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Comparative Study of Reading First Schools Reading Achievement to Non-Reading First Schools.

Wandaleen Adams
East Tennessee State University

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Comparative Study of Reading First Schools Reading Achievement to Non-Reading First Schools

A dissertation
presented to
the faculty of the Department of Educational Leadership And Policy Analysis
East Tennessee State University
In partial fulfillment
of the requirements for the degree
Doctor of Education in Educational Leadership

by
Wandaleen Adams
May 2011

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Keywords: Reading First, Title I, No Child Left Behind, Achievement, Virginia Standards of Learning, Reading Coach, Reading
ABSTRACT

Comparative Study of Reading First Schools Reading Achievement to Non-Reading First Schools

by

Wandaleen Adams

The purpose of this study was to determine if there was any significant increase in the reading achievement of Reading First third grade students compared to the reading achievement of the third grade reading students in Non-Reading First schools located in southwest Virginia for 2004-2009. The Standards of Learning (SOLs) reading test scores were compiled from the Virginia Standards of Learning test scores that are available to the public from the Virginia Department of Education website. The elementary schools chosen for this study have a similar number of disadvantaged students and similar demographics. The reading achievement was being examined after 6 years of implementation of teaching strategies using Reading First in 3 of the elementary schools and compared to Non-Reading First schools.

Using a quantitative design, the comparative study included data obtained from the 2004-2009 Virginia Standards of Learning standardized assessment test scores for third grade students in 6 elementary schools. The data comparison examined the reading achievement relationship between the Reading First schools (experimental) and the Non-Reading First schools (control group). The analysis was based on 2 research questions and 12 hypotheses; 6 hypotheses for each question. A t-test for independent samples was used to identify the differences between the means of Reading First schools and the Non-Reading First schools. A chi square analysis was used to identify the differences between the means of Reading First schools compared to the means
of Non-Reading First schools in the areas of not proficient, proficient, and advanced proficient.

The results of the study indicated that there were significant increases for reading achievement for the Reading First schools in the experimental group compared to the Non-Reading First in the control group. The Reading First schools performed better or as well as their peers in Non-Reading First schools at the advanced reading proficiency level.
DEDICATION

This work is dedicated to my wonderful family and friends who provided support during this educational experience. To my daughter Candice Brooke Adams Azer, who wanted me to be with her during the birth of her son, Thomas Edward Azer. I want to say, “We made it together.” I want to give thanks to “Teddy” for waiting a few more days. He arrived on August 27, 2009, just days after the Final Examinations. I especially want to dedicate this work to Roger Adams my husband who provided support, financial assistance, and encouragement.

To my foster mother Judy Combs, I want to thank you for being the role model for the mother of mothers. I shall be eternally thankful for your accepting me as your daughter and family member. I love you. The Combs family made all the difference in my life. To Janie and Johnny, you have always and will always be my brother and sister.

I want to dedicate this work to all of my Cohort friends and colleagues who gave me encouragement, support, and enthusiasm along the journey, especially Mr. Gary McCann who was so laid back and encouraging every day, Mr. Robert Widener for sharing information and always making me a copy of any correspondence from Dr. Pamela Scott, and Ms. Doris Presley for just being a best friend and cheerleader along the way.

On May 31, 2010, I lost a lifelong friend to brain cancer. She was always so supportive and caring. Her life represented a celebration of enjoying all that life had to offer and when the time came to pass on she told everyone, “do not cry for me, but celebrate the occasion with a party and carry on with family and friends. Life is to be lived.” Hail to Sandy Roberson, devoted wife, mother, grandmother, photographer, and friend. Your spirit prevails!
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To the Head Start Management Team, I want to say thank you for being willing to allow me the time to do all that I did during the past 6 years. You are a special group of people and Julia Wyrick, I will never forget how you filled in for me at so many meetings. You are the BEST Assistant Director!

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To a special lady, Dr. Susan Twaddle, I want to say thanks for encouragement to keep me “hanging in there.” You taught me a valuable lesson, “to listen.”
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CHAPTER 1

INTRODUCTION

On January 8, 2002, President George W. Bush authorized the *No Child Left Behind Act* of 2001 (*PL 107-110*) *Title I, Part B, Subpart I*, that established the Reading First program and mandated its evaluation. As a result, $1.6 billion was provided to the Education Department and $340 million to other federal agencies. This investment has given principals and schools assistance implementing the requirements of No Child Left Behind (NCLB) for disadvantaged students (Paige, 2003). The law established new standards of accountability for individual students, schools, and school systems. A goal of the NCLB Act was that all students in all schools should be academically proficient in math, reading, and language arts by 2014 (Virginia Department of Education, 2008a). “No Child Left Behind puts a special emphasis on implementing educational programs and practices that have been clearly demonstrated to be effective through rigorous scientific research” (U.S. Department of Education, 2003, p. 3). The NCLB’s stated goal was, to “ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education, calls upon our nation’s public school to do something…that has never before been done in the history of human civilization” (as cited in Goodwin, 2003, p. 1). The NCLB placed the nation’s public schools on a course of accountability to improve student learning and for school officials to become more responsive to parents and communities.

The Reading First program provided funding for scientifically based researched reading programs for students in kindergarten through grade three to ensure that every student could read at grade level or above not later than the end of the grade. *The Report of the National Reading Panel (RNRP)* (National Reading Panel, 2000) identified critical skills that young students need to learn in order to become good readers: phonemic awareness, phonics, fluency, vocabulary, and
comprehension and emphasized that for children to become proficient readers by the end of third grade that the schools must help teachers in each and every classroom benefit from the relevant research “by providing professional development for teachers on the use of scientifically based reading programs; by the use of instructional materials and programs that are also based on sound scientific research; and by ensuring accountability through ongoing assessments” (p.15). The Reading First teachers in the three Reading First schools and staff received professional development in the dimensions of reading instruction as well as in reading teaching strategies. “Significantly more Reading First teachers attended professional development workshops related to reading than did Non-Reading First teachers (U.S. Department of Education, 2006., p. 13). The professional development activities such as administering and using assessments, interpreting data, and using data to drive the instruction supported teaching roles in the Reading First program.

In order to know if Reading First was working, states decided to measure progress in reading skills for children in grades 1-2; and, as required by NCLB, states had to ensure that all children in grades 3-8 were tested annually in reading. “Virginia's Standards of Learning accountability program included a commitment to informing the public of the progress of schools in raising student achievement and enhancing the learning environment. Online report cards for schools, school divisions, and the commonwealth included data on student achievement by grade, subject, student subgroup and information on other indicators of school quality” (Virginia Department of Education, 2010, p.1). Virginia uses criterion-referenced tests, specifically the Virginia Standards of Learning tests, to meet the student assessment requirements of NCLB (VDOE, 2010).

This study compared students’ reading scores in the third grade in Reading First schools and Non-Reading First schools to determine if there were any significant increase in reading
achievement for nonproficient, proficient, and advanced proficient test scores as evidenced by the third grade reading test scores from the Virginia Standards of Learning for 6 schools located in Southwest Virginia for the years 2004-2009. The test data were available from the Virginia Department of Education’s website.

Statement of the Problem

The purpose of this study was to examine if there was any significant increase in the reading achievement of Reading First third grade students compared to the reading achievement of the third grade reading students in Non-Reading First schools located in southwest Virginia for 2004-2009. The objective was to compare the Virginia Reading First third grade reading SOL scores to the Non-Reading First third grade reading SOL scores to determine if there was a significant difference in the reading achievement and reading proficiency for the students after 6 years. The scaled test scores from the 2004-2009 Virginia Standards of Learning tests for third grade reading were used to determine if reading achievement was significant between the Reading First third grade students and the Non-Reading First students. The SOL reading test scores were compiled from the Virginia Standards of Learning test scores that are available to the public from the Virginia Department of Education website.

According to the United States Department of Education (USDOE) (2002), the focus at national, state, and local levels was preventing reading failure while school administrators, in the United States in 2000, were searching for answers and making decisions about how to best provide supplemental reading interventions for students who were struggling with literacy skills. The national effort’s focus on struggling readers in the United States in 2002 was brought to the forefront by the No Child Left Behind Act containing the Reading First mandate for reading strategies that would enable all students to become successful early readers. In the move toward
standards-based reform in public education, many educational reform efforts required schools to
demonstrate that they were achieving educational outcomes with students performing at a required
level of achievement.

Standards-based reform has many curricular and instructional prerequisites. The
curriculum must represent the most important knowledge, skills, and attributes that schools
want their students to acquire because these learning outcomes will serve as the basis of
assessment instruments. All teaching methods should lead to students learning the
outcomes that are the focus of assessment standards. (U. S. Department of Education,
2003, p. 1)

Furthermore, the NCLB Act (2002) mandated that every child in public school by third
grade must be reading on grade level. The Act also mandated that all students meet their state

According to research, high poverty schools are associated with generational poverty and,
“The effects of generational poverty and minimal education are difficult to change…emotional,
psychological, and physical ties help to maintain the poverty in poor families” (Payne, 2003, p.1).
Also, Gershoff’s (2003) research study stated the socioeconomic status of students was the most
recurring factors in student academic performance. The Reading First Act (2002) criteria
specified that the Reading First grant was for low performing academic schools that had a high
poverty rate based on the free and reduced lunch rate. The Reading First and Non-Reading First
schools in this study had similar socioeconomic status based upon the proportion of students
receiving free and reduced lunch and had low achievement scores in third grade reading.

The 2009 Virginia State Legislature listed the poverty index for the southwest public
school division as .15, and it was rated as one of the poorest counties in the state of Virginia. The
southwest Virginia division’s free and reduced lunch rate for 2009 was 63.1% (USDA Virginia State Cafeteria Report, 2009, p.1). The six schools in this study have a range of 53% to 83% free and reduced lunch rate. The free and reduced lunch program refers to a federally assisted meal program operating in public and nonprofit private schools and residential institutions. It provides nutritionally balanced low-cost or free lunches to children each day. This program was established under the National School Lunch Act, signed by President Harry Truman in 1946 (U.S. Department of Agriculture, 2009).

On October 15, 2008, Virginia Reading First Evaluation, First Report was released. This report contained the analyses of results from the reading assessments conducted within Virginia Reading First schools during 2007-2008. The report revealed that “Almost all (96%) second graders attained proficiency in phonemic awareness… (p.1). Virginia Reading First third graders are doing as well as their peers in non-Reading First schools in the reading component of the Standards of Learning(SOL), both as a group and when disaggregated by subgroups” (Reading First Report, 2008, p. 1-2). Polzin (2004) reported, “Beginning in 2004, targeted assistance grants to SEAs (State Educational Agencies) will be competitive and awarded for good performance that includes, “schools increasing % of 3rd graders proficient for 2 years; schools who improved reading skills with RF (Reading First) funds” (p.4).

The Reading First program was based on the premise that reading skills should be taught in the early grades, K-3. According to Lyon (2007) “Reading First is based on the converging evidence that reading development requires the acquisition and integration of several essential skills to include phonemic awareness, phonics, reading fluency, vocabulary, and reading comprehension strategies” (p.4). Bishop, Reyes, and Pflaum (2006) found in their research, “The national decline of students’ reading comprehension as they move beyond grade 3 has been cause
for resounding alarm in the United States and research has shown that many children who read at the third grade level in grade 3 will not automatically become proficient comprehenders in later grades. Therefore, teachers must teach comprehension explicitly, beginning in the primary grades and continuing through high school” (p. 66). Washburn-Moses (2006) wrote, “The federal government has placed foremost emphasis on early intervention and the use of scientifically based principles in the teaching of reading. This emphasis has not been misplaced. We know that children identified early on as poor readers remain poor readers, but that targeted early intervention programs can greatly ameliorate these outcomes”(p. 1).

“Reading begins with some alarming statistics. More than 8 million students in grades 4-12 are struggling readers; every school day, more than 3,000 students drop out of high school; only 70% of high school students graduate on time with a regular diploma; 54% of high school graduates enroll in remedial courses in postsecondary schools. The heart of the problem has to do with poor reading comprehension … “and those students “lack the strategies to help them comprehend what they read” (Santa, 2006, p. 2).

“Reading First addresses a major need of American school children: providing high quality reading instruction that ensure students become proficient readers” (USDE, 2005, p. 1). The Reading First initiative focuses on improving instruction for K-3 students by providing increased funding to states to implement scientifically based reading programs in schools with the greatest need to improve student achievement. Snow, Burns, and Griffin’s (1998) research revealed that children who read well in the early grades are more successful in later years; and those who fall behind often stay behind when it comes to academic achievement. Furthermore, “those students who do not read well are much more likely to drop out of school and be limited to low-paying jobs throughout their lives” (Snow et al., 1998, p. 2).
The Division *Memorandum of Understandings* (2003-2009) revealed Reading First provided funding to the school division for implementation of the Reading First program in three low performing schools in southwest Virginia. Title I provided funds to the Reading First and the Non-Reading First schools based upon free and reduced lunch population for the individual schools. The funding was appropriated for classroom materials and remediation services before and after school for the students identified as struggling students in reading and math. However, more funding was available to the Reading First schools for assessments, materials, and professional development.

The NCLB Act evaluated the success or failure of school districts based on students’ achievement on standardized tests. The Non-Reading First schools used reading basal programs and offered remedial services to enhance the reading competencies of lower achievers by the pull-out program. On the other hand, Reading First offered a research-based curriculum that trained teachers to teach reading skills (phonics, phonemic awareness, fluency, vocabulary, and comprehension). Reading coaches and the principals observed and monitored the instruction, provided modeling, and met weekly with the teachers to discuss strategies and student achievement improvement plans. The Reading First program received criticism from Congress for the amount of money spent and the results were questionable. Therefore, it was important to assess the Reading First program in the southwest Virginia school division to determine if significant increased reading achievement occurred by comparing the Reading First third grade SOL reading test scores to the Non-Reading First third grade SOL reading test scores.

