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An Evaluation of Two Peer Literacy Strategies for the Development of Reading Comprehension in Third Grade, Low-Income Students

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The University of Southern Mississippi

An Evaluation of Two Peer Literacy Strategies for the Development of Reading
Comprehension in Third Grade, Low-Income Students

by

Olivia Herring

A Thesis
Submitted to the Honors College of
The University of Southern Mississippi
in Partial Fulfillment
of the Requirements for the Degree of
Bachelor of Science
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Abstract

Generally speaking, low-income students fall behind their peers when it comes to reading and comprehension. Comprehension is a necessary tool for success, both in school and beyond, and must be taught effectively to these struggling students (Beirne, & Velsor, 2012). Studies have shown the benefit of student discussion and utilization of peer reading strategies in the fostering of comprehension. This study will compare students' success after reading passages using two peer reading comprehension strategies: Paragraph Shrinking (a component of Peer-Assisted Learning) and Reciprocal Teaching. There are many questions to explore: After using both strategies, does either one encourage greater independent reading comprehension success, or is there no difference after using these strategies? Do both improve, or not improve, reading comprehension as measured by baseline scores? To explore these questions, the researcher will work with a specifically selected population of third grade students who have been identified as low-income based on their residence in government funded housing and participation in free and reduced lunch programs. The researcher will specifically focus on the students' reading comprehension in the area of non-fiction texts, and after a baseline is established, a comparison model, using pre- and post- evaluations, will be used to show the results in varying degrees of students' performance with each strategy. Generalizations for this population of students will be described. The final conclusions of this study will be presented to the Honors College for completion of an Honors Thesis; additionally, this information will be disseminated to the parents, guardians, and students in the study group. It will also be presented at conferences in the field of education and research.

Keywords: comprehension, Bloom's taxonomy, reciprocal teaching, peer-assisted learning, paragraph shrinking, peer reading, non-fiction texts

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List of Abbreviations

In Alphabetical Order

CTBS	Comprehensive Test of Basic Skills
IR	Independent Reading
NAEP	National Assessment of Education Progress
PAL	Peer Assisted Learning*
PALS	Peer Assisted Learning Strategies*
PALS/PS	Peer Assisted Learning Strategies/Paragraph Shrinking
RT	Reciprocal Teaching

*Peer Assisted Learning (PAL) and Peer Assisted Learning Strategies (PALS) are identical in meaning and both are used interchangeably in this document

Chapter I

INTRODUCTION

Statement of the Problem

It is well-known fact that, statistically, low-income students in the United States tend to fall behind their more affluent peers in the areas of literacy and reading comprehension. In fact, the National Assessment of Education Progress (NAEP) shows that in 2013, 80% of all low-income fourth grade students were reading at below proficient levels; conversely, only 49% of higher income students assess in the below proficient level. The NAEP (2013) also illuminates the striking fact that in the state of Mississippi, 85% of low-income fourth grade students were below proficient in reading, the second highest percentage in the country.

The NAEP (2013) defines low-income students as those who qualify for free or reduced lunch in the public school system. According to the Food and Nutrition Services (2015), in order for students to qualify for free or reduced lunches in their schools, they must come from a family in which the members collectively do not earn above a set amount of annual income. For a family of four, household income must be less than \$31,525 per year to qualify for free lunches and less than \$44,863 for students to receive reduced lunches. According to the Food Research and Action Center (2015), the number of children in the United States who participated in free and reduced lunch programs during the 2013-2014 school year totaled nearly 22 million.

Potentially many more students may be classified as low-income, and not participate in the school lunch program. According to the National Center for Child Poverty (2014) and Lesaux (2012), 45% of children in the U.S., nearly 32 million, come

from low-income families, and roughly 16 million children live in poverty. This means that there are approximately 48 million students who have statistically lower chances of succeeding in school, and these lowered probabilities of success may be due to their families living in poverty. Why are their chances so low?

One of the biggest reasons for the dramatic differences in below proficiency levels of reading comprehension in low-income children is the fact that attainment in literacy and reading comprehension are built on a foundation of oral language which begins way back in the first years of life (Crawford-Brooke, n.d.). Oral language is called the “great predictor” of reading skills (Hoff-Ginsberg, 2006). Children learn to listen and speak long before they are able to read and write. Oral language plays a major part in development of students’ vocabularies. A study of parent-child interactions with a variety of participants in different income levels measured the interactions between parents and children. They found that low-quality and low-quantity of interactions in low-income families is causing a vocabulary gap by age three (Hart & Risely, 1995).

There are many other factors effecting students who live in poverty households which may act upon their abilities in reading comprehension, such as, participation in extra-curricular activities, accessibility to tutoring, and parent involvement in their schools. These seemingly small differences actually play a major part in student success. Wealthy parents are simply devoting more time and resources to their children, and the extra effort is making a difference in their children’s literacy abilities. Reardon, as quoted in *The New York Times*, summed up this phenomena well when he said: “We have moved from a society in the 1950s and 1960s, in which race was more consequential than family

income, to one today in which family income appears more determinative of educational success than race” (Tavernise, 2012, pp. A1).

Low-reading comprehension may have its birthplace at home. Heckman, also quoted in *The New York Times* states,

Early life conditions and how children are stimulated play a very important role [in forming students’ cognitive abilities]. The danger is we will revert back to the mindset of the war on poverty, when poverty was just a matter of income, and giving families more would improve the prospects of their children. If people conclude that, it’s a mistake. (Tavernise, 2012, pp. A1)

Poverty marks more than just a child’s financial status in the home, it intellectually impacts learning abilities. Try as they may, teachers cannot singlehandedly reverse the effects of poverty; however, they must do their best work, focusing steadily on counteracting these negatives, while purposefully providing students with the skills for school success (Annie B. Casey Foundation, 2014).

Purpose of the Study

Reading comprehension is the foundation of learning; it is multi-faceted and layered with multiple, overlapping components. Literacy and reading comprehension touch nearly every element of present and future school-based success. Dolores Durkin (1970), author of *Teaching Them to Read*, calls reading comprehension the “essence of reading,” but sadly, many students of poverty are arriving at school without the skills necessary for achievement. It is essential to locate ways of improving reading comprehension for low-income students, ways which will increase the likelihood of their current and future educational success.

Studies have found collaborative or discussion based reading strategies, or *peer reading*, to be beneficial in increasing students' reading comprehension. Wells argues that, "in talking together, children learn a great deal from each other, as they pool their ideas and explore their agreements and disagreements about the tasks in which they are engaged" (Wells, 1999, p. 114).

Reciprocal Teaching (RT) and Peer-Assisted Learning (PAL) with Paragraph Shrinking (PS) are two peer reading strategies investigated in this study. There are many questions to explore: After using both strategies, does either one encourage gains in reading comprehension activities, or is there no difference after using these strategies? Do students' baseline scores in reading comprehension improve, make no difference, or decline after usage of these strategies? Students' comprehension scores will be measured before and after the use of two peer reading strategies: PAL with PS and RT, in the hopes of finding a reliable method or combination of methods to boost the students' reading comprehension abilities.

Chapter II

REVIEW OF LITERATURE

Introduction

In educational circles, it is a sad, but extremely well-known fact, that low-income students, on average, exhibit lower levels of reading comprehension than their more financially affluent peers (Hart & Risley, 1995). Why is this so? A primary reason for this deficit could be the students' vocabulary. Hart and Risley (1995) name the vocabulary gap between children of low-socioeconomic status and those of higher socioeconomic status "The Early Catastrophe." Their research shows that a child's vocabulary at age three is clearly connected to his/her reading comprehension score on entrance assessments (some of which are given when a child enters school at age five).

By four years of age, children of low-socioeconomic status have been exposed to approximately 13 million words, while the children of professionals are exposed to nearly 45 million words; a difference of over 30 million words (Lesaux, 2012). The large vocabulary gap between students from low income homes and those who reside in higher income families is likely a result of the quality and quantity of interaction and communication which is taking place in these settings.

Reading Comprehension

In order to best understand this study, and the powerful need for effective reading comprehension, one must first understand what is meant by the term *reading comprehension*. Webster's dictionary defines the word *comprehension* as the "ability to understand," and although there is no mention of *reading* in this definition, simplistically, it may be posed that *reading comprehension* is the ability to understand what is read

(Comprehension, n.d.). In relation to educational contexts, this definition is too vague to be helpful to those who teach the components of literacy and reading comprehension.

Reading comprehension, though it may sound routine and common, is actually a decidedly complex set of components, elements, skills, and activities to both teach and to learn.

One study measuring students' reading comprehension performance sheds more light on what is involved in understanding what is read. The following study by

Veeravagu, Muthasamy, Mariuthu, and Michael, defines *reading comprehension* as,

a thinking process by which a reader selects facts, information or ideas from printed materials; determines the meanings the author intended to transmit; decides how they relate to previous knowledge and judges their appropriateness and worth for meeting the learner's own needs and objectives. (2010, p. 207)

Clearly, the complexity involved in the act of comprehending or understanding what is read is a dynamic, in-depth process that goes far beyond simply reading or listening to the words in a book (Snow & Sweet, 2003). Based on the studies cited here, it is appropriate to say that there are a variety of complexities involved in *reading comprehension*.

Focusing on the educational components of what is involved in reading comprehension, how does a teacher determine if the readers are comprehending, or understanding, what they have read?

Bloom's Taxonomy and Comprehension

In 1948, Benjamin Bloom and his colleagues began to create a classification system for goals and objectives of the learning process (Beirne & Vesor, 2012). In 1956, this classification system was published in a text titled the *Taxonomy of Educational*

Objectives: The Classification of Educational Goals: Handbook I: Cognitive Domain

(Bloom, Englehart, Hill, Furst, & Krathwohl, 1956). Through usage, informal discussions, and daily conversations held by educators, researchers, and others, the content in the text was distilled to a hierarchical system commonly known as “Bloom’s taxonomy.” In currently published research, this system of organization has been labeled with a variety of other names including: the cognitive taxonomy, Bloom’s cognitive levels, the cognitive domain, and others (Pohl, 2000).

After Bloom’s taxonomy was published, it was determined that domains other than the cognitive one could be classified. Although many groupings are possible, after the cognitive domain, the two others most frequently cited are the psychomotor and the affective domains. Using broad strokes to label the groups, the cognitive domain denotes thinking and comprehending; the psychomotor domain describes physical behaviors; and the affective domain defines feelings and emotions (Bloom, et al., 1956; Beirne & Velsor, 2012).

Bloom and colleagues (1956), categorized six levels in the cognitive domain which were ranked by the perceived complexity of mental thinking processes used to show mastery and achievement within that level. The six levels in the cognitive domain are labeled as the following: *knowledge* (level one), *comprehension* (level two), *application* (level three), *analysis*, (level four), *synthesis* (level five), and *evaluation* (level six) (Bloom, et al., 1956).

