

**A COMPARISON OF STUDENT ACHIEVEMENT IN READ 180  
AS MEASURED BY TCAP IN MIDDLE SCHOOLS  
IN ONE MIDDLE TENNESSEE SCHOOL SYSTEM**

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A Comparison of Student Achievement in READ 180 as Measured by TCAP in Middle  
Schools in One Middle Tennessee School System

A Field Study

Presented to

The College of Graduate Studies

Austin Peay State University

In Partial Fulfillment

Of the Requirements for the Degree

Education Specialist

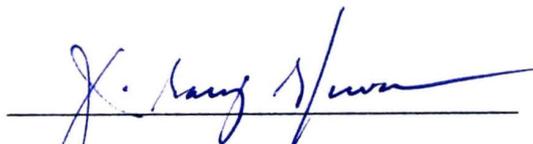
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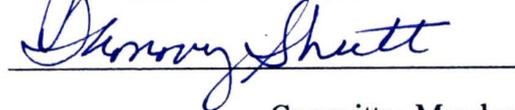
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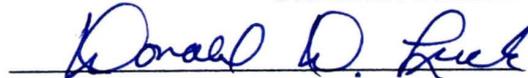
We are submitting a field study written by Rachel Henley entitled "A Comparison of Student Achievement in READ 180 as Measured by TCAP in Middle Schools in One Middle Tennessee School System." We have examined the final copy of this field study for form and content. We recommend that it be accepted in partial fulfillment of the requirements for the degree of Educational Specialist.



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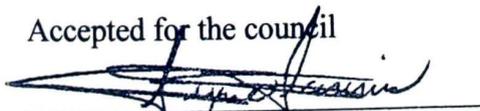


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## DEDICATION

I dedicate my Field Study to my family. To my husband, Jeff Henley, and my daughter, Emerie Henley, thank you for the sacrifices you have made to help me succeed. Thank you for your continual support and encouragement throughout this process. To my parents, Richard and Judy Sims, I thank you for helping me have a strong foundation on which to build my life experiences. I love you all so much! You are always in my heart!

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## ABSTRACT

RACHEL RENEE HENLEY. A Comparison of Student Achievement in READ 180 as Measured by TCAP in Middle Schools in One Middle Tennessee School System (under the direction of DR. J. GARY STEWART.)

Purpose: The purpose of this study was to determine what effects, if any, the reading intervention program, READ 180, had on student achievement rates as measured by the Language Arts portion of the Tennessee Comprehensive Assessment Program (TCAP) in middle schools in one Middle Tennessee School System. The researcher analyzed the data of students who had been in READ 180 in sixth through eighth grades. The researcher then examined the effects of READ 180 on student achievement rates on the Language Arts section of the TCAP based on gender, socioeconomic status, and ethnicity. The results varied among groups; they showed either negative effects or no statistically significant differences.

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## CHAPTER I

### Introduction

The history of education has been one containing considerable debate among educators, especially when discussing how to teach reading. Educators generally agree on the elements of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. However, for centuries instructors have questioned the best methods to teach reading.

Many have stated the importance of teaching individual symbols and their corresponding sounds as the foundation for making sense of words. Others have promoted the use of all of the components of reading, as well as an admiration for literature. More recently, instructors have begun to advocate a combination of the major approaches to teaching reading; they want students to learn phonological relationships within the context of vocabulary and literature.

There are several strategies that educators use when teaching reading. Research has been conducted on which of these strategies are the most effective in raising student achievement rates. In their book, *Classroom Instruction that Works*, Marzano, Pickering, and Pollock (2001) indicated nine categories of instructional strategies that have a high probability of yielding the greatest increases in student achievement.

Marzano et al. (2001) suggested that a blend of strategies be used rather than focusing on the highest-yielding category. Dennis (2008) indicated there is no “silver-bullet” program that will eliminate literacy problems, but advocated teachers be given the tools to meet their students’ needs successfully. The Scholastic, Inc. reading intervention program, READ 180, gives such instruments to educators. The program incorporates

multiple instructional strategies, including assistive technology. Hasselbring and Bausch (2006) noted that, ideally, “students can use an assistive technology intervention to continually improve their reading skills while at the same time taking advantage of a reading support to provide the scaffolding necessary to read text at their grade level” (p. 73). READ 180 integrates the most effective strategies into a balanced approach to literacy to give students the opportunities to maximize their learning in a supportive, yet challenging environment that is tailored to their individual needs.

### **Statement of the Problem**

The problem that was examined in this study was the large number of students who are at-risk of failure in Reading/Language Arts at the middle school level, which includes grades 6 – 8. In the most recent data available from the U.S. Department of Education Institute of Education Sciences (2007), eighth grade students showed a three-point improvement from 1992 in reading achievement rates. However, there have been consistent gaps in the reading achievement rates when data was disaggregated based on gender, ethnicity, and socioeconomic status.

### **Purpose of the Study**

Scholastic, Inc. (2009a) boasted that the implementation of READ 180, a reading intervention program, has yielded two years growth in reading proficiency rates. The program uses a variety of instructional strategies to provide lessons that target the students’ individual needs, including an electronic reading intervention software program component that corrects students as they read passages by using a microphone that is hooked to the computer. The purpose of the study was to determine the effects that READ 180 has on middle school-aged students in one Middle Tennessee School System.

## **Significance of the Study**

READ 180 has been implemented into the Clarksville-Montgomery County School System for grades 6 – 12. According to the 2009-2010 Clarksville-Montgomery County School System School Budget Highlights (2009a), the program is part of the Unfunded Budget Requirements, which are items that are needed in the school system, but cannot be funded without modifying the current revenue intake ([www.cmcss.net/archives/2010/Budgetpresentation.pdf](http://www.cmcss.net/archives/2010/Budgetpresentation.pdf), pg. 8). The required resources to sustain the implementation of READ 180 are part of the Tier 1 and Tier 3 divisions of the Unfunded Budget Requirements. “Maintaining the current tax rate of \$1.02 fully funds Tier[s] 1... the total cost for Tier 3 is \$2.5 Million or 8.8 pennies on the dollar” ([www.cmcss.net/archives/2010/Budgetpresentation.pdf](http://www.cmcss.net/archives/2010/Budgetpresentation.pdf), pg. 7-11).

## **Research Questions**

1. What is the difference in student achievement rates before beginning the READ 180 program and completion of the first year of READ 180?
2. What is the difference in impact on the TCAP scores of READ 180 participants based on gender?
3. What is the difference in impact on the TCAP scores of READ 180 participants based on socioeconomic status?
4. What is the difference in impact on the TCAP scores of READ 180 participants based on ethnicity?

## **Hypotheses**

1. There will be no statistically significant difference between student achievement rates before beginning the READ 180 program and completion of the first year of READ 180.
2. There will be no statistically significant difference between the TCAP scores of READ 180 participants based on gender.
3. There will be no statistically significant difference between the TCAP scores of READ 180 participants based on socioeconomic status.
4. There will be no statistically significant difference between the TCAP scores of READ 180 participants based on ethnicity.

## **Limitations**

The population size for this study limits the ability to make generalizations about the READ 180 program. The program has been in place for three years. Because the study included students from each of the seven middle schools in the Clarksville-Montgomery County School System, different teachers were present in the teaching of the READ 180 program; however, each teacher has been trained according to the standards of the program for proper implementation. The data is limited to the students who took the district-level Benchmark III Test for READ 180 in the 2007, 2008, and 2009 school years because the district did not require a master list of participants in the program until the 2007-2008 school year; therefore, the only indicator of who had participated for all three years of the program was the READ 180 Benchmark III Test results. During the 2008-2009 school year, the Tennessee Comprehensive Assessment Program test was renamed; therefore, the mean scores were adjusted to reflect a new

curve equivalent. This limited the data analysis to the 2006-2007 and 2007-2008 school years.

