**THE EFFECT OF PARTICIPATION IN READ 180 ON SIXTH GRADE
STUDENTS' READING ACHIEVEMENT**

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ABSTRACT

This non-experimental study was conducted to determine the effectiveness of the READ 180 reading program's impact on sixth grade reading achievement, as measured by the Missouri Assessment Program (MAP). Sixth grade students in the Platte County R-3 school district during the 2008-2009, 2009-2010, 2010-2011, and 2011-2012 academic school years were the population for this study. Over the four academic school years, teachers recommended 155 sixth grade students for READ 180, though only 148 of these enrolled in the course.

Three research questions provided a framework to better understand the impact that READ 180 had on the achievement of struggling readers. Research question one addressed the difference in the change in reading achievement between students enrolled in READ 180 and students not enrolled in READ 180. A one-way ANOVA revealed a statistically significant difference between the groups. Research question two addressed the difference in the change in reading achievement between READ 180 students enrolled in the free and reduced lunch program and READ 180 students not eligible for the program. A one-way ANOVA revealed no statistically significant difference between the groups. Finally, research question three addressed the change in reading achievement between READ 180 students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade. A one-sample *t* test revealed significant reading growth for those students.

The intent of this study was to determine the effectiveness of READ 180 in assisting at-risk students to improve on the MAP reading assessment, thus reducing the achievement gap. Data from this study can help educational leaders make informed

decisions regarding the utility of READ 180. The implications of the results from this study are far reaching. READ 180 students made significant achievement gains over one year of prescribed intervention. Given the findings of this study, teachers, administrators, schools, or districts considering a reading intervention are encouraged to utilize READ 180 to increase the achievement of struggling readers.

DEDICATION

How do you accurately thank someone or a group of people for their loyal support over six years? A place in my dissertation dedication will have to suffice.

To my wife, Heather, words cannot express how thankful I am for your support, companionship, and patience over the last six years of this journey. You have served as my coach, counselor, and trainer throughout this process, and without you I would have simply been another "all but dissertation" statistic. We have made it through several moves, building houses, and now completing a doctoral degree…we can get through anything together. I love you!

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To my father, Gary, you, as well, have taught me many lessons over the years. I was always amazed while growing up at how many things you could do. You have

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Teachers, counselors, and administrators serve students of all ages and backgrounds. While teaching and learning remains the foundation of the educational profession, it is important to recognize that educators serve as role models and provide inspiration to the students they encounter. Thank you, Dr. Tom Burnett, for serving as a role model and mentor to me, not only as your nephew, but also as a fellow educator. Your work in education, professionalism, and service to others has always been an inspiration!

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CHAPTER ONE

INTRODUCTION

In an age of increasing accountability, educators are turning more than ever before to student data to drive instructional decisions. Educational leaders now turn to raw numbers to drive classroom practices. The age of "pet lessons" has given way to a culture in which teachers, administrators, and central office leaders are collaborative data analysts in an effort to define what best-practice should look like in their classrooms (Cooter, Mathews, Thompson, & Cooter, 2005).

Marzano (2003) stated there should be no discrepancy between the intended curriculums, district specified content, and the implemented curriculum or actual content delivered in the classroom. With the adoption of the Common Core Standards in 2010, the State of Missouri has been adhering to Marzano's recommendation. The Common Core State Standards initiative provides consistent and clear standards of student learner expectations (Common Core Standards Initiative, 2012).

This paradigm shift to Common Core is vital to improving the success of students in the classroom. Increased reliance on data, however, has also caused educators to face a harsh reality, in particular the growing gap that exists in schools today in reading achievement. Across the nation, some of the most struggling readers are being left behind. Stuart Kerachsky, Acting Commissioner of the National Center for Education Statistics (NCES), illustrated this bleak picture of widening achievement gaps when he addressed the NCES General Assembly in July 2009. According to Kerachsky, only eight states posted a reading achievement gap between black and white students of fewer than 27 points in 2007, which was the national average that year (NCES, 2011).

Statement of the Problem

One of the most concerning achievement gaps occurs between students who are eligible for the National School Lunch Program (free or reduced priced lunch) and those who are not eligible. To qualify for this program, the incomes of these students' families cannot exceed the poverty wage set by the federal government. These students are considered by many schools to be "at risk" of not meeting academic success. While socioeconomic status is one characteristic of an "at-risk" student, researchers have identified several other factors that characterize these students (Hixson & Tinzmann, 1990). These factors include low academic performance, parent graduation status, and the use of English as a second language at home (Barr & Parrett, 1995). Researchers with the Alliance for Excellent Education (AEE, 2007) found that students living in households with incomes below the poverty level have an increased incidence of low literacy scores. There is enough research for schools to consider students within these subpopulations to be at risk of failing.

"There are approximately 8.7 million fourth through twelfth graders in America whose chances for academic success are dismal because they are unable to read and comprehend the material in their textbooks" (Kamil, 2003, p. 1). Due to this lack of functional literacy in students, schools in the United States are providing remedial reading instruction in a large proportion of middle and high school students (Deshler, Palincsar, Biancarosa, & Nair, 2007). Yet, there is little understanding of which programs are likely to be effective in middle and high schools. Program evaluators in the Platte County School District have reviewed READ 180 student achievement data. However, the program has not been evaluated for the impact READ 180 had on the

student achievement growth as measured by the Missouri Assessment Program (MAP). The purpose of this study was to determine if the READ 180 reading program had an effect on student reading achievement at the sixth grade level. Initially, READ 180 was implemented only at the sixth grade level district wide. Prior to the implementation of READ 180 at the sixth grade level, ninth grade students were offered READ 180. Results from the current study can help educational leaders make informed decisions regarding the utility of READ 180.

Background

The Platte County R-3 School District is located in Platte County and serves more than 3,500 students. Platte County R-3 has seen some of the strongest and most consistent enrollment growth in the state, according to a recent demographic study conducted by Hollis and Miller Architects (Business Information Services, 2010). Despite the growth and accomplishments of the school district, the adequate yearly progress (AYP) report has revealed opportunities for improvement within the subgroup populations. As Platte County's student population grows, the district is experiencing change in the diversity of the student population as well. When analyzing the subgroup demographics of the Platte County School District, the black population represents the largest minority subgroup at 8%. While not the largest subgroup, Platte County's free and reduced lunch subgroup has increased 2.5% since 2006 and represents the fastest growing subgroup class (Missouri Department of Elementary and Secondary Education [MDESE], 2011f).

The Center on Instruction's report, *Interventions for Adolescent Struggling Readers* (Deshler et al., 2007)*,* analyzed effective adolescent reading programs and identified six essential elements:

1. Adolescence is not too late to intervene. Interventions do benefit older students.

2. Older students with reading difficulties benefit from interventions focused at both the word and the text levels.

3. Older students with reading difficulties benefit from improved knowledge of word meanings and concepts.

4. Word-study interventions are appropriate for older students at the word level.

5. Teachers can provide interventions that are associated with positive effects.

6. Teaching comprehension strategies to older students with reading difficulties is beneficial. (pp. 12-13)

In 2006, the Platte County School District began to research reading intervention programs in order to meet the needs of struggling readers as well as to comply with the No Child Left Behind (NCLB) federal mandate. The district's literacy committee chose READ 180 because it was aligned with these six elements, in addition to its support of the requirements of the No Child Left Behind Act (NCLB, 2001). This federal mandate identified five essential elements that must be part of an effective reading program: phonemic awareness, phonics, fluency, vocabulary, and text comprehension (NCLB, 2001). The literacy committee that was charged with selecting the appropriate reading intervention decided that READ 180 was the most appropriate selection for the district. In particular, the committee focused on research and support from three groups: the

Cognition of Technology Group at Vanderbilt University, the Orange County Literacy

Project in Florida, and the development staff at Scholastic, Inc. (Scholastic, 2004).

National historical trends in reading comprehension point to a distinct gap in

achievement between students eligible for the National School Lunch Program and the

general student population. According to national reading statistics, fourth grade students

not eligible for free or reduced lunch achieved an average score of 227/500 on the

reading comprehension portion of the National Assessment of Educational Progress in

2004 (NCES, 2011). Students eligible for free or reduced lunch scored 199/500 on

average in that same year on the NAEP assessment. In spite of minor improvements, the

achievement gap did not improve much on the same assessment in 2008. Students not

eligible for free or reduced lunch scored an average of 230/500 on the NAEP reading

assessment. Students eligible for free or reduced lunch scored a 204/500 on this exam.

The results revealed an achievement gap between these two groups. Students not eligible

for free or reduced lunch scored on average 12% higher than students who live at or

below the national poverty standard (NCES, 2011).

This incongruity in reading achievement highlights the need for reading

intervention programs. Students with at-risk factors have long struggled in classrooms

across the country. Requirements for increased accountability and greater reliance on

achievement data have forced educational leaders to uniformly address this problem.

Table 1 presents the similar achievement gaps between the NAEP and MAP

reading assessment at the fourth grade level, reporting student achievement percentages

at each achievement level. Both assessments reveal similar achievement gaps between

students eligible for free and reduced lunches and students who are not eligible, as well as

similar stagnant achievement growth over three years of data. While the current study

focused on sixth grade student achievement, NAEP data is reported at both the fourth and

eighth grade levels. The researcher chose fourth grade data due to its elementary

assimilation to the sixth grade level.

Table 1

NAEP and MAP Achievement Level Percentages for Students Eligible for National

School Lunch Program

Assessment, Grade Level	2005	2007	2009
NAEP, 4th Grade			
Advanced	2	2	2
Proficient	13	15	15
Basic	31	33	34
Below Basic	54	50	49
MAP, 4th Grade			
Advanced	3	2	3
Proficient	17	16	18
Basic	33	35	35
Below Basic	47	47	44

Note. Adapted from "The Nation's Report Card: Reading 2011," by National Center for Education

Statistics, 2011, p. 18.

Table 2 illustrates the achievement gap between full-priced lunch students and

students enrolled in a national free or reduced lunch program. Enrollment in this

program indicates a likelihood of school districts considering these students to be at-risk.

The Platte County R-3 school district uses this indicator to classify at-risk students. When analyzing reading achievement across three years, there is a large achievement gap associated with students enrolled in the National School Lunch Program.

Table 2

NAEP Grade 4 Reading Scores (Achievement Gap between Full Price Lunch and Free and Reduced Lunch)

Lunch Status	2005	2007	2009
Full Price Lunch			
National	219	221	221
Missouri	221	221	224
Free and Reduced Lunch			
National	203	205	206
Missouri	209	208	210

Note. Adapted from "The Nation's Report Card: Reading 2011," by the National Center for Education Statistics, 2011, p. 18.

The MAP assessment and the NAEP reading assessment both classify students into four levels of achievement: *Advanced, Proficient, Basic,* and *Below Basic*. In 2009, 83% of all fourth grade students eligible for the National School Lunch Program scored either *Basic* or *Below Basic* on the NAEP reading assessment. While national numbers highlight the general failure of students in poverty, Missouri students in poverty, on average, score four points higher than their national peers (NCES, 2011). In the same assessment year as NAEP (2009), Missouri students eligible for the National School Lunch Program were generally less successful on the NAEP assessment than their peers

not enrolled in this program. Of all free or reduced lunch students who took the

assessment, 79% of them scored either *Basic* or *Below Basic* (NCES, 2011).

These numbers have led school districts (e.g., Kirkwood School District, MO, and

Iredell-Statesville Schools, NC) to search for strategies to assist these at-risk students.

