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Stephanie Deneen Norwood

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THE EFFECTS OF SHELTERED INSTRUCTION ON STRUGGLING READERS

By

Stephanie Deneen Norwood

A Dissertation
Submitted to the Faculty of
Mississippi State University
in Partial Fulfillment of the Requirements
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in Elementary, Middle, and Secondary Education Administration
in the Department of Leadership and Foundations

Mississippi State, Mississippi

May 2012

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By

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By

Stephanie Deneen Norwood

Approved:

Debra Prince
Associate Professor of Leadership and
Foundations
(Director of Dissertation)

Dinetta Karriem
Assistant to Dean
College of Education
(Committee Member)

Matthew Boggan
Associate Professor of Leadership and
Foundations
Meridian Division of Education
(Committee Member)

Amanda Taggart
Assistant Professor of Leadership
and Foundations
(Committee Member)

Dwight Hare
Professor and Graduate Coordinator of
Leadership and Foundations

Richard Blackburn
Dean of the College of Education

Name: Stephanie Deneen Norwood

Date of Degree: May 11, 2012

Institution: Mississippi State University

Major Field: Elementary, Middle, and Secondary Education Administration

Major Professor: Dr. Debra Prince

Title of Study: THE EFFECTS OF SHELTERED INSTRUCTION ON STRUGGLING READERS

Pages in Study: 106

Candidate for Degree of Doctor of Philosophy

The consequences of less than proficient reading skills are well documented. In educational settings, as children progress through the grades, the expectation that they acquire content knowledge through reading continually increases. However, many children lack the proficient reading skills that would enable them to acquire content knowledge through reading. Consequently, less than proficient reading skills are associated with academic failure and academic avoidance behaviors such as absenteeism and discipline problems.

This study examined the effects of sheltered instruction on the academic and non-academic behaviors of a group of struggling readers. A causal-comparative research design was used to compare MCT2 Language Arts scores, attendance, and number of discipline referrals of 28 sixth grade struggling readers attending a rural school in northern Mississippi. Paired-samples *t* tests were used to compare measures of the dependent variables of students when they were in a traditional classroom setting to when they were in a sheltered instruction classroom setting. The results of the data analysis failed to detect any statistically significant differences between the measures of the

dependent variables under the two conditions. Therefore, it appears that sheltered instruction did not have an effect on the academic and nonacademic behaviors of struggling readers. However, there are limitations to the findings of this study.

The two most serious limitations are the small sample size and the incomplete data sets. With this small sample size, the t tests may not have been robust enough to detect statistically significant differences. In addition to the small sample size, each of the dependent variables had cases where data were missing. Consequently, a replication of this study is one of the recommendations of this study. Another recommendation is that the effects of sheltered instruction on student achievement be examined after students have been exposed to the treatment for multiple years.

DEDICATION

I would like to dedicate this dissertation to my beloved mother, Rosie Norwood, who passed away on August 13, 2008, my 98 year old grandmother, Isadora Norwood and my children, Jade and Jordan Wayne. My mother taught me the importance of putting God first, treating others the way I want to be treated, obtaining a quality education, and persevering to the end. It was my loving grandmother who instilled in me the importance of learning all that I can and doing my very best. My greatest inspiration and motivation came from my two loving children, the pride and joy of my life, who inquired about my dissertation regularly by asking, “Mom, what chapter are you on now; How many more do you have to write?” It was their desire to see me complete this endeavor that kept me focused and gave me the desire to endure until the end.

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TABLE OF CONTENTS

	Page
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	viii
CHAPTER	
I. INTRODUCTION	1
Statement of the Problem	6
Reading Assessment Performance	6
National Reading Assessments	7
State Reading Assessments	8
Purpose of the Study	11
Research Questions	11
Theoretical Framework	12
Definition of Terms	14
Delimitations	15
Justification for the Study	16
II. REVIEW OF RELATED LITERATURE	19
Reading Achievement	20
Struggling Readers	24
Proficient Reading Skills	25
Comprehension	25
Vocabulary	25
Prior Knowledge	28
Barriers to Academic Success	29
Personal Factors	29
Familial Factors	32
School-Related Factors	34
Effective Strategies for Teaching Struggling Readers	37
Reduced Class Size	38
Cooperative Learning Groups	41

	Direct Instruction	42
	Differentiated Instruction.....	43
	Sheltered Instruction	44
	Sheltered Instruction Observation Protocol	47
	Summary	49
III.	METHODOLOGY	51
	Research Design.....	52
	Participants.....	53
	Materials	54
	Instrumentation	55
	Content Validity.....	55
	Reliability.....	56
	Procedure	57
	Data Analysis.....	57
IV.	RESULTS	59
	Pre-Analysis Data Screening	60
	MCT2 Language Arts Scores.....	62
	Attendance	63
	Discipline Referrals	65
	Results of Data Analysis.....	67
	Research Question 1	67
	Research Question 2	69
	Research Question 3	71
	Summary.....	72
V.	SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	74
	Conclusions.....	79
	Limitations	80
	Recommendations.....	81
	REFERENCES	83
	APPENDIX	
A	INSTITUTIONAL REVIEW BOARD APPROVAL	101
	Study 11-348: The Effects of Sheltered Instruction on Struggling Readers.....	102
B	DISTRICT APPROVAL	103
	Letter to Superintendent.....	104

LIST OF TABLES

TABLE		Page
1	Mississippi Reading Objective.....	16
2	National Performance Descriptors	21
3	State 6 th Grade Performance-Level Descriptors.....	23
4	Cases with Missing Data (X) for the 2009 Traditional School Year	61
5	Traditional and Sheltered Instruction MCT2 Descriptive Data	62
6	Tests of Normality for MCT2 Language Arts Scores	63
7	Tests of Normality for Attendance.....	64
8	Traditional and Sheltered Instruction Attendance Data	65
9	Tests of Normality for Discipline Referrals	66
10	Traditional and Sheltered Instruction Discipline Referral Data.....	66
11	Paired-Samples <i>T</i> Test Descriptive Statistics for MCT2 Language Arts.....	68
12	Paired-Samples <i>T</i> Test for MCT2 Language Arts Scores	68
13	Paired-Samples <i>T</i> Test Descriptive Statistics for Attendance.....	69
14	Paired-Samples <i>T</i> Test for Attendance.....	70
15	Paired-Samples <i>T</i> Test Descriptive Statistics for Discipline Referrals	71
16	Paired-Samples <i>T</i> Test for Discipline Referrals	72

CHAPTER I

INTRODUCTION

Local, state, and federal stakeholders have recognized the vital role of proficient reading skills in achieving academic success. One of the goals of the No Child Left Behind Act of 2001 (NCLB) is for all students, regardless of student characteristics to perform proficiently in reading by 2014 (U.S. Department of Education [USDE], 2001). Despite this mandate, eight million students between fourth and twelfth grades do not read at grade level and are considered struggling readers (Biancarosa & Snow, 2006).

Regardless of students' reading levels, proficient reading skills continue to serve as the foundation for all school-based learning. Comprehending and learning from text are the heart of all reading (Biancarosa & Snow, 2006; Kim et al., 2006). According to Dieker and Little (2005), students at the upper elementary and secondary levels are expected to utilize reading skills to learn content, and if they lack proficient reading skills, they will struggle in all classes. Moreover, in secondary classes, reading is no longer taught as a content area, but is used as a tool to demonstrate mastery of all other content areas (Dieker & Little, 2005). However, unless struggling readers receive effective reading instruction that is influential for as long as they need it, their ability to learn from grade-level text will remain impaired (Torgesen et al., 2007).

The causes of underachievement in reading are as diverse as the student population. According to Papalewis (2004), students who became struggling readers had (a) a learning disability or low learning ability, (b) limited exposure to reading role

models, (c) limited life experiences, or (d) inadequate pre-literacy skills. Additionally, many struggling readers were students who were the products of multiple years of insufficient reading instruction (Lyons, 2003).

For generations, adult stakeholders have made multiple attempts to ensure the academic success of struggling readers who have been labeled at-risk of falling between the educational and social cracks (Lindsey, Graham, Westphal, & Jew, 2008). Districts across the nation have utilized compensatory programs, i.e., special education, grade retention, and social promotion, in an effort to produce academic success among struggling readers. However, even the districts' best intentions have fallen short of their goals (Johannessen, 2004).

With the increased emphasis on improving instruction and the educational outcomes of struggling readers, educators can no longer rely on the widely used prescription of compensatory education as a remedy to improve the reading skills of struggling readers (Johannessen, 2004). To meet the needs of this group of underperforming students effectively, all educators must understand that these students were underserved by the educational system via coursework void of rigor or relevance and ineffective instruction (Lindsey et al., 2008).

According to Lindsey et al. (2008), it is imperative that educators shift their conversations from how struggling readers are underperforming to conversations that acknowledge the inadequate service provided to struggling readers and ways to implement instruction that will better meet their needs. Therefore, content area teachers must also implement effective reading instruction.

Prior studies have provided evidence that intensive, skillfully-delivered instruction can accelerate the development of reading skills in children with reading

disabilities and do so at a greater pace than special education programs (Lovett et al., 2000; Rashotte, McPhee, & Torgesen, 2001; Torgesen et al., 2001). Yet, little is known about the effectiveness of these interventions for broader populations of struggling readers who have not been identified as having a reading disability.

Prior research highlighted the importance of students acquiring reading proficiency by the end of the third grade. According to a report by the Annie E. Casey Foundation (AECF, 2010), students who fail to become proficient readers by the end of the third grade are at risk for academic failure. As previously stated, after third grade, students were expected to read to learn. However, according to Biancarosa and Snow (2006), struggling readers required additional support beyond the third grade to become proficient readers. Therefore, it is imperative that all teachers teach decoding skills and new vocabulary, build fluency and prior knowledge, as well as motivate and engage students with the text in order to improve reading comprehension so that students can read to learn (Pardo, 2004).

However, according to Hall (2005), content area teachers often neglected to provide students with reading instruction that would improve their comprehension. Finn, Pannozzo, and Achilles (2003) suggested class sizes may be related to this neglect of content area teachers providing reading instruction. The one-to-one interaction time between teachers and struggling readers needed to increase reading comprehension was difficult to obtain in large class sizes. According to Collins (2009), this lack of responsiveness to students' needs diminished the overall performance of struggling readers.

Teacher expectations were the forerunner to the academic success of struggling readers (Finn, Gerber, & Boyd-Zaharais, 2005). Consequently, according to the authors,

changes in student and teacher behaviors were major contributors as to why smaller classes were more effective than larger classes. In smaller classes, teachers paid greater attention to each student and differentiated instruction as needed; while students became more involved in the lessons and were more likely to be held accountable for successfully completing all assignments. In essence, smaller classes revealed an increase in students' attention and a decrease in disruptive, off-task behaviors (Finn et al., 2005). Additionally, in small classes, teachers were able to modify instructional practices more efficiently to meet the needs of struggling readers. However, class size alone will not increase the academic achievement of struggling readers (Ready, 2008).

Struggling readers must also be provided effective reading instruction grounded in empirical evidence. According to Morgan, Moni, and Jobling (2006), efficient and effective instruction for struggling adolescent readers should include research-based practices such as instruction in small interactive groups, questioning that requires both literal and inferential responses, and individualized tasks on various levels so that each student is sufficiently challenged. The sheltered instruction model integrates these practices into daily instruction.

Sheltered instruction is a successful research-based second language acquisition method that includes many of the practices identified by Morgan et al. (2006) and focuses on vocabulary, grammar, and syntax development through curricular content (Echevarria, Vogt, & Short, 2008). Additionally, in sheltered instruction classrooms, the content is presented in multiple ways and the strategies are numerous, e.g., hands-on, pictorial representations, performance-based assessments, oral reports, and group or individual projects. The implementation of sheltered instruction demonstrated academic success in all content areas with non-English speaking students (Grigg, Daane, Jin, & Campbell,

2003; National Center for Educational Statistics [NCES], 2009a; Perie, Grigg, & Donahue, 2005; Steingberg & Amelida, 2004).

Many researchers documented sheltered instruction as a successful means of decreasing the dropout rate of one at-risk population, English Language Learners (ELLs), in schools and school districts throughout the nation (Carrasquillo & Rodriguez, 2005; Crawford, 2004; Lundberg, 2002). For this reason, there may be a need to examine the effect of sheltered instruction on the academic achievement of other populations of at-risk learners. Specifically, the results of research examining the effectiveness of sheltered instruction on the academic achievement of ELLs may warrant the examination of the effects of sheltered instruction on the reading skills of struggling readers.

One particular school district in northern Mississippi utilizes one of three models of the sheltered instruction method with ELLs at all grade levels. The models are Sheltered English Immersion (sheltered instruction) in Grades K-6, English as a Second Language (ESL) Tutorial in Grades 7-8, and English as a Second Language Program in Grades 9-12 (Tupelo Public School District [TPSD], 2009).

In the sheltered instruction classroom at the sixth grade level, both ELLs and native English speaking students studied the same curriculum mandated by the state and district, but the teachers utilized ESL methods to make instruction comprehensible. Concrete examples, physical activities, and visual aids were used when teaching content to assist in the development of the basic interpersonal communication skills and cognitive academic language proficiency of ELLs (TPSD, 2009).

In a reduced class size setting (14:1 student-teacher ratio), two content area teachers implemented high quality instruction to teach the state mandated curriculum in all content areas (TPSD, 2009). One teacher provided instruction in math and science

while the other taught reading through social studies and language arts. According to Echevarria et al. (2008), high quality instruction integrates reading, writing, listening, speaking, and thinking into all content areas.

Statement of the Problem

More than any other area, school success is contingent upon students' abilities to know how to read and comprehend what is being read (Vaughn, Levy, Coleman, & Bos, 2002). Proficient reading skills continue to be the basis through which all other content is acquired and mastered. Students who failed to learn to read by the end of third grade experienced enormous difficulty when they were later asked to read to learn (Rader, 2010). Moreover, after third grade, text becomes longer, more complex, and more embedded in subject-specific content (Biancarosa & Snow, 2006).