### **Assumptions**

For the purposes of this study, it was assumed that each group of students was taught by teachers who were highly qualified according to the No Child Left Behind (2001) Act to teach Reading/Language Arts. It was assumed that each of the READ 180 teachers followed the scripted program. It was also assumed that the students did their best on the Language Arts portion of the Tennessee Comprehensive Assessment Program test.

### **Definitions of Terms**

1. Benchmark Test – Formative test, given three times per year in every content area, that assess students' mastery of individual curriculum standards (Clarksville Montgomery County School System, 2010).
2. Lexile level – Measure of either an individual's reading ability or the difficulty of a text (MetaMetrics, Inc., 2009)
3. NCE – Normalized standard scores that were developed by RMC Research Corporation under contract to the then Office of Education (now the Department of Education) as a measure of effectiveness of Chapter 1 (now Title I) programs and projects. NCEs have a mean of 40 and were constructed to have a standard deviation of 21.06 and a range of scores from 1 to 99 scores (CTB/McGraw-Hill, 2009).

4. No Child Left Behind Act (NCLB) – Law that states that all students will achieve proficiency in Reading/Language Arts by 2014 (Tennessee Department of Education, 2006).
5. READ 180 – A comprehensive reading intervention program, based on more than a decade of scientifically based research and the collaboration of reading experts, designed to meet the needs of students in elementary through high school whose reading level is below the proficient level (Scholastic, Inc., 2009a).
6. Scholastic Reading Inventory (SRI) – “A research-based, computer-adaptive reading assessment for Grades K – 12 that measures students’ level of reading comprehension and reports it using the Lexile Framework® for Reading” (Scholastic, Inc., 2009b).
7. Tennessee Comprehensive Assessment Program (TCAP) – A criterion-referenced assessment in a multiple-choice format that provides a measure of the knowledge and application of skills in various subject areas. For the middle school grades, the test covers Reading/Language Arts, Mathematics, Science, and Social Studies. (Tennessee Department of Education, n.d.).

## CHAPTER II

### Review of Literature

#### Components of Reading

According to the National Institute for Literacy (2009), there are five components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Phonemic awareness refers to a student's understanding that words are made of sounds, which can be manipulated to form new words although the sounds that make the word are the same. Phonics, on the other hand, is the understanding of the symbols that produce the sounds that make up words. Mather and Goldstein (2001) stated that, "Reading fluency encompasses the speed or rate of reading, as well as the ability to read materials with expression" (pg. 1). Students must also have the ability to rely on their vocabulary to make meaning of their reading. Finally, comprehension connects the words the reader is reading to the meaning of those words. "Good readers are both purposeful (they have a reason to read) and active (they think to make sense of what they read)" (National Institute for Literacy, 2009, p. 1).

#### Historical Perspective

Over the past several centuries, people have debated the best methods for teaching reading; however, it was only in the early twentieth century that educational research began to intensify. After much discussion, two primary means of instruction have remained steadfast: Phonics and Whole Language. Phonics focuses on a person's ability to make connections between the symbols in a language and the sounds that each symbol represents, whereas Whole Language looks at the broad spectrum of literacy, including word recognition and a text-rich environment. Recently, however, a more balanced

approach to literacy, which incorporates both phonics and Whole Language, has been making its debut in classrooms.

**Phonics.** The phonics approach to teaching reading emphasizes the relationships between sounds (phonemes) and symbols (graphemes). Within this approach, there has been discussion about whether to teach sounds and symbols individually, as pairs, or in syllables. Some have argued that one must master the sounds for individual symbols in order to achieve a solid foundation upon which reading can be built. Others believe that symbols are normally found in pairs, such as *th* or *qu*, so children should learn the sounds of pairs first. Other people believe that teaching reading in a syllabic manner, learning each syllable in a word. Hemenstall (1997) reported that in the mid-1800's, "it [Phonics] followed a sequence of teaching upper-case and lower-case letter names two-letter and three-letter combinations, monosyllabic words, multi-syllabic words, phrases, sentences and, finally, stories" (pg. 5).

Phonics research had a great impact on the way reading is taught in US schools. In 1967, Jean Chall published her findings that began what is now termed "The Reading Wars." "She concluded that systematic teaching of phonics tended to produce better word recognition, spelling, vocabulary, and comprehension in all children..." (Hemenstall, 1997). The Reading Wars sparked public interest in how reading should be taught, which, in turn, generated interest among government officials. Hemenstall (1997) reported that the government first funded literacy research in the 1960's and 1970's and found that the models that systematically taught basic skills performed best, and one model that also emphasized phonics had the most impressive results in both

academic and affective areas. However, it has been argued that phonics is too limited in its approach to reading.

In a study conducted by a group at the Behavioural Science Institute at Radboud University Nijmegen in the Netherlands, the benefits of systematic phonics instruction was compared to the benefits of a nonsystematic phonics instruction. De Graff, Bosman, Hasselman, and Verhoeven (2009) explained their utilization of a computer-based phonics program, which both taught using the same grapheme-phoneme correspondences:

In the systematic-phonics program, children encounter, after being introduced to a prespecified set of five grapheme-phoneme correspondences, a planned set of phonics-through-spelling and synthetic-phonics activities in which they gradually learn more letters... For the nonsystematic approach, a commercially available phonics program was used. Children were able to learn about the relationship between graphemes and phonemes through the use of a keyboard that produced the phoneme of the key that is pressed. This training program did not have a prespecified order in which children had to practice; they were allowed to practice by choosing freely from a set of 10 different letter-sound and phonics exercises.

(p. 320)

The examiners used 93 kindergartners, who were in the last year of their customary 2-year kindergartner program, to analyze the benefits of systematic phonics instructions versus those of a nonsystematic phonics instruction. There were 47 boys and 46 girls with a mean age of 75.8 months ( $SD = 4.8$  months), 67 whom were Native Dutch with the remaining 26 being immigrant children, from three schools. The students were

divided into three groups: one group to be instructed using a systematic phonics approach, one group to be instructed using a nonsystematic phonics approach, and a control group. De Graff et al. (2009) stated, "Control children were enrolled in five types of programs: basal reading programs, regular curriculum, whole language, whole work, and miscellaneous programs" (p. 319). The participants were subjected to four tests, which were administered both before beginning the study and after the method had been carried out: Productive Letter-Sound Test, Free Sound-Isolation Test, Reading Test, and Spelling Test.

After 15 sessions, each 15 minutes long, over a period of five weeks, De Graff et al. (2009) executed the post-assessment of each of the aforementioned tests. The researchers found that both the phonics approaches were more successful in the training of children to produce the letter sounds of 10 different letters or graphemes than children in the control group, but there was no difference between the systematic and nonsystematic phonics approaches groups. Children benefited from systematic phonics instruction more than both the nonsystematic phonics instruction and control groups when isolating and pronouncing the sounds of seventeen consonant-vowel-consonant words. The Reading test showed that children who participated in systematic phonics instruction significantly increased their ability to read 16 consonant-vowel-consonant items, which included both words and nonwords that corresponded to the three stages of the systematic training. Children who participated in the systematic phonics instruction also outperformed their counterparts in the Spelling Test. Both the nonsystematic phonics instruction group and control group showed no statistical difference in their

performance on the Free Sound-Isolation Test, Reading Test, or the Spelling Test (p. 328-329).