With the current fiscal climate so bleak for a number of school districts, school leaders

search for the most data-driven and reliable instructional tools and methods to address

this failing student population. The hiring of extra personnel to address needs for

struggling readers has been reduced or eliminated for countless districts due to shrinking

budgets. Therefore, district leaders have turned to less costly reading intervention

programs and individualized curricula to meet their needs. Missouri is not unlike several

of its neighbors in trying to find reading programs that assist struggling readers while

aligning with state and national reading assessments.

Missouri relies on state assessments to measure the success of its public schools.

For the purpose of this study, data from the MAP, which is taken annually by middle

school students in grades 6-8, will be utilized. According to the annual Missouri Public

School Accountability Report (2011b), Missouri students have steadily made gains in

Communication Arts from 2009 to 2011. As shown in Table 3, students eligible for the

National School Lunch program still struggle to meet the annual proficiency targets set

forth by Missouri under the NCLB federal mandate.

Table 3

Percent of Sixth Grade Students Proficient *and* Advanced *on the MAP Communication Arts Assessment*

MAP Advanced and Proficient % Comparison	2009	2010	2011
NCLB Annual Proficiency Target %	59.2	67.4	75.5
Full Price Lunch			
Missouri	60.3	63.6	64.7
Platte County R3	58.8	66.7	66.5
Free and Reduced Lunch			
Missouri	34.0	36.7	37.7
Platte County R3	26.8	29.7	55.9

Note. Adapted from "District Accountability Report Card," by the Missouri Department of Elementary and Secondary Education, 2011b, p. 5.

In order to meet the requirements of NCLB, educational institutions are appropriating additional time and money for reading intervention programs that will assist them in meeting the federal requirement of all students reading at the *Proficient* achievement level. According to the Nation's Report Card from the Institute of Education Sciences (NCES, 2011), achievement levels for students eligible for the National School Lunch Program (free and reduced lunch) continue to score 21 points (fourth grade) and 24 points (eighth grade) lower on the NAEP reading assessment compared to students not eligible for the lunch program. According to MDESE, Missouri's free or reduced lunch population has steadily increased from the 2007-2008 school year to the 2010-2011 or last academic year included in this study. Over that time

span, Missouri has added roughly 26,000 students to that subgroup. In 2009, 43.7% or

380,376 school age children in Missouri were eligible for the free or reduced lunch

program according to MDESE school accountability report (2011b). The same report

also indicated that 18.8%, or 592 of Platte County students, were eligible for this reduced

lunch program.

The Platte County R-3 School District presents an achievement gap similar to

those of other school districts in Missouri. While the free and reduced subgroup

population is small compared to the state subgroup, an achievement gap is still evident in

MAP index scores from the 2008, 2009, and 2010 academic school years (MDESE,

2011b). Table 4 illustrates the achievement gap between students who are eligible for the

National School Lunch Program and those who are not eligible.

Table 4

MAP Communication Arts Index Scores

MAP Index Scores by Grade Level	2007	2008	2009	2010
6th Grade				
Full Priced Lunch	759.4	766.5	756.1	776.8
F/R Lunch	702.9	726.5	717.9	731.5
7th Grade				
Full Priced Lunch	763.6	762.5	777.4	777.4
F/R Lunch	717.8	726.5	738.8	738.6
8th Grade				
Full Priced Lunch	766.9	764.7	771.4	787.9
F/R Lunch	720.0	731.5	709.3	744.7

Note. Adapted from "Annual Performance Report," by the Missouri Department of Elementary and

Secondary Education, 2011a, p. 16.

The data in Table 4 provides evidence of an achievement gap between students at both

ends of the socioeconomic demographic continuum. On average between 2007 and 2010,

the achievement gap cannot be ignored: 44.96 for sixth grade; 39.78 points for seventh

grade; and 46.35 points for eighth grade. Federal law states that "all children have fair,

equal and significant opportunity to obtain a high quality education and reach a minimum

proficiency on challenging state academic achievement standards" (U.S. Department of

Education, 2001, Sec. 1001). It was the intent of this study to determine the effectiveness

of READ 180 in assisting at-risk students to improve on the MAP reading assessment,

thus reducing the achievement gap.

Purpose of the Study

The purpose of this study was to analyze the effect of the READ 180 program on

student achievement at the sixth grade level. Not all sixth grade students need or were

enrolled in READ 180 as sections are limited by staffing. As stated in its Performance

Pledge, the READ 180 program will provide each student with the basic reading skills

needed to improve reading achievement (Scholastic, 2004). This study aimed to examine

the claims of program-wide success.

Significance of the Study

Improving literacy among all students remains a top priority with principals

(Booth & Rowsell, 2002). While Missouri principals continue to search for successful

reading interventions and literacy programs, the state does not train middle and high

school principals in the elements of literacy and literacy development as they do their

elementary principal counterparts (Zipperer, 2002). The findings from the current study

could be used by school district leaders as rationale to expand the current READ 180

program at the middle schools in Platte County to grade levels beyond sixth grade. This study highlighted the impact that READ 180 had on the MAP scores and added to the already large body of research regarding READ 180's effectiveness. Research has shown that READ 180 improves student performance on state test results, specifically at the middle level, as reported in studies conducted in the Austin Independent School District, TX (Haslam, White, & Klinge, 2006), Holyoke Public Schools, MA (Holyoke School District, 2005), Kirkwood School District, MO (Thomas, 2003), and Iredell-Statesville Schools, NC (Admon, 2003). The Iredell-Statesville Schools in North Carolina (Admon, 2003) participated in a study conducted by Scholastic similar to the one conducted for the current study. In North Carolina, Standardized English comprehension tests are administered to all North Carolina students once a year as is the MAP assessment in Missouri. Student success, in both states, is categorized by four achievement levels: *Below Basic, Basic, Proficient,* and *Advanced.* In North Carolina, 50.6% of students, grades 4 through 8, participating in the study gained at least one achievement level (Admon, 2003).

Leaders can make policy recommendations as a result of the analytical approach of this study. School districts hoping to maximize fiscal resources in improving student achievement can examine the impact of READ 180 in relation to quality staff development in reading achievement, successful data analysis, and improved student performance in reading. Research on READ 180 has shown improvement in the reading achievement of at-risk students who participate in the program based upon Stanford Achievement Test-9, Terra Nova and Scholastic Reading Inventory scores, and anecdotal reports of teachers and students (Davidson & Miller, 2001; Interactive, Inc., 2002).

Delimitations

Roberts (2004) stated delimitations are the boundaries of a study. This study analyzed archived student achievement data over the span of four academic school years. The following boundaries were established and controlled by the researcher (Mauch & Birch, 1993).

1. The location of this study was the Platte County R-3 School District.

2. Archived data was analyzed from the 2007-2008, 2008-2009, 2009-2010, and 2010-2011 academic school years.

3. The sample of this study was limited to sixth grade students located at Platte City Middle School and Barry School, both located in the Platte County R-3 School District.

Assumptions

For this study, components assumed or taken for granted centered on attitudes and effort towards the MAP assessment as well as the instructional framework of the READ 180 classroom. Assumptions relative to this study were:

1. Teachers at both Platte County middle schools taught with efficacy as both schools have completed professional development training on teaching reading using the READ 180 model.

2. The students put forth their best effort when taking the MAP reading assessment prior to enrollment into READ 180 as well as after one year of READ 180 instruction.

3. The students enrolled in READ 180 attended class on a regular basis in accordance with compulsory attendance laws as well as building-level expectations.

4. The MAP assessment is a reliable and valid measure of student reading achievement.

<div align="center">Research Questions</div>

Research questions provide the dissertation a framework which allows the researcher to present the research results (Roberts, 2004). The following research questions were used to assess the yearly mean gains in reading achievement scores for struggling adolescent readers enrolled in READ 180, as measured by the Communication Arts portion of the MAP assessment.

1. To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180?

2. To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between READ 180 students enrolled in the free and reduced lunch program and READ 180 students not eligible for the program?

3. To what extent is there a change in reading achievement, as measured by the MAP Communication Arts assessment, from fifth to sixth grades for READ 180 students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade?

Definition of Terms

Due to the wide range of literacy programs, it is necessary for terms to be defined for the reader. Definitions of key terms were provided for the reader in order to clarify and provide a context for this study.

Adequate yearly progress (AYP). The accountability component of No Child Left Behind requires the same high standards of achievement for all, continuous and substantial academic improvement for all, measurable annual objectives for achievement, assessment participation rates, and graduation rates (U.S. Department of Education, 2001).

Anchor videos. Anchor videos are high-interest video segments designed to build students' background knowledge and introduce key vocabulary about a topic to help students approach new readings (Scholastic, 2007).

At-risk students. At-risk students are those students who are at-risk for academic failure (Slavin & Madden, 1989). Furthermore, Pallas (1989) expanded at-risk definitions as they only focused on the school setting: families and communities also contribute to the factors that put a student at risk.

Advanced *NAEP achievement level. Advanced* NAEP achievement level indicates superior academic performance (NAEP, 2011).

Basic *NAEP achievement level. Basic* NAEP achievement level indicates partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade level (NAEP, 2011).

Constructed-response. Constructed-response items necessitate that student's supply a response versus choosing from a list or item bank (CTB/McGraw-Hill, n.d.).

Lexile. Lexile is a unit of measurement associated with the difficulty of text and the reading level ("Lexile measure," 2014).

Missouri Assessment Program (MAP). The MAP is an educational reform mandated by the Outstanding School Act of 1993. The MAP assessment is used as a tool for evaluating the competencies represented in the Show Me Standards (MDESE, 2011d).

MAP index. The MAP index is a scale score produced by using a weighted formula. Points are used as a multiplier for each achievement level (i.e., more points given to higher achievement levels). This number is a good indicator of overall grade level achievement (MDESE, 2012).

National School Lunch Program (NSLP). The National School Lunch Program is a federally assisted meal program serving private and public schools, as well as residential child care establishments. Students may qualify for free or reduced lunches depending on their family income. The program was initially established under the National School Lunch Act of 1946 (National School Lunch Program, n.d.).

No Child Left Behind. No Child Left Behind was signed by President George W. Bush on January 8, 2002. The No Child Left Behind Act provides educational reform based on stronger accountability for results and more choices for parents (U.S. Department of Education, 2001).

Performance events. Performance events are complicated items that appear on the MAP assessment and often allow for more than one correct answer. These items also provide insight into the thought processes of the student. In Communication Arts, performance items typically use writing prompts to provide students with an open-ended question requiring them to show their writing proficiency (CTB/McGraw-Hill, n.d.).

Proficient *NAEP achievement level. Proficient* NAEP achievement level indicates capable academic performance. Students scoring *Proficient* have demonstrated a capacity to comprehend challenging material (NAEP, 2011).

rBooks. rBooks are used with direct reading instruction and are focused around nine topic workshops in reading, vocabulary, and writing. rBooks are generally used during small and whole group instruction (Scholastic, 2007).

READ 180. READ 180 is a comprehensive reading intervention program designed to meet the needs of struggling readers in grades 3-12. The program directly addresses individual needs through differentiated instruction, adaptive and instructional software, high interest literature and non-fiction, and direct instruction in reading, writing, and vocabulary skills (Hasselbring, 1999).

Reading comprehension. Reading comprehension is the reconstruction of the intended meaning of a written passage, accurately understanding what was written. Reading comprehension is defined as the process of simultaneously creating meaning through interaction and involvement with written language (Snow, 2002).

Scholastic Achievement Manager (SAM). The Scholastic Achievement Manager is the management system that is used to enroll, set up, monitor, and grade READ 180 students, access reports and resources, and match students to appropriate books (Scholastic, 2007).

