

**THE EVALUATION AND EFFECTIVENESS OF
READ 180 IN RAISING ACHIEVEMENT SCORES**

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THE EVALAUATION AND EFFECTIVENESS OF
READ 180 IN RAISING ACHIEVEMENT SCORES

A Field Study
Presented to
The College of Graduate Studies
Austin Peay State University
In Partial Fulfillment
Of the Requirements for the Degree of
Education Specialist

Thomas D. Wright
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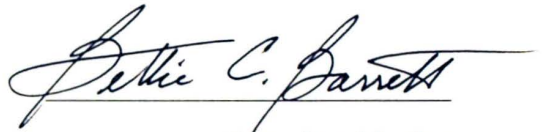
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To the College of Graduate Studies:

We are submitting an educational field study written by Thomas D. Wright entitled "The Evaluation and Effectiveness of READ 180 in Raising Achievement Scores." We recommend that it be accepted in partial fulfillment of the requirements for the degree of Education Specialist.



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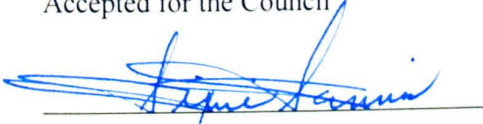


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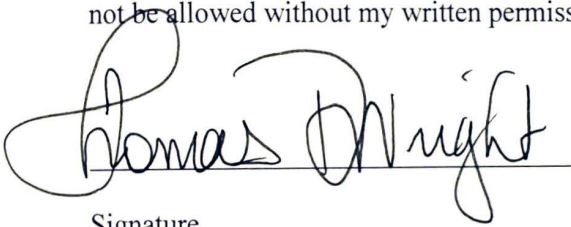


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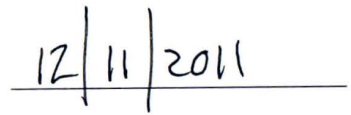
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Signature

A handwritten date "12/11/2011" written over a horizontal line.

Date

DEDICATION

“Never let go of hope. One day you will see that it all has finally come together. What you have always wished for has finally come to be. You will look back and laugh at what has passed and you will ask yourself ‘How did I get through all that?’”
(anonymous).

Thank you to my wife, Tonda, who was my greatest cheerleader during this time and believed I would succeed. Thank you to my mother, Peggy, who stood behind me and pushed me when I would hesitate at times. Thank you to my mother in-law, Jovonne, for all her support. Ric, my son, who I hope someday, will understand why it is so important to have hope and faith in yourself to find success in life.

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ABSTRACT

Thomas D. Wright. The Evaluation and Effectiveness of READ 180 in Raising Achievement Scores under the direction of Dr. Benita Bruster.

Purpose: The purpose of this study was to give an evaluation of READ 180 and the effectiveness it had on ninth grade students who had been diagnosed as reading at least two grade levels below their current grade level. Data was collected via the Scholastic Reading Inventory Interactive during the 2009-2010 school year in a rural school district in middle Tennessee. The pre-intervention group comprised of 32 students who were enrolled in READ 180 from the fall of 2009 to the spring of 2010. Relationships between the pre-intervention scores and post-intervention scores were statistically analyzed using repeated measures of analysis of variance (Minium, Clarke & Coladarci, 1999). The differences between the pre-intervention and post intervention scores will either allow the researcher to reject or support the hypothesis for time, gender, ethnicity and/or socioeconomic status relating to overall improvement.

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CHAPTER I

The Research Problem

Background

America has a silent epidemic that has taken decades to manifest. It had many leaders in education and educational psychology overlooking it and believing it was not a threat to the younger generation, so this epidemic has taken many by surprise. The “silent epidemic” in America refers to the school dropout crisis that is increasing yearly and threatens the health and well-being of our society (Owen, Rousch, Muskin, Alexander & Wyant, 2008). This silent epidemic slowly churned on the tracks like a locomotive gaining momentum daily, weekly, monthly and yearly until it became a serious issue to the welfare of all America.

The educational, psychological, and sociological fields in the 70’s and 80’s renamed “disadvantaged students” with a new coined phrase of “at-risk students” (Byrnes & Myers, 2010). Many argued the word “disadvantaged” gave the concept to the group in question that differences referred to family income or educational opportunity. The term at-risk indicates the following: (a) an outcome rather than what caused the learning problems and does not stereotype students because of income or opportunity as the primary reason for educational failure (Byrnes & Myers, 2010); (b) a high possibility something detrimental could materialize unless a change occurs (Finely, 1994); (c) identification of a particular group of students, on the basis of several risk factors, who are unlikely to graduate from high school (Stringfield & Land, 2002).

It is estimated that one-third of all students entering ninth grade are two or more years below grade level in reading skills (Jerald, 2006), and that estimated yearly one-

half of the African American, Hispanic and Native American students in public school fail to graduate with their peers (Owen et al., 2008). The Organization for Economic Co-Operation and Development (2006) found that globally, the United States ranked 17th in high school graduation and 14th in college graduation rates among developed nations. Kamill (2004) found that America's 11th grade students' mastery reading scores were below such countries as the Philippines, Indonesia and Brazil.

Students who read below grade level face major dilemmas in school, which may include struggling with academic requirements and behavior problems. When students are unable to read grade-level books, they often become a behavior issue in their classrooms (Montgomery, 2009). Students who are poor readers eventually drop out of school to never earn a high school diploma. It is estimated that 3,000 students leave school daily and never return to graduate (Vintinner, 2009). The United States Department of Education (Orfield, Losen, Wald & Swanson, 2004) estimated the unemployment rate of a high school dropout to be 1.5 times higher than a high school graduate or three times higher than a college graduate. When students drop out of school, 35% are arrested three to five years after leaving school (Jerald, 2006).

Schools once suspended at-risk students because they were discipline problems. School districts now realize this was a major educational mistake. School personnel should not remove students who are misbehaving in class. Teachers need to help improve the reading levels, which will help students overcome major hurdles they are now facing in life (Brown & Brown, 2006). By overcoming these hurdles, students generally misbehave less in school.

School districts must find research based interventions where teachers continually monitor and assess students. While many reading intervention programs claim to be successful to enhance student performance, only a few have actual scientific evidence to support the program's impact on participant outcomes (No Child Left Behind, 2001). Reports have shown discrepancies in reading achievement rates when data is gathered based on gender, ethnicity and socioeconomic status. Students who are labeled or stereotyped as being at-risk have become a major epidemic in America; and if parents, communities, school districts and businesses fail to work together, many students will inevitably be "left behind."