**Whole Language.** Some researchers have advocated the use of Whole Language instead of Phonics. Whole Language is a holistic approach that focuses on a reader's experience through the use of all aspects of reading: phonemic awareness, letter-word correspondence skills, word recognition, vocabulary, comprehension skills, and an appreciation of literature. Daniels, Zemelman, and Bizar (1999) contended that Whole Language is not a set of strategies, like Phonics, but stated that it "offers a comprehensive reading and writing program for all children from prereaders to students throughout their school years" (p. 32). Opponents of the Whole Language approach like Ryder, Tunmer, and Greaney (2007) contended that:

... Children who do not possess sufficient levels of essential literacy-related skills and experiences at the outset of formal reading instruction (and who are not provided with explicit instruction to overcome their weakness in these areas, especially phonological awareness), will be forced to rely increasingly on ineffective word identification strategies (such as using picture cues, partial word-level cues, and contextual guessing). (p. 366)

The cycle of debate among educators has been repeating itself for centuries.

However, Phonics and Whole Language have been at the forefront for the past several decades. In 1989, Robert Slavin coined this motion a "pendulum" which moves from one extreme to the other in the quest to determine the most effective method for teaching reading. Today, educators are beginning to advocate for a more balanced approach to

literacy by using both Phonics and Whole Language ideas to maximize the opportunities for a student to learn to read.

**Balanced Literacy.** A balanced approach to literacy combines the components of both Phonics and Whole Language, allowing teachers to utilize an assortment of strategies that supports both traditional approaches. This approach depends on the effective use of reading and writing to meet each student's needs. It is imperative that the teacher uses formative assessments to determine which group, text level, and strategies will be used to target the areas in which the students need to strengthen. The strategies that the teacher employs are greatly dependent on the skills in which each student is deficient.

The San Diego City Schools implemented the practice of balanced literacy. After five years of the system's reform efforts, Biter, O'Day, Gubbins, and Socias (2009) explained the balance literacy framework:

This approach aims to gradually release responsibility to students by utilizing instructional methods that range from a high level of teacher control and modeling (e.g., through a teacher reading aloud) to a high level of student independence (e.g., through independent reading). Additional instructional strategies that support this release of responsibility included shared reading, in which the teacher and students, together, read text at a level of cognitive demand that is higher than students could tackle on their own, and guided reading, in which the teacher and a small group of students closely read a text, focusing on an area of need for these students. (p. 19)

Biter et al. (2009) utilized two measurement tools, which had been previously validated, to analyze the effects of balanced literacy on student achievement. Data was collected five times over the span of two years by trained observers, most of which were former teachers or graduate students in education (p 23-24). “They tried to record classroom conversations as close to verbatim as possible” (Biter et al., 2009, p. 23).

The results from the Biter et al. (2009) showed “...three measures of literacy instruction demonstrated a consistently positive and statistically significant relationship to students’ reading comprehension achievement. These were instruction focused on higher-level meaning of text, writing instruction, and the presence of accountable talk in classroom interactions” (p. 31).

**The Four-Block Method.** The Four-Block Method is based on the principles of balanced literacy. As the name suggests, it has four primary elements: Guided Reading, Self-selected Reading, Working with Words, and the Writing Block. Guided Reading is an activity in which students read aloud so that the teacher can guide them to comprehending the meaning of the text. The next block allows students to choose the materials that they want to read, which builds their confidence and may spark interest in related topics. Teachers should also choose a literary text to read aloud to the students so that the teacher can model his or her fluency.

The Working with Words block is used to allow students to focus on phonemic awareness, vocabulary, and spelling. Students are given individualized lessons to help them to understand the components of language and, in turn, increase their comprehension and fluency when reading. The final block, the Writing Block, emphasizes writing. By giving the students writing prompts, the teacher is able to direct

the content while the student is conveying his or her thoughts through completing the writing process.

### **Reading Achievement**

Every two years, the National Assessment for Educational Progress (NAEP) (2007) tests students in fourth and eighth grades to determine their reading levels. These scores are grouped as Basic, Proficient, and Advanced. Although the NAEP conducted their assessment in 2009, results will not be reported until early Spring 2010 due to the changes that were made to reflect the 2009 framework. According to the 2007 NAEP testing, there were 6,930 schools with 160,700 eighth grade students who participated in the assessment (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2007496>, pg. 6).

Overall gains were seen for lower- and middle-performing students.

**Reading Achievement by Ethnicity.** “Scores for White and Black students in 2007 were higher than in both 2005 and 1992. The score for Hispanic students has not changed significantly in comparison to 2005, but was higher than in 1992” (National Assessment for Educational Progress, 2007) (p. 28). The increase for White students were mostly seen for the lower- and middle-performing student, while the increases in the Black population of students was seen throughout all levels of performance. There are significant achievement gaps between White and Black students and White and Hispanic students, but no significant achievement gap between Black and Hispanic students.

**Reading Achievement by Gender.** There were no significant changes in the combined reading achievement rates on the NAEP test of male and female students; however, there is a ten-point gap between the two genders. Females have maintained the higher achievement rate consistently since 1992. According to the National Assessment

for Educational Progress, females performed higher than their male counterparts in all three reading contexts: reading for literary experience, reading for information, and reading to perform a task (p. 30).

**Reading Achievement by Socioeconomic Status.** The NAEP report shows that there was only a one-point increase in students who were eligible for free lunch and those who were not eligible for a lunch price reduction. There was no significant difference in the score of students who were eligible for reduced lunch prices. The trend, however, between students who are not eligible for free or reduced lunch prices and those who are eligible show a considerable gap in reading achievement rates.

### **Reading Interventions**

The No Child Left Behind Act (2001) has increased accountability on schools through benchmarks for students to be reading at grade level by 2014. Due to the accountability standards that the law has placed upon educators, schools are performing reading interventions. In order to successfully combat the reading deficiencies of students, it is important to determine the most effective strategies in increasing reading achievement.

**Tennessee Growth Plan.** Tennessee was one of two states that piloted a growth plan, which sets goals for meeting the standards enacted by No Child Left Behind. The goals for the Growth Plan include students be able to meet proficiency in Reading/Language Arts by the 2013-2014 school year (Tennessee Department of Education [TDOE], 2006, p. 2). In order to reach this target, the Tennessee Department of Education has established benchmarks for proficiency. The first benchmark, for the 2005-2006 through the 2006-2007 school year, the goal was 83%. It increased to 89%

for the 2007-2008 school year through the 2009-2010 school year. The TDOE raised the level of expectation to 94% for the 2010-2011 school year through the 2012-2013 school year. In accordance with the expectations of the No Child Left Behind Act, the TDOE anticipates that the proficiency level for Reading/Language Arts will reach 100%.

For students in sixth through eighth grades, the meeting of the stated objectives is dependent on their projected score on the high school proficiency standard. “For example, a 6<sup>th</sup> grade student with a projected score on the high school reading/language arts assessment (English II) that falls above the English II proficiency standard will be counted as proficient” (TDOE, 2006, p. 10). Several strategies have been implemented into classes to overcome the achievement deficiencies as measured by the TCAP results.

**Effective Interventions.** It is imperative that educators utilize effective reading interventions to increase the achievement rates of their students. Educational research has recently been conducted to determine the most successful reading interventions. One such study was conducted by Block, Whiteley, Parris, Reed, and Cleveland (2009), comparing instruction on reading comprehension in four school districts in the United States. The study included 660 participants, 53% of whom were male and 47% female. Sixty-two percent came from low to low-middle socioeconomic schools, and 38% came from middle to high socioeconomic schools (p. 262). The study compared six major instructional strategies: workbook practice, silent independent reading with teacher monitoring, situated practice, conceptual reading, transactional learning, and basal readers.