According to Bloom’s cognitive domain, *comprehension* (level two in complexity) occurs primarily when a student “understands information” and is “able to discuss it;” additionally, these two definitions are not the only ones available. In all of the

cognitive levels, there are many other labels, word descriptors, and possible definitions within the levels which may also be effectively utilized for demonstration of mastery and success. An example of other defining characteristics of *comprehension* (level two) is, “the student’s ability to use compare and contrast when discussing the text” (Beirne & Velsor, 2012, p. 125).

Over time researchers added information to Bloom’s taxonomy (Bloom, et al., 1956) provides objectives to accompany the six levels in the cognitive domain. These objectives highlight skills that students should master to show understanding and ability at each level. The objectives associated with the comprehension level of Bloom’s taxonomy are: “match, explain, restate, defend, paraphrase, distinguish, rewrite, summarize, give examples, interrelate, express, interpret, and illustrate” (Beirne & Velsor, 2012, p. 119). Descriptive action verbs help determine focused limits, or guidelines for mastery, of the level and student-demonstrated excellence. The action verbs also help define the intellectual complexity of all six levels.

In 2001, Anderson and Krathwohl revised Bloom’s cognitive taxonomy. During this updating of information, the term *comprehension* was replaced with *understanding*. According to the revised edition, *understanding* is defined as, “constructing meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining” (Anderson & Krathwohl, 2001, p. 23). The remaining five levels of the original Bloom’s taxonomy were also revised. *Knowledge* was changed to *remembering*, *application* to *applying*, *analysis* to *analyzing*, *synthesis* to *evaluating*, and *evaluation* to *creating* (Anderson & Krathwohl, 2012). The objectives established by each level of Bloom’s taxonomy, original and revised, provide

educators with a basis for measurement and assessment of students' intellectual competency in that level.

Beirne and Velsor, in their book, *Engaging Students: Using the Unit in Comprehensive Lesson Planning* (2012), share the idea of *Bloom Blocks*. The Bloom Blocks divide each level of the cognitive domain in Bloom's cognitive taxonomy into three categories: Bloom's higher order thinking skills, verbs, and products. The list of verbs depicts skills and actions that students should be able to complete in order to show mastery at each level of Bloom's taxonomy. The list of products provides examples of ways in which students may showcase these skills and demonstrate mastery. The verbs accompanying the revised second level of *understanding* (previously known as *comprehension*) are: "explain, summarize, generalize, interpret, infer, paraphrase, and classify" (Beirne & Velsor, p. 57). The products accompanying the revised second level of understanding are: "report, illustrate, match, chart, demonstration, and dramatization" with other possible options as well.

Researchers have noted that the leveled components of Bloom's taxonomy: knowledge, comprehension, application, analysis, synthesis, and evaluation (levels one through six, respectively) may be used as intellectual, or comprehension, measurement gages if the teacher employs a variety of different types of questions, including essay response and multiple choice (Bloom, et al., 1956). In current educational settings, Bloom's cognitive taxonomy is widely acknowledged as valid and useful, and it is utilized with students as a teacher's technique for measuring levels of intellectual learning. The utilization of Bloom's taxonomy is an appropriate method with which to

create questions to measure the comprehension skills of the students participating in this research (Beirne & Velsor, 2012).

Peer Learning

Many researchers have noted the positive effects associated with peer learning in the classroom. Sharing knowledge with one another and learning from others deepens understanding. Routman (2000) declares:

Much of what I know, I know because I have questioned and thought about ideas with others, tried things out, modified stances, talked with colleagues. Always, conversations play a major role in my teaching, learning, thinking, and changing. So it is with all learners. I would argue that when no conversations are going on, as in whole class “skill drill,” it’s not learning that’s taking place but rather rote memorization. (p. 36)

In this study, *peer reading strategies* are strategies which require students to collaborate with others, whether in small groups or partner-pair settings, to share and discuss their ideas. The two peer reading strategies which are utilized in this study are Reciprocal Teaching (RT) and Peer Assisted Learning (PAL) with some modifications, specifically, a strong focus on Paragraph Shrinking (PS).

When sharing the success of peer reading strategies, Foot and Howe (1998) state:

The educational success of peer-assisted instructional methods is founded on their capacity for eliciting and combining many elements that are crucial to the learning process. Not the least of these elements is that students are much more likely to be more

active and involved in their own learning. They work together and learn in pairs or small groups in such a way that their motivation and attention are greater, their capacity to contribute, question, and receive feedback is greater, and their own learning achievements are more visible to them. (p. 127)

Russo-Soviet researcher Lev Semyonovich Vygotsky helped establish the idea that learning is a social process, and many students have a greater potential for learning with the assistance of a more highly knowledgeable classmate (Vygotsky, 1978). Utilizing Vygotsky's work, other researchers and educational investigators used his unique, foundational ideas to form the concept of the Zone of Proximal Development (ZPD) (Silver, 2011), which is defined as: "the distance between the actual developmental levels as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Rogoff (1990) shows that when students work with more highly knowledgeable peers or even equally knowledgeable peers, all parties are likely to develop a greater understanding of the content.

In the article, "Conversation: The Comprehension Connection," Ketch (2005) shows how peer collaboration among students can effectively increase comprehension. Based on observations of a fifth grade classroom, comprised of low-income students, Ketch (2005) notes that "used as a connection to cognitive strategies, conversation fosters comprehension acquisition" (p. 1).

Ketch (2005) lists seven strategies commonly used among proficient readers: “making connections, questioning, mental imagery, determining importance, inferring, retelling, synthesizing, and fix-up strategies” (p. 8-9). Peer reading strategies specifically addressed in this researcher’s study are Peer Assisted Learning (PAL) Paragraph Shrinking and Reciprocal Teaching (RT). These particular strategies utilize five of Ketch’s (2005) strategies: question, determine importance, infer, retell, and synthesize.

Third Grade Readers

Third grade is a pivotal grade according to the Center for Public Education (2015). The CEP states:

The research is clear: if children cannot read proficiently by the end of third grade, they face daunting hurdles to success in school and beyond. Third grade marks a pivot point in reading. In fourth grade, students begin encountering a wider variety of texts. By then, able readers have learned to extract and analyze new information and expand their vocabularies by reading. But struggling readers rarely catch up with their peers academically and are four times more likely to drop out of high school, lowering their earning power as adults and possibly costing society in welfare and other supports. (Center for Public Education, 2015, para. 1-2)

It is vital that the third graders receive all of the possible opportunities to become competent and successful in the areas of literacy, particularly in reading and comprehension, if they are to effectively thrive in school and graduate in twelfth grade.

The Strategies of Reciprocal Teaching (RT) and Peer Assisted Learning (PAL)

Research has shown that questioning and summarizing are essential in the development of students' reading comprehension (Oczkus, 2013). As previously discussed, peer reading can be completed in small groups or in pairs. Both Reciprocal Teaching (RT) and Peer Assisted Learning (PAL) are reading comprehension strategies in which students work with a partner and/or small groups for the purpose of teaching reading comprehension to their fellow students (McMaster, et al., 2007; Palinscar & Brown, 1984).

Reciprocal Teaching (RT).

“Reciprocal teaching [RT] is a collaborative hands-on strategy that works well in any grade level, K-12” (Oczkus, 2013, p. 34). Created by Palinscar and Brown (1984), RT uses four skills, questioning, predicting, clarifying, and summarizing, to help students gain an enhanced and deeper understanding of the information they read. Other researchers state that RT requires that students are “(a) generating one’s own questions, (b) summarizing parts of the text, (c) clarifying word meanings and confusing text passages, and (d) predicting what might come next in the text” (Palinscar, & Klenk, 1992, p. 220).

To be remembered easily, some teachers label RT’s components as the “Fab Four: Paula the Predictor, Clarence the Clarifier, Quinn the Questioner, and Sammy the Summarizer” (Stricklin, 2011, p. 620-621).

Paula the Predictor is a fortune teller who teaches students to predict what will happen in a text, helping them find a purpose for reading. Clarence the Clarifier is a detective who encourages

students to clarify unknown words and concepts found in the text.

Quinn the Questioner takes the role of a game show host and

teaches students to ask their peers knowledgeable questions

regarding the information they have read in the text. Finally,

Sammy the Summarizer uses his lasso to lasso up the most

important information from the story. (Stricklin, 2011, p. 620-621)

When instructing students in reciprocal teaching, Stricklin (2011) recommends utilizing props and scripts for each of the Fab Four characters; in doing so, the components are more thoroughly assimilated, the instructional content is highly memorable, and students become greatly engaged in the experience.

Peer-Assisted Learning Strategies (PALS.)

PALS/PAL is a reading comprehension strategy that involves students teaching one another. “In doing so, tutor and tutee [students] share the common responsibility that their [*sic*] partner will learn and exercise the skills required to perform the designated task more effectively” (Greenwood, Carta, & Hall, 1988, p. 1).

One way teachers demonstrate the use of PALS is in a whole group setting where teachers introduce the essential strategies to the entire class. Teachers may perform a “think aloud” activity in which the teacher speaks aloud, describing and explaining the procedures as if he/she is mentally processing these actions, all the while, performing each step. The students are able to visualize the teacher correctly modeling the strategies, and further, they are absorbing his/her oral directions and statements through their auditory senses. One of the outcomes of a think-aloud is that the students become

independently skilled at performing all of the steps and procedures found in the strategy. The ideal result is students' arrival at comprehension and understanding (Oster, 2001).

In the PALS, students are placed in pairs, one as the tutor and the other as the tutee. They mentally and orally utilize the teacher's modeling and perform the strategies using a variety of texts. The anticipated outcomes are that the students learn when and how to use various strategies, both independently and in peer groups. They recognize appropriate times to select and use particular strategies while performing a range of cognitive tasks, including reading comprehension (Fuchs, Fuchs, Hosp, & Jenkins, 2001).

Researchers at Vanderbilt University developed a modification of PAL, which is PALS. The use of PALS comprises three different activities completed through partner reading: Partner Reading with Retell, Paragraph Shrinking, and Prediction Relay (McMasters, Fuch, & Fuch, 2007).

While Paragraph Shrinking (PS) was originally designed as one component of PALS, it has been proven to be an effective strategy on its own. "Research done by the developers of PALS for grades two through six, found strongly positive results in the area of reading comprehension after the implementation of the paragraph summarization activity provided in PALS" (Estebo, 2012, p. 27). In an independent study completed over a 13 week time period, Estebo (2012) found an increase in reading comprehension scores in struggling students after implementing only the Paragraph Shrinking (PS) (Estebo, 2012; McMasters, et al., 2007).