Additionally, Biancarosa and Snow (2006) suggested that after third grade, struggling readers are provided fewer opportunities to acquire the kinds of active reading comprehension strategies that will enable them to become proficient readers. According to White (2004), in most public schools, reading instruction ends in the fifth or sixth grade. Therefore, as struggling readers continue to advance through school and are exposed to progressively more complex concepts and courses, literacy problems and other negative consequences of reading at less than the proficient level increased drastically (Biancarosa & Snow, 2006). According to Torgesen (2006), 75% of struggling readers never attain average reading skills.

Reading Assessment Performance

Local, state, and national assessments are administered to assess students' performance in reading. Despite the efforts to have every student perform at the

proficient level in reading by 2014, these assessments reveal that many students throughout the United States failed to perform at a proficient reading level (NCES, 2009a; MDE, 2011).

National Reading Assessments

Studies summarizing national trends among ethnic groups including Caucasians, African-Americans, Hispanics, Asians, Pacific islanders, and American Indians showed reading skills in the United States to be at all-time lows (Lyon & Weiser, 2009).

According to the NCES (2009a), the results of the 2009 National Assessment of Educational Progress (NAEP) revealed that 67% of the nation's fourth graders and 68% of its eighth graders were performing at or below the basic level in reading. Nationally, from 2007-2009, there were no significant changes in the reading performance of fourth graders, while the average reading score for eighth graders increased only by one point (NCES, 2009a).

Similar to the national statistics, the 2009 NAEP assessment indicated no significant changes in the reading performance of Mississippi's fourth and eighth graders. Many of the state's students were not proficient readers as measured by the NAEP assessment. In Mississippi, 78% of the fourth graders and 80% of the eighth graders scored in the basic or below basic range in reading (NCES, 2009a). In 2009, the average score of 211 for fourth graders in Mississippi was not significantly different from their average score of 208 in 2007 (NCES, 2009a).

The percentage of students in Mississippi who performed at or above the NAEP proficient level was 22% in 2009, which was not significantly different from 19% in 2007. Moreover, the percentage of students in Mississippi who performed at or above the

NAEP basic level was 55% in 2009, and this percentage was not significantly different from the 51% in 2007 (NCES, 2009a).

As measured by the NAEP assessment for reading, Mississippi's eighth graders' average score of 251 was lower than the average score of 262 for public schools in the nation and was not significantly different from their average scores of 250 in 2007 or 251 in 1998. Also, indicating insignificant differences were the percentages of students in Mississippi who performed at or above the NAEP proficient level. Those scoring at or above the proficient level were 19% in 2009, 17% in 2007, and 19% in 1998 (NCES, 2009a).

Additionally, the percentage of students in Mississippi who performed at or above the NAEP basic level did not show a significant difference from 1998 to 2009. Those scoring at or above the basic level were 62% in 2009, 60% in 2007, and 62% in 1998. When comparing the 2009 scores to the 1998 and 2007 scores, neither the percentage of students performing at or above the basic reading level nor at or above the proficient reading level showed significant changes (NCES, 2009a).

While some changes were noted in the reading performance of Mississippi's fourth and eighth graders, these changes were neither significant nor constant. The gains from one assessment year to another were minimal and did not differ greatly from the 1998 scores. Such insignificant changes were also revealed in the reading scores of the state reading assessments.

State Reading Assessments

Each May, in an effort to meet the federal testing requirements and the requirements of the state's accountability system, Mississippi's students in Grades 3

through 8 are assessed in reading and mathematics using the Mississippi Curriculum Test – 2nd Edition (MCT2; MDE, 2008). The MCT2 was created in alignment with the revised statewide language arts and mathematics curricula. The results are reported in both a numeric scale score (120-180) and a proficiency level (advanced, proficient, basic, and minimal). According to the MDE (2008), these scores are then disaggregated and examined by the following student subgroups: (a) all students, (b) disabled, (c) limited English proficient, (d) economically disadvantaged, (e) Asian & Pacific Islander, (f) Black, (g) Hispanic, (g) Native American, and (i) White. Additionally, these scores are examined by gender and migrant subgroups (MDE, 2008).

Statewide, a large percentage of Mississippi's students are still not proficient readers as measured by the MCT2 Language Arts. Scoring in the basic or below basic range on Mississippi's 2010 language arts assessment were 47% of the state's fourth graders and 53% of its eighth graders (MDE, 2011). The mean score of 149.2 for fourth graders in Mississippi in 2009 was not significantly different from their 2008 average mean score of 148.8 (MDE, 2011).

As reported by the MDE (2011), in 2008, the percentage of Mississippi's fourth and eighth grade students who performed at or above the proficient level was 50% and 44% respectively, which was not significantly different from the 52% and 48% in 2009 and 53% and 46% in 2010. The percentage of fourth graders who scored at or above the proficient level increased each year, but the eighth graders showed an increase in 2009 and a decrease in 2010. For Mississippi's eighth graders, the 2009 and 2010 mean score of 147.8 was not significantly different from their mean score of 146.6 in 2008 (MDE, 2011). The same is true of the mean scores of fourth graders, whose mean scores were 148.8 in 2008, 149.2 in 2009, and 149.5 in 2010 (MDE, 2011).

While some changes are noted in the reading performance of Mississippi's fourth and eighth graders, a large percentage of students are still reading below the proficient level. The gains from one assessment year to another are minimal and do not differ greatly from the scores obtained in 2008. Such insignificant changes are also revealed in the mean scores of Mississippi's sixth graders as measured by the state reading assessments (MDE, 2008; MDE, 2009; MDE, 2010; MDE, 2011).

As measured by the 2010 MCT2, 47% of Mississippi's sixth graders were still reading below the proficient level, indicating a decrease in the number of students reading at or below the basic level. In 2008, 55% of Mississippi's sixth graders were reading at or below the basic level, and the percentage decreased to 49% in 2009. While struggling readers are making gains in becoming proficient readers, there is still a need to increase the reading skills of Mississippi's sixth graders to move them closer to becoming proficient readers (MDE, 2008; MDE, 2009; MDE, 2010; MDE, 2011).

According to the MDE (2010), basic is defined as possessing the knowledge and skills necessary to partially master grade level content. Therefore, reading at or below the basic level reiterates the demand for increasing the reading skills of struggling readers. While many districts have programs for meeting the needs of students with learning disabilities and gifted abilities, very few districts have programs for students who fail to qualify for special programs, but are still in need of academic assistance (Lee, Shen, & Roska, 2004). Therefore, school districts must continue to seek ways to foster student achievement for those who are not making great strides towards becoming proficient readers by 2014 as outlined in NCLB.

To meet the regulations of NCLB and its goal of having all students score proficiently in reading, school districts must implement research-based programs that will

meet the needs of all learners (MDE, 2009). One district in Northern Mississippi implemented components of the Sheltered Instruction Model. However, more evidence is needed to determine the effectiveness of this model in increasing the reading achievement of select students. Sixth grade students assigned to the sheltered instruction classroom were those who scored basic or below on the MCT2. While sheltered instruction is a research-based program and is effective in increasing the academic achievement of ELLs, little is known about the effects of sheltered instruction on a more heterogeneous group of students who are considered to be struggling readers.

Purpose of the Study

To meet the mandates of NCLB, school districts throughout the nation are challenged to find programs that will meet the needs of students who are not achieving academically (Deshler, Hock, & Catts, 2006). The purpose of this study was to determine the effects of sheltered instruction on the academic and non-academic behaviors of sixth grade students who were struggling readers. Specifically, this study determined if there were differences in students' MCT2 Language Arts scores, attendance, and number of discipline referrals before and after being assigned to a sheltered instruction classroom.

Research Questions

This study examined the effects of sheltered instruction on the academic and non-academic behaviors of sixth grade struggling readers. Specifically, the study examined whether being taught in a sheltered instruction classroom had an effect on the academic achievement, attendance, and behavioral performance of struggling readers. The study answered the following research questions:

1. Is there a statistically significant difference in the MCT2 Language Arts scores of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional classroom?
2. Is there a statistically significant difference in the attendance of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional classroom?
3. Is there a statistically significant difference in the number of discipline referrals of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional classroom?

Theoretical Framework

The theoretical framework for this study is grounded in the work of Echevarria et al. (2008). According to Hirsch (2003), because many struggling readers enter school with limited exposure to language, they possess less prior knowledge, fewer basic concepts of reading, very general verbal skills, and a limited vocabulary. For these reasons, the attributes of struggling readers suggest that the Sheltered Instruction Observation Protocol (SIOP®) model would be an appropriate method of instruction for meeting their academic needs. The SIOP® framework incorporates eight components of instruction: (a) preparation, (b) building background, (c) comprehensible input, (d) strategies, (e) interaction, (f) practice and application, (g) lesson delivery, and (h) review and assessment (Echevarria et al., 2008).

Echevarria et al. (2008) conceptualized that new concepts, languages, and skills are learned through building on students' prior knowledge, personal experiences, learning styles, language interaction patterns, and goals of educational attainment. The SIOP®

model incorporates instructional practices recommended as high quality instruction for all students, such as cooperative learning (Slavin, 1995), reading comprehension strategies (Genesee, Lindholm-Leary, Saunders, & Christian, 2006), and vocabulary instruction (Harmon, Hedrick, & Wood, 2005).

Social interaction with others is a primary tool for learning, and when used skillfully, such interaction can help students achieve new understandings (Billings & Fitzgerald, 2002; Christoph & Nystrand, 2001; McIntyre, Kyle, & Moore, 2006). Two focal components of sheltered instruction are building background knowledge and vocabulary, which provide students opportunities to gain prior knowledge of the content being taught in preparation for mastering the objectives of the lesson.

Unlike proficient readers, struggling readers are deficient in applying the strategies needed to comprehend more complex text. According to Parker, Hasbrouck, and Denton (2002), when there was a need to adjust reading for comprehension, struggling readers lacked monitoring and fix-up strategies to help them comprehend the text they were reading. Echevarria et al. (2008) suggested that students' comprehension of text is increased when teachers incorporate instruction that includes comprehension strategies. The National Reading Panel (NRP; 2002) strongly recommended including instructional strategies to support students with "monitoring comprehension, using graphic organizers, generating questions, answering questions, using text structure, summarizing, activating prior knowledge, developing vocabulary, listening, and visualizing" (p.99).

Echevarria et al. (2008) and other researchers (Applebee, Langer, Nystrand, & Gamoran, 2003; Guthrie et al., 2004; NRP, 2002) suggested that students be actively engaged in interactive collaborative activities where they have opportunities to practice

reading, writing, listening, thinking and speaking. Therefore, the features of the SIOP® model support teaching and learning in an environment where students are afforded opportunities to deeply discuss concepts presented in the text and to interact with one another to assure comprehension and understanding.

Definition of Terms

The following definitions will be used in this study.

Academic behaviors refer to the students' performance on the MCT2 Language Arts.

Basic Interpersonal Communication Skills refer the language skills needed to function in social situations (TPSD, 2009).

Cognitive Academic Language Proficiency refers to the formal academic language needed to succeed in the academic classroom and includes listening, speaking, reading, and writing about subject area content material (TPSD, 2009).

Non-academic behaviors refer to the attendance and number of discipline referrals.

Proficient refers to the mastery or ability to function academically at grade level (NCES, 2009A; MDE, 2006).

Sheltered English Immersion model refers to the model adopted by the TPSD for its English Language Learners in grades K-6 (TPSD, 2009).

Sheltered English Immersion teacher refers to a teacher who has received a minimum of 32 hours of SIOP® training in instructional strategies for English language learners and is provided is provided on site coaching and consulting as a part of ongoing professional development support (TPSD, 2009).

Sheltered instruction classroom refers to a small class consisting of English language learners and English native speakers where students study the same curriculum mandated by the state and district, but the teacher employs teaching methods delineated in the SIOP® model (TPSD, 2009).

Sheltered Instruction Observation Protocol (SIOP®) refers to a training and observation instrument adopted by the district to provide instruction for English language learners (Echevarria et al., 2008).

Struggling readers refer to those students who read below grade level or scored minimal or basic on the national and/or state reading assessment (Biancarosa & Snow, 2006).

World-Class Instructional Design and Assessment (WIDA) refers to a test of English language proficiency in listening, speaking, reading and writing, adopted by the Mississippi Department of Education (MDE) as the English language proficiency test to be used across the state to assess the English language proficiency for all national origin minority students in the state (TPSD, 2009).

Delimitations

This study focused on the effects of sheltered instruction on the reading achievement, attendance, and number of discipline referrals of sixth grade struggling readers in one school located in north Mississippi. Sixth grade was chosen because it represented the last year the students attending school within this particular school district would have a class specifically designated as a reading class.

As students progress through their academic careers, reading strategies will no longer be taught, but will be expected to be utilized as a means of comprehending the

content taught in all subject areas. As outlined in objective 2a of the Mississippi Curriculum Framework, students in Grades K-3 analyze text. As students enter Grades 4 and 5, they are expected to understand, interpret and analyze text. However, it is not until Grade 6 that the students are expected to gain information from and respond to text (MDE, 2008). Ultimately, Grade 6 is the first grade where students are no longer learning to read, but apply strategies learned in previous grades to begin reading to learn. Table 1 displays Mississippi’s reading objective 2a for kindergarten through sixth grade (MDE, 2008).

Table 1 Mississippi Reading Objective

Grade	Objective
Kindergarten	The student will use text features, parts of a book, text structures, and genres to analyze text.
Grade 1	The student will use text features, parts of a book, text structures, and genres to analyze text.
Grade 2	The student will use text features, parts of a book, text structures, and genres to analyze text.
Grade 3	The student will use text features, parts of a book, text structures, and genres to analyze text.
Grade 4	The student will apply knowledge of text features, parts of a book, text structures, and genres to understand, interpret, or analyze text.
Grade 5	The student will apply knowledge of text features, parts of a book, text structures, and genres to understand, interpret, or analyze text.
Grade 6	The student will apply knowledge of text features, parts of a book, text structures, and genres to understand, gain information from, interpret, respond to, or analyze text.

Justification for the Study

School districts are accountable for the success of all students. As local, state, and federal mandates established accountability and mastery standards for all students, school

districts were required to implement programs that focus on increasing the reading achievement of all students with reading difficulties. As increasing reading skills continue to be a vital component of learning content at the secondary level (Dieker & Little, 2006), understanding the methods and strategies that foster the academic achievement of struggling readers may result in achieving successful gains in closing the achievement gap and helping every student become a proficient reader.