Scholastic Reading Inventory (SRI). The Scholastic Reading Inventory is an interactive test which formally assesses students' reading comprehension and determines their reading level based on the Lexile Framework. SRI automatically places readers at

the appropriate level in the READ 180 Topic Software and allows the teacher to monitor progress during the year (Scholastic, 2007).

Selected response. Selected response items provide a student with three to five choices with only one possible correct response to the question asked (CTB/McGraw-Hill, n.d.).

Topic Software. Topic Software is the student READ 180 program that provides intensive, individualized instruction based on continuous assessment to address students' specific needs. Each Topic Software CD contains four video segments about a unifying topic. There are five copies of each of the nine different Topic Software CDs (Scholastic, 2007).

Overview of the Methodology

The researcher used a quantitative research approach (Roberts, 2004). Sixth grade students enrolled in READ 180 attending the Platte County R3 School District comprised the population for this study. Student achievement data collected from the MAP test was analyzed in order to identify growth over one academic year after enrollment in the READ 180 reading program. A comparison was made between the pre- and post-achievement levels on the MAP assessment between sixth grade students enrolled in READ 180 and those students not enrolled in READ 180. The same student achievement data was analyzed specifically for students eligible for the free and reduced lunch program. Another comparison of READ 180 data was made between students who scored either *Below Basic* or *Basic* on the MAP assessment neither basic in their fifth grade year, on the amount of change to their sixth grade year.

Data collected from the MAP assessment is archived by the MDESE. The non-experimental research design allowed for a comparison of student achievement growth between groups. One-way analyses of variance (ANOVA) and a one-sample t test were utilized to analyze the reading achievement data.

Organization of the Study

This study is presented in five chapters. Chapter one included a problem statement, background and conceptual framework, significance of the study, purpose statement, delimitations, assumptions, research questions, definitions of terms, and an overview of the methodology. Chapter two outlines a review of the literature that is centered on literacy concerns, student achievement gaps, the "at-risk" learner, literacy statistics, and reading programs. Chapter three provides a description of the methodology used to conduct the research that includes the research design, population and sample, sampling procedures, instrumentation, measurement, validity and reliability, data collection procedures, data analysis, and limitations of the study. Chapter four presents the findings of the study. Chapter five concludes with a summary of the entire study as well as interpretations and recommendations.

CHAPTER TWO

REVIEW OF THE LITERATURE

There is an educational crisis in secondary schools. According to AEE (2007), too many students enter high school without adequate literacy skills. Student achievement data gathered from standardized tests in the United States shows an achievement gap in reading among identified subgroups. Although researchers define at-risk differently, generally the term refers to students who are at risk for school failure (Slavin & Madden, 1989). The difficulty in defining the term "at-risk" stems from the combination of many factors (Mann, 1986). These factors include a mix of elements that cause students to be at-risk: English as a second language (ESL), parental educational status, and living in poverty, to name a few (Hixson & Tinzmann, 1990).

This chapter presents a review of literature and research surrounding adolescent reading achievement, with a focus on the secondary level. The first section examines the historical footprint of reading statistics (national and local), subgroup inadequacies and the subgroup's relevance to No Child Left Behind. The second section will examine issues at the secondary level. The third focuses on reading programs and supporting research. The fourth section examines the reading process, as well as the role of the teacher in literacy development. The final section will explore the READ 180 program and MAP which are used in this non-experimental study.

The NAEP (2011) assesses student progress in reading comprehension nationwide by asking students to read grade appropriate materials and answer questions based on what they read. NAEP reports student achievement data in the Nation's Report Card, allowing comparisons to be made between states and sub-groups, as well as identification

of student achievement trends over several years. NAEP results are reported as

percentages at or above three levels: *Basic, Proficient,* and *Advanced*. The MAP uses

similar achievement levels when reporting student achievement: *Below Basic, Basic,*

Proficient, and *Advanced*. The Reading 2011 Nation's Report Card indicated minority

and at-risk students scored lower than the mean reading achievement scores of their

Caucasian peers (NAEP, 2011). According to the NAEP executive report, those students

scoring in the 25th percentile and below were predominantly categorized as at-risk or

minority. Of all students scoring in this bottom quartile, 67% were eligible for the

federal government's free or reduced lunch program. This program is an indicator of

poverty as well as an at-risk qualifier. Since 2003, students eligible for the national free

or reduced lunch program have improved scores on reading assessments, yet still scored

25 points below their non-eligible peers. NAEP (2011) indicates students eligible for the

free lunch program scored a scale score of 250 while their non-eligible classmates scored

275. This 25-point achievement gap has remained relatively the same since 2003 when

27 points separated both student populations (NAEP, 2011).

At the state level, Missouri demographic information collected by NAEP (2011)

indicates a 13% increase in students eligible for the federal free and reduced lunch

program as well as an increase in minority population by 4%. Student achievement

levels and averaged scale scores indicate an achievement gap between the high and low

end of the socio-demographic groups. In Missouri, students eligible for free and reduced

school lunch scored, on average, a scale score of 255 while their non-eligible peers

scored an average scale score of 276. This achievement gap is also present in results of

the MAP state assessment. In 2009, student achievement data collected by the MDESE

indicated a 48.7 point gap in Communication Arts scores based on the MAP index score. The MAP index, a mathematical formula that uses multipliers to give weight to achievement levels, is a scoring mechanism commonly used by administrators to assess achievement level growth. In 2011, the MAP index achievement gap increased slightly to 49.2 points. The small increase in the MAP index achievement gap was small due to slow growth of the free and reduced lunch eligible students, 7.1 point increase, coupled with larger growth, 8.4 point increase, of their ineligible peers.

In Platte County, the district student population has experienced a 16% increase over the last three years, while the state enrollment population has decreased slightly. Enrollment in the federal free or reduced lunch program has increased at the state and local level, increasing 5% and 2%, respectively. Both the state and the district are experiencing increases in minority and low socioeconomic subgroups. While students in these subgroups have found some success at school, the NAEP data indicates that minority and low socioeconomic subgroups score lower than their peers. In 2009, Platte County eighth grade students enrolled in the free and reduced lunch program scored, on average, a MAP index of 709.3, which is significantly lower than their non-eligible peers, who had a MAP index score of 785.8. The achievement gap between socioeconomic groups in Platte County, 76.5 points in 2009 and 58.3 points in 2011, is greater than the gap reported at the state level. In 2011, Platte County eighth graders enrolled in the free and reduced lunch program scored a MAP index score of 727.3, while their non-eligible peers scored 785.6. Student achievement data at both the state and local levels (Platte County School District) report a significant socioeconomic achievement gap in Communication Arts.

"Every school day, about seven thousand students become dropouts" (AEE, 2007, p. 1). A large number of the 1.2 million students who drop out annually are poor and minority. Only 18% of eighth grade students eligible for free and reduced lunch scored proficient in reading, compared to 44% of their non-eligible peers (NAEP, 2011). These at-risk learners eventually move on to high school and are twenty times more likely to drop out of high school than their higher-achieving peers (Carnevale, 2001). By implementing READ 180 at the middle level, the Platte County School District hopes to remove the "struggling" label from the at-risk reader population and prevent these students from becoming high school dropouts. Educational leaders must fulfill their obligation to provide a quality education to all learners by better understanding these subgroups and prescribing instructional programs and strategies that address the needs of at-risk learners. Investing in programs and instructional strategies that meet the needs of at-risk students is critical.

In 1991, the United States Department of Labor published *Skills and Tasks for Jobs: A SCANS Report for America 2000*. In this report, the authors highlighted the sentiment of business leaders across the country who emphasized the need for students to have a solid foundation in communication skills in order to be successful in the workplace (U.S. Department of Labor, 2000). According to O'Connor and Vadasy (2011), proficient literacy skills are necessary for success in the 21st century. According to Missouri's Frameworks for Curriculum Development (MDESE, 2011c), two of the main goals of the communication arts curriculum are a strong base in literature study and the use of those communication skills beyond the classroom. According to Barton

(2000), 25 of the fastest growing occupations have higher literacy demands, while the fastest declining professions have lower than average demands.

> In 1973, 36 percent of Americans in skilled blue-collar and related careers had not finished high school, while just 17 percent had some college or a degree. In 1998, only 11 percent had not finished high school, while 48 percent of such workers had some college or a degree. (Joftus, 2002, p. 8)

Adolescents entering the workforce or postsecondary education face increased demands to read at a higher level (Moore, Bean, Birdyshaw, & Rycik, 2005). In March 2002, Dr. Carol D'Amico, then Assistant Secretary to the office of Vocational and Adult Education, U.S. Department of Education, characterized the literacy crisis as a "threat to national economic security" (National Institute for Literacy, 2002, p. 4). According to Hanushek (2003, as cited in Hanushek, 2010), raising student achievement by addressing deficiencies through a comprehensive effort over the next 20 years could lead to a $400 billion dollar increase in the Gross National Product.

Over the past decade, education professionals and state education agencies have utilized monies allocated under the U.S. Elementary and Secondary Education Act in 2001 to implement research-based reading strategies in the early elementary years (Tankersley, 2005). The strategy of early literacy development and intervention ends at third grade and fails to address the second half of the literacy continuum. The needs of the adolescent reader require a separate comprehensive strategy. Research by Biancarosa and Snow (2006) has indicated effective reading strategies/programs incorporate both infrastructure and instructional improvements:

- Direct comprehension instruction

- Effective instructional principles embedded in content

- Motivation and self-directed learning

- Text-based collaborative learning

- Strategic tutoring

- Diverse texts

- Intensive writing

- A technology component

- Ongoing formative assessment

- Extended time for literacy

- Professional development

- Ongoing summative assessment

- Teacher teams (pp. 4-5)

Adolescents entering the 21st century workforce will read and write more than ever before. While early literacy has received the majority of the attention, approximately eight million students between fourth and twelfth grades still continue to struggle with reading (Biancarosa & Snow, 2006). National data revealed an 8-point gain in reading achievement at the elementary level while their secondary peers averaged no growth (NAEP, 2011). This literature review will highlight the current reality of reading instruction and identify possible solutions to improve results.

Historical Perspective

Literacy initiatives have been outlined at the elementary level and extensive work has been done to address reading at the elementary level. However, struggling adolescent readers are susceptible to failure and need separate instructional strategies at the

secondary level that address their reading deficiencies. In response to the national

adolescent literacy crisis, the United States Federal Government attempted to overhaul

literacy and academic expectations in a new education reform, the No Child Left Behind

Act of 2001 (NCLB, 2001). After signing the legislation, President George W. Bush

declared:

> Today begins a new era, a new time for public education in our country. Our
> schools will have higher expectations – we believe every child can learn. From
> this day forward, all students will have a better chance to learn, to excel, and to
> live out their dreams. (Committee on Education & the Workforce, 2002, p. 1)

NCLB emphasizes early literacy intervention, thus increasing funding at both the

federal and state levels. However, policy makers have given little attention to the middle

and high school levels, where students continue to struggle in the area of literacy. It is

essential that a continuum of supports and rigorous curriculum be in place from

prekindergarten through twelfth grade. In 2002, the AEE, an advocacy and research

organization dedicated to ensuring that all students receive an excellent education,

developed a comprehensive four-pronged framework. The "Framework for an Excellent

Education" includes: Adolescent Literacy, Teacher and Principal Quality, Smaller

Learning Communities, and College Preparation (Joftus, 2002). The current study will

focus on the literacy component within this framework. As mentioned earlier, literacy

efforts have mainly focused on early education (K-3) with the Federal Reading First

program. The Alliance's Adolescent Literacy initiative recommends the expansion of

this program into the secondary levels (grades 4-12). To date, 48 states have agreed to

adopt the English Language Arts Common Core State Standards. These new standards

aim to increase student achievement in the areas of reading and writing (AEE, 2007).