*Reading First Grant Requirements*

The Southwest Virginia Public School Division accepted a Reading First grant for three
elementary schools. The purpose of this grant was to support critical improvements in classroom reading instruction in K-3 based on:

1. Selecting four assessment tools: PALS, Stanford, Progress monitoring, and a diagnostic choice;
2. Selecting a comprehensive reading program, supplemental and intervention materials;
3. Providing a protected, dedicated block of time (at least 90-minutes) for reading instruction;
4. Designating a LEA (Local Education Agency) reading coordinator;
5. Hiring a qualified reading coach, a new position;
6. Participating in Reading First Academies by K-3 teachers, principals, and LEA; and

The Reading First schools chose *Houghton Mifflin: Nation’s Choice*, 2003, as the reading textbook. The reading coaches were hired in October 2004. The grant provided funding for 16 classroom teachers to receive training to become reading specialists and funding for professional development to equal 90 hours per year. The professional development was aligned with the philosophy of Reading First that included: the five components of reading instruction, the proper administration, interpretation and use of assessments, the use of scientifically based materials, reading strategies and effective use of literacy centers with the core program. The principals and the reading coaches were required to attend weekly meetings to evaluate the program and make adjustments (division grant application, 2003).

The Non-Reading First schools used the division adoption *Scott Foresman* as the reading textbook. According to the *Title I Plan* (2003), teachers were permitted to use resource materials
of choice. The *Title I Plan* (2003) did not address professional development for reading teachers in the Non-Reading First schools.

**Demographics of the Schools**

The schools in this study are located in a southwest Virginia public school division. The division is in a rural agricultural and industrial community setting. The poverty index for the schools was measured by the free and reduced lunch rates. The *Virginia School Report Card* (2009) listed the free and reduced lunch rates for the schools ranging from 65% to 86%. The overall ethnicity in the schools was 99% Caucasian. The schools served grades Pre-K-5 configuration and Pre-K-7 configuration with a student population ranging from 70 to 287 students. The *Virginia School Report Card* (2009) revealed that all schools were fully accredited and met the Annual Yearly Progress (AYP). The Reading First schools included in this study were identified by using alphabetic letters and the Non-Reading First schools were identified by numerals.

**Reading First Schools Demographics**

The *Virginia School Report Card* (2009) revealed that School A is located in the western most part of southwest Virginia. According to the Virginia School Report Card (2009), School A serves grades K-7 with an enrollment of 189 students. The free and reduced lunch rate was 76.7%. The ethnicity make-up was 99.4% Caucasian and 0.6% other. School A was fully accredited and met the NCLB standards for Annual Yearly Progress (AYP).

School B is located in western most part of southwest Virginia. According to the *Virginia School Report Card* (2009), School B served grades pre-K-7 with an enrollment of 180 students.
The free and reduced lunch rate was 69.75% of the student enrollment. The ethnicity was 98.1% Caucasian with 1.9% considered other. School B was fully accredited and met the NCLB standards for Annual Yearly Progress (Virginia School Report Card 2009).

School C is located in a mining camp town near the Kentucky state line. According to the Virginia School Report Card (2009) School C served grades pre-K-7 with an population enrollment of 160 students. The free and reduced lunch rate was 86.7% of the student population. The ethnicity of the population was 99% Caucasian and 1% African American. School C was fully accredited and met the NCLB standards for Annual Yearly Progress (Virginia School Report Card 2009).

Non-Reading First Schools Demographics

School T1 is located in the rural farming region of southwest Virginia. The Virginia School Report Card (2009) revealed School T1 had an enrollment of 336 students in grades K-5. The population consisted of 95.5% Caucasian with 65% of the students eligible for free and reduced lunch services. School T1 was fully accredited and met the NCLB standards for Annual Yearly Progress.

The Virginia School Report Card (2009) revealed School T2 is an elementary school (Pre-K – 5) located in southwestern Virginia. The enrollment consisted of 341 students in Pre-K-5 grades. The school ethnicity was 336 Caucasian, two Hispanic, one Black American, and two unspecified with 73% of the students receiving free and reduced lunch services. According to the Virginia School Report Card (2009) School T2 was fully accredited and met the NCLB standards for Annual Yearly Progress.

School T3 is an elementary school (Pre-K-5) located in the rural northern section of the
school division located in Southwest Virginia. According to the Virginia School Report Card (2009), School T3 had an enrollment of 75 students in grades Pre-K-7. The population consisted of 100% Caucasian with 74% of the students receiving free and reduced lunch service. School T3 was fully accredited and met the NCLB standards for Annual Yearly Progress.

**Instructional Design of the Schools**

The *Virginia School Report Card* (2009) revealed that all of the schools were fully accredited and met NCLB Annual Yearly Progress (AYP) standards. Both Reading First and Non-Reading First schools maintained a self-contained classroom approach to elementary education, whereby each classroom teacher accepted the responsibility for the subject area instructional preparation for science, social studies, math, and reading and language arts. Reading instruction at the three Reading First schools included a 90-minute protected reading period in a multi-ability classroom. Directed, guided reading, and implicit direct instruction were given before, during, and after reading to help children become independent readers. Students followed a routine lesson plan that includes vocabulary, prereading activities, discussions, group or individual reading time, and follow-up activities and questions for comprehension check. Students were assessed using traditional methods similar to those used on state assessments (Lee County Public Schools, 2009).

The Non-Reading First schools followed the traditional method of teaching reading from the *Scott Foresman* textbook along with using student workbooks as resources for an instructional period of 45 minutes until 2005. The Non-Reading First resource personnel used the pull-out method that removed the student from class for one-on-one instruction using reading practice skill work sheets for reinforcement. “A pull-out program is when a small number of students are
removed from the regular school program...they are usually removed from the classroom to work together with a specialist teacher for a specified number of periods or sessions per week” (U. S. Department of Education Office of Elementary and Secondary Education, 2000, p. 1).

Not only were these schools similar in locale, school climate characteristics, and demographics, they were also required to meet parallel state educational requirements. The six schools participated in mandated state reform projects guided by individual school improvement plans.

The Virginia Reading First Memorandum of Assurances between the Virginia Department of Education (2003) and Local Education Agencies (LEAs) with Reading First Grants stipulated the following:

1. The State Educational Agency (SEA) will provide professional development specifically designed for Reading First grantees on research-based effective reading instruction.

2. The SEA will utilize Reading First funding as prescribed by federal legislation.

3. The Local Education Agency (LEA) will participate in federal and state monitoring and evaluation of Reading First.

4. The LEA will require all teachers of kindergarten through grade 3 to attend one of the four-day or online Virginia Teacher Reading Academies sponsored by the SEA during the first three years of the sub grant award.

5. The LEA will require each Reading First school to (1) include a minimum, 90-minutes uninterrupted daily block of time for reading instruction, (2) hire a certified reading specialist for each Reading First school, (3) select core, supplemental and intervention materials based on scientific reading research, and (4) use assessments as prescribed by
SEA for the duration of the grant.

6. The LEA will provide in timely fashion, yearly test scores, an updated program description, and a budget for the duration of the grant” Students were expected to achieve and reflect growth as compared to state and national norms (p. 40).

Division Makes Changes in Curriculum

In 2004, due to a district state audit, the school division was required to participate in assessments through the Virginia School Corrective Action Plan (CAP). After the school division’s implementation of CAP in 2004-2005, all K-3 elementary schools in the school division implemented a 90-minute reading period and a 30-minute language arts period. All of the K-3 reading teachers in the southwest Virginia school division participated in Reading Firstprofessional development, including Reading First Reading Academies as recommended by the Virginia Department of Education for Reading First schools in the division (Lee County Public Schools, 2006).

The philosophy of the Reading First schools and the school division reflected that reading comprehension was the “essence of reading,” as was stated by the National Reading Panel, 2003. The Reading First schools tracked student achievement according to assessment scores on the Virginia Standards of Learning test scores, phonological assessment learning (PALS), Stanford, and Star Reading assessments. Houghton Mifflin: The Nations Choice, 2003, textbooks, adopted by the state for advanced, average, and below grade level readers, were adopted by the three Reading First schools for reading instruction. These texts provided various supplemental resources that were used at teacher discretion. The school division developed a Six-Year Comprehensive School Improvement Plan (2005-2011) that addressed goals for reading
improvements in all grade levels for increased reading achievement test scores and mandated a 90-minute block for reading instruction in all K-3 elementary schools.

The Reading First schools operated under a team approach and provided reading instruction through the leadership and supervision of reading coaches at K-3 grade levels. The focus was on presenting phonemic concepts in a sequential and cumulative format. Students learned how to decode written words into their smallest phonemic form. In essence, students were taught phonemic awareness skills in kindergarten and first grade. The philosophy of this strategy was that if children cannot perceive the sounds in spoken words, they would have difficulty decoding words. Decoding is the first and most important step to becoming a successful reader (Lyon, 2003). In the Reading First classroom, students received a student work book containing 18 units and 54 lessons that supplied them with instruction for remediation of deficient skills. Teachers used the student book lessons to monitor and reinforce progression through the Reading First program. Teacher and student conferencing was a key component for the program.

Non-Reading First schools used the prescriptive method of teaching reading skills. The *Scott Foresman textbook* and accompanying student workbooks were adopted to teach reading skills.

Instead of giving teachers suggestions and guidelines on how to use the materials provided, prescriptive reading programs are actually scripted, with specific instructions for how teachers should proceed, including what to do and say. If a student's response is A, then you are to go to question 2; if his response is B, then you should go to question 3. The Title I teachers have almost no flexibility to deviate from the program's procedures and
The Non-Reading First schools did not change the materials used for reading instruction. The Reading First schools aligned their materials and teaching practices to scientifically based reading research by adopting a new core reading program.

The Southwest Virginia Division’s Comprehensive 6 Year Plan (2005-2011) noted Non-Reading First schools participated in the Phonological Awareness Literacy Screening (PALS) testing but did not use the data to drive the instruction in the K-3 classroom. However, the school division in 2005 implemented professional training for disaggregation of reading testing data for all reading teachers in the division for PALS and for Standards of Learning reading tests.

Definitions of Terms

Assessment. The Virginia Department of Education (2009) refers to assessment for outcome measurement of the Standards of Learning test. “SOL assessments measure student achievement in English, mathematics, science and history/social science. Students are assessed in English and mathematics in grades 3-8 and at the conclusion of certain high school-level courses. SOL tests in science and history are administered in grades 3, 5, and 8 and at the end of high school-level courses in these subjects. Some students may take tests at other grade levels based on the school’s curriculum”. (Virginia Department of Education, 2009).

Comprehension. Understanding what you have read and getting meaning from what is read. It is the heart of reading. “Reading comprehension is defined as the level of understanding of writing. Proficient reading depends on the ability to recognize words quickly and effortlessly. If word recognition is difficult, students use too much of their processing capacity to read individual
words, which interferes with their ability to comprehend what is read” (RMC Research, 2009).

**Corrective Action Plan.** (CAP) A plan outlining methods to improve teaching, administration, or curriculum that a school or school division classified as “in improvement” undertakes to improve student achievement (Cannaday, August 29, 2006). The Virginia Department of Education, division of School Improvement, declared Lee County Public School District be placed on Corrective Action Plan (CAP) June 2004 (Virginia Department of Education, 2009).

**Data Disaggregation.** The process of breaking down data into smaller subsets in order to analyze performance. Disaggregation is an analysis tool that determines whether there is equity on outcome measures and whether different groups of students are performing similarly on the outcomes (Wahlstrom, 1999, p. 273).

**Directed Reading Instruction.** Teacher instruction given before, during, and after reading assigned text to aid students in becoming independent readers. Instruction may include but is not limited to vocabulary, prereading activities, reading the text along with students, follow-up questions, and text comprehension assessment (Virginia Department of Education, 2003).

**Economically Disadvantaged.** Those students who are eligible for free or reduced-priced lunches under the National School Lunch Program (U.S. Department of Agriculture, 2009, p. 1).

**Fluency.** The task of grouping words into phrases and the ability to read orally with speed and accuracy. Fluent readers recognize words automatically and it bridges the gap between word recognition and comprehension. (National Institute for Literacy, n.d. p. 19).

**Free-and reduced-price meals:** Federally assisted meal program operating in public and nonprofit private schools. It provides nutritionally balanced low-cost or free meals to children each school day (U.S. Department of Agriculture, n.d., p. 1).
Grouping. The teaching strategy for differentiating reading instruction by assigning students into groups depending on reading levels. (RMC Research Corporation, 2005).


National Reading Panel. A national panel assembled by the United States Congress in 1997 to assess the status of research-based knowledge, including the effectiveness of various approaches to teaching children to read (National Reading Panel, 2000).

NCLB. No Child Left Behind Act of 2001 (NCLB), signed into law by President Bush in 2002. This Act reauthorized the Elementary and Secondary Education Act (ESEA). This law supported elementary and secondary education by: emphasis on doing what works based on scientific research, accountability for results, expanded parental options, and local control and flexibility (Public Law 107—110).

PALS. Phonological Awareness Literacy Screening. A screening tool that assesses young children’s knowledge of several important literacy fundamentals that are predictive of future reading success (Virginia Department of Education, 2010). is the ability to hear, identify, and manipulate individual sounds

Phonemic Awareness. Awareness of sounds and the ability to hear, identify, and manipulate individual sounds. (Learning Point Associates, 2004).