Research on the importance of early reading proficiency is well documented. According to Boardman et al. (2008), effective reading interventions for students struggling in the early grades were the focal point of extensive research over the past 20 years. However, many proficient third grade readers can falter and fail in upper-grade academic tasks if teaching of reading skills is neglected in upper elementary, middle, and secondary grades (Biancarosa & Snow, 2006). While reading continues to become an increasingly important tool for helping students to expand their knowledge in all content areas, learning to read cannot come to an abrupt halt at the end of third grade. Subsequently, poor readers at the end of third grade are poor readers in upper elementary and secondary grades (DeVault, 2006).

Late elementary and middle school years are the logical time to build strong literacy foundations so struggling readers can fully benefit from a rigorous high school curriculum (Deshler & Hock, 2006). The effective implementation of sheltered instruction has been documented as one key to improving the academic success of ELLs (Echevarria et al., 2004). SIOP® is a researched-based and validated model of sheltered instruction for this at-risk population (Echevarria et al., 2008). The components of sheltered instruction are closely linked to the recommendations outlined by the USDE. Because it has demonstrated success in enhancing the academic language, vocabulary

development, and comprehension of ELLs in all content areas, this model may be used to increase the academic achievement of other students who are at-risk of academic failure.

The need to examine the effects of sheltered instruction on the reading achievement, attendance, and number of discipline referrals of struggling readers is embedded in three major rationales: (a) more than two-thirds of students are still reading below grade level (Perie et al., 2005), (b) absolute reading rates do not increase substantially after about sixth grade (Tindal, Hasbrouck, & Jones, 2005), and (c) the mandates of NCLB to have every child reading proficiently by 2014 (USDE, 2001). The results from this study can greatly benefit school districts, administrators, and teachers.

First, district administrators can provide empirical evidence relating to the effectiveness of sheltered instruction. The results of the study could suggest that improvements in students' academic and non-academic behaviors were achieved, and then decision makers for the school may want to consider continuing the sheltered instruction approach. The results could also warrant increasing or decreasing the funds to provide for more sheltered instruction classrooms. Additionally, content area teachers may have evidence of the efficacy of providing effective reading instruction to increase content area learning. Moreover, findings from this study could suggest to administrators the type of professional development that will result in increasing teachers' knowledge and skills, and in the implementation of a high-quality curriculum. Utilizing the components of sheltered instruction could effectively prepare all content area teachers to deliver high quality instruction that could advance struggling readers to proficient readers. In either scenario, the results of the study may be useful to school districts in that it may provide another piece of information to help make informed decisions regarding the type of instruction that best meets the needs of struggling readers.

CHAPTER II

REVIEW OF RELATED LITERATURE

Proficient reading skills continue to be the basis through which all other content is acquired and mastered. If struggling readers are to achieve success in becoming proficient readers, they must have positive successful experiences with literary activities in school (Johannessen, 2004). To meet the mandates of NCLB, school districts throughout the nation are challenged to find programs that will meet the needs of students who are not achieving academically (Deshler et al., 2006). The purpose of this study was to determine the effect of sheltered instruction on the academic and non-academic behaviors of sixth grade students who were struggling readers. Specifically, this study determined if there were differences in students' MCT2 Language Arts scores, attendance, and number of discipline referrals before and after being assigned to a sheltered instruction classroom.

This chapter consists of a review of literature related to the topic under investigation. The topics included are (a) a summary of the reading achievement of students throughout the United States, Mississippi, and a school district in northern Mississippi, (b) an overview of struggling readers, (c) a discussion of proficient reading skills, (d) a summary of the barriers associated with becoming a proficient reader, (e) a discussion of the interventions, remediation programs, and effective strategies used to support the needs of struggling readers, and (f) the general background and research

studies of sheltered instruction. Finally, a summary of the literature review concludes the chapter.

Reading Achievement

According to the National Association of the State Boards of Educators (NASBE; 2006), reading is the foundation of literacy in our nation, and a prerequisite for participation in social life. Therefore, reading is critical to a sound and healthy understanding of and participation in a democratic society. A lack of proficient reading skills has caused many students to struggle in other content areas because much content was not comprehensible to them (Adelman, 2006). Educators and other stakeholders at the local, state and national levels have recognized the significant role reading has on mastering content and have made efforts to provide research-based reading programs in K-3 schools (USDE, 2009). The measures of reading achievement for the nation and the state of Mississippi indicated many students' failure to read at the proficient level (NCES, 2009a; MDE, 2011).

Since 1992, the NAEP has assessed the reading skills of the nation's students (NCES, 2009b). In 2009, a nationally representative sample of more than 340,000 fourth and eighth grade students participated in the NAEP assessment. The results of this assessment indicated very little progress being made toward more students becoming proficient readers between 2007 and 2009. According to the 2009 NAEP reading assessment results, 67% of fourth graders and 75% of eighth graders were reading at levels below proficient (NCES, 2009b). Table 2 displays a summary of the reading skills fourth and eighth graders are expected to demonstrate at each of the three levels on the national reading assessment.

Table 2 National Performance Descriptors

Reading Levels	Grade 4 National Performance Level Descriptors
Basic (208)	Locate relevant information; make simple inferences; apply understanding of text to identify supporting details, and interpret the meaning of a word in context
Proficient (238)	Integrate and interpret texts; apply understanding of the text to draw conclusions and make evaluations
Advanced (268)	Make complex inferences; construct and support inferential understanding of the text; apply understanding of a text to make and support a judgment
	Grade 8 National Performance Level Descriptors
Basic (243)	Locate information; identify statements of main idea, theme, or author's purpose; and make simple inferences from texts; interpret the meaning of a word within context; state judgments and give some support about content and presentation of content.
Proficient (281)	Provide relevant information and summarize main ideas and themes, make and support inferences about a text, connect parts of a text, and analyze text features; substantiate judgments about content and presentation of content
Advanced (323)	Make connections to explain causal relations; evaluate and justify the strength of supporting evidence and the quality of an author's presentation; manage the processing demands of analysis and evaluation by stating, explaining, and justifying.

(NCES, 2009a)

Perie et al. (2005) reported the reading levels of more than two-thirds of the nation's fourth graders to be below grade level, with more than one third of them reading at or below the second grade reading level. The authors also reported the reading levels of more than two-thirds of the nation's eighth graders to be below grade level. These results indicated no improvement in the reading skills of the nation's fourth and eighth graders

(Perie et al., 2005). Consequently, despite national initiatives to have every child in every state become a proficient reader by 2014, many schools' struggling learners were still performing at or below the basic level on the national assessment (NCES, 2009b).

The results of the 2009 NAEP for the state of Mississippi showed a lower percentage of proficient readers in the state than the national percentage and the percentage of most other states (NCES, 2009a). According to the 2009 NAEP results for Mississippi's students, 78% of fourth graders and 80% of eighth graders were reading at levels below proficient. Similar to the NAEP assessment results, the Mississippi Language Arts results revealed reading levels below proficient for many of the state's students (MDE, 2010b).

States are mandated by NCLB (2001) to align state assessments with state academic standards and to test students on an annual basis in reading and math in Grades 3-8 (USDE, 2001). In compliance with the NCLB Act, Mississippi's students in Grades 3-8 are assessed each year in May using the MCT2 Language Arts (MDE, 2010a).

The results of the 2009-2010 MCT2 Language Arts revealed scores of less than proficient for 47% of fourth graders and 55% of eighth graders (MDE, 2011). Of particular interest to this study were the measures of reading achievement for sixth grade students. The 2009-2010 MCT2 Language Arts results for sixth grade students revealed less than proficient reading levels for 47% of Mississippi's sixth graders. Also of particular interest were the scores recorded for one sixth grade school in northern Mississippi. At this school, 41% of sixth graders were reading at levels below proficient on the 2009 - 2010 MCT2 Language Arts (MDE, 2011). Table 3 displays the performance of students at each of the state's performance levels.

Table 3 State 6th Grade Performance-Level Descriptors

Label	Scale Scores	Level	Performance
Advanced	166 – above	4	Consistently perform beyond that required to be successful in the grade or course in the content area; perform at a high level of difficulty, complexity, or fluency as specified by the grade-level content standards
Proficient	165 – 150	3	Demonstrate solid academic performance and mastery of the knowledge and skills required for success in the grade or course in the content area; perform at the level of difficulty, complexity, or fluency specified by the grade-level content standards
Basic	149 – 137	2	Demonstrate partial mastery of the knowledge and skills in the course and may experience difficulty in the next grade or course in the content area; perform some of the content standards at a low level of difficulty, complexity, or fluency as specified by the grade-level content standards
Minimal	136 – below	1	Inconsistently demonstrate the knowledge or skills that define basic level performance.

(MDE, 2006)

Although a smaller percentage of students at this school were reading below the proficient level than the state average, this school received the accountability status of Academic Watch for the 2009 – 2010 school year (MDE, 2010b). The school received this status because it failed to demonstrate adequate yearly progress (AYP) towards meeting the goal of all students scoring proficient on the state assessments by 2014. Comparatively, not only were Mississippi’s students scoring substantially lower than students in other states on the national assessment, but many of the state’s students failed

to demonstrate progress towards becoming proficient readers as measured by the state assessment, MCT2 Language Arts (MDE, 2010b).

Struggling Readers

Struggling readers are defined in multiple ways. Over the years, research literature used a wide range of labels to describe these readers: (a) poor readers (Zabucky & Ratner, 1992), (b) disabled readers (Ford & Ohlhausen, 1988), and (c) retarded readers (Neville & Hoffman, 1982). The current study used the term struggling readers to describe students who were not performing at the proficient level in language arts as measured by the MCT2 Language Arts. Regardless of the labels assigned to these students, their inability to read proficiently places them at-risk of academic failure in all content areas.

Hock, Brasseur, Deshler, Catts, and Marquis (2005) conducted a study with 346 adolescent readers in predominantly urban schools to determine the mastered and non-mastered skills of adolescents. The findings indicated that the skills adolescent readers were greatly in need of were intensive word-level and comprehension skills. The results of the NAEP (2009) indicated that struggling readers possess the skills necessary to read or at least recognize words; however, word recognition and word calling do not mean that students comprehend what they read. To combat these deficiencies in reading achievement, researchers suggested strategic reading instruction as a means to improve the reading and comprehension skills of struggling readers (Boling & Evans, 2008; Hock et al., 2005; Pinkus, 2006).

Proficient Reading Skills

Parker et al. (2002) found struggling readers to differ from proficient readers when there was a need to adjust their reading for comprehension. According to Parker et al. (2002), proficient readers (a) possessed more background knowledge, (b) monitored their comprehension as they read, and (c) utilized multiple strategies to comprehend what they read more efficiently and effectively than struggling readers.

Comprehension

More than eight million American adolescents cannot read proficiently or comprehend what they read at a basic level (Biancarosa & Snow, 2006). Comprehension, the ultimate purpose of reading, entails more than decoding and word calling. According to Boardman et al. (2008), comprehension is comprised of complex cognitive processes. These processes enabled readers to gain meaning from text and monitor and fix up vague concepts and misunderstandings as they occurred during the reading (Boardman et al., 2008).

Vocabulary

Although reading is a major basis for vocabulary development, struggling readers learn fewer words from reading than do proficient readers. Joshi (2005) found reading easier materials and fewer books than proficient readers as reasons why struggling readers learn fewer words and yield a slower rate of vocabulary growth. According to Perfetti, Landi, and Oakhill (2005), not knowing the meaning of words was an underlying barrier to comprehension.

Difficulties in reading comprehension were associated with weak comprehension skills (Fletcher et al., 2002), word identification (Chiappe, Chiappe, & Gottardo, 2004;

Lindsey, Manis, & Bailey, 2003), vocabulary knowledge (Chiappe et al., 2004; Lindsey et al., 2003), and listening comprehension (Diakidoy, Stylianou, Karefillidou, & Papageorgiou, 2005; Hagtvet, 2003; Nation & Snowling, 2004). Researchers suggested comprehension could not be successful without the identification of words and the retrieval of their meanings (Perfetti et al., 2005). Catts, Hogan, and Adolf (2005) assessed the word recognition, listening-comprehension, and reading-comprehension skills of a group of struggling readers when they were in second, fourth, and eighth grades, and found word-recognition difficulties to be more prominently associated with poor reading comprehension.

Many struggling readers lacked both the quality of experiences with new words and the quantity of exposures needed to gain the useful vocabulary knowledge (Hirsch, 2003). Without early exposure to print, a child's vocabulary and word recognition skills were less developed when entering school (Shaywitz, 2003). Teachers must be mindful of the fact that students enter the classroom with a variation of experiences obtained through life's encounters, and these encounters are usually disproportionate to the school's curriculum. Therefore, according to Harmon et al. (2005), teachers must incorporate explicit vocabulary instruction into all content areas at a level higher than drill and practice activities.

Explicit instruction of key words increased both vocabulary and reading comprehension and was especially effective for struggling readers and students with disabilities (Bryant, Goodwin, Bryant, & Higgins, 2003; Jitendra, Edwards, Sacks, & Jacobson, 2004). The NRP (2002) supported the notion that regardless of students' age levels or cognitive abilities, vocabulary instruction led to gains in reading comprehension. According to Collins (2009), these findings held true across grade levels

for both native English speaking students and those learning English as a second language. Without the retrieval of words, Perfetti et al. (2005) suggested comprehension could not be achieved. The acquisition of vocabulary was essential to achieving gains in reading comprehension (Rupley & Nichols, 2005). There was a close relationship between vocabulary and comprehension; as a result, individuals with poor vocabulary were found to have difficulty understanding written text (Joshi, 2005). Research supported the contention that inadequate vocabulary knowledge intensified learning difficulties faced by already disadvantaged students (Manzo, Manzo, & Thomas, 2006).