According to an overview of PALS by McMasters, et al., (2007), Paragraph Shrinking (PS) is implemented as follows:

During Paragraph Shrinking, the students continue reading orally, but they stop at the end of each paragraph to identify the main idea. The higher performer is the first Reader, and the lower performer is the first Coach. The Coach asks the reader to identify, (a) who or what the paragraph is mainly about, and (b) the most important thing about the “who” or “what.” Then the Reader must condense, or “shrink,” this information into 10 words or less. If the Coach deems the Reader’s answer incorrect, she says, “That’s not quite right. Skim the paragraph and try again.” After the Reader provides a new answer, the Coach decides whether the answer is correct. If it is correct, she gives 1 point each for correctly identifying the “who” or “what,” for stating the most important thing, and for using 10 words or less to state the main idea. If the Coach determines that the answer is incorrect, she provides a correct answer, and the pair continues reading. After 5 min, the partners switch roles. (McMasters, et al., 2007, p.100)

With the use of PAL, both the Coach (tutor) and Reader (tutee) cultivate positive attitudes toward peer learning; further, deep understanding of the content and gains in reading comprehension progress in substantial ways (Cohen, Kulik, & Kulik, 1982).

This review of literature has given the researcher a more comprehensive understanding of the methods and intricacies of Bloom’s cognitive taxonomy, as well as, RT and PALS/PS. Thorough examination of these topics has equipped the researcher to apply and synthesize data, and it has helped in developing quality research questions.

Chapter III

RESEARCH DESIGN

Research Questions

Using the information gained from the in-depth review of literature, the researcher has developed the following research questions (RQ):

RQ 1: Does RT improve the reading comprehension scores of this population of students?

RQ 2: Does PALS/PS improve the reading comprehension scores of this population of students?

RQ 3: Will instruction of RT and PALS/PS change this population of students' usage of comprehension strategies?

RQ 4: When given the choice, will students from this population choose to implement a partner (PALS/PS) or group (RT) reading strategy over Independent Reading (IR)?

Research Hypothesis

Based on an investigation of the previously stated strategies RT, PALS/PS, and peer reading, this researcher hypothesizes that students participating in this study will achieve greater results in reading comprehension through participating in peer reading strategies. The researcher postulates that the use of RT will prove most successful in this population of low-income, third grade students; all of whom reside in low-income housing and receive free or reduced lunch.

As evidenced by Hart and Risely (1995), low-income students typically begin school without gaining the necessary vocabulary knowledge to succeed. As previously stated, children living in poverty situations often have deficiencies of vocabulary when

compared to children who live in families with incomes above the poverty line. A student's lack of vocabulary knowledge has been shown to coincide with lower reading comprehension scores (Hart & Risely, 1995).

In this research, RT was specifically selected as the strategy which clearly highlights vocabulary. Additionally, RT emphasizes various components of reading comprehension including predicting and questioning.

The strategy PALS/PS concentrates pairs of students on the skills of questioning and summarizing. When comparing group sizes, RT incorporates a larger group of students than PALS/PS; therefore, the potential for added ideas and a wider range of knowledge exists beyond the twosome of students in the PALS/PS. With IR, there is only one student's thoughts for discussion, and if he/she has little vocabulary or a lack of questioning and summarizing abilities, the student may not grow in knowledge.

The researcher's instincts project that students will prefer to use peer reading strategies over independent reading. Specifically, the researcher predicts that students will choose to participate in RT, over PALS/PS and IR, due to its greater potential for creativity and larger group involvement.

Finally, the researcher suspects that instruction in peer reading comprehension strategies may change this population of students' usage of comprehension strategies. This repeated review and instruction will prospectively encourage students to more frequently implement comprehension strategies, including predicting, questioning, and summarizing, while exploring independent reading. Additionally, it would be desirable for students to complete this research with an overall greater enjoyment of reading non-fiction text and higher comprehension levels in all areas of literacy learning.

Chapter IV

METHODOLOGY

Overview

This study will analyze the choices and outcomes made by students when they explore two peer reading comprehension strategies, Reciprocal Teaching (RT) and Peer Assisted Learning Strategies with Paragraph Shrinking (PALS with PS). Will scores on baseline assessments increase, show no changes, or decline after students are taught PALS? Further, when they are given choices to work in pairs, in groups, or independently (Independent Reading, IR), which will they choose?

This research will record the effectiveness of each strategy: RT and PALS/PS when compared to IR. Are peer reading strategies more effective than IR? Initially, students will complete a reading comprehension questionnaire using IR. This test will serve as a baseline by which to compare the results of RT and PALS/PS. After instruction in each reaching comprehension strategy, students will be given another reading comprehension questionnaire. The number of correctly answered questions on each questionnaire will be calculated. It will then be possible to measure the amount of growth present when students use RT or PALS/PS.

Results from this study will help students to understand and to use each reading strategy. When given the choice, will students choose to use RT, PALS/PS, or IR? It can be inferred that if students choose to use one of the two reading comprehension strategies: RT or PALS/PS over IR, they have a greater understanding of the strategies and how to correctly implement them. Students' choice of RT or PALS/PS may also show their preference for group or partner reading when compared to IR. Could group or

partner reading be a better strategy to build students' comprehension of reading as well as their potential independent achievement? Finally, the researcher will assess students' use of common reading comprehension tactics that are addressed in RT and PALS/PS, such as predicting, summarizing, and using graphic organizers. Will instruction in RT and PALS/PS prompt students to use these reading comprehension strategies more often?

Research Questions

The following research questions will be addressed in this study:

RQ 1: Does RT improve the reading comprehension scores of this population of students?

RQ 2: Does PALS/PS improve the reading comprehension scores of this population of students?

RQ 3: Will instruction of RT and PALS/PS change this population of students' usage of comprehension strategies?

RQ 4: When given the choice, will students from this population choose to implement a partner (PALS/PS) or group (RT) reading strategy over IR?

Participants

The students chosen to participate in this research meet a set of very specific criteria. In this particular study, the researcher has chosen to observe the effects of reading comprehension strategies in low-income, third grade students.

The topic of reading comprehension in low-income, third grade students could be researched in many areas and in many different facets. However, for this study, the researcher will focus on the low-income, third grade student population in Hattiesburg, MS; specifically those students attending Aldersgate Mission.

Aldersgate Mission and Briarfield Homes

Aldersgate Mission began in 1972 as a ministry of Main Street United Methodist Church. Located in downtown Hattiesburg, Aldersgate is a quaint yellow building with classrooms, a computer lab, and a rambling backyard, complete with a playground and basketball court. Aldersgate Mission was created to provide a safe place to “enhance the academic, social and spiritual development of the youth of the Briarfield [Homes Housing] community in order for them to become independent and productive young men and women of the world” (United Way, 2016).

Through donations from Main Street United Methodist Church, United Way, and many other organizations Aldersgate has continued to grow over the years and now serves 65 students on a regular basis. What began as a safe haven has grown to include plethora of services, including: after-school tutoring, summer activities, Boy Scouts, and sports and dance opportunities, all free of charge. According to Aldersgate Director, Linda Dixon, the majority of students who walk through the doors of Aldersgate Mission today are still from the Briarfield community. Many come from single parent, low-income families, and receive government assistance and/or free or reduced lunch at their schools.

The Briarfield community is made up of the public housing apartments that are managed by the Housing Authority of the City of Hattiesburg. The 296 faded, brick units sit in the very edge of downtown Hattiesburg, once a thriving area, but now a mixture of partially used buildings and abandoned areas. These brick units built in the 1940’s and 1950’s have been at full or nearly full capacity since they were built (Housing Authority of the City of Hattiesburg, n. d.). These apartments provide affordable housing for low-

income families, seniors and disabled individuals. Renters' payments are based on their incomes, with a \$50 minimum monthly payment. The residents of Briarfield earn an average, annual income of \$11,349, and more than 55% have lived in public housing for more than two years with many homes occupied by multiple generations of the same family and relations (Hattiesburg Housing Authority, n. d.).

On any given day, one can find barefoot children running through the dirt playing in a rusted playground while elderly tenants sit on folding chairs or milk crates beside laundry lines weighed down with wet clothes. Various men and women of all ages can be seen walking through the groups' community areas at any time of the day. It is a policy of the Housing Authority that if any drugs or firearms are found at any time on the property, or on those who are walking through the area, those residents will be evicted and the police will be called to remove them. The Briarfield area is one of high crime and obvious poverty. This is the daily environment of nearly all of the children who attend Aldersgate.

By choosing students from Aldersgate Mission, it was possible to create a small sample of low-income students from similar backgrounds. Eight third grade students attend Aldersgate Mission's after-school tutoring program. Each of these students lives in the Briarfield public housing apartment complex and receives free or reduced lunch at their affiliated Hattiesburg Public School District's schools. Six of these eight students comprised the subject pool of this study. Of the participants, three were male and three were female.

Limitations

This hand-selected group of participants means that this study cannot claim to utilize probability sampling, nor can its quantitative data claim to be an example of generalizable statistical research. These results are not applicable to other studies even though the information is as accurate and as correct as humanly possible and based on the author's research and data (Holcomb, 2010).

According to the Mississippi Department of Education 2015-2016 report, there are 428 third grade students in the Hattiesburg Public School District. The Children First Report (2014), states that 90.89% of these students receive free or reduced lunch (90.89% of 428 is rounded to 389). Therefore, the city of Hattiesburg encompasses roughly 389 students identifying as low-income third grade students. It can be inferred that the remaining students residing in the city limits of Hattiesburg are not documented as low-income students and do not qualify for free or reduced lunch.

As this study incorporated only six students, the small sample size is not representative of the entire low-income third-grade student population in Hattiesburg, MS. At the preliminary time of the study, all third grade students at Aldersgate were given the opportunity to participate. With a total of eight third-grade students in attendance at Aldersgate Mission and six willing participants in the study, the results embody 75% of the third-grade population at Aldersgate Mission.

Setting

All aspects of this study involving student participation were completed in a classroom at Aldersgate Mission where desks, school supplies, and other necessary items are available. After considering the reading comprehension strategies to be implemented,

the researcher provided supplementary materials such as sticky notes, blank paper, pencils and markers, graphic organizers, dry erase boards, and dry erase markers. Additionally, three- to four-page, non-fiction text excerpts were supplied for students' use during each meeting.

Students were initially instructed in each new strategy in a whole group setting. After instruction, students were invited to practice the new strategies in small group or partner settings depending on the requirements of each strategy. On testing days, students completed the reading of the text excerpt in small groups when using RT and partners when using PS. Students were then tested independently on the material read.

Strategy Selection

There are a plethora of notable and proven strategies designed to enhance reading comprehension in students. This researcher investigated many peer reading comprehension strategies using the What Works Clearinghouse (2016) an online database managed by the Institute of Education Sciences and the United States Department of Education. This database is designed to “identify studies that provide credible and reliable evidence of the effectiveness of a given practice, program, or policy” (What Works Clearinghouse, 2016, first page of homepage). RT and PALS/PS were selected from the What Works Clearinghouse recommendations. These two strategies involve peer reading, with PALS/PS taking place in pairs, and RT typically taking place in groups. According to the What Works Clearinghouse, PALS/PS has an improvement index of 19 and RT has an improvement index of six, proving that both of these strategies are capable of improving reading comprehension in students (2016).