Phonics. A method of teaching students the relationship between sounds and letters of the alphabet that represent them.

Professional Development. Any activity in which a teacher participates in reading instruction skills, including: workshops, meetings with reading coaches, study groups, conferences, and academies.

Pull-out Program. “A pull-out program is when a small number of students are removed
from the regular school program…they are usually removed from the classroom to work together with a specialist teacher for a specified number of periods or sessions per week” (Department of Education and Early Childhood Development, p. 1).

**Reading Coach.** Refers to a professional who works with the teacher rather than the students to model instructional practices and develop the school’s literacy plan. The reading coach must possess a higher expertise than the teachers being coached. The reading coach must articulate what he or she sees in a classroom, plan and organize, disaggregate the data, and help plan instruction and professional development (Learning Point Associates, 2004).

**Reading First.** A reading program authorized as part of the No Child Left Behind Act of 2002. The reading program is scientifically based and has identified five essential components of reading instruction—Phonological Awareness, Phonics, Fluency, Vocabulary, Comprehension (Virginia Department of Education, 2003).

**Reading Intervention.** A program designed for struggling readers to be used in addition to the core-reading program. (RMC Research Corporation, 2005).

**School Report Card.** The Virginia Report cards contain a variety of data for a school or district including performance indicators, demographics, and process indicators. The purpose of the report card is to communicate school achievement and other indicators of school success to the public (VDOE, 2009).

**Scientifically Based Reading Research.** “…to be described as scientifically based, research findings or conclusions must be drawn from studies that used an experimental design to test the effectiveness of a teaching strategy or set of materials in improving one or more of the essential skills involved in reading” (U. S. Department of Education, 2003, p. 2).

**Standard Score.** A standard scoring system designed to show student performance on an
achievement test. There are two types of standardized test score interpretations: a norm-referenced score interpretation or a criterion-referenced score interpretation. Norm-referenced score interpretations compare test-takers to a sample of peers. Criterion-referenced score interpretations compare test-takers to a criterion (a formal definition of content) regardless of the scores of other examinees (Wahlstrom, 1999, p. 279).

**Title I.** The Elementary and Secondary Education Act of 1965 created Title I to ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments. Title I refers to the improving of the academic achievement of the disadvantage. Title I supports programs to improve the academic achievement of children of low-income families. *(Public Law 107 Sec.101, January 8, 2002).*

**Virginia Report Card.** The method in which the Virginia Department of Education publicly reports the comprehensive information about all public schools including assessment results, demographic information, and school populations and characteristics. Information may be obtained via the web: [http://www.state.va.us/education](http://www.state.va.us/education).

**Virginia Standards of Learning (SOLs).** The commonwealth of Virginia sets rigorous academic standards, known as the Standards of Learning (SOL), and measures achievement through annual SOL tests and alternative and alternate assessments. The system provides schools, school divisions, and the Virginia Department of Education with critical data to inform the development and implementation of effective instructional strategies and best practices. The SOLs address student achievement in four areas: (1) English, (2) mathematics, (3) science, and (4) history/social science. (Virginia Department of Education, 2010)).
Research Questions

This study was guided by the following research questions:

Research Question 1

Are there significant differences in the mean Standard of Learning reading scores between Reading First Students and Non-Reading First students for each year in a 6-year period (2004-2009)?

Research Question 2

Are there significant differences in the mean Standards of Learning reading scores between Reading First and Non-Reading First students for each year in the 6-year period within the non-proficient, proficient, and advanced proficient group of third grade reading students for reading achievement for the years 2004-2009?

Significance of the Study

Reading First refers to an annual funding of over $1billion plus a year that Congress in 2002, in the NCLB legislation, passed to ensure that all children read at or above grade level by the third grade. As stated by Snow et al. (1998), literacy plays a significant role in students’ social and economic lives. According to the projections of the NCLB for academic achievement standards, all students should be proficient by the school year 2013-2014 (Popham, 2004).

After 6 years of funding for Reading First in the southwest Virginia school division, it was important to determine if Reading First students made any significant gains in reading achievement. The significance of this study is to determine if the Reading First program had any significant increase in reading achievement for third grade students when compared to Non-Reading First third grade students for 2003-2009. The 6 schools studied were similar in
Another significant goal of this study was to determine if the Reading First students continued to achieve in reading proficiency at the third grade by comparing the proficiency levels attained on the Standards of Learning tests for third grade reading. Also, further study could be done to determine if schools that completed the grant for 6 years will continue the Reading First teaching strategies and if the achievement of the students in third grade reading will remain steady or change drastically after the close of the funding.

**Delimitations, Limitations, and Assumptions**

The limitations of this study involved using a convenience and purposive population. Also, the population and demographics of the schools involved in the research were not exact replicas. A major limitation was the difference in sizes of the school populations. Transient students who had not participated in the Reading First reading instructional strategies may affect the results of the scores. Also, changes in teaching staff and school leadership may affect the result of the scores.

The delimitation of the comparative study included the restriction to three Reading First schools and three Non-Reading First schools in one school district. The study was restricted to the Virginia Standards of Learning test scores for the years 2004-2009. The Virginia Standards of Learning tests are timed and multiple choice assessments that measure skills in reading, language arts, mathematics, science, and social studies. Student results are reported to parents, teachers, and administrators via the Virginia Department website in early October as a Report Card.

There is an assumption that some personal, preconceived ideas, and beliefs of the researcher might bias this study. It is necessary to note that I participated in the writing of the
Reading First grant in 2002 and have served as the Lee County Educational Agent (LEA) for 5 years of the Reading First program. I observed positive outcomes that were results of the Reading First program. Findings from this study are based upon the students’ participation in the Virginia Standards of Learning third grade reading test scores for 2003-2009. It is important to me that the study demonstrate objectivity and that the results reflect whether or not the Reading First program findings were significant for increasing reading achievement. This study may not be generalizable to other school systems.

After 6 years of eligibility for the Reading First initiative grant, I wanted to research the third grade reading data to determine if the Reading First program contributed to increased third grade student achievement for reading as evidenced from third grade reading Virginia Standards of Learning testing scores taken in 2004-2009 when compared to the Non-Reading First schools for the same years in this southwest Virginia school division. Further, I wanted to research the reading proficiency levels of these third grade students to determine the level of proficiency attained by the Reading First schools compared to the Non-Reading First schools.

Overview of the Study

This study is organized and presented in five chapters. Chapter 1 includes the introduction to the study, the delimitations, limitations, statement of the problem, the significance of the study, the research questions, overview of the study, definitions of terms, and the description of the target groups. Chapter 2 provides the review of literature focusing on the components of Reading First versus the Non-Reading First reading program, Title I components, standardized testing in Virginia, and the mandates of the NCLB legislation. Chapter 3 describes the research design, the methods, data collection, and the procedures used in the study along with the
description of data analysis. Chapter 4 provides an analysis of the data. Chapter 5 presents a summary of findings, conclusions, and recommendations for further research and practice.
CHAPTER 2
REVIEW OF LITERATURE

"Reading First has done so much to crack the code on how to get kids to read. It would be tragic to cut the nation's only reading program when so many policymakers and teachers know it's working to increase achievement."
— Secretary Margaret Spellings

Introduction

The purpose of this chapter addressed existing literature to determine the reading achievement level or levels of effectiveness of the Reading First program compared to the Non-Reading First program. Presented in this chapter is a description of the Reading First program that came into existence under the NCLB legislation (2003) a description of the Title I reading program that exists under the NCLB legislation (2003), state assessments, student achievement reports, and the need for literacy to be improved for all the students.

The No Child Left Behind Initiative

The No Child Left Behind Act (Public Law 107—110) was signed in law by President George W. Bush on January 9, 2002. According to the Four Pillars of NCLB (2006), it is a historic reform bill that is based on four specific elements:

1. stronger accountability for achievement results by school systems;
2. more freedom and choices given to schools and districts;
3. encouragement of proven education methods; and
4. more options available to parents (n.p.)

This law was a re-authorization of the 1965 Elementary and Secondary Education Act. The act specifically authorized monies for reading programs. George W. Bush in the NCLB(2002)
legislation set a goal that all students will read on grade level by 2012. *Title I Part B* established a federal program called Reading First to improve reading skills and school parent-relations through family literacy (Lee County Schools, 2007). According to Carlisle et al. (2006), “Reading First schools comply with the Reading First legislation, more so than Title I schools; however, there are at the present a need of reports of students’ progress in reading in Reading First schools” (p. 3).

**Non-Reading First Title I Initiatives**

According to the United States Department of Education (2001), “Title I is the nation’s largest federal assistance program for schools” (p. 12). The goal of the Title I program is to help disadvantaged children get a high-quality education. The Title I program provided funds for hiring more teachers, for purchasing more materials, for smaller classes, counseling, and mentoring. The Title I program was reauthorized under *NCLB Act* of 2002 to provide extra resources for struggling students for remediation in reading and math. The funds were provided to schools with the highest poverty levels measured by the percentage of students receiving free and reduced-lunch (USDE, 2001).

Title I provides

Formula grants to school districts, and the district then allocates most of these funds to individual Title I schools based on the number of poor children. Schools may use the Title I funds for one of two approaches: School-wide programs or Targeted programs. High-poverty schools are defined as schools with 40 percent or more students from low-income families. These schools are eligible to adopt school-wide programs to raise the achievement of low-achieving students by improving instruction throughout the entire school, thus using Title I funds to serve
all children. (U.S. Department of Education Office, 2000, p. 3)

Schools that are not eligible for school-wide funding must use the Title I funds to provide targeted services to low-achieving students in reading and math. The remediation strategies used by the Title I program are referred to as extended day, extended year, and summer programs to increase learning time and time on task for remediation of reading and math skills. These programs are required to use effective instructional methods and strategies based on scientifically based research. The Title I program must be evaluated annually and each school in the division must revise the school plan to meet the needs of the students served in the individual schools according to the required Standards of Learning skills (U.S. Department of Education, 2003).

Studies of the effectiveness of earlier Title I educational initiatives have shown little evidence of significant improvements in academic achievement (Wong & Meyer, 1998). “Reading First is characterized by stronger measures of accountability and more specific requirements designed to improve reading instruction than other Title I programs” (U. S. Department of Education, 2006, p. 1).

The *Elementary and Secondary Education Act* (U. S. Department of Education, http://www2.ed.gov/policy/elsec/leg/esea02/index.html) provided funds for schools to improve the academic achievement of the disadvantaged. Title I funds supported programs to improve reading and math achievement of children of low income families. Title I schools represented the most economically disadvantaged and the poorest achieving student population. Schools have the option of choosing School-wide Title I programs or to be a Targeted Title I school. According to *Public Law Sec. 114, (STAT. 1471)*, “a local educational agency may consolidate and use funds under this part, together with other Federal, State, and local funds, in order to upgrade the entire educational program of a school that serves an eligible school attendance area in which not less
than 40 percent of the children are from low-income families, or not less than 40 percent of the children enrolled in the school are from such families” (p. 1). Schools participating in a school-wide program shall be required to identify children as eligible to participate in a school-wide program.

The school-wide program must include the following components: “A comprehensive needs assessment of the entire school; provide opportunities for all children to meet the State’s proficient and advanced levels of student academic achievement; use effective methods and instructional strategies that are based on scientifically based research; increase the amount and quality of learning times, such as providing an extended school year and before- and after-school and summer programs and opportunities, and help provide an enriched and accelerated curriculum; and include strategies to address the needs of all children in the school, but particularly the needs of low-achieving children and those at risk of not meeting the State student academic achievement standards who are members of the target population of any program that is included in the school-wide program” (Public Law 107, Sec 1111, p. 1).

Targeted Assistance schools are identified as schools selected to receive funds under Public Law section1113(c) “that are ineligible for a school-wide program or that choose not to operate such a school-wide program.” The law further defines “targeted assistance schools as an eligible population of students who are not yet at grade level and who are identified by the school as failing or most at risk of failing to meet the State’s challenging student academic achievement standards” (Public Law 107, Sec. 1115, p. 3).

After the implementation of Reading First in many school districts throughout the nation, Reading First received criticism from textbook vendors who stated that their product had not been placed on the recommended list of textbooks for the Reading First program. The U. S.

As reported in February 2008, the Bush Administration's Reading First Program has been the subject of two critical reports by the Inspector General at the Department of Education. The Inspector General found that the training programs set up by the Department to educate states about the Reading First program violated the prohibition against controlling individual school curricula by promoting specific reading materials and instructions to the financial benefit of companies such as McGraw Hill and Voyager who were headed by top Bush administration donors. The Inspector General also found that the Department failed to adequately assess “issues of bias and objectivity” in approving technical assistance providers. (p. 1)

The Reading First program received criticism from Congress for the amount of money spent and the results were questionable. Therefore, it was important to assess if the Reading First initiative was associated with significant increased reading achievement in the southwest Virginia schools by comparing the Reading First third grade reading test scores to the Non-Reading First third grade reading test scores to determine if the program had been successful for increased reading achievement for southwest Virginia third grade students.

**Scientifically Based-Reading Instruction**

The National Research Panel (RMC Research Corporation, 2005) composed of some of the nation’s leading experts in reading research, was charged by Congress to review the growing body of reading research. They used the following guidelines to determine which studies met the scientific standard for evidence:
First, research must address achievement in one or more skills in reading. Second, it must be generalized to the larger population of students. Third, the research needs to examine the effectiveness of an approach by comparison with other types of instruction. Finally, other scholars from the field must review the research and consider it high quality (p. 3).