Today, in response to new requirements and expanded opportunities for all, society is

better educated and more literate than at any time in our history (Stedman & Kaestle,

1991).

National Reading Statistics

Every year, the NAEP produces the "Nation's Report Card" which quantifies

adolescent literacy. Since 1969, NAEP has been facilitating assessments in all content

areas. The demographic and student achievement data collected by NAEP has allowed

educators to understand current reality, to assess the effectiveness of strategies and

programs over time, and to analyze trends or gaps in student achievement. The Nation's

Report Card reports student performance for the current year as well as highlighting

performance trends over time. NAEP reading assessment measures students' reading

comprehension of grade appropriate text (NCES, 2011). The NAEP assessment draws on

an extensive research base, specifically using literary and informational texts throughout

the assessment. The student achievement data highlighted in these reports is evidence

that there is a discrepancy between subgroups.

The Struggling Adolescent Reader

In 1981, *A Nation at Risk* was commissioned to examine the quality of education

in the United States that ultimately brought much attention to the educational challenges

of that era. Eighteen months later, President Reagan, in a speech to the National

Academy of Sciences, rallied public support for public education saying, "our challenge

now is to create a resurgence of that thirst for education that typifies our Nation's

history" (National Commission on Excellence in Education, 1983, pp. 7-8). Almost 30

years later, educational institutions continue to define, identify, and assist at-risk learners.

Historically, researchers have defined at-risk learners by using two sets of attributes:

status risk factors and behavioral risk factors (Finn, 1993). Status risk factors can be

categorized as livelihood indicators such as ethnicity, socioeconomic status, or primary

language spoken. Behavioral risk factors, also referred to as "participation" in school,

may be more easily influenced by the academic institution and increase the chances that

the student will experience success. Educators can identify these risk factors at an early

age. The risk factors include participating in class, attending school, arriving to class on

time, and paying attention to the teacher (Finn, 1993). In the past, people living in

poverty, immigrants, and people of color were considered by society as educationally

disadvantaged (Gay, 2000). This definition has evolved over time to include factors such

as environmental, societal, and discrepancy between home and institutional expectations

as factors in student achievement (Bickford, 2001; Husted & Cavalluzzo, 2001; Sagor,

1999; Stringfield & Land, 2002).

School mission statements across America convey grandiose statements about

education for all, yet student achievement data in the latest reading report card from

NAEP indicates the average reading scale score has only improved 4 points since 1992

(NAEP, 2011). In Marzano's (2000) analysis of school, student, and teacher variables on

student achievement, teaching variables accounted for 13.3% of the variation while

school variables only accounted for 6.6%. The classroom teacher's effectiveness is often

the determining factor of student growth over an academic school year. Over the course

of one year, students receiving instruction from an effective teacher are expected to gain

52 percentile points in their achievement while their peers receiving instruction from an

ineffective teacher can expect to gain only 14 percentile points in their achievement

(Marzano, Marzano, & Pickering, 2003). For this very reason, teachers need professional

development on effective practices and strategies that target at-risk children.

According to NAEP, roughly two-thirds of students enrolled in U.S. schools read

below the proficiency level (Rampey, Dion, & Donahue, 2009). These students come

from all walks of life and truly represent a diverse demographic cross section of learning

communities. NCLB has provided excellent data and an understanding of the differences

between subgroups. The data suggests that certain populations in learning communities

do have higher percentages of students who struggle to read. While NCLB has many

shortcomings, the federal mandate has improved data usage among educators by

disaggregating student achievement levels across many demographic factors (gender,

race, ethnicity, income level, and special needs). According to NAEP, close to half of all

Hispanic and African-American eighth graders read below the *Basic* achievement level.

At the other end of the spectrum, only 13% of minority students read at or above the

Proficiency achievement level compared to 41% of their Caucasian peers. During the

2004-2005 academic school years, nearly four million secondary students who spoke

English as a second language struggled to compete with their peers in reading

achievement. Similarly, students in families who live below the poverty line have an

increased chance of not meeting proficiency in reading standards (Joftus, 2002). NAEP

demographic data from 2011 reflects a population increase of subgroup populations.

Since 1972, ethnic subgroups taking the NAEP assessment have increased from 28% to

45%, of total test-takers, in 2011 (NAEP, 2011). Student eligibility for the free and

reduced lunch program has experienced an 11% increase since 2003. For this reason,

teachers need effective, research-based strategies and practices available that target low performing students or those considered at-risk.

<div align="center">The Reading Process</div>

Reading, often referred to as the foundation of all learning, is a complex process that makes meaning of written words or symbols. Research by Henry (2003) suggests that the majority of school subjects require students to read on grade level to comprehend subject-specific content. In order to read at grade level, students must be able to comprehend texts and passages. Advantages to teaching reading comprehension in the classroom are numerous. Nancy Anderson, a reading specialist at the University of South Florida, is a major proponent for teaching reading comprehension, no matter what the subject area. Teachers, she argues, must bring understanding and background to the reading process for their students (Anderson & Hite, 2010). In order to interact meaningfully with text, a reader must bring something to the reading process. Cognitive psychologists call this schema "a system of cognitive structures that are stored in memory and are abstract representations of events, objects, and relationships in the world" (Anderson & Hite, 2010, p. 27). Indeed, teachers have a pivotal role to play in building reading comprehension among students. Further, when students have no schema about a particular reading assignment, teachers must equip them to build this. As Hite, professor at Dalton State College, explained, "comprehension is impaired when readers fail to activate schema" (Anderson & Hite, 2010, p. 26*)*.

READ 180 focuses on reading comprehension throughout the instructional model. To increase a READ 180 participant's capacity to comprehend text, anchor videos are used at the beginning of the lesson to build schema and create background knowledge.

This video is a good "hook" that creates interest and excitement about the instructional

material. A reading comprehension focus is carried over into small- and whole-group

instruction while continuing to capitalize on the momentum created by the anchor video.

  While READ 180 aims to increase reading comprehension, other components of

the reading process are also vital to a successful reader. Phonemic awareness, phonics,

fluency, vocabulary, spelling, and writing are all addressed throughout the READ 180

instructional model. "READ 180 assists professional educators to meet the requirements

set forth by the No Child Left Behind Act by including the five essential elements of an

effective reading program" (Scholastic, 2007, p. 14).

  Understanding the sounds of words, or phonemic awareness, is a critical

component of literacy instruction (NCLB, 2001). Based on the individual needs of each

student, the READ 180 software provides individualized phonemic awareness instruction

(Scholastic, 2007). Targeted phonics instruction improves reading comprehension

(NCLB, 2001). Phonics instruction is embedded throughout the READ 180 software,

which constantly collects data on word recognition while modifying the instruction

(Scholastic, 2007). The Scholastic Achievement Manager (SAM) collects and stores

student data while providing detailed achievement reports for both the student and the

teacher. Leveled books in the Paperback and Audiobook libraries offer students

engaging age-appropriate texts that foster fluency growth (Scholastic, 2007). Reading

comprehension can be reinforced with vocabulary-related text (NCLB, 2001). Teachers

utilize rBooks to expose the students to high-utility vocabulary through a review,

practice, and reinforcement model (Scholastic, 2007). Vocabulary and word-study

instruction data are also collected by SAM. Spelling, writing and grammar are additional critical elements of the READ 180 instructional model.

<div align="center">Middle Grade Adolescents</div>

According to Kamil (2003),

there is a crisis in American middle schools: one in four adolescents cannot read well enough to identify the main idea in a passage or understand informational text. This keeps them from succeeding in challenging high school coursework and from graduating from high school prepared for the option of post-secondary education. (p. 29)

As students transition into middle school, their interest in reading tends to decline while their attention shifts to other matters (Moore, Bean, Birdyshaw, & Rycik, 1999). Research suggests that during the middle grade years students are more concerned about peer relations, resulting in a lowering of the priority of academics. To compound matters, physiological changes and poor self-perception also have a negative effect on student attitudes towards learning (Fenzel, 1992). However, even with new priorities and changing attitudes as barriers to student achievement, the middle grades are still not too late to improve reading achievement (Slavin, Chamberlain, & Daniels, 2007).

Students who are at-risk for academic failure are often identified by several risk factors: poor attendance, behavior problems, low student achievement, grade retention, and low socioeconomic status (Slavin & Madden, 1989). Furthermore, Pallas (1989) expanded on past at-risk definitions to outside factors such as families and communities that also contribute to a student being at risk. Researchers have also expanded the definition of the at-risk reader, recognizing that these learners are often disengaged from

literacy (Moje, Young, Readence, & Moore, 2000). Motivation and engagement are two

critical elements that cannot be ignored for the middle level adolescent. The integration

of computer technologies into the instructional model provides not only a platform to

deliver instruction, but also a way to maximize motivation and engagement (Kamil,

2003).

Several features of READ 180 address the instructional needs of specific student

demographic groups: context-relevant vocabulary, mental model development, high

interest books, multicultural materials, universal access, motivational software, adaptive

instructional software, and dynamic reports (Scholastic, 2007). Schools must provide

assistance to struggling adolescent readers and prescribe specific reading interventions as

these students often avoid reading as they get older (Moats, 2001).

Reading Programs/Interventions

According to Kamil (2003), "Students who receive intensive, focused literacy

instruction and tutoring will graduate from high school and attend college in significantly

greater numbers than those not receiving such attention" (p. iii). In an analysis of schools

and variables that influence student achievement, Marzano (2000) reported school level

variables (e.g., school climate) accounted for 6.6% of the variation, while variables

relating to teaching (e.g., instructional practices) accounted for 13.3%. Student variables

(e.g., socioeconomic status) had the greatest influence at 80% of the variation.

Marzano's (2000) research suggests that the instructional practices used in the classroom

on a daily basis have a greater influence on student achievement than do school practices.

According to Waxman, Padron, and Arnold (2001), effective instructional

practices for at-risk students can be categorized into five areas: cognitively guided

instruction, culturally responsive instruction, technology-enriched instruction, cooperative learning, and instructional conversation. During the 2006-2007 academic school year, Platte County District officials used the five recommended instructional practices as guiding principles for their investigation of reading programs. The reading programs investigated are discussed in this section.

Slavin, Cheung, Groff, and Lake (2008) conducted a best-evidence synthesis of effective reading programs at the secondary level. Four types of reading programs designed to improve reading achievement for students in grades 6-12 were analyzed: reading curricula (CURR), computer-assisted instruction (CAI), instructional process programs (IP), combined CAI and instructional process models (CAI + IP). The analyzed reading programs were rated by strength of effectiveness: Strong, Moderate, Limited, and Insufficient Evidence. No programs involved in the synthesis showed strong evidence of effectiveness.

Compass Learning is a computer-assisted reading program with a student-centered approach. In order to adhere to their philosophy of a personalized learning experience, Compass Learning believes in a four stage cyclical approach: prescribe, instruct, report, and assess. The program provides teachers with resources and materials, five in total, that support the aforementioned four-stage cyclical approach: multi-dimensional assessments, personalized learning paths (activities), engaging curriculum, real-time reporting, and refinement tools.

The Reading Edge, developed by Success for All Foundation, is a reading program for a wide range of readers with an emphasis on cooperative learning structures. Reading Edge is based on instructional practices in phonemic awareness, phonics,

fluency, vocabulary, and comprehension; all are based on scientific research. Several key components that focus on engagement and motivation are embedded into the program: goal setting, peer support and cooperative learning, metacognitive reading strategies, and frequent assessment. Research suggests that middle school students often experience a decline in overall motivation, impacting student behavior and academic performance (Anderman & Maehr, 1994; Maehr & Midgley, 1996).