The researcher hoped to study the effects of PALS/PS on this specific population due to its high improvement index denoted by the What Works Clearing House, however, time constraints created by this study posed a problem. In PALS studies it is typically the practice to begin instructing students in only the first two components of PALS, Partner Reading and Paragraph Shrinking, and gradually add the third and final component, Prediction Relay, after a period of four weeks (McMasters, et al., 2007). As the entirety of this study only encompassed four weeks, it was impractical to instruct students in the complete PALS activity. Therefore, the researcher chose to study one component of PAL, Paragraph Shrinking (PS). PS, when utilized as an independent strategy, has also proven effective in raising student reading comprehension scores (Estebo, 2012).

Development of the Testing Instruments

Reading Attitudes Questionnaire.

Research question three (RQ3) seeks to determine whether or not instruction in RT and PALS/PS will affect students' use of comprehension strategies. In order to measure the potential changes, a short questionnaire, the Reading Attitudes Questionnaire, (Appendix A) was developed and given to each student. The items for the questionnaire were derived from Hutchins's (2011) study of student use of curriculum taught reading strategies. Hutchins's study followed 19 fourth grade students for ten weeks as they were taught reading comprehension strategies in their English-Language Arts classrooms. Students were given a questionnaire, similar to the one used in this study, prior to instruction and following instruction. Hutchins (2011) found only minute differences in students' use of reading strategies after instruction. She specifically noted an increase in summarizing and rereading and a decrease in the use of graphic organizers.

Additionally, 97% of students believed themselves to be good readers. Will this research yield similar results? The questionnaire used in this study (Appendix A) contained the following eight questions:

1. Do you like to read?
2. Do you think you are a good reader?
3. Before you read, do you look through the book and predict or guess what will happen?
4. Before you read, do you think about why you are reading and set a purpose for reading?
5. While you are reading, do you ask questions and look for answers?
6. While you are reading, do you use a chart or a graphic organizer?
7. While you are reading, do you stop to think about what you read to help you understand?
8. After you read, do you summarize what you just read?

For questions one and two, students were able to use a smiley face chart to gauge their enjoyment of reading and perceptions of themselves as readers. For the last six questions (#3- 8), students were asked to choose “always”, “never”, or “sometimes”, depending on the frequency they use that particular strategy in their reading. This questionnaire was given at the beginning of the study before any strategy instruction, and it was repeated at the end of the study. The questionnaires were read aloud to the students by the researcher in both instances. The final, or second, questionnaire contained the same questions, but

they were presented in a different order to help account for remembered items (Schloss & Smith, 1999).

Reading Comprehension Tests.

This study exists to determine the effectiveness of two proven reading comprehension strategies: RT and PALS/PS in this specific group of low-income, third grade students. In order to effectively complete this goal, the researcher must first devise a method of measuring reading comprehension in this group of students.

As previously discussed, Bloom's taxonomy (Anderson & Krathwohl, 2001) offers test makers a specific criteria upon which to base their test questions. By choosing one of the skills addressed by Bloom's taxonomy, it is possible to create test questions that measure that specific skill (Anderson & Krathwohl, 2001). The revised Bloom's taxonomy sequence are the following: remembering, understanding, applying, analyzing, evaluating, creating. This researcher will utilize the skills associated with the "understanding" level of the revised Bloom's taxonomy (Anderson & Krathwohl, 2001) when creating test questions. The original creation of Bloom's taxonomy in 1956 used the term "comprehension" to describe its second level. Later, as the taxonomy was revised, the term "comprehension" was replaced with "understanding". Therefore, creating questions that coincide with the skills addressed in the "understanding" section of the revised Bloom's taxonomy (Anderson & Krathwohl, 2001) will measure students' comprehension of or understanding of the texts. Question stems have been developed to coincide with each level of Bloom's taxonomy. For the purpose of this study, the researcher will be using question stems derived from Pohl's (2000) modifications of Bloom's taxonomy when creating reading comprehension tests.

Possible question stems include:

What does this mean?

Which are the facts?

State in your own words....

Is this the same as ...?

Give an example.

Select the best definition.

Condense this paragraph.

What would happen if ...?

Explain why...

What expectations are there?

Read the graph (table).

What are they saying?

This represents...

What seems to be ...?

Is it valid that ...?

What seems likely?

Show in a graph, table.

Which statements support ...?

What restrictions would you add?

Outline ...

What could have happened next?

Can you clarify ...?

Can you illustrate ...?

Does everyone think in the way that ... does? (Pohl, 2000).

Students will complete a total of four, five-question reading comprehension tests (Appendix B, C, D, and E) over the course of this study. The first test was given at the beginning of the study to serve as a baseline, and no reading comprehension strategy was taught by the researcher. The second test was implemented after the instruction of PALS/PS, and the students used the strategy of PALS/PS. After the instruction of RT, the third test was issued and completed by the students with the use of the RT strategy. Finally, the students chose their preferred reading strategy, IR, PALS/PS, or RT, and this chosen strategy was utilized to complete the fourth, and final, reading comprehension test.

Test design.

Before the creation of each test, the researcher read the selected non-fiction text, and a three- to four-page section was selected for question development and test design. One crucial criteria for text selection required reviewing the text, then determining if it was conducive to researcher-developed test items based in reading comprehension. The researcher constructed five test questions for each selected text. The items were designed to measure the students' abilities to "construct meaning from oral, written, and graphic messages through interpreting, exemplifying, classifying, summarizing, inferring, comparing, and explaining" (Beirne & Velsor, 2012, p. 47). Each test question was created using Bloom's taxonomy question stems (Pohl, 2000). No two question stems were repeated within the same test in the hopes of gaining a clearer understanding and a broader spectrum of the students' reading comprehension abilities.

Selection of Literature: fiction or non-fiction?

As the shift from learning to read to reading to learn suggests, third grade marks a pivotal, crucial crossroad for the students (Center for Public Education, 2015). The knowledge required is extensive and wide-ranging (MDE, 2016). The shift from fiction/narrative texts to non-fiction/expository texts in the third-grade classroom is a huge one, requiring a variety of different skills and abilities to be successful in reading comprehension. Third graders must know how review and analyze expository texts and find information in them. Based on these realities, the researcher will be using non-fiction/expository books for the entirety of the study.

Lexile Levels.

Determining the appropriateness of texts for the third-grade participants was vital to measuring their third-grade reading comprehension. If the selected texts were either too difficult or too easy, in other words above a third-grade level or below it, the outcomes would not be measuring their third-grade comprehension (Routman, 2000).

Accurate ratings of texts' reading levels were determined through the use of Lexile levels. MetaMetrics (2016), an educational research company, developed the Lexile levels. The MetaMetrics company sees its purpose as the following "[it] develops scientific measures of academic achievement and complementary technologies that link assessment results with instruction. Our products and services help learners achieve their goals by providing unique insights about their ability level and potential for growth" (MetaMetrics, 2016, first page). Educational entities use currently use Lexile levels, having found the measurements to be valid and reliable (MDE, 2016).

Lexile levels represent the standard comprehension of texts that students in a particular grade should be reading (MetaMetrics, 2016). According to these measurements, third grade students should be reading books ranging from a 520L to 820L on the Lexile levels. These criteria were used in the selection of texts for this study. Two non-fiction texts were chosen to accompany the four reading comprehension tests given throughout the study. Both of these texts were published by *National Geographic*, and all selected readings were on the topic of animal migration.

The researcher determined the Lexile level of these texts by using the Lexile Analyzer found on Lexile.com (MetaMetrics, 2016). In order for the Lexile Analyzer to determine the Lexile level of a text, the first 100 words of the text must be entered in to the Lexile Analyzer. The researcher typed in the first 100 words of each selected text into the Lexile Analyzer and determined that the first text had a Lexile level of 720L, and the second text had a Lexile level of 680L. Both measurements are within the third grade range and closely related in score, making them acceptable and comparable texts for use in this study.

Procedures

Institutional Review Board (Appendix F), administrative, and parental approval were all enlisted before the instigation of this study. IRB approval ensures that this study is ethical and poses no potential harm to the participants. The director of Aldersgate Mission, Linda Dixon, also gave permission (Appendix G) for this study to be completed at Aldersgate Mission and with students from their after-school tutoring program.

The researcher created an informed consent form (Appendix H) for the guardians of each possible participant, detailing the specifics of the study and ensuring that the

identities of students participating would not be revealed. The form was accompanied with a permission form and invitation to meet with the researcher to learn more about the study and address any questions or concerns. None of the guardians attended this meeting, but a second copy of the informed consent letter was sent to each student's home. Six students returned a completed permission form and agreed to participate in the study.

This four week study was completed in nine sessions. The original outline for the study only included eight sessions, but due to absent students the research was extended in an effort to include as many participants as possible. The nine sessions took place in 45 minute increments.

Over the four weeks, students were instructed in each strategy, RT and PALS/PS through scaffolding. The teacher introduced the concept, the strategy was practiced in whole group, and finally, in small groups or pairs. Students received instruction in each new strategy for one, 45 minute session. The strategies were then reviewed on the following day for approximately 15 minutes before students were tested using the newly taught strategies.

Day by Day Summary.

The following summary is from the researcher's daily notes which were taken as soon as possible after that day's meeting with the students. The purpose of these notes is to help the reader experience the setting, the daily routines and elements, and environmental factors taking place before, during or after the sessions. Each factor impacted and contributed to the research and data gathering in numerous ways (Schloss & Smith, 1999).

Day 1.

On the first day of this study, the researcher met the six participants at Aldersgate Mission. The researcher briefly explained the aspects of the study and answered any questions that the participants had. Next, the students completed the pre-reading attitudes questionnaire. The researcher read the questions aloud as the students chose the answers that most appropriately described them and their reading practices. Following the questionnaire, each student was presented with a four page, non-fiction text on animal migration. The students were instructed to read the text independently without the use of any specified reading strategy. After the students completed reading the text, they were given a five question comprehension quiz which coincided with the information read in the story. The students took approximately ten minutes to complete both the reading of the text and the comprehension quiz. There was no evidence of students incorporating reading strategies such as predicting, summarizing, questioning, and finding the main idea, though they may have done so silently and independently.

Day 2.

The second day of instruction began with an introduction to PALS/PS. The researcher introduced the steps of PALS/PS: identifying the most important “who” or “what”, identifying the most important thing about the “who” or “what” and stating the main idea in ten words or less. The students and researcher discussed strategies for finding the main idea, such as looking at headings, and pictures and searching for repeating words. The students and researcher then practiced completing the strategy together using scaffolding. First, the researcher read aloud a paragraph, and completed the strategy. Next, the class read a paragraph aloud together and compared their answers

to each step of the strategy. Finally, students were grouped in pairs of one higher and one lower performing student and completed the strategy using paragraphs from the text read during the first day of the study. A familiar text allows students to focus more highly on the steps of the strategy rather than on making meaning of the text.

Day 3.