Schatschneider et al. (2004) found vocabulary to have played an increasingly important role in supporting reading comprehension as students moved throughout each school level (from elementary to middle to high school). Joshi (2005) found the relationship between vocabulary and reading comprehension to be strong at all grade levels. Joshi (2005) found the correlation coefficients for the relationships between vocabulary knowledge and comprehension to range from .66 to .75. In another study, Joshi and Aaron (2000) administered the vocabulary and comprehension subtests of the Stanford Diagnostic Reading Test—IV (SDRT—IV) to 66 sixth graders and 42 eighth graders. A Pearson product-moment coefficient of correlation of 0.63 was obtained between vocabulary and comprehension at sixth grade and 0.62 at eighth grade.

Moreover, researchers have found explicit support for vocabulary learning to assist less skilled readers in learning new and challenging vocabularies (Coyne, Simmons, Kame'enui, & Stoolmiller, 2004; Goerss, Beck, & McKeown, 1999), advance students in learning content-specific concepts (Monroe & Orme, 2002), and improve students' instructional reading levels (Gauthier, 1991). According to Biemiller (2001)

vocabulary instruction in schools has been crowded out by other instructional demands, and explicit vocabulary instruction should begin early and span across the grade levels.

According to Rupley & Nichols (2005), simply being able to define a word or obtaining its basic meaning from context does not depict knowing a word in its fullest sense. Knowing a word means was explained as being able to discuss, expand, and apply the meaning of the word in multiple contexts (Rupley & Nichols, 2005). Also found beneficial to increasing the vocabulary knowledge of struggling readers was the displaying of key words to allow students the opportunity to assimilate or accommodate into their vocabulary repertoire new words based on their experiences (Nichols & Rupley, 2004).

Prior Knowledge

Not having access to the meanings of words limited the readers' ability to make connections with their existing background knowledge (Heilman, Blair, & Rupley, 2002). For this reason, students' background knowledge was equally important to obtaining gains in reading comprehension. According to Perfetti et al. (2005), reading comprehension was linked to background knowledge, and students who had a plethora of background knowledge in any subject were more likely to comprehend more readily and quite well (Marzano, 2004).

Activating students' relevant prior knowledge before reading was an important step in increasing readers' comprehension (McKenna, 2004). Numerous studies have confirmed the relationship between background knowledge and achievement (Alexander, Kulikowich, & Schulze, 1994; Bloom, 1976; Boulanger, 1981; Dochy, Segers, & Buehl, 1999; Nagy, Anderson, & Herman, 1987; Schiefele & Krapp, 1996; Tamir, 1996; Tobias,

1994). Similarly, research literature supported the contention of what students already know about the content as one of the strongest indicators of how well they will comprehend new information (Marzano, 2004). For this reason, activating students' prior knowledge with vocabulary instruction was beneficial in helping students make personal connections between their own experiences and subject area content (Guthrie & Wigfield, 2000). Therefore, critical to the reading comprehension of struggling readers was the explicit teaching of vocabulary and strategies that enable struggling readers to make connections between past experiences and new concepts.

Barriers to Academic Success

Students encountered multiple barriers when trying to transition from being struggling readers into becoming proficient readers. Research documenting the factors that hindered students from making this transition was extensive. Findings indicated that struggling readers may have (a) low motivation (Hall, 2009b), (b) learning disabilities, (c) sporadic attendance (Scott & Barrett, 2003), or (d) low learning abilities (Villaume & Brabham, 2002). Additionally, some struggling readers were the recipients of insufficient instruction (Brooks, 2004), or poor preparation for learning to read upon entering school (Brownell, 2000). These factors associated with being a struggling reader were categorized as personal, familial, or school.

Personal Factors

The personal factors associated with struggling readers included low academic achievement, attendance problems, behavior problems, retention, (Jimerson, Anderson, & Whipple, 2002; Slavin, 1989) and lack of motivation (Guthrie et al., 2004; Hall, 2009b). According to McDonald (2002) poor academic and social skills were most frequently

manifested by low-level reading achievement. Kamil (2003) found motivation to be a major factor in the amount of progress struggling readers made in reading. Motivation for reading was an important contributor to students' reading achievement and school success (Guthrie et al., 2004). Researchers have shown that motivation for reading predicted students' reading achievement on standardized tests (Gottfried, 1985) and school grades (Sweet, Guthrie, & Ng, 1998).

According to Hall (2009b), struggling readers had low motivation. Low motivation was likely to have shaped students' core identity and influence their social behavior (Côté & Levine, 2002). According to Hall (2009b), the ways struggling readers transacted with the demands of reading tasks were greatly influenced by (a) their perceptions of themselves as readers, (b) how they wanted to be perceived as readers, and (c) their desire to comprehend and learn from text. Therefore, the image struggling readers tried to hide or portray was phony and existed for social acceptance and not for academic learning (Hall, 2009b). Researchers have also suggested that some students' engagement in behaviors were meant to help them obtain a label as a particular kind of person in order to achieve a specific social status (Gee, 2000; Hall, 2009b).

Fredricks, Blumenfeld, and Paris (2004) characterized school engagement as an active commitment to education and noted that concerns about the engagement of American students have grown drastically in recent years due to the lack of respect for academic expectations. According to several researchers, struggling readers continued to fall further behind the achievement levels of their proficient reading peers (Balfanz & Byrnes, 2006; Hanushek & Rivkin, 2006); therefore, they began to show clear signs of behavioral and emotional disengagement from school (Balfanz & Boccanfuso, 2007; Juvonen, Kaganoff, Augustine, & Constant, 2004). While academic engagement

correlated strongly with academic achievement (Finn et al., 2003), a study conducted by Marcotte, Fortin, Potvin, Égide, and Joly (2005) revealed struggling students were disengaged from both the learning environment and school climate by either their slow progress or inappropriate behavior.

Behavior problems were closely linked to the difficulties students encountered when trying to perform the tasks assigned to them. Struggling readers displayed difficulties such as social withdrawal, high anxiety levels, and depression problems (Marcotte et al., 2005). Oftentimes, valuable instruction time was lost in dealing with inappropriate student behavior.

Scott and Barrett (2004) assessed the average amount of time spent by administrators, teachers, and students in the discipline process. The authors found discipline referrals to cost an administrator a minimum of 10 minutes and a student 20 minutes. Additionally, a suspension was determined to cost administrators 45 minutes and students up to 6 hours. For this reason, habitual inappropriate behavior caused teachers and students to lose instructional time due to the amount of time off task and absenteeism in the form of detention, in-school suspension, out-of-school suspension, or an alternative placement. According to Scott and Barrett (2004), loss of student instructional time has been correlated with lower student achievement.

Researchers have suggested that struggling readers' decisions about classroom reading tasks were directly tied to low motivation, poor self-efficacy, or limited cognitive abilities (Brozo, 1991; Guthrie & Davis, 2003; Johnston & Winograd, 1985). According to Hall (2009b), such conceptions about struggling readers suggested an experienced increase in students' motivation caused them to make more positive decisions about reading and likely improved their cognitive abilities. The acquisition of adequate reading

skills is imperative for the academic success of struggling readers, yet this concern must be shared by students, parents, and teachers.

Familial Factors

According to Joseph (2002), struggling readers continued to struggle while fluent readers became better readers. Hernandez (2011) suggested students' school success was impacted by three distinct factors: home, school, and policies. In addition, an abundance of research revealed family background as an early predictor of student academic performance and attainment (Berliner, 2005; Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1998; Petrill, Deater-Deckard, Schatschneider, & Davis, 2005; Torgesen et al., 1999). Parents are children's first teachers, and according to Hernandez (2011), they are responsible for preparing their children to become proficient readers simply by talking and reading to them frequently. However, according to Jimerson (2001), in many rural school districts, reading failure was an expected norm and was partially due to lack of home instruction.

According to Kelly and Campbell (2001), the most common causes associated with the underachievement in reading were lack of role models who speak fluent English, prior life experiences, and limited phonics and comprehension skills. Research conducted by Kelly and Campbell (2001) revealed struggling readers to be from home environments with few books and other literacy-related materials and no role models who spoke Standard English. According to Brownell (2000), home environments such as the ones described by Kelly and Campbell lead to fewer oral language and emergent literacy skills and limited prior knowledge.

The parents of struggling readers often lacked proficient literacy skills and did not understand the importance of exposing children to print (Shaywitz, 2003). Additionally, the homes of struggling readers often lacked educational resources, and when children are deprived of a print-rich environment and educational resources, they have limited exposure to language, vocabulary, general verbal skills, prior knowledge and the basic concepts of reading, which caused students to enter school at-risk of reading failure (Hirsch, 2003; Shaywitz, 2003). According to Wirt et al. (2003), children's family environments affected many aspects of their lives, including school achievement.

Unfortunately, the students who came to school with the greatest needs rarely benefited from the classroom literacy programs because their prior understandings were too limited to benefit from the literacy instruction provided (Neal & Kelly, 2002). Margolis and McCabe (2006) found that students who were ill prepared for the educational tasks set before them began to believe they could not succeed in school, and therefore, began to engage in off-task behaviors to avoid the academic tasks. The authors also found students to give up easily when difficulties arose. Other researchers found the repeated failure of struggling readers caused them to develop negative reading attitudes (Chapman & Tunmer, 2003; Strickland, Ganske, & Monroe, 2002; Rasinski & Padak, 2000), and subsequently caused disengagement, which then led to behavior problems (Guthrie & Davis, 2003; Walker, 2003).

Due to low academic achievement, low motivation, and repeated behavior problems, many struggling readers did not meet the expectations of school personnel. In 2005, one in four students in Grades 4 through 12 were identified as a struggling reader, and fewer than one-third of public school eighth graders read at or above grade level (Perie et al., 2005). While some struggling readers lack the skills necessary to read new

or unusual words or to figure out their meanings, Boardman et al. (2008) found that most struggling readers failed to understand much of what they read. As a result, students often entered classrooms where teachers assigned class work with the assumption that all students possess certain background experiences. In addition to the barriers presented by personal factors, struggling readers also had to overcome multiple school-related factors.

School-Related Factors

According to the National Right to Read Foundation (2009), when it came to public education in the United States, the achievement gap was public enemy number one. Public education denied equal access and opportunity to far too many students, while strengthening a culture of educational have and have-nots (National Right to Read Foundation, 2009). When lessons are planned, they are planned based on the assumption that all students have mastered the content at the previous grade. Little thought is given to those students who did not have literacy-rich environments or failed to read proficiently. Additionally, content area teachers did not provide students with reading instruction and thus ignored the needs of struggling readers (Hall, 2005). Other school-related factors which hindered the academic growth of students and contributed to the achievement gap and educational inequalities were (a) watered-down instruction from a less rigorous curriculum, (b) limited access to a more relevant and rigorous curriculum, (c) and a school climate void of high expectations and positive teacher-student relationships (Kozol, 2005). The aforementioned educational inequalities, according to Kozol (2005), created barriers to a child's education and presented the risks of repeating a grade, being socially promoted, dropping out of school, or needing some type of remedial service.

For years, the majority of federal and state policy initiatives and resources were directed at younger children (Deshler & Hock, 2006), while large numbers of students entered secondary schools ill prepared to respond to the heightened curricular demands (Kamil, 2003). However, many of the problems encountered in the early years persisted into adolescence (Deshler & Hock, 2006) causing schools to respond reactively rather than proactively to meet the needs of older struggling readers. Oftentimes, the reactive measures were either grade retention or social promotion.

Because struggling readers failed to acquire the necessary skills needed to master grade-level objectives, they were often retained, socially promoted or placed into special education programs (Meese, 2001). According to Hessler (2001) schools were criticized for labeling students as learning disabled so they could receive special education services because no other remedial services were available (Hessler, 2001). Yet, for those struggling readers who were not identified as learning disabled, the only recourse was either retention or social promotion.

Jimerson (2001) noted that the educational pendulum has alternated between supporting grade retention and advocating social promotion. In a synthesis of grade retention research, Jimerson (2001) also noted the conclusions of many studies did not support the use of grade retention as an intervention for academic achievement. When comparing retained students to similarly under-achieving promoted peers, retained students had (a) lower levels of academic adjustment (Werner, 2003), (b) a greater probability of poorer educational and employment outcomes during late adolescence (Jimerson & Kaufman, 2003), and (c) a greater probability of dropping out of high school (Jimerson, Anderson, & Whipple, 2002).

Although grade retention has been used as an intervention, it was neither economically nor academically advantageous. Anderson, Whipple, and Jimerson (2010) estimated that over 2.4 million (5-10%) students were retained every year in the United States. According to the authors, the cost of retention and the additional year of schooling exceeded 13 billion dollars each year. Moreover, the ineffectiveness of grade retention well documented by numerous researchers (Anderson et al., 2010; Holmes, 1989; Jimerson, 2001; Jimerson et al., 2002; Jimerson & Kaufman, 2003) has caused many schools across the nation to incorporate social promotion as an intervention to meet the needs of students who failed to master grade level objectives.

Social promotion refers to the advancing of students to the next grade level without the mastery of the current grade level objectives (Denton, 2001). Though widely used as an intervention, social promotion has caused problems for students and teachers. For students, problems encountered from being socially promoted included (a) the tendency to fall even further behind their classmates as they move through school, (b) the risk of dropping out or graduating without having the knowledge and skills expected of high school graduates, (c) frustration due to the lack of needed skills, and (d) the notion that promotion can be obtained without having to work hard to master the objectives outlined in the curriculum (Frey, 2005).

As a result of social promotion, teachers also encountered numerous challenges. Because of social promotion, teachers were faced with (a) an increased workload by having to meet the needs of unprepared students, (b) a false sense of student progress, and (c) poorly educated students who were ill prepared to perform at the next grade level, in college, on the job or in the community (Frey, 2005). Many states and districts have

implemented test-based requirements for promotion at key transitional points in students' schooling careers, thus minimizing the practice of social promotion (Xia & Kirby, 2009).

According to Jimerson and Kaufman (2003), neither repeating a grade nor merely moving on to the next grade provided the necessary scaffolding to improve academic and social skills of students at risk of academic failure. Moreover, grade retention and social promotion were ineffective means of ensuring that all students were afforded equal opportunities to successfully complete school or compete in the global economy (National Association of School Psychologists [NASP], 2003). Unfortunately, there were few remedial reading and writing services within regular education programs, especially at the middle and high school levels (Hessler, 2001) to provide rigorous interventions for struggling readers. Therefore, all educators must continue to seek solutions for closing the gap between the reading skills of struggling and proficient readers.