Reading Edge program evaluations conducted by Slavin, Daniels, and Madden (2005) indicated positive gains in reading achievement. Two middle schools participated in a study comparing traditional reading approaches versus Reading Edge. Students in the Reading Edge group scored significantly higher than those in the traditional reading group. Researchers also compared seven middle schools using Reading Edge to schools in close special proximity that utilized a traditional reading curriculum. On average, Reading Edge schools gained 24.6% on state reading assessments over three years. The control or traditional schools only gained 2.2% (Slavin et al., 2005).

The Accelerated Reader program is a supplemental program that assesses students' reading levels through the use of four types of quizzes: reading practice, vocabulary practice, literacy skills, and textbook quizzes. The simplicity of this program is one of the reasons for its popularity. Students choose a book on their level that interests them, read the book, complete a quiz on their book, and receive feedback on their progress with suggestions for other appropriate reading materials. Due to its popularity, 165 research studies have been conducted to ascertain the effectiveness of Accelerated Reader. According to research by Slavin et al. (2008), Accelerated Reader fell into the limited evidence of strength category.

Developed by Gaskins, Downer, Anderson, Cunningham, Gaskins, and Schommer (1988), The Benchmark Word Detectives series was developed and revised at Benchmark School. Struggling readers, with decoding deficiencies, use a strategy known as "decoding by analogy" to use known words to decode unknown words, use context for understanding, chunk words into meaningful units, and learn to be flexible in applying known word parts (Gaskins, 2004). A vocabulary component was added later to the program. Teachers are encouraged to use the strategies within the context of their current literacy programs.

The Strategy Intervention Model (Schumaker, Denton, & Deshler, 1984) is another instructional strategy program that teaches students metacognitive reading strategies, especially paraphrasing, to help with reading comprehension. Four guiding philosophical principles support all SIM components:

1. Most low-achieving adolescents can learn to function independently in general education settings.

2. The role of the support-class teacher is to teach low-achieving adolescents strategies that will enable them to be independent learners and performers.

3. The role of the content teachers is to promote strategic behavior and to deliver subject-matter information in a manner that can be understood and remembered by low-achieving adolescents.

4. Adolescents should have a major voice in decisions about what strategies they are to learn and how fast they are to learn these strategies. (Schumaker et al., 1984, p. 2)

SIM developed two types of interventions aligned to their core beliefs. Teacher-focused interventions are learned routines improving teacher performance that ultimately enhance the content. Secondly, student-focused interventions are designed to provide students the tools needed to understand any content.

Peer Assisted Learning Strategies (PALS) is a cooperative learning program expanding on current classroom tutoring models and engaging kids with research-based activities making learning with a partner fun. Teachers identify the initial abilities of the students in the class and pair them appropriately with other children. PALS, primarily used at the elementary level, is a supplemental program to be used in conjunction with current practices and curriculum. Fuchs, Fuchs, Mathes, and Simmons (1997) successfully evaluated PALS through an experimental study at grades 2 through 6 showing strong effects on both low readers and students with learning disabilities. More recently, Calhoon (2005) evaluated PALS at the middle school level combining PALS with a linguistics skills training approach. After analyzing pre- and post-test data, the researcher found significant differences on Letter-Word Identification, Passage Comprehension, and Word Attack. No significant difference was found with Reading Fluency. Overall, the mean effect size was .46.

Voyager Passport is a research-based intervention program using a mixed methods approach similar to READ 180. Voyager combines computer-assisted instruction with instructional processes to create a dynamic reading program model. Five essential components are integrated into the reading program: phonemic awareness, phonics, fluency, vocabulary, and comprehension. To ensure student success within their

adventure-themed instructional model, Voyager Passport adheres to five components

(Henry & Peyton, 2008):

1. Teach, Model, and Probe

2. Guided Practice

3. Independent Practice

4. Cumulative Review

5. Assessment

<div align="center">READ 180</div>

READ 180 is a product of over 25 years of literacy research. The program,

developed to target struggling readers, began with the basic goal of upward movement in

literacy skills. Hasselbring's research team at Vanderbilt University began studying

issues in adolescent literacy in 1985 (Hasselbring, 1999). Their study of struggling

readers led the team to examine the potential impact technology could have in improving

literacy skills. Hasselbring narrowed the team's research to older adolescent students.

Hasselbring's findings became the cornerstone beliefs of READ 180. His

findings pointed out that students who fail to master basic skills would not acquire

higher-level skills. According to his research, there are four essential skills that all

struggling readers must master: phonemic awareness, fluency, vocabulary, and

comprehension (Hasselbring, 1999). From there, Hasselbring's team began the software

development process.

Hasselbring's (1999) research findings were very similar to research completed

by the National Reading Panel that examined over 400 studies about effective literacy

practices. Five key elements of effective reading programs were identified: Phonemic

Awareness, Phonics Instruction, Fluency Instruction, Vocabulary Instruction, and Text

Comprehension Instruction (Armbruster, Lehr, & Osborn, 2001).

Hasselbring received funding through the Department of Education to expand his

literacy research. The Department of Education allocated the grant to assist in

developing software that would help struggling readers improve in Hasselbring's four

essential skills of reading. Although the program originally aimed to improve literacy

skills of only special education students, it soon expanded to include all struggling

readers. Hasselbring's team developed the Peabody Learning Lab. Team members

designed this lab to pilot all software and teaching strategies for struggling readers.

The Peabody Learning Lab produced positive results with its test population.

Soon after this success became known, Hasselbring partnered with Scholastic. This

partnership produced the READ 180 program. Since the beginning of the program, the

principles and strategies used to address the four essential skills have remained in place.

"Using a combination of three main components including instructional reading, modeled

and independent reading strategies, this program offers students the opportunity to

achieve reading fluency" (Hasselbring, 1999, p. 4). The design of the Peabody Learning

Lab continues to be the protocol in which READ 180 classrooms are created.

<p align="center">Assessments</p>

Mandated by the Outstanding Schools Act of 1993, the MDESE, directed by the

State Board of Education, created the MAP assessment to evaluate annual progress

toward identified skills and competencies (MDESE, 2011d). Students across the state of

Missouri take this end-of-year assessment that measures what individual students know

relative to the Missouri Show-Me Standards. For individual students, MDESE and

CTB/McGraw-Hill report a MAP scale score, a MAP achievement level, and a Terra Nova national percentile. Building administrators use this data to make inferences about a student's proficiency relative to the content and process standards assessed in that grade and subject.

Specifically, this study is being conducted to examine Communication Arts MAP assessment data from students at Platte City and Barry middle schools. Data retrieved from the Communication Arts MAP assessment taken during the students' sixth grade academic year will be compared to the same achievement data retrieved from the same assessment taken the year before during their fifth grade year. Typically, constructed-response, selected-response, and performance events are three types of test items included on the assessment.

Analyzing student achievement data from the MAP assessment will provide valuable information to staff at the building level while also allowing a better understanding of the impact of READ 180 on student achievement. Targeted literacy instruction at the middle level is appropriate and promotes student achievement (Kamil, 2003).

<div align="center">Summary</div>

Understanding the at-risk learner and matching prescriptive interventions to their learning needs is a formula for success. Analyzing state assessment data, prior to and after participation in the program, will clearly define the impact of READ 180 on student achievement gains. Chapter three will address the methodology of this study.

CHAPTER THREE

METHODS

This study assessed the effect of the READ 180 program on student achievement. Specifically, the study examined the program's effect on student achievement on the Communication Arts portion of the MAP as well as its impact on reading comprehension. This study analyzed pre- and post-assessment data of sixth grade students enrolled in READ 180.

This chapter offers the following components of this non-experimental study: a description of the research design used, a description of the sampling procedures, instrumentation used, types and methods of data collection, data analysis implemented, and limitations. The study utilized archived student achievement data and student demographic information retrieved from the MDESE as well as the Platte County R3 student management software system.

Research Design

This study used a non-experimental research design using archival data. This study was conducted to determine if READ 180 had an effect on struggling readers, specifically pertaining to student achievement as measured by the MAP assessment. For this study, the independent variables were participation in the Scholastic READ 180 reading program, the curriculum prescribed to students enrolled in READ 180 at the sixth grade level in the Platte County School District, as well as student lunch status. The dependent variable was annual change in reading achievement of sixth grade students as measured by the Communication Arts portion of the MAP assessment. MAP assessment scores from the fifth grade year served as the pretest score; scores from the sixth grade

year served as the posttest score. Scaled scores and achievement levels were analyzed

and compared both internally for students enrolled in the READ 180 program and for

those students of similar academic status who were not enrolled in READ 180.

Population and Sample

Sixth grade students in the PCR-3 school district during the 2008-2009, 2009-

2010, 2010-2011, and 2011-2012 academic school years were the population for this

study. Those students were selected if their Lexile range fell between 400-800. During

the 2008-2009, 2009-2010, 2010-2011, and 2011-2012 academic school years, teachers

recommended 155 sixth grade students for READ 180, though only 148 enrolled in the

course. Table 5 illustrates the sixth grade student population during the scope of this

study.

Table 5

Sixth Grade Student Population

Enrollment	2008-2009	2009-2010	2010-2011	2011-2012
PCR3 Middle School Enrollment				
Total	244	262	286	279
READ 180	44	42	37	25
F/R Lunch Enrollment				
Total	58	55	70	74
READ 180	19	17	10	11

Note. Adapted from "Platte County R-3 Summary Report," MDESE, 2011f, p. 3.

The 4 sixth grade classes consisted of 894 students. Of these students, 744 were not

eligible for the free or reduced lunch program while 150 were eligible. Of 894 students,

148 students were selected for READ 180 due to reading comprehension deficiencies identified by the Scholastic Reading Inventory assessment as well as teacher recommendation and other ancillary data.

Sampling Procedures

According to Roberts (2004), sampling is the process that a researcher uses to select participants for a study that represent the larger population of interest to the researcher. This section addresses the sixth grade student population at two middle schools in the Platte County School District.

Purposive sampling procedures were utilized due to the researcher's knowledge of sixth grade student population being sampled (Lunenburg & Irby, 2008). In this study, the purposive sample allowed the researcher to investigate a specialized population, READ 180 students, while comparing that population to their grade level peers not receiving treatment through a reading intervention program. Archived MAP data from every student enrolled in READ 180 were used in the study unless students did not meet the eligibility requirements outlined below. All sixth grade students in the Platte County School District were eligible for the study, as long as:

1. the student attended fifth grade within the district;

2. the student completed the Communication Arts portion of the MAP assessment during their fifth and sixth grade academic school years.

Instrumentation

The research instrument chosen to collect student achievement data was the MAP assessment. Originally designed to assess the Show Me Standards adopted by the State Board of Education in 1996, the MAP assessment has undergone multiple changes since

its inception, most of which were in response to the NCLB federal mandate of 2001

(MDESE, 2010). CTB/McGraw-Hill was contracted by the Missouri Department of

Elementary and Secondary Education in 2003 to create an assessment instrument that

would provide grade-level testing for math and communication Arts (MDESE, 2010).

The MAP assessment continues to be the assessment utilized by the state of Missouri to

assess student achievement statewide.

All fifth grade students are given the Communication Arts portion of the MAP

assessment at the end of their academic school year, typically in mid-April. These

quantitative results are one piece of data used by teachers to recommend students for

enrollment in READ 180 at the sixth grade level. At the end of the next academic school

year, sixth grade students again take the Communication Arts portion of the MAP

assessment.