Block et al. (2009) reported that increasing the time of usage of basal readers did not make a significant increase in reading comprehension regardless of the reading ability

level, gender, or ethnicity. The most successful instructional strategies contained the following common features: student choice for guided independent reading practice, reading more than seven pages of continuous text from fiction or nonfiction classroom books, and 15-20 minutes of silent reading that contained specific teacher actions. Block et al. (2009) also stated that:

... Those treatments that produced significantly more achievement for less able readers worked equally well for more able readers... Rather than planning different instructional approaches for different reading levels, instructional approaches should change on the basis of the comprehension skill or strategy the students are to master. (p. 278)

Ryder et al. (2007) studied the effects of explicit instruction in phonemic awareness and phonemically based decoding skills versus New Zealand's centrally controlled literacy education program. When "... compared with other countries like the United States, there is considerably less variation in the reading methods and instructional strategies used in New Zealand classrooms" (p. 356). The researchers administered the Burt World Reading Test, New Zealand Revision to 64 students. Of those who participated in the initial testing, 24 of the lowest scoring students were used as part of the study. Those 24 students were paired to make 12 pairs. One student from each pair was randomly assigned to the intervention group, whereas the other student was assigned to the control group. Ryder et al. (2007) stated that "The tests selected for this study included measures of phonemic awareness, phonological decoding ability, context free word recognition ability, accuracy of recognizing words in connected text, and reading comprehension" (p. 356). Ryder et al. (2007) explained the method of research:

The intervention program was carried out over a period of 24 weeks during the first three terms of a four-term school year. Following the intervention the children in the intervention and control groups were given the same tests that were administered prior to the intervention program. Two years after the intervention, follow-up data were obtained from 10 of the 12 matched pairs using the Burt Test and the Neale Accuracy subtest. The tester for the follow-up testing was blind to group assignment. (p. 355)

Ryder et al. (2007) found that the intervention group scored higher than the control group in every category tested both immediately after the intervention program ended and two years later when the follow-up testing occurred. This research shows that “[f]or children encountering difficulty in developing the ability to intuitively perceive redundant patterns and connections between speech and print, explicit instruction in phonemic awareness and alphabetic coding skills is likely to be critical” (p. 350).

**Marzano.** Marzano, Pickering, and Pollock (2001) shared their findings of nine instructional strategies that affective student achievement. The authors used a meta-analysis to determine the average effect size of selected instructional practices. This information was presented in standard deviation units. The nine analyzed categories of instructional strategies were: (1) identifying similarities and differences, (2) summarizing and note taking, (3) reinforcing effort and providing recognition, (4) homework and practice, (5) nonlinguistic representations, (6) cooperative learning, (7) setting objectives and providing feedback, (8) generating and testing hypotheses, and (9) questions, cues, and advance organizers.

Of the categories of instructional strategies that affect student achievement, identifying similarities and differences showed the greatest effect size (1.61) and a 45-percentile gain. Summarizing and note taking was second with an average effect size of 1.0 and 34-percentile gain. The third most effective category was reinforcing effort and providing recognition with an average effect size of 0.8 and a 29-percentile gain. The next category, homework and practice, showed a 28-point percentile gain with an average effect size of 0.77. Both nonlinguistic representations and cooperative learning showed a 23-point percentile gain, but nonlinguistic representations had an average effect size of 0.77 whereas cooperative learning had an average of 0.73. Setting objectives and providing feedback as well as generating and testing hypotheses both yielded an average effect size of .61 and a 23-point percentile gain. Questions, cues, and advance organizers generated the lowest percentile gain, 22-points, and an average effect size of 0.59 (p. 7).

As in other points in educational history, educators have taken the information from Marzano et al. (2001) and focused on only a few strategies. Many have implemented only those strategies that have the highest return for their investments. Marzano et al. (2001) stated that “their focus was only on the instructional strategies component of classroom pedagogy and suggested that classroom management and curriculum design also played key roles in effective pedagogy” (p. 10).

Marzano (2009) cautioned educators to prevent three major mistakes in implementing the nine categories of instructional strategies that he and his colleagues reported as being effective eight years earlier. He stated, “While beginning with a narrow focus is legitimate, a school or district must expand the breadth of its discussion of effective teaching” (p. 32). Marzano indicated that the strategies with the highest

probability of positively affecting student achievement do not apply in every situation within the classroom. Different strategies should be used for specific purposes; Marzano warns against using the strategies as a one-size-fits-all solution to classroom instruction. His final caution to educators was to not presume that the high-yield strategies would be the most effective in every classroom situation. There are other factors that affect the successfulness of increased student achievement. He stated, "If a strategy doesn't appear to be working well, educators must adapt the strategy as needed or use other strategies" (p. 35).

**A Vision for Literacy.** In their report to the Adolescent Literacy Funders Forum at its annual meeting, Biancarosa and Snow (2004) presented their results in a discussion between a panel of five nationally known researchers and representatives from the Carnegie Corporation of New York and the Alliance for Excellent Education. The researchers and representatives used current literature and personal experience to determine ways in which the field of education could improve student achievement (p. 19). They found fifteen components that would improve student literacy achievement, including nine instructional improvements and six infrastructure improvements. The nine instructional elements suggested are: (1) direct, explicit comprehension instruction, (2) effective instructional principles embedded in content, (3) motivation and self-directed learning, (4) text-based collaborative learning, (5) strategic tutoring, (6) diverse texts, (7) intensive writing, (8) a technology component, and (9) ongoing formative assessment of students (p. 12).

Direct, explicit comprehension instruction includes comprehension strategies, comprehension monitoring and metacognition instruction, teacher modeling, scaffolding

instruction, and apprenticeship models. Biancarosa (2005) stated that, "...comprehension instruction must occur throughout a student's education, especially in the grades where demands increase: 4<sup>th</sup> through 12<sup>th</sup> grade" (p. 17). As explained by The Cognition and Technology Group at Vanderbilt (1990), "Inert knowledge is knowledge that can usually be recalled when people are explicitly asked to do so but is not used spontaneously in problem solving even though it is relevant" (p. 2). Biancarosa and Snow (2004) indicated that content-area teachers should help their students read like they would if they were experts in those fields (p. 15). The Cognition and Technology Group at Vanderbilt (1990) stated how to provide content-rich experiences:

We attempt to do so by creating environments that permit sustained exploration by students and teachers and enable them to understand the kinds of problems and opportunities that experts in various areas encounter and the knowledge that these experts use as tools. (p. 3)

Biancarosa and Snow (2004) noted that motivation is key to learning and suggested allowing students to choose reading materials on their own as a way to nurture their intrinsic motivation. Text-based cooperative learning involves students interacting with texts, rather than merely discussing a topic. Ryder et al. (2007) explains, "Children can be taught what they need to know to learn to read 'as the need arises' through frequent encounters with absorbing reading materials" (p. 351). Giving students the strategies to overcome specific obstacles in reading is found in strategic tutoring.

Ryder et al. (2007) suggested that students be exposed to a wide range of topics to "...include a wide variety of cultural, linguistic, and demographic groups" (p. 18). They suggested that students also write intensively, paying attention to applying critical

thinking while allowing them opportunities to respond to situations in which they may be required to write in the future, both in school and out. Educators should use technology in their classrooms. Biancarosa and Snow (2004) stated that:

As a tool, technology can help teachers provide needed supports for struggling readers, including instructional reinforcement and opportunities for guided practice... As a topic, technology is changing the reading and writing demands of modern society. Reading and writing in the fast-paced, networked world require new skills. (p. 19)

The ninth instructional component of effective literacy instruction is ongoing formative assessment. This allows teachers to monitor the students' needs and address them promptly. Students are able to make corrections and learn new techniques in addressing similar tasks in the future. The authors noted that there is never going to be one solution to meet the needs of all students. "The need is for better dissemination, evaluation, and comparison of interventions that work, so administrators and teachers can better select the interventions that are most appropriate for their individual students" (Biancarosa and Snow, 2004, pp. 10-11).