Day three marked the second day of testing. Students and researcher again reviewed the steps of the PALS/PS strategy, practicing in whole group and then in pairs, as before. This review lasted approximately 20 minutes, leaving 25 minutes for testing. Students were grouped for testing by pairing the higher performing students with the lower performing students, based on baseline test results from the first week. Students “A” and “B” and students “E” and “D” were paired together. Student “F” was absent on this day, so the researcher partnered with student “C”.

The students read the passage together, with one student taking the role of “teacher” and the second of “student”. The “teachers” corrected the “students” as they read, and then the “teachers” asked the “students” to identify the most important “who” or “what”, the most important thing about the “who” or “what”, and the main idea of the paragraph in ten words or less. For each satisfactory answer, the “teacher” presented the “student” with a sticker. The “student” and “teacher” switched roles throughout the reading. After students read the four page non-fiction passage together, they independently answered a five question comprehension test.

Day 4.

Day four began RT instruction. The researcher introduced each of the Fab Four characters using the costumes and script as suggested by Stricklin (2011). Students each

took turns donning the costumes of Paula the Predictor, Clarence the Clarifier, Quinn the Questioner, and Sammy the Summarizer and taking on their roles. Students recorded their information on a graphic organizer. The class worked together to predict, clarify, question, and summarize using a passage from another short book on animal migration, published by National Geographic. This book had a second grade Lexile level, which allowed for easier reading so that students could place their focus on mastering the strategy. Finally, students were placed in two groups, and allowed to practice the strategy as they would on the following day. The researcher monitored each group and provided assistance when needed. Each member took the role of one of the Fab Four characters and completed their tasks with assistance from their group members as they read the text. Each group member was responsible for completing the task of “Sammy the Summarizer”, as there were only three members in each group.

Day 5.

On the fifth day, the students again reviewed the roles of the Fab Four characters, as well as strategies to help them predict, clarify, question, and summarize, such as: looking for pictures, context clues, titles, and repeating words. The students and researcher read a passage of text and wrote and compared their predictions, questions, clarifications, and summaries. This review lasted approximately 15 minutes, and the rest of the session was devoted to testing.

As student “F” was absent for testing yet again, Students “A” and “B” worked together while students “C”, “D”, and “E” were grouped together. The groups read a four page excerpt from the National Geographic book on animal migration using the RT

strategy and graphic organizers. After the reading, students independently completed a five question comprehension test.

Day 6.

Day six marked a review day for PALS/PS, as this was still a new strategy for students and it had been two weeks since they were last exposed to it. The teacher reviewed the strategy with them and completed examples. Next, the class worked together to find the most important “who” or “what”, the most important thing about the “who” or “what”, and the main idea of the passage. The lower Lexile level, animal migration book was once again used for this review. Students shared their answers using white boards and sticky notes. Students were also given the opportunity to work in pairs and practice the strategy together. The researcher monitored the pairs and provided assistance when necessary. The pairs seemed to have a full understanding of how to implement the strategies, but the researcher noticed many students having difficulties creating the main idea of the text read in ten words or less.

Day 7.

Day seven marked the review day for RT. Students created bookmarks listing the “Fab Four” characters and possible questions they each might ask (Stricklin, 2012). Next, the researcher modeled each of the “Fab Four” strategies. The class used an excerpt from the second grade level Lexile book and together took on each of the “Fab Four” roles. Students used white boards and graphic organizers to share their answers. Finally, the class broke into groups and completed the strategy together. Group members alternated between the four characters as the researcher monitored the groups and provided assistance when needed.

The students were able to complete each of the roles, and in most cases provide assistance for other group members and share their ideas. The researcher noticed that the students had the most difficulty in creating questions that could be answered using the text.

Day 8.

Day eight was designed to be the final day of the study, however, Student “F” was not present and student “B” left after approximately the first fifteen minutes. Therefore, the researcher had only enough time to give the students the final reading attitudes questionnaire. Each student was presented with a questionnaire and marked the answers that best represented their thoughts and practices during reading. The researcher read each question aloud as the students tested.

Day 9.

Day nine was the final day of the study. Students were allowed to choose which strategy they would use to read their final text: RT, PALS/PS, or IR. Students “A”, “C”, and “E” chose PALS/PS, and therefore, students “C” and “E” were paired together, while the researcher partnered with student “A”. Students “B” and “D” chose RT and were partnered together, while student “F” chose IR and worked independently. Students worked with their respective partners (or independently) to read a four page passage. After the reading, students independently completed a final, five question comprehension test.

Chapter IV

RESULTS

Overview

The data collected during this study is representative of this group of students and their abilities in the area of reading comprehension. Research questions one (RQ1) and two (RQ2) ask whether or not PALS/PS and RT strategies are successful in increasing the reading comprehension scores of the third grade population identified in this study. In order to answer these questions, students' scores on four separate reading comprehension quizzes were calculated and compared. Research question (RQ3) three seeks to determine students' understanding of and comfort with each reading strategy. It can be inferred that if, when given the choice, students choose to use RT or PALS/PS they have an understanding of the strategy, feel that they can properly implement it on their own, and find some benefit in its use. During the last week of testing, students were given the choice to complete their post-tests with RT, PALS/PS, or IR. The percentages of students choosing each strategy will be recorded and analyzed. Finally, research question four (RQ4) queries whether or not the instruction of RT and PALS/PS will change student usage of reading comprehension strategies. A questionnaire titled the Reading Comprehension Questionnaire, prompted students to indicate their propensity toward the use of reading strategies as well as their feelings and affect about reading; this questionnaire was given at the beginning, and ending, of this study.

Examination of Reading Strategy Effectiveness

To measure the effectiveness of RT and PALS/PS in strengthening the reading comprehension scores of this population of students, a five question reading comprehension pre-test was given. The initial pre-test was used as a baseline score. Students completed the pre-test using IR accompanied by no reading strategy. Throughout the study, students completed a total of three more reading comprehension tests using varying reading comprehension strategies. Comparing the scores from the pre-test to later tests completed with the use of a strategy demonstrates if the use of a RT or PALS/PS enlisted any growth in reading comprehension.

Growth, if any, was determined by calculating the students' scores on the pre-test and each subsequent reading comprehension test. Each of the four tests consisted of five reading comprehension questions devised using the components of the "understanding" section of Bloom's taxonomy, revised (Anderson & Krathwohl, 2001) The question stems developed by Pohl (2000) were used when the researcher was forming each individual question for the tests. Each question was worth 20% of the total test, and tests were scored out of 100%. Each test followed the same format design as the pre-test.

Growth in reading comprehension, or lack thereof, following the use of each reading strategy was recorded. Each student's baseline score was subtracted from the score he/she attained on the test taken using PALS/PS. A resulting positive number represents a growth in reading comprehension, while a negative number represents a decrease in reading comprehension, and a "zero" shows no change. The same process was repeated using the scores attained by each student on the test taken using RT.

During the final week of the study, students were given a post-test which followed the same five-question format as all of the previous tests. The questions comprised in this post-test were also created from question stems designed by Pohl (2000); additionally, the characteristics of the “understanding” section of the revised Bloom’s taxonomy were utilized for consistency (Anderson & Krathwohl, 2001). All students were instructed to choose one of these options, RT, PALS/PS, or IR. They were reminded that they must utilize their chosen strategy when taking the final reading comprehension test. The students’ baseline scores were again subtracted from this post-test and the differences noted.

Individual Student Results.

Student A:

Student A obtained a baseline score of 40%, achieved by answering two of the five reading comprehension questions correctly. He/she received, again, a score of 40% after utilizing the PALS/PS strategy, showing no growth in reading comprehension. On the following test, taken using the RT strategy, Student A scored 60%, resulting in a 20% increase in reading comprehension. During the final week of testing, Student A chose to complete his/her post-test using RT. Again, he/she earned a score of 60%, showing a 20% increase when compared to the baseline score and remaining consistent with the previous score of 60% achieved using RT. See Figure 1.

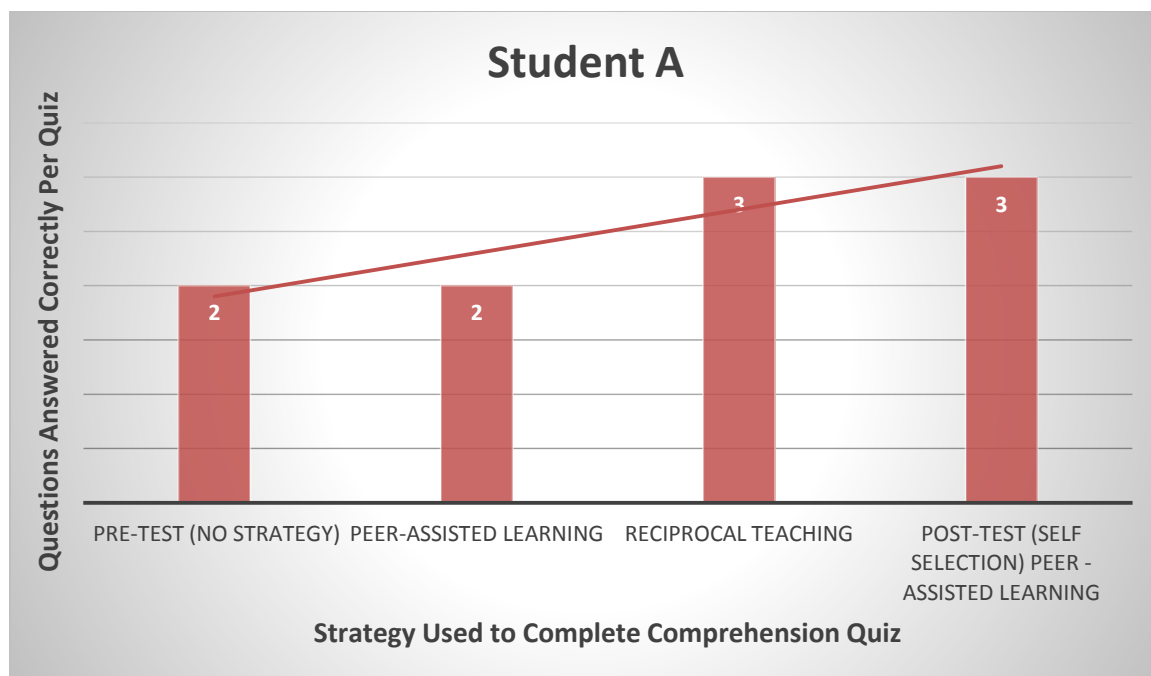


Figure 1.

Student B:

Student B failed to answer any of the questions presented on the pre-test correctly, thus resulting in a score of 0%. With the implementation of PALS/PS, Student B's score increased by 20%. The same results were seen with the usage of RT. Student B scored 20% on the reading comprehension test following RT, and again an increase of 20% was noted. The most dramatic difference in reading comprehension scores was seen after Student B's completion of the post-test. Student B chose to utilize RT during his/her post-test and achieved a score of 80%; an 80% increase from his/her baseline score. See Figure 2.