The middle school staff administered the MAP assessment. Students completed

the assessment in their first hour classes unless those classes were electives. The

Communication Arts portion of the MAP assessment was completed over two days with

two hours allocated daily for each assessment. Students who were absent during

administration of the MAP assessment completed the assessment when they returned or

at the end of the testing week.

When implementing READ 180, the Platte County literacy committee adhered to

the implementation recommendations of READ 180. According to the developers of

READ 180, a Level One implementation model is recommended which consists of (a) a

class schedule that includes 90-minute blocks, 5 days per week with 20 minutes of

whole-group instruction and 10 minutes of whole-group instruction at the end of the

period; (b) a class schedule that includes three 20-minute rotations 5 days per week with

no more than five to seven students per group; (c) sufficient hardware, software, and

READ 180 materials; (d) adequate training and professional development; (e) frequent

teacher use of the Scholastic Management Suite; (f) regular use of READ 180 guides and

materials; (g) administration of the Scholastic Reading Inventory at the beginning,

middle, and end of the period of student participation in READ 180; and (h) student

participation in READ 180 for at least one year (Scholastic, 2004). Both middle schools

in the district followed the recommendation of the level-one implementation model for

READ 180.

 Measurement. The MAP assessment, specifically the Communication Arts

section, was chosen because it measures student progress toward mastery of the Missouri

Grade-Level Expectations (GLEs). CTB/McGraw-Hill, author of the MAP assessment,

is a leader in assessment solutions. For the past 85 years, CTB/McGraw-Hill has been

guided by a vision of "helping the teacher help the student" (CTB/McGraw-Hill, n.d.,

p. 1). The MAP assessment was appropriate for this study because it was developed by

CTB/McGraw-Hill who is a recognized leader in the assessment industry. There are

three types of test items included on the assessment:

1. Constructed-response items necessitate that students supply a response versus

   choosing from a list or item bank. These items also provide insight into the

   thought process of students relative to answers they provide.

2. Selected-response items provide students with three to five choices with only

   one possible response to the item posed.

3. Performance events are complicated items which appear on the MAP

assessment and often allow for more than one correct answer. These items

also provide insight into the thought processes of the students. In

Communication Arts, performance items typically use writing prompts to

provide students with an open-ended question requiring them to show their

writing proficiency. It is important to note that in 2011, the MAP assessment

did not administer or score the performance events and writing prompts.

(MDESE, 2011c, p. 1)

Student achievement data is reported at the student, class, school, and state level,

allowing parents, students, and educators to diagnose students' strengths and weaknesses

(MDESE, 2011c).

Validity and reliability. A technical report of the MAP assessment is provided

each year by CTB/McGraw Hill for MDESE. The main purpose of that report is to

provide validity and reliability evidence of the MAP assessment as well as the student

achievement data it reports (MDESE, 2010). According to Roberts (2004), "Validity is

the degree to which your instrument truly measures what it purports to measure" (p. 136).

In 2002, the Missouri National Educators Association (MNEA), commissioned

Dr. William Schafer, University of Maryland, to conduct an independent evaluation of

the Missouri Assessment Program (Schafer, 2002). According to Schafer (2002), "the

program appears to be generating appropriate evidence from a reasonable range of

perspectives" (p. 14).

In 2010, MDESE requested an external independent alignment study of the MAP

assessment. The Human Resources Research Organization (HumRRO), along with Dr.

Norman Webb, was awarded the alignment study contract from MDESE. This alignment

study serves as independent evidence of the validity of the MAP assessment.

In order to evaluate the 2010 and 2011 MAP assessment, HumRRO used Webb's

alignment method (HumRRO, 2010). Stakeholders at the local and national level were

convened to serve on a panel to review the 2010 and 2011 MAP assessments. This panel

consisted of current and former teachers, administrators, coordinators and curriculum

directors (HumRRO, 2010). In order to establish validity, three types of evidence must

be present: content-related, criterion-related, and construct-related (Wiersma, 2000). The

HumRRO (2010) findings indicated that the "test forms assess the major Reading

categories with a sufficient number of items for over half of the Big Ideas" (p. vi). The

executive summary also indicated that over half of the test items assess students at a

lower depth of knowledge level than the GLEs (HumRRO, 2010).

"Content-related validity in achievement tests is evidenced by a correspondence

between test content and a specification of the content domain" (MDESE, 2010, p. 14).

According to CTB/McGraw Hill (2006), content validity is

> demonstrated through consistent adherence to test blue prints, through a high
>
> quality test development process that includes review of items for accessibility to
>
> students with English Language Learners and students with disabilities, and
>
> through alignment studies performed by independent groups. (p. 6)

According to Salkind (2008), criterion-related validity can be defined as

"whether a test reflects a set of abilities in a current or future setting" (p. 114). The

NAEP assessment was used as a comparison to provide criterion-related evidence in

order to validate validity of the MAP assessment. The 2006 MAP technical report,

indicates that Missouri scored an *A* for the 2003 and 2004 school years which indicates

validity of the MAP assessment (CTB/McGraw-Hill, 2006).

"Construct validity examines how well a test reflects an underlying construct"

(Salkind, 2008, p. 389). CTB/McGraw-Hill uses the MAP technical report to provide

evidence of construct validity through the analysis of convergent validity, divergent

validity, and test reliability (MDESE, 2010). It is important to validate, that the MAP

assessment accurately measures reading achievement.

"Reliability is the degree to which your instrument consistently measures

something from one time to another" (Roberts, 2004, p. 136). Cronbach's coefficient

alpha was used by CTB/McGraw-Hill to assess the reliability for Communication Arts.

An acceptable internal reliability statistic for any instrument containing 40 items should

indicate .80 or greater (Lunenburg & Irby, 2008). In his independent evaluation of the

MAP, Schafer (2002) also verified the reliability of the assessment stating, "Reliability

studies of the MAP assessments have generally shown coefficients to be at

least .90" (p. 15). Table 6 reports the reliability statistics for the Communication Arts

portion of the 2010 MAP assessment for grades 3-8.

Table 6

Communication Arts MAP Cronbach's Alpha Coefficients

Grade Level	2008	2009	2010	2011
3rd	.91	.90	.91	.91
4th	.91	.92	.93	.92
5th	.91	.92	.91	.91
6th	.90	.90	.91	.91
7th	.92	.92	.91	.90
8th	.91	.91	.91	.91

Note. Adapted from "Assessment Program Grade-Level Assessments, Technical Report", MDESE, 2011e, p. 146.

"Efforts by DESE and CTB/McGraw-Hill in developing the MAP address multiple best practices of the test industry" (MDESE, 2010, p. 24). In summary, the information presented is evidence of the validity and reliability of the Communication Arts portion of the MAP assessment.

Data Collection Procedures

Prior to the statistical analysis of the data, the researcher submitted a proposal for research to the Baker University Institutional Review Board (see Appendix A). This review board serves as a safeguard to the human subjects of this study. Archived MAP data was made available to the researcher after school district permission was granted (see Appendix B). Archived MAP data was pulled from the Platte County School District's student information system which houses student achievement data in the assessment module. The following were retrieved from these two sites:

1. Fifth grade Communication Arts MAP scale score and achievement level status.

2. Sixth grade Communication Arts MAP scale score and achievement level status.

3. Free or reduced lunch status (free, reduced, or not eligible).

4. Sixth grade student course status (READ 180 or Sixth Grade Communication Arts).

This data was collected and organized on an Excel spreadsheet and imported into IBM® SPSS® Statistics Faculty Pack 21 for Windows for statistical analysis.

Data Analysis and Hypothesis Testing

This section outlines the steps taken to analyze the data in the study to test the hypotheses. The research hypothesis establishes what the study measured (Roberts, 2004). In this non-experimental study, the level of significance was set at .05. Three research questions provided a framework to better understand the impact that READ 180 had on the achievement of struggling readers.

RQ1. To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180?

H1. There is a difference in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180.

In order to analyze the first research question, a one-way analysis of variance (ANOVA) was used to assess the mean differences in the changes in reading

achievement scores, as measured by the MAP assessment, after one year of READ 180.

A comparison was made between fifth (pre) and sixth (post) grade Communication Arts

MAP achievement data of students enrolled in READ 180 to students not enrolled in

READ 180.

RQ2. To what extent is there a difference in the change in reading achievement,

as measured by the MAP Communication Arts assessment, between READ 180 students

enrolled in the free and reduced lunch program and READ 180 students not eligible for

the program?

H2. There is a difference in reading achievement, as measured by the MAP

Communication Arts assessment, between READ 180 students enrolled in the free and

reduced lunch program and READ 180 students not eligible for the program.

A one-way ANOVA was used to examine student achievement growth

differences between students who were both enrolled in READ 180. Fifth (pre) and sixth

(post) grade Communication Arts MAP achievement data of READ 180 students

participating in the free and reduced lunch program and READ 180 students not

participating in the free and reduced lunch program were compared.

RQ3. To what extent is there a change in reading achievement, as measured by

the MAP Communication Arts assessment, from fifth to sixth grades for READ 180

students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade?

H3. There is a change in reading achievement, as measured by the MAP

Communication Arts assessment, from fifth to sixth grades for READ 180 students who

were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade.

In order to address the final research question, a one-sample *t* test was used to analyze student achievement changes to better understand the impact that READ 180 had specifically on students scoring *Below Basic* and *Basic* on the MAP assessment during their fifth grade academic testing year. The students' change in MAP scores was tested against a null value of 0.

Limitations

It is important to note the limitations of this study as they may negatively affect the findings of the study (Roberts, 2004). First, this study was limited to data collected from 2008 through 2011. Secondly, findings from this study may not be generalizable to other districts or states. Finally, outside influences on the student (i.e., attitude towards school, how they felt the morning of the assessment, etc.) may have an effect on the findings.

Summary

Chapter three outlined the design and procedures utilized in conducting the study. In order to understand the effectiveness of READ 180, student achievement data from the MAP assessment were used to measure the change in reading achievement. Student achievement scores from sixth grade students enrolled in READ 180 and sixth grade students not enrolled in READ 180 were analyzed and compared. Within those two groups, student achievement data for those enrolled in the National School Lunch Program and those who did not qualify was analyzed and compared. MAP achievement level groups (*Below Basic* and *Basic*) were combined to better understand the impact of the program's effectiveness in increasing quantitative, measurable achievement in student success. Chapter four presents the results of the hypothesis testing.

CHAPTER FOUR

RESULTS

The purpose of this study was to determine if the READ 180 reading program has

an effect on student reading achievement at the sixth grade level. Chapter four presents

the results of statistical analysis of the data and is organized to address the three research

questions presented in chapter one. The chapter provides descriptive statistics including

summary results of the hypothesis tests.

Descriptive Statistics

Sixth grade students in the Platte County School District comprised the sample for

this study. The Platte County sample consisted of 894 students over the four academic

school years, with 148 of them being enrolled in READ 180 over that same period. The

distribution of MAP achievement levels is presented for students in their fifth grade year

(see Table 7) and in their sixth grade year (see Table 8).

Table 7

Fifth Grade Level Descriptive Statistics

Level	Frequency	Percent	Cumulative Percent
Advanced	204	22.8	22.8
Proficient	361	40.4	63.2
Basic	306	34.2	97.4
Below Basic	23	2.6	100.0
Total	894	100.0	

As seen in Table 7 and Table 8, 63.2% of the fifth grade student population scored

Advanced and *Proficient* on the MAP, which decreased to 61.3% in the sixth grade. In

both academic years, the fewest number of students scored *Below Basic* on the MAP

assessment. The majority of students, 40.4% and 41.7%, scored *Proficient* on the MAP

assessment during their fifth and sixth grade academic years, respectively.