The five identified instructional methods in scientifically based reading research included: essential skills of phonemic awareness, phonics, vocabulary, fluency, and reading comprehension. Paige (2003) referred to scientifically based reading research as “there is reliable evidence that the program or practice works” (p. 18). Paige (2003) further stated, “to obtain reliable evidence about a reading strategy or instructional practice, an experimental study may be done that involves using an experimental/control group design to see if the method is effective in teaching children to read” (p. 18).

The Reading First Program allowed states and districts to make choices about reading instruction from selecting scientifically researched-based reading programs and materials for the curriculum. According to the Reading First Notebook (2006) “Reading First must provide assistance for states, districts, and schools to apply scientifically based reading research (SBRR) to improve K-3 reading instruction and, ultimately, students’ reading achievement” (p. 1).

Reading First included the implementation of on-going professional development to train reading teachers in the five components of reading instruction and to use assessments for instruction and remediation. The reading instruction was based on assessments that measure student progress in the five essential reading components. The Reading First coach guided teachers in the screening, diagnosis, progress monitoring, and results of the assessments. Another role of the reading coach was to analyze the data and provide feedback to the teacher so that
differentiation of instruction may target the need of the students for overall improvement of student achievement.

*NCLB* legislation (2002) required that states select rigorous reading assessments with proven validity and reliability. The selected assessments must measure students’ progress in phonemic awareness, phonics, comprehension, fluency, and vocabulary and must also identify students at risk for reading failure. According to Behnke, Hayes, Maslin, and Abouzeid (2005), Reading First recognized the role of classroom management in effective literacy instruction. Morrow, Woo, Gee, and Pressley (1999) stated, “With the call for differentiated groupings to better meet students’ needs, teachers must learn how to use assessment data to group and plan for instruction” (p. 14). Reading First provided opportunities for teachers to attend on-going professional development on assessment of data to differentiate instruction to meet the instructional needs of the students.

**Professional Development**

The Reading First grant provided funds for extensive well-designed professional development activities in the teaching of reading strategies and the teaching of the five components of reading--phonics, phonemic awareness, vocabulary, comprehension, and fluency. Teachers in grades K-3 in the Reading First schools were required to attend Reading Academies and to attend local, regional, state, and national workshops and conferences. Reading First school principals, reading coaches, and the LEA representative (local education agent) were required to attend local, regional, and state reading professional development for reading skill strategies and instructional leadership. The professional development was aligned with the Reading First instructional program and the Virginia state reading Standards of Learning assessments to ensure
the effective implementation of the reading curricula (VDOE, 2003).

According to the Reading First SEA (2003), professional development guidelines stated clearly that simply telling information was not sufficient to impact behavior. The SEA (2003) expected that the division provide opportunities for teachers to discuss and then practice new strategies, ideally with feedback after the practice. The Reading First office at University of Virginia developed full-day, follow-up, workshops as extensions of the Teacher Reading Academies (Behnke et al., 2005, p. 17). Nationwide, Reading First Academies were offered during the summer and online for the benefit of training new teachers, principals, and instructional administrators. The LEA representatives ensured that professional development activities were ongoing, reflective, data driven, and encompassed researched-based teaching strategies for teaching phonics, phonemic awareness, fluency, vocabulary, and comprehension. by scheduling and monitoring reading workshops (Lee County Public Schools, 2003).

Role of Reading Coach

Coaching support is a key component of the Reading First program. “The Reading First guidance indicates that reading coaches should be included as a part of the required professional development strategy” (U. S. Department of Education, 2002, p. 26). Virginia’s Reading First program required that each school receiving Reading First funds have a full-time reading coach. The duty of the reading coach must be to provide and plan professional development that would help to educate the teachers in grades K-3 in the components of Reading First reading strategies. “The reading coach serves a resource for teachers to assist them in the implementation of scientifically based programs, data analysis, intervention needs, and differentiating instruction for their students” (USDE, 2005, p. 1). The reading coaches supported and provided feedback as
they learned new practices and implemented the new practices for instruction and intervention modeling based on the scientifically based research strategies for struggling readers. According to the Reading First program guidelines, “the role of the reading coach is to extend training by providing on-site support and guidance. Reading First coaches work collaboratively with teachers to set professional goals for developing, extending, and improving effective research-based instructional skills, strategies, and practices” (RMC Research Corporation, 2009, p. 1).

Concerns for Reading Literacy

Chall (1983) described the “learning to read” stage as students are still learning to decode simple text as noted, “However, in the fourth grade, the text becomes more complex, abstract, and challenging” (p. 1). Chall and Jacobs’s (1990) research found that the most significant finding of the study for reading was that “low-income children in grades 2 and 3 achieved as well as children in the normative population...some of the students’ scores started to decelerate around grade 4. The low-income children in our study (in grades 4-7) had greatest difficulty defining more abstract, academic, literary, and less common words as compared with a normative population on the word meaning test” (p1).

The National Reading Panel Press release (April 13, 2000) revealed that “in 1994, the National Assessment of Educational Progress (NAEP) found that 42 percent of fourth graders read below basic levels” (p. 1). Also, the National Reading Panel found that in 1999, the National Education Goals Report confirmed that the United States had failed to increase the percentage of students scoring at or above the proficient level in reading at the fourth grade.

The NRPP (April 13, 2000) release further stated, “the situation did not improve according
to the 1998 NAEP report because it found that 69 percent of fourth graders were reading below the proficient level” (p. 1). Northup (April 13, 2000) praised the National Reading panel by these words,

The Panel’s report gives teachers and parents clear direction on how children learn, what intervention is needed and when it is needed to develop successful reading. A child’s success in school – and in life – is dependent upon his ability to read. Now, they (the teachers) will be equipped with scientific research from a panel that is credible and independent. (p. 1)

Grosso de Leon (2002) reported that The RAND Reading Study Group, a panel of 14 reading experts, were charged with recommending to the U.S. Department of Education’s Office of Educational Research and Improvement ways on improving the quality and relevance of research and development related to improving reading comprehension (p. 2). According to Grosso de Leon (2002), “data indicate the level of reading skills of most Americans has stagnated over the past 30 years. Moreover, U.S. eleventh graders perform close to the bottom…. Students who are good comprehenders use strategies in reading to learn new concepts, get deeply involved in what they are reading, critically evaluate what they read and apply their knowledge to solve practical as well as intellectual problems” (p. 2). A student’s success in the 21st century is increasingly dependent upon teaching students to read to learn and Reading First is a nationwide effort designed to help each and every student become a successful reader according to USDOE (2002).

Reading First was based upon the premise that reading skills should be taught in the early grades, K-3.

Reading is more than a matter of identifying letters, sounds, and words. There is no
magical age for when reading “clicks” with a child. Children need to listen to stories, conversations, engage in rhyming and participate in singing. Experiences build the foundation for children to realize that letters and sounds are connected. However it happens, something in the child’s brain begins to process the idea which is simple to us, but profound to children that there is a connection between letters and sounds. This process is known as the *alphabetic principle*, and is the foundation of literacy. (Neuman, 2006, p. 44)

Silverman (2006) reported, “Students learn to read in elementary school, and read to learn in secondary school” (p. 70). However, he further asks the question, “what if a student arrives in middle school without having mastered simple vocabulary, decoding skills, and comprehension, and can’t read well, then what” (p. 70)? According to Silverman (2006) students’ lack of reading skills is why the nation is struggling to find the answer for struggling readers by offering programs such as Reading First.

Another concern addressed by the National Reading Panel (2000) was the need to improve reading in the content areas and to train teachers to be familiar with reading strategies that would focus on teaching reading comprehension strategies, such as brainstorming, skimming content, previewing headings, questioning, reflecting, and inferring. Bishop et al. (2006) wrote, “The national decline of students’ reading comprehension as they move beyond grade 3 has been cause for resounding alarm in the United States” (p. 1). Bishop et al. (2006) further stated,

Research has shown that many children who read at the third grade level in grade 3 will not automatically become proficient comprehenders in later grades. Therefore, teachers must teach comprehension explicitly, beginning in the primary grades and continuing through high school. (p.1)
Pressley, El-Dinary, and Gaskins (2001) in comments on improving reading comprehension in students, recommended the teaching of decoding skills, vocabulary skills, prediction skills, analyzing skills, and encouraging students to monitor their own comprehension.

*Fourth-Grade Reading Results*

According to *The Nations Report State Report Card Reading, 2005*, (NCES) the average scale score for fourth-grade students in Virginia was 226. This was not significantly different from their average score in 2003 (223), and was higher than their average score in 1992 (221). NCES (2005) presents the “fourth-grade slump” as a concern for our continued reading progress of students as they leave the third grade.

The National Assessment of Educational Progress data revealed some encouraging news, “fourth-grade reading scores are up across the country. However, that same data tells us that kids are losing ground after fourth grade. Both eighth and eleventh-grade scores are lower than fourth-grade scores and are on the decline. (Scholastic-online, n.d., p.1)

The report further stated that the contributing factors could be attributed to the addition of subjects and that the world outside the classroom has become filled with iPods, videos, computer games, and virtual studies. Finally, the concern was that if this reading problem is left unchecked, the consequences could have long-range effects on student achievement (Scholastic-online, n.d.).


In 2005, the average scale score for fourth-grade students in Virginia was 226. This was not significantly different from their average score in 2003 (223), and
higher than their average score in 1992 (221). Virginia’s average score (226) in 2005 was higher than that of the Nation’s public schools (217). (p. 1)

According to the *Interim Report* (2006),

Results from the 2005 National Assessment of Educational Progress (NAEP) Reading Assessment indicate that 54 percent of fourth-grade students eligible for free or reduced-price lunches read at below basic level compared to only 23 percent of fourth-graders *not* eligible for free or reduce-priced lunches who perform at that level. (p. 17)

Lyons, (2007) stated in his report that “no matter how good the programs, materials, and/or instructional strategies are, they must be provided to students by a well prepared teacher under conditions that ensure implementation fidelity” (p. 2). Likewise, continuous assessments, monitoring of the instruction, and ongoing professional development based on scientific based reading researched will help to improve the effectiveness of reading skills in any school setting (Lyon, 2007).

*Reading First Focus*

The Reading First program focuses on improving instruction for K-3 students by providing increased funding to states to implement scientifically based reading programs in schools with the greatest need to improve student achievement. The third grade is a year of significant growth, development, and consequence. By the end of the third grade, students are making the transition from learning to read to reading to learn. Third grade teachers have the task of making sure students leave their classrooms prepared to comprehend, analyze, and critique complex and varied texts. Also, the third grade is the first time that students participate in state assessments. The
third grade teachers have the responsibility for ensuring that students acquire the necessary skills to be successful in the remaining school years. Reading First focuses on enabling all students to become successful early readers by grade three by building on a solid foundation of research (VDOE, 2003).

Reports of Change in Teaching Reading

Evaluation data on the Virginia Reading First program were not available until late in 2007 from the Virginia Department of Education. Other state reports were indicating that the Reading First program had led to positive changes in curriculum development, resources, and intensive professional development for the teachers in Reading First schools. Children in Reading First schools received significantly more reading instruction - almost 100 minutes more per week on average - than those in Non-Reading First Title I schools (Interim Report, 2006).

According to the Center on Education Policy, “97% of participating school districts that reported increased student achievement credit Reading First as an important factor. As a direct result of Reading First grants, more than 100,000 teachers across the country from kindergarten through grade 3 have been trained to implement high quality, scientifically based reading programs. Their efforts are reaching more than 1.8 million students” (USDE, 2008).

Manzo (2006a) reported, “Schools in the federal Reading First program dedicate more time to reading instruction and teacher professional development, and are more likely to use assessment data to inform teaching and the real change in classroom practice is due to the implementation of Reading First program that the “Reading First program is different in that it includes additional instructional time, resources, instructional planning and collaboration, use of assessments, and mandates fidelity to the reading instruction program” (p.1-2). Neuman (2006) remarked, “If
teachers are doing what they say they’re doing, then this will be the greatest test to date on whether or not the model of reading (as delineated by the National Reading Panel) actually works to improve children’s achievement” (p.1).

Manzo (2006b) further stated, in a report to the Washington-based Center on Education Policy,

Participating schools and districts have made many changes in reading curriculum, instruction, assessment, and scheduling…many districts have expanded Reading First instructional programs and assessment systems to Non-Reading First schools. Also, the Department of Education has received some complaints about the management of the programs by the states; however, from what we’re being told by the states, it’s having a positive impact on student achievement, instruction, and assessment in reading…that 19 of the 35 states, that reported their reading programs, had improved in the past few years and identified Reading First as a key contributor. (p. 2)

Standards of Learning Tests

The effectiveness of the NCLB, Reading First component, and initiative of improving reading achievement was measured by the 2006 Virginia Standards of Learning tests (Interim Report, 2006). The Interim Report (2006) implied that through Reading First governance, schools were applying scientifically-based reading research, proven instructional strategies, receiving professional development, and training for data assessment to teach children to read in grades K-3 on grade level by grade three. Virginia’s Reading First initiative required that an evaluation be conducted to document the progress schools were making towards improving
reading achievement (VDOE, 2003). Cannaday (August 29, 2006) stated to the Virginia state division directors of testing, “For years, we have worked hard to make sure that all students are reading at grade level by the third grade. The fact that 84 percent of our grade 3 students passed the SOLs and other state reading tests in 2005-2006 is a sign that our efforts are bearing fruit. This represents a 7 point increase over grade-3 reading achievement in 2004-05 and a 13 point improvement over 2003-2004” (p.1

According to the *Interim Report (2008)*, the evaluation found that Reading First did have positive, statistically significant impacts on the total class time spent on the five essential components of reading instruction promoted by the program. However, the study also found that, on the average across the 18 study sites, Reading First did not have statistically significant impacts on student reading comprehension test scores in grades 1-3. (p. 2)

*Reading First Program Governance*

The No Child Left Behind Act (2002) established the Reading First Initiative to address the fact that large numbers of our nation’s students do not develop the reading skills necessary to be successful in school. The Reading First Initiative was a major federal initiative that included years of scientific research in reading to ensure that all children can read at or above grade level by the end of third grade. The *Interim Report* (2006) stated, Reading First, based on research findings, is high-quality reading instruction in the primary grades that significantly reduces the number of students who experience difficulties in later years.” Through the provision of significant resources, the
Reading First Initiative provided quality professional development to ensure that the teachers have the skills necessary to teach effectively in the Reading First program. The core reading program, instructional methods, and materials must incorporate the five reading instruction elements: phonics, phonemic awareness, vocabulary development, comprehension strategies, and reading fluency.