Effective Strategies for Teaching Struggling Readers

Thousands of schools and districts throughout the nation were striving to increase achievement scores on standardized tests by identifying and implementing the most effective teaching strategies (Basken, 2006). Both educational critics and curriculum specialists have emphasized the importance of teaching not only the content but also strategies for mastering the content (Deshler et al., 2001; Weinstein, 1996).

The gap between what we know and what we are doing in terms of effective instruction of struggling learners still persists in the face of massive investments in school improvement efforts over the last two decades (Scammacca et al., 2007). Research contended that smaller class sizes, cooperative learning groups, and direct and differentiated instruction have shown success in meeting the needs of struggling readers.

Reduced Class Size

Ready (2008) reported over 10 years ago that more than 20 states and the federal government adopted various policies designed to decrease class size. The actual class size varied between 15 and 20 students per classroom in some states (Ready, 2008). The measurement of class size was calculated by class, grade, school, district, or state levels and varied by grade levels and subjects covered (Ready, 2008).

According to Ready (2008), most states have adopted policies designed to reduce class sizes in the early grades, but some have also expanded to other grades (e.g., California in Grade 8), confined the smaller classes to specific subjects (e.g., literacy), or targeted a certain demographic group. Some states have put all children in reduced size classes, while others have directed the policy towards at-risk students (Ehrenberg, Brewer, Gamoran, & Willms, 2001).

Class size reduction means reducing the number of students in a class from 22 to 15 (Ehrenberg et al., 2001). Reducing class size was advocated as a tool for enhancing student achievement by increasing the opportunities that teachers and students have to interact around relevant content, reducing disciplinary disruptions, and enriching teacher knowledge of students' strengths and weaknesses (Biddle & Berliner, 2002).

There is empirical evidence which revealed school settings that managed behavior and maintained a well-developed social climate. Those settings had a great impact on children's social and academic development (Biglan et al., 2003; Gottfredson et al., 2000; Hawkins et al., 2000). More than a decade of research consistently confirmed the impact of small class size on student achievement (Blatchford, Bassett, Goldstein, & Martin, 2003). According to Ehrenberg et al. (2001), class size mattered for younger racial and

ethnic minority students, students from low income families, and other students who are at risk of failure.

Croninger and Lee (2001) suggested struggling readers needed more personal teacher attention, and in a small classroom setting, teachers can fulfill their role of providing support and guidance to struggling readers. Prior to the 1980s, several hundred studies appeared on the topic of class size. These studies were summarized in a meta-analysis by Glass and Smith (1979) and reviewed by Robinson (1990). The studies showed classes with fewer than 20 students to be more likely to benefit students' achievement in mathematics and reading. Research findings showed smaller classes were most beneficial for economically or educationally disadvantaged students and exceptional students (Ehrenberg et al., 2001; Glass & Smith, 1979).

Haimson (2010) found the benefits of class size reduction in the early grades to extend throughout students' educational careers. In Grades 4, 6, and 8, students who attended smaller classes in the early grades were significantly ahead of their regular-class peers in all subjects, and by eighth grade they were still almost a full year ahead of their regular class peers (Haimson, 2010). Moreover, numerous studies showed a correlation between smaller class size and significantly higher student achievement in the middle and upper grades (Boozer & Rouse, 1995; Ferguson, 1991; Ferguson & Ladd, 1996; Rivkin, Hanushek, & Kain, 2005)

Additionally, the number of students in a class affected social interaction among students, classroom management, teachers' allocation of time and teaching methods, and assessments (Ehrenberg et al., 2001). According to McLaughlin and Drori (2000), achievement gains were more strongly linked to smaller classes in the upper grades than in lower grades. Furthermore, the students who were in small classes were less likely to

be retained and less likely to drop out of school (Pate-Bain, Fulton, & Boyd-Zaharias, 1999).

One comprehensive study conducted by McLaughlin and Drori (200) and commissioned by the USDE analyzed the achievement levels of students in 2,561 schools across the nation as measured by their performance on standardized exams. The data for the study were taken from at least 50 schools in each state. The types of schools included were characterized as large or small, urban or rural, and affluent or poor. After controlling for student background, class size was the only objective factor found to be correlated with higher student success. According to Wetstein and Mora (2003), the most compelling evidence on the connection between class size and student achievement has come from Tennessee's experiment with class-size reduction, and the systematic tracking of student performance after the initiation of the class size reduction program in 1985. The Tennessee study cited by Wetstein and Mora involved 79 schools, more than 7,000 students, and a random assignment process to control for school level and curricular effects. The findings of the study indicated that (a) better performances on standardized tests for primary school students in smaller classes, (b) a larger impact for minority students in early stages of the experiment, and (c) a lasting impact that persisted beyond five years for small classes in early primary grades (Nye, Hedges, & Konstantopolos, 2002; Pritchard, 1999). Researchers (Biddle & Berliner, 2002; Finn & Achilles, 1999; Robinson, 1990) also found students from disadvantaged backgrounds (i.e., minorities and free or reduced price lunch eligible) benefited more from smaller class sizes than their White and non-free or reduced-price lunch eligible counterparts.

The case for class size in early elementary grades was well documented. However, further research may impact the teaching and learning of students at-risk of

academic failure in upper elementary school. Nevertheless, class size alone will not increase academic achievement (Ready, 2008).

Ehrenberg et al. (2001) found that class-size reductions supported achievement, but only when teachers modified instructional practices to take advantage of the smaller classes. Zahorik et al. (2003) found effective teaching in small classes to be characterized by (a) clear academic and behavioral expectations, (b) balanced instructional methods, (c) higher degrees of individualization, and (d) less time on discipline. Subsequently, the effects of strong intervention were realized by individual students with specific learning patterns when supplemental programs of assistance in which well-trained teachers observed the students' strengths and gaps in literacy processing and implemented late interventions (Neal & Kelly, 2002).

Cooperative Learning Groups

Cooperative learning (CL) is defined by Kauchak and Eggen (1998) as “a set of teaching strategies used to help learners meet specific learning and interpersonal goals in structured groups” (p. 234). Research on CL has been one of the better researched instructional strategies, and the results have revealed cognitive, affective, and interpersonal benefits (Ormrod, 2006, & Slavin, 1995).

To make the transition from struggling readers to proficient readers, students need to build a foundation for reading, writing, listening, speaking, and thinking (Echevarria et al., 2008). Reading become more complex as students moved into middle and high school, and there is a need for teachers to help students adjust and learn new strategies to comprehend the content (Tovani, 2004). Ketch (2005) believed academic conversation was the key component that linked critical thinking to cognitive strategies. Therefore,

conversation fostered comprehension acquisition. Day, Spiegel, McLellan, and Brown (2002) suggested when students were given the opportunity to talk about what they read, they then became critical readers.

Direct Instruction

Rupley (2009) identified direct instruction, a skill approach method of instruction, as an essential feature of reading instructional programs needed by struggling readers. Direct instruction emphasized the use of small group, face-to-face instruction by teachers and assistants using carefully articulated lessons in which cognitive skills were broken down into small units, sequenced deliberately, and taught explicitly. According to Schug, Tarver, and Western (2001), basic research and evaluation studies carried out in multiple settings, and over a period of more than 25 years, revealed strong, positive effects of direct instruction on students' achievement in reading as measured by tests of decoding skills, reading comprehension, and attitudes toward reading. Rupley (2009) suggested teachers should provide effective, direct, and explicit instruction in the critical areas of phonemic awareness, phonics, fluency, vocabulary, and comprehension.

In a study conducted by Schug et al. (2001), the perceptions of teachers and administrators in six Wisconsin schools favored direct instruction as a strategy which yielded exemplary results in decoding skills and reading comprehension for regular education students as well as special education students. Other positive effects included improvements in children's classroom behavior and in their capacity to focus and sustain effort on academic tasks, while no negative side effects were reported (Schug et al., 2001). Additionally, the authors found that improvements gained through competent,

widespread use of direct instruction would decrease the need for remedial reading programs in the state.

Due to limited exposure to a print-rich environment, Villaume and Brabham (2002) suggested struggling readers had less schema, limited word knowledge, and comprehension monitoring and fix-up strategies to help them comprehend while reading. Focused, intensive small-group interventions with direct instruction being the primary means of instructional delivery and high-quality vocabulary instruction to ensure the development of formal or academic English were key instructional goals for struggling readers (USDE, 2009).

Differentiated Instruction

No two students come to school with identical abilities, experiences, or needs. According to Hall, Strangman, and Meyer (2003), variations among learning styles, language proficiency, background knowledge, and readiness to learn were very diverse even within a single classroom. Yet, regardless of the individual differences of students, they were all expected to master the same concepts, skills, and objectives.

Differentiated instruction is a method used to provide strategies for a variety of students based upon their individual academic needs (Walker, 2008). According to Hall (2002), to differentiate instruction was to acknowledge students' backgrounds, readiness levels, languages, interests, and learning profiles. Differentiated instruction allowed teachers to differentiate content, process, and/or product tailored to the needs of the students, so they could have access to the same curriculum through various tasks and outcomes (Hall et al., 2003).

The differentiated instruction implemented to struggling readers was not an easier version of work given to proficient readers. Differentiated instruction implemented the same curriculum and standards in a way that matched the individualized reading levels of the students (Allington, 2006). As a result, differentiation released students from labels and offered them individual opportunities to perform at their best (Tomlinson, 2003).

Since the inception of NCLB, teachers, administrators, and school districts have been concerned with identifying the best practices to close the academic achievement gap between struggling readers and proficient readers (Cunningham & Allington, 2003; Strickland, Ganske, & Moore, 2002; Thompkins, 2003). Interventions were designed to help students either catch up or accelerate to functional levels and master objectives in all content areas (Neal & Kelly, 2002), and according to the authors, rigor was a major component of interventions.

Marzano (2003) pointed out the need for more direct, explicit instruction for those students who struggled with reading. The effective implementation of sheltered instruction was researched and found to be instrumental in improving the academic success of one at-risk population, ELLs (Echevarria et al., 2004).

Sheltered Instruction

Over the years many strategies were implemented to meet the needs of students at risk of academic failure. With the influx of ELLs, schools began to find ways to educate students whose primary language was not English and therefore, were at risk of academic failure (Echevarria et al., 2004). Too often ELLs were put in traditional classrooms where they competed with proficient English-speaking students. In the days when the term was first used in connection with ELLs, these students were considered "sheltered" because

they studied in classes separate from the mainstream and did not compete academically with native English-speaking students (Freeman & Freeman, 1988). However, the high stakes testing and accountability mandates of NCLB now require that ELLs be held accountable to the same curriculum and standards and be assessed the same as their English-speaking peers (USDE, 2009).

Krashen (1981) coined the term “sheltered instruction” to describe the methods used to teach limited English proficient (LEP) students enrolled in content area classes in a school district in Los Angeles, California. Originally viewed as the bridge between the students’ primary language and the English only instruction provided in content areas, sheltered instruction was designed as a transitional program in the content areas. However, Krashen’s (1981) concept of sheltered instruction became diluted as all ELLs, newcomers as well as those with minimal proficiencies in English and their native language, were placed in sheltered content classes. Therefore, sheltered content classes became classes of submersion rather than classes of immersion (Sodul, 1995).

To combat the watered-down curriculum offered to ELLs in a content class of submersion, Specifically Designed Academic Instruction in English (SDAIE) became the new term to describe academic content instruction geared toward LEP students who were at the intermediate level (Sodul, 1995). It was then that sheltered English instruction came to mean a set of practices deemed highly valuable in helping ELLs learn English and at the same time learn meaningful content material. SDAIE is based on Vgotsky’s sociocultural theory which is based on the premise that learning is social in nature; therefore, academic instruction must involve collaboration, cooperative learning, and scaffolding (Sodul, 1995).

Sheltered instruction has offered and continues to offer promise in supporting the academic competence and English proficiency of one at-risk population, ELLs. Identified as a teaching approach, sheltered instruction incorporated strategies and techniques with traditional teaching methodology to increase the comprehensibility of the lesson for students at an appropriate pace (Echevarria & Short, 2004; Krashen, 1982). Other components of sheltered instruction included modifying teachers' speech rate and tone, modeling strategies, using context clues, and activating students' prior knowledge (Echevarria et al., 2008; Northcutt & Watson, 1986).

According to Echevarria et al. (2008), teaching strategies shown to promote meaningful participation in a sheltered instruction classroom included cooperative learning activities, as well as instructional approaches that were flexible enough to appeal to individual students' interests and abilities. Many strategies and activities were utilized to make content more comprehensible (Echevarria et al., 2008).

The SIOP® training in this district was conducted by Tery Medina, Associate Director of the Southeastern Equity Center. She is a trusted ESL contact and conducts trainings and presentations on educating ELLs and native English speaking students using the SIOP® model. According to T. J. Medina, who is the district contact person, visuals, vocabulary instruction, and graphic organizers were used to build background knowledge. Integrating reading, writing, listening, speaking, and thinking activities into the curriculum were also strategies implemented in a sheltered classroom (T. J. Medina, personal communication, October 15, 2009).

Sheltered Instruction Observation Protocol

Research conducted in 1997-98 and again in 1998-99 revealed that ELLs enrolled in classes with teachers who were trained in sheltered instruction under the SIOP® model outperformed similar students enrolled in other types of classes (Echevarria et al., 2004). The SIOP® model was designed to assist teachers in planning and preparing lessons which hold high expectations for all students. Inherent in the SIOP® model is the opportunity for teachers to reflect on the lessons taught and modify the lessons as needed to better meet the academic needs of their students. According to Echevarria et al. (2008), through this time of reflection, teachers then became more conscious of their own attitudes and behaviors of teaching and learning and more aware of unintentionally communicated low expectations for low-achieving students. According to the authors, the effective implementation of sheltered instruction was one key to improving the academic success of one at-risk population, ELLs (Echevarria et al., 2004).