Statement of the Problem

The problem analyzed is the effect the Scholastic READ 180 Program has on ninth grade students reading achievement. The students identified for this study read at least two grade levels below their current grade level. For the purpose of the study, reading achievement was defined as a score on the Scholastic Reading Inventory (SRI). Reports have shown discrepancies in reading achievement data based on gender, ethnicity and socioeconomic status.

Purpose of the Study

Responding to Federal mandates, No Child Left Behind (2001), school districts are investigating reading programs that will boost students reading achievement to proficient levels (Kratofil, 2006). Reading intervention programs are designed to help students' specific needs, ensuring No Child Left Behind (NCLB) guidelines are being achieved in each state. Therefore, researchers must evaluate programs carefully,

applying fidelity and the impact on individual student's outcome (Weissberg, Caplan & Sivo, 1989).

One such intervention program, Scholastic READ 180, was developed in the mid 1990's by Vanderbilt University. According to Scholastics (1999) and Hasselbring (1999) READ 180 was intended to deal with the needs of older struggling readers and to incorporate the use of technology to provide individualized instruction and practice. The research on READ 180 has shown improvement in reading achievement of at-risk students who participated in the program based upon Standard Achievement Test-9, Terra Nova and Scholastic Reading Inventory (Scholastic, 1999).

The purpose of this study was to examine and analyze the effects of READ 180 as a reading intervention on students' reading achievement. This study will examine the achievement gains on the Scholastic Reading Inventory (SRI) assessment from the pre-intervention which happened at beginning of the 2009-2010 school year to the post intervention at end of the year for two ninth grade classes. The primary goal of this research is to determine what degree of fidelity the reading program has in reference to students who participated in the READ 180 Program. Prior reports have shown discrepancies in reading achievement rates when data was gathered based on gender, ethnicity, and socioeconomic status (Chatterji, 2006).

Research Questions

The following research questions in this study will address a comparison of the effects of pre-intervention and post-intervention on individual low performing students.

1. What is the difference in student SRI achievement scores from the pre assessment and after the post assessment of Read 180?

2. What is the difference in student SRI achievement scores from the pre assessment and after the post assessment of Read 180 based on gender?
3. What is the difference in student SRI achievement scores from the pre assessment and after the post assessment of Read 180 based on ethnicity?
4. What is the difference in student SRI achievement scores from the pre assessment and after the post assessment of Read 180 based on socioeconomic status?

Research Hypothesis (Null)

1. There will be no statistically significant difference in academic reading achievement gains between the pre and post SRI assessment data for students enrolled in the Read 180 Program.
2. There will be no statistically significant difference in academic reading achievement score gains between the pre and post SRI assessment data for students enrolled in the Read 180 Program based on gender.
3. There will be no statistically significant difference in academic reading achievement score gains between the pre and post SRI assessment data for students enrolled in the Read 180 Program based on ethnicity.
4. There will be no statistically significant difference in academic reading achievement score gains between the pre and post SRI assessment data for students enrolled in the Read 180 Program based on socioeconomic status.

Limitations

There were two major limitations in this research. The first major limitation was the sample size which was limited to 50 students. Increasing the data, data collection time allotment, population and sample size would have offered enhanced statistical basis

for analysis. The research in this paper encompasses students in the ninth grade from one high school in the central region of the state of Tennessee in Robertson County.

The second major limitation was the student selection process for READ 180. Student selection was based on previous year Tennessee Comprehensive Assessment Program (TCAP) scores, principal recommendation and teacher identification of students who were reading two or more grade levels below their present grade.

Assumptions

This study was based on the following assumptions: (1) teachers instructing READ 180 were highly qualified, (2) teachers received special training before and during implementation of READ 180 in the classroom, and (3) teachers received constant feedback from a reading/literacy coach.

Operational Definitions

The terms at-risk of academic failure, fidelity, READ 180, Scholastic Read Inventory (SRI), and Tennessee Comprehensive Assessment Program (TCAP) may have significant meaning in this study and may be critical to understanding the focus of the review of literature. The following definitions apply:

At-Risk of Academic Failure: A systemic structure determined by a series of interactions where learning is a process that takes place both inside and outside of schools, whereas, if applicable, then students may be exposed to inadequate or inappropriate educational experience in various areas of potential learning (Bronfenbrenner, 1979). Byrnes and Myers (2010) best described at-risk as being the variable that increases the probability of a negative outcome.

Fidelity: Fidelity refers to the exact replication to the program guidelines as intended by the original design of the program.

Scholastic Read 180: A remedial reading intercession which focuses on the needs of at-risk readers by putting into practice three components: instructional reading, teacher modeling and independent reading time. These three components will allow a boost in word recognition, word identification and reading comprehension success for students in grades four through 12 (Hasselbring, 1999).

Scholastic Reading Inventory (SRI): An interactive computer-assessment for students in grades one to 12 designed to measure varying difficulties on how well students read literature and expository texts. When the assessment has been completed, students receive Lexile (L) measures to identify the level of texts for reading success (Scholastic, Inc., 1999).

Tennessee Comprehensive Assessment Program (TCAP): A state mandated test for every Tennessee student in grades 3 through 8. This assessment is timed, uses a multiple choice protocol which provides a measure of knowledge and application skills in various subject areas. The results of the TCAP Achievement Test provide valuable information regarding student progress in Tennessee and federal funds (Tennessee Department Of Education, 1999).

Significance of the Study

Historically, the term at-risk indicated there is a high possibility something detrimental could materialize unless a change takes place (Byrnes & Myers, 2010). The philosophy concerning at-risk was at first utilized in the field of epidemiology (Byrnes & Myers, 2010). It was the epidemiologists who identified potential risk factors from the

characteristics of the people or the environment being studied in predicting health problems. Once all the risk factors had been identified, epidemiologists would then create an intervention to reduce incidences of potential health problems by targeting the risk factors found to be predictive and modifiable (Byrnes & Myers, 2010). The word at-risk has since been used in media blitzes locally and nationally. Many times when used in educational context, the students in question are at-risk from not graduating from high school, at-risk for eventually becoming a failure in life or at-risk in becoming addicted to alcohol/drug abuse (Finely, 1994). Still today, there is no single agreed definition for the term at-risk.

NCLB mandates school districts to reform by implementing standards-based assessment testing and increasing teacher classroom accountability. Nationally, school districts face difficulties in identifying and implementing effective reading interventions to meet state grade level benchmarks. School districts are allotted federal dollars to purchase reading interventions. Nevertheless, evaluations are needed to address the effectiveness of reading interventions. An extensive study of the literature reviewed revealed that most professional reviews concerning READ 180 were conducted at the elementary school level. Furthermore, the reviews were supported and sponsored by Scholastic, Inc., the distributor of READ 180. Additional professional research revealed a shortage of professional reviews at the elementary school level concerning the effectiveness of Read 180 as a reading intervention and only a few studies examined the effect of this reading intervention program for high schools.