(USDOE, 2006, p. 18)

The *Interim Report* (2006) stated that schools “should consider the allocation of time, including a protected, uninterrupted block of time for reading instruction of more than 90-minutes per day” (p. 4). The governance also called for use of appropriate reading materials, implementing reading activities and instructional strategies that are supported by scientifically based reading research. The governance provided for the hiring of reading coaches to provide reading instruction, modeling, observation, and feedback for improvement to meet the needs of the struggling students. The Reading First teachers were to coordinate reading instruction for all students in K-3, including special education students (U. S. Department of Education, 2006).

*Division Reading First Grant*

The Virginia Reading First Program grant was awarded on a competitive process. The three southwest Virginia schools received the grant based upon the Virginia Standards of Learning reading test scores of students who were reading below grade level at the third grade and the poverty index of the schools meeting the criteria for high poverty. The grant was awarded for a period of 6 years with the understanding that the reading achievement scores must show an increase in reading proficiency achievement in the third grade as evidenced by the Virginia Standards of Learning reading test scores, annually (U. S. Department of Education, 2003).
Assessment was an important component of the Reading First Program. The grant required that the Reading First programs use varying assessment tools for varied instructional purposes—planning, grouping, progress monitoring, identifying struggling readers, and benchmark testing. The reading coach and the reading teacher were required to meet regularly to discuss and interpret the reading test data for making differentiated instructional decisions. This collaborative effort assisted the teacher with identifying students who needed to be provided intensive reading skills for intervention instruction. The reading coaches were to provide support and instructional modeling for reading intervention strategies. The reading coaches worked with the teachers rather than with the students. They planned and provided professional development and facilitated the grade level meetings, compiled reading assessment data, administered reading assessments, and attended monthly meetings with the Division Public Schools Reading Supervisor who was referred to as Reading First LEA and the Virginia State Reading Regional Supervisor (Virginia Department of Education, 2003).

Reading First Regulations for Local Education Agent

DeMary (2004) stated, “the responsibilities of the Virginia Department of Education and the Local Education Agency stipulated the specific regulations for compliance with all specifications outlined in the approved or amended grant application (Memorandum of Understanding, (MOU)” (p. 1). In a letter to the superintendent, DeMary (2004, p. 1) reminded the school division and emphasized that the Virginia State Department had the responsibility to reduce or discontinue Reading First funding to local education agencies (LEAs), if certain conditions did not exist at the end of the funding year. DeMary (2004) specified the conditions:

(a.) Student Achievement must be significant as evidenced by the Standards of
Learning Reading tests for third grade.

(b.) The Standard of Learning English pass rates are compared to the previous year data. In order to show significant progress for the year, schools must achieve a pass rate of 70 percent for all students, including the subgroups.

(c.) If the school lacks a certified Reading Specialist to serve as the Reading Coach, justification for not employing one must be documented” (p.1).

The Division’s second *Memorandum of Agreement* (2004) signed by the superintendent and principals of the *Reading First* schools, indicated that the schools receiving *Reading First* funding were in compliance and agreed that all conditions were being met, including implementing a core reading program, administering required assessments, and protecting the 90-minute block of time for reading instruction.

### Importance of Effective Reading Practices

The National Reading Panel (NRP) (2000) issued a report that responded to a Congressional mandate to help parents, teachers, and policymakers identify key skills and methods central to reading achievement. The Panel reviewed research in reading instruction that focused on the critical years of kindergarten through third grade and identified methods that consistently relate to reading success. Neuman, (2001) stated

*The Panel reviewed more than 100,000 studies. Through a carefully screening procedure, the Panel members examined research that met several important criteria:

1. the research had to address achievement of one or more skills in reading;
2. the research had to be general gable to the larger population of students;*
3. the research needed to examine the effectiveness of an approach;
4. the research needed to be regarded as high quality. (p. ii)

The Panel embraced the criteria in its review and provided in its findings an analysis and discussion of the five areas of reading instruction: phonics, phonemic awareness, vocabulary, comprehension, and fluency (Newman, 2001). *Reading First* embraced these criteria for its instruction and professional development programs.

The CRISS Project (2006) found that the National Reading Panel findings were supported for the development of the Project CRISS teaching strategies. The report provided rationale for CRISS in-service by saying that teachers can no longer be only content teachers; they also need knowledge of learning strategies and how to best teach and model the strategies. CRISS is a scientifically based research project that provides professional development for reading comprehension, vocabulary instruction, and strategy modeling for reading programs across the content areas. *Reading First* provided professional development for teachers to ensure that they had the skills needed to teach the scientifically based reading programs. The professional development aligned with the instructional program to ensure effective implementation of the reading curriculum. Reading First teachers were trained how to apply the five essential components of reading instruction, how to assess student progress, and how to provide intervention for struggling readers. Teacher modeling was an important form of classroom support for literacy training. Implicit and explicit modeling of instructional practices was implemented in a well-balanced literacy program. Edmonson and Shannon (February 2002) reported, “the basic architecture for design of scientifically based programs in the National Reading Panel (2002) report is stated in the following excerpt from the findings:

Effective reading instruction includes teaching children to break apart and
manipulate the sounds in words (phonemic awareness), teaching them that these sounds are represented by letters of the alphabet which can then be blended together to form words (phonics), having them practice what they have learned by reading aloud with guidance and feedback (guided oral reading), and applying reading comprehension strategies to guide and improve reading comprehension (p. 452)

Pressley et al. (1992) found in their research that reading is not an automatic or passive process, but is highly interactive. Good readers must apply a variety of strategies to process text. Their research indicated what teachers must do to produce strategic readers by teaching students cognitive strategies, as well as to supply them with the meta-cognitive knowledge necessary to understand when and how to use these strategies. Schwanenflugel (2006) noted being able to read fluently is a critical developmental step for all young children’s education. He further noted that children who do not develop fluency in the second and third grade would have difficulty learning from texts in later grades. The Reading First program included in its practices explicit teaching techniques for effective fluency instruction, oral expressive reading was a daily practice and direct explanation, modeling, guided practice, prior knowledge, predicting, questioning, making inferences, visualizing, feedback and application in the daily 90-minutes of instruction (VDOE, 2003).

*Schools Make Changes in Reading Curriculum*

The purpose of Reading First was to change how reading is taught in K-3 classrooms and the goal of Reading First was to ensure that all children in America learn to read by the end of third grade. The Reading First funds were to be spent on purchasing scientifically based reading
researched materials. The core-reading program had a coherent design that addressed the five essential components of reading instruction as well as to meet the needs of the struggling readers (NCLB, Title I Part B).

The Reading First core-reading program provided a comprehensive daily program of instruction in the five reading components. Reading First expected the LEAs to have implementation of fidelity to the program. The teachers in the Reading First schools followed a reading program that was monitored by the reading coach and principal. The intervention materials, *Quick Reads*, a web-based program for at risk students who did not meet the phonological awareness language, (PALS), and benchmark testing for reading skills were used as supplemental tutoring services (Lee County Public Schools, 2009).

Further changes for the Reading First program included scientifically based instructional strategies related to the five key components of reading skills. Instructional environments were changed to support instructional strategies by dividing the 90-minute instructional period into whole or direct group instruction, small group instruction, and the students were to move through literacy workstations that emphasized the lesson components for reinforcement of the taught reading skills. Along with the changed instructional strategies, the classroom teachers were provided a reading coach to support and model instructional strategies as well as to interpret diagnostic assessment information. The reading coach collected the data from the assessment tests to provide intensive remediation plans for struggling readers.

Another change was the provision that assessments must be continuous and ongoing. Reading First teachers were provided varied assessment instruments and time to use the assessment data to plan instruction. The Reading First program required that all classrooms administer both PALS (Phonological Awareness Literacy) and DIBELS (Dynamic Indicators of
Basic Early Literacy Skills). The reading coach and teacher were required to meet one day per week during planning time to discuss and receive guidance for providing instruction in the key reading components more effectively. Data driven instruction was a key instructional strategy for helping students to become more effective readers. In the three Reading First schools, the reading coach scheduled and met with grade level reading teachers weekly to discuss reading assessments, reading teaching strategies for struggling readers, and planned for reading intervention instruction (MOU, 2003).

The Reading First program provided funds for all teachers to participate in 90 hours of professional development on reading instruction, assessment, and intervention strategies and to attend workshops and reading-related conferences. Professional development was a significant component of the program. The teachers in the K-3 Reading First schools attended grade level Reading Academies for training in the five essential components of reading instruction. Furthermore, the teachers were to participate in 9-week benchmark testing analysis for student reading achievement and workshops that emphasized reading intervention strategies. In the Non-Reading First schools, the K-3 teachers were invited to attend any and all local professional development and were invited to attend the Reading Academies. Title I paid the fees for the Non-Reading First schools to attend any and all of the offered professional development.

Reading First Evaluation

The research by the National Reading Panel (2000) indicated that if teachers put into practice in the classroom the instructional strategies on how to best teach children to read (phonics, phonemic awareness, fluency, vocabulary, and comprehension) students would be able to read on level by third grade. Reading First is the first NCLB (2002) legislative reading program to be put
into practice as a new, high quality research-based, comprehensive reading instruction program for
the teaching of reading in K-3 grades. Reading First was designed to select, implement, and
provide professional development for teachers using scientifically based reading programs and to
ensure accountability through ongoing, valid and reliable screening, diagnostic, and
classroom-based assessment.

Barbash (2005) wrote

Reading First has emerged as the most popular part of the NCLB law and the
most effective federal education initiative today and Reading First has
inspired more reading progress in the last three years than in the prior thirty
and the reason for Reading First’s success is attributed to following a set of
guidelines that has scientifically based instructional strategies and timely
assessments that drive the instruction. (p. 1)

According to Abouzeid (2005) Reading First in its third year was examined for its proof of
improvement in scores for all schools in the state of Virginia. The baseline scores from
2003-2004 were compared against 2005-2006 and “according to the trend last year, the schools
needed to do better with phonics instruction past the kindergarten and first grade levels A factor
that needed to be considered in the 2005-2006 scores was the inclusion of all students in the
reporting” (Wren, 2006, p. 1). The Reading First Program and the U. S. Department of Education
conducted a critical examination of the nation’s K-3 reading standards and assessments. The
examination was framed around the five critical elements of reading specified in Reading First:
comprehension, fluency, vocabulary, phonics, and phonemic awareness and the degree to which
these elements were tested in K-3 assessments. “Among the five elements, reading
comprehension was the best represented in the state standards. However, research reveals that states are in the process of changing their testing standards for K-3 to reflect the researched-based components that the National Reading Panel recommended in 2000 and as required by the NCLB Act, 2002” (Wren, 2006, p. 1).

Mauer and Long (2006) reported that “Reading First was having a significant and positive impact on student achievement and Reading First had brought about changes in curriculum, instruction, and assessment” (p.1). The report also found that the Reading First initiative had affected many Non-Reading First schools and districts through its assessment and professional development expansion by the teachers and principals.

The International Reading Association (March 2007) issued a position statement on Reading First, that stated,

Despite the serious flaws in the administration of Reading First, we recognize and commend the many hardworking teachers and administrators in U.S. schools and state departments of education who have worked diligently to implement sound and successful Reading First programs. We recognize the recent evidence showing that, despite the administrative mismanagement detailed in the Inspector’s General’s report Reading First has been valuable in supporting the academic growth of students and professional development of teachers. (p. 8)

Virginia Department of Education (2007) reported that the Standards of Learning test scores for third graders improved in all regions in Virginia for the 2006 reporting period. The state of Louisiana Report (2006) reported that their state’s students were performing well in the federal
Reading First program. The report further stated, “The study actually shows Louisiana is outperforming the Reading First schools in the rest of the nation” (p. 1). Districts and schools in Indiana using the guidelines, assessments, and strategies outlined in the Reading First initiative were beginning to see differences in teachers and student achievement. The Michigan Department of Education Reading First website reported significant gains in students’ reading achievement for the 2003-2005 years.

The Interim Report (2007) suggested that the reading programs being implemented in grades to K-3, in Reading First schools, were meeting the objectives of the Reading First Program as intended by the No Child Left Behind legislation. According to the report, “schools with Reading First curricula have established instructional environments to support scientifically research-based instruction, have provided adequate time for reading instruction, and have used effective instructional materials and strategies” (p. 1).

