond a single sentence. Together, all of these skills indicate a child's readiness to read (Torppa et al., 2007). In summary, a deficiency in vocabulary is one of the major causes of reading failure for students in grades 3 through 12 (Baumann & Kameenui, 1991; Volkmer, 2004). Reading teachers must address these deficiencies early to avoid reading failure later in the students' academic careers.

Phonics skills. Westwood (2001) suggested that *w*hen children experience difficulty in developing phonics skills, it is an indication that they will be poor readers. The author further maintained that this deficiency prevents children from swift and confident identification of words. In addition, the author pointed out that failing readers with poor phonemic awareness are much less likely to discover letter-sound relationships

for themselves. Moreover, for these children, Westwood noted that the focus on phonics knowledge, as emphasized by the Reading First program, this should be an essential part of a reading intervention program.

Systematic and discrete phonics should be the first strategy taught to all children learning to read (Rubin, 2002). Teaching children to read can be strengthen with the Synthetic phonics approach. Children learn to read by blending the individual sounds of the English language to form words. Phonics should be fun, multi-sensory, and set within a broad and language rich curriculum. According to Rubin, the rapid acquisition of phonics knowledge and skills in a child's early development is critical. It strengthens their confidence as independent readers and writers and improves their ability to read fluently.

Westwood (2001) stated that "the recognition of a word involves both visual-perceptual and cognitive processes" (p. 16). Likewise, Cunningham and Cunningham (1992) noted that skilled readers perceive almost all the letters or letter-groups in a word during a visual fixation. As a result of previous reading experience, letter patterns become associated with pronounceable parts of known words. When students use this information that is provided by the letter patterns, most printed words can be identified. However, any unfamiliar word will take slightly longer to decipher, but can usually be pronounced if the reader has the ability to understand the spelling patterns or by decoding the letters (Adams, 1990).

Being able to pronounce a word is important; but if the reader has never heard the word before, he must rely on his phonics skills to break the word down into component parts, unless the word is a sight word. Sight words are words that children learn by sight.

Without these skills the pronunciation of a word would not act as a stimulus and trigger an association within the child's memory bank. Given these facts, it is important to state the necessity of phonics skills for young children (Rubin, 2002).

Key Elements of an Effective Early Intervention Reading Programs

Today, educators should have a range of reading interventions available for students with diverse learning needs (Armbruster et al., 2001). According to Armbruster et al., an effective early intervention reading program would be research-based and include five major components. These components are (a) comprehension, (b) fluency, (c) vocabulary, (d) phonemic awareness, and (f) phonics. According to the NRP (2000), these five elements are scientifically based reading instruction. Scientifically based research is valid systematic research that has been used to obtain and understand how children learn and develop reading skills. The NRP (2000), further suggested that the five big ideas should be the focus for professional development, assessment and instructions. They favor explicit teaching of phonics and phonemic awareness. In response to this research, Reading First programs have been established in many states.

Reading First is a program that was initiated as a result of the NCLB Act of 2001. The focus of the program is to put proven methods of early reading instruction in the classroom. Through the Reading First program, states and districts receive funds to apply scientifically based reading research to reading instruction and assessment. The goal is to improve the opportunity for all children to read well by the end they reach third grade (Armbruster et al., 2001).

The heightened importance of scientifically based Reading Research created some new challenges for most school districts (Berger & Gunn, 2003). To assist states and

districts in their efforts to make better decisions, the managers of the Reading First program promoted and distributed a summary of NRP's findings, "Put Reading First" (Berger & Gunn). This information provided details on the use of scientifically based research and how to utilize it to guide instructions. The U.S. Education Department offered workshops and provided technical assistance to teams of Reading First people who held state-level positions. The workshops allowed the teams to better understand reading basal curriculums and reading assessment tools and how they are aligned with the guideline plans. These reviews have allowed many states and districts to have a clearer view on the matter (Berger & Gunn).

According to Armbruster et al. (2001), a summary of research has shown that students need instruction and practice in five big ideas as outlined by the NRP (2000). The institute emphasized that an effective early intervention reading program would address each of these areas. They further pointed out that the content of reading instruction in the primary grades is particularly important. Armbruster et al. denoted that effective instruction for beginning readers must be challenging and stimulating. In addition, reading lessons should be designed to promote accurate and quick word recognition skills, fluent reading of connected text, and strategies for enhancing good processing skills.

Another important element of a scientifically based reading program includes an experienced teacher who clearly understands instructional research and can systematically monitors student progress and understands how to design instruction based on assessment. Struggling readers need teachers to model more often. They also need

guided practice, independent practice and a clearer understanding of how to apply various reading strategies (Pinnell, DeFord, & Lyons, 1988).

Pikulski (1994) argued that in order for children to learn how to read fluently, they need to hear and practice fluent reading. The author implied that many times beginning readers can identify fluent reading, but they are unable to produce it. To help students learn how to read fluently, research shows that teachers need to teach them. Teachers teach children to read by reading aloud to them. Pikulski noted that when a teacher reads, she keeps the child's interest by reading at a fluent pace. The child hears the reading and tries his or her reading with the same pace and expression. Students at risk for reading failure do best at this stage if they are given more practice and support (NRP, 2001). Students will learn to apply basic reading skills to texts from different disciplines as they receive direct instruction and practice in reading such content materials as social studies, science, mathematics and a variety of other texts and communication arts books (Pikulski, 1994).

Focus on phonemic awareness. Ensuring phonemic awareness development is an important component of early literacy instruction, particularly for children who experience difficulty learning to read (Ellery, 2005). Ellery insisted that children need to know that sounds are associated words and that the words have meaning. According to the author, good readers typically demonstrate strong phonological awareness, and poor readers typically have weak phonological awareness. Lane and Pullen (2004) defined phonemic awareness as the ability to hear a sequence of sounds combined to make words. These researchers further argued that students need to have an understanding of phonological awareness in order to benefit from reading instruction.

According to Blachman (1991), phonological awareness is a reliable predictor of later reading abilities. When teachers assess children's phonemic awareness skills in kindergarten or first grade, they can usually predict which students will be good or poor readers in upper grades. Armbruster et al. (2001) implied that phonological awareness is the process of learning individual sounds. Each sound is a phoneme or a letter of an alphabet. When students have the skills to divide these phonemes, they understand the difference between consonants and vowels, which can make a difference in the meaning of a word. For example, when students have the ability to listen to spoken sounds (blending phonemes), they can pronounce words; this enhances their vocabulary knowledge and increases their reading fluency. Likewise, Snow et al. (1998) alleged that when a student has an awareness of phonemes it accounts for as much as 50% of the difference in his or her reading proficiency by the time he or she reaches second grade.

Focus on phonics. Phonics is an essential element of a reading program. It is the relationships between sounds and their symbols (letters), and the methods of instruction used to teach those relationships (Ellery, 2005). Moreover, Ellery maintained that children need to understand how the letters of the alphabet are used to make words. The author indicated that children need explicit instruction on how to use the letters to make words. With phonics, the beginning or struggling readers learn strategies to help them sound out words. For example, when a student learns that the letter C has the sound of /k/ as in *cat*. Then he learns how to blend letter sounds together to make words like *dog*. It is not as easy as it sounds, because the 26 letters in the alphabet correspond to 44 sounds. However, according to Ellery, when children learn to master this skill it enables them to

read words at an appropriate pace, and gives them the ability to decode and spell unfamiliar words.

In teaching phonics explicitly and systematically, several instructional approaches have been used. These approaches include: (a) synthetic phonics, (b) analytic phonics, (c) embedded phonics, (d) analogy phonics, (e) onset-rime phonics, and (f) phonics through spelling (NRP, 2000a). It is important that educators identify these strategies and work to ensure that they use these strategies when teaching phonics to young children (Ellery, 2005). Considering these factors, Ellery suggested that these strategies are important when working with students who have been identified as at-risk for reading failure. Students who have difficulty learning to read will benefit from explicit and systematic instruction. Furthermore, as indicated by Ellery, skills such as phonemic awareness and phonics are essential elements of instruction. Accounting to Swanson and Hoskyn (1998), a study designed to identify effective interventions for students with learning disabilities suggested that when students received instructions that combined direct instruction with instructions that focused on a specific teaching and learning goal, they achieved better success when compare to students who only received direct instructions. The authors further supported the Reading First views on phonics by indicating that phonics is a skill that makes reading meaningful for all children, especially children who struggle with reading.

Focus on comprehension. Ellery (2005) stated that "comprehension is a complex process and it is the essence of reading" (p. 29). Reading comprehension will allow students who are experiencing reading difficulty to focus on such skills as listening skills, paired reading, and repeated reading (NRP, 2000a). The NRP (2000a) suggested that by

focusing on specific instruction in comprehension strategies, teachers help students to improve in text understanding and information use. NRP (2000a) further explained that much instruction in comprehension is diagnostic in nature rather than lending insight to the child struggling to interpret the meaning of a given passage. However, NRP (2000a) and Armbruster et al. (2001) stressed that research has shown that reading comprehension can be explicitly taught through the use of specific comprehension strategies.

Some of these comprehension strategies include encouraging students to ask questions, respond to text, or make interpretations or predications about the text (Rubin, 2002). Rubin further conveyed that for more than a quarter of a century, research into the process of understanding how children comprehend has been influenced by the fields of psycholinguistics and cognitive psychology. As a result, Rubin argued that many of the terms such as grammar, story structure, schemata, and others are used in the classroom today. A student with good comprehension skills is able to identify the main idea of a story, recognize story characters, and compare and contrast information. Furthermore, he or she can distinguish the main ideas from supporting details and remember the story sequence (Rubin).

Focus on fluency. Fluency is defined by the NRP (2000b) as the ability to read a text accurately and quickly. A fluent reader is a child that is able to link correlations between the different words in the sentence. In contrast, a child that is not fluent in his or her reading cannot understand the relationship of words and their meanings in the text. A non-fluent reader may instead focus on the individual words in the sentence, thus slowing his/her speed (NRP, 2000b).

NRP (2000b) further implied that the speed of a fluent reader is faster than a non-fluent reader. More importantly, their verbal reading skills flow because little effort is put forth by the child. The reader is able to successfully group words together with their meanings and their own previous background knowledge. Not only does this allow the reader to successfully paraphrase the material in a classroom setting but also makes it easier to put expression behind their words while reading the text. According to the NRP (2000b), this points to a conclusion that fluency is an essential component of reading comprehension.

NRP (2000b) pointed out that a recent large-scale study, conducted by the NAEP found that 44% of a sample size of the nation's fourth graders lack proficient fluency reading skills. NRP (2000b) insisted that this study also reinforces that a strong relationship exists between fluency and reading comprehension. According to NRP (2000b), it is imperative to practice fluency with activities that include, but are not limited to, reading aloud to the class and silent reading on the part of student. These researchers further implied that partner reading is a specific activity that a teacher can implement in any classroom setting. This allows for the stronger readers in the class to provide an example for the weaker or less fluent readers. According to Armbruster et al. (2001), this enhances reading skills because (a) the stronger student gives help with word recognition, (b) the stronger student provides feedback, and (c) the stronger student encourages his or her less fluent partner.

Focus on vocabulary. NRP (2000b) indicated that vocabulary is the understanding of word meanings. If the oral vocabulary is not known to the reader, then he or she has no knowledge of the print vocabulary. NRP (2000b) believed that

vocabulary is a critical element in learning to read, and lack of vocabulary knowledge hinders the comprehension process when reading. Effective vocabulary knowledge, according to NRP (2000b), has long been recognized in the development of reading skills. As a learner begins to read, he encounters words that emphasize the story meaning. At this point, the reader must be able to decode the unknown written words into speech language, hoping that the auditory sound will enhance comprehension. For instance, the reader can only benefit if he understands the text and thus he or she is able to apply his oral representation of the word to help him identify the letter sounds written on the paper (NRP, 2000b).

There are two types of vocabulary. NRP (2000b) described them as oral and print. Oral vocabulary, according to NRP (2000b), represents speech language, the words that are heard. Print vocabulary, as defined by NRP (2000b), is synonymous with reading vocabulary and refers to words recognized and used in print. NRP (2000b) pointed out that vocabulary is an important part of learning to read. The researchers suggested that when children are learning to read they refer to the words they have heard to help them understand or make sense of the words they encounter in a text. If the word is not a part of their oral vocabulary, the student will have a difficult time reading the unfamiliar word.

Harvey and Goudvis (2000) implied that when a child is reading, and he or she comes to an unfamiliar word, there are several strategies to use. First, the student can use context clues. By using context clues, the student uses other words or phrases that are built into the sentences around the difficult word to help him read the unfamiliar word. Second, the student can sound out words. This is where phoneme awareness connects

with reading and vocabulary. Here, the student blends sounds or breaks words into syllables. According the NRP (2000a), an effective early reading intervention program would use these teaching strategies to enhance vocabulary knowledge. Most importantly, as emphasized by Harvey and Goudvis, and the Reading First program, a child can use a dictionary to find and understand unfamiliar words, but the best dictionary is one that the child creates for himself or herself, adding new words each time he or she encounters one.

Summary

In this review of literature relating to this study, the researcher revealed that reading is a skill that must be taught. Researchers have suggested that for about 60% of students, reading success is determined largely by the type of reading instruction they receive in the early years. It has been implied that good readers (a) understand that alphabets represents sound, (b) are phonemically aware and have the ability to segment the sound that is heard in a word, (c) develop strong vocabulary skills, (b) utilize these skills to read fluently and with the appropriate speed, (e) process good linguistic skills, and (f) relate reading to prior knowledge. Reading difficulties could occur if students experience problems in any of these areas. Further, learning to read begins at an early age prior to entering school. Children who are exposure to literacy, from birth and onward, gain better vocabulary development, they understand the purpose for reading, and may develop print knowledge and recognize the concepts of literacy.

The effect of early reading interventions can be better understood through the use of mixed-method research design. With the increasing awareness of the importance of teaching and learning it is imperative to have valid methods of evaluating teaching and

learning strategies. Quantitative analyses of factors which have been found to be relevant to student learning are outlined in this research. The methods in this study address the hypothesis and answer the research questions. In chapter three, the methodology is described.

Effects of Early Reading Interventions

Providing interventions for struggling readers can help to prevent reading difficulties for many children. “Reading is essential to the success of a society. The ability to read is highly valued and important for social and economic advancement” (Snow, Burns, & Griffin, 1998, p. 1). Nevertheless, according to Lyon (2003) the challenge remains to close the gap between what is known about teaching reading and what is taught.

Continuing to speak on this matter, Lyon (2003) suggested that effective instruction will allow schools and educators to implement differentiated instructions based on the individual needs of children experiencing reading difficulty and disabilities children. For example, the struggling reader who received special educational services represents only a fraction of the children in school who are experiencing reading problems. Lyon insisted that these students will continue to have difficulty with reading if they do not receive some form of systematic reading intervention, such as the Reading First program.

Many educators believe that children acquire language proficiency and an understanding of literacy before they enter school. Therefore, many teachers expect students to enter school with some understanding of what it means to be an effective reader. However, some children enter school without the skills needed to experience

success with early reading instruction. For example, as outline earlier, many of these students have poor reading skills which are often caused by low-socio-economic status that influences their attitudes about reading and limits their ability to gain success. These students do not develop effective reading strategies unless they receive explicit instruction and the opportunity to apply these skills (Landry, 2002).

Hay (2007) suggested that enhancing children's early language development will boost their reading development. Acquired proficiency in language, or oral language, provides the foundation for reading and comprehension of connected text (Hiebert, Pearson, Taylor, Richardson, & Paris, 1998; Snow, Burns, & Griffin, 1998). A weakness in language development is an indication that interventions are needed. An effective early reading interventions program will focus on strengthening these skills (Denton & Mathes, 2003). Inadequacy in language development was also a factor that teachers used to selection the at-risk readers for this study.

When children begin school in kindergarten, they are very diverse in both skills and preparation for learning to read. For students whose preschool learning experience ill-prepared them for learning to read, the student may need additional intensive instructions to fill the gaps. For example, students with low reading abilities will require more intensive instruction because they lack the language domains and reading readiness (Torgesen, 2006).

Rubin (2002) alleged that a quality, scientifically based early reading intervention, such as the Reading First program, will provide instruction and accommodations to help the struggling student learn to read. The author further maintained that educators who make the commitment to provide instruction that supports the at-risk reader understands

that these children need extra support, and they are able to focus their attention on the problems of the students.

The Impact of Progress Monitoring on Reading Scores

According to the National Center on Student Progress Monitoring, (NCSPM, 2007), progress monitoring is a procedure that allows educators to continually receive feedback on their instructional strategies and how it effects student achievement. In addition, it is an approach that is scientifically based and it is proven to be an effective method for assessing students' learning. Progress monitoring can be used to assess the entire class or it can be used for individual assessment. NCSPM (2007) showed that in an educational system, assessment is a necessary element. Data from various assessment tools are used by states to evaluate the effectiveness of their educational systems; schools use data to examine the success of the district's instructional program, and in the classroom, teachers rely on data to assess each students' individual development as it relates to the curriculum. For this reason, NCSPM (2007) argued that it is important that teachers produce high levels of achievement among students and use the appropriate assessment tools to guide their instructional decision making. As school systems continue to evaluate their school curriculum and search for ways to enhance education for the disabled student, teacher will rely more on progress monitoring as an assessment tool (Stecker, Saenz, & Lemons, 2007). Since progress monitoring is becoming so wildly used in schools today, it is necessary that progress-monitoring tools (a) be responsive to change in student needs, (b) be meaningful for general education, and (c) not exceed the time needed for instruction (Stecker et al., 2007). One very effective form of progress monitoring that meets these three criteria is Curriculum-Based Measurement (CBM),

(Deno, 2003; Deno, Fuchs, Marston & Shin, 2001). Baker and Good (1995) and Fuchs and Deno (1994) described CBM as a tool that is used for assessment. DIBELS is the Curriculum Based Measurement tool used by the Reading First program. The authors noted that the tool also serves as an indicator for students' overall proficiency in most academic areas, including reading.