Table 8

Sixth Grade Level Descriptive Statistics

Level	Frequency	Percent	Cumulative Percent
Advanced	175	19.6	19.6
Proficient	373	41.7	61.3
Basic	317	35.5	96.8
Below Basic	29	3.2	100.0
Total	894	100.0	

Research question 2 utilizes lunch status data to examine the difference, if any,

between students enrolled in the National School Lunch Program and students not

enrolled in the same program. Reported in Table 9 is the number of students in the

sample who were full pay or free or reduced lunch.

Table 9

Lunch Status Descriptive Statistics

Status	Frequency	Percent	Cumulative Percent
Full Pay	744	83.2	83.2
Free or Reduced	150	16.8	100.0
Total	894	100.0	

Finally, 894 students completed the MAP assessment in fifth grade with a mean score of

681.3, and the same students completed the assessment in sixth grade with a mean score

of 682.05.

Hypothesis Testing

The following is the results of the hypothesis testing.

RQ1. To what extent is there a difference in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180?

H1. There is a difference in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180.

A one-way ANOVA was used to assess the differences in the mean changes in reading achievement scores, as measured by the MAP assessment, after one year of READ 180. The results of the analysis indicated a statistically significant difference between the means, $F = 10.442$, $df = 1, 892$, $p < .05$. See Table 10 for the means and standard deviations for this analysis. Students enrolled in READ 180 ($M = 5.0$) had a greater change in MAP scores from fifth to sixth grade than those students not enrolled in READ 180 ($M = -.73$). This supports hypothesis one.

Table 10

READ 180 Enrollment Descriptive Statistics

READ 180 Status	*M*	*SD*	*N*
No	-.7332	20.64757	746
Yes	5.0000	14.08864	148
Total	.2159	19.82136	894

RQ2. To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between READ 180 students

enrolled in the free and reduced lunch program and READ 180 students not eligible for the program?

H2. There is a difference in reading achievement, as measured by the MAP Communication Arts assessment, between READ 180 students enrolled in the free and reduced lunch program and READ 180 students not eligible for the program.

A one-way ANOVA was used to examine student achievement growth changes between READ 180 students who had full-pay or free and reduced lunch statuses. The results of the analysis indicated no statistical significant difference between the means, $F = 0.093$, $df = 1, 146$, $p = .761$. Although the 52 students enrolled in the free and reduced lunch program ($M = 5.48$, $SD = 10.116$) had a greater change in MAP scores from fifth to sixth grade than the 96 students with a full-pay lunch status ($M = 4.74$, $SD = 15.875$), this does not support hypothesis two.

RQ3. To what extent is there a change in reading achievement, as measured by the MAP Communication Arts assessment, from fifth to sixth grades for READ 180 students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade?

H3. There is a change in reading achievement, as measured by the MAP Communication Arts assessment, from fifth to sixth grades for READ 180 students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade.

A one-sample *t* test was conducted to address student achievement changes, as measured by averaged scale scores per achievement level, to better understand the impact that READ 180 had specifically on students scoring *Below Basic* and *Basic* on the MAP assessment during their fifth grade academic testing year ($n = 128$). The change in scores was tested against a null value of 0. The results of the one-sample *t* test indicated a

statistically significant difference between the two values, $t = 5.498$, $df = 127$, $p < .001$.

Overall, the MAP change for the *Below Basic* and *Basic* students had a mean change of

6.69 points ($SD = 13.762$) from their fifth to sixth grade years, which supports hypothesis

three.

<div align="center">Summary</div>

Chapter four reported the findings of this study. Over four academic years, an

analysis of MAP student achievement growth yielded information that will allow

educational leaders to better understand the impact of READ 180. In addition,

descriptive statistics and hypothesis testing were reported for each research question.

The results reported in chapter four are the foundation for the major findings in chapter

five of this study. The chapter also includes interpretations of the results, detail the

contributions of the study, and discuss recommendations for future research based on

findings from this study.

CHAPTER FIVE

INTERPRETATION AND RECOMMENDATIONS

Chapter five presents a summary of the study and conclusions from data presented in chapter four. This chapter contains an overview of the problem, purpose statement and research questions, review of the methodology, major findings, implications for action, and recommendations for future research.

Study Summary

This study was designed to analyze the effect of the READ 180 reading program on student achievement at the sixth grade level. In 2008, the Platte County School District implemented the READ 180 program at the sixth grade level as an intervention for identified struggling readers. The current non-experimental study was conducted to investigate whether READ 180 had a significant impact on student achievement measured by the Communication Arts portion of the MAP assessment.

Overview of the Problem

According to AEE (2002), too many students enter high school without adequate literacy skills. Many school districts continue to strive towards meeting the needs of all learners, including students who struggle to read. According to Moats (2001), schools must provide assistance to struggling adolescent readers and prescribe specific reading interventions, as these students often avoid reading as they get older.

The selection of a reading intervention to assist struggling readers is often the most important decision. Slavin et al. (2008) conducted a best-evidence synthesis of effective reading programs at the secondary level. READ 180 was one of four reading programs that met the criteria for moderate evidence of effectiveness (Slavin et al., 2008).

Numerous quantitative and qualitative studies have been conducted regarding the effectiveness of READ 180, 33 of them by Slavin and colleagues. Research on READ 180 has shown improvement in the reading achievement of at-risk students who participate in the program based upon Stanford Achievement Test-9, Terra Nova and Scholastic Reading Inventory scores, and anecdotal reports of teachers and students (Davidson & Miller, 2001; Interactive, Inc., 2002). However, prior to the current study, there was no quantitative research measuring the impact of READ 180 on sixth grade MAP achievement in Missouri.

<div align="center">Purpose Statement and Research Questions</div>

The purpose of this study was to analyze the effect of the READ 180 program on student achievement at the sixth grade level. As stated in its Performance Pledge, the READ 180 program will provide each student with the basic reading skills needed to improve reading achievement (Scholastic, 2004). Three research questions aimed to examine the claims of program-wide success. The three research questions guiding this study were: To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between students enrolled in READ 180 and students not enrolled in READ 180?; To what extent is there a difference in the change in reading achievement, as measured by the MAP Communication Arts assessment, between READ 180 students enrolled in the free and reduced lunch program and READ 180 students not eligible for the program?; and To what extent is there a change in reading achievement, as measured by the MAP Communication Arts assessment, from fifth to sixth grades for READ 180 students who were in the *Below Basic* or *Basic* levels of proficiency in the fifth grade?

Review of Methodology

A non-experimental research design was utilized for this study and allowed for a comparison of student achievement growth between groups. The Communication Arts portion of the MAP assessment was used to measure student achievement growth over the span of one academic school year. Sixth grade students enrolled in READ 180 attending the Platte County R3 School District comprised the population for this study. Student achievement data collected from the MAP assessment were analyzed in order to identify growth over one academic year after enrollment in the READ 180 reading program. Statistical software was utilized to provide group demographic statistics, including the means and standard deviations for the three research questions. Additionally, one-way ANOVAs (research questions 1 and 2) and a one-sample t test (research question 3) were utilized to analyze the data for this study.

Major Findings

The findings of statistical analysis revealed mixed results. Of the three research questions, research question one, addressing differences between READ 180 enrollments, was statistically significant and closely represented the true essence of this study. Research question two, addressing differences between student lunch statuses, was not significant, although the READ 180 students showed growth no matter if they were full-pay or free/reduced lunch, the difference between the two groups was not enough to be statistically significant. Finally, concerning research question three, the MAP achievement level change of students in scoring *Below Basic* or *Basic* in fifth grade was statistically significant, indicating that struggling readers experienced student achievement growth on the MAP assessment after one year of READ 180 intervention.

READ 180 was shown to impact the MAP Communication Arts achievement scores of struggling readers.

<div align="center">Findings Related to the Literature</div>

The findings of this study are related to research centered on reading intervention programs and struggling readers. The results from research question one indicated a significant difference between students enrolled in READ 180 and students not enrolled in READ 180 in their average MAP reading score changes from fifth to sixth grades. This finding supports research conducted by the Center on Instruction, which found that interventions for adolescent struggling readers are effective and beneficial (Deshler et al., 2007). Research by Admon (2003) also supported the notion that READ 180 could be beneficial to struggling adolescent readers. In North Carolina, 50.6% of students, grades fourth through eighth, participating in the study gained at least one achievement level (Admon, 2003). The current study added evidence to the research base that struggling adolescent readers can benefit from targeted intervention.

Data from this study indicated that enrollment in READ 180 did have a statistically significant impact on MAP scores, thus allowing the MAP assessment to be added to the READ 180 research of Davidson and Miller (2001). National data revealed an 8-point gain in reading achievement at the elementary level while students at the secondary level averaged no growth (NAEP, 2011). Results from this study also revealed the mean change ($M = -.73$) for students not enrolled in READ 180 was stagnant. This is meaningful information that could result in the expansion of READ 180 at the building level and allow building leaders to investigate instructional strategies that support struggling readers not enrolled in READ 180. The current study provides evidence that

growth can be experienced at the end of the elementary setting, through targeted reading intervention, thus improving student academic readiness as they enter secondary education.

Results from research question two highlighted the achievement gap that has been reported throughout this study. Across the nation, struggling readers are most at risk to be left behind (NCES, 2011). One of the most concerning achievement gaps occurs between students who are eligible for the National School Lunch Program (free or reduced priced lunch) and those who are not eligible. Students not eligible for free or reduced lunch scored on average 12% higher than students who live at or below the national poverty standard (NCES, 2011). The findings from the current study indicated no statistically significant changes in MAP scores from fifth to sixth grades between lunch status groups (full pay versus free or reduced).

The Kirkwood School District also conducted a study to better understand the impact of READ 180 on the Stanford Achievement Test-9 (SAT-9) for students in fourth through eighth grades. According to Thomas (2003), on average 70% of free or reduced lunch status students scored below 50% on the SAT-9 prior to the implementation of READ 180. In 1999, Kirkwood School District implemented READ 180 at the fifth grade level and subsequently expanded the program for students in grade 4 through 8 the following year. In 2003, after several years of READ 180 implementation, Kirkwood School District reported that on average, 51.8% of free or reduced lunch status students scored below 50% on the SAT-9 which was a 19.2 point decrease (Thomas, 2003). Findings from this current study, analyzing growth over one year, showed no significant

difference between READ 180 students enrolled in the free and reduced lunch program and READ 180 students not enrolled in the free and reduced lunch program.

New York City Public Schools District 23 also studied the impact of READ 180 with state data comparing test outcomes of READ 180 students to the outcomes of their peers not enrolled in READ 180 (White, Williams, & Haslem, 2005). According to White et al. (2005), 91% of READ 180 students are eligible for the free and reduced lunch program. Results from this study support a New York study that found larger scale score gains for READ 180 participants compared to their non-READ 180 peers (White et al., 2005).

Results from research question three detailed the MAP achievement growth of students scoring either *Below Basic* or *Basic* in their fifth grade school year. Research question one supported many studies that also are supported by results of research question three. The Holyoke School District (2005) conducted a descriptive study of sixth and seventh grade students enrolled in READ 180. Students enrolled in READ 180 ranged from reading below a first grade level to reading near grade level. During the 2002-2003 school year, 80% of the seventh grade students enrolled in READ 180 passed the English Language Arts Massachusetts Comprehensive Assessment (Holyoke School District, 2005). According to Moats (2001), achievement gaps in reading can be addressed through targeted intervention that meets the student at their level of development.