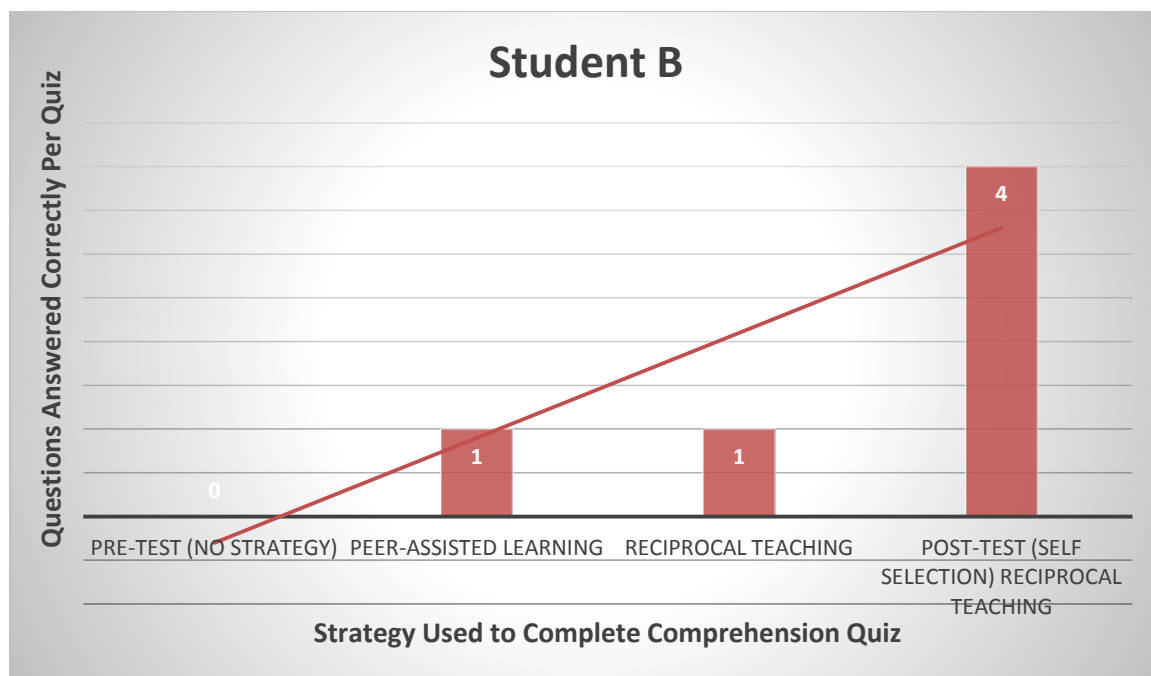


Figure 2.

Student C:

Student C achieved one of the highest baseline scores with a score of 40%. Following the pre-test, he/she took a second reading comprehension test using PALS/PS and again received a score of 40%, showing no change in relation to the baseline score. During the third session of the research, this student completed a reading comprehension test using RT. This test showed the first measure of growth in Student C's reading comprehension, with an increase of 20%. Finally, Student C chose to use the strategy of PALS/PS to take his/her post-test. The results of the post-test revealed a dramatic 40% drop in reading comprehension scores from the baseline. See Figure 3.

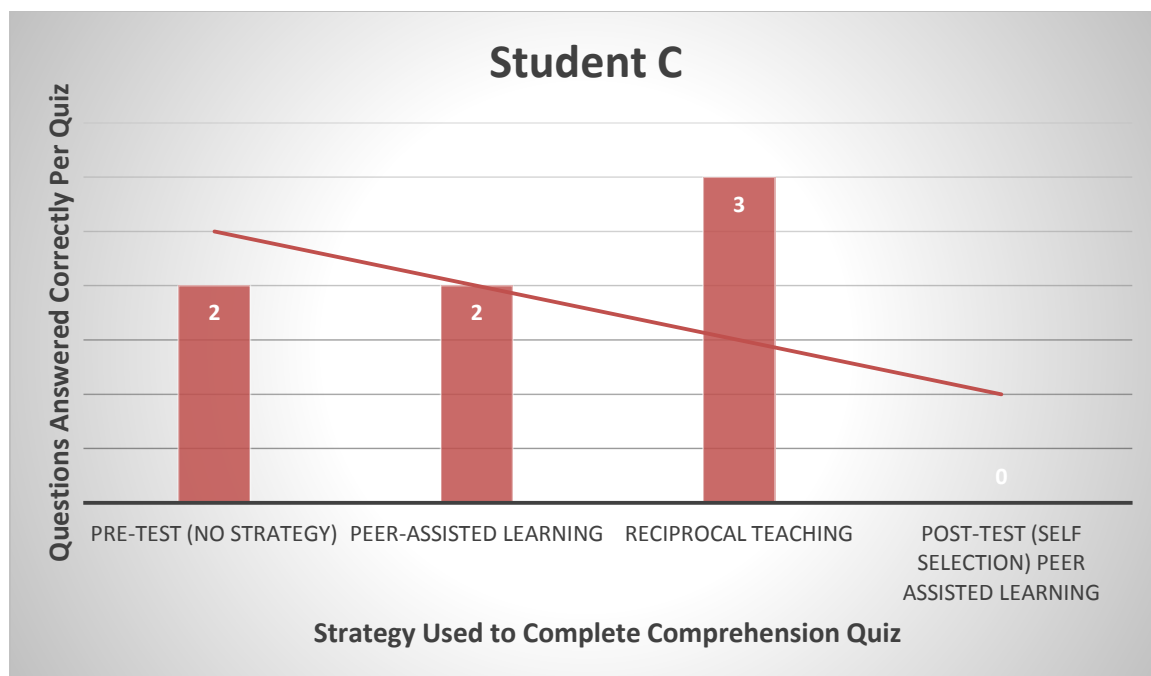


Figure 3.

Student D:

Student D was one of the initial two lowest performing students participating in the study, achieving a baseline score of 0%. However, following instruction in PALS/PS, Student D's reading comprehension score increased exponentially to a score of 40%. With the use of RT, Student D's score dropped 20% to a score of 20%. Student D chose to again implement RT while completing the post-test and his/her score remained at 20%. However, a growth of 20% from the baseline score was noted. See Figure 4.

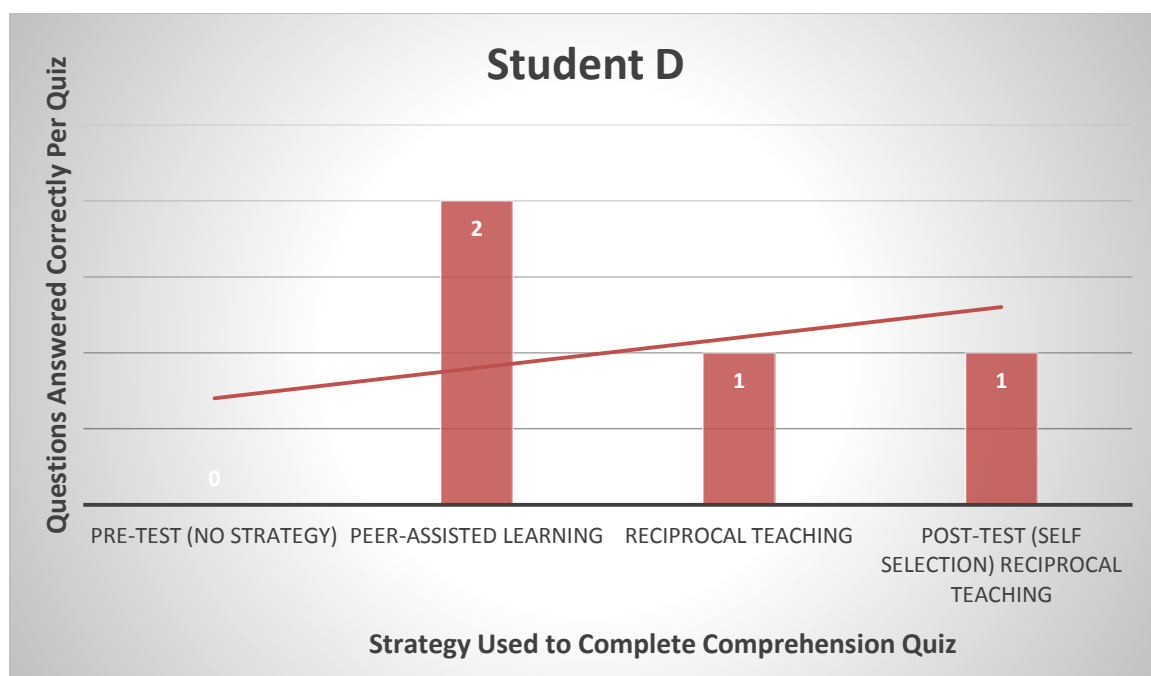


Figure 4.

Student E:

A score of 20% was achieved by Student E during the pre-test portion of this study.

Following the pre-test, PALS/PS was used by Student E to complete the second reading comprehension test. He/she received a score of 40%, a 20% increase from the baseline.

After using RT, Student E showed a great increase in reading comprehension with a score of 80%, 60% higher than the baseline. During the final test, Student E chose to utilize the PALS/PS strategy and received a resulting score of 0%, a 20% decrease from the baseline. See figure 5.

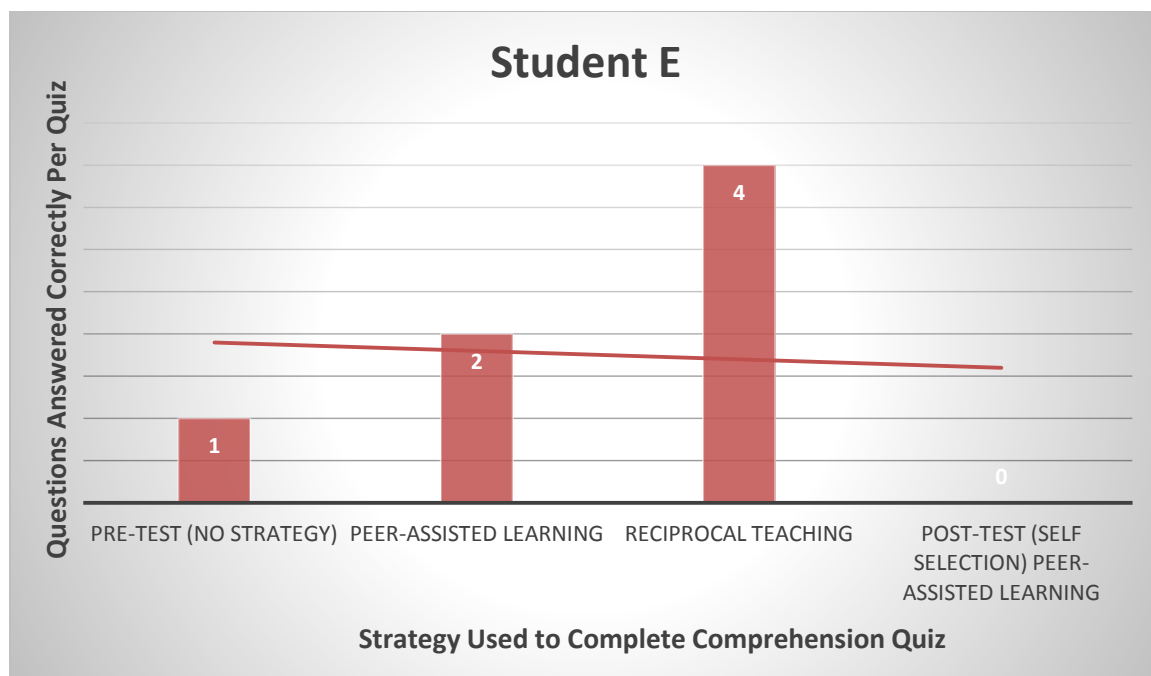


Figure 5.