According to Teale (2008) and John (2007), there is evidence that supports the technical adequacy of CBM in reading. Stecker, Fuchs and Fuchs (2005), as well as Busch and Lembke (2005), pointed out some of the benefits of CBM. First, the authors noted that when comparing CBM with other types of assessment, there is less change for unfair practice as it relates to gender, race or ethnicity, or disability status and this is because assessment depends on nothing more than student performance (Busch & Lembke). Second, the authors confirmed that when CBM is used to monitor student success and not other teacher assessment practices the data from CBM enables teachers to make better decisions about instructional changes and student achievement is significantly better (Busch & Lembke). This is one of the strategies highlighted by the Reading First program as a method to enhance reading instructions.

The 1985 Pine County Special Education Cooperative in Minnesota field-testing of CBM (as cited by Jenkins, Graff and Miglioretti, 2009) was described by the authors as a test designed to evaluate a group of elementary school students with learning disabilities and elementary school students who were reading on grade level. The objective, according to Jenkins et al. (2009), was to determine if progress-monitoring data could help teachers to evaluate student growth. The authors noted that the teachers used data generated by progress-monitoring CBM procedures. The study revealed that

when teachers implement systematic progress monitoring with both low-performing students and students reading on grade level, they could better determine if the students were benefiting from the instructional program in place (Jenkins et al., 2009). Likewise, Stecker et al. (2005) suggested that when teachers implement this program in regular classrooms students can reap the benefits regardless of their achievement levels. The authors further argued that this is an indication that educators can utilize principles and procedures that are similar to observe student growth in the area of reading, whether students are disabled or not.

Past and present assessment practices. Traditionally, using assessments similar to standardized achievement tests has given school a summary of the school's overall success of the educational system (Deno, 2003). Jenkins, Deno and Mirkin (1979) and Deno suggested that research has shown that educators depend greatly on teacher made test or evaluations designed by curriculum companies. More recently, standards that focus on educational reform have driven most schools to use benchmark assessments at different points throughout the year to evaluate student performance and to determine if students are on track toward meeting the district's and/or the state's goals and objectives as established by student performance on high-stakes test given at the end of each year (Stecker et al., 2005).

Jenkins et al. (1979) claimed that value can be associated with each of these assessments, but each also includes a number of limitations. For example, majority of norm-referenced test designed to assist student achievement and other standardized test, have similar adequate technical characteristics and compares a student's standing with his or her peers; but these tests normally consume to much time and often fail to reveal the

content that was actually taught. As a result, these tests usually provide minimum information that is beneficial to instructional planning.

In contrast, assessment designed by educators and curriculum assessment tools frequently evaluate the most recent instructions based on the subject matter which is only a portion of what should be assessed (Stecker et al., 2005). Stecker et al. further noted that these assessments typically highlights the student area of mastery as it relates to a particular skill or subject and neglects to give a clear indication of where the student is academically or convey the students' growth over a period of time (Stecker et al.). Furthermore, many of these assessments are consider to be informal tests that provide evidence of technical adequacy; therefore educators cannot automatically assume that the scores from these assessments are valid or reliable (Stecker et al.).

Good, Simmons and Kame'enui (2001) supposed that the benchmark assessments, which are used today, are placed in a performance status of no-risk or at-risk. The results from these assessments are compared to cut scores that are predetermined. For example, the DIBELS benchmark system, which has been used in recent times, and included in this study, is part of an effort to provide evidence of students at risk for reading difficulties within a school-wide-assessment method for elementary school age children (Good et al.). Typically, with this type of assessment, educators assess students three or four times per year, and teachers compare student scores to established benchmarks (Good et al.).

This assessment also categorizes students' relative risk and enhances the opportunity for teachers to make decisions about instructional interventions (Good et al., 2001). In contrast, DIBELS, the Reading First tool, is used every 5 to 10 days to monitor

student progress, other benchmark systems test less frequently, limiting the opportunity for data driven instruction. Busch and Lembke (2005) pointed out that there is one problem with typical benchmark assessments. The authors noted that because these test are not administered on a regular basis throughout the school year, it is difficult to measure the quality of a student's progress from one benchmark to another. For example, if a student score falls beneath the aim line, he or she may be targeted as needing interventions. The test may reveal that the student is starting at a lower performance level, but in contrast the student could be progressing at a rate similar to his classroom peers and the benchmark fails to reveal the similarity. Consequently, this student does not need the same instructions as the student with low scores and who has shown very little progress. Likewise, a student with high academic grades may meet or exceed the benchmark scores but may fail to show continued academic success. Based on this students' established benchmark score, a teacher may mistakenly assume that this student is continuing to make academic gain. However, this information has a drawback, because it has no data related to the students' rate of growth (Busch & Lembke).

Hosp and Hosp (2003) indicated that CBM as a research-validated form of progress monitoring appears to be the assessment tool most frequently used in today's schools. The authors further confirmed that with CBM educators have a variety of benefits that are different from the typical assessment practices. DIBELS, which is the name of the CBM tool used by the Reading First program measures are short, and the program is intended to give teacher an opportunity to assess their students' growth on a regular basis. CBM scores symbolize proficiency in the academic areas on a global scale, rather than performance on a limited section of the content areas. According to Hosp and

Hosp, this distinct quality enables teachers to verify if students are making progress toward a long-term goal rather than simply revealing if students have mastered only a small portion of the curriculum. Since this brief global measurement serves as an indicator for the overall proficiency of student scores in all academic subjects, it is imperative that this tool be reliable, valid and consistent (Christ & Vining, 2006; Gansle, Noell, VanDerHeyden, Naquin, & Slider, 2002; Gansle, VanDerHeyden, Noell, Resetar, & Williams, 2006).

Good et al. (2001) and McGlinchey and Hixson (2004) maintained that the scores generated by CBM are valuable when it comes to predicting future student growth on state-mandated, high-stakes tests. A study using the Michigan Educational Assessment Program was conducted to investigate the value of CBM. According to McGlinchey and Hixson, the study was done using 1,362 fourth graders over an 8-year period (p. 193). McGlinchey and Hixson noted that the study showed that CBM is effective when predicting student reading progress and revealing which students are at-risk for failing mandated state reading tests. This information may enable teachers to establish early interventions for students who are identified as at-risk for reading failure and enhance the students' opportunity for reading success, which in turn is likely to result in better scores on state achievement tests. McGlinchey and Hixson further argued that teachers have more confidence in their decision making when they rely on measures that or valid and reliable. Curriculum-Based Management measures can be use to determine a students' growth rate in any academic area and the administering procedures remain the same. In short, when teachers using CBM data they are better prepared to make ongoing

instructional decisions. Furthermore, they may be able to determine when instructional changes are necessary (Hagan-Burke & Jefferson, 2002).

Challenges that face progress monitoring. Understanding how to collect and analyze data to determine student progress toward specific skills or general outcomes may be a challenge for many educators (Santi & Vaughn, 2007). According to the authors, teacher should know how to use these assessments effectively. Frequently, teachers lack the ability to use the data appropriately to alter their instructions, because they need to be fully trained on how to interpret, analyze or assessment the progress monitoring data. When tests have been administered by teachers, the school leaders become responsible for ensuring that the results prompt wise decision making. According to the Reading First guidelines, this type of training is mandated for all schools that participate in the Reading First program. Santi and Vaughn noted that with this method, useful data is collected and used to help guide instructions for teachers. Providing teachers and parents with more information about the effectiveness of progress monitoring would enhance their desire to adopt the practice (Santi & Vaughn).

Educators and families may need to understand that data should be used to enhance decision making and establish instructional practices. Progress monitoring data can describe a student's rate of improvement over time. Santi and Vaughn (2007) claimed that ongoing progress monitoring can help teachers to modify their instructional methods so that they are more effective in improving progress for their students. Instruction for individuals, small groups, or whole classes of students can be used to maintain adequate growth in reading and reading related skills. Santi and Vaughn implied that when

teachers learn to link the assessment back to instruction, they have the tools to ensure that students are continually making progress toward end of year benchmark goals.

Another challenge facing progress monitoring is teachers learning how to develop a plan (Quenemoen et al, 2004). Taking into account the time demands, educators need to review the assessment cycle and understand how to integrate assessments into daily classroom instruction (Quenemoen et al.) According to the authors, after progress monitoring, teachers need to plan instruction to meet each child's individual needs. In addition to incorporating activities into the regular classroom schedule, the teacher may need to include a wide variety of experiences and resources to help motivate learning (Quenemoen et al.). The authors further suggested that longer-term planning is the key to enhance the teacher's ability to meet individual student needs. It will allow the teacher to make connections from one week to the next, and enable the teacher to divide difficult tasks into more manageable units.

Santi and Vaughn (2007) confirmed that before teachers are able to comply with the increase expectation of standard-based systems which are now in place, they need data to help them interpret student performance with grade-level standards during the course of the year, thus they can develop teaching strategies to boost student success and meet established standards. Santi and Vaughn noted that progress monitoring is effective when assessments are given at least three times per year to students who are not struggling. Students who are experiencing reading or learning difficulties should be assessed as often as once a week. The authors further pointed out that if teachers view the instructional cycle correctly, teaching and learning will be enhanced. More importantly, Santi and Vaughn suggested that when teachers continually use data to evaluate student

growth, they are better equip to compare scores across time. The authors again implied that with progress monitoring data, educators can quickly and easily alter instruction as needed without having to wait for results from an outside source.

One important feature of progress monitoring is being able to assess students on material that reveals the goals established for the year (Stecker et al., 2005). However, understanding how to collect and analyze data to determine student progress is critical but has posed a challenge for some teachers (Stecker et al.). According to Etscheidt (2006), more support is needed for educators attempting to translate progress monitoring results into valuable strategies. The data acquired from progress monitoring must enhance students' understanding by building on diverse background knowledge, individual learning styles and rates of learning. Progress-monitoring is useful for students with disabilities, because it enable educators to utilize information to develop meaningful statement statements on the Individualized Education Program (IEP) (Etscheidt).

As maintained by Stecker et al. (2005), when students have poor fluency skills, early in the year, grade level text can still be used to monitor progress even for slow readers. Students may not perform as expected on progress-monitoring measured at the beginning of the year, because there is a constant rotation of measurement forms used for various levels of difficulty and each represent the goals established for the end of the year. The author further suggested that teachers need to understand that these tests only measure the skills that students should have by the end of the year and not the skills they have at the beginning of the school year. The author once more pointed out that another important aspect of progress monitoring is that it is designed to evaluate the progress a student will have by the year of the year. Therefore, tests are repeated, and alternate

forms are used to demonstrate if the student is gradually improving in reading throughout the year (Stecker et al., 2005). Reading First suggested that progress monitoring is a necessary tool for teaching reading.

As indicated by Griffiths, VanDerHeyden, Parson, and Burns (2006), studies are continually being conducted to measure and to investigate additional applications of progress-monitoring procedures and the challenges that the program faces. According to Griffiths et al., when progress monitoring is implemented correctly, the benefits are great for both students and teachers. Teachers make better instructional decisions and provide students with more meaningful instructions. Considering the importance of progress monitoring, educators may want to reflect on the benefits of utilizing this procedure. Likewise, Rock, Thead and Gable (2006) mentioned that it offers high expectations for student achievement and it allows teachers to embrace research based practices to help students succeed.

The expectations established by NCLB (2001) to improve student achievement is great, however the task can be overwhelming for teachers. The traditional approaches to instructions or testing strategies have showed no evidence of improved levels of student achievement; therefore research based practices are being accepted as a way to improve student achievement and meet required standards (Stecker et al., 2005).

The Impact of Differentiated Instruction on Reading Scores

When discussing differentiated instruction, Rock, Gregg, Ellis and Gable (2008) wrote that in the classrooms, it is the teacher's responsibility to differentiate their instructions to meet individual needs in order to enhance student achievement. The authors further noted that in classrooms, students possess different learning styles.

Likewise, Tomlinson and Allan (2000) implied that as classrooms become more academically diverse, children need teachers who understand how to provide a range of experiences and the instruction necessary to help children learn.

As maintained by Routman (2003), it is vital that teachers understand their students' individual learning styles when teaching reading. The teacher has to show each student how to apply various reading strategies. Readers should know how to apply these reading strategies and they need to know how these strategies fit into the big picture of reading. As further noted by Routman, teachers should provide the necessary instruction to help students become good readers, particularly as they observe and listen to them read and process new texts.

Although differentiated instruction has garnered increased attention over the past decade, the concept is not new (Olenchak, 2001; Tomlinson, 2005). Several authors have agreed on this subject (Musti-Rao & Cartiedge, 2007; Olenchak, 2001; Tieso, 2004; Tomlinson, 2005). Tieso implied that differentiated teaching is a positive teaching strategy. According to Tieso, the National Research Center on the Gifted and Talented at the University of Connecticut conducted a study on 31 students from four New England school districts. While investigating differentiated instruction, focus was given to levels of engagement and motivation. In the area of reading, the researchers based their instructions on individual needs that encouraged students to make their own choices, choose their own reading materials from a variety of text, alternative grouping and a selection of different tasks for student to choose from. The researchers discovered that reading levels were enhanced, student developed comprehension strategies, and phonemic and decoding skills as well as students' attitudes toward reading were

improved. According to Tieso, the researchers also examined how the differentiating strategies affected the link between each group and the individual group settings. Pre and posttest were use to evaluate and compare student academic performance and assessment was conducted using curriculum-based testing. The researchers concluded that the use of interventions significantly increased learning for the group of students who exhibited a wide range of abilities and showed no improve for the students who lack differentiated teaching.

Differentiated instructional strategies. When using differentiated instructional strategies, teachers may focus on teaching students with different abilities, learning styles, and personalities (Lewis & Batts, 2005). Lewis and Batts further noted that this enhances the educator's ability to meet the needs of all learners while meeting or exceeding the established state and district standards. Utilizing differentiated instructional strategies in the diverse classroom can enhance learning from every student. It is not intellectual differences that promote learning but the teacher's level of expectation and ability to meet each student's individual needs and build on prior knowledge to gain success (Levy, 2008).

Levy (2008), like Olenchak (2001) and Tomlinson (2005), maintained that the idea of differentiated instruction is a term that is not new to education. Historically, teachers have found ways to meet the needs of their students. However, according to Haager and Klingner (2005), learning was limited for some students, especially the student with special needs. The authors maintained that students with diverse learning needs have, in the past, been placed in general education classrooms. Moving students from the general classroom setting and placing them in a self-contained or special

educational room setting, places the responsibility of instruction on the special educational teacher. Haager and Klingner cited that the Individuals with Disabilities Education Act (2004) stressed that disabled children should have an opportunity to receive their education in the same classroom environment as children who do not have a disability.

In the past, when students had difficulty learning and were not achieving up to expected standards, schools modified the objectives (Quenemoen, Lehr, Thurlow, & Massanari, 2001). However, Thurlow (2002) stated, "This was a watered-down approach that failed to help students with disabilities and, in fact, hindered their academic performance" (p. 198). In an attempt to reverse this trend, the U.S. Congress enacted two important pieces of legislation: (a) the NCLB (2001), and (b) the Individuals with Disabilities Education Act (2004). Thurlow implied that these acts highlight the significance of increased accountability and promoting educational success for every student.

According to Schumm and Vaughn (1991), research related to the instruction of students with learning difficulties in a general education setting was conducted in a Florida Public School over a nine-year period. The authors further noted that the students in the study were identified as those whose poverty influenced their ability to learn and who often had significant physical and cognitive problems that interfered with learning. Teachers of elementary, middle and high school were observed and studied. One group provided whole-class, undifferentiated instruction and offered minimal adaptations for students with learning disabilities. The other group of teachers provided adaptations across grade levels with respect to promoting student learning. Schumn and Vaughn

revealed that the study showed that teachers across grade groupings perceive adaptations to be desirable with respect to promoting student learning. These methods are examined in this study.

The question was also raised about students with learning disabilities. According to Neill, Guisbond and Schaeffer (2004), researchers questioned if students with learning disabilities could receive the intensity of instruction they needed in the general education setting. Neil et al. suggested that regardless of the federal mandates, success for students with disabilities is still limited in the general academic setting. Likewise, Thurlow, Moen, and Altman (2006) implied that when looking at school performance rates in 2003-2004 and taking into account the number of students with learning disabilities, only 30% of students with IEPs performed at the proficient level on state-required reading and math assessments (Thurlow et al., p. 30). The authors further stated, "today, more than 6 million school-aged students have IEPs, which means more than 4 million (or 70% of) school-aged students lack proficiency in reading and math" (Thurlow et al., p. 8). This study focused on this population by sampling only students with IEPs in kindergarten through third grade.