The significance of this study will be to address important implications for public education in a north central Tennessee school district. The researcher demonstrated an

appropriate methodology for performing objective research and answered questions about one of the nation's leading reading interventions. READ 180.

CHAPTER II

Review of Literature

As school districts struggle to meet the new state requirements and the requirements of No Child Left Behind (2001), the need for reading improvement in schools is in high demand. The purpose of this section is to provide a review of the pertinent literature related to this study. The major areas addressed are: (a) what is fluent reading; (b) history of reading; (c) the need for reading interventions; (d) fidelity of reading interventions; (e) reading interventions and (f) Scholastic Read 180.

Defining Reading

Teachers in classrooms across America are testing students to see which students are excellent readers and which students are struggling readers. Research has shown that students in urban or low income schools with limited vocabulary struggle to read grade-level texts (Kieffer & Lesaux, 2007). The speed at which these students are measured to read for fluency indicates their level of proficiency. Reading fluency is a vital key of success in demonstrating qualities of a good reader (Hudson, Lane & Pullen, 2005). Reading fluency is the ability to read quickly, effortlessly and with appropriate expression and meaning (Griffith & Rasinski, 2004). The difference in the reading fluency of a student can be a reliable indicator of potential reading comprehension problems.

A fluent reader must encompass three elements: word reading accuracy, automatic word recognition, and reading rate and prosody (Hudson et al., 2005). Reading rate is fluent when the student's reading is effortless and the student reads in a flowing manner. Students who accomplish this feat should be able to maintain their reading rate

for long periods of time and either comprehend or generalize what has been read. A fluent reader must be able to read the words correctly, be able to discuss in detail about what they have read and be able to show emotions while reading the parts correctly (Hudson et al., 2005). Word-accuracy is the ability to recognize or decode words correctly. Decoding is a part of reading where the reader blends individual phonemes to form words (Hudson et al., 2005). A reader who demonstrates inaccurate pronunciation of words or misinterprets a word will lose the meaning the author is trying to convey in the text (Hudson et al., 2005).

Prosody is a linguistic term used to describe rhythm or smoothness of oral language. If a person is using prosody correctly, then he is featuring variations in pitch (intonation), stress patterns (syllable prominence) and duration (length of time) that contributes to expressive reading of a text is achieved. Students using prosody in reading will have different voice levels and show great facial expressions while reading. Prosodic reading research has proven that the reader will understand what is being read (Hudson et al., 2005). Applegate, Applegate and Modla (2009) argue that prosody or expression has been added but there is a conflict between reading professionals believing it may or may not have anything to do with comprehension.

When a student reads orally with prosody, enhanced comprehension is achieved for both the reader and listener. Prosody can be measured or observed in oral reading by making sure the following items are done correctly: (a) student uses voice tone on appropriate words, rise/fall during reading of text and reflects punctuations in sentences by pausing; (b) students pause when reading a prepositional phrase, subject-verb and/or conjunction in a sentence, and (c) student's reading rate and automaticity is fluid and

moves through the text smoothly. Most educators agree that reading rate is reading speed minus the numbers of words read incorrectly during the passage reading. If a student reads 100 words in one minute and the student mispronounced 20 words, then their reading rate would be 80 words per minute. Oral reading is an important measure supporting reading proficiency. A poor reader who stumbles on words and reads slowly usually has weak reading comprehension due to failure to complete work or lost interest (Hudson et al., 2005). Word-accuracy is having the ability to recognize or decode words correctly. When a student reads words incorrectly, it is highly unlikely the student understands what the author intends.

If readers are to decode words accurately, they need to be able to (a) identify the sounds represented by letters or letter combinations, (b) blend phonemes, (c) read phonograms, and (d) use cues from letters for sound and meaning in trying the correct pronunciation. Measurements for word-reading accuracy range from simply listening to oral reading and counting the errors per 100 words for running records or miscues which allows teacher's to see detailed information about the student's accuracy (Hudson et al., 2005). Valdasy and Sanders (2008) maintain that the accuracy component of fluency frequently refers to decoding accuracy. Professionals in the field of reading believe teaching decoding skills later than eighth grade is unproductive and ineffective, yet the results of the meta-analysis reported by the National Reading Panel (NRP) disagree with these professional assumptions (National Institute of Child Health and Human Development, 2000).

History of Reading

It would seem a though school districts would have sufficient school-based research identifying what has worked for the greatest gain in student reading achievement, yet it is difficult to create a program that works for all students (Edmonds, 1979). The research literature has identified numerous school reform programs to enhance student achievement.

Education has experienced a variety of reforms in reading instruction in the last 60 years. The pendulum of education began its swing from 1940-1970 with the "look-say method." The "look-say method" allowed teachers to teach memorization. Memorization allowed students to recognize whole words rather than learning them phonically (Orton, 1929).

The "look-say" reform lasted from the early 1940's to the early 1970'sb giving way to a new educational reform starting in 1970 and ending in the early 1990's. This new educational philosophy was embraced by prominent educator John Dewey, leader of the progressive school movement in the United States. This reading reform allowed teachers across the nation to return to teaching whole-word reading, allowing students to have a better understanding in reading comprehension (Blumenfeld, 1996). As a result of Dewey's influence in the higher education area, the whole-word approach to reading became "dominant in training of teachers" (Perfetti & Marron, 1995, p.14).

Samuel L. Blumenfeld (1976) compared phonics to a beginner learning how to play a piano. The beginning pianist can be taught the correct methods by the teacher to play a note, but the beginning pianist must play the note many times to learn how to play it successfully. Students learning to read must listen to teachers correctly model the

pronunciation of sounds and blends. It is up to the student to practice the sounds many times over and over. This foundation of understanding allowed students to learn how to construct sentences through repetition (Ronayne, 2009).

Educators who were teaching phonics soon found this style of learning to be inefficient. School administrators in school systems across the nation decided there needed to be a different approach to teaching reading and comprehension; therefore, the term “whole language” became the newest fad and reform in education. “Whole language” was Horace Mann’s philosophy of teaching, and state educators mandated district and local school administrators to incorporate the teaching method into their educational philosophy (Ronayne, 2009). Whole language was originally introduced in the mid-1800’s (Ronayne, 2009). Numerous educators supported the whole language philosophy, which emphasized literature and word meaning. Horace Mann’s whole language philosophy was based on the concept that children learned to read similarly to the way they learned to speak: by being exposed to whole language (Ronayne, 2009). Vygotsky later supported the “whole language” belief by stating that children learn when it is functional and relevant. This reinforces the whole language philosophy by encouraging understanding and pleasure of written words (Stone, 1993).