## **READ 180**

Due to the number of students who are not reaching the proficiency goals in literacy, along with the increased accountability standards placed on schools, there have been many reading intervention programs introduced to the world of education. READ 180, published by Scholastic, Inc. is one such program. The program utilizes a variety of instructional strategies to assist at-risk students in strengthening targeted areas of weakness in reading and writing.

The Scholastic, Inc. (2005) stated that “a successful, systematic reading intervention must incorporate the following six elements: (1) scientific research base, (2) proven results, (3) comprehensive instruction, (4) purposeful assessment, (5) data-driven instruction, and (6) professional development” (pp. 8-9). The READ 180 program is designed to meet or help students overcome their deficiencies in reading and writing by applying each of the components in a carefully calculated manner. The Scholastic, Inc. (2005) web site claimed, “... data from schools across the country show that *READ 180* students frequently improve their reading levels by 2-5 years” (<http://teacher.scholastic.com/products/read180/overview/faq.htm>).

The research base for the READ 180 program began in 1985, when Dr. Ted Hasselbring headed a joint effort between the Orange County, Florida schools and Peabody College of Vanderbilt University (Hasselbring, Goin, Taylor, Bottge, and Daley, 1997; Scholastic, Inc., 2005). The program, called the Orange County Literacy Project, premiered in three middle school classrooms during the 1994-95 school year. It grew to 13 schools the following year and district-wide the next year (Hasselbring et al., 2005, p. 30). The program had four principles upon which it was based: (1) a two-hour block for literacy instruction, (2) no more than 20 students in each class, (3) two complementary approaches to literacy, the Peabody Learning Lab and the Literacy Workshop, and (4) ongoing professional development.

The Peabody Learning Lab was a computer-based program that was “... designed to improve the word recognition, reading comprehension, and spelling skills of middle-level students” (p. 31). The Lab featured a computer-animated tutor that provided the students with a reading lab, a word lab, and a spelling lab. The students watched a short

video segment when beginning a new reading lab, which gave the students background information about the text. The students would read a passage, while the tutor assessed their ability to read it. Based on the assessment, individualized reading assignments were populated for the students (p. 31). Teachers participated in more than a week of professional development activities to learn how to effectively implement the Peabody Learning Lab.

READ 180 has been implemented in school districts across the country. Scholastic, Inc. (2005) reported that average reading achievement rates, measured as Normal Curve Equivalents, were at least double in the city schools in Boston, Dallas, and Columbus from Spring 2000-Spring 2003 (p. 8, 15). The program has an extensive comprehension element, informative assessments, and a data-drive instruction element. The comprehensive instruction element emphasizes reading, writing, and vocabulary, and includes whole-group instruction with small-group rotations.

According to the Scholastic, Inc. (2009a) web-site, the READ 180 Instruction Model is based on a 90-minute block of time, which begins with 20 minutes of teacher-led whole-group instruction (<http://teacher.scholastic.com/products/read180/overview/faq.htm>). Next, the students rotate between three stations for 20 minutes each: small-group instruction, instructional software, and modeled and independent reading. The remaining 10-minutes is used to wrap up the class in a whole group setting.

Led by the teacher, the small-group instruction station targets specific areas that the students need to strengthen. The teacher also gives support in the reading of the students' required reading. Scholastic, Inc. (2005) indicated:

The *READ 180* Topic Software provides struggling readers with customized instruction, immediate feedback, and individualized practice to address their unique reading needs. The Topic Software collects data based on individual responses and adjusts instruction to meet each student's needs in the areas of decoding, word recognition, fluency, comprehension, vocabulary, and spelling. (p. 54)

Modeled and independent reading are designed to allow students to listen to a fluent reader and practice their own reading. Modeled reading is provided via audiobooks that each have a narrator and Reading Coach. The students are then able to choose from an assortment of paperback books that are available in a range of reading levels and high-interest topics (p. 70). Once the students complete the reading of their chosen book, they take a computer-based quiz. The program assesses the students' comprehension, vocabulary, and grammar, and data becomes available for the teacher.

According to Scholastic, Inc. (2005), another assessment program, the Scholastic Reading Inventory (SRI), is used to determine the students' reading levels. "SRI is a research-based, computer-adaptive reading assessment for Grades K – 12 that measures students' level of reading comprehension and reports it using the Lexile Framework® for Reading"

(<http://teacher.scholastic.com/products/sri/overview/compAdaptiveAssessment.htm>).

The assessment program allows students to select an area of interest, and then gives a series of questions within the area of interest. Since the SRI is a computer-adaptive program, it recognizes when a student responds to a question incorrectly and it adapts by giving a slightly easier question. If the student responds correctly, the questions will

become slightly more difficult. The assessment takes approximately 20 minutes. Once finished, the student received a Lexile score.

MetaMetrics, Inc. (2009) indicated their Lexile Framework can be used to help students select books that meet their reading level. The Framework calculates both the reader's Lexile measure and the texts' Lexile measure. The Lexile reader measure gauges the reader's reading level, whereas the Lexile text measure assesses the difficulty level of the text. By appraising both levels, the reader can choose high-interest books that are within their reading ability. The Lexile Framework® for Reading can also be used "...to monitor a reader's growth in reading ability over time" (<http://www.lexile.com/about-lexile/lexile-overview/>).

As with any reading intervention, it behooves educators to engage in professional development opportunities. Scholastic, Inc. provides educators with such chances by facilitating online courses that "introduce key pedagogical ideas and best-practice strategies that you can immediately implement in the classroom" (Scholastic, Inc., 2005, p. 165). Scholastic, Inc. also offers a series of ongoing READ 180 seminars to provide instructional support.

READ 180 uses the six elements of an effective, comprehensive program to support the literacy needs of at-risk learners. A variety of strategies, including the use of technology, are utilized to accurately assess the students' areas of strength and those that need to be strengthened. The teacher is then able to target the areas that need to be strengthened and accentuate the areas of strength. This assists the students to become stronger, more fluent readers.

## Conclusions

Reading achievement rates have been less than satisfactory for many years. There has been a consistent gap between Caucasian students and African-American and Hispanic students. There has also been a gap between students who are not eligible for free or reduced price lunches and those who do qualify. The No Child Left Behind Act (2001) has increased the accountability standards to which educators are held. Due to the discrepancy between raised accountability standards and the lag in reading achievement rates, there is a great need for targeting students with below proficiency rates.

Historically, there have been a number of approaches to teaching reading. Phonics and Whole Language were the forerunners of literacy education for centuries. However, in recent years, educators have taken a more balanced approach to teaching reading. They have blended the best elements of Phonics and Whole Language to create a more effective approach. There are several strategies that an educator can implement in their classrooms to enhance the learning opportunities.

After years of research with proven results, Scholastic, Inc. introduced their reading intervention program, READ 180, to the world of education. The program utilizes whole- and small-group instruction, modeled and independent reading, and assistive technology to target students' needs in reading. Instruction is data-driven, which helps teachers to direct their lessons to the specific skills and concepts in which the students are struggling to comprehend. The program also promotes continual professional development so that the teachers are aware of best practices and strategies, which is essential to the effective implementation of any approach to teaching reading.