Abell, Bauder, and Simmons (2005) suggested that students with disabilities lack proficiency in reading because they have limited physical access which is not equal to their cognitive access in the academic setting. Abell et al. further implied that just being present in the classroom offers no advantage for the disabled student. If they are to benefit from the general classroom setting and be able to actively participate in the learning process, they need small group instructions, services, modifications and additional aids designed to accommodate the individual needs they are entitled to have.

These methods appeared to be an essential part of the Reading First program. The authors further noted that many teachers fail to have the proper training needed to help disabled children benefit from the connection between core knowledge and based curriculum learning.

Abell et al. (2005) further suggested that the teaching era prior to standards-based reform allowed teachers to have much more choice in curriculum, the length of time they teach, and assessments of student learning. Students throughout the school received separate education even though they were a part of the same school setting. The variance was even more profound in schools that were economically deprived. According to Abell et al., “this was not because of intellectual differences among the students, but rather differences in teacher expectations and because of divergent student needs and life experiences” (p. 82).

Tomlinson (2005) pointed out that teachers need to understand that all children are not on the same academic level simply because they are in the same grade or of the same age and realize that there is no standardized approach to teaching. Tomlinson stated that “differentiated instruction is responsive teaching rather than 'one-size-fits-all' teaching” (p. 151). Tomlinson further implied that many educators in the classroom today are reconstructing the way they teach and utilizing the model of differentiated instruction to enhance learning for all learners.

According to the Reading First program, differentiated instructions are a fundamental element in the development of reading success. Tomlinson (2005) maintained the same and suggested that there are three elements of a curriculum that can be differentiated: (a) content, (b) process, and (c) products. Content, according to

Tomlinson, includes several elements and materials. Each can be used to support instruction; it defines what teachers plan to teach, such as the teaching concepts of a teacher, or their standards, skills and attitudes toward teaching. These variations define how educators promote learning in the classroom and contribute to the manner in which students acquire adequate education in a differential classroom. An important ingredient for the students is gaining an understanding of the content. The tasks should be aligned with the teaching goals and the purpose for teaching. Standardized state tests and measures often dictate the goal assessment. The objectives which outline the purpose for teaching are often written in elevating degrees that promote the need to build skills continuously. Tomlinson said that "with an effective objective driven lesson, it is easier to find the next instructional step for students' varying levels of learning" (p. 186). The author further stated "the instructional concepts should be broad based and not focused on short details or unlimited facts" (p. 190). Continuing, the author implied that she believes that teachers should focus on the concepts, principles and skills that students need to learn.

The Reading First Program implements flexible grouping, a strategy supported by Tomlinson (2005). The author believed that with flexible grouping learners can interact and work together as they develop knowledge of new content. There are several approaches to grouping, including small groups or pairs, and, grouping can vary. According to Tomlinson, research showed that continuous grouping should be an active procedure that supports the basics for differentiated instructions. Like Stecker et al. (2005) and Good et al. (2001), Tomlinson (2005), while focusing on differentiation, also emphasized the importance of assessment. According to Tomlinson, assessment plays an

important role in the differentiation process. The author maintained that assessing student readiness and growth is vital, and as indicated earlier, it should be done continuously. Quality pre-assessment may promote successful and efficient differentiation.

To restate, Tomlinson (2005) suggested that educators need to ensure that each activity given to students is designed to promote student engagement and critical thinking skills. The author, mirroring the Reading First program, suggested that each lesson should offer a challenge to support learning. If the lesson is designed well, there is a chance for greater evaluation and learning will take place because it encourages students to express themselves in various ways while reducing the levels of difficulty.

Chapter Three - Methodology

The researcher in this study investigated whether students identified as at-risk readers in kindergarten through third grade who received increasing levels of interventions in reading had a higher level of achievement than those students who received limited interventions. At-risk readers are children in grades kindergarten through third grade who have been identified through various assessments as having weak reading skills (FCRR, 2007). Many of these children need extra help to become good readers. Early intensive levels of reading interventions allowed these students to receive supplemental small-group reading instructions (U. S. Department of Education, 2007). Effective reading interventions would include explicit, systematic instructions (U. S. Department of Education, 2007).

Explicit, systematic instructions provided by teachers focused on the five essential components of early literacy skills. These components were (a) phoneme awareness (the ability to hear the individual sounds in a word and to segment the sound), (b) phonics (associate sounds with letters and use these sounds to form words), (c) vocabulary (the ability to understand and use word meaning), (d) comprehension (the ability to convey meaning from text), and (e) reading fluency (the ability to read words in connected text). There are a variety of ways to teach these five essential components, and each approach may differ. However, when the teacher is able to build on the students' strengths and provide clear instruction, learning to read is enhanced.

This investigation may enable educators to remediate reading difficulties earlier and lessen the ultimate severity of weak literacy skills. In addition, teachers and parents

may develop a better understanding of what they can do to help students overcome or deal with their reading difficulties.

Research Design

The purpose of this study was to investigate the academic impact of interventions provided to kindergarten through third grade students identified as at-risk for reading failure as defined by a scientifically based reading program. In this design the dependent variable was the effectiveness of intensive reading instruction interventions for students in kindergarten through third grade as measured by the ITBS and the ISAT. The independent variable was the use of reading interventions, selected and implemented in an attempt to increase reading skills for student in kindergarten through third grade students. The success of the interventions greatly depended on whether they were appropriately implemented by experience educators. In measuring the success, focus was given to reading test results and student outcomes.

The researcher collected data from two separate school districts. Both schools are considered to be urban school districts located in the Southwest region of Illinois. School A serves students in grades kindergarten through third grade. This kindergarten through third grade building was comprised of 299 students at the time of this study. The participants in School B included 319 students in a K-5 building. School A has adopted the DIBELS assessment to help identify students at risk for reading failure. The DIBELS assessment is used by the Reading First program. Reading First is a program that was launched in accordance with the NCLB Act of 2001. Reading First schools emphasize the importance of specific intensive levels of reading interventions for students identified as at-risk for reading failure.

Qualitative and quantitative research methodologies were used in this study. The qualitative data consisted of in-depth interviews with two school administrators, one from each school, and open-ended questionnaires which were completed by each administer. The interviews were conducted first and the questionnaires were hand delivered to each administrator and completed at a later date. The response rate was one to two weeks. Each questionnaire was designed to evaluate the unique qualities and practices of the teaching habits and reading programs in each school. The quantitative data included a collection of reading scores from two separate reading tests. The data were used to test the hypothesis. The hypothesis (H_a) states that the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure, is greater when compared to a school with limited reading interventions. The null hypothesis (H_0) states that the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is no greater when compared to a school with limited reading interventions.

Participation

Participants in this study consisted of 30 students from two separate elementary schools at two different school districts—15 children from School A in District 1 and 15 children from School B in District 2. As noted in Table 1, School A is a kindergarten through third grade School and at the time of the study it accommodated 299 students. The participants at School B included 319 students in a kindergarten through fifth grade school. Student numbers in these buildings change constantly throughout the year due to high levels of student mobility.

Table 1

Demographic and Operations Data 2007

Students	School A	School B
Number of Students	299	319
Racial/Ethnic Background (%)		
White	6.8	11.2
Black	90.5	87.9
Hispanic	2.7	0.9
Asian/Pacific Islander	0.0	0.0
Native American	0.0	0.0
Multiracial/ethnic	0.0	0.0
Additional Information (%)		
Low Income	100	96.1
Limited English Proficient	0.0	0.3
Mobility	18.6	11.5
Attendance Rate	92.4	94.6
Instructional Setting – Average Class Size		
Kindergarten	17.5	26.0
Grade 1	23.0	26.5
Grade 2	20.8	33.5
Grade 3	20.7	29.0
Grade 4	-	26.5
Grade 5	-	24.5

Average Teaching Experience (Yrs)	11.1	10.3
% Teachers w/Emergency or Provisional Teaching Credits	2.6	2.2
% Teachers w/Graduate Degrees	30.8	32.4
Average Teacher Salaries	$49,775	$58,796

Note. From "School Profile," by Illinois State Board of Education, 2007. Retrieved November 20, 2007, from http://iirc.niu.edu/District.aspx?districtID=41057012026.

Instrumentation

The independent variable (reading interventions), implemented in an attempt to increase reading skills for kindergarten through third grade students, was measured by the ISAT, and the ITBS. The ISAT measured individual student achievement relative to the Illinois Learning Standards for evaluation of student learning and school performance (Illinois State Board of Education, 2007).

> The Iowa test of Basic Skills (ITBS) is a nationally standardized norm-referenced test (NRT). The test examines skills in various subjects such as math and Language arts. The participants are usually scored in percentages, and also in comparison to other participants across the country. The test was developed in the University of Iowa, based on over seventy years of ongoing research. The exam measures the skill and achievement of students from kindergarten to grade eight with the objective of providing an in-depth measure of important educational objectives. The ITBS provides reliable information about the students' skill development as well as critical reasoning, in comparison to their peers. (Pedagogy Education, 2005, p. 1)

The researcher examined the data to determine the reading outcomes for students in general in kindergarten through third grade in each school district, specifically the resulting test scores of students in these grades who were identified as at-risk for reading failure and who received intensive levels of reading interventions prior to grade three. Data of students in grade three, who were identified as at-risk for reading failure while in kindergartener or first grade and who received intensive levels of reading interventions at School A were compared to those students in grade three who received limited or no reading interventions at School B.

The researcher also conducted interviews to evaluate each school's quality of teaching and to analyze each school's reading program. The purpose of this study was to investigate whether students identified as at-risk for reading failure in kindergarten through third grade who received increasing levels of interventions in reading had a higher level of achievement than those students who received limited interventions. Therefore, the researcher conducted evaluations to identify factors that influence reading development. This undertaking was particularly important for a number of reasons. First, when working with students who struggle with reading, it is important for teachers to have effective intervention reading programs to help those students acquire necessary reading skills. Second, teacher qualification and motivation can greatly influence a student's effort and performance, which can either enhance or impede reading success, as noted in chapter two of this dissertation.

Reading Programs

Interviews and open-ended questionnaires were used to examine the reading programs at each school (see Appendices A and B). The questionnaires were designed to

analyzed and compare (a) school goals including objectives and priorities; (b) assessment practices; (c) instructional programs and materials; (d) instructional time; (e) differentiated instruction, grouping, and scheduling; and (f) administration, organization, and communication (see Table 11). While each school had its own unique set of characteristics, both schools appeared to have effective school wide reading programs that included reading curriculums aligned to meet state standards and clearly defined goals and objectives. However, additional data and evaluations indicated that there was a difference in the implementation of the two reading programs.

Teaching Standards

When evaluating the quality of teaching, the researcher referred to the Illinois Professional Teaching Standards. An interview with each school administrator was conducted to examine how well each school understood and adhered to the following:

> (a) content knowledge (the teachers' understanding of the central concepts, methods of inquiry, and structures of their disciplines); (b) human development and learning (the teachers' understanding of individual growth, development, and learning); (c) diversity (the teachers' understanding of differentiated instruction); (d) planning for instruction (the teachers' understanding of instructional planning and capability to design instruction based upon knowledge of the discipline, students, the community, and curriculum goals); (e) learning environment (the teachers' abilities to create a learning environment based on individual and group needs); (f) instructional delivery (the teachers' abilities to use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills); (g) communication (the teachers' use of

knowledge of effective written, verbal, nonverbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom); (h) assessment (the teachers understand various formal and informal assessment strategies and use them to support the continuous development of all students); (i) collaborative relationships (the teachers understand the role of the community in education and develop and maintains collaborative relationships with colleagues, parents/guardians, and the community to support student learning and well-being); (j) reflection and professional growth (the teachers are reflective practitioners who continually evaluate how choices and actions affect students, parents, and other professionals in the learning community and actively seek opportunities to grow professionally); and (k) professional conduct (the teachers understand education as a profession, maintain standards of professional conduct, and provide leadership to improve student learning and well-being (Illinois State Board of Education, p. 2) (see Tables 11 and 12).

In order to raise reading scores for all students, it is necessary to raise teacher expectations and understanding of student learning. The teachers' teaching skills and expectations strongly influence the students' effort and performances. Teaching standards are designed to heighten the teachers' awareness of their abilities to interact with students as well as offer insight into how they can promote student achievement.

The intent of this study was to present an objective, accurate, and descriptive view of the teaching characteristics and practices for two elementary schools located in the Southwest region of Illinois. The quality of each school's reading program was also discussed. Moreover, the researcher hypothesized that at-risk readers in kindergarten

through third grade who received increasing levels of interventions in reading would have a higher level of achievement than those students who received limited intervention.

Reliability

The ISAT is a statewide assessment. Statewide assessments are required to be reliable, and generate dependable information. The NCLB Act (2001) established guidelines that require reliability documentation of tests; likewise, professional standards are expected in the measurement field. Determination of reliability is measured on a scale from 0 to 1. The assessment test for Illinois is on track for its development and implementation of its assessments and accountability system (McGee, 2001).

The ITBS is also a statewide assessment. The ITBS is a nationally standardized, norm-referenced test. Services to the schools are provided by the College of Education at the University of Iowa. The reliability of the ITBS is validated by the formal construction of test design and scoring procedures by educational testing professionals (University of Iowa, 2007).

Validity

It is imperative that statewide assessments are valid and provide true measurements, measuring exactly what is intended. Equally, content validation should be firm, and based on a matter of degrees that endorse adequacy documentation. Content validity is firmly connected to the test purpose. Validity documentation was obtained from the Department of Education and the State Board of Education (University of Iowa, 2007).

The ITBS is also a statewide assessment. The ITBS is a nationally standardized, norm-referenced test. The professionals at the College of Education of The University of

Iowa use professional judgment about whether the content of the test measures are appropriate and represents the range of what examinees should know and be able to do. The validity of the ITBS is also validated by professional judgment about whether the content measures are appropriate and represents the range of what examinees should know and be able to do (University of Iowa, 2007).

External Validity of the Study

Threats to external validity. Four main categories were considered with regard to threats to the external validity of this study: (a) the type of assessment generating the scores, (b) the process used for calculation of grade equivalent (GE), (c) socioeconomic levels of school populations, and (d) limited school diversity.

First, assessment scores used for this study were from the ITBS and the ISAT. The scores from the ITBS were GE scores. These scores describe performance in terms of grade level and months. Standard scores, where the mean is set to be 100, were not used to determine reading growth. Second, the scores from the ITBS were divided into two columns for each school to better illustrate each student's progress. The first column depicted the student's developmental area. It is identified as the GE. The second column for each school showed the actual grade equivalent the student was expected to have based on his grade level. The third column for each school showed the difference, illustrating how many months or years the student was either ahead, behind or on grade level. Using the results from the GE scores, statistical tests, such as t-tests and chi-square tests were used to compare student growth at each school. Third, the socioeconomic levels of School A and School B were considered to be low socioeconomic status, with

98% of the students receiving free or reduced lunch at School A and 96.1% receiving free and reduced lunch at School B.

Frequently, these schools often need the economic and communal support that distinguish school groups with high socioeconomic status. Parents may also have inadequate or limited access to community resources that promote and support children's development and school readiness. These variables can predict treatment outcomes. Fourth, district populations at Schools A and B represented limited diversity. Ethnic representation at School A was 6.8% White, 90.5% Black, and 2.7% Hispanic. At School B, the population included 11.2% White, 87.9% Black, and 0.9% Hispanic. Raising the achievement level of low-achieving minority students who live in urban low-income areas can create a greater challenge for educators when compared to educators raising the achievement level of low-achieving white students, who live in high-income suburban areas. For example, schools with a predominantly Black population typically require teachers of different ethnic backgrounds to understand differentiated teaching. Teachers may also need to recognize that their expectations have an effect on student outcomes.

Summary

The methodology used in this study led to a careful investigation, as documented by the final chapter. The investigation began by collecting and studying data from two separate school districts. Both schools were located in Illinois. Qualitative and quantitative research were used to do a comparative study. To avoid any type of sampling bias, classifications were consistent when comparing groups. The researcher conducted thorough in-person interviews with school administrators. The same types of questions were asked in the interviews and on all evaluation forms. Four main categories were

considered with regard to the external validity of this study: (a) the type of assessment generating the scores, (b) the process used for calculation of GE, (c) socioeconomic levels of school populations, and (d) limited school diversity. Finally, all information was collected and documented. The results are reported in chapter four.

Chapter Four - Results

The purpose of this study was to investigate whether students identified as at-risk for reading failure in kindergarten through third grade who received increasing levels of interventions in reading had a higher level of achievement than those students who received limited interventions. At-risk readers were children in grades kindergarten through third grade who were identified through various assessments as having weak reading skills. Many of these children need extra help to become good readers. Early intensive levels of reading interventions allow these students to receive supplemental small-group reading instructions. Explicit, systematic instruction provided by teachers focused on five essential components of early literacy skills. These components were (a) phoneme awareness (the ability to hear the individual sounds in a word and to segment the sound), (b) phonics (the ability to associate sounds with letters and use these sounds to form words), (c) vocabulary (the ability to understand and use word meaning), (d) comprehension (the ability to convey meaning from text), and (e) reading fluency (the ability to read words in connected text).

This was a quantitative and qualitative research study designed to provide answers for the following research questions:

1. What gains are made in reading abilities for children who are at-risk for reading failure and who receive intensive levels of reading interventions as defined by a scientifically based reading program?
2. What changes, if any, could occur as a result of parents and educators gaining a better understanding of how children learn to read?