Student F:

After completing the initial pre-test, Student F correctly answered three of the five questions presented, resulting in a score of 60%, the highest in the class. Student F failed to attend the following two test dates, and therefore, the researcher has no data regarding his/her use of RT or PALS/PS. During the final session, Student F chose to forego the use of a strategy and complete his/her post-test with IR. The results of his/her post-test matched those of the pre-test completed with the same strategy. Student F received a score of 60% on the post-test, resulting in no change from the baseline score. See Figure 6.

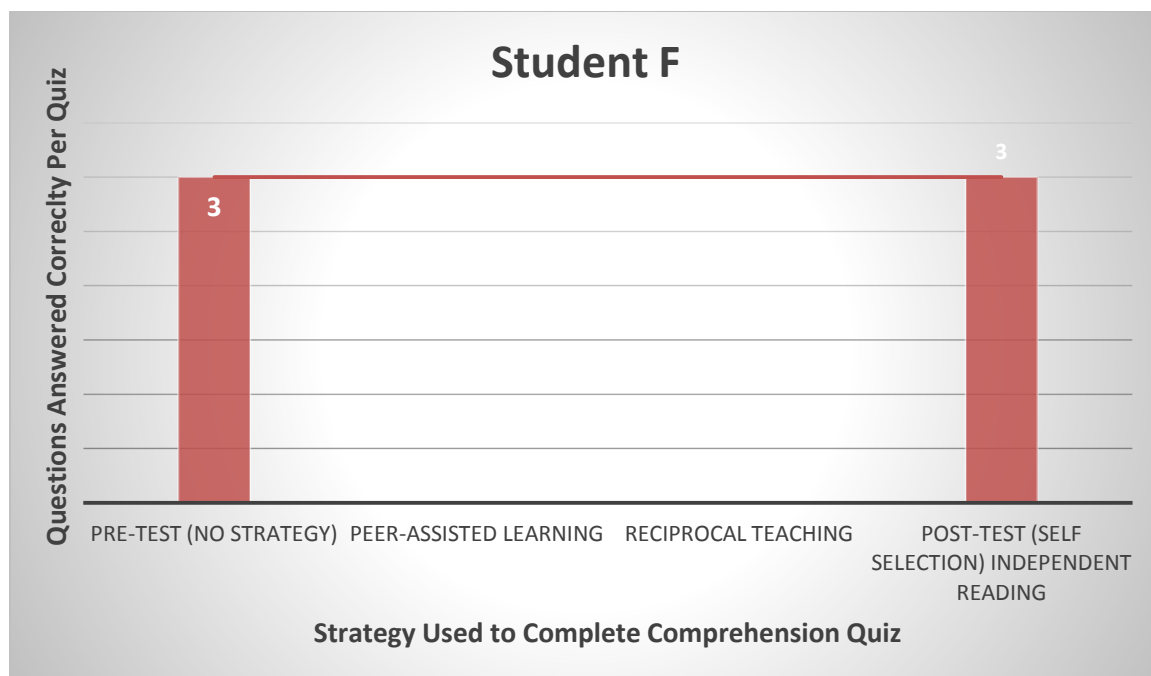


Figure 6.

Interpretation of Results

In an overall analysis of students' results, simple mathematical differences between pre- and post-test scores were used to determine if the use of these reading strategies, RT and PALS/PS, increased, made no change, or decreased the baseline comprehension scores. Each student's baseline score was subtracted from his/her corresponding post-test score. If the resulting difference was positive, it was determined that the chosen strategy was effective. If the resulting score was negative, it was determined that the chosen strategy was ineffective in raising students' reading comprehension scores. If there was no change, it was deemed that this strategy made no difference for the student. Student F's data is not considered because this student was absent for many of the research times. Additionally, the student chose to complete the

post-test using IR, and the effectiveness of the reading comprehension strategies, PALS/PS and RT, cannot be measured by his/her score.

Table 1.

Analysis of Pre- and Post-Test Results

Student	Pre-Test Score	Post-Test Score	Difference
Student A	40%	60%	+20%
Student B	0%	80%	+80%
Student C	40%	0%	-40%
Student D	20%	0%	-20%
Student E	0%	20%	+20%
Student F	60%	60%	+/-0%

The implementation of a reading strategy, whether RT or PALS/PS, increased the reading comprehension scores of three of the five students, or 60% of the participants (of those who chose to utilize a reading strategy during their post-tests). The use of RT or PALS/PS caused a decrease in the scores of two of the five students, or 40% of the participants (of those who chose to utilize a reading strategy during their post-tests). A positive transformation was seen in more than 50% of the participants' scores, which implies that the use of reading comprehension strategies is an effective practice in this population of students.

The Overall Strongest Strategy

The pre- and post-tests' outcomes, if viewed in isolation, provide an incomplete picture of this study. Which reading comprehension strategy was most effective in this particular group of students? Both peer reading strategies, RT and PALS/PS were able to

increase students' reading comprehension scores in at least one instance. Of the 15 times peer reading strategies (RT or PALS/PS) were implemented, students' scores increased from their baseline scores a total of 11 times, or 73.3%, of the time. Using this data, peer reading strategies were more effective than independent reading for this population of students.

The researcher's tests utilized Reciprocal Teaching (RT) seven times in the study, and five different students were present and participating during those times. Improved reading comprehension test scores were evident in each of the seven assessments. Tests utilizing PALS/PS were proctored eight times with five of the students. Improved test scores were observed with six of the eight assessments; therefore, RT provided the larger percentage of success, when measured overall. Largely, the use of RT showed the greatest increase in reading comprehension scores for this group of students. The use of RT yielded increased scores of up to 60% and 80%, while the largest increase in student scores after PALS/PS was 40%.

Students' Choices

Students' choices in reading comprehension methods were investigated. Students' self-selected, post-test strategy (RT, PALS/PS), or the option to select no strategy (Independent Reading, IR), posits that the choice is made because student-based understanding is higher in one selection over another. This researcher inferred that if a student chooses to complete his/her post-test with RT, the student understands the processes of RT, and he/she finds that strategy to be the most accessible or recognizable among others. The same inference is valid when discussing the use of PALS/PS or IR.

In the concluding session of the study, students were permitted to individually select from RT, PALS/PS, or IR during their post-test. Of the six participating students,

three chose to use PALS/PS, two selected RT, and one picked IR. With 50% of the participants' votes, PALS/PS proved to be the most popular strategy with these children, suggesting that PALS/PS was the most easily understood or beneficial to reading comprehension.

Table 2.

Analysis of Student Choice

Student	Reading Strategy Chosen
Student A	PALS/PS
Student B	RT
Student C	PALS/PS
Student D	RT
Student E	PALS/PS
Student F	IR

The Reading Attitude Questionnaire

The Reading Attitude Questionnaire (Appendix A) implemented at the beginning and ending of the study, asked students to identify their use of the studied reading comprehension strategies, such as predicting, summarizing, and the use of a graphic organizer while reading. Additionally, the questionnaire asked students to describe their enjoyment of reading and perceived success as a reader.

Results from the introductory, pre-study Reading Attitudes Questionnaire revealed that five of the six students liked to read and thought of themselves as good readers. After the initial session and after completing the pre-study questions, one student who did not think that he/she was a good reader changed his/her answer, stating that

he/she now thought of him/herself as a good reader. Conversely, two students who claimed to enjoy reading prior to the study stated on the post-test that they did not enjoy reading anymore.

Pre-test questionnaires showed that five of the six participating students of that day, sometimes or always, predict before reading, while one student never does. All students claimed to sometimes or always set a purpose for reading, and five of the six participants claimed to sometimes or always use a graphic organizer when reading, though there was no evidence of this when they read the assigned text shortly afterwards. Five of the six students revealed on their initial, pre-test Reading Attitudes Questionnaire that they ask questions and summarize the content while reading text, and all students marked “always” when asked if they reread a text to help foster understanding.

After instruction in RT and PALS/PS, three students claimed on the post-test that they now “always” predict when reading. Two students say they will now “always” set a purpose for reading, while two students changed their pre-test answers from “always” to post-test “only sometimes” setting a purpose for reading. No students changed their answers when asked if they will ask questions while reading. Two students wrote on the post-test that they will “always” use a graphic organizer when reading; and two students claimed on the post-test that they “never” use a graphic organizer when reading. At the end of the study, two students changed their questionnaire answers to show that they “never” reread, while four students commented that they “always” reread to better their understanding. Finally, no students changed their answers to the query regarding summarizing, and all students claimed to “sometimes or always” summarize what they read.

Chapter V

DISCUSSION

Research Questions #1-4

Research question one (RQ1) asks whether or not RT improves reading comprehension in this population of low-income, third grade students. To answer this question, students' test scores achieved with the use of RT were compared to baseline test scores taken without the use of any reading strategy. The data generated from this study showed that RT was effective in improving the reading comprehension scores of these students. Each implementation of RT showed positive results in the test scores of these students, deeming RT an effective strategy for improving reading comprehension in this population.

Research question two (RQ2) seeks to determine if PALS/PS is successful in increasing the reading comprehension scores of the population of students tested in this study. Student test scores improved on six of the eight occasions PALS/PS was administered. With an improvement rate of 75 %, this strategy can also be deemed successful in improving reading comprehension in this population of students.

Overall, the greatest growth was produced while utilizing RT, with consistent increases in scores among every student. RT utilized two specific strategies not included in PALS/PS: clarifying and questioning. According to Lesaux (2012), a key factor in low-income students falling behind in reading is because they lack the appropriate background knowledge to understand the vocabulary in the text. It seems evident that including a section in RT which requires students to work together to clarify unknown vocabulary words and complex ideas in the text, during the process of reading, may be profoundly beneficial in gaining ground in third grade gap (CPE, 2015). A substantial

focus on vocabulary improvement could become an essential component in comprehension strategies.

Research question three (RQ3) is focused on possible changes in students' usage of reading comprehension strategies, RT and PALS/PS. Results showed varied differences between pre- and post-test results on RQ3. Additionally, what do they perceive regarding personal outlooks and attitudes about reading after instruction in RT and PALS/PS? The pre-and post- reading questionnaire provides insights about students' attitudes towards comprehension and their personal perceptions on reading. If provided more instruction and practice with each other and the strategies, the students may begin to internalize the concepts, and two projected outcomes are improved reading comprehension and feelings of achievement and efficacy.