## CHAPTER III

### Methodology

#### Overview

As reported at the Board of Education meeting in May 2009, the Clarksville-Montgomery County School System (2009d) had fully implemented READ 180, a reading intervention program, in all of the district's middle schools (<http://www.cmcss.net/documents/schoolboard/minutes/20080513.pdf>). The program focuses on students who are significantly below grade level in reading. The program, however, is a component in the Unfunded Budget requirements for the school system. This means that, without increased funding in the coming years, the district will run out of funds to maintain full implementation of the program. It is important that the district determine the effectiveness of the reading intervention program to ascertain the cost-benefit ratio. The researcher evaluated the impact READ 180 has had on middle school-aged students.

#### Research Design

Ex post facto research was used to determine the impact READ 180 has had on middle school-aged students. The researcher collected pre- and post-assessment data, which was analyzed using Microsoft Excel. This data showed the impact that READ 180 has had on middle school-aged students.

#### Participants

The population from which the sample for this research was taken represents a diverse group of students. The Clarksville-Montgomery County School System serves approximately 29,000 students and employs about 3,900 teachers, administrators, and

support staff (Clarksville-Montgomery County School System, 2009c). The Clarksville-Montgomery County School System is the seventh largest school district in the state with a student population that is 61.2% white, 27.6% African-American, 7.7% Hispanic, 2.7% Asian/Pacific Islander, and .5% Native American/Alaskan (Clarksville-Montgomery County School System, 2009b).

The sample for this study consisted of students who participated in the reading intervention program, READ 180, in their sixth, seventh, and eighth grades, which were the 2007-2008, 2008-2009, and 2009-2010 school years. They were admitted to the program based on their results on the Language Arts portion of the Tennessee Comprehensive Assessment Program.

### **Instrument**

The researcher utilized data from the Language Arts segment of the Tennessee Comprehensive Assessment Program (TCAP). The TCAP is administered to all students in third through eighth grades in Tennessee in the spring of every school year. The program measures the students' understanding of the state-wide curriculum standards. Each child is given a score based on a Normal Curve Equivalent (NCE) as well as a percentile ranking. For this study, the NCE of the Language Arts section of the test was used to determine the effects of READ 180 on students who were in the program throughout their middle school years. However, due to the adjustments to the curve equivalents of the TCAP during the 2008-2009 school year, the researcher was only able to analyze the 2006-2008 TCAP data.

## **Procedure**

The researcher began this study by collecting data about individual participants. The Clarksville-Montgomery County School System Consulting Teacher for the READ 180 Program provided the participants' results from the Tennessee Comprehensive Assessment Program test. Then, the information was disaggregated and entered into a Microsoft Excel spreadsheet. The researcher used the functions of the Excel program to determine the impact READ 180 has on middle school aged students by testing each of the null hypotheses.

## **Data Analysis Plan**

After the data were collected, the researcher analyzed the data using a data analysis program. The researcher used a paired, two-tailed *t*-Test to compare the student achievement rates before beginning the READ 180 program to the student achievement rates upon completion of the first year of participation in the program. The researcher also used paired, two-tailed *t*-Tests when comparing the impact on TCAP scores of READ 180 participants based on gender, socioeconomic status, and ethnicity. The *t*-Tests were calculated at the significance level, or alpha ( $\alpha$ ) level, of 0.05.

## CHAPTER IV

### Presentation and Analysis of Findings

#### Introduction

This study was conducted to determine what effects, if any, the reading intervention program, READ 180, has had on students in one Middle Tennessee school system. The focus was the effects on the students who had been in the program during all three middle school grades: sixth, seventh, and eighth grades. There were 33 participants in the READ 180 program for all three years, but for the purpose of this study, the researcher omitted three participants because they did not have either the baseline or comparative scores available. This may have been caused due to the students coming from another state; therefore, they would not have taken the TCAP test. Table 1 shows the demographic information for the participants in this study.

Table 1.

#### *Demographic Information of Sample Population*

| Group                    | Gender | N  |
|--------------------------|--------|----|
| Total                    | Female | 18 |
|                          | Male   | 12 |
| Low Socioeconomic Status | Female | 15 |
|                          | Male   | 9  |
| African-American         | Female | 14 |
|                          | Male   | 7  |
| White                    | Female | 4  |
|                          | Male   | 5  |

There were 18 females and 12 males in the program. Of the 30 participants, 21 were African-American students and nine White students. Twenty-four of the 30 participants were approved for free or reduced lunch prices, and therefore, identified as having a low socioeconomic status. All 30 participants participated in TCAP testing in fifth and sixth grades, which included the school year prior to and the end of the first school year that the students participated in READ 180 program. The TCAP results are reported as NCE scores ranging from 1-99. The NCE scores show where students stand in comparison to other students in the grade level and subject areas that have taken the TCAP assessment.

### **Analysis of Findings**

The researcher used Microsoft Excel to analyze the data by creating a spreadsheet to calculate a paired, two-tailed  $t$ -Test at the  $\alpha = .05$  level to test each of the hypotheses.

#### **Hypothesis 1**

There will be no statistically significant difference between student achievement rates before beginning the READ 180 program and completion of the first year of the READ 180 program.

The researcher utilized the participants' fifth grade NCE scores from the 2006-2007 school year, which were the scores earned on the TCAP in the year prior to beginning READ 180. The mean of the 2006-2007 NCE scores was 28.63 with a standard deviation of 7.58. The researcher used a paired, two-tailed  $t$ -Test that was tested at the  $\alpha = .05$  level to test the baseline scores to the NCE scores that the READ 180 students had earned on the TCAP in the 2007-2008 school year, or the participants' first year in the program. The students' mean NCE scores for the 2007-2008 school year was 23.77 with

a standard deviation 12.26. The *t*-Test yielded at  $p = 0.05$ . The results lead the researcher to reject the null hypothesis. Table 2 illustrates the results of the *t*-Test.

Table 2.

*Two-tailed, paired t-Test at the  $\alpha = .05$  level evaluating student achievement rates before beginning the READ 180 reading intervention program and upon completion of the first year of the program.*

| School Year | Mean  | Standard Deviation | p-Value |
|-------------|-------|--------------------|---------|
| 2006-2007   | 28.63 | 7.58               | 0.05*   |
| 2007-2008   | 23.77 | 12.26              |         |

\*Significant at  $p < 0.05$

There was a statistically significant difference between student achievement rates before beginning the READ 180 program and completion of the first year of READ 180; however, the results showed a statistically negative difference between student achievement rates before beginning the READ 180 program and completion of the first year of program. It is notable that  $p = 0.05$  because it is on the cusp between rejecting and retaining the null hypothesis.

## **Hypothesis 2**

There will be no statistically significant difference between the TCAP scores of READ 180 participants based on gender.

Of the 30 participants in this study, 18 were female and 12 were male. The researcher used a paired, two-tailed *t*-Test to determine whether the females who participated in the READ 180 program during their sixth grade year had any statistically

significant differences than that of the males who participated in the program during that same year. The *t*-Test resulted in a  $p = 0.88$  for females and  $p = 0.02$  for males. Based on these results, the researcher retained the null hypothesis for females, but rejected the null hypothesis for males. This means that READ 180 made a statistically significance for males who participated in the program for the first year of middle school; however, females did not demonstrate a statistically significant difference in their Language Arts TCAP NCE scores despite participating in the reading intervention program at the same time. Male students showed a decline in mean NCE scores on the Language Arts portion of the TCAP test. Table 3 shows the findings of the *t*-Test results of the comparison between the TCAP scores of male and female participants.