Wolgast (2008) conducted a study analyzing the impact of the Voyager Passport Journeys reading program on ninth grade reading achievement based on the Measure of Academic Progress assessment. Both the Voyager Journeys and READ 180 were

included in a synthesis of effective reading programs by Slavin et al. (2008). Research

from the current study supports the findings of Slavin et al. (2008). Results from the

current study were statistically significant which supports the classification of READ 180

as meeting the criteria for moderate evidence of effectiveness (Slavin et al., 2008).

According to Moats (1999), "low reading achievement, more than any other

factor, is the root cause of chronically low performing schools and the future success of

all students hinges upon their ability to become proficient readers" (p. 7). Findings from

the current study are evidence that READ 180 does have a positive impact on MAP

student achievement.

<div align="center">Conclusions</div>

Students who were enrolled in READ 180 during their sixth grade school year

showed reading achievement growth as measured by the Communication Arts portion of

the MAP assessment. The results from this study were used to determine action steps

that are reported in this section. Recommendations for future research are also detailed in

this section.

Implications for Action

This research provides all educational leaders, specifically those employed in

Missouri, with information regarding the impact of READ 180 academic achievement

growth. Student achievement growth data analyzed for this study indicated READ 180

did have a statistically significant impact on the MAP scores of struggling readers.

Educational leaders can use this information when selecting a reading program for

struggling readers. READ 180 can also be evaluated using the results of this research.

When conducting any program evaluation, implementation models are often analyzed.

The Platte County School District implemented a Level One implementation model. This model recommended 90 minutes of classroom instruction. Similarly, middle school students in Platte County also receive 90 minutes of classroom instruction in Communication Arts. READ 180 teachers in Platte County implement the program requirements with fidelity while also attempting to fulfill the curriculum requirements between READ 180 and the Communication Arts curriculum. Educational leaders should consider addressing this possible gap in curriculum by enrolling struggling at-risk readers in both READ 180 and the regular Communication Arts classroom. This action step would alleviate any gap in curriculum instruction and ensure equity among all sixth grade students. READ 180 teachers could support more struggling readers (45 students versus 90 students) and focus strictly on targeted reading instruction.

The results of this research indicated that READ 180 does have an impact on student achievement. Educators in Platte County should consider increasing the availability of READ 180 to more struggling readers. At the onset of implementation, READ 180 was made available only to sixth grade students at the middle level. Administrators should consider expanding READ 180 to more grade levels in order to support struggling readers beyond one year of intervention. Furthermore, educators looking to improve the student achievement of struggling readers can use this research to inform their decision making process in regards to the selection of a reading intervention program at the middle level. Educators can also reference this study to help them understand the impact of READ 180 on state assessments. Implications identified in this chapter can also be used by schools implementing READ 180 when evaluating their program.

Recommendations for Future Research

While this study was unique in that it addressed the impact of READ 180 on student reading achievement, additional research should be conducted to evaluate READ 180 in other settings or to simply mirror this study which would add to the research base. The following are recommendations for future research.

This study did not focus on the professional training of the READ 180 teacher. READ 180 offers a 2-day implementation training to support teachers who are new to the instructional model. However, some schools do not opt for their READ 180 teachers to attend the training. According to Scholastic (2007), teachers need quality professional development in order to meet the needs of at-risk children and are one crucial element of a successful reading intervention program. Over the course of one year, students receiving instruction from an effective teacher are expected to gain 52 percentile points in their achievement, while their peers receiving instruction from an ineffective teacher can expect to gain only 14 percentile points in their achievement (Marzano et al., 2003). This non-experimental design could be extended to all READ 180 schools in Missouri using a pre- and post-test design. Student achievement results of students enrolled in READ 180 with a highly qualified instructor (READ 180 trained) could be compared to results of students enrolled in READ 180 without a highly qualified instructor (no READ 180 training).

With multiple grade levels now offering READ 180 to struggling readers, this study could be extended to better understand the impact of READ 180 at grades 4 through 9 in the Platte County School District. At Platte County, READ 180 initially was implemented in the sixth and ninth grades. This study focused on achievement growth

only at the sixth grade level. Since the implementation and onset of READ 180,

additional sections have been offered in the seventh and eighth grades for students who

continue to need reading intervention. Studying the impact of READ 180 over multiple

grade levels would expand this research and allow a better understanding of the impact of

READ 180 on student achievement over several years of targeted intervention. The

Iredell-Statesville Schools in North Carolina (Admon, 2003) participated in a study

conducted by Scholastic similar to the current study, which specifically analyzed the

impact of READ 180 on reading scale scores at grades 4 through 8. As reported by

Admon (2003), fifth grade READ 180 students had the highest achievement gains over

one academic school year (10.28 points). Data from extending this study to multiple

grade levels, similar to Iredell-Statesville Schools, would allow district and building level

leaders to better understand the impact of READ 180 on state assessments at each grade

level.

Concluding Remarks

        This study contributed to the large body of research on struggling readers, reading

intervention programs, and READ 180. The findings from this study provide evidence

that READ 180 significantly contributes to the student achievement growth in reading.

Investment in personnel, training, and programming can be significant, and this study

verifies a significant return on that investment.

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APPENDICES

Appendix A: IRB Application and Approval Letter

BAKER
UNIVERSITY

SCHOOL OF EDUCATION   IRB PROTOCOL NUMBER _____
GRADUATE DEPARTMENT   (IRB USE ONLY)

Date:

IRB REQUEST
Proposal for Research
Submitted to the Baker University Institutional Review Board

I.   Research Investigator(s) (Students must list faculty sponsor first)

Department(s)   School of Education Graduate Department

        Name   Signature

1. Dr. Brad Tate   _____,   Major Advisor

2. Mrs. Katie Hole   _____,   Research Analyst

3. Dr. Russ Kokoruda   _____,   University Committee Member

4. Dr. Logan Lightfoot   _____,   External Committee Member

Principal Investigator: Chris Miller
Phone: 816-401-1995
Email: millerc@platteco.k12.mo.us
Mailing address: 15930 NW 136th Street
                Platte City, Missouri 64079

Faculty sponsor: Dr. Brad Tate
Phone:
Email: Brad.Tate@bakeru.edu

Expected Category of Review: __X_Exempt   ___ Expedited _ __Full

II: Protocol: (Type the title of your study)

The Effect of Participation in READ 180 on 6th Grade Students' Reading Achievement

Summary

In a sentence or two, please describe the background and purpose of the research.

The purpose of this study is to determine if the READ 180 reading program has an effect on student reading achievement at the 6th grade level. The program has not been evaluated for the impact it has had on student achievement growth as measured by the Missouri Assessment Program (MAP). Not all 6th grade students need or are enrolled in READ 180 as sections are limited by staffing. As stated in its Performance Pledge, the READ 180 program will provide each student with the basic reading skills needed to improve reading achievement (Scholastic, 2004). This study aims to examine the claims of program-wide success. The findings from this study could provide district leaders evidence and rationale for expanding the program to other grade levels or to more students.

Briefly describe each condition or manipulation to be included within the study.

There will be no condition or manipulation in this study.

What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.
Will the subjects encounter the risk of psychological, social, physical or legal risk?
If so, please describe the nature of the risk and any measures designed to mitigate that risk.

No measures or observations will be taken in this study. Archived MAP student achievement data will be used for this study. No psychological, social, physical, or legal risk will be experienced by any of the subjects in this study.

Will any stress to subjects be involved? If so, please describe.

No stress will be experienced by any of the subjects in this study.

Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.

The subjects will not be deceived or misled in any way in this study.

Will there be a request for information which subjects might consider to be personal or sensitive? If so, please include a description.

No request for personal or sensitive information will be requested from the subjects of this study. Only archived student achievement data will be gathered for this study.

Will the subjects be presented with materials which might be considered to be offensive, threatening, or degrading? If so, please describe.

The subjects will not be presented with materials that might be considered offensive, threatening, or degrading for this study.

Approximately how much time will be demanded of each subject?

No time will be demanded of the subjects in this study as only their archived achievement data will be used.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.

The subjects in this study are all 6th grade students in the Platte County School District. The MAP assessment is taken by all 6th grade students on an annual basis and only archived achievement scores from the Communication Arts portion of that assessment will be utilized. There will be no solicitation of the subjects.

What steps will be taken to insure that each subject's participation is voluntary? What if any inducements will be offered to the subjects for their participation?

Subjects will not directly participate in this study. No inducements will be offered to the subjects as only their archived data will be used.

How will you insure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.

Subjects will not be contacted for this study and therefore a written consent is not necessary. The Platte County School District has granted permission for the use of student achievement data as well as using their name in the study.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.

No data will be made a part of any permanent record.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.

Archived data will be used for this study. No data will be made a part of any permanent record available to a supervisor, teacher, or employer.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?

All data given to the researcher will remain confidential and will only be reviewed by the researcher. Data collected by the researcher will be stored in a locked file cabinet located in a secure file room. The data will be stored for a minimum of three years before it is destroyed per Baker University guidelines.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?

There are no risks associated with this study.

Will any data from files or archival data be used? If so, please describe.

Yes, all data used is archival student achievement data collected from the Missouri Department of Elementary and Secondary Education as well as the Platte County School District's Student Information System.

Feb, 28, 2014

Dear Mr. Miller,

The Baker University IRB has reviewed your research project application and approved this project under Expedited Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

The Baker University IRB requires that your consent form must include the date of approval and expiration date (one year from today). Please be aware of the following:

1. At designated intervals (usually annually) until the project is completed, a Project Status Report must be returned to the IRB.
2. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
3. Notify the OIR about any new investigators not named in original application.
4. Any injury to a subject because of the research procedure must be reported to the IRB Chair or representative immediately.
5. When signed consent documents are required, the primary investigator must retain the signed consent documents for at least three years past completion of the research activity. If you use a signed consent form, provide a copy of the consent form to subjects at the time of consent.
6. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.

Please inform Office of Institutional Research (OIR) or myself when this project is terminated. As noted above, you must also provide OIR with an annual status report and receive approval for maintaining your status. If your project receives funding which requests an annual update approval, you must request this from the IRB one month prior to the annual update. Thanks for your cooperation. If you have any questions, please contact me.

Sincerely,

Thomas Peard
Chair, Baker University IRB

CC: Brad Tate

Appendix B: Request To Do Research

Vision: Building learners of tomorrow…

Mission: To prepare individual learners for success in life, the Platte County School District provides meaningful experiences in a safe and caring environment.

Request to do Research:
Name: Chris Miller, Principal PCMS

The purpose of this study is to determine if the READ 180 reading program has an effect on student reading achievement at the 6th grade level. The program has not been evaluated for the impact it has had on student achievement growth as measured by the Missouri Assessment Program (MAP). Not all 6th grade students need or are enrolled in READ 180 as sections are limited by staffing. As stated in its Performance Pledge, the READ 180 program will provide each student with the basic reading skills needed to improve reading achievement (Scholastic, 2004). This study aims to examine the claims of program-wide success. The findings from this study could provide district leaders evidence and rationale for expanding the program to other grade levels or to more students.

Archival data from the Platte County Student Information System (SIS) will be used to access student achievement MAP data. Information accessed from SIS will include student name, MAP scale scores, MAP achievement levels, and F/R status. Names will not be mentioned in this study. No students or staff will be contacted as part of the study.

The researcher is also requesting to use the school district's name in his study.

_____   _____
Signature of Applicant   Approval Signature of PCR3 District Official