Smiley-Blanton's (2010) study explored the perceptions of teachers regarding effective instructional practices in increasing the reading proficiency of ELLs. The sample of Smiley-Blanton's study was third and fifth grade teachers at two schools in a large urban school district in the southeastern part of the United States. The results of the study indicated that the majority of the teachers in the two schools perceived the direct and individualized component of the SIOP® model to be as the most effective means of addressing the needs of ELLs.

Ready's (2008) study sought to determine if the instructional strategies implemented in a sheltered instruction classroom were effective in increasing the reading achievement of elementary ELLs in Grades 3-5. The findings revealed higher scores for those students in the control group on the Delaware State Testing Program in reading

than those students in the experimental group, yet the experimental groups made greater gains. The study suggested that the gap in the achievement of ELLs was narrowed, and SIOP® strategies were just as successful when implemented in elementary classrooms as they were in the original study conducted by the developers of SIOP® (Ready, 2008). The researchers' initial study of the effectiveness of SIOP® on the writing achievement of middle school ELLs also revealed a slight increase for the experimental groups in comparison to the control group (Echevarria et al., 2008.). The ELLs taught by SIOP® trained teachers scored higher on a narrative writing test than those ELLs taught by other teachers (Echevarria et al., 2008).

While there have been many advances over the last several decades to increase the reading proficiency of non-English speaking and bilingual students, the needs of struggling native English speaking students who lack academic English language proficiency (AELP) have been overlooked (Smitherman, 2000). Struggling readers can be viewed as academic English language learners (AELLs) who must be educated in the grammatical structures, vocabulary, and mores of academic English (Zwiers, 2005).

Collins' (2009) study examined the effects of the implementation of the SIOP® model on the academic skills and language of AELLs. The study revealed a positive impact on academic growth in both reading and math, and the academic language proficiency levels of the students (Collins, 2009).

Sheltered instruction could serve as the bridge to helping struggling readers become proficient readers. Yet, a review of the literature failed to identify a study that examined the effectiveness of sheltered instruction on the academic and non-academic behaviors of struggling readers. There is a need for a study that assesses the progress and literacy growth of struggling readers taught in a sheltered instruction classroom.

Summary

Recent studies found that children placed in special education after third grade typically achieved a year's gain or less in reading skills for each year in special education (Kamil, 2003; Werner, 2003). Thus, it is not surprising that most special education programs in the United States failed to close the gap in reading skills for the children they served (Hanushek, Kain, & Rivkin, 1998; Vaughn, Moody, & Schuman, 1998). For this reason, schools across the United States need to recognize the conditions that promote higher student achievement, e.g., the use of sheltered instruction for ELLs, and determine if these same conditions could promote higher student achievement among other populations of struggling readers. Doing so could minimize the number of students being referred for special education programs, enrolled in other remedial programs or repeating a grade. Being that other segments of the population of students at-risk of academic failure faced many of the same academic struggles as ELLs, assessing the progress of other at-risk groups being taught in a smaller class setting where sheltered instruction was highly implemented is imperative to finding ways to increase the reading achievement of struggling readers.

To promote learning for struggling students, schools must provide students with (a) guidance in thinking, (b) opportunities to develop thinking skills that are meaningful and challenging, and (c) alternative methods of instruction and assessment (Comer & Haynes, 1992). According to Torgesen (2006), older struggling readers must be taught in an educational environment where they are afforded opportunities to increase the range of words they can recognize at a single glance (sight words) in order to meet grade-level expectations for reading fluency. Additionally, struggling readers must be provided

explicit and systematic instruction with carefully selected new vocabulary as part of the efforts to increase reading proficiency (Beck, McKeown, & Kucan, 2002; Stahl & Fairbanks, 1986).

The expectations of NCLB apply to all students, particularly those at risk for reading failure and low academic achievement. Struggling readers must be taught using scientifically-based teaching methods that have been found to be effective. Such methods are means to ensure all students are provided an optimal learning environment in which they can learn. A sheltered environment which incorporates multiple strategies, high expectations, and scaffolding provides such an environment and may yield the same successful results for other struggling readers as experienced with ELLs.

CHAPTER III

METHODOLOGY

Despite the nation's efforts to have every child reading proficiently by 2014, many students were still scoring at the minimal and basic levels on state and national reading assessments, (MDE, 2011 & NCES, 2009a). Such performances hinder students' abilities to achieve academic success in other content areas. The purpose of this study was to examine the effects of sheltered instruction on the academic and non-academic behaviors of struggling readers. Specifically, this study examined the MCT2 Language Arts scores, attendance, and discipline referrals for a group of students before and after being assigned to a sheltered instruction classroom.

The overarching question for this study addressed the effects of sheltered instruction on meeting the academic and non-academic needs of struggling readers. The following questions were answered in this study.

1. Is there a statistically significant difference in the MCT2 Language Arts scores of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?
2. Is there a statistically significant difference in the attendance of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

3. Is there a statistically significant difference in the number of discipline referrals of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

This chapter describes the methodology and procedures that were used to conduct the study. Included in this chapter are the following sections: (a) research design, (b) participants, (c) materials, (d) instrumentation, (e) procedures, and (f) data analysis.

Research Design

A causal-comparative research design was employed in this study. Causal-comparative research was used to compare measures of dependent variables under two or more treatments or independent variables (Gay, Mills, & Airasian, 2006). As noted by Gay et al. (2006), causal-comparative studies attempt to identify cause-and-effect relationships that may lead to more robust experimental studies. While causal-comparative studies attempt to identify cause-effect relationships, they are unable to do so because of the inability to manipulate the independent variable.

The causal-comparative design was deemed most appropriate for the present study because of the researcher's inability to manipulate the independent variable of the type of instruction. The independent variable for the present study had two levels, sheltered instruction classroom and traditional instruction classroom, which were not assigned by the researcher. Rather, the researcher compared measures of the dependent variables of MCT2 Language Arts scores, attendance, and number of discipline referrals for a group of struggling readers under the two levels of the independent variables.

Participants

Existing data were used for participants of sheltered instruction. The participants were 28 students assigned to a sheltered instruction classroom at a sixth grade school in northern Mississippi during the 2009 - 2010 school year. These students were assigned to the sheltered instruction classroom because of academic deficiencies as measured by MCT2 scores or grade retentions. During the 2008 - 2009 school year, all of the participants were assigned to a traditional classroom.

Although all participants were in the sixth grade during the 2010 school year, their ages ranged from 11 to 14 years of age. Of the 28 participants, 10 were girls and 18 were boys. The racial composition of the group was 46% African American, 29% Caucasian, and 25% Hispanic.

In this single grade school, a sheltered instruction classroom consisted of two teachers: (a) one who taught reading, language arts, and social studies, and (b) one who taught math and science. The class size was reduced to achieve the goal of increasing language skills in an effort to help students master the content taught in an English only mainstream classroom. The student-teacher ratio for the sheltered instruction classroom was not to exceed 17:1. However, during the 2008 - 2009 school year, only 14 students were assigned to each class for a total of 28 students in the sheltered instruction classroom. For the purpose of this study, the Sheltered English Immersion model (sheltered instruction classroom) was examined to determine its effectiveness in meeting the needs of struggling readers.

All students were taught in a sheltered instruction classroom setting using the same state and district mandated curriculum by a team of two teachers who implemented ESL methods to make instruction more comprehensible. Prior to being assigned to a

sheltered instruction classroom, all of the students were in a traditional instruction classroom the previous school year. Therefore, only one group of students participated in this study, but the measures of the dependent variables were collected for two years, the year they were in the traditional classroom setting (2008 – 2009) and the year they were in the sheltered instruction classroom setting (2009 -2010).

Materials

Two special electronic applications were utilized to gather data for the study. The first application, EZ Test Tracker was utilized to obtain the students' scores on the language arts section of the MCT2. EZ Test Tracker is a product of Educational Leadership Solutions, Incorporated (ELS), which specializes in providing schools user-friendly data management tools and services (Shelly & Baer, 2003). In addition to creating user friendly reports and graphs, the EZ Test Tracker catalogs multiple years of students' test score data. In this study, EZ Test Tracker was used to access the participants' MCT2 scores when they were enrolled in the traditional classroom setting and when they were enrolled in the and sheltered instruction classroom setting.

The second application used in this study was the Student Administration Management 7 (SAMs) system. SAMs, developed by Central Access (<http://www.activeschool.net/news/news.html>), is a database used by schools to record school-related information such as contact information, grades, attendance, class schedule, and discipline referrals. SAMs also enables schools and districts to electronically transfer data to other schools both within and outside of the district. SAMs was used in this study to gather rates of school attendance and number of discipline

referrals for the participants when they were in the traditional classroom (2008 – 2009) and when they were in the sheltered instruction classroom (2009 – 2010).

Instrumentation

All data utilized in this study were archived data retrieved from either the EZ Test Tracker or SAMs. The EZ Test Tracker System stores all MCT2 scores. The state of Mississippi uses the MCT2 to assess students' content knowledge of language arts, mathematics, and science in Grades 3–8. This study used the MCT2 Language Arts scores as one of the dependent variables. The MCT2 Language Arts contained test items of varying degrees of difficulty that were aligned to the content, skills, and processes represented by Mississippi's academic content standards (MDE, 2010b).

According to the MCT2 Interpretive Guide for Teachers and Administrators (MDE, 2010a), the tests were scored electronically at the state department of education, and a raw score was calculated based on the number of questions answered correctly. The raw scores were then converted to scale scores, which are statistical conversions that adjust for variations in the difficulty of items in different tests and permit valid comparison across all test administrations within a particular subject area or grade level. The scale scores corresponded to one of the four following performance levels: minimal, basic, proficient, or advanced.

Content Validity

Validity refers to the extent to which a measurement provides data that allows accurate interpretations of scores (Gay et al., 2006). One measure of validity is content validity. According to Gay et al. (2006), content validity, which is determined by expert judgment, is related to how well a test measures the content area for which it is used.

According to MDE (2009) several procedures were used to establish the content validity of the MCT2 Language Arts.

According to MDE (2009), all MCT2 items were explicitly developed to measure the specific knowledge and skills described in the Mississippi Curriculum Framework for Language Arts. In addition, the alignment of the items to the standards was reviewed and verified independently by multiple content reviewers and Mississippi educators. After extensive reviews by Mississippi educators and external reviewers, the MCT2 core items were sent to Pearson, a test development company, where some of the language arts items went through an additional universal design review (UDR) and content review (MDE, 2009).

Reliability

Reliability is the consistency of the results obtained from a measurement (MDE, 2009). The focus of reliability should be on the results obtained from a measurement and the extent to which they remain consistent over time or among items or subtests that constitute the test. An internal consistency coefficient, coefficient alpha, was used to establish reliability for the MCT2. Coefficient alphas are provided for the entire MCT2, for each of the standards on the test, and for several demographic groups including gender and ethnicity groups. Cronbach's alphas were used to provide reliability estimates for the MCT2 for all students as well as selected sub-groups. With the exception of Grade 6 tests, all language arts tests reported reliability estimates higher than 0.85. The generally accepted value for a high-stakes assessment is a reliability estimate of .80 or higher. The Cronbach's alpha for the Grade 6 language arts was 0.84. According to MDE (2008), the relatively lower internal consistency for the Grade 6 language arts test could

be attributed to the introduction of test items which measured new skills or tested the same skill in a different format.

Procedure

Prior to collecting the data, the district approved the study and provided documentation of their approval (see Appendix A). After district approval, approval from the Institutional Review Board (IRB) at Mississippi State University (MSU) was obtained (see Appendix B). After all approvals were secured, the data were collected by the school counselor and data entry clerk using SAM7 and EZ Tracker systems. To maintain confidentiality, after all measures were linked, students' names were removed and data were transferred to a Statistical Package for Social Science (SPSS) data file for analysis.

Data Analysis

The data collected for this study were analyzed using the SPSS 12.0 program. A paired-samples *t* test was used to answer all research questions. *T* tests are used in causal-comparative studies to measure differences between means (Fraenkel & Wallen, 2006). By using the paired-samples *t* test, a researcher can statistically conclude whether or not the measures gathered when the students were in a sheltered instruction classroom were significantly different than the measures gathered when the students were in a traditional instruction classroom.

According to Kenny (1987), it is possible for a small sample study to show meaningful differences without being statistically significant. The advantage of effect size is that it contributes to the practical significance of research results. Meaningful or practical significance implies that research results can be viewed as having importance

for the practice of education by teachers, school administrators, policy makers, and others concerned about education and efforts to improve it.

Gall (2001) stated that practitioners like to determine whether students' test scores are increasing or whether some intervention is working to produce measurable gains in student learning. Measuring the judgments of increasing or working require a discernible amount of difference between two groups or gain over time within one group (Gall, 2001). Therefore, because of the small sample size, the need to increase students' reading levels, and the implementation of sheltered instruction, the effect size was analyzed to determine if there were meaningful differences between the measures gathered under each condition.

The assumptions underlying the paired-samples t test are (a) only the matched pair can be used to perform the test, (b) there is a normal distribution, (c) there are equal variances of the two samples, and (d) observations were independent of each other. Assumptions (a) and (d) were met. Prior to data analysis, assumptions (b) and (c) were tested using Shapiro-Wilk Test of normality and the Levene's Test of equality of variances.

CHAPTER IV

RESULTS

The purpose of this study was to examine the effects of sheltered instruction on the academic and non-academic behaviors of a group of struggling readers. Specifically, this study compared the scores of the MCT2 Language Arts, attendance, and discipline referrals for one group of students under two conditions (traditional instruction and sheltered instruction) to determine if students performed better in a sheltered instruction environment than they did while they were in the traditional instruction environment. To achieve the purpose of this study, the following three research questions were developed to guide this study.

1. Is there a statistically significant difference in the MCT2 Language Arts scores of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?
2. Is there a statistically significant difference in the attendance of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?
3. Is there a statistically significant difference in the number of discipline referrals of a group of struggling readers when they were taught in a

sheltered instruction classroom and when they were taught in a traditional instruction classroom?

Chapter IV is organized in three sections. The first section presents the results of pre-analysis data screening. Following the section on pre-analysis data screening, the results of the analysis of data that were used to answer each research question are presented. The final section of Chapter IV provides a summary of the study's findings.