The RMC Research Corporation (2008) study reported “the percentages of third graders passing the SOL Reading test in the Virginia Reading First schools in all subgroups are similar to statewide results. According to RMC study (2008), more students identified as disadvantaged in Virginia Reading First schools passed the Virginia SOL third grade reading assessment test when compared to students identified as disadvantaged in Virginia Non-Reading First schools. RMC (2008) noted “two of the schools (School A and School C in southwest Virginia) had a 100 percent passing rate for all students, including the students of disadvantaged” (p. 32). The Stanford Reading (2008) test for K-2 revealed that students scored at or above the 40th percentile. The majority of the Virginia kindergarten students taking the test were proficient; however, a fourth of the kindergarteners were in need of intervention for reading fluency. The first grade students attained proficiency in the test and 20% were in need of intervention for vocabulary development.
The second grade students were classified as in need of substantial intervention in all of the components of reading in the Reading First schools state wide (RMC Research Corporation, 2008). The *Reading First Impact Study* (2008) indicated many studies had been done at the state level and had indicated that Reading First did have a good effect on reading achievement. Key findings included:

1. “Reading First produced a positive and statistically significant impact on amount of instructional time spent on the five essential components of reading instruction promoted by the program;
2. Reading First produced positive and statistically significant impacts on multiple practices promoted by the program, including professional development in scientifically based reading instruction, support from full-time reading coaches, amount of reading instruction, and supports available for struggling readers:
3. Reading First did not produce a statistically significant impact on student reading comprehension test scores in grades one, two or three; and
4. Reading First produced a positive and statistically significant impact on decoding among first grade students tested in one school. (RMC Research Corporation, 2008, p. 1)

Chenoweth’s (2008) words “I’m writing off the report, not Reading First” best describes the failings of the researchers who did not look at any data of student achievement prior to Reading First” (p. 1). As Chenoweth (2008) suggested, a lot of commentary on the Reading First study has used its conclusions to reopen reading wars. Although there may have been problems with both the Reading First legislation and the way the program was implemented, teachers and principals speak to the important gains in student achievement in reading where Reading First was
Paige (2003) acknowledged that Reading First teachers have a critical responsibility to ensure that their students leave the third grade prepared for the reading demands of the upper-elementary grades and the school districts must consider how teachers in the upper-elementary grades can learn about quality reading instruction. Chall and Jacobs (2003) emphasized that students in the early grades who seem proficient in narrative reading comprehension despite having deficits in word meaning and word recognition will likely suffer later. They stated, “Because of the developmental nature of reading, the later one waits to strengthen weaknesses, the more difficult it is for the children to cope with the increasing literacy demands in the later grades” (p. 1). It is suggested that the fourth-grade slump could be avoided with a strong foundation of reading skills that support comprehension and vocabulary development in the primary grades and continue re-enforcement of these developmental skills throughout a child’s school career.

Summary

In Chapter 2, a review of literature examined the components of the No Child Left Behind Act, 2001, the Virginia Standards of Learning, implementation of Reading First, Title I Initiatives for disadvantaged students including the components of the Reading First and the Non-Reading First schools, concerns or literacy, the importance of teaching effective reading skills to students in grades K-3 in the public school system, and evaluations of the Reading First program. Many of the studies and reports focused on the positive achievement of the Reading First program. The literature focused on that learning to read was the most important skill for students to acquire in K-3, if students are to achieve and become productive citizens of society.
Chapter 3 presents the methodology and procedures used in the study, data collection, and analysis.
CHAPTER 3

METHODS AND PROCEDURES

Introduction

The purpose of this study was to determine if reading achievement scores of students who participated in the third grade reading Standards of Learning tests for the Reading First program were significantly different from the reading achievement of the Non-Reading First students enrolled in six school-wide Title I schools located in southwest Virginia. All of the schools participated in the Virginia Standards of Learning test scores for the years 2004-2009. The data were gathered from the analysis of mean standardized test scores of all students by years in third grade reading for the three Reading First schools and the three Non-Reading First schools for the years 2004-2009. Another purpose of this study was to determine if a significant difference existed between third grade reading proficiency achievement levels of students in the Reading First program compared to the students in the Non-Reading First program as measured by the Virginia Standards of Learning test scores for 2004-2009 for proficient, advanced proficient, and not proficient. The schools identified as A, B, and C participated in the Reading First program in kindergarten through third grade for 2004-2009. The schools identified as T1, T2, and T3 participated in the Non-Reading First program in grades kindergarten through third grade for 2004-2009. An additional purpose of this study was to add to the existing body of research for statistical analysis of the reading achievement of the third grade students who participated in the Virginia Reading First program for the school years 2004-2009 compared to the Non-Reading First third grade students.

Chapter 3 describes the methodology and procedures used in this study. The chapter is
organized into the following sections: introduction, research design, population, instrumentation, data analysis, instrumentation, procedures, and a summary statement.

Research Design

A quantitative comparative research design was used for this study. The comparative analysis study examined the significance of reading achievement for third grade reading test scores between Reading First and Non-Reading First to determine if there was a significant difference in reading achievement in six elementary schools located in southwest Virginia.

The experimental group for this study included students who participated in the Reading First program in grade 3 for the years 2004-2009. The control group for this study included the students who participated in the Non-Reading First program for 2004-2009. The data were obtained from Virginia Department of Education (2009) webpage with permission granted from the division superintendent. This study was organized around two research questions. Methodology included selection of below proficient, proficient, advanced proficient, treatment of the data, educational significance, quantitative data, and an explanation of how the data sources were used to answer the questions.

Population

The population in this study included 384 third grade Reading First students and 696 Non-Reading First third grade elementary students in a school system in rural southwest Virginia. The study focused on the third grade reading data for third grade students and their performance on the Virginia Standards of Learning tests (2004-2009) from six elementary schools. The schools targeted were based on participation in the Reading First program and Non-Reading First. All
schools selected reflected similar socioeconomic status and demographics. The criterion for low socioeconomic classification was the school’s percentage of students receiving free and reduced priced meals. The Reading First grant was awarded to 3 schools based on third grade reading scores and the percentage of students receiving free and reduced lunch. The Non-Reading First schools were chosen based on the percentage of free and reduced lunch priced meals and having similar demographics as the Reading First schools.

Data Collection Procedures

Prior to conducting this study, approval was obtained from the Institutional Review (IRB) at East Tennessee State University. Data collection was initiated by using the longitudinal performance reports from the Virginia Standards of Learning (2004-2009) annual Report Cards that provided a fast and easy solution for retrieving longitudinal assessment results based on specifications of the user for third grade reading scores for the years 2004-2009. Permission to collect data was received from the division Superintendent of Schools to retrieve student data from the Virginia Department of Education website that provided a public database for access to student testing information. Data for third grade reading Virginia Standards of Learning test scores (2004-2009) were generated from the published Report Card for the 6 public schools in the district. The Virginia State Department Report Cards are considered valid and reliable and are published on the state’s website to be shared with the public (VDOE, 2009). Individual students or schools were not identified in any way or at any time in this study.

Virginia supports teaching and learning through a statewide system of support and accountability for the commonwealth’s public schools and school divisions. The commonwealth sets rigorous academic standards, known as the Standards of Learning (SOL), and measures
achievement through annual SOL tests and alternate assessments. The school division provides schools, school divisions, and the Virginia Department of Education with critical data to inform the development and implementation of effective instructional strategies and best practices. Virginia uses criterion-referenced tests to meet the student assessment requirements of the No Child Left Behind law. These tests are known as the Standards of Learning tests (VDOE, 2006). Criterion-referenced tests are designed to measure a level of mastery according to a clearly defined set of standards. According to the Virginia Department of Education (2006), SOL assessment results are reported according to a level of performance—not proficient, proficient, and advanced ratings. The performance results for each test taken are based on the student’s performance. The student received a scaled score ranging from 0 to 600. A student who attained a scaled score of 400 to 499 would be considered proficient. If a student attained a scaled score of 500 to 600, the student would be considered to have performed at an advanced proficient level. A scaled score between 0 and 399 indicated that the student did not pass the test and performed below proficient.

The Virginia Standards of Learning tests were developed by the Virginia Department of Education. Analysis of the data for this study was conducted by inputting data for the two groups (Reading First and Non-Reading First) and comparing the third grade reading test scores by using the Statistical Package for the Social Sciences (SPSS) Version 15.0 software. Findings were based on alpha level .05.

Research Questions and Hypotheses

This study was guided by 2 research questions and 6 null hypothesis associated with each question.
Research Question 1

Are there significant differences in the mean Standard of Learning reading scores between Reading First Students and Non-Reading First students for each year in a 6 year period (2004-2009)?

Ho1: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2004.

Ho2: There was no significant difference between Reading First and Non-Reading First third grade mean reading scores with regard to achievement for 2005.

Ho3: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2006.

Ho4: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2007.

Ho5: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2008.

Ho6: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for advanced proficiency for 2009.

Research Question 2

Are there significant differences in the proficiency levels (not proficient, proficient, and advanced) of the Standards of Learning reading test between Reading First and Non-Reading First students for each 6-year period 2004-2009? Chi square was used to test the following null hypotheses:
Ho2₁: There was no significant difference between Reading First and Non-Reading First third grade 2004 reading proficiency levels.

Ho2₂: There was no significant difference between Reading First and Non-Reading First third grade 2005 reading proficiency levels.

Ho2₃: There was no significant difference between Reading First and Non-Reading First third grade 2006 reading proficiency levels.

Ho2₄: There was no significant difference between Reading First and Non-Reading First third grade 2007 reading proficiency levels.

Ho2₅: There was no significant difference between Reading First and Non-Reading First third grade 2008 reading proficiency levels.

Ho2₆: There was no significant difference between Reading First and Non-Reading First third grade 2009 reading proficiency levels.

Data Analysis

Data for each group and year being studied were collected and organized for entry into a data file. Means were calculated for not proficient, proficient, and advanced proficient. The statistical results were used to decide whether the null hypotheses should be rejected or retained. Data summaries and results of the data analysis are presented in Chapter 4.

A t test for independent samples was used to determine if there were mean SOL score differences between students’ scores who participated in the Reading First program when compared to the students who participated in the Non-Reading First Title I program. Chi-square tests were used to evaluate whether a statistical relationship exists between the two groups (Reading First and Non-Reading First) for third grade reading not proficient, proficient and
advanced proficient.

The $t$ test assessed whether the means of two groups are statistically different from each other. The chi-square tests were run to evaluate whether a statistical relationship proficiency level exists between two groups. The reading achievement data was analyzed for 6 years (2004-2009).

All statistical tests were conducted using an alpha level of .05 to determine if significant differences occurred in grade three reading achievement scores on the SOL tests for the Reading First students compared to the Non-Reading First students. The statistics used are consistent with the design of study.

**Summary**

The third grade test scores were collected from the Virginia Standards of Learning *Report Card* test scores for third grade reading achievement for students attending 6 Title I elementary schools in Southwest Virginia for 2004-2009 to determine if reading achievement differences existed between Reading First schools and Non-Reading First schools. Chapter 3 presented the research design, population, and statistical procedures that were used for data analysis and a summary. The study used quantitative procedures to compare the Virginia Standards of Learning reading achievement scores of third grade students in 6 schools in Southwest Virginia for 6 years. In Chapter 4 the findings are reported and discussed. In Chapter 5 the summary, conclusion, and recommendations for further research and practice are discussed.
CHAPTER 4
ANALYSIS OF DATA

The purpose of this study was to determine whether there was a significant difference in the reading achievement of third grade students participating in the Reading First program compared to the third grade students participating in the Non-Reading First program. The study focused on third graders enrolled in six elementary schools located in southwest Virginia during the years 2004-2009. The data used for this study were the test scores retrieved from reading SOL tests given to third graders for the three schools participating in the Reading First program and three schools participating in the Non-Reading First Title I schools for the 2004-2009 school years.

The research questions presented in Chapter 3 and the hypotheses were used to guide the study. One thousand eighty (1,080) students participated in the Southwest Virginia school division third grade reading SOL testing program. The participants were comprised of two groups of students; 384 students participated in the third grade Reading First and 696 students participated in the third grade Non-Reading First program. All calculations were performed using SPSS.

Two research questions were developed to direct the study, and 12 corresponding hypotheses were tested, 6 for each of the two research questions. A $t$ test was used to determine the mean differences for the independent groups. Chi square tests were used to determine if there was a difference in the proficiency levels in the reading achievement for third grade students enrolled in the Reading First schools compared to the students enrolled in Non-Reading First schools. The reading achievement proficiency levels included: not-proficient, proficient, advanced proficient. The research questions, hypotheses, and data as well as data analysis are
presented below:

*Research Questions*

**Research Question 1:** Are there significant differences in the mean Standard of Learning reading scores between Reading First Students and Non-Reading First students for each year in the 6-year period (2004-2009)?

**Research Question 2:** Are there significant differences in the proficiency levels (not proficient, proficient, and advanced) of the Standards of Learning reading test between Reading First and Non-Reading First students for each year in the 6-year period 2004-2009? Chi Square was used to test the following null hypotheses:

**Research Question 1**

Ho1: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2004.

An independent samples *t* test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students’ 2004 reading score means. The test variable was 2004 third grade reading scores. The grouping variable had two levels: Reading First students versus Non-Reading First students. The *t* test was not significant, *t*(167) = .48, *p* = .629. Therefore, the null hypothesis was retained. The effect size as measured by *η*² was small (< .01). That is, less than 1% of the variance in 2004 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First). The mean reading score for students in the Reading First program (*M* = 440.50, *SD* = 60.86) was only 4.6 points higher than the mean for students in the Non-Reading First program (*M* = 435.88, *SD* = 58.53). The 95% confidence
interval for the difference in means was -14.22 to 23.46.  *Figure 1* shows the distribution of 2004 third grade reading scores by group.