Description of Sample

The researcher investigated reading test data from two separate schools in two different school districts in this study. Both schools serviced an urban school setting in the Southwest region of Illinois. School A, located in school district one, served students in grades kindergarten through third grade. This building was comprised of 299 students. School B, located in school district two, served students in grades kindergarten through fifth grade. This building was comprised of 319 students. School A adopted the DIBELS assessment. This is an assessment designed to help schools identify students at risk for reading failure. This program emphasizes the implementation of intensive levels of reading interventions. It also distinguishes the areas in which the students need intensive reading interventions. The DIBELS test is used by School A as a result of the school being a Reading First School. School B was not a Reading First school and therefore, this school had not adopted any particular reading intervention program. Teachers used individual intervention reading instruction, instead of the scientifically-based reading interventions recommended by Reading First.

Quantitative Data Analysis

Using reading scores previously collected for 2005-2007, a comparison was done between School A and School B to evaluate the effectiveness of the reading programs that were in place. Reading scores for 15 children who attended School A and who received the intensive interventions through the Reading First Program during 2005-2007 were compared to the reading scores of 15 children who attended School B and who did not receive intensive interventions through the Reading First Program between 2005-

2007 (see Table 2 and Table 4). The ITBS and the ISAT scores were used to measure

Table 2

IOWA Reading Scores for School A (Intervention Group)

School A	Grade Equivalent Obtained	Grade Equivalent Expected	Difference
Student 1	2.9	3.0	-.1
Student 2	2.9	3.0	-.1
Student 3	3.5	3.0	.5
Student 4	4.8	3.0	1.8
Student 5	4.3	3.0	1.3
Student 6	3.9	3.0	.9
Student 7	1.5	3.0	-1.5
Student 8	3.0	3.0	0
Student 9	2.5	3.0	-.5
Student 10	3.2	3.0	.2
Student 11	3.1	3.0	.1
Student 12	2.2	3.0	-.8
Student 13	4.1	3.0	1.1
Student 14	1.7	3.0	-1.3
Student 15	3.0	3.0	0

student reading achievement. The two groups examined in this study were similar in demographics in turns of grade, age and school settings. The schools also had similar characteristics, for example, school size, type of community serviced, type of school, and number of students in each grade. For the quantitative data analysis, the researcher only compared the reading scores from the two tests.

ISAT scores are used yearly by the state to calculate a school or district's Adequate Yearly Progress (AYP) to ascertain if learners are on base for reaching the requires performance based target. The ITBS, administered to students beginning in kindergarten and progressing until grade eight, is used to assess educational development.

The scores from the ITBS were divided into two columns for each school to better illustrate each student's progress (see Table 2 and Table 4). The first column depicts the student's developmental area. It is identified as the GE. The GE number describes performance in terms of grade level and months. For example, if a student in the second grade obtains a GE of 2.9, his score illustrates he finished the ninth month of second grade on the test. The second column for each school shows the actual grade equivalent the student was expected to have based on his grade level. The third column for each school shows the difference, illustrating how many months or years the student is either ahead, behind, or on grade level. Initial evaluation of reading abilities was use to chose students to take part in the intervention. Students with poor reading skills were chosen to participate in the intervention program.

Using the reading scores from School A and School B, a one sample t-test was used to compare student growth at each school. The researcher was testing to compare

Table 3

Results of One Sample T-Test for School A (Intervention Group)

Mean	0.226667
Standard Error	0.269827
Median	0
Mode	0.1
Standard Deviation	1.045034
Sample Variance	1.092095
Kurtosis	-0.648
Skewness	0.103453
Range	3.5
Minimum	-1.5
Maximum	2
Sum	3.4
Count	15

Table 4

IOWA Reading Scores for School B (Non-Intervention Group)

School B	Grade Equivalent Obtained	Grade Equivalent Expected	Difference
Student 1	3.8	3.0	.8
Student 2	2.9	3.0	-.1
Student 3	2.7	3.0	-.3
Student 4	4.0	3.0	1
Student 5	3.0	3.0	0
Student 6	3.0	3.0	0
Student 7	2.4	3.0	-.6
Student 8	2.9	3.0	-.1
Student 9	3.0	3.0	0
Student 10	2.4	3.0	-.6
Student 11	3.3	3.0	.3
Student 12	4.0	3.0	.1
Student 13	2.6	3.0	-.4
Student 14	2.1	3.0	-.9
Student 15	3.9	3.0	.9

mean scores (see Table 3 and Table 5). The test was run using Microsoft Office Excel. It is a special case of a one-way Analysis Of Variance (ANOVA). The paired t-test provided a hypothesis test of the difference between population means for a pair of samples whose differences were approximately normally distributed.

The null hypothesis (H_0) stated, the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is no greater when compared to a school with limited reading interventions. The alternative hypothesis (H_a) stated, the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is greater when compared to a school with limited reading interventions. Data analysis tested for a significant difference between the means of the two groups. The mean score for children in the intervention group at School A was 0.227 (see Table 3). The mean score for the children in the non-intervention group at School B was 0.006667 (see Table 5). The results revealed that no significant differences existed between the two tests ($t= 0.803$, $df = 14$, $p= 0.435$). The p-value associated with t is (>0.05). This is evidence that the null hypothesis (H_0) can be accepted. There was no greater gain for the intervention group.

$$t = \frac{\bar{X} - \mu}{\frac{s}{\sqrt{N}}}$$

Table 5

Results of One Sample T-Test for School B (Non-Intervention Group)

Mean	0.006667
Standard Error	0.143914
Median	0
Mode	0
Standard Deviation	0.557375
Sample Variance	0.310667
Kurtosis	-0.35664
Skewness	0.441703
Range	1.9
Minimum	-0.9
Maximum	1
Sum	0.1
Count	15

Table 6

Two Sample Independent T-Test

	Sample Size	Mean	Standard Deviation	Standard Error		
School A	15	0.227	1.05	0		
School B	15	0.00667	0.557	0		
Result	*t* statistics	*Df*	p-value[1]	Mean Difference	Lower Limit	Upper Limit
Equal variance	0.717938	28	0.478744	0.22033	-0.408315	0.848975
Unequal variance	0.717938	21	0.480707	0.22033	-0.417887	0.58547

Note. From "OpenEpi: Open Source Epidemiologic Statistics for Public Health," by A. G. Dean, K. M. Sullivan, & M. M. Soe, 2008. Retrieved from OpenEpi Web site: http://www.openepi.com/Menu/OpenEpiMenu.htm.

Table 7

Equality of Variance

	F statistics	*Df* (numerator, denominator)	p-value[1]
Test for equality of variance[2]	3.5536	14, 14	0.0238332

Note. From "OpenEpi: Open Source Epidemiologic Statistics for Public Health," by A. G. Dean, K. M. Sullivan, & M. M. Soe, 2008. Retrieved from OpenEpi Web site: http://www.openepi.com/Menu/OpenEpiMenu.htm.

In Table 7 the data illustrated the equality of variance or an analysis of variance (ANOVA), found in Table 6, and yielded the p-value. The p-value, the probability suggested the strongest possible conclusion by measuring consistency. When comparing

School A and School B, it calculated the probability of the results from the data in Table 6 and further suggested that the null hypothesis (H_0), the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is no greater when compared to a school with limited interventions, and the alternative hypothesis (H_a), the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is greater when compared to a school with limited reading interventions, were evaluated.

$$H_o: \mu A = \mu B$$

$$H_a: \mu A > \mu B$$

This one-way ANOVA module showed the confidence intervals for each individual mean. This function gives a paired student t-test, with confidence intervals for the difference between a pair of means. The two-sample independent t-test displayed the mean score at 0.227 for children in the intervention group at School A. The mean score for the children in the non-intervention group at School B showed 0.00667 (see Table 6). The calculations were ($t= 0.803$, $df = 14$, $p= 0.435$). These calculations revealed that the probability (P) was greater than 0.05, thus, confirming that the means were not statistically different and accepting the null hypothesis. This additional test demonstrated that those students at School A who were identified as being at-risk for reading failure and who received intensive reading interventions showed no greater growth by 2007 than the group of students at School B who did not participate in a reading intervention program. The test was run using the Open-Epi Statistics, Diagnostic On-Line Test Evaluator.

Table 8

Chi-Square Test

	Students who showed growth in reading scores	Students who failed to increase reading scores	Total
Intervention Group	9	6	15
Non-intervention Group	8	7	15
Total	17	13	30

Chi-Square = 0.13574661

The following formula was used to calculate the test in Table 8.

$$\chi 2 = \frac{(ab - bc)2 \quad (a + b + c + d)}{(a + a)(c + d)(b + d)(a + c)}$$

Considering the outcome of the Two Sample Independent T-Tests in Table 6, a Chi-Square test was used to determine the percentage of students who increased their reading scores (see Table 8). Chi square = $30[(9)(7) - (6)(8)]^2 / (15)(15)(13)(17)$ $x^2 = 0.1357$. The data in Table 8 illustrates the frequency for students who increased their reading scores when compared to students who failed to increase their reading scores. The results of the Chi-Square test in Table 8 was x^2 (N=30, df =1, P>0.05). These findings indicated that the null hypothesis is true. The hypothesis, the academic impact of reading interventions provided to kindergarten through third grade students identified as

at-risk for reading failure is greater when compared to a school with limited reading interventions , was rejected. Growth in reading scores for the students at School A, who received the interventions, was not significantly greater than the growth in reading scores for students at School B, the non-intervention group. This test revealed that there was nearly equal growth between the two schools with School B showing a slightly higher score.

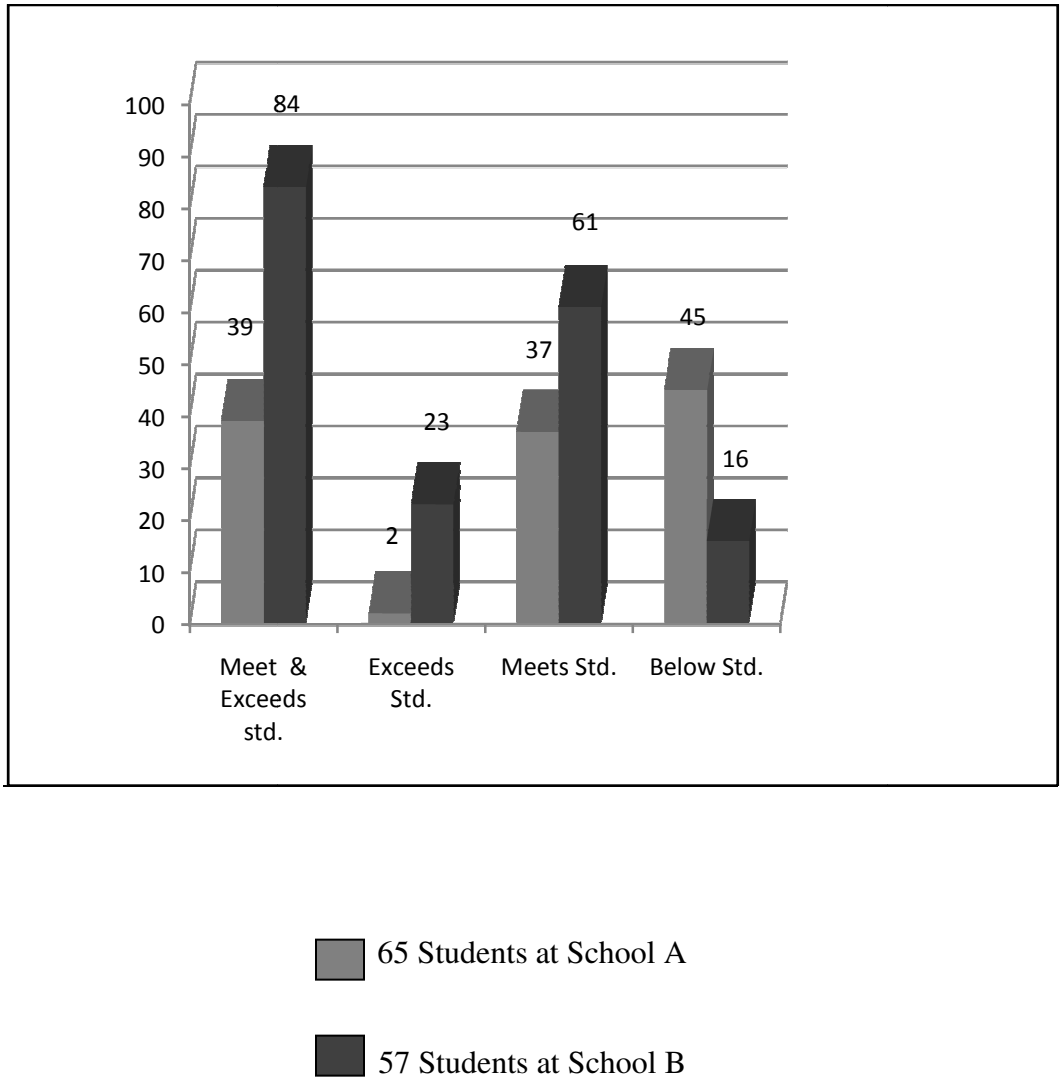


Figure 1. Illinois Standard Achievement Test (ISAT) School Comparison Chart

Note. From "Student Assessment," by Illinois State Board of Education, 2007. Retrieved November 20, 2007, from http://www.isbe.state.il.us/assessment/isat.htm.

Further tests were conducted to evaluate the scores of the complete 2007 third grade groups from each school. As shown in Figure 1, School B was making AYP, as required by the State of Illinois and NCLB Act of 2001, in reading. In School A where reading interventions were used, the school was not making AYP in reading. The numbers in the chart show that out of 65 students at School A (intervention group), 39% met and exceeded state standards, 2% of the students exceeded state standards for reading, 37% met state standards and 45% were below. In School B (non-interventions group), 57 students were tested. Out of this group, 84% met and exceeded state standards, 23% exceeded state standards, 61% met, and 16% were below.

Based on the data in Figure 1, there was no significant difference between children receiving intensive reading interventions and students not receiving interventions. Therefore, the null hypothesis was accepted: the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is no greater when compared to a school with limited interventions. It was expected that School A (intervention group) would have greater gain; however, according to the numbers in Figure 1, School B (non-intervention group) exceeded School A, but the gain was not significant.

Using the ISAT scores from Figure 1, a Chi-Square test was performed to further determine if the scores from the two schools differed significantly. As illustrated in Table 10, there was no significant difference between children receiving intensive reading interventions and students not receiving interventions. There are many factors that could

contribute to reading success. Some of these factors include student style of learning, rate of learning, teacher qualification and motivation, and the effectiveness of the school's

Table 9

ISAT Chi-Square Data Chart

	Students	Exceeds	Meets	Below	Total
School A	65	2	37	45	84
School B	57	23	61	16	100
Totals	122	25	98	61	184

Chi-Square = 36.187

Degrees of Freedom 2

P-Value 6e-8

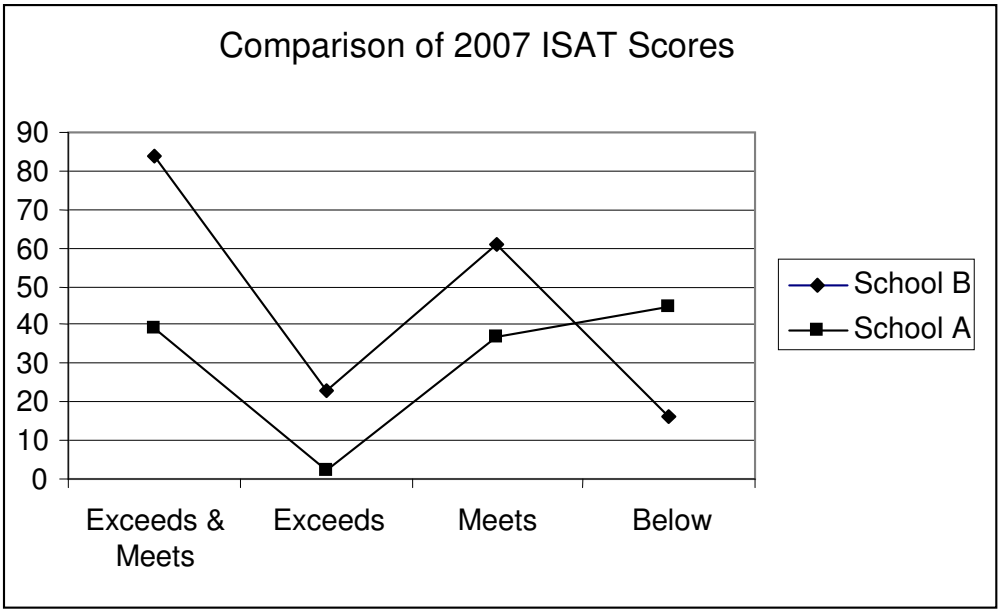


Figure 2. Line Plot of 2007 ISAT Reading Scores for School A and School B

reading program, which includes the implementation of the reading program. Most importantly, learning to read is enhanced when teachers carefully adapt to the needs of their students.