Reading Interventions

America has lost its status as being the world leader in graduating students from high school and college. In a report entitled Alliance for Excellent Education (AEE) (2006), stated that four million students will enter ninth grade in school districts across America. These same schools that had four million ninth grade students walk into their schools in late summer can be assured that in four years one-third of its graduating class

will not walk down the aisle to receive their high school diploma. Neild and Balfanz's (2006) study showed that half of the dropouts were not promoted past the ninth or tenth grade. African-Americans, Hispanics and Native Americans who enter ninth grade this year will not graduate in schools across the country with their classes in four years (Owen et al., 2008).

It is estimated that 1.3 million students did not graduate from United States high schools in 2004. Greene and Winters (2005) found that 30 percent of students who enter high school this year will not graduate in four years. It is estimated that more than 12 million students will drop out over the next decade and cost America over three trillion dollars (AEE, 2006). Records show people who do not have a high school diploma have a greater chance of becoming a part of the criminal justice system or becoming dependent on the assistance from welfare (AEE, 2006). What is even a greater tragedy is their children are more likely to become high school dropouts themselves; therefore, this endless cycle will continue forth in succeeding generations (AEE, 2006).

Balfanz and Herzor (2005) found that half of the sixth grade students who attended school less than 80 percent of the time or received a low final grade in classroom behavior and failed mathematics or reading quit school. While researching at John Hopkins University, Balfanz and Herszor (2005) found that half of the eventual dropouts can be identified by the end of sixth grade and nearly 75% by the start of high school. Neild and Balfanz (2006) found that 78% of eighth graders who missed five weeks of school or failed math or English became high school dropouts. The lowest performing readers in eighth grade who scored in the lowest quartile are 20 times more likely to drop out than top performing students (AEE, 2006). Among 9th grade freshmen

who were not promoted to 10th grade, it was found that only one in four would earn some type of degree in eight years. It was found that middle-school students in Philadelphia who failed their courses or attended school less than 90% of the times were the students who were “failing to succeed” because of behavioral problems, numerous suspensions or poor attendance (Balfanz & Neild, 2006).

Chicago Consortium on School Research (CCSR) created an “On-Track Indicator” which had an 85% success rate, and calculated which eighth grade students had classroom behavioral problems or received more than one F in a single 9th grade class would not graduate within 5 years (Allenworth & Easton, 2005). American national and business leaders need to reach out to school districts to unify national goals to increase high school graduation rate and college matriculation for male students by five percent. This one goal would allow our nation to have a savings and revenue of eight billion dollars each year (AEE, 2006).

If high schools and colleges raised the graduation rates for African American, Hispanic, or Native American students to the level of Caucasian students by 2020, the personal income from these diverse groups would add an additional \$310 billion to the U.S. economy (AEE, 2006). A college graduate will earn an estimated one million dollars more over his/her lifetime than a student who drops out of high school. Dropping out of high school is a million-dollar mistake to a student.

In an effort to meet the requirements of the NCLB laws and to eliminate the status of students being at-risk, high schools have implemented remedial reading courses. Many times, high school students with reading difficulties lack decoding skills and/or reading fluency. High school students who have inadequate comprehension skills may lack

vocabulary skills and have limited background knowledge, family problems, lack of motivation, or unspecified cognitive weakness (Aaron et al., 2002). Stanovich's 1986 research showed that students who are poor readers will continue to fall further behind in grade level reading due to the "Matthew Effect." The Matthew Effect basically states that if a student is a poor reader, the likelihood of that student remaining a poor reader in the years to come is great. The "Matthew Effect" came about from Merton (1968) who was trying to describe his findings in regards to remedial students in relation to reading education (Bahr, 2007). As it relates to remediation, it is intended to decrease disparity between the advantaged and disadvantaged students. It was found that students who needed the most remediation help were the ones who were least likely to remediate successfully (Bahr, 2007).

School districts must find an evidence-based intervention where teachers continually monitor and assess students to ensure that they do not get "left behind." While numerous reading intervention programs boast about enhancing student academic achievement, there are only a few that actually have the proper evidence and data to demonstrate how their program successfully impacts participants' outcomes (NCLB, 2001).

Fidelity in Program Implementation

Fidelity of implementation is delivery of instruction and use of materials as it was designed to be delivered (Gresham, MacMillan, Beebe-Frankenberger, & Bocian, 2000). Fidelity must address the integrity with which screening and progress monitoring procedures are completed and explicit decision making is followed. Fidelity is important for implementation of the process and implementation of instruction/progress monitoring

(Gresham et al., 2000). The literature reveals many reading interventions whose possible success was hampered due to poorly trained teachers, lack of supervision, lack of competencies and/or motivation to provide proficient implementation, insufficient resource support and limited time for effective delivery (Hall & Hord, 1987).

Reading Interventions

School district personnel must find a reading intervention with specific goals which teachers and school leadership can agree on with expectations for students by watching the analysis of key indicators or student achievement as set forth by district goals. These indicators, which are watched regularly by district reading professionals, can be grade-level designations of reading text selection and performance based assessment or standardized achievement measures. The National Reading Panel (NRP) (NRP, 2000) research has shown that high school students need additional skills to master reading and comprehension. These additional skills high school students need include: (1) extended learning time, (2) teacher modeling reading/thinking strategies, (3) cooperative learning with text-based discussions, and (4) self-selected reading at student's ability levels (United States Department of Education, 1999).

Fisher and Ivey (2006) questioned when an intervention is necessary. They believed school districts should have in place significant opportunities for students to read interesting books relating to the contents being studied in class. Fisher and Ivey (2006) believed schools should be focusing on literacy achievement where teacher lessons use content literacy to reinforce student engagement in learning. This would allow students to have access to reading books of their own choosing (Fisher, 2004). Fisher and Ivey (2006) indicated that limited interventions fail to make a difference with

students if they do not have direct accessibility to instructional level texts and instructional strategies with teach explicitly how to read and write.

Kirk and Gillon (2009) evaluated the effectiveness of a morphological intervention. This type of intervention was used to expand reading and spelling knowledge. The morphological intervention was to address students with specific spelling difficulties by instructing students how to coordinate morphological awareness with other types of linguistics. Instruction of morphology, phonology, orthography and syntax would be used in teaching students to gain knowledge. The students gain knowledge by understanding the meaning a word or the semantic awareness. This result would allow students when reading to show expression and gain comprehension of reading ideas. The evaluation also showed students did not improve on standardized measures or word identification when it was compared to pre and post intervention tests.