Pre-Analysis Data Screening

The assumptions underlying the paired-samples t test are (a) only the matched pair can be used to perform the test, (b) there was a normal distribution, (c) there were equal variances of the two samples, and (d) observations were independent of each other. Because of the research design used, assumptions (a) and (d) were met. Prior to data analysis, all measures were screened to obtain accurate descriptions of measures under both conditions (sheltered and traditional), and to test the assumptions of normality and homogeneity of variance for each dependent variable. Measures of the dependent variables were collected for the 2008-2009 and the 2009-2010 school years for students enrolled in the sheltered instruction class during the 2009-2010 school year. While 28 students were enrolled in the sheltered instruction class, preliminary inspection of data revealed several students had missing data for the 2008-2009 school year. Inspection of Table 4, which displays missing data by student for the 2008-2009 school year, revealed that three students did not have any of the dependent measures recorded for the 2008-2009 school year. Therefore, the scores for these students were not included in any of the analyses. As a result, the sample size varies by analysis. The remainder of this section of pre-analysis data screening is organized by dependent variables.

Table 4 Cases with Missing Data (X) for the 2009 Traditional School Year

Student	MCT2 Scores	Attendance	Discipline Referrals
3		X	X
5		X	X
6		X	X
7			X
8		X	X
9		X	
14		X	X
16	X	X	
17		X	X
18		X	X
19	X	X	X
20		X	X
21	X	X	X
22		X	X
24		X	X
25		X	X
27	X	X	X
28		X	X
Total Missing	4	14	16
Sample Size	24	14	12

MCT2 Language Arts Scores

Prior to analyzing MCT2 Language Arts scores to determine the effect of sheltered instruction on the academic behavior, MCT2 scores for two years (traditional in 2009 and sheltered in 2010) were analyzed to determine descriptive statistics, identify outliers and to test the assumption of normality. Participants who did not have MCT2 Language Arts scores reported for both years were excluded from the analysis. Table 5 presents descriptive statistics for the MCT2 Language Arts scores under the traditional instruction classroom and sheltered instruction classroom.

Table 5 Traditional and Sheltered Instruction MCT2 Descriptive Data

Condition	N	M(SD)	Minimum	Maximum	Range
2009 Traditional	24	140.83(6.95)	128	156	28
2010 Sheltered	24	141.33(9.05)	122	164	42

The mean score of the MCT2 Language Arts was higher when the students were in sheltered instruction (141.33) than it was when the students were in a traditional instruction (140.83), yet both mean scores fell within the basic range of 138–139 for Grade 5 and 137–149 for Grade 6. However, as evidenced by standard deviations, the scores when students were enrolled in sheltered instruction ($SD = 9.05$) were more dispersed than when they were enrolled in traditional instruction ($SD = 6.95$). The range of MCT2 Language Arts scores in sheltered instruction was 42 points while the range in traditional instruction was only 28 points.

The Explore procedure in the SPSS package was used to identify outliers and to test the assumption of normality for the MCT2 Language Arts scores of both years.

Inspection of the boxplot and the stem and leaf graphs revealed one outlier. Table 6 displays the results of the Shapiro-Wilk and the Kolmogorov-Smirnov tests for the 2009 and 2010 MCT2 Language Arts scores.

Table 6 Tests of Normality for MCT2 Language Arts Scores

Condition	Shapiro-Wilk			Kolmogorov-Smirnov		
	Statistic	Df	Sig.	Statistic	Df	Sig.
2009 Traditional	.97	24	.69	13	24	.20
2010 Sheltered	.94	24	.22	15	24	.15

For the 2010 MCT2 Language Arts scores, student 17 had a MCT2 score (164) that was considered beyond the normal range. However, the significance of .22 reported for the Shapiro-Wilk and .15 for the Kolmogorov-Smirnov tests were both greater than .05 and indicated that the scores for both years were normally distributed. Therefore, the paired-samples *t test* was an appropriate analysis.

Attendance

The Explore procedure in the SPSS package was used to identify outliers and to test the assumption of normality for the attendance data for both years, 2009 (traditional) and 2010 (sheltered). Inspection of the boxplot and the stem and leaf graphs revealed two outliers in the 2009 (traditional) data, one of which was considered extreme. Student 8 and student 13 had rates of attendance, 155 and 144 days respectively, that were lower than the rates of attendance of the other 12 students. The boxplot and the stem and leaf graphs for 2010 (sheltered instruction) revealed one extreme outlier, student 13. For both years, the skewness statistic (-1.96 in traditional and -2.85 in sheltered) indicated that the

distribution was negatively skewed. Table 7 displays the results of the test of normality for attendance.

Table 7 Tests of Normality for Attendance

Condition	Shapiro-Wilk			Kolmogorov-Smirnov		
	Statistic	<i>Df</i>	Sig.	Statistic	<i>Df</i>	Sig.
2009 Traditional	.30	14	.001	.70	14	.000
2010 Sheltered	.27	14	.009	.64	14	.000

The results of the tests of normality revealed that the attendance measures were not normally distributed. Although the *t* tests are robust against moderate violations of the assumption of normality, the Wilcoxon-Signed Rank tests were used to confirm the results of the paired-samples *t* test. The significance of .009 reported for the Shapiro-Wilk and .000 for the Kolmogorov-Smirnov tests were both less than .05 and confirmed that the attendance rates for both years were not normally distributed.

The attendance records for two years (traditional in 2009 and sheltered in 2010) were analyzed to determine descriptive statistics. Participants who did not have attendance records for both years were excluded from the analysis. Table 8 displays the results of the descriptive analysis of attendance data.

Table 8 Traditional and Sheltered Instruction Attendance Data

Condition	N	M(SD)	Minimum	Maximum	Range
2009 Traditional	14	178.50(13.19)	144	187	43
2010 Sheltered	14	179.50(11.73)	142	187	45

As with the 2009 school year, student 13 had a lower rate of school attendance (142 days) than any other student. The mean number of days of attendance for the 2009 school year was 178.50 and 179.50 for the 2010 school year and did not reveal a significant difference in the attendance of struggling readers.

Discipline Referrals

The Explore procedure in the SPSS package was used to identify outliers and to test the assumption of normality for the discipline referral data for both years, 2009 (traditional) and 2010 (sheltered). Inspection of the boxplot and the stem and leaf graphs revealed two outliers in the 2009 (traditional) data and one outlier in the 2010 (sheltered) data. The number of discipline referrals for student 12 (30 discipline referrals) was an outlier for the 2009 and 2010 data. For both years, student 12 had discipline referrals that were considered beyond the normal range, while student 1 had excessive referrals in 2009. Table 9 displays the results of the tests of normality for discipline referrals.

Table 9 Tests of Normality for Discipline Referrals

Condition	Shapiro-Wilk			Kolmogorov-Smirnov		
	Statistic	<i>Df</i>	Sig.	Statistic	<i>Df</i>	Sig.
2009 Traditional	.27	12	.02	.73	12	.002
2010 Sheltered	.30	12	.01	.61	12	.001

The significance of .02 reported for the Shapiro-Wilk in 2009 and .01 in 2010 and .002 for the Kolmogorov-Smirnov tests in 2009 and .001 in 2010 were both less than .05 and indicated that the data were not normally distributed. For both years, the skewness statistics (1.45 in traditional and 2.67 in sheltered) indicated that the distributions were positively skewed. Although the *t* tests are robust against moderate violations of the assumption of normality, the Wilcoxon Signed Rank tests were used to confirm the results of the paired-samples *t* test. The results of the tests of normality revealed that the measures of discipline referrals were not normally distributed.

During the 2009 school year, the number of discipline referrals received by student 1(25 referrals) and student 12 (23 referrals) varied greatly from the other students. Table 10 displays the results of the descriptive analysis of discipline referrals.

Table 10 Traditional and Sheltered Instruction Discipline Referral Data

Condition	N	M(SD)	Minimum	Maximum
2009 Traditional	12	6.33(9.0)	0	25
2010 Sheltered	12	4.67(8.64)	0	30

The mean number of referrals for the 2009 school year was 6.33 and 4.67 for the 2010 school year. However, the mode of discipline referrals for both conditions, traditional (2009) and sheltered (2010), was zero.

Results of Data Analysis

This section of Chapter IV presents the results of data analyses that were used to answer each research question. Paired-sample *t* tests were conducted to determine if there were statistically significant differences in the measures of academic and non-academic behaviors for the same group of students exposed to two different conditions. The dependent variables for this study were recorded in the EZ Test Tracker and SAMs for a group of struggling readers when they were in the fifth grade and when they were in the sixth grade. The dependent variables were MCT2 Language Arts scores, measures of school attendance, and number of discipline referrals. This section of Chapter IV is organized by research questions.

Research Question 1

Is there a statistically significant difference in the MCT2 Language Arts scores of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

A paired-samples *t* test was used to compare the MCT2 Language Arts mean score of the students when enrolled in a sheltered instruction classroom to their MCT2 Language Arts mean score when they were enrolled in a traditional classroom. Table 11 displays the results of the descriptive analysis.

Table 11 Paired-Samples *T* Test Descriptive Statistics for MCT2 Language Arts

Condition	Mean	N	Std. Deviation	Std. Error Mean
	2009 Traditional	140.83	24	6.95
2010 Sheltered	141.33	24	9.05	1.85

The mean score of MCT2 Language Arts scores when students were enrolled in the sheltered instruction classroom ($m = 141.33$, $SD = 9.05$) was not significantly different from the mean score on the MCT2 Language Arts scores when students were enrolled in the traditional classroom ($m = 140.83$, $SD = 6.95$). Therefore, sheltered instruction did not have an effect on the MCT2 Language Arts mean scores.

The paired-samples *t* test was also run to compute differences in the MCT2 Language Arts mean scores when students were enrolled in the traditional classroom and when students were enrolled in the traditional classroom. The results of the inferential analysis are displayed in Table 12.

Table 12 Paired-Samples *T* Test for MCT2 Language Arts Scores

	Paired Differences					<i>T</i>	<i>Df</i>	Sig.
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
2009 MCT2 – 2010 MCT2	.50	9.68	1.98	-4.59	3.59	.25	23	.80

The results of the paired-samples t test did not show a significant difference between the MCT2 Language Arts mean scores of the group under the two conditions, $t(23) = .25, p = .80$. Therefore, sheltered instruction did not have an effect on the MCT2 Language Arts scores.

Research Question 2

Is there a statistically significant difference in the attendance of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

A paired-samples t test was used to compare the attendance mean score of the students when enrolled in a traditional classroom to the attendance mean score of the same students when enrolled in a sheltered instruction classroom. Table 13 displays the descriptive statistics for attendance.

Table 13 Paired-Samples T Test Descriptive Statistics for Attendance

Condition			Std.	Std. Error
	Mean	N	Deviation	Mean
2009 Traditional	178.50	14	13.19	3.53
2010 Sheltered	179.50	14	11.73	3.14

The attendance mean score of the students when enrolled in the traditional classroom ($m = 178.50, SD = 13.19$) was not significantly different from the attendance mean score when the students were enrolled in the sheltered instruction classroom ($m = 179.50, SD = 11.73$).

To determine if there were differences between the attendance mean scores of the two conditions, a paired-samples *t* test was used. Table 14 displays the inferential statistics for this analysis.

Table 14 Paired-Samples *T* Test for Attendance

	Paired Differences					<i>T</i>	<i>Df</i>	Sig.
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
2009 Traditional – 2010 Sheltered	1.0	9.65	2.58	-6.57	4.57	.39	3	.70

The attendance mean scores did not reveal a significant difference under the two conditions, $t(12) = .39, p = .70$. However, due to outliers, the data for attendance violated the assumption of normality. Although paired-samples *t* tests are robust to violations of normality, the Wilcoxon Signed Ranks nonparametric test was computed to determine if this insignificant finding would be confirmed. The results of the Wilcoxon test confirmed these results ($Z = -.05, p = .96$). As a result of the insignificant differences between mean attendances, sheltered instruction did not have an effect on school attendance.

Research Question 3

Is there a statistically significant difference in the number of discipline referrals of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

A paired-samples *t* test was used to compare the mean number of discipline referrals of students when enrolled in a traditional classroom to the mean number of discipline referrals when enrolled in a sheltered instruction classroom. Table 15 displays the descriptive statistics for this analysis.

Table 15 Paired-Samples *T* Test Descriptive Statistics for Discipline Referrals

Condition	Mean	N	Std. Deviation	Std. Error Mean
2009 Traditional	6.33	12	9.0	2.60
2010 Sheltered	4.67	12	8.64	2.50

The mean score for the number of discipline referrals of students when enrolled in the traditional classroom ($m = 6.33$, $SD = 9.0$) was not significantly different from the mean number of discipline referrals when they were enrolled in the sheltered instruction classroom ($m = 4.67$, $SD = 8.64$). This indicated that sheltered instruction did not have a significant effect on the number of discipline referrals of the students.

A paired-samples *t* test was used to compare the mean number of discipline referrals of students when enrolled in a traditional classroom to the mean number of discipline referrals when the students were enrolled in a sheltered instruction classroom. The descriptive statistics are displayed in Table 16.

Table 16 Paired-Samples *T* Test for Discipline Referrals

	Paired Differences					<i>T</i>	<i>Df</i>	Sig.
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
2009 Traditional 2010 Sheltered	.67	7.81	2.25	-3.29	6.63	.74	1	48

The paired-samples *t* test comparing the mean number of discipline referrals of students when enrolled in a traditional classroom to the mean number of discipline referrals when the students were enrolled in a sheltered instruction classroom did not show a significant difference between the means of the two conditions, $t(11) = .74, p = .48$. Because the data for discipline referrals violated the assumption of normality, the Wilcoxon Signed Ranks nonparametric test was computed to determine if this insignificant finding would be confirmed. The results of the Wilcoxon test confirmed these results ($Z = -.42, p = .67$).

Summary

Chapter IV reported the results of the pre-analyses data that were used to answer each of the research questions. The results of the pre-analyses data screening revealed that the data for attendance and discipline referrals violated the assumption of normality. Therefore, in addition to computing paired-samples *t* test, the Wilcoxon- Signed Ranks test was computed to confirm the results of the *t* tests. In both instances, the Wilcoxon- Signed confirmed the results of the *t* tests.