The plot line above clearly illustrates the differences between the ISAT Reading Scores for School A (intervention group) and School B (non-intervention group). As depicted in the chart, School B exceeded School A in making growth for the year. In all

Table 10

T-Test Results for ISAT Reading Scores

t= 0.812

sdev= 26.6

degrees of freedom = 6

The probability of this result, assuming the null hypothesis, is 0.448

School A: Number of items= 4	School B: Number of items= 4
2.00 37.0 39.0 45.0	16.0 23.0 61.0 84.0
Mean = 30.8	Mean = 46.0
95% confidence interval for Mean: -1.756	95% confidence interval for Mean: 13.49
thru 63.26	thru 78.51
Standard Deviation = 19.5	Standard Deviation = 32.1
Hi = 45.0 Low = 2.00	Hi = 84.0 Low = 16.0
Median = 38.0	Median = 42.0
Average Absolute Deviation from Median = 11.2	Average Absolute Deviation from Median = 26.5

four categories, except for students below state standards, School B was slightly ahead of School A. These numbers were used to perform a t-test. Table 10 depicts the results.

As demonstrated with the ITBS test scores, the ISAT t-test showed that School B (non-intervention group) was making better progress than School A (intervention group) in reading. The ISAT scores illustrated the ISAT scores for the entire school. The mean score for School A was 30.8 and the mean score for School B was 46.0. This was another indication that School B was implementing effective teaching instructions.

Qualitative Data Analysis

The researcher conducted two interviews with school administrators to identify and analyze each school's reading program (see Table 11). The duration of each interview was approximately an hour. In addition, the researcher conducted an evaluation to examine the Individual Professional Teaching Standards as related to the Illinois State Teaching Standards for each school (see Table 12 and Table 13). The following variables were investigated to evaluate the reading programs:

1. Goals, Objectives, Priorities – Respondents were surveyed to determine if they believed goals for reading achievement are clearly defined, anchored to research, prioritized in terms of importance to student learning, commonly understood by users, and consistently employed as instructional guides by all teachers of reading.
2. Assessment – Respondents were surveyed to determine if they believed instruments and procedures for assessing reading achievement are clearly specified, measure important skills, provide reliable and valid information

about student performance, and inform instruction in important, meaningful, and maintainable ways.

3. Instructional Programs and Materials – Respondents were surveyed to determine if they believed instructional programs and materials have documented efficacy, are drawn from research-based findings and practices, align with state standards and benchmarks, and support the full range of learners.
4. Instructional Time – Respondents were surveyed to determine if they believed a sufficient amount of time allocated for instruction and the time allocated is used effectively.
5. Differentiated Instruction/Grouping/Scheduling – Respondents were surveyed to determine if they believed instruction optimizes learning for all students by tailoring instruction to meet current levels of knowledge and prerequisite skills and organizing instruction to enhance student learning.
6. Administration/Organization/Communication – Respondents were surveyed to determine if they believed strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and establishes mechanisms to communicate reading progress and practices.

The results in Table 6 suggest that the reading program at School B (non-intervention group) was more effective than the reading program at School A (intervention group). Each school was evaluated using a score ranging from 1-20 for maintaining the following categories: (a) goals and objective prioritizing, (b) assessment, (c) instructional programs and materials, (d) instructional time, (e) differentiated

instruction/grouping/scheduling, (f) administration/organization/communication, and (g) professional development. Each item had a value of 0-2.

All but one category, instructional time, showed a slightly higher rating for implementation in School B. Survey responses indicated that a sufficient amount of time was allocated for instruction at School A. However, all others categories are also critical areas that could affect student achievement. For example, assessment is an area that dictates where students are in their learning; it helps teachers determine what learning goals and objectives are most important and it enables them to evaluate the effectiveness of their instructional practices. Another important area is differentiated instruction. When using differentiated instruction teachers use different teaching strategies to enhance student learning. Lessons are structured according to individual learning styles and rates of learning. As a result students are more engaged in the learning process.

Tables 10 and 11depict the evaluations of Individual Professional Teaching Standards at School A (intervention group) and School B (non-intervention group). The highest point in the evaluation process was 110 for either school. Based upon the criteria listed in Table 11 and using the point system, the highest point was 49% for School A (intervention group). However, the results listed in Table 12 for School B (non-intervention group) showed the highest point at 75%. This is an indication that the Illinois State Teaching Standards are maintained at a higher rate at School B when compared to School A.

Table 11

Evaluation of Reading Program for School A

Elements	School A (Interventions)		School B (Non-Interventions)	
	Score	Percent	Score	Percent
1. Goals, Objectives, Priorities	10/14	71%	12/14	86%
2. Assessment	17/20	85%	20/20	100%
3. Instructional Programs and Materials	17/22	77%	18/22	89%
4. Instructional Time	14/14	100%	12/14	86%
5. Differentiated Instruction/ Grouping/Scheduling	8/10	80%	10/10	100%
6. Administration/Organization/ Communication	12/12	100%	12/12	100%
7. Professional Development	5/8	63%	7/8	88%
Total Score	83/100	83%	91/100	91%

Table 12

Illinois Professional Teaching Standards Evaluation for School A

Standard	Standard Description	Score
Content Knowledge	The teachers understand the central concepts, methods of inquiry, and structures of the discipline(s) and create learning experiences that make the content meaningful to all students.	5
Human Development and Learning	The teachers understand how individuals grow, develop, and learn and provide learning opportunities that support the intellectual, social, and personal development of all students.	7
Diversity	The teachers understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.	5
Planning for Instruction	The teachers understand instructional planning and design instruction based upon knowledge of the discipline, students, the community, and curriculum goals.	5
Learning Environment	The teachers use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.	5
Instructional Delivery	The teachers understand and use a variety of instructional strategies to encourage students' development of critical	5

	thinking, problem solving, and performance skills.	
Communication	The teachers use knowledge of effective written, verbal, nonverbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.	5
Assessment	The teachers understand various formal and informal assessment strategies and use them to support the continuous development of all students.	5
Collaborative Relationships	The teachers understand the role of the community in education and develop and maintain collaborative relationships with colleagues, parents/guardians, and the community to support student learning and well-being.	4
Reflection and Professional Growth	The teachers are reflective practitioner who continually evaluates how choices and actions affect students, parents, and other professionals in the learning community and actively seek opportunities to grow professionally.	4
Professional Conduct	The teachers understand education as a profession, maintain standards of professional conduct, and provide leadership to improve student learning and well-being.	4
	54%/110 = Total Points 49%	

Note. From "Educator Certification," by Illinois State Board of Education, n.d. Retrieved from http://www.isbe.net/profprep/nbpts.htm.

Table 13

Illinois Professional Teaching Standards Evaluation for School B

Standard	Standard Description	Score
Content Knowledge	The teachers understand the central concepts, methods of inquiry, and structures of the discipline(s) and create learning experiences that make the content meaningful to all students.	8
Human Development and Learning	The teachers understand how individuals grow, develop, and learn and provide learning opportunities that support the intellectual, social, and personal development of all students.	8
Diversity	The teachers understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.	9
Planning for Instruction	The teachers understand instructional planning and design instruction based upon knowledge of the discipline, students, the community, and curriculum goals.	8
Learning Environment	The teachers use an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.	9
Instructional Delivery	The teachers understand and use a variety of instructional strategies to encourage students' development of critical	7

	thinking, problem solving, and performance skills.	
Communication	The teachers use knowledge of effective written, verbal, nonverbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.	7
Assessment	The teachers understand various formal and informal assessment strategies and use them to support the continuous development of all students.	9
Collaborative Relationships	The teachers understand the role of the community in education and develop and maintain collaborative relationships with colleagues, parents/guardians, and the community to support student learning and well-being.	7
Reflection and Professional Growth	The teachers are reflective practitioner who continually evaluates how choices and actions affect students, parents, and other professionals in the learning community and actively seek opportunities to grow professionally.	5
Professional Conduct	The teachers understand education as a profession, maintain standards of professional conduct, and provide leadership to improve student learning and well-being.	5
	82%/110 = Total Points 75%	

Note. From "Educator Certification," by Illinois State Board of Education, n.d. Retrieved from http://www.isbe.net/profprep/nbpts.htm.

Summary

Within this chapter, the quantitative and qualitative research results were present to answer the two research questions. The first question asked, what gains are made in reading abilities for children who are at-risk for reading failure and who receive intensive levels of reading interventions as defined by a scientifically based reading program? Using quantitative data, reading scores from two separate schools, School A, being the intervention group, and School B, being the non-intervention group, were examined. The study showed that there was no greater gain for children who received the intensive levels of reading interventions as defined by a scientifically based reading program when compared to students who did not received the scientifically based intensive interventions.

The mean scores for each statistical test showed that there was no significant difference between reading scores from the two schools. However, each test did reveal that there was greater growth for School B, the non-intervention group, when compared to School A, the intervention group. Furthermore, the 2007 reading scores depicted School B as making AYP and School A as not making AYP. There are many factors that could contribute to students' reading scores; the two that were examined in this study were (a) the teacher's ability to meet professional teaching standards, and (b) the quality and the implementation of the school's reading program. The researcher used interviews and open-ended questionnaires to conduct a qualitative study. The examination of the two schools indicated that School B, the non-intervention group, was slightly more sufficient in meeting state required teaching standards. Study of each school's reading program also

revealed that the implementation of the reading program at School B was more effective than the implementation of the reading program at School A.

The second question asked, what changes, if any, could occur as a result of parents and educators gaining a better understanding of how children learn to read? As a result of this study, parents and educators may be able help students with reading difficulties by understanding that these children need extra support, the kind of support that only a highly qualified teacher can provide. This study revealed through a review of the literature that when children are exposed to teachers who are capable of meeting professional teaching standards, it enhances their abilities to become proficient readers. Equally, parents and teachers may understand the importance of effectively implementing a school's reading program. A quality reading program, together with effective planning, strengthens the educator's ability to establish clear goals and objectives, prioritize, assess, and implement effective reading instructions.

Chapter Five - Summary

Functional illiteracy is one of the most significant problems facing any society. Youth between the ages of 16-21, who experience the inability to function appropriately because of illiterate, account for approximately 50% of the nation's unemployed youth and have no prospect of acquiring a decent job. Additionally, 37% of fourth graders and 26% of eighth graders cannot read at the basic level; and on the National Assessment of Educational Progress (NAEP, 2002) report, 26% of twelfth graders could not read at the rudimentary level. These statistics indicated that when students are reading text appropriate for their grade, they do not have the ability to ascertain the specify purpose for reading or use prior experiences to make connections with the text or even make simple conclusions about the text. In other words, children in this category cannot comprehend what they have read.

This purpose of this study was to investigate whether students identified as at-risk readers in kindergarten through third grade who received increasing levels of interventions in reading had a higher level of achievement than those students who received limited interventions. As illustrated in this study, at-risk readers were children in grades kindergarten through third grade who were identified through various assessments as having weak reading skills. Many of these children needed extra help to become good readers. Early intensive levels of reading interventions allowed these students to receive supplemental small-group reading instructions. Explicit, systematic instructions provided by teachers focused on five essential components of early literacy skills. These components were (a) phoneme awareness (the ability to hear the individual sounds in a word and to segment the sound), (b) phonics (the ability to associate sounds with letters

and use these sounds to form words), (c) vocabulary (the ability to understand and use word meaning), (d) comprehension (the ability to convey meaning from text), and (f) reading fluency (the ability to read words in connected text.) These skills are essential within an effective reading program.

As the literature in Chapter Two demonstrated, reading is a skill that must be taught. Further, for about 60% of students, their reading success is determined largely by the type of reading instruction they receive in the early years. Good readers (a) have phonemic cognizant, (b) have knowledge pertaining to the alphabetic standards, (c) utility these skills to read fluently and rapidly, (d) maintain powerful vocabulary skills, (e) have good linguistics skills, and (f) connect reading to prior experiences. Problems in any of these areas could hinder reading progress. The type of instruction children receive in the classroom is very important in the prevention of reading difficulties. Reviews of effective intervention programs indicated that there are some common characteristics that make these programs successful. For instance, children who struggle with reading appear to benefit more from one-on-one and small group tutoring because it provides the individualized support and additional instructional time these readers require. Instructions for children struggling with reading need to correspond with the normal classroom instructions so that the coupled programs are coordinated. Children encountering reading difficulty need highly skilled teachers capable of providing high-quality instructions in the regular reading program and during interventions. These elements would be useful in any program to help poor readers.

In this study the dependent variable was the effectiveness of intensive reading instruction interventions for students in kindergarten through third grade as measured by the ITBS and the ISAT. The independent variable was the use of reading interventions, selected and implemented in an attempt to increase reading skills for students in kindergarten through third grade. The success of the interventions greatly depended on whether it was appropriately implemented by experienced educators. In measuring the success, the researcher focus was on the results from the reading tests and student outcomes.

The data was collected from two separate schools in two separate school districts. Both schools at the time of the study were considered to be urban school districts located in the Southwest region of Illinois. School A served students in grades kindergarten through third grade. This kindergarten through third grade building was comprised of 299 students. School B served students in grades kindergarten through fifth grade. This kindergarten through fifth grade building was comprised of 319 students. School A had adopted the DIBELS assessment to help identify students at risk for reading failure. The DIBELS assessment is a test utilized by the Reading First program. Reading First is a program that was launched in accordance with the NCLB Act of 2001. Reading First schools emphasize the importance of specific intensive levels of reading interventions for students identified as at-risk for reading failure.

Qualitative and quantitative research data were used to do a comparative study. To avoid any type of sampling bias, classifications were consistent when comparing groups. Thorough in-person interviews were conducted with school administrators. The same types of questions were asked in the interviews and on all evaluation forms.

The null hypothesis (H_0) was accepted. It stated, the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is no greater when compared to a school with limited interventions. The alternative hypothesis (H_a) could not be accepted. It stated that the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure is greater when compared to a school with limited reading interventions. Each statistical test showed that there was no significant difference between the reading scores for the two schools. There was no greater gain for School A, the intervention group, when compared to School B, the non-intervention group. Instead, School B, the non-intervention group, showed growth in its reading scores. Furthermore, the 2007 reading scores depicted School B as making AYP and School A as not making AYP, but with the 2007 reading scores and with each statistical test, the growth was not significant.

Summary of Results

The quantitative and qualitative research used in this study was designed to provide answers for the following questions:

1. What is the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure as defined by a scientifically based reading program?
2. What changes, if any, could occur as a result of parents and educators gaining a better understanding of how children learn to read?

Answer to question one: What is the academic impact of reading interventions provided to kindergarten through third grade students identified as at-risk for reading failure as defined by a scientifically based reading program? Based on the results of this study, there were no greater gains for children who received the intensive levels of reading interventions, as defined by a scientifically based reading program (School A) when compared to students who did not receive the scientifically based intensive interventions (School B). There are various factors that can affect reading scores. The two that were examined in this study were (a) the teacher's ability to meet professional teaching standards, and (b) the quality and the implementation of the school's reading program. Interviews and open-ended questionnaires were used to conduct a qualitative study at both schools. During the interview with the administer from School A, it was discovered that many of the teachers did not fully understand how to meet the individual needs of their students. This is an indication that the Reading First program was not being implemented as designed. Furthermore, it was suggested that the teachers lack the ability to utilize the data to drive their instructions. The results of the interviews and the open-ended questionnaires revealed that School B, the non-intervention group, was slightly more proficient in meeting state required teaching standards. Further, the implementation of the reading program at School B was more effective than the implementation of the reading program at School A, as evidenced by the results of the interviews and questionnaires.

For many children, learning to read is a difficult process. The gain for children who are at-risk for reading failure depends on the type of interventions they receive. For example, it has been shown that some children learn to read and expand their reading

abilities as they grow. Although, there are many groups of children for whom learning to read is a struggle. This presents a difficult situation to numerous educators. Moreover, it continues to be a subject of concern for teachers who strive to create an effective intervention program and/or develop valuable instructional strategies for students encountering reading problems. Reading is not automatic; it must be learned and children who are successful readers are typically those who have a history of successful reading in their early years.

The difference in reading abilities can be perceived as a limitation in various areas, such as phonics, phoneme awareness, vocabulary, comprehension or fluency. It could be disputed that those beginning at a lower level have an opportunity to gain more ground in the next year. However, this argument fails to represent a realistic fact about learning, because low achieving children usually fall further behind each year, rather than reaching grade level expectations. Nevertheless, it does present a valid line of reasoning that instigates a research critique.

Answer to question two: What changes, if any will occur as a result of parents and educators gaining a better understanding of how children learn to read? As a result of this study, parents and educators may be able help students with reading difficulties by understanding that these children need extra support—the kind of support that only a highly qualified teacher can provide. As evidenced in this study, when children are exposed to teachers who are capable of meeting professional teaching standards, it enhances their abilities to become proficient readers. Equally, parents and teachers may understand the importance of effectively implementing a reading program. A quality reading program together with effective planning strengthens the educator's ability to

establish clear goals and objectives, prioritize, assess, and implement effective reading instructions.

Discussion of Results

In an attempt to prevent reading failure, the faculty at School A (intervention groups) chose to be a Reading First School. Reading First emphasizes the importance of educators focusing on the five areas of reading instruction: phonics, phonemic awareness, vocabulary, fluency, and comprehension. By examining the results of this study, it became clear that children who are at-risk for reading failure would achieve gain when focus is given to the five areas of reading instructions. For example, phonemic awareness has been identified as one of the most reliable early indicators of how well a student will learn to read. When children gain phonemic awareness skills, they develop the ability to blend the sounds heard in the alphabet while decoding words, and enhance their knowledge of sight words and the ability to spell phonetically.

Many educators believe that children acquire language proficiency and an understanding of literacy before they enter school. Therefore, many teachers expect students to enter school with some understanding of what it means to be an effective reader. However, some children enter school without the skills needed to experience success with early reading instruction. Comprehension only works when children are able to decode words. Furthermore, without good comprehension skills, children will have problems with syllable and sentence segmentation, blending, and manipulation of sounds. Development of children's word-recognition skills plays a critical role in their abilities to be efficient readers.