Table 3

*Two-tailed, paired t- Tests at the  $\alpha = .05$  level comparing TCAP scores of READ 180 participants based on gender.*

| Gender | N  | Mean  | Standard Deviation | p-Value |
|--------|----|-------|--------------------|---------|
| Female | 18 |       |                    |         |
|        |    | 26.72 | 7.68               |         |
|        |    |       |                    | 0.09    |
|        |    | 26.33 | 9.07               |         |
| Male   | 12 |       |                    |         |
|        |    | 31.50 | 6.74               |         |
|        |    |       |                    | 0.02*   |
|        |    | 19.92 | 15.56              |         |

\*Significant at  $p < 0.05$

### Hypothesis 3

There will be no statistically significant difference between the TCAP scores of READ 180 participants based on socioeconomic status.

Table 4 displays the researcher's findings when comparing TCAP scores of READ 180 participants based on socioeconomic status.

Table 4

*Two-tailed, paired t- Tests at the  $\alpha = .05$  level comparing TCAP scores of READ 180 participants based on socioeconomic status.*

| Socioeconomic Status | N  | Mean  | Standard Deviation | p-Value |
|----------------------|----|-------|--------------------|---------|
| Low                  | 24 |       |                    |         |
| 2006-2007            |    | 27.58 | 7.20               |         |
| 2007-2008            |    | 24.79 | 12.56              | 0.27    |
| Not Identified       | 6  |       |                    |         |
| 2006-2007            |    | 32.83 | 8.23               |         |
| 2007-2008            |    | 19.67 | 11.00              | 0.09    |

The researcher further investigated the differences between the Language Arts TCAP NCE scores of READ 180 participants based on their socioeconomic status. The researcher used the students' eligibility to receive Free and Reduced Price Meals as outlined by the United States Department of Agriculture (2011). Of the 30 READ 180 participants studied, 24 were considered to be of low socioeconomic status. A paired,

two-tailed *t*-Test, calculated at the  $\alpha = .05$  level, generated  $p = 0.27$  for students who were of low socioeconomic status. Based on this value, the null hypothesis was retained. The differences in means comparing the NCE mean in 2006-2007 to the NCE mean in 2007-2008 exhibited a decline from beginning the READ 180 program and the completion of the first year of the program. Likewise, the students who were not considered to be of low socioeconomic status also indicated a decline in means. The null hypothesis was retained for this group of students as well because a paired, two-tailed *t*-Test at the  $\alpha = .05$  level revealed no statistically significant difference in TCAP scores by producing a  $p = 0.09$ .

#### **Hypothesis 4**

There will be no statistically significant difference between the TCAP scores of READ 180 participants based on ethnicity.

There were 21 African-American students and nine White students for this study. When analyzing the difference of TCAP scores for African-American students, the researcher utilized a paired, two-tailed *t*-Test at the  $\alpha = .05$  level that resulted in a  $p = 0.26$ . This led the researcher to retain the null hypothesis. The means for TCAP scores for these students declined from the year before the students began READ 180 to the end of their first year in the program. The means for TCAP scores for White students also decreased during that same time period. When analyzing any differences in White students, the paired, two-tailed *t*-Test evaluated at the  $\alpha = .05$  level produced a  $p = 0.11$ , so the researcher retained the null hypothesis. Table 5 indicates the data analysis based on ethnicity.

Table 5

*Two-tailed, paired t- Tests at the  $\alpha = .05$  level comparing TCAP scores of READ 180 participants based on ethnicity.*

| Ethnicity        | N  | Mean  | Standard Deviation | p-Value |
|------------------|----|-------|--------------------|---------|
| African-American | 21 |       |                    |         |
| 2006-2007        |    | 26.90 | 7.75               |         |
| 2007-2008        |    | 23.76 | 12.25              | 0.26    |
| White            | 9  |       |                    |         |
| 2006-2007        |    | 32.67 | 5.66               |         |
| 2007-2008        |    | 23.78 | 13.05              | 0.11    |

### Summary

After completing paired, two-tailed *t*-Tests at the  $\alpha = .05$  level, the researcher found that the READ 180 program had negative effects on students who participate in the program during the sixth grade. The researcher also determined that the program had varying effects on males versus females; females showed no statistically significant difference in their TCAP scores, but males did show a statistically significant difference. There were no statistically significant differences in TCAP scores based on socioeconomic status. There were differences in the outcomes of paired, two-tailed *t*-Tests at the  $\alpha = .05$  level that compared READ 180 scores based on ethnicity. For

African-American students, the researcher found that there were no statistically significant differences in TCAP scores; however, there was a statistically significant difference in TCAP scores for White students. The researcher was unable to ascertain any differences in Hispanic students because there was only one Hispanic student in the READ 180 program for the middle school grades.

## CHAPTER V

### Summary, Conclusions, and Recommendations

#### Summary of the Study

The purpose of this study was to determine the effect of READ 180 on the student achievement rates of middle school students based on NCE scores from the Language Arts portion of the TCAP. Paired, two-tailed *t*-Tests, calculated at the  $\alpha = .05$  level, were utilized to test four null hypotheses. The researcher analyzed the data collected from the TCAP scores of 30 CMCSS students from the system's seven middle schools.

#### Conclusions

When comparing the student achievement rates of students who participated in the reading intervention program, READ 180, during their sixth grade year the researcher found that there was a statistically significant negative difference in achievement rates. The program made no statistically significant difference in achievement based on socioeconomic status. When disaggregated on the basis of gender, the researcher found that READ 180 had mixed effects on achievement. Although all subgroups saw declines in the achieved mean scores, only males showed a statistically significant negative difference; no statistically significant differences were yielded in any other subcategory in this study.

The limitations of this study should be considered when reviewing the results. Since the TCAP test was renormalized during the 2008-2009 school year, the data analysis was limited to only the first year of the students' three years of participation READ 180 program; the data analysis shows only very short term effects of the READ 180 program on middle school students. Re-evaluating the Language Arts portion of the

TCAP to determine the long-term effects of READ 180 on reading proficiency rates would be beneficial in helping to make decisions about whether to keep, modify, or discontinue use of the program in CMCSS.

The researcher used only students who had participated in the READ 180 program for three years; there may be other students who had been in the program during the 2007-2008, but whose test scores were not analyzed. The data that was analyzed included the pilot year, which may have lent itself to negative results due to lack of execution in the implementation of the program.

### **Recommendations**

This study was limited to a small sample of students. It would be helpful to extend this study to include all students who were in READ 180 during their sixth grade year. After the 2011-2012 school year, it would be beneficial to re-evaluate the effect that READ 180 has on students in or because the renormalized TCAP results will be able to be utilized to compare student achievement rates in Reading/Language Arts. Research may also be conducted by using other measures of student achievement rates, such as the Scholastic Reading Inventory that is imbedded in READ 180 and computes students' Lexile levels.

It would be beneficial to broaden this study to include neighboring counties who have implemented the READ 180 program to compare the effects that the program has on student achievement rates. Although this study shows a negative effect on the students' TCAP NCE scores, the negative effect cannot necessarily be attributed solely on READ 180. These students were identified as being "at-risk" before being placed in the

intervention program. This means that these students may have also had negative gains if they were not in the program.

Each of Clarksville-Montgomery County School System's seven middle schools have implemented the reading intervention program, READ 180; therefore, there are seven different teachers, at any given time, who are teaching READ 180 in CMCSS. This study did not determine the total number of instructors who taught READ 180 during the 2007-2008 school years. It should be considered that these teachers have teaching styles that would influence the means of employing the lessons found in the program guide and may shape the students' responses to the interventions.