![Boxplot for Mean 2004 SOL Reading Scores by Group](image)

$\text{\textbullet} = \text{an observation between 1.5 times to 3.0 times the interquartile range}$

*Figure 1.*  Boxplot for Mean 2004 SOL Reading Scores by Group

Ho12:  There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2005.

An independent samples $t$ test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students’ 2005 reading score means. The test variable was 2005 third grade reading scores. The grouping variable had two levels: 

*Reading First* students versus Non-Reading First students.  The $t$ test was significant, $t(178) = 3.58$, $p = <.001$.  Therefore, the null hypothesis was rejected.  The effect size as measured by $\eta^2$ was medium ($< .07$).  That is 7% of the variance in 2005 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First).  The mean reading score for students in the Reading First program ($M = 480.00, SD = 60.38$) was 34.8 points higher than the mean for students in the Non-Reading First program ($M = 445.22, SD = 64.23$).  The 95% confidence interval for the difference in means was 15.60 to 53.96.  *Figure 2* shows the distribution of 2005
third grade reading scores by group.

Figure 2. Boxplot for 2005 SOL reading scores by group

Ho1: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2006.

An independent samples $t$ test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students 2006 reading score means. The test variable was 2006 third grade reading scores. The grouping variable had two levels: Reading First students versus Non-Reading First students. The $t$ test was not significant, $t(189) = -0.60$, $p = .547$. Therefore, the null hypothesis was retained. The effect size as measured by $\eta^2$ was small ($< .01$). That is, less than 1% of the variance in 2006 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First). The mean reading score for students in the Reading First program ($M = 463.2$, $SD = 126.51$) was 10.09 points lower than the mean for students in the Non-Reading First program ($M = 473.26$, $SD = 98.22$). The 95% confidence interval for the difference in means was -43.06 to 22.89. Figure 3 shows the distribution of 2006 third grade reading scores by group.
* = an observation that is more than 3.0 times the interquartile range

**Figure 3.** Boxplot for 2006 SOL Reading Scores by Group

**Ho14:** There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2007.

An independent samples *t* test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students’ 2007 reading score means. The test variable was 2007 third grade reading scores. The grouping variable had two levels: Reading First students versus Non-Reading First students. Levene’s Test for Equality of Variances was significant and showed that equal variances could not be assumed, \( F(1.178) = 4.911, p = .028 \). Therefore, the *t* test that did not assume equal variances was used. The *t* test was significant, \( t(163) = 2.95, p = .004 \). Therefore, the null hypothesis was rejected. The effect size, as measured by \( \eta^2 \) was small (.03). That is, 3% of the variance in 2007 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First). The mean reading score for students in the Reading First program \((M = 485.45, SD = 99.35)\) was 56.37 points higher than the mean for students in the Non-Reading First program \((M = 429.07, SD = 154.25)\). The 95% confidence interval for the difference in means was 18.64 to 94.11. **Figure 4** shows the distribution of 2007 third grade reading scores by group.
An independent samples *t* test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students’ 2008 reading score means. The test variable was 2008 third grade reading scores. The grouping variable had two levels: *Reading First* students versus Non-Reading First students. The *t* test was significant, \( t(170) = 3.06, p = .003 \). Therefore, the null hypothesis was rejected. The effect size as measured by \( \eta^2 \) was small (.05). That is, 5% of the variance in 2008 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First). The mean reading score for students in the Reading First program (\( M = 484.87, SD = 117.22 \)) was 54.61 points higher than the mean for students in the Non-Reading First program (\( M = 430.26, SD = 108.52 \)). The 95% confidence
interval for the difference in means was 19.36 to 89.86. *Figure 5* shows the distribution of 2008 third grade reading scores by group.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{boxplot.png}
\caption{Boxplot for Mean 2008 SOL Reading Scores by Group}
\end{figure}

\(\circ\) = an observation between 1.5 times to 3.0 times the interquartile range

\(*\) = an observation that is more than 3.0 times the interquartile range

*Figure 5.*

**Ho1**: There was no significant difference between Reading First and Non-Reading First third grade reading mean scores with regard to achievement for 2009.

An independent samples \(t\) test was used to evaluate whether or not there was a difference between Reading First and Non-Reading First third grade students 2009 reading score means. The test variable was 2009 third grade reading scores. The grouping variable had two levels: Reading First students versus Non-Reading First students. The \(t\) test was significant, \(t(186) = 2.83, p = .005.\) Therefore, the null hypothesis was rejected. The effect size as measured by \(\eta^2\) was small (< .04). That is, 4% of the variance in 2009 reading scores was accounted for by the grouping variable (Reading First versus Non-Reading First). The mean reading score for students in the Reading First program (\(M = 487.19, SD = 113.26\)) was 48.57 points higher than the mean for students in the Non-Reading First program (\(M = 438.63, SD = 117.79\)). The 95%
The confidence interval for the difference in means was 14.71 to 82.42. *Figure 6* shows the distribution of 2009 third grade reading scores by group.

![Boxplot for 2009 SOL Reading Scores by Group](image)

* = an observation which is more than 3.0 times the interquartile range

*Figure 6.* Boxplot for 2009 SOL Reading Scores by Group

**Research Question 2**

Ho2: There was no significant difference between Reading First and Non-Reading First third grade 2004 reading proficiency levels.

A two-way contingency table and *chi square* test were used to evaluate whether there was a difference between the curriculum levels (not proficient, proficient, advanced proficient) and the curriculum (Reading First and Non-Reading First) on the 2004 SOL Virginia third grade reading test scores. The *chi square* test was not significant, Pearson $\chi^2 (2, N = 169) = 1.3129, p = .517$, Cramer’s $V = .09$. As shown in Table 1, there was a small difference in the percentages of Reading First and Non-Reading First students who were not proficient, while the percentage of Reading First students who scored at the advanced proficiency level was only slightly higher than
the percentage of Non-Reading First students. The null hypothesis was retained.

Table 1

Two-way Contingency Table for 2004 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First

<table>
<thead>
<tr>
<th>Groups</th>
<th>Reading First</th>
<th>Non-Reading First</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004 Reading Proficiency Level</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Not proficient</td>
<td>17</td>
<td>28.3</td>
</tr>
<tr>
<td>Proficient</td>
<td>35</td>
<td>58.3</td>
</tr>
<tr>
<td>Advanced</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Ho2: There was no significant difference between Reading First and Non-Reading First third grade 2005 reading proficiency levels.

The two-way contingency table chi square was used to evaluate whether there was a difference in the 2005 Virginia SOL reading proficiency levels of students in Reading First and Non-Reading First. The chi square test was significant, Pearson $\chi^2 (2, N = 180) = 9.847, p = .007$, Cramer’s $V = .23$. As shown in Table 2, the percentages of Reading First and Non-Reading First students in the proficient level were virtually the same. A smaller percentage of the Non-Reading First students scored advanced proficient compared to the Reading First students while a higher percentage of Non-Reading First students scored in the not proficient level. The null hypothesis was rejected.
Table 2

Two-way Contingency Table for 2005 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First

<table>
<thead>
<tr>
<th>Groups</th>
<th>Not proficient</th>
<th>Proficient</th>
<th>Advanced</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005 Reading Proficiency Level</td>
<td>5</td>
<td>7.6</td>
<td>25</td>
<td>66</td>
</tr>
<tr>
<td>Not proficient</td>
<td>42</td>
<td>63.6</td>
<td>73</td>
<td>114</td>
</tr>
<tr>
<td>Proficient</td>
<td>19</td>
<td>28.8</td>
<td>16</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.0</td>
<td>114</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Ho2₃: There was no significant difference between Reading First and Non-Reading First third grade 2006 reading proficiency levels.

The two-way contingency table conducted to evaluate the difference in the 2006 Virginia SOL reading proficiency levels of students in Reading First and Non-Reading First showed the chi Square test was not significant, Pearson $\chi^2(2, N = 191) = .49, p = .783$, Cramer’s $V = .05$. As shown in Table 3, the percentages of Reading First students were slightly higher than the Non-Reading First students in the not proficient level; in the proficient level, both groups were virtually the same; a small percentage of Non-Reading First students scored advanced proficient compared to the Reading First students who scored in the advanced level of proficiency; therefore, the two-way contingency table shows little difference between Reading First and Non-Reading First students across the three levels of proficiency. The null hypothesis was retained.
Table 3

**Two-way Contingency Table for 2006 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First**

<table>
<thead>
<tr>
<th>2006 Reading Proficiency Level</th>
<th>Reading First</th>
<th>Non-Reading First</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Not proficient</td>
<td>9</td>
<td>14.5</td>
</tr>
<tr>
<td>Proficient</td>
<td>26</td>
<td>41.9</td>
</tr>
<tr>
<td>Advanced</td>
<td>27</td>
<td>43.5</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Ho2:** There was no significant difference between Reading First and Non-Reading First third grade 2007 reading proficiency levels.

The two-way contingency table and the chi square was conducted to evaluate whether there was a difference in the 2007 Virginia SOL reading test proficiency levels of students in Reading First and Non-Reading First students. The chi square test was significant, Pearson $\chi^2 (2, N = 180) = 6.96, p = .031$, Cramer’s $V = .20$. As shown in Table 4, a lower percentage of Reading First students were not proficient compared to the Non-Reading First students. In addition, a higher percentage of Reading First students were proficient and advanced proficient when compared to the Non-Reading First students. The null hypothesis was rejected.
Table 4

*Two-way Contingency Table for 2007 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First*

<table>
<thead>
<tr>
<th>Groups</th>
<th>2007  Reading Proficiency Level</th>
<th>Reading First</th>
<th>Non-Reading First</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Not proficient</td>
<td>Not proficient</td>
<td>5</td>
<td>8.6</td>
</tr>
<tr>
<td>Proficient</td>
<td>Proficient</td>
<td>26</td>
<td>44.8</td>
</tr>
<tr>
<td>Advanced</td>
<td>Advanced</td>
<td>27</td>
<td>46.6</td>
</tr>
<tr>
<td>Total</td>
<td>Total</td>
<td>58</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Follow-up pairwise comparisons were conducted to evaluate the difference among the levels of proficiency. Table 5 shows the results of these analyses. The Holm’s sequential Bonferroni method was used to control for Type 1 error at the .05 level across all three comparisons. The means for two of the pairs were significantly different (Not Proficient vs. Advanced and Proficient vs. Advanced).

Table 5

*2007 Results for the Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method*

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson Chi-square</th>
<th>P value (Alpha)</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Proficient vs. Proficient</td>
<td>5.79</td>
<td>.016 (.017)</td>
<td>.23</td>
</tr>
<tr>
<td>Not Proficient vs. Advanced</td>
<td>6.42</td>
<td>.011 (.025)</td>
<td>.24</td>
</tr>
<tr>
<td>Proficient vs. Advanced</td>
<td>.03</td>
<td>.863 (.050)</td>
<td>.01</td>
</tr>
</tbody>
</table>
Ho25: There was no significant difference between Reading First and Non-Reading First third grade 2008 reading proficiency levels.

The two-way contingency table was conducted to evaluate the difference in the 2008 Virginia SOL reading test proficiency levels of students in Reading First and Non-Reading First. The chi square test was significant, \( \chi^2 (2, N = 172) = 16.11, p< .001 \), Cramer’s \( V = .31 \). As shown in Table 6, a much higher percentage of Non-Reading First students scored not proficient than Reading First students, while a much higher percentage of Reading First students scored at the advanced proficiency level. The null hypothesis was rejected.

Table 6

Two-way Contingency Table for 2008 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First

<table>
<thead>
<tr>
<th>Groups</th>
<th>Reading First</th>
<th>Non-Reading First</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n )</td>
<td>( % )</td>
</tr>
<tr>
<td>Not proficient</td>
<td>6</td>
<td>10.0</td>
</tr>
<tr>
<td>Proficient</td>
<td>22</td>
<td>36.7</td>
</tr>
<tr>
<td>Advanced</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Follow-up pairwise comparisons were conducted to evaluate the difference among the levels of proficiency. Table 7 shows the results of these analyses. The Holm’s sequential Bonferroni method was used to control for Type I error at the .05 level across all three comparisons. The means for two of the pairs was significantly different (Not Proficient vs. Proficient and Not Proficient vs. Advanced).
Table 7

2008 Results for the Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson Chi-square</th>
<th>P value</th>
<th>(Alpha)</th>
<th>Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Proficient vs. Proficient</td>
<td>1.59</td>
<td>.208</td>
<td>(.017)</td>
<td>.12</td>
</tr>
<tr>
<td>Not Proficient vs. Advanced</td>
<td>12.55</td>
<td>&lt;.001</td>
<td>(.025)</td>
<td>.37</td>
</tr>
<tr>
<td>Proficient vs. Advanced</td>
<td>.03</td>
<td>.002</td>
<td>(.050)</td>
<td>.21</td>
</tr>
</tbody>
</table>

Ho$_{26}$: There was no significant difference between Reading First and Non-Reading First third grade 2009 reading proficiency levels.