The results of this study further confirmed from the interviews and the questionnaires, that when a school has a way of monitoring student progress, information can be utilized to help the struggling reader. Progress monitoring is valuable because it is a method that gives steady feedback to educators about the efficiency of the instructional program and students' success. It is also a scientifically based practice that is used to assess students' academic performance as it evaluates the effectiveness of instruction. When progress monitoring is implemented correctly, the benefits are great for both students and teachers. Teachers make more scholarly decisions about instructions, thus students receive more meaningful teaching. Considering the importance of progress monitoring, educators may want to consider utilizing this procedure. It offers high expectations for student achievement and it allows teachers to embrace research based practices to help students succeed.

It is also vital that teachers understand their students' individual learning styles when teaching reading. The teacher has to show each student how to apply various reading strategies. Readers need to know how to apply these reading strategies and they need to know how these strategies fit into the big picture of reading. Therefore, by using differentiated instruction strategies, educators can meet the needs of all students, especially the students at-risk for reading failure, and help them to meet and exceed the established standards. The diverse classroom enhances the opportunity for children to receive an equivalent level of education. This is not due to intellectual differences, but rather the differences in the way students learn, based on their individual needs and prior experiences, and the variation in what teachers expect.

School B, (the non-intervention group) was not a Reading First School, but the evaluation of the reading program conducted during this study revealed that it had a successful reading program including effective implementation of instruction. Moreover, the study revealed that the quality of teaching has an effect on student achievement. Although, teacher knowledge and qualifications were similar at both schools, when looking at the relationship between student achievement and the characteristics of teachers as outlined in Tables 11 and 12, it can be inferred that School B had teachers that were affecting their students in a positive way. A teacher who is excited about the subject can inspire learning with his or her enthusiasm. This would apply to reading because in the classroom, the teacher's attitude about reading is passed on to her students. For this reason, more investigations should be conducted to learn about the relationships between teacher knowledge and motivation and how it affects student success. In addition, it can be interfered by the interview and test scores that the teachers at school B were utilizing their data to make scholarly decisions about instructions.

Recommendations

It is recommended that a second analysis of the students' reading scores be conducted in the future. When evaluating the effectiveness of reading instruction focused on the five areas of reading, it was discovered that one of the reasons the five components of reading (phonemic awareness, phonics, fluency, vocabulary, and comprehension) are getting special recognition is due to the report of the NRP, which came out in 2000. These five components of reading are the building blocks for teaching children in kindergarten through third grade.

Numerous factors may affect student test scores. One variable revealed during this study indicated that teacher qualifications could be a major factor, and it is an area that needs further investigating. Research showed that when educators are highly trained, their ability to enhance student success is far greater than when educators are less highly trained. Reading can be a difficult skill to develop and a very challenging experience that interconnects with the development of many other accomplishments for example, recalling, awareness, dialect, and motivation. In addition to being a cognitive psycholinguistic function, reading also improves social interaction.

It is further suggested that research be pursued to determine how teachers' attitudes, beliefs, and expertise can affect learning. For children to learn how to read, they need educators and parents who are dedicated to helping them. Professional growth opportunities should be pursued often and proper interventions need to be implemented. Chapter two demonstrated that by focusing on the five elements of reading instruction—phoneme awareness, phonics, vocabulary, comprehension, and reading fluency—children's reading skills can be enhanced. However, the study findings suggested that teachers' qualifications, experience, and enthusiasm can have a tremendous affect on student success.

Conclusion

This study revealed that there are many elements that influence reading success for children identified as at-risk for reading failure in the early years. Guiding questions served as the basis for this research study. The findings demonstrated the link between reading success and the teacher's ability to meet professional teaching standards. Furthermore, it was found that when these elements are combined with a quality reading

program and effective implementation of the reading program, reading skills for the at-risk reader are enhanced.

One of the biggest risks for a reading intervention program is having teachers that practice lower standards of performance. The advancement of reading development should always be the reason for interventions. If there is an indication that students are not reaching the established reading goals, then the curriculum or the instructional methods of teaching reading should be strengthened. Furthermore, to ensure that the intervention systems are being utilized correctly, those that implement student instructions and furnish leadership for it, should provide school-level monitoring and frequent adjustments. These findings may help clarify the importance of quality teaching as it relates to the enhancement of reading achievement. Most importantly, this study may help educators to identify how reading interventions can be used as an instrument to improve reading skills and enhance school success.

References

Abell, M., Bauder, D., & Simmons, T. (2005). Access to the general curriculum: A curriculum and instruction perspective for educators. *Intervention in School and Clinic, 41*, 82-86.

Adams, M. J. (1990). *Beginning to read: Thinking and learning about print.* Cambridge, MA: MIT Press.

Allington, R. L., & McGill-Franzen, A. (1989). School response to reading failure: Instruction for Chapter I and special education students in grades two, four, and eight. *The Elementary School Journal, 89,* 529-542.

Allington, R. L., & Walmsley, S. A. (Eds.). (1995). *No quick fix: Rethinking literacy programs in America's elementary schools.* New York: Teachers College Press.

Anthony, J. L., Williams, J. M., McDonald, R., & Francis, D, J. (2007). Phonological processing and emergent literacy in younger and older preschool children. *Annals of Dyslexia, 57*(2), 113-37.

Armbruster, B., Lehr, F., & Osborn, J. (2001). *Put reading first: The research building blocks for teaching children to read.* Retrieved March 17, 2008, from the National Institute for Literacy Web site: *http://www.nifl.gov/partnershipforreading/publications/reading_first1.html.*

Armitage P, & Berry G. (1994). *Statistical methods in medical research* (3rd ed.). Hoboken, NJ: Wiley-Blackwell.

Baker, S. K., & Good, R. H., III. (1995). Curriculum-based measurement of English reading with bilingual Hispanic students: A validation study with second-grade students. *School Psychology Review*, *24,* 561-578.

Balajthy, E., & Lipa-Wade, S. (2003). S*truggling readers: Assessment and instruction in grades K-6.* New York: The Guilford Press.

Balkcom, S., & Himmelfarb, H. (1993). *Success for All*. Retrieved July 31, 2007, from Office of Research Education Consumer Guide Web Site: http://www.ed.gov/pubs/OR/ConsumerGuides/success.html.

Baker, L. & Brown, A. L. (1984). Metacognitive skills and reading. In P. David Pearson (Ed.), *Handbook of reading research*. New York: Longman.

Baumann, J. F., & Kameenui, E. J. (1991). Research on vocabulary instruction: Ode to Voltaire. In J. Flood, J. M. Jensen, D. Lapp, & J. R. Squire, (Eds.), *Handbook of research on teaching the English language arts* (604-632). New York: Macmillan.

Berger, L., & Gunn, G. (2003). Challenging districts to "put reading first." *T H E Journal*, *30*(10), 29.

Blachman, B. (1991). Phonological awareness: Implications for pre-reading and early reading instruction. In S. A Brady, & D. P. Shankweiler (Eds.), *Phonological processes in literacy: A tribute to Isabelle Y. Liberman* (37- 45). Hillsdale, NJ: Lawrence Erlbaum.

Busch, T. W., & Lembke, E. S. (2005). *Progress monitoring in reading using the CBM maze procedure.* Arlington, VA: Division for Learning Disabilities, Council for Exceptional Children.

Castiglioni-Salten, M. L., & Ehri, L. C. (2003). Phonemic awareness instruction: Contribution of articulator segmentation to novice beginners; reading and spelling. *Scientific Studies of Reading, 7*(1), 25-52.

Center on Instruction. (2006). *Intensive reading interventions for struggling readers in early elementary school: A principal's guide.* Retrieved October 30, 2007, from http://www.fcrr.org/Interventions/pdf/Principal'sGuidetoIntervention.pdf.

Chall, J. S. (1983). *Learning to read: The great debate*. New York: McGraw-Hill Book Company. Retrieved March 24, 2008 from http://maryadamart.com/folio/Learning_to_Read.html.

Chapman, C. (2003). *Differentiated instructional strategies for reading in the content area.* Thousand Oaks, CA: Corwin Press, Inc.

Christ, T. J., & Vining, O. (2006). Curriculum-based measurement procedures to develop multiple-skill mathematics computation probes: Evaluation of random stimulus-set arrangements. *School Psychology Review*, *35,* 387-400.

Clark, C., & Akerman, K. (2008). *What impact does socio-economic status have on children's reading?* Retrieved October 30, 2007, from The Standards Site Web site: http://www.standards.dfes.gov.uk/research/themes/English/reading/reading?view=printerfriendly.

Clark-Edmands, S. (2004). Prevention of reading failure: essential components for early reading curriculum. *Educators Publishing Service*. Retrieved February 21, 2009 from http://www.epsbooks.com/downloads/articles/Prevention_of_Reading_Failure.p

Corwin, T. M. (2001). *Iowa assessment letter*. Retrieved November 20, 2007, from U.S. Department of Education Web site: http://www.ed.gov/admins/lead/account/finalassess/iowa.html.

Cunningham, P. M., & Cunningham, J. W. (1992). Making words: Enhancing the invented spelling-decoding connection. *Reading Teacher*, *46,* 106-115.

Daane, M. C., Campbell, J. R., Grigg, W. S., Goodman, M. J., & Oranje, A. (2005, October). *Fourth-grade students reading loud: NAEP 2002-03 special study of oral reading.* Retrieved January 15, 2009, from http://nces.ed.gov/nationsreportcard/pdf/main2003/2005453_2.pdf.

Dean, A. G., Sullivan, K. M., & Soe, M. M. (2008). *OpenEpi: Open source epidemiologic statistics for public health, version 2.2.1.* Retreived November 10, 2008, from OpenEpi Web site: http://www.openepi.com/Menu/OpenEpiMenu.htm.

Deno, S. L. (2003). Developments in curriculum-based measurement. *Remedial and Special Education, 37,* 184-192.

Deno, S. L., Fuchs, L. S., Marston, D. B., & Shin, J. (2001). Using curriculum-based measurement to develop growth standards for students with learning disabilities. *School Psychology Review*, *30,* 507-524.

Denton, C. A., & Mathes, P. G. (2003). Intervention for struggling readers: Possibilities and challenges. In B. R. Foorman (Ed.), *Preventing and remediating reading difficulties: Bringing science to scale* (pp. 229–251). Timonium, MD: York Press.

Donahue, P. L., Voelkl, K. E., Campbell, J. R., & Mazzeo, J. (1999). The NAEP 1998 reading report card for the nation and the states. *Education Statistics Quarterly, 1*(2). Retreived March 25, 2008, from http://nces.ed.gov/programs/quarterly/Vol_1/1_2/3-esq12-a.asp

Drummond, K. (2005). *About reading disabilities, learning disabilities, and reading difficulties.* Retrieved October 30, 2007, from Reading Rockets Web Site: http://www.readingrockets.org/article/639.

Ellery, V. (2005). *Creating strategic readers: Techniques for developing competency in phonemic awareness, phonics, fluency, vocabulary, and comprehension.* Newark, DE: International Reading Association, Inc.

Etscheidt, S. K. (2006). Progress monitoring: Legal issues and recommendations for IEP teams. *Teaching Exceptional Children, 38*(3), 56-60.

Flippo, R. (2001). About the expert study: Report and findings. In R. Flippo (Ed.), *Reading researcher in search of common ground* (pp. 5-21). Newark, DE: International Reading Association.

Florida Center for Reading Research. (2007). *Empowering teachers*. Retrieved October 30, 2007 from http://www.fcrr.org/assessment/ET/essentials/essentials.html

Fowler, A. E., & Swainson, B. (2004). Relationships of naming skills to reading, memory, and receptive vocabulary: Evidence for imprecise phonological representations of words by poor readers. *Annals of Dyslexia, 54*(2), 247-80.

Fuchs, L. S., & Deno, S. L. (1994). Must instructionally useful performance assessment be based in the curriculum? *Exceptional Children, 61*, 15-24.

Fuchs, L. S., & Fuchs, D. (2007). A model for implementing responsiveness to intervention. *Teaching Exceptional Children, 39*(5), 14-20.

Gansle, K. A., Noell, G. H., VanDerHeyden, A. M., Naquin, G. M., & Slider, N. J. (2002). Moving beyond total words written: The reliability, criterion validity, and

time cost of alternate measures for curriculum-based measurement in writing. *School Psychology Review*, 31, 477-497.

Gansle, K., VanDerHeyden, A., Noell, G., Resetar, J., & Williams, K. (2006). The technical adequacy of curriculum-based and rating-based measures of written expression for elementary school students. *School Psychology Review,* 35, 435-450.

Gay, L., & Airasian, P. (2000). *Educational research: Competencies for analysis and application.* Upper Saddle River, NJ: Prentice Hall. Inc.

Good, R. H., III, & Kaminski, R. A. (2003). *Dynamic indicators of basic early literacy skills* (6th ed.). Longmont, CO: Sopris West.

Good, R. H., III, Simmons, D. C., & Kame'enui, E. J. (2001). The importance and decision-making utility of a continuum of fluency-based indicators of foundational reading skills for third grade high-stakes outcomes. *Scientific Studies of Reading, 5,* 257-288.

Graves, M., &Watts-Taffe, S. (2002). The place of word consciousness in a research-based vocabulary program. In A. E. Farstrup, & S. Samuels (Eds.), *What research has to say about reading instruction* (pp. 140-152). Newark, DE: International Reading Association, Inc.

Goldenberg, C. (1994). "Promoting early literacy development among Spanish speaking children: Lessons from two studies." In E. H. Hiebert & B. M. Taylor (Eds.), *Getting reading right from the start* (pp. 171-200). Boston, MA: Allyn & Bacon.

Griffiths, A. J., VanDerHeyden, A. M., Parson, L. B., & Burns, M. K. (2006). Practical-applications of response-to-intervention research. *Assessment for Effective Instruction*, *32*(1), 50-57.

Haager, D., & Klingner, J. K. (2005). *Differentiating instruction in inclusive classrooms: The special educator's guide.* Columbus, OH: Merrill.

Hagan-Burke, S., & Jefferson, G. L. (2002). Using data to promote academic benefit for included students with mild disabilities. *Preventing School Failure, 46*(3), 112-118.

Harris, A. J., & Sipay, E. R. (1990). *How to increase reading ability* (9th ed.). New York: Longman.

Harvey, S., & Goudvis, A. (2000). *Strategies that work: Teaching comprehension to enhance understanding.* Portland, ME: Stenhous Publishers.

Hay, I. (2007). Language delays, reading delays, and learning difficulties. *Journal of Learning Disabilities*, *40*(5), 400-40.

Hiebert, E. H., Person, P. D., Taylor, B. M., Richardson, V., & Paris, S. G. (1998). *Every child a reader.* Ann Arbor, MI: Center for the Improvement of Early Reading

Hiebert, E. H., & Taylor, B.M. (Eds.) (1994). *Getting reading right from the start.* Boston: Allyn & Bacon. Achievement.

Hosp, M., & Hosp, J. (2003). Curriculum-based measurement for reading, spelling, and math: How to do it and why. *Preventing School Failure, 48*(1), 10-17.

Illinois State Board of Education. (n.d.) Educator Certification. Retrieved from: http://www.isbe.net/profprep/nbpts.htm.

Illinois State Board of Education. (2007). Illinois Content-Area Standards – Illinois

Professional Teaching Standards. Retrieved November 20, 2007 from: http://www.isbe.state.il.us/profprep/pdfs/ipts.pdf.

Illinois State Board of Education. (2007a). *School profile*. Retrieved November 20, 2007, from: http://iirc.niu.edu/District.aspx?districtID=41057012026

Illinois State Board of Education. (2007b). *Student assessment*. Retrieved November 20, 2007, from: http://www.isbe.state.il.us/assessment/isat.htm

Individuals With Disabilities Education Act of 2004, Pub. L. No. 108-446, § 20, U.S.C. § 1400 *et seq*. (2004). Retrieved November 10, 2008, from http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=108_cong_public_laws&docid=f:publ446.108

Jenkins, J., Graff, J., & Miglioretti, D. (2009, Winter). Estimating reading growth using intermittent CBM progress monitoring. *Exceptional Children*, *75*(2), 151-163.

Jenkins, J. R., Deno, S. L., & Mirkin, P. K. (1979). Measuring pupil progress toward the least restrictive environment. *Learning Disability Quarterly, 2,* 81-92

John, J. (2007). Monitoring progress in fluency: Possible unintended consequences. *Reading Today, 24*(6), 18

Johnston, P., & Allington, R. L. (1991). Remediation. In R. Barr, M. L. Kamil, P. Mosenthal, & P.D. Pearson (Eds.), *Handbook of Reading Research*, Vol. 11. New Jersey: Lawrence Erlbaum Associates.

Kelly, C., & Campbell, L. (n.d.). *Helping struggling readers*. Retrieved July 20, 2007, from New Horizons for Learning Web Site: http://www.newhorizons.org/spneeds/inclusion/teaching/kelly.htm

Kemp, L., & Hall, A. H. (1992). *Impact of effective teaching research on student achievement and teacher performance: Equity and access implications for quality education*. Jackson, MS: Jackson State University. (ERIC Document Reproduction Service No. ED 348 360)

Kennedy, M. M., Birman, B. F., & Demaline, R. E. (1986). *The effectiveness of chapter I services.* Washington, DC: Office of Educational Research and Improvement, U.S. Department of Education.