The results of the three paired-samples *t* tests did not reveal any significant differences between the measures (MCT2 Language Arts mean scores, attendance mean scores, and discipline referral mean scores) gathered under the two conditions (traditional instruction and sheltered instruction). Therefore, it appears that sheltered instruction did not have an effect on the academic and non-academic behaviors of the students. However, while there were no significant differences in the MCT2 Language Arts scores, measures of attendance, or number of discipline referrals, the measures gathered during the sheltered instruction condition were more favorable than those gathered during the traditional condition. During the school year when the students were enrolled in the sheltered instruction classroom (2010 school year), the students had a higher MCT2 Language Arts mean score (141.33 vs. 140.83), higher attendance mean score (179.50 vs. 178.50) and a lower mean score for discipline referrals (4.67 vs. 6.33).

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Like many other states throughout the nation, Mississippi is in need of effective strategies that will increase the reading achievement of struggling readers. Proficient reading skills are the foundation of academic and career success and without these much needed skills students at the upper elementary and secondary school levels will continue to struggle academically. Consequently, students who struggled academically often developed behaviors that were counter-productive to academic success. One of the basic needs of all human beings, according to Maslow's hierarchy of needs (Maslow, 1987), is the need of high self-esteem. According to Ormrod (2006), some theorists believe that people also have a basic need to feel competent. Children desire to believe that they can effectively deal with the objects and events they encounter (Ryan & Deci, 2009).

Because of repeated failures, readers often developed behaviors to avoid academic tasks as a means of preserving their self-worth. Covington (1992) proposed that protecting one's sense of competence is one of people's highest priorities. According to Ormrod (2006), failure avoidance manifested itself in a variety of ways. Often these avoidance behaviors were displayed in discipline problems or avoiding school altogether. Ample research documented the relationship between academic difficulties and discipline problems and absenteeism (Guthrie & Davis, 2003; Margolis & McCabe, 2006; Walker, 2003).

The purpose of this study was to examine the effects of sheltered instruction on the academic and non-academic behaviors of a group of sixth graders who were considered struggling readers. Chapter V provides a summary of the current study and discusses the conclusions that were reached as a result of the findings of the current study. The chapter concludes with recommendations and limitations based on the findings of the study.

Proficient reading skills involve comprehension, increased vocabulary, background knowledge, and multiple strategies to monitor their reading comprehension. Reading capacity extends beyond phonics, decoding and word calling. The skills required to read proficiently include moving from learning to read to reading to learn and mastering content in all subject areas (Foorman et al., 1998).

Since the adoption of NCLB in 2001, many school districts have sought ways to increase the reading achievement of all students by 2014. Through the years, the only recourse for struggling readers who were not eligible for special education services was retention or social promotion. This study can provide data pertaining to the program's effectiveness of meeting the needs of struggling readers.

To determine the effects of sheltered instruction on the academic and non-academic behaviors of struggling sixth grade readers, the study addressed the following research questions:

1. Is there a statistically significant difference in the MCT2 Language Arts scores of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

2. Is there a statistically significant difference in the attendance of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?
3. Is there a statistically significant difference in the number of discipline referrals of a group of struggling readers when they were taught in a sheltered instruction classroom and when they were taught in a traditional instruction classroom?

The study utilized a causal-comparative research design. One population, struggling readers, was studied. Data were collected on 28 sixth grade struggling readers under two conditions, (a) when they were enrolled in a sheltered instruction classroom during the 2009–2010 school year and (b) when they were enrolled in a traditional instruction classroom during the 2008–2009 school year.

The reading skills measured by the MCT2 Language Arts did not improve significantly as a result of participation in a sheltered instruction classroom. The student-teacher ratio for the students while they were enrolled in the sheltered instruction classroom was 14:1, compared to the typical 25:1 student-teacher ratio in traditional classrooms. A basic assumption of the sheltered instruction model is that reduced student-teacher ratios result in teachers providing students more personal attention, and the increased personal attention results in increased academic achievement (Finn et al., 2005). Class size alone will not increase academic achievement. According to Guthrie et al. (2004), motivation is a vital contributor to students' reading achievement and school success. Yet, many struggling readers lack the motivation to learn.

Hall (2009a) suggests that neither proficient nor struggling readers apply the reading skills taught to them even when they understand how to do so and would like to learn information from texts. Therefore, simply providing more or better reading instruction does not mean that all students will make use of it (Hall, 2009a).

Measures of attendance can be considered one example of school engagement (Fredricks et al., 2004). In both the traditional instruction setting and the sheltered instruction setting, the attendance rates of students indicate that with this measure they are still somewhat engaged in school. The school that participated in this study had a total of 187 instructional school days. During the 2009 school year, 6 of the 14 students had perfect attendance (187 days). Of the 14 students, only 3 (21.3%) of them missed more than eight days. For the most part, it appears that even with low measures of reading achievement, the students were still engaged.

Likewise, the mode for attendance during the sheltered instruction year (2010) was also 187 days. However, in the sheltered instruction setting only three students attained perfect attendance. Although the mean for attendance during the sheltered instruction school year was higher (179.50) than it was for the traditional instruction school year (178.50), this statistic is misleading.

During the traditional instruction year, the rates of attendance for two students varied greatly from the other 12 students who also had complete attendance data. These two students missed more school than the other 12 students combined (75 days versus 44 days). However, during the sheltered instruction school year, there was only one student whose attendance varied greatly from the other 13 students. This student missed 45 days of school in 2009 - 2010 and 41 days the previous year. While this is still an extreme number of days to miss school, it does not account for the majority of absences of the

class. This student missed 45 days, but the other 13 students combined missed a total of 60 days. Therefore, if we disregard the measures of students with extreme scores for both conditions, days of attendance during the traditional instruction year would surpass that of the sheltered instruction year.

One possible explanation why measures of attendance (omitting outliers) may have been greater during the traditional instruction year than during the sheltered instruction school year may have to do with increased teacher attention and increased student avoidance. If students do not perceive themselves as being capable of accomplishing an academic task, they often try to avoid the task. However, with the small student-teacher ratio of the sheltered instruction class, teachers are able to devote more time to students (Pritchard, 1999); therefore, the students may not have been able to avoid the teacher or the academic demands of the teacher. Therefore, they may have chosen to miss school.

While several researchers (Brooks, 1997; Jimerson, Anderson, & Whipple, 2002; McDonald, 2002; Slavin, 1989;) found that low measures of academic achievement were related to high measures of behavior problems, the data examined in this study did not substantiate their findings. Of the 12 students who had data for the number of discipline referrals recorded each year (traditional and sheltered), 6 students did not have any discipline referrals. Three of the remaining students in the traditional classroom had more than 10 referrals, which could be considered an excessive number of discipline referrals. Student 1 had 25 discipline referrals, followed by student 12 with 23 discipline referrals, then student 6 with 11 discipline referrals. Of the remaining three students, two had six discipline referrals and one had five discipline referrals.

The following year, during sheltered instruction, the students who did not have any discipline referrals during the previous year still did not have any discipline referrals. Five of the remaining six students decreased the number of discipline referrals they had the previous year. The most remarkable change in the number of discipline referrals was observed with Student 1. While in the sheltered instruction classroom, Student 1 had one discipline referral, compared to 25 the previous year. Student 12 was the only student who had more discipline referrals while in the sheltered instruction classroom than he had in the traditional instruction classroom (30 versus 23).

The paired-samples *t* test failed to find any statistically significant differences (m traditional = 6.33; m sheltered = 4.67) in the mean number of discipline referrals. Although the differences were not statistically significant, there were meaningful differences in behavior, as evidenced by the decrease in the mean number of discipline referrals under the two instructional settings. This information supports the findings reported in the literature regarding the non-academic benefits of the reduced class size in a sheltered instruction classroom.

Conclusions

Research questions one, two, and three addressed the effects of sheltered instruction on the academic and non-academic behaviors of struggling readers. The following conclusions are drawn from the findings of the study:

Conclusion 1 - The sheltered instruction classroom had little influence on the MCT2 Language Arts scores of those struggling readers who were enrolled in the sheltered instruction classroom.

Conclusion 2 - The sheltered instruction classroom had no influence on the attendance of those struggling readers who were enrolled in the sheltered instruction classroom.

Conclusion 3 - The sheltered instruction classroom had no statistically significant influence on the discipline referrals of those struggling readers who were enrolled in the sheltered instruction classroom. However, there was an influence on the behaviors as the number of discipline referrals decreased when students were in the sheltered instruction classroom.

Limitations

This study was limited to two sheltered instruction classrooms totaling 28 struggling readers enrolled in a rural single-grade school in northern Mississippi. The participants were taught by a team of two SIOP® trained teachers. The performance of a single group was measured before and after being exposed to sheltered instruction. All the data for the 2008 – 2009 school year when students were enrolled in a traditional classroom were compared to the data for the 2009 – 2010 school year when the students were enrolled in a sheltered instruction classroom. With most single group designs, multiple threats to internal validity are not controlled for and present potential limitations for the study. The most likely threat that is not controlled for in this study is maturation. Maturation posed a threat because students had nearly a year to mature, and therefore the changes could be attributed to students' maturation from one year to the next.

Additionally, the small sample size, incomplete measures, and outliers made it difficult to find significant differences between the two conditions. Students who were new to the district or whose scores, attendance, and discipline referrals differed in large

amounts from the other students indicated an unusual exception and must be given careful consideration. Other limitations include having only one sixth grade school in the district, and the students were enrolled in sheltered instruction for only one year as opposed to having been enrolled in traditional instruction for five years.

Recommendations

Several lines of research are needed to broaden an understanding of the effects of sheltered instruction on the academic achievement of struggling readers. One line of research should include a longitudinal study to explore the academic growth of struggling readers over a period of time greater than one year. This line of research is important because struggling readers require additional support beyond third grade to become proficient readers (Snow, 2006). Subsequently, multiple years of sheltered instruction and reading interventions beyond grade three may be needed to impact the academic achievement of struggling readers.

Many students have little motivation to read. Yet, interests and motivation for reading predicts reading achievement on both standardized tests (Gottfried, 1985) and school grades (Sweet et al., 1998). Another line of research should be a replication of the study to include students' motivation at the beginning and end of the school year to determine if motivation has an effect on the academic achievement of struggling readers taught in a sheltered instruction classroom.

Moreover, since vocabulary increases as students learn words in context through active engagement in reading, students must be allotted the necessary time during the school day to practice reading skills on their current reading level and to be read to. The sheltered instruction classroom should include instruction relevant to reading and writing.

Research indicated that proficient reading skills can be acquired if struggling readers are provided strategic reading instruction (Boling & Evans; Hock et al., 2005). Therefore, the replication of this study with the incorporation of a research-based reading program may prove beneficial to enhancing vocabulary, comprehension and overall reading achievement.

Schumaker et al. (2008) suggested that in order to close the performance gap between struggling and proficient readers in a relatively short period of time, intensive intervention measures are needed so struggling readers can succeed in all content areas. Research of this type should continue in order to identify the strengths and weaknesses of struggling readers and make changes in the instruction and assessment of struggling readers accordingly.

Additionally, another line of research should explore test anxiety. The testing of students throughout their academic careers has changed drastically over time, and Cobb (2003) suggests that test anxiety reduces motivation and interferes with students' abilities to apply learning strategies.

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APPENDIX A
INSTITUTIONAL REVIEW BOARD APPROVAL

Study 11-348: The Effects of Sheltered Instruction on Struggling Readers

December 20, 2011

Stephanie Norwood-Wayne
2304 Lynette Circle
Tupelo, MS 38801

RE: IRB Study #11-348: The Effects of Sheltered Instruction on the Reading Achievement of Struggling Readers

Dear Ms. Norwood-Wayne:

This email serves as official documentation that the above referenced project was reviewed and approved via administrative review on 12/20/2011 in accordance with 45 CFR 46.101(b)(1). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please refer to your IRB number (#11-348) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at jmiller@research.msstate.edu or call [662-325-2238](tel:662-325-2238).

Sincerely,

Jonathan Miller, CIP
IRB Officer and Assistant Director

cc: Debra Prince (Advisor)

APPENDIX B
DISTRICT APPROVAL

Letter to Superintendent

December 06, 2011

Mr. David Meadows, Interim Superintendent

Mrs. Diana Ezell, Deputy Superintendent

Dr. Fred Hill, Assistant Superintendent

Superintendents of the Tupelo Public School District

P.O. Box 557

Tupelo, MS 38802

RE: Permission to Conduct Research Study

Dear Superintendents of the Tupelo Public School District:

I am writing to request permission to conduct a research study at Milam Elementary. I am currently enrolled in the doctoral program at Mississippi State University, Mississippi State, MS, and am in the process of writing my dissertation. The study is entitled “The Effects of Sheltered Instruction on the Reading Achievement of Struggling Readers”.

All of the procedures in this research project involve the analysis of already existing data, and, data will be unidentifiable and stored in a password protected computer. I hope that the district administration will allow me to retrieve existing data from the districts web-based management tools. The data needed to conduct this study are the MCT2 Language Arts test scores, behavior reports and attendance records of the students enrolled in sheltered instruction during the 2009-2010 school year. To ensure confidentiality, all retrieved data

will be recorded in such a manner that the subjects cannot be identified either directly or through identifiers linked to the subject.

Upon the district's approval, the counselor, Tamekia White will retrieve MCT2 scores from the web-based EZ Test Tracker system and attendance and discipline data from the web-based Student Administration Management (SAM) and download to an excel spreadsheet. After data has been transported to the Excel spreadsheet, all names and identifiers will be removed. After all identifiers are removed, the data will then be transported to a SPSS data file by the researcher. No costs will be incurred by either the school or the district.

Your approval to conduct this study will be greatly appreciated. I will follow up with a telephone later this week and would be happy to answer any questions or concerns that you may have at that time. You may contact me at either email address:

snwayne@tupeloschools.com or stepAKA@yahoo.com.

If you agree, kindly sign below, or alternatively, kindly submit a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this survey/study at your institution.

Sincerely,

Stephanie D. Norwood-Wayne, Mississippi State University

Enclosures

cc: Dr. Debra Prince, Research Advisor, Mississippi State University

Approved by:

Print your name and title here

Signature

Date