Valdasy and Sanders (2008) did a study where teachers referred students who had demonstrated low rates of reading, fluency and comprehension on Oral Reading Fluency (ORF) and Dynamic Indicators of Basic Early Literacy (DIBELS) skill. All students were pretested and post tested in word reading accuracy, word reading efficiency, word comprehension, vocabulary, fluency rate and passage comprehension. The results indicated that the Quick Read program would be the best reading intervention for the students. Quick Read was written for each grade level, having nine science topics and nine social studies topics chosen in reference to state level standards and benchmarks, which increased lexical accuracy and automaticity. Each topic has five reading passages with features to impact fluency rate and vocabulary featuring high frequency words to build sight word knowledge. Valdasy and Sanders (2008) pointed out that Quick Read

did not improve or boost students reading fluency. They suggested Quick Read would be better as a preventive reading intervention rather than a remedial intervention

The program Language! (2008) was created for students in 3rd through 12th grades who scored at or below the 35th percentile on state assessment test. Language! utilized a six step lesson designed to enhance students use of language structure and systems necessary to improve grade level reading and comprehension. Language! (2008) enhanced (a) phonemic awareness and use of phonics, (b) word recognition and spelling, (c) vocabulary and morphology, (d) grammar and usage's (e) listening/reading comprehension and (f) speaking/writing.

The Utica, Michigan school district began practicing Language! in the 2001 school year. Students were tested for basic reading skills (decoding, word recognition, and phonemic and grapheme knowledge) and reading fluency/comprehension. It was determined after seven months of practicing Language! through WJ-III Reading Fluency and Gray Silent Reading Test, students had shown statistically significant gains of 14.5 percentile points in reading comprehension. Further, the students who practiced Language! showed positive gains ranging from 5.7 to 11.4 percentile points in accelerated learning and reading skills of decoding, word recognition and phonemic and grapheme knowledge. The Roaring Fork, Colorado school district evaluated their students with Limited English Proficiency by using the Colorado Student Assessment Program-Reading (CSAP-Reading) in the spring of 2001(Language!, 2008).

The Elk Grove, California School district had a diverse student population with 70 different languages being spoken. The school district decided to enroll 345 students who had received special education services or scored below the 25th percentile on the

Stanford Achievement Test (SAT), into Language!. After eight months of instruction the students were given the Grey Oral Reading Test, 3rd Edition for reading comprehension. The results were impressive, showing positive gains in 7th and 8th grade students by as much as 28% and ninth grade as much as 18% (Language!, 2008).

The Mid-Continent Research for Education and Learning (MCREL) regional laboratory researched and reported that they found in 35 studies, there was no significant effect of computer-assisted literacy programs to help competencies of at risk students. The effect size of their study was .16 with a standard deviation of .40, leading to a confidence interval to include the value of zero. A confidence interval of the value zero indicated there was no support for the hypothesis in reference to computer-assisted instruction for literacy as an effective strategy for increasing literacy skills for at-risk students over other types of reading interventions (Barley, Lauer, Arens, Aphthorp, Englert, Snow & Akiba, 2002).

SCHOLASTIC READ 180

Intervention-based reading programs which will enhance student proficiency and achievement are continuously being sought to meet federal and state standards. Numerous computer-based interventions such as READ 180, a remedial reading program, have been designed to concentrate on students who are experiencing reading difficulty (Hasselbring, 1999). The READ 180 combines research-based practice and technology to improve reading achievement for students reading below grade level (Hasselbring, 1999).

The READ 180 Program was developed by the Scholastic Publishing Company as an instructional reading program for struggling readers in fourth grade and above using a combination of instructional reading modeling and independent reading, where students

have the opportunity to increase their reading fluency. The brainchild of Dr. Ted Hasselbring of Vanderbilt University, Read 180, was created in 1985 as prototype software that uses individual student performance data to differentiate reading instruction (Scholastic, 1999).

The READ 180 curriculum uses the Scholastic Reading Inventory (SRI) assessment which is administered three times per year to measure how students read narrative and expository texts (Scholastic, 1999) The SRI is a reading comprehension test which assesses student's reading levels, allowing teachers to adjust students' instruction to meet individual needs. The SRI also tracks the individual student's reading growth over a period of time matching the reader to their appropriate level of reading (Scholastic, 1999). The assessment results are reported and measured as lexile-L scale scores. The scale will range from 100L, which is identified as an at-risk reader, to 1500L, or an advanced reader (Scholastic, 1999). The lexile, or L scale, scores are determined by the difficulty of the items students respond to either as correct or incorrect (Scholastic, 1999).

The results gathered for the READ 180 reading intervention show that teacher can gauge the students' reading levels based on grade level norms and provides data information where parents can encourage reading (Scholastic, 1999). READ 180, through flexible activities, may include computer assisted learning; whole and small group instruction and independent high interest reading. The character reference site of school systems found success with Read 180 and lists numerous large, diverse and urban school districts such as: Anaheim, CA Unified School District; Boston Public School, Boston MA; Buffalo City Schools, Buffalo, NY; Fairfax Public Schools, Fairfax, VA; Los Angeles, CA Unified School District; Miami Public Schools, Miami, FL; Memphis

Public Schools, Memphis, TN and New York City Schools, NY (Scholastics, 1999). Additional research studies sponsored by Scholastic, Inc. can be found via the Scholastic, Inc. web site: <http://read180.scholastic.com/reading-intervention-program/research>.

The studies on READ 180 have similar conclusions as to the ones found in the initial study of four urban school districts in conjunction with Council of Great City Schools conducted by Interactive Incorporation. The studies showed statistically significant improvement when using analysis of covariance to control for prior levels of achievement (Interactive, Inc., 2002).

Eudene Lupino (2005) who taught READ 180 believed that it is not enough to help struggling readers, but teachers need to be informed of professional literature and current research. Teachers need to learn numerous diverse types of practices which encourage literate thinking and establish learning strategies that are effective to help struggling students. Lupino suggested teachers need to differentiate lessons that are individualized for each student's direct reading needs. READ 180 is an impressive research-based program but only a piece to enhancing a struggling student's reading and comprehension levels.