Knight, M. (2008, September). *The mystery of the struggling reader*. Retrieved January 7, 2009, from Mpls. St. Paul Magazine Web site: http://www.mspmag.com/education/raisingreaders/raisingreaderssept08/112808.asp

Laczko-Kerr, I., & Berliner, D. C. (2002, September 6). The effectiveness of "Teach for America" and other under-certified teachers on student academic achievement: A case of harmful public policy. *Education Policy Analysis Archives*, *10*(37). Retrieved March 17, 2008, from http://epaa.asu.edu/epaa/v10n37/

Landry, S. (2002). *Ready to read, ready to learn: A call to leadership.* Presented at A Summit on Early Childhood Cognitive Development, Little Rock, AR. Retrieved October, 2008, from U.S. Department of Education Web site: http://www.ed.gov/teachers/how/early/cognitivedevsummit02/page_pg3.html

Lane, H. B., & Pullen, P. C. (2004). *Phonological awareness assessment and instruction.* Boston: Pearson Education, Inc.

Langsford Learning Center. (n.d.) *Teaching a child to read early intervention for reading difficulties*. Retrieved July 29, 2007, from Internet Special Education Resources Web site: http://www.iser.com/resources/Teaching-children-to-read.html

Leslie, L., & Allen, L. (1999). Factors that predict success in an early literacy intervention project. *Reading Research Quarterly, 34*(4), pp. 404-424. Retrieved October 31, 2007, from International Reading Association Web Site: http://www.reading.org/Library/Retrieve.cfm?D=10.1598/RRQ.34.4.2&F=RRQ-34-4-Leslie.pdf

Lewis, S., & Batts, K. (2005). How to implement differentiated instruction? Adjust, adjust, adjust. *Journal of Staff Development, 26*(4), 26-31.

Levy, H. M. (2008). Meeting the needs of all students through differentiated instruction: Helping every child reach and exceed standards. *ERIC Review Journal of Educational Strategies* 81(4), 161-164. (ERIC Document Reproduction Service No. EJ789449).

Lyon, G. R. (2000). *Why some children have difficulties learning to read?* Retrieved October 30, 2007, from Reading Rockets Web site: http://www.readingrockets.org/article/296

Lyon, G. R. (2003, Spring). Reading disabilities: Why do some children have difficulty learning to read? What can be done about it? *Perspectives on Language and Literacy, 29*(2).

Manyak, P. C. (2008). Phonemes in use: Multiple activities for a critical process. *The Reading Teacher, 61*(8), 659–662.

McGee, G. W. (2001). Illinois Assessment Letter. *U.S. Department of Education.* Retrieved November 7, 2008 from http://www.ed.gov/admins/lead/account/finalassess/ill.html.

McGill-Franzen, A., & Allington, R. L. (1993). Flunk 'em or get them classified: The contamination of primary grade accountability data. *Educational Researcher, 22,* 19-22.

McGlinchey, M. T., & Hixson, M. D. (2004). Using curriculum-based measurement to predict performance on state assessments in reading. *School Psychology Review, 33*, 193-203.

McMillan, J. (1999). Virginia Standards of Learning Assessments - Standards of Learning (SOL) Tests Validity and Reliability Information Spring 1998 Administration (pp. 7 and 11). Retrieved January 15, 2009 from http://www.doe.virginia.gov/VDOE/Assessment/validity.PDF

Moore, D. (2003). *Developing reading skills in young children*. Retrieved January 8, 2009, from GreatSchools Web site: http://www.greatschools.net/cgi-bin/showarticle/2037

Musti-Rao, S., & Cartiedge, G. (2007). Effects of a supplemental early reading intervention with at-risk urban learners. *Topics in Early Childhood Special Education*, *27*(2), 70-85.

National Assessment of Educational Progress (NAEP) (2002). Program announcement: Interventions for struggling adolescent and adult readers and writers CFDA 84.305A. *Institute of Education Sciences-U.S. Department of Education.* Retrieved July 28, 2007 from http://ies.ed.gov/funding/ncer_rfas/intervention.asp?page=all

National Center on Student Progress Monitoring. (2007). *What is progress monitoring?* Washington, DC: American Institutes for Research and the U.S. Department of Education, Office of Special Education Programs.

National Reading Panel. (2000a). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Washington, DC: National Institute of Child Health and Human Development.

National Reading Panel. (2000b). *Teaching children to read: Reports of the subgroups*. Retrieved November 20, 2008, from the National Institute of Child Health and Human Development Web site: http://www.nichd.nih.gov/publications/nrp/upload/report.pdf

Neill, M., Guisbond, L., & Schaeffer, B. (2004, May). *Failing our children.* Retrieved November 19, 2007, from FairTest Web site: http://www.fairtest.org/Failing_Our_Children_Report.html

No Child Left Behind Act of 2001, Pub. L. No. 107-110, § 115, Stat. 1425-2094 (2001).

Olenchak, F. R. (2001). Lessons learned from gifted children about differentiation. *The Teacher Educator, 36* (3), 185-198.

Pedagogy Education. (2005). *Iowa test of basic skills (ITBS) study tips and exam info.* Retrieved January 10, 2009 from http://www.test-preparation.ca/high-school/ITBS.html

Pearson, P., Hiebert, E. H., & Kamil, M. L. (2007). Vocabulary assessment: What we know and what we need to learn. *Reading Research Quarterly, 42*(2), 282–296.

Pikulski, J. (1994). Preventing reading failure: A review of five effective programs.

The Reading Teacher, 48, 30-39.

Pinnell, G. S., DeFord, D. E., & Lyons, A. A. (1988). *Reading recovery: Early intervention for at-risk first graders*. Arlington, VA: Educational Research Service.

Pressley, M. (2000). *Comprehension instruction: What works*. Retrieved October 24, 2008 from Reading Rockets Web site: http://www.readingrockets.org/article/68

Preston, T. (2007). Early intervention at every age. *Educational Leadership*, *65*(2).

Quatroche, D. J. (2000, June 1). Helping the underachiever in reading. *ERIC Review 7*(2), 25-26. (ERIC Document Reproduction Service No. ED447801)

Quenemoen, R., Lehr, C., Thurlow, M., & Massanari, C. (2001, February 1). *Students with disabilities in standards-based assessment and accountability systems: Emerging issues, strategies, and recommendations.* (Synthesis Report No. 37). Washington, DC: National Center on Education Outcomes. (ERIC Document Reproduction Service No. ED452654) Retrieved June 11, 2009, from ERIC database.

Quenemoen, R., Thurlow, M., Moen, R., Thompson, S., & Morse, A. B. (2004, February). *Progress monitoring in an inclusive standards-based assessment and accountability system* (Synthesis Report 53). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved January 15, 2009, from http://education.umn.edu/NCEO/OnlinePubs/Synthesis53.html

Reynolds, A. J. (1991). "Early schooling of children at risk." *American Education* Research Journal, 28, 392-422.

Rice, J. K. (2003). *Teacher quality: Understanding the effectiveness of teacher* a*ttributes.* Washington, DC: Economic Policy Institute.

Rock, M. L., Gregg, M., Ellis, E., & Gable, R. A. (2008). REACH: A framework for differentiating classroom instruction. *Preventing School Failure, 52*(2), 31-47.

Rock, M. L., Thead, B. K., & Gable, R. A. (2006). In pursuit of excellence: The past as prologue to a brighter future for special education. *Focus on Exceptional Children, 38*(8), 1-18.

Routman, R. (2003). *Reading essentials*: *The specifics you need to teach reading well.* Portsmouth, NH: Heinemann.

Rowan, B., & Guthrie, L. F. (1989). The quality of Title I instruction: Results from a study of twenty-four schools. In R. E. Slavin, N. L. Karweit, & N. A. Madden (Eds.), *Effective programs for students at risk* (pp. 195-219). Boston: Allyn.

Royer, J. M. (2006). *Teachers ask: What is the difference between phonics and phonemic awareness?* Retrieved November 1, 2007, from Reading Success Lab Web site: http://educator.readingsuccesslab.com/FAQ/PhonicsPhonemicAwareness.html

Rubin, D. (2002). *Diagnosis and correction in reading instruction* (4th ed.). Boston: Allyn & Bacon.

Sanders, W. L. (1998*).* Value added assessment. *School Administrator*, *11*(55), 24-27.

Santi, K., & Vaughn, S. (2007). Progress monitoring: An integral of instruction. *Reading and Writing, 20*(6), 535-7.

Scammaca, N., Vaughn, S., Roberts, G., Wanzek, J., & Torgesen, J. K. (2007). Extensive reading interventions in grades k– 3: From research to practice. Portsmouth, NH:

RMC Research Corporation, Center on Instruction. Retrieved January 7, 2009 from http://www.fcrr.org/science/pdf/torgesen/extensive_reading_ interventions_K-3.pdf.

Schacter, J. (1999). R*eading programs that work: A review of programs for pre-kindergaten to 4th grade*. Retreived November 1, 2007, from Milken Family Foundation Web site: http://www.mff.org/publications/publications.taf?page=279

Scheffel, D. L., Shaw, J. C., & Shaw, R. (2008). The efficacy of a supplemental mutisensory reading program for first grade students. *Reading Improvement 45*(3), 139-52.

Schickedanz, J. A. (1983). *Strategies for teaching young children* (2nd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Schumm, J. & Vaughn, S. (1991). Making adaptations for mainstreamed students. *Remedial and Special Education*, 12(4), 18-27.

Schumm, J., Vaughn, S., & Leavell, A. (1994). Planning pyramid: A framework for planning for diverse student needs during content area instruction. *Reading Teacher, 47*, 608-615.

Sensenbaugh, R. (2007). *Reading recovery.* Retrieved July 28, 2007, from ERIC Digest Database: http://www.indiana.edu/~reading/ieo/digests/d106.html.

Shapiro, H. (2008). *The struggle to read: A primer for parents of struggling readers & dyslexics.* Retrieved November 25, 2008 from Ravinia Reading Center Web site: http://www.raviniareadingcenter.com/#thestruggletoread.

Shaywitz, S. (1996, November). Dyslexia. *Scientific American*, *275*(5), 98-104. Retrieved October 30, 2007, from Stanford University Web Site: http://white.stanford.edu/~brian/psych12N/PDF/Science/ShaywitzSciAm.pdf.

Shepard, L. A., & Smith, M. L. (1989). *Flunking grades: Research and policies on retention.* Philadelphia, PA: Falmer.

Skotheim, M. K. (2009). Honoring the child with dyslexia in a Montessori classroom. *Montessori Life 21(1), 36-40.*

Slavin, R., & Karweit, N. (1992, December). Preventing early school failures: What works?. *Educational Leadership*, *50*(4), 10.

Snow, C. E., Burns, M. S., & Griffin, P. (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Society for Neuroscience. (2006). *Reading failure in brain briefings.* Retrieved October 30, 2007, from Society for Neuroscience Web site: http://www.sfn.org/index.cfm?pagename=brainBriefings_reading_failure

Southwest Educational Development Laboratory (2007). *Reading first awards database: Frequently asked questions.* Retrieved July 28, 2007, from Web site: http://www.sedl.org/readingfirst/faqs.html

Stanovich, K. E. (1986). Matthew effects in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*, 301-406.

Stanovich, K. E. (2000). *Progress in understanding reading: Scientific foundations and New frontiers*. New York: Guilford Press.

Stecker, P. M., Fuchs, L. S., & Fuchs, D. (2005). Using curriculum-based measurement to improve student achievement: Review of research. *Psychology in the Schools, 42,* 795-819.

Stecker, P. M., Saenz, L., & Lemons, C. (2007). *Introduction to using curriculum-based measurement for progress monitoring in reading.* Retrieved November 9, 2008 from Student Progress Monitoring Web site: http://www.studentprogress.org/summer_institute/default.asp#reading

Strauss, V. (March 2007). *Putting assessment to the test*. Retrieved July 31, 2007, from Washington Post, Institute for Language and Education Policy Web site: http://elladvocates.org/media/NCLB/WPost26marr07.html

Strickland, D. S. (2002). The importance of effective early intervention. In A.E. Farstrup, & S. Samuels (Eds.), *What research has to say about reading instruction* (pp. 69-86). Newark, DE.

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

Taylor, B., & Pearson, P. D. (2000). *School-wide reading improvement: What does the research say? How do we make it happen?* Retrieved April 23, 2008, from Center for Improvement of Early Reading Achievement Web Site: http://www.ciera.org/library/presos/2000/2000-IRA/taylor/taylor-ira-2000.pdf

Taylor, B., Pearson, P. D., Clark, K., & Walpole, S. (1999). *Effective schools / accomplished teachers.* Retrieved April 23, 2008, from Center for Improvement

of Early Reading Achievement Web Site: http://www.ciera.org/library/archive/1999-01/art-online-99-01.html

Taylor, B., Short, R. A., Shearer, B. A., & Frye, B. (1995). First grade teachers provide early reading intervention in the classroom. In R. L. Allington, & S. A. Walmsley (Eds.), *No quick fix: Rethinking literacy programs in America's elementary classrooms* (pp. 159-176). New York: Teachers College Press.

Teale, W. H. (2008). What counts? Literacy assessment in urban schools. *The Reading Teacher*, *62*(4), 358–361.

Thurlow, M. (2002). Positive educational results for all students: The promise of standards-based reform. *Remedial and Special Education*, *23,* 195-202.

Thurlow, M., Moen, R., & Altman, J. (2006, June 1). *Annual Performance Reports: 2003-2004. State Assessment Data.* Minneapolis: University of Minnesota, National Center on Educational Outcomes. (ERIC Document Reproduction Service No. ED495889) Retrieved November 10, 2008, from ERIC database.

Tieso, C. (2005). The effects of grouping practices and curriculum adjustments on achievement. *Journal for the Education of the Gifted, 29*(1), 60-89.

Tomlinson, C. (2005, Summer). This issue: Differentiated instruction. *Theory Into Practice*, *44*(3), 183-184.

Tomlinson, C. A., & Allan, S. D. (2000). *Leadership for differentiating schools & classrooms*. Alexandria, VA: Association for Supervision and Curriculum Development.

Torgesen, J. K. (2006). *Intensive reading interventions for struggling readers in early elementary school: A principal's guide*. Portsmouth, NH: RMC Research

Corporation, Center on Instruction. Retrieved July 30, 2007 from http://www.centeroninstruction.org/files/Principal s Guide to Intervention.pdf

Torgesen, J. K., & Burgess, S. R. (1998). Consistency of reading-related phonological processes throughout early childhood: Evidence from longitudinal-correlational and instructional studies. In J. Metsala & L. Ehri (Eds.), *Word recognition in beginning reading* (pp. 161–188). Hillsdale, NJ: Erlbaum.

Torgesen, J. K., Alexander, A.W. & Wagner, R. K. (2001). Intensive remedial instruction for children with severe reading disabilities: immediate and long-term outcome from two instructional approaches. *Journal of Learning Disabilities,* 34(1), 33-35.

Torppa, M., Tolvanen, A., Poikkeus, A. M., Eklund, K., Lerkkanen, M. K., Leskinen, E., et al. (2007). Reading development subtypes and their early characteristics. *Annals of Dyslexia, 57*(1), 3-32.

Treiman, R., & Zukowski, A. (1991). Levels of phonological awareness. In S. A. Brady, & D. P. Shankweiler (Eds.), *Phonological processes in literacy: A tribute to Isabelle Y. Liberman* (pp. 37-45). Hillsdale, NJ: Lawrence Erlbaum.

University of Iowa. (2007). The Iowa tests of basic skills. Retrieved November 20, 2007, from University of Iowa College of Education Web Site: http://www.education.uiowa.edu/itp/itbs/itbs_interp_score.aspx

University of Oregon Center for Teaching and Learning. (2007). *DIBELS, frequently asked questions.* Retrieved July 30, 2007, from University of Oregon Center for Teaching and Learning Web Site: http://dibels.uoregon.edu/faq_answers.php?subjectarea=1&contentarea=2#question1

U. S. Department of Education. (1999). *Start early, finish strong: How to help every child become a reader*. Washington, DC: United States Department of Education.

U. S. Department of Education. Office of Elementary and Secondary Education (2002). *Guidance for the Reading First Program*. Retrieved July 28, 2008 from http://www.ed.gov/programs/readingfirst/guidance.pdf

U.S. Department of Education (2002). *Part B - Student reading skills improvement grant* -Reading First. Retrieved July 28, 2007, from http://www.ed.gov/policy/elsec/leg/esea02/pg4.html

U. S. Department of Education. (2004). *Overview:* Executive Summary Archived Information. Retrieved July 28, 2007, from http://www.ed.gov/nclb/overview/intro/execsumm.html

U. S. Department of Education (2006). A quality teacher in every classroom: improving teacher quality and enhancing the profession. Elementary and Secondary Education Act as amended by NCLB Title II, Part C. Retrieved July 28, 2007, from http://georgewbush-whitehouse.archives.gov/infocus/education/teachers/quality-teachers.pdf and http://www.ed.gov/policy/elsec/leg/esea02/pg20.html.

U. S. Department of Education (2006). National Center for Education Statistics. *The conditional of education* (NCES 2006-071), Table 33.1. Retrieved July 28, 2008 from http://nces.ed.gov/fastfacts/display.asp?id=56.