For the purposes of this study, it was assumed that all teachers were highly qualified to teach Reading/Language Arts as determined by No Child Left Behind (2001). Although these teachers were highly qualified, there were differences in the experience levels of the individual teachers. A lack of teaching experience may have caused inconsistencies in classroom management, which may have had a negative effect on the implementation of the program. All teachers in the Clarksville-Montgomery County School System are required to complete a minimum of 18 hours of professional development. This study did not focus on the professional development opportunities offered to and/or taken by READ 180 teachers. All teachers in the Clarksville-Montgomery County School System are required to complete a minimum of 18 hours of professional development annually, but they do not require those professional development hours to be obtained in any particular subject area. It may be beneficial to study the effects professional development of READ 180 teachers have on the implementation and effectiveness of the program.

Once this data was analyzed, it may be helpful to further analyze data to determine whether the READ 180 teachers would benefit from professional development opportunities that were tailored to the specific needs of READ 180 teachers. It could be that teachers need to participate in classroom management, whole group teaching strategies, small group instructional strategies, or technology-based instruction. All teachers need to feel confident in employing the strategies prescribed by the READ 180 program. The teachers must also receive the same information and training so that all teachers will be consistent in their implementation and execution of the program.

An assumption of this study was that all teachers followed the scripted lessons provided by Scholastic. It is possible, however, that some teachers have strayed from the script at some points during the years of this study, even if to add personal examples to support the lesson. Without strictly following the lesson plans, the program may not have its expected effect, which would be a premise for further study. On the contrary, the teachers may have meticulously followed the scripted lessons, so there needs to be additional investigation to determine whether the READ 180 program is aligned with the curriculum standards assessed on the TCAP. Discrepancies between the two may account for some of the results seen in this study.

Because the TCAP combines Reading and Language Arts skills into one test, it may be helpful to determine if all of the skills that are being tested are being taught in the READ 180 program. To determine the effectiveness of READ 180, it is imperative for the teachers to implement the program consistently while ensuring that all state curriculum standards are being taught throughout the year. Since the TCAP is the

measure for student growth in Tennessee, READ 180 should be aligned with the TCAP in order for the effectiveness of the reading intervention program to be realized.

It may also be beneficial to study the differences in Reading/Language Arts deficiencies before beginning READ 180. This study did not determine how far behind grade-level each child was before beginning the program, so it is possible that students were far below the grade-level expectations and were unable to “catch up” to meet those expectations in their middle school grades. Knowing how long it takes students to grow to meet the expected proficiency levels may help the schools to target the students who have the best chances of growth when participating in READ 180.

This study did not take into account the individual participants’ attitudes about participating in the READ 180 program. It may be helpful to understand if student attitudes towards being in the program affect the outcome of the instruction. Students who understand that they need reading interventions to reach acceptable proficiency levels may have a different experience in the READ 180 program than a student who may be apprehensive about being in the program. Having this data available, schools may be able to target students that would gain the most from participating in the program. It would also be beneficial to determine whether their peers impact READ 180 participants. Middle school students may be affected by labels they receive when being in a program such as READ 180, which would help school staff to be able to proactively in the combat against any negative labeling by other students.

The results of this study show that there is no statistically significant difference between the TCAP scores of READ 180 female participants, which is grounds for additional study. It should be considered that these “at-risk” students should be given

reading materials that are of interest to them in order to get them to buy into the program and achieve greater gains. Conversely, additional research needs to be conducted to determine whether the materials do not appeal to male students, which may account for statistically significant negative effects. It would be beneficial to determine what types of reading materials would be most effective in helping students improve their reading proficiency levels. These materials could possibly be adopted for the READ 180 program.

It would also be advantageous to determine whether the program's materials should vary based on region and demographics. It would be helpful to know whether a particular set of reading materials and READ 180 lessons were more effective than others. For instance, would one set of materials be best used in rural areas versus urban areas or a highly mobile population versus a sedentary population? Clarksville-Montgomery School System serves a diverse population. It would be helpful to be able to tailor the READ 180 materials to meet the needs of each of the middle schools' students.

This study showed that students who participated in the first year of the READ 180 program at the middle school level made negative gains on their Language Arts portion of the TCAP assessment. Since the READ 180 program was designed to be a two-year program, it would be beneficial to further explore the effectiveness of the READ 180 program on students who are in the program for two consecutive years. If this study had been expanded to include all students who had been in the program for two years, the data analysis may have yielded different results.

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## Appendices

Appendix A

Clarksville-Montgomery County School System Letter of Approval for Study

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Sallie Armstrong, Ed.D.  
Curriculum & Instruction Director

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Board of Education    621 Gracey Avenue    Clarksville, Tennessee 37040  
931-920-7819    Fax: 931-920-9819    email: [sallie.armstrong@cmcss.net](mailto:sallie.armstrong@cmcss.net)

May 28, 2010

Dear Ms. Henley,

Our Research Committee has met and approved your request to conduct research using archival data from Read 180 participants at Rossvie Middle School from 2008 to the present. You may contact the principal for further permission. Please send the District a copy of your results when completed.

Sincerely,

A handwritten signature in cursive script that reads "Sallie Armstrong".

Sallie Armstrong, Ed.D.  
Curriculum and Instruction Director

SA/lp

Appendix B

Clarksville-Montgomery County School System Approval for Use of Additional Data

**request to utilize additional data**

Sallie Armstrong

Sent: Monday, October 04, 2010 7:49 AM

To: Rachel Henley

This request is approved.

Sallie Armstrong, Ed.D.

Director of Curriculum and Instruction

Clarksville Montgomery County Schools

621 Gracey Avenue

Clarksville, TN 37040

931 920 7819



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CONFIDENTIALITY NOTICE: This e-mail and all attachments with it may contain confidential information intended solely for the use of the addressee. If you have received this message in error, please notify the sender immediately by electronic mail and delete this message and all copies and backups thereof.

Appendix C

Austin Peay State University Institutional Review Board Approval

Jan. 19, 2010

Rachel Henley  
116 Bellamy Court  
Clarksville, TN. 37043

RE: Your application regarding study number 09-047 A comparison of student achievement in Read 180 as measured by Tennessee Comprehensive Assessment Program and Scholastic Reading Inventory assessment scores.

Dear Ms. Henley,

Thank you for your application for the study above. The Austin Peay IRB has reviewed your application and has approved it pending the following modifications:

- Provide a complete description of the data set you will use. List the variables it will include, and indicate whether personally identifiable information will be included.
- Provide documentation that the school system has approved the project.
- Revise the answer to #1 of the IRB application so that it is clear you are looking at the effects Read 180 on student achievement.
- Provide a more detailed description of where the data will be stored, and how it will be protected.

Once you have provided documentation to the IRB that the modifications have been made, you are free to conduct your study. Your study is subject to continuing review on or before Jan. 19, 2011, unless closed before that date. Enclosed please find the forms to report when your study has been completed and the form to request an annual review of a continuing study. Please submit the appropriate form prior to Jan. 19, 2011

Please note that any changes to the study as approved must be promptly reported and approved. Some changes may be approved by expedited review; others require full board review. If you have any questions or require further information, contact me at (221-7231; fax 221-6267; email [grahc@apsu.edu](mailto:grahc@apsu.edu)).

Again, thank you for your cooperation with the APSU IRB and the human research review process. Best wishes for a successful study!

Sincerely,



Charles R. Grah  
Chair, Austin Peay Institutional Review Board

Appendix D

Austin Peay State University Institutional Review Board Approval

Approval Provided After Requested Revisions

Stewart, Gary

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n:  
t:

Grah, Charles  
Monday, August 16, 2010 2:42 PM  
Rachel.Henley@cmcss.net  
Stewart, Gary; Lujan, Jennifer D.  
IRB proposal 09-047

ject:

ve reviewed the revision of your IRB proposal (09-047). I believe that you have made the changes requested by the  
. Therefore, free to begin your study without further delay.

od luck to you.

ddy Grah  
hair, IRB