Careful designs of experiments and program evaluations many times have as their goal sound reasoning justified and logically supported by mass data (Maxwell & Delaney, 2003). The U.S. Census Bureau (2009) stated that there are 14,000 school districts across the nation who educate over 48, 097, 541 students daily and will spend \$500 billion dollars on educational products and educational services developed by textbook publishers, commercial providers and nonprofit organizations. America has adapted the definition for literacy success creating a desire for equal distribution for

literacy proficiency for everyone (Brandt, 2001). Individuals who market information provided for most literacy products seem to become zealous when trying to obtain accounts. The best a school district can do concerning reading interventions is to accept the bias in the data, then take precautions to carefully evaluate the research intent, rationale and data gathered before making a final decision (Thorpe, 2003).

CHAPTER III

METHODOLOGY

Participants

The Robertson County Public Schools have a student enrollment of 12,851. Robertson County is located in the central region of the state of Tennessee. The Robertson County population according to the U.S. Census Bureau in 2009 was estimated at 67,000 people. The median household income in Robertson County for 2008 was \$43,610 (U.S. Census Bureau, 2009). This study took place in a Tennessee rural county school with a school population that is 63% Caucasian, 37% Minority, 13% Exceptional Educated and 13% English as a Second Language students. In addition, 50% of the students in the school qualify for a free or reduced lunch. The population for this study consisted of 38 students in ninth grade. All 38 students participated in a pilot program for READ 180 at an area high school. The students were selected on bases of TCAP scores, reading at two levels below grade level and recommendations from teachers and principals.

Parents were notified in advance that their child would be participating in a reading pilot program to see if it would enhance their reading scores. Students who participated in the program were deemed as needing extra guidance in comprehension, reading fluency and recognition of words. The only limitation for any student would be comprehension of English grammar with regard to their native language.

Research Design

The purpose of this study was to establish if there was a relationship between pre-intervention and post intervention Lexile scores of 9th grade students who had been

diagnosed as reading at least two grade levels below grade level. All students identified in the intervention classes participated in the READ 180 programs. Teachers were trained in the READ 180 instructional model. There was also a reading specialist who oversaw the teaching and data to keep everyone abreast concerning the intervention. READ 180 was used as a reading intervention for 9th grade students in Robertson County Public Schools during the 2009-2010 school year as a pilot program. Data for the study was generated via Scholastic Reading Inventory (SRI) Interactive, which was administered three times during the school year. However, data for this study was only collected at the beginning of the first semester and the end of the second semester.

Lexile is a unit of measurement used when determining the difficulty of text and the reading level of readers. Students entering the 9th grade are placed on four different levels of reading: minimal beginning reader (L- 0 to 650), basic (L-650- 1000), proficient (L-1025- 1250), and advanced proficient (L-1250 and above). The effect of READ 180 was examined to determine the significance of Lexile scores according to the following variables: (a) beginning of the year and end of course tests, (b) gender, (c) ethnicity and (d) socioeconomic levels. The Lexile scores were later compared to determine if a statistical significance existed between them.

The READ 180 curriculum was developed at Vanderbilt University and Peabody College in Nashville, Tennessee. According to Scholastic, "READ 180 utilized direct and explicit reading instructions engaging age-appropriate content with data-driven technology to ensure that differentiated instruction while guided practice takes place" (2002, p.1). While developing this reading intervention, Hasselbring determined READ

180 technology procedures could be of assistance nationally for at-risk youth to improve their reading proficiency (1999).

READ 180 addressed the needs of students by employing both computer instruction and printed materials designed for older struggling at-risk readers (Hasselbring, 1999). At-risk students vary in cultural background, academic needs and abilities. The activities in Read 180 include computer assisted learning; whole and small group instruction and independent reading of high interest (Hasselbring, 1999). Read 180 motivates struggling older readers by allowing them to read age appropriate materials that encourage them to peruse materials of interest in the future. Ty, the software's on-screen host, is non-judgmental with advice and provides nonstop encouragement throughout the curriculum (Hasselbring, 1999).

Treatment

READ 180 is a reading intervention program where students must have 90 minutes of uninterrupted time for instruction. Classrooms must be set up to maximize the class to where each learning area has its own distinct area (Scholastic, 199). There are work tables for teacher-directed, small group instruction and technology components. It has been noted for decades that teachers and researchers seem to agree in the efficacy of computer-based instructions for learning math and enhancing literacy (Thorpe, 2003).

The 38 students involved in the study met daily for 90 minutes. The Read 180 class opened with whole group instruction. This allowed the students to become "engaged in reading" (Hasselbring, 1999, p.26) Whole group instruction may include activities such as shared reading, read alouds, teacher-modeled reading strategies, setting goals, resolving problems or sharing ideas (Hasselbring, 1999).

Whole group instruction was followed by three group rotations of 20 minutes. This allowed students to become engaged in instructional reading, modeled or independent reading and/or small group instruction (Hasselbring, 1999). Instructional reading consisted of students working independently building word study, fluency, vocabulary, comprehension and spelling through the use of READ 180 software programs (Hasselbring, 1999). Modeled reading entailed students developing comprehension, self-monitoring and vocabulary strategies using Read 180 audio books. Independent reading targeted students to build fluency by engaging in self-selected reading at their independent level. Small group instruction was conducted by the READ 180 teacher who has either observed/monitored the students as they are engaged in comprehension strategies (Hasselbring, 1999).

The READ 180 teacher conducted subject closure as a whole group, which included participation in teacher led activities, journal writing, self-assessment or group processing. Closure allows students to feel they have accomplished or mastered success within the class (Scholastic, 1999).

Statistical Analysis

Student scores were generated through Scholastic software. Scores were reported in Lexiles, which were equated to reading levels. Statistical analysis was used to determine the effects of READ 180 on the reading proficiency of below level 9th grade students who read below grade level.

CHAPTER IV

RESULTS

The purpose of the study was to measure the effects of READ 180 from pre-intervention at the beginning of the year to the post intervention at the end of the year. Data for the study was generated via the Scholastic Reading Inventory (SRI) Interactive, which is administered three times throughout the school year.

Data for the study was collected at the beginning of the first semester and the end of the second semester. The Lexile scores were taken from the pre-intervention test in August and the post intervention test in May. The scores compared to determine if a statistical significance existed between them. The results of this study were generated via the SPSS program, and the findings will be discussed in this chapter.

Description of the Study Sample

The frequencies and percentages for the demographic characteristics of the sample are displayed in Table 1. Majority of the participants were male (62.5%). Over half of the sample was Caucasian (53.1%); a fifth consisted of African Americans (21.9%); less than a fifth of the sample was Hispanic; a minority (6.3%) was of other ethnicities. Majority of the students received free lunches (68.8%). Less than half were Special Education students (43.8%) while a minority was English Language Learners (18.8%).