A two-way contingency tables was conducted to evaluate whether there was a difference in the 2009 Virginia SOL reading proficiency levels of students in Reading First and Non-Reading First. The chi square test was significant, Pearson $\chi^2 (2, N = 188) = 19.80, p < .001$, Cramer’s $V = .33$. As shown in Table 8, a much higher percentage of Reading First students scored at the advanced level of proficiency than the Non-Reading First students. The null hypothesis was rejected.
Table 8

Two-way Contingency Table for 2009 SOL Virginia Reading Test Proficiency Levels by Reading First versus Non-Reading First

<table>
<thead>
<tr>
<th>2009 Reading Proficiency Level</th>
<th>Reading First</th>
<th>Non-Reading First</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(n)</td>
<td>%</td>
</tr>
<tr>
<td>Not proficient</td>
<td>10</td>
<td>12.8</td>
</tr>
<tr>
<td>Proficient</td>
<td>24</td>
<td>30.8</td>
</tr>
<tr>
<td>Advanced</td>
<td>44</td>
<td>56.4</td>
</tr>
<tr>
<td>Total</td>
<td>78</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Follow-up pairwise comparisons were conducted to evaluate the difference among the levels of proficiency. Table 9 shows the results of these analyses. The Holm’s sequential Bonferroni method was used to control for Type I error at the .05 level across all three comparisons. The means for two of the pairs was significantly different (Not Proficient vs. Advanced and Proficient vs. Advanced).

Table 9

2009 Results for the Pairwise Comparisons Using the Holm’s Sequential Bonferroni Method

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Pearson Chi-square</th>
<th>(P) value</th>
<th>(Alpha)</th>
<th>Cramer’s (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Proficient vs. Proficient</td>
<td>.10</td>
<td>.749</td>
<td>(.017)</td>
<td>.03</td>
</tr>
<tr>
<td>Not Proficient vs. Advanced</td>
<td>8.35</td>
<td>.004</td>
<td>(.025)</td>
<td>.29</td>
</tr>
<tr>
<td>Proficient vs. Advanced</td>
<td>17.11</td>
<td>&lt;.001</td>
<td>(.050)</td>
<td>.34</td>
</tr>
</tbody>
</table>
Summary

Chapter 4 focused on two research questions and six hypotheses for each question related to the third grade Reading First testing scores compared to the third grade reading scores for the Non-Reading First. The reading achievement scores were analyzed according to means as a group and according to proficiency levels: not proficient, proficient, and advanced proficiency to determine. The data were gathered from the Virginia Department of Education website that provided access to the Virginia Standards of Learning test scores.
The purpose of this study was to determine if the students participating in the Reading First curriculum increased significant reading achievement when compared to the students in the third grade who participated in the Non-Reading First program. Data were analyzed on third grade students beginning with 2003-2004 school year through 2008-2009. The data were gathered from the Virginia Department of Education website that provided access to the Standards of Learning test scores. The statistical analysis was tested by using the SPSS. The findings of this study suggested that the Reading First schools have experienced significant reading achievement gains for the majority of the 6 years compared to the Non-Reading First schools in the reading achievement component of the Virginia SOLS proficiency levels in grade three reading.

Research Question 1 used the *t* test to determine the mean differences for the independent groups. The data analysis indicated significant reading gains of the mean scores for the Reading First schools compared to Non-Reading First schools except the mean scores in 2006 showed that Reading First schools scored 10.09 points lower than the mean for the Non-Reading First schools. The 95% confidence interval for the difference in means was -43.06 to 22.89.

Research Question 2 used *chi square* tests to determine if there was a difference in the proficiency levels in the reading achievement for third grade students enrolled in the Reading First schools compared to the students enrolled in the Non-Reading First schools. In 2004 data analysis indicated that Reading First schools for advanced proficiency scored 13.3 % compared to 8.3% for Non-Reading First schools. In 2005 Reading First schools scored 28.8 % advanced proficiency compared to 14% for Non-Reading First schools. In 2006 Reading First schools
scored 43.5% advanced proficiency compared to 48.1% for the Non-Reading First schools. In 2006, the Reading First schools scored lower than the Non-Reading First schools by 4.6% points. In 2007 Reading First schools scored 46.6% in advanced proficiency compared to 36.9% for the Non-Reading First schools. In 2008 Reading First schools scored 53.3% advanced proficiency compared to 24.1% for Non-Reading First Schools. In 2009 Reading First schools scored 56.4% advanced proficiency compared to 24.5% for Non-Reading Firstschools.

Summary of the Study

These findings suggest that the Reading First schools had a positive effect on students’ third grade reading achievement when compared to the Non-Reading First schools. The Reading First schools in Southwest Virginia showed increased reading achievement in third grade reading test scores and reflected much of the same findings as the Reading First Interim Reports found in studies reviewed in Chapter 2.

Conclusions

The third grade students in the Reading First schools are performing generally better on-Reading First schools in the reading achievement component of the Virginia Standards of Learning tests as a group. In considering this result, it is important to consider that schools eligible to receive the Reading First subgrants were the schools with the highest percentage of students who read below grade level and were the highest economically disadvantaged. In the fall of 2007 RMC Research Corporation conducted an independent evaluation of the impact of the Virginia Reading First program on student academic performance as measured by the Virginia Standards of Learning for students in grade three. “The percentage of students who passed the
test increased from 66 to 88 percent. The longer the students stayed in the school, the greater their likelihood to score at the advanced level on the SOL assessment” (p.1). According to RMC Research Corporation (2009), “the research findings indicate that the reading achievement gaps in schools and states that have followed Reading First’s guidelines and followed fidelity to a reading program of instruction were making increased reading achievement results as evidenced by the states’ third grade reading scores for proficiency levels” (p.1). In southwest Virginia the three Reading First schools’ third grade reading proficiency scores showed increases that reflected significant reading achievement gains. Two of the Reading First schools in southwest Virginia were listed as high performing schools by poverty level based on the 2009 SOL third grade reading assessment (RMC, 2009).

In conclusion, the study results indicated that the Reading First curriculum, with fidelity to the reading program, 90-minute reading block, differentiated instruction, assessment of data, reading coach monitoring, and reading intervention plans improved reading achievement as evidenced by the Virginia Standards of Learning test scores for the three Reading First schools. The reading scores for the Reading First schools increased by an average of 13.3% points over the 6 year period for advanced proficiency in reading. The advanced proficiency increased from 4.62% in 2004 to 48.57% in 2009. The Non-Reading First schools made gains in proficiency; however, the Reading First schools made significant increases for advanced proficiency. The Non-Reading First schools’ results indicated that the schools continued to remain at the same or slightly above the proficiency levels as evidenced by the Virginia Standards of Learning reading proficiency results for 2004-2009.

Finally, this study did suggest the importance of training teachers to teaching reading skills in a systematic design and that fidelity to the program is a must for students to achieve success at
grade levels. Furthermore, more time on task for teaching reading skills in K-3 grades along with continuous assessment of students was seen as beneficial for increasing reading achievement. The three Reading First schools located in southwest Virginia made significant changes in the reading instruction curriculum. The traditional reading instruction using specially designed textbooks and material as dictated by the individual teacher could no longer be used. Each Reading First school implemented a 90-minute uninterrupted reading block that provided more time teaching reading using scientifically based reading programs and materials to address the five levels of reading skills: phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Recommendations for Practice

The researcher recommends that the southwest Virginia school division continue implementing district-wide the Reading First curriculum for K-3 grades. The study further suggests that the school district should continue to offer ongoing literacy professional development for the teaching of reading strategies for all teachers and instructional leaders, and that the 90-minute reading block remain implemented district-wide for grades K-3. The following are recommended to create collaboration between the Reading First schools and the Non-Reading First schools: 1. collaborate across grade levels 2. plan grade level meetings 3. schedule professional training for all teachers in K-3 for differentiation of instruction 4. plan ongoing professional development to strengthen teachers’ knowledge about reading instruction 5. hire reading coaches for all elementary schools to monitor, coach, and assess K-3 benchmark tests for student reading achievement and remediation, and to continue the 90-minute uninterrupted reading block for all elementary schools.

As the review of literature indicated, administrators, and school boards can no longer
assume that because children can read on grade level in the third grade, they will continue to grow in their reading skills and interests as they enter the fourth grade. Research stated that as students move into the upper grades, they lose interest in reading for a variety of reasons, not the least of which is because it has become too difficult (Chall & Jacobs, 2003). The study suggests that students need teachers in the upper grades to continue to teach vocabulary and comprehension strategies to help students become successful readers. According to Chall and Jacobs (2003), the fourth grade is a challenge and students who are weak in reading will begin to fall behind.

Beginning in grade 4, students use reading as a tool for learning. In order to read, understand, and learn from these more demanding texts, the readers must be fluent in recognizing words, and their vocabulary and knowledge need to expand, as does their ability to think critically and broadly. (Chall & Jacobs, p.1)

**Recommendations for Further Research**

Further research should be conducted to examine the effects of the third grade reading achievement after the failure to continue the funding for the Reading First program by the No Child Left Behind in 2009 for grades K-3 in the same school division. The additional research is needed to explore whether the schools continued to use the Reading First curricula and show increases in reading proficiency and whether or not the Non-Reading First schools continued to show increases or sustained the same rate of reading gains. In other words, did students continue to make progress after the period of assistance from Reading First funding was over? Additional research is needed to examine the long-term effects on reading achievement of the Reading First schools versus the Non-Reading First schools. A longitudinal study could be done to examine the graduation rates and the dropout rates of the students from the Reading First schools versus the
Non-Reading First schools. This study could broaden the scope of the reading achievement to include other divisions to determine if the findings are similar outside of the local school division.

As an observer (LEA) involved in the Reading First program for the southwest Virginia schools, it was important for me to find out if the funds spent for the Reading First program fostered increased reading achievement. This study parallels the state studies for reading achievement as reported in the Review of Literature, Chapter 2. The Reading First program study supports that proven methods of early reading instruction in the classrooms works. The scientifically based reading program identified five essential components of reading instruction: phonemic awareness, phonics, vocabulary, fluency, and comprehension strategies. These practices and strategies along with active student engagement in reading based activities that connect to the essential components of reading should be evident in any effective reading program. Standards and accountability were the foundation of the Reading First classroom (VDOE, 2003). The Reading First schools implemented the Reading First components in reading instruction and the findings indicated that Reading First practices, which were based on scientifically based reading research, helped produce positive reading outcomes in both Reading First and Non-Reading First classrooms.
REFERENCES


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Lee County Public Schools. (2007). *Reading First annual performance reports, (APR), Reading First Grant Application for 2007-2008*.


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APPENDIX

Sample Superintendent Letter and Permission

September 10, 2010
Mr. XXXX XXXXXX
Division Superintendent
XXXX County Public Schools
XX Park Street
XXXXXXXXXX, Virginia  XXXXX

Re:  Permission to Use Data

Dear Mr. XXXXXX, Superintendent

I am currently completing my doctoral studies at East Tennessee State University. I am in the Educational Leadership and Policy Analysis doctoral program. My dissertation research will focus on comparing the Reading First third grade reading achievement to Non-Reading First third grade reading achievement for 6 elementary schools in the XXXX County Public School division. It is my desire to ascertain whether or not the Reading First program contributed to the reading achievement of the third grade students in the three participating Reading First schools for the years 2004-2009, compared to the third grade reading scores for three Non-Reading First schools, as evidenced by the Virginia Standards of Learning test scores, 2004-2009. These schools are similar in demographics and economical disadvantage status.

I would like to request permission to obtain and analyze SOL reading test scores from 2004 through 2009. The student names will be coded to protect identity of the participants and the schools. You can be assured of complete confidentiality and privacy.

I trust that the findings of this study may be beneficial to our school system and other school systems when determining the effectiveness of the Reading First program for reading achievement. I look forward to sharing the results with the division and state upon the acceptance of my dissertation from the Department of Education Leadership and Policy Analysis from East Tennessee State University.

Feel free to contact me or my advisor, Dr. Pamela Scott, if you have questions about this study. My telephone number is 276-346-1680 and email wandaleen.adams@leecountyschools.net. Dr. Pamela Scott’s telephone is 423-439-7618 and email scott@mail.etsu.edu.

I appreciate the opportunity to be able to do my research in this school division.

Sincerely,
Wandaleen Adams
Permission is granted to Wandaleen Adams to obtain and analyze Virginia SOL reading third grade scores for the 6 specific schools and students for the years 2004-2009.

XXXXXXXX ,Superintendent 09/10/10
Signature
Date
VITA

WANDALEEN ADAMS

Personal Data:  
Place of Birth: Lee County, Virginia
Marital Status: Married

Education:  
Ed. D. Educational Leadership, East Tennessee State University, Johnson City, Tennessee 2011

Ed. S. Administration and Supervision, Lincoln Memorial University, Tazewell, Tennessee 2007

Certification: Instructional Leadership, Salem International University Salem, West Virginia 2006

M.A. Administration and Supervision, Lincoln Memorial University, Tazewell, Tennessee 1991

B. A. English, Milligan College, Johnson City, Tennessee 1968

Professional Experience:  
Head Start Director/LEA/ Reading Curriculum Specialist/Supervisor/Coordinator, 2005-Present

Principal: St. Charles Elementary, 2000-2005

Media Specialist, St. Charles Elementary, 1970-2000

Reading Specialist, James A. Cawood High, 1968-1979

Director of Computer Camp, 1997-2000

Adjunct Faculty: Mountain Empire Community College

Adjunct Faculty: University of Virginia & SVETN
Honors and Awards:

Southwest Virginia Regional Literacy Award, 2010

VEMA: Regional Director, 1998

Regional Director: Odyssey of Mind, 1995

Who’s Who Among America’s Teachers, 2006-2010

St. Charles Booster Appreciation Award, 2005-2006

VEA Whole Village Award, 2004

St. Charles Fire and Rescue Community Award, 2002


State Library Media Specialist of the Year, 1994

JMS and Division Teacher of the Year, 1994

VEMA Leadership Intern, 1993

Publications:

VA ASCD Journal, 2007

Computers in Libraries, May 1997

Committees and Boards:

Lee County Zoning Appeals Board, 2005 – Present

Women for Leadership: Girls Scouts, 2005 – Present

The Crooked Road Board, 2006 – Present