U. S. Department of Education (2008). NCLB and other elementary/secondary policy documents. Retrieved November 11, 2007, from http://www.ed.gov/policy/elsec/guid/states/index.html.

U. S. Department of Education. (2008). *U. S. Secretary of Education Margaret Spellings announces no child left behind "differentiated accountability" pilot*. Retrieved November 10, 2008, from http://www.ed.gov/news/pressreleases/2008/03/03182008.html.

U.S. Department of Health and Human Services (2000). *Report of the National Reading Panel: Teaching children to read.* National Institute of Child Health and Human Development. NIH Pub. No. 00-4769.

Vacca, R. & Vacca, J. (2002). *Content area reading: literacy and learning across the curriculum* (7th Edition). Boston, MA: Allyn & Bacon

Vaughan, S. (2007, January). What is early intervention and why is it important in school today? In D. W. Allen, P. M. O'Shea, & P. Baker (Eds.), *Social and Cultural Foundations of American Education* (2nd ed., Chapter 10.9). Retrieved October 30, 2007, from http://en.wikibooks.org/wiki/Social_and_Cultural_Foundations_of_American_Education/Chapter_10/Chapter_10_Wildcard_1.

Volkmer, F. (2004). Specific reading disability (dyslexia): What have we learned in the past four decades? *Child Psychology and Psychiatry*, *45*(1), 2-40.

Walker, R. (2001). *Early literacy intervention.* Retrieved March 28, 2008, from http://www.literacy-for-all.com/ELI.htm.

Wayne, A. M., & Youngs, P. (2003). Teacher characteristics and student achievement gains: A review. *Review of Educational Research, 73*(1), 89-122.

Wesseling, R., & Reitsma, P. (2001). Preschool phonological representations and development of reading skills. *Annals of Dyslxia*, *51,* 203-29.

Westwood, P. (2001). *Reading and learning difficulties: Approaches to teaching and assessment.* Camberwell, Victoria, Australia: Acer.

Williams, R. (1996). *Establishing a balanced literacy program*. Bothell, WA: Wright Group Publishing Inc.

Willingham, D. T. (2006). *Knowledge in the classroom*. Retrieved October 24, 2008, from Reading Rockets Web site: http://www.readingrockets.org/article/11728

Yopp, H. K. (1992). Developing phonemic awareness in young children. *Reading Teacher, 45*(9), 696-703.

Ziegle, J. & Goswami, U. (2009). Reading acquisition, developmental dyslexia, and skilled reading across languages: A psycholinguistic grain size theory. *American Psychological, 131*(1), 3-29.

Ziolkowska, R. (2007). Early intervention for students with reading and writing difficulties. *Reading Improvement, 44*(2), 76-86.

Appendix A

Illinois Professional Teaching Standards - Individual School Evaluation Form
Score on a scale of 1-10

Content Knowledge	The teachers understand the central concepts, methods of inquiry, and structures of the discipline(s) and create learning experiences that make the content meaningful to all students.	
Human Development and Learning	The teachers understand how individuals grow, develop, and learn and provide learning opportunities that support the intellectual, social, and personal development of all students.	
Diversity	The teachers understand how students differ in their approaches to learning and create instructional opportunities that are adapted to diverse learners.	
Planning for Instruction	The teachers understand instructional planning and designs instruction based upon knowledge of the discipline, students, the community, and curriculum goals.	
Learning Environment	The teachers uses an understanding of individual and group motivation and behavior to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.	
Instructional Delivery	The teachers understand and use a variety of instructional strategies to encourage students' development of critical thinking, problem solving, and performance skills.	
Communication	The teachers uses knowledge of effective written, verbal, nonverbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction in the classroom.	
Assessment	The teachers understand various formal and informal assessment strategies and use them to support the continuous development of all students.	
Collaborative Relationships	The teachers understand the role of the community in education and develop and maintain collaborative relationships with colleagues, parents/guardians, and the community to support student learning and well-being.	
Reflection and Professional Growth	The teachers are reflective practitioner who continually evaluates how choices and actions affect students, parents, and other professionals in the learning community and actively seeks opportunities to grow professionally.	
Professional Conduct	The teachers understand education as a profession, maintains standards of professional conduct, and provides leadership to improve student learning and well-being.	

____/110 Total Points ____%

Percent of Knowledge
110 = 100%

Appendix B

Planning and Evaluation Tool for Effective Schoolwide Reading Programs*

Spring 2000

Edward J. Kame'enui, Ph.D.
Deborah C. Simmons, Ph.D.

Institute for the Development of Educational Achievement
College of Education
University of Oregon

Appendix B (Cont.)

Planning and Evaluation Tool for
Effective Schoolwide Reading Programs

School:_____

Position (check one): Grades Taught (if applicable):

Administrator __

Teacher __ Kindergarten __ First __ Second __ Third __

Paraprofessional/Educational Assistant

Years of Teaching Experience:

Years at Present School:

Directions

Based on your knowledge of your school's reading program (e.g., goals, materials, allocated time), please use the following evaluation criteria to rate your impressions of the reading program's implementation.

Each item has a value of 0-2. Please note that some items are designated with a factor, (e.g., x 2). Items with this designation are considered more important in the overall reading program. Multiply your rating by the number in parentheses and record that number in the blank to the left of the item.

In the right-hand column of the table, document evidence available to support your rating for each item.

Levels of Implementation Description

0 = Not in place
1 = Partially in place
2 = Fully in place

Appendix B (Cont.)

District Standards and Benchmarks

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Goals, objectives, priorities – Goals for reading achievement are clearly defined, anchored by research, prioritized in terms of importance to student learning, commonly understood by users, and consistently employed as instructional guides by all teachers of reading.	
Literacy benchmarks: ____1. Are clearly defined and quantifiable at each grade level.	
____2. Are articulated across grade levels (vertical alignment).	
____3. Are prioritized and dedicated to each of the 4 essential elements of literacy (word knowledge – structural analysis and vocabulary; accurate and fluent reading of connected text, comprehension and writing). (x 2)	
____4. Guide instructional and curricular decisions (e.g. time allocations, focus of instructions). (x 2)	
____5. Are commonly understood and consistently used by teacher and administrators within and between grades to evaluate and communicate student learning and improve practice.	

_____/14 Total Points_____%

Percent of Implementation

7 = 50% 11 = 80% 14 = 100%

Appendix B (Cont.)

Assessment

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Assessment – Instruments and procedures for assessing reading achievement are clearly specified, measure essential skills, provide reliable and valid information about student performance and inform instruction in important, meaningful and maintainable ways.	
Assessments: ____1. A school wide assessment system and database are established and maintained for documenting student performance and monitoring progress. (x 2)	
____2. Measures assess student performance on standards and benchmarks.	
____3. Measures are technically adequate (have high reliability and validity) as documented by research	
____4. All users receive training and follow-up on measurement administration, scoring and date interpretation.	
____5. At least once a year screening measures identify student's level of performance and are used to determine instructional needs.	
____6. Formative measures are administered throughout the year to document and monitor student reading performance (frequency determined by need of student).	
____7. There is a system in place, which ensures measures are collected reliably, data are scored and entered accurately, and feedback is provided in a timely fashion to teachers.	
____8. Student performance data are analyzed and summarized in meaningful formats and routinely used to evaluate and adjust instruction. (x 2)	

_____/20 Total Points _____%

Percent of Implementation

10 = 50% 16 = 80% 20 = 100%

Appendix B (Cont.)

Instructional Strategies and Instructional Materials

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Instructional strategies and Instructional materials – The instructional strategies and materials have documented efficacy, are drawn from research-based findings and practices, align with district standards and benchmarks and support the full range of learners.	
Instructional strategies and materials: ____1. Scientifically based reading instruction is implemented school wide including in content areas. (x 3)	
____2. instructional strategies and materials provide explicit instruction in the four essential components of literacy (word knowledge – structural analysis and vocabulary; accurate and fluent reading of connected text, comprehension and writing). (x 2)	
____3. Instructional strategies and materials align with and support district standards, scientifically based literacy practices and provide sufficient instruction in essential elements to allow the majority of students to reach learning goals.	
____4. Supplemental and intensive supports of documented efficacy are in place to support students who do not benefit adequately from the core cycle. (x 2)	
____5. Instructional strategies and materials are implemented with a high level of fidelity. (x 3)	

_____/22 Total Points_____%

Percent of Implementation

11 = 50% 18 = 80% 22 = 100%

Appendix B (Cont.)

Instructional Time

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Instructional Time – A sufficient amount of time is allocated for instruction and the time allocated is used effectively.	
Instructional time: ____1. A school wide plan is established to allocate sufficient literacy time (2-3 hours a day – includes focus on literacy in content areas)	
____2. Literacy instruction is prioritized and occurs daily. (x 2)	
____3. Instructional time is allocated to skills and practice most highly correlated with reading success (i.e. essential elements of literacy including word knowledge, fluency, comprehension and writing).	
____4. Social studies, science, math and other content area materials are used for literacy instruction in addition to literature selections. (x 2)	
____5. Additional instructional time is allocated to students who fail to make adequate reading progress.	

_____/14 Total Points _____%

Percent of Implementation

7 = 50% 11 = 80% 14 = 100%

Appendix B (Cont.)

Differentiated Instruction/Grouping/Scheduling

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Differentiated instruction/Grouping/Scheduling –Instruction optimizes learning for all students by tailoring instruction to meet current levels of knowledge and prerequisite skills and organizing instruction to enhance student learning.	
____1. Student performance is used to determine the level of instructional materials and to select research-based instructional strategies and materials.	
____2. Instruction is provided in flexible groups for a variety of purposes to maximize student performance, engagement and opportunities to respond.	
____3. For students who require supplemental or intensive support (less than proficient) instruction is provided in addition to the literacy instruction provided to all students.	
____4. For students who require supplemental or intensive support (highly proficient) instruction is adjusted to target district core.	
____5. Group size, amount of instructional time and instructional strategies and materials are determined by and adjusted according to learner performance.	

_____/10 Total Points _____%

Percent of Implementation

5 = 50% 8 = 80% 10 = 100%

Appendix B (Cont.)

Administration/Leadership/Communication

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Administration/Leadership/Communication – Strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and established mechanisms to communicate reading progress and practices.	
____1. Administrators and the building leadership team are knowledgeable of: • state standards • priority literacy skills and strategies • assessment measures and practices • instructional strategies and materials	
____2. Administrators and the building leadership team work with staff to create a coherent plan for literacy instruction in reading classes and across content areas.	
____3. Administrators and the building leadership team maximize and protect instructional time and organize personnel and resources to support literacy instruction, practice and assessment.	
____4. Grade level teams are established and supported to analyze literacy performance and plan instruction.	
____5. Concurrent instruction (i.e. special education, interventions) is coordinated with and complementary to instruction in reading and content area classes.	
____6. A communication plan for reporting and sharing student performance with teachers, parents, and school and Department of Education is in place.	

_____/12 Total Points _____%

Percent of Implementation

6 = 50% 10 = 80% 12 = 100%

Appendix B (Cont.)

Professional Development

0 = Not in place 1 = Partially in place 2 = Fully in place

Evaluation Criteria	Documentation of Evidence
Professional Development – Adequate and ongoing professional development is determined and available to support reading instruction.	
____1. Teachers and instructional staff have thorough understanding and working knowledge of grade-level instructional priorities and effective practices for literacy.	
____2. Ongoing professional development is established to support reading and content area teachers and instructional staff in the assessment and instruction of strategic reading.	
____3. Time is systematically allocated for educators to work collaboratively to analyze, plan and refine instruction based on student achievement and teacher implementation data.	
____4. Professional development efforts are explicitly linked to instructional practices that have been shown to be effective through documented research.	

_____/8 Total Points _____%

Percent of Implementation

4 = 50% 6.5 = 80% 8 = 100%

Appendix B (Cont.)

Summary Score

Directions: Return to each element (e.g. goals, assessments) and total the score at the bottom of each page. Transfer each element's number to the designated space below. Sum the total scores to compute your overall evaluation of the building-wide core reading cycle. The total possible value is 100 points. The total score can be used to evaluate the overall quality of the school's core reading cycle.

Evaluate each element to determine the respective quality of the implementation. For example, a score of 11 in Goals/Objectives/Priorities means that in your estimation the school is implementing approximately 80% of the items in the element.

Element	Score	Percent
1. Standards and Benchmarks	/14	
2. Assessment	/20	
3. Instructional Strategies and Materials	/22	
4. Instructional Time	/14	
5. Differentiated Instruction/Grouping	/10	
6. Administration/Organization/Communication	/12	
7. Professional Development	/8	
Total Score	/100	

Appendix B (Cont.)

Narrative Summary

1. Based on the school wide summary scores for each element and the average group score, identify the areas of strength. Strengths may be based on elements or on specific items within elements.

2. List each element and specific items within each element that are in need of further development.

Theresa F. Arnold
11542 Rosary Lane
St Louis, Missouri 63138
(314) 922-5077

CURRICULUM VITAE

EDUCATION:

Doctorate of Education in Educational Administration, October, 2009
Lindenwood University - St. Charles, Missouri
Dissertation: The Effects of Early Reading Interventions on Student Reading Levels and Achievement

Master of Education in Educational Administration, August 2002
University of Missouri – St. Louis, Missouri

Bachelor of Science-Early Childhood Education, May 2001
University of Missouri **-** St. Louis, Missouri

HONORS/AFFILIATIONS: Graduated with Honors, Cum Laude, Dean's List 2001
National Education Association,
International Reading Association

CERTIFICATIONS:

Principal – Administration (K-8)
Special Reading (K-12)
Early Childhood (PK-3)

EXPERIENCE:

Bermuda Elementary School
August 2008 – Present
Ferguson-Florissant School District, St. Louis, MO
Reading Specialist

- Serve on various district and school committees and member of the school administrative team**.**
- Serve as a resource to the K-6 grade teachers
- Provide leadership and support in teaching and integrating reading/language arts skills in all content areas.
- Provide instruction to students in grades 5 and 6, who are experiencing difficulties with reading, motivate students, and address specific reading/writing needs within multiple contexts.
- Model and demonstrate lessons with classrooms that improve students' literacy performance.
- Complete individual assessments using district assessments.
- Interpret assessment information into implications for instruction and prepare a written report for the student's cumulative records
- Provide reading enrichment to students reading above grade level as needed.

Harris Accelerated Elementary School
July 2006 – May 2008
Madison CUSD #12, Madison, Ill.
Assistant *Principal/Reading Coach*

- Assisted principal in improving the teaching and learning environment by helping to enhance the skills of teachers and a staff of forty certified teachers and noncertified support staff.
- Helped to create a safe, secure learning environment.

- Identified and provided programs of interest to students that support goals, mission, and vision.
- Helped to create an environment of literacy conductive to effective instruction.
- Observed and modeled techniques for effective instructions in reading.
- Developed, researched and implemented effective literacy programs to support best practices in reading instructions.
- Assessed students' skills and knowledge in reading and writing, using a variety of formal and informal assessment tools.
- Continually assessed teachers' implementation of literacy practices and procedures to support the diverse learning needs of students.
- Collected, analyzed, and used data to identify school needs.
- Conducted workshops, study groups, staff meeting and professional development and/or in-service training programs.
- Communicated and interacted with parents to enhance teacher-parent relationships.

Moline Elementary School
August 2004 – June 2006
Riverview Gardens School District**,** St. Louis, MO
First Grade Teacher

- Developed grade level appropriated curriculum and lead classroom instructions in all basic subject areas: reading, writing, math, social studies, and science
- Served as Member of The Professional Development Committee. Conducting and coordinating professional development for the staff.
- Created and promoted incentive programs to recognize and encourage honor students.
- Helped to create and promote after school activities designed to increase parental involvement and student learning. Example: Carnival Night/Family and Fun Night.
- Provided after school tutoring to enhance reading and reading comprehension for students.

Thurgood Marshall Academy
August 2002– June 2004
Charter School District, St. Louis, MO
Head Teacher

- Supervised the building in the absence of the principal
- Worked collaboratively with teachers (discipline cadre) to create a school wide discipline plan
- Member of School Advisory/Steering Committee - assisted with the development and implementation of school activities and procedures to improve the educational outcome of all students.
- Helped to create and launch Job Fair to recruit qualified teachers for the up-coming school year and served on committee to recruit new teachers.
- Served as mentor to beginning teachers.
- Worked with committee to help promote community involvement:
- Coordinated School/Community Open House Program aimed at increasing community interest and involvement.
- Worked as grade level team chairperson - strategic planning to enhance classroom instructions.
- Assisted with the enhancement and the redeveloping of the language and math curriculum for the Charter School District to meet the No Child Left Behind Legislation requirements.

Eliot Elementary School
August 2000 – June 2002
St. Louis Public Schools, St. Louis, MO
Third Grade Teacher

- Taught core curriculum, planned and implemented all basic subject areas: reading, writing, math, social studies, and science.
- Worked closely with the community on various projects
- Collaborated with parents and colleagues to improve student learning.

Dwight McDaniels School of Christian Education
August 1988 – June 1990 Parochial School, St. Louis, MO
First Grade Teacher

- Taught academic skills to students in team teaching classroom setting.
- Prepared and administered cross-curricular unit lessons.
- Generated all lesson-plans, attendance and grade records.
- Utilized the Assertive Theory to promote self-discipline, positive self-esteem, and socialization skills.
- Conducted parent/teacher conferences to assess students' learning and progress.