Table 1

Frequencies and Percentages for the Demographic Variables (N = 32)

Variables	Frequency	Percentage
Gender		
Male	20	62.5
Female	12	37.5
Ethnicity		
Caucasian	17	53.1
Black	7	21.9
Hispanic	6	18.8
Other	2	6.3
Lunch status		
Reduced	10	31.3
Free	22	68.8
Special education		
No	18	56.3
Yes	14	43.8
English language learner		
No	26	81.3
Yes	6	18.8

Hypotheses Tests

Read 180 Scores across Time

It was hypothesized that students’ reading proficiency scores would increase after participating in the READ 180 program. A paired *t*-test procedure was used to test this hypothesis. The means and standard deviations for reading proficiency are presented in Table 2 while paired *t*-test findings are summarized in Table 3. The findings revealed that students’ reading proficiency scores significantly increased after they participated in the READ 180 program ($t(31) = -4.46, p = .000$). Prior to the program, the mean reading proficiency score was 380.22 ($SD = 302.50$); after the program, the mean reading proficiency score was 552.34 ($SD = 320.91$). Thus, the first hypothesis was supported.

Table 2
Means and Standard Deviations for Reading Proficiency across Time (N = 32)

<u>Variable</u>	<u>Pre-Intervention</u>		<u>Post-Intervention</u>	
	Mean	<i>SD</i>	Mean	<i>SD</i>
READ 180 intervention	380.22	302.50	552.34	320.91

Table 3

Paired t-test Results for Reading Proficiency across Time (N = 32)

Variable	Df	t	Sig.
READ 180 intervention	31	-4.46	.000

The Effect of Gender on Reading Proficiency across Time

It was hypothesized that improvement in reading proficiency would be moderated by gender. To assess this hypothesis, a mixed analysis of variance (ANOVA) procedure was conducted. The between-subjects variable was gender while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across gender groups are shown in Table 4. The mixed-ANOVA results are summarized in Table 5. The findings reveal that gender did not significantly moderate change in reading proficiency scores ($F(1,30) = 1.30, p = .264$). Thus, this second hypothesis was not supported.

Table 4

Means and Standard Deviations for Change in Reading Proficiency across Gender (N = 32)

<u>Gender</u>	<u>Pre-Intervention</u>		<u>Post-Intervention</u>	
	Mean	SD	Mean	SD
Males	325.50	316.93	531.45	347.67
Females	471.42	264.32	587.17	281.66

Table 5

Mixed ANOVA Results for Change in Reading Proficiency across Gender (N = 32)

Source	MS	Df	F	Sig.
Between subjects				
	152460.00	1	.89	.353
Gender	171310.06	30		
Error				
Within subjects	388090.84	1	16.47	.000
Time	30510.15	1	1.30	.264
Time x gender	23561.89	30		
Error				

The Effect of Ethnicity on Reading Proficiency across Time

It was hypothesized that improvement in reading proficiency would be moderated by ethnicity. To test this hypothesis, a mixed analysis of variance (ANOVA) procedure was conducted. The between-subjects variable was ethnicity (i.e., Caucasians vs. Other Ethnicities) while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across ethnicity groups are shown in Table 6. The mixed-ANOVA results are summarized in Table 7. The findings revealed that ethnicity significantly moderated the change in reading proficiency scores ($F(1,30) = 5.32, p = .028$). As shown in Figure 1, the improvement in reading proficiency was greater for Caucasians ($\Delta M = 250.41$) than it was for all other ethnic groups ($\Delta M = 83.40$). These findings thus support the third hypothesis.

Table 6

Means and Standard Deviations for Change in Reading Proficiency across Ethnicity (N = 32)

Ethnicity	Pre-Intervention		Post-Intervention	
	Mean	SD	Mean	SD
Caucasian	285.24	266.80	535.65	319.76
Others	487.87	312.88	571.27	332.36

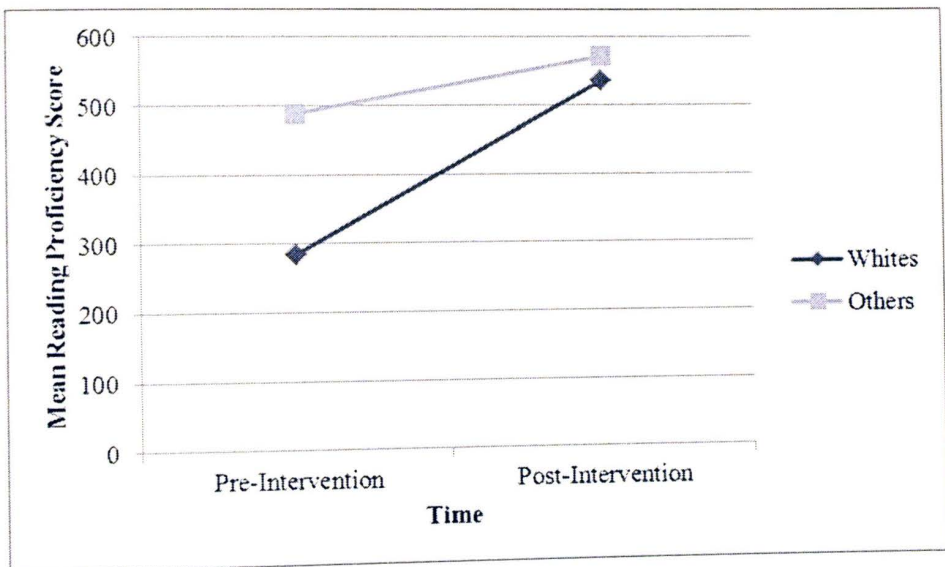


Figure 1. Mean change in reading proficiency across ethnic groups.

Table 7

Mixed ANOVA Results for Change in Reading Proficiency across Ethnicity (N = 32)

Source	MS	df	F	Sig.
Between subjects				
	226167.19	1	1.34	.256
Ethnicity	168853.16	30		
Error				
Within subjects	443980.08	1	21.27	.000
Time	111135.89	1	5.32	.028
Time x ethnicity	20874.36	30		
Error				

The Effect of Socioeconomic Status on Reading Proficiency across Time

It was hypothesized that improvement in reading proficiency would be moderated by socioeconomic status. To test this hypothesis, a mixed analysis of variance (ANOVA) procedure was conducted. The between-subjects variable was socioeconomic status while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across socioeconomic status are shown in Table 8. The mixed-ANOVA results are summarized in Table 9. The findings reveal that socioeconomic status did not significantly moderate change in reading proficiency scores ($F(1,30) = .02$, $p = .891$). Thus, this fourth hypothesis was not supported.

Table 8

Means and Standard Deviations for Change in Reading Proficiency across Socioeconomic Status (N = 32)

Socioeconomic Status	Pre-Intervention		Post-Intervention	
	Mean	SD	Mean	SD
Reduced lunch	393.40	267.84	557.50	263.69
Free lunch	374.23	322.82	550.00	349.58

Table 9

Mixed ANOVA Results for Change in Reading Proficiency across Socioeconomic Status (N = 32)

Source	MS	df	F	Sig.
Between subjects				
SES	2445.56	1	.01	.907
Error	176310.55	30		
Within subjects				
Time	397077.56	1	16.17	.000
Time x SES	468.37	1	.02	.891
Error	24563.28	30		

Summary

It was hypothesized that students' reading proficiency would improve after participating in the READ 180 program. This hypothesis was strongly supported. It was also hypothesized that gender, ethnicity, and socioeconomic status would moderate the improvement in reading proficiency. Only ethnicity moderated the improvement in reading proficiency. Improvement in reading proficiency was stronger for Caucasians than it was for all other ethnic groups.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Study

The purpose of this study was to establish if there was a relationship between pre-intervention and post intervention Lexile scores of ninth grade students who had been diagnosed as reading two grade levels below. All students in the intervention participated in READ 180 instructional model; all teachers in working in the intervention program have been trained in Read 180. A reading specialist supervised the program, maintained the integrity of the data, and kept all teachers informed on updates to the program. Data for the study was generated via Scholastic Reading Inventory (SRI) Interactive, which was administered three times during the school year. Data for this study was collected at the beginning of the first semester and the end of the second semester of the same school year.

The results of the READ 180 Program are measured in Lexile, is a unit of measurement used when determining the difficulty of text and the reading level of readers. Students who enter ninth grade are placed on four different levels of reading: minimal (Beginning reader to 650), Basic (650- 1000) Proficient (1025- 1250) and Advanced Proficient (1250 and above). The purpose of this study was to determine the effects of the READ 180 Program on ninth graders reading Lexile scores according to the following variables: (a) Beginning of the year and end of course test, (b) Gender, (c) Ethnicity, and (d) Socioeconomic levels. The Lexile scores were compared among all variables to determine if a statistical significance existed between those students in the READ 180 Program and students not in the program.

Conclusion

Comparing the differences among and between groups of ninth grader students in the READ 180 Program, significant improvements were revealed. It was hypothesized that students' reading proficiency scores would increase after participating in the READ 180 program. Further analysis of the means and standard deviations for reading proficiency are presented in Table 2 in Chapter IV, while paired t-test was used to test this hypothesis. The findings from the hypothesis are summarized in Table 3. The findings for READ 180 indicated students reading proficiency scores significantly increased after a yearlong participation in the READ 180 program ($t(31) = -4.46, p = .000$). On the pre-intervention mean reading proficiency, the students' scored 380.22 ($SD = 302.50$); while the post intervention scores showed the mean reading proficiency score was 552.34 ($SD = 320.91$). Thus, the first hypothesis was supported, showing the students gained almost two reading levels in one year.

The second question hypothesized if any improvement in reading proficiency would be influenced by gender. To evaluate this hypothesis, a mixed analysis of variance (ANOVA) procedure was conducted. The between-subjects variable was gender while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across gender groups is shown in Table 4. The mixed-ANOVA results are summarized in Table 5. Therefore, the second hypothesis did not reveal gender as a significant variable in reading proficiency scores ($F(1,30) = 1.30, p = .264$).

The third hypothesis was to determine if ethnicity would reveal a change in reading scores of ninth graders in the READ 180 Program. To test this hypothesis, a mixed analysis of variance (ANOVA) procedure was performed. The between-subjects variable

was ethnicity; while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across ethnicity groups are detailed in Table 6. The mixed-ANOVA results are summarized in Table 7. The findings reveal that ethnicity significantly moderated the change in reading proficiency scores ($F(1,30) = 5.32, p = .028$). As shown in Figure 1, the improvement in reading proficiency was greater for Caucasians ($\Delta M = 250.41$) than it was for all other ethnic groups ($\Delta M = 83.40$). The findings support the third hypothesis showing a greater proficiency gain for the Caucasians as compared to other ethnicities.

It was hypothesized that students' socioeconomic status would impact reading proficiency scores. To test this hypothesis, a mixed analysis of variance (ANOVA) procedure was conducted. The between-subjects variable was socioeconomic status while the within-subjects variable was time. The means and standard deviations for change in reading proficiency across socioeconomic status are shown in Table 8. The mixed-ANOVA results are summarized in Table 9. The findings revealed that socioeconomic status did not significantly indicate change in reading proficiency scores ($F(1,30) = .02, p = .891$). Therefore, according to the fourth hypothesis, the socioeconomic status of READ 180 students was not relevant in determining a moderate reading increase in proficiency.

These conclusions must be considered with regard to some limitations. This was a pilot program for Robertson County School District. The study was conducted during the initial year of implementation of READ 180 for the county. The sample size was limited; additional research is needed on a larger population to substantiate the effectiveness of READ 180. This study was limited to two classrooms of students in a Middle Tennessee

rural county school district. The study data was collected only in August and May limiting student data that exited the program during the year. Multiple district personnel gathered the READ 180 data results; therefore, the possibility of error grew in regards to scores.

Recommendations

The researcher makes the following recommendation to the Robertson County School District:

- a. Increased collaboration among all teachers of the Read 180 Program to discuss students' reading proficiency and progress or lack of progress.
- b. Students in READ 180 who did not reach reading proficiency at grade level would be placed in a summer reading program and re-enter READ 180 the next school year.
- c. Provide a part-time translator for English Language Learners in the READ 180 Program.
- d. Conduct a longitudinal study to monitor the yearly progression of students who successfully completed the READ 180 Program. This study would determine if these students would continuously be able to read at grade level without the support of the READ 180 reading intervention.
- e. Collaborate with similar school districts to discuss Read 180 and compare first year results and discuss what types of changes are needed for the second year.

Although two of the hypotheses of the study were rejected and two were supportive, the study allowed the researcher to determine the effectiveness of READ 180 as being an effective reading intervention for ninth grade students. The READ 180 program is a regimented routine that requires a disciplined teacher who will implement the fidelity of the program as it is to be implemented. For some districts, READ 180 may be in aligned to the goals of the schools to improve reading achievements. READ 180 has proven to be an effective intervention program that will improve the reading proficiency of struggling readers, a critical component of No Child Left Behind (2001).

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