Lastly, research question four (RQ4) addresses students' preferences for use among the selections of PALS/PS, RT, and IR. Peer reading strategies were largely preferred by members of this population as opposed to independent reading; five students chose to implement peer reading strategies, and only one student favored independent reading. Overall, when given the choice, PALS/PS was the preferred strategy, with 50% of the students choosing to utilize it.

Observations

After observing the students implementing different peer reading comprehension strategies, it became increasingly evident that more factors, beyond only the reading strategy, must be considered in any future research. Nearly all of the students had difficulties summarizing, finding the main idea, and generating questions. Though some students did show noticeable improvement by the fourth week of the study, more practice in the specific elements of each strategy would have been beneficial to students' success.

Additionally, a lack of ability to accurately and adequately carry out the tasks involved in the strategies negatively changed students' performance.

Some of the largest changes in scores were related to student participation in the strategy and students' groupings. Student B initially tested as one of the lowest performing students and showed slight growth when using the reading comprehension strategies. However, in the final test Student B and Student E, the two lowest performing students, were the only students to choose to utilize RT; and because of strategy selection, they were paired together. Student B immediately took leadership in the pair, coaching Student E and enthusiastically implementing the RT strategy. Student B was more engaged during this session and in the reading activity than in any previous readings or activities. Student B performed exceptionally well, and as a result, his/her score increased by 80 % from the pre-test.

The grouping of Students C and E had the opposite effect. These students were good friends, and it was problematic to keep them on task when reading. It was observed that they did not complete the strategy correctly, and they were not intellectually engaged with the reading. As a result, they each earned a score of 0% on the accompanying test. Researchers have noted that student engagement and reading comprehension are directly related; students tend to have low comprehension when they do not have a high level of engagement in response to instruction and/or the reading selection (Wigfield et al., 2008). Students B/E and Students C/E are prime examples of both sides of this phenomena.

Overall, the researcher noted that student engagement with the text was higher when students were in peer groups. Also, group interaction and on-task discussions

increased with the use of the peer reading strategies when compared to whole group instruction of the strategies.

Limitations

Ideally, all three activities of PALS/PS would be incorporated into one reading lesson, partner read and retell, paragraph shrinking, and predicting. This sequence of actions was not possible for this study due to limitations in instructional time and testing intervals. During the weeks of the study, it was only feasible to complete one PALS/PS activity, which was paragraph shrinking (PS). If given more time to devote to the students and a much longer research time, a true test of the PALS/PS could be completed, one which follows the recommended guidelines and includes all three activities.

With a very small amount of daily time and with the limitations of only a few weeks in the study, constraints may have impacted the instruction of RT. Stricklin (2011) suggests taking one day to explain and introduce each of the “Fab Four” characters: Paula the Predictor, Clarence the Clarifier, Quinn the Questioner, and Sammy the Summarizer. With time at a premium, all four characters were introduced in one day. It is possible that the students needed a larger portion of practice, in all strategies, for the researcher to see greater changes from the pre- to post-test.

Chapter VI

CONCLUSION

Students who cannot read well cannot perform well in school, and by consequence, they have lower chances of graduating from high school, finding high-quality jobs, and providing secure lives for themselves and their families. Mississippi is one of the states which perpetually hovers in the lowest levels on national rankings of reading ability in 4th and 8th grades (MDE, 2016). This state contains high numbers of children reading below grade level or not proficient. Literacy skills and high reading comprehension are essential to school-based success. These components are two of the most important elements in a productive life, one that adds and benefits society. Conversely, illiteracy destroys the individual and the society due to negatively produced outcomes. Many schools and teachers have been rated effective in teaching literacy and comprehension. Sadly, when the student population shifts to one that is primarily comprised of low-income students, it becomes markedly more difficult for this population to excel.

Of the utmost importance are educators who find sound and productive methods to use in improving reading comprehension for all students, and by association, students' scores and aptitudes on national and international rankings will improve. Low-income students are not underperforming of their own accord, and they have the capacity to become readers with high levels of comprehension, but it takes educators who instruct in effective ways. There is ample research concerning the positive effects of collaborative or peer reading strategies on student reading comprehension. This project was designed to investigate two peer reading comprehension strategies, plus other concepts related to their

efficiency, with a group of children who have demonstrated low levels while reading to determine understanding. The selected strategies are in use in schools. What can be said about their usefulness in the instruction of low-income students? Would one strategy outperform another while in use with a specific population of third grade students?

During this study the researcher used Paragraph Shrinking (PS), a component of Peer Assisted Learning Strategies (PALS), and Reciprocal Teaching (RT) another peer-based strategy. An additional choice was provided in the study, and it involved no strategy at all (Independent Reading, IR). PALS/PS and RT strategies have been shown to be effective means of teaching reading comprehension; this researcher continued to investigate their effectiveness with the added element of low-income, below grade level readers in third grade as the subjects. Would these collaborative reading comprehension strategies yield high reading comprehension scores, low scores, or will they make no change at all with a group of students from in south Mississippi? Would these collaborative reading strategies be more effective than independent reading for students in this population?

Based on the final results of this study, peer reading strategies can effectively improve the reading comprehension in this specific population of low-income, third grade students. These children have self-reported as being unsuccessful while reading text, especially when asked about comprehension and understanding. After completion of this study, the students showed growth in independent reading scores approximately 73% of the time when using peer reading strategies. Though instruction in peer reading strategies in this study did not drastically change students' independent usage of comprehension strategies, it did improve student engagement during reading.

When given the choice, most students chose to utilize a peer reading strategy over reading independently. These strategies allowed them to share their knowledge while building and modifying their views due to the combined knowledge of others. The strategies produced a primarily positive impact on reading comprehension and reading attitudes in this population of students.

Using purposefully taught comprehension strategies during reading, and discussing passages with peers, may improve students' reading comprehension ability. Positive outcomes of this study showed students' improvement in some comprehension activities, and some students reported stronger positive feelings about their abilities to comprehend. As Ann Ketch (2005) said,

Conversation helps individuals make sense of their world. It helps to build empathy, understanding, respect for different opinions, and ownership of the learning process. It helps students sort out their ideas of the world and begin to understand how they fit into it. Used as a connection to cognitive strategies, conversation fosters comprehension acquisition. (Ketch, 2005, p. 1)

Could peer reading strategies which promote such conversation, such as RT and PALS/PS be the answer to the ever present reading comprehension gap between children who reside various income brackets? There are solutions to these problems, and through research, they will be found.

References

- Anderson, L., & Krathwohl, D. (2001). *A taxonomy for learning, teaching and assessing: A revision of Bloom's taxonomy of educational objectives, complete edition*. New York: Longman.
- The Annie E. Casey Foundation. (2014). Early reading proficiency in the United States. Retrieved on January 27, 2016, from <http://www.aecf.org/resources/early-reading-proficiency-in-the-united-states/>
- Beirne, D., & Velsor, K. (2012). *Engaging students: Using the unit in comprehensive lesson planning*. Plymouth, MA: Rowman & Littlefield Education.
- Bloom, B., Engelhart, M, Furst, W., Hill, E, & Krathwohl, D. (1956). *Taxonomy of educational objectives: The classification of educational goals: Handbook I: Cognitive domain*. New York: Longman.
- Center for Public Education (CPE). (2015). Learning to read, reading to learn: At a glance. Retrieved from: <http://www.centerforpubliceducation.org/earlyliteracy#sthash.VxcD8UAK.dpuf>
- Cohen, P. A., Kulik, J. A., & Kulik, C. L. (1982). Educational outcomes of tutoring: A meta-analysis of findings. *American Educational Research Journal*, 19, 173-248.
- Comprehension, (n.d.). Retrieved April 20, 2016, from <http://www.merriam-webster.com/dictionary/comprehension>
- Crawford-Brooke, E. (n.d.). The critical role of oral language in reading for Title I students and English language learners. Retrieved on January 14, 2016, from <http://lexialearning.com/lexiaresearch/whitepapers/oral-language-whitepaper>

- Children First Report. (2014). Retrieved from <http://www.hattiesburgpsd.com/wp-content/uploads/2015/01/2014-Childrens-First-Report.pdf>
- Durkin, D. (1970, 1989). *Teaching Them to Read*. Boston: Allyn and Bacon.
- Estebo, R. (2012). *How does paragraph shrinking affect the reading comprehension of struggling intermediate students?* Unpublished master's thesis, Southwest Minnesota State University, Marshall, M N.
- Foot, H., & Howe, C. (1998). The psychoeducational basis of peer-assisted learning. In K. J. Topping, & S. W. Ehly (Eds.), *Peer-assisted learning* (pp. 121-144). Mahwah, NJ: Routledge.
- Food and Nutrition Services, USDA. (2015). Child nutrition programs – income eligibility guidelines.” *Federal Register*, 80.61 (March 2015): 17026-27. Web.
- Food Research and Action Center. (2015). National school lunch program: Trend and factors affecting student participation. (January 2015):1-11. Web.
- Fuchs, L., Fuchs, D., Hosp, M., & Jenkins, J. (2001). Oral reading fluency as an indicator of reading competence: A theoretical, empirical, and historical analysis. *Scientific Studies of Reading*, 5, 239-256.
- Greenwood, C., Carta, I., & Hall, R. (1988). The use of class wide peer tutoring strategies in classroom management and instruction. *School Psychology Review*, 17, 258-275.
- Hart, B., & Risley, T.R. (2003). The early catastrophe: The 30 million word gap by age 3. *American Educator*, 27 (1), 4–9.
- Hoff-Ginsberg, E. (1991). Mother-child conversations in different social classes and communicative settings. *Child Development*, 62. 782-796.

- Holcomb, Z. C. (2010). *Interpreting basic statistics: A guide and workbook based on excerpt from journal articles* (6th ed.). Glendale, CA: Pryczak.
- Hattiesburg Housing Authority. (n. d.). Retrieved from <http://portal.hud.gov/hudportal/HUD?src=/states/mississippi/community/home>
- Hutchins, A. M. (2011). *Student usage of curriculum taught reading strategies*. Portland, OR: Concordia.
- Ketch, A. (2005). Conversation: the comprehension connection. *The Reading Teacher*, 59(1), 8-13.
- Lesaux, N. K. (2012). Reading and reading instruction for children from low-income and non-English-speaking households. *The Future of Children*, 22 (2), 73-87.
- McMasters, K., Fuch, D., & Fuch, L. (2007). Promises and limitations of peer assisted learning strategies in reading. *Learning Disabilities: A Contemporary Journal*, 5(2), 97-112.
- MetaMetrics. (2016). Lexile levels. Retrieved from <https://lexile.com/>
- Mississippi Department of Education (MDE). (2015-2016). Reports. Retrieved from <http://reports.mde.k12.ms.us/data/>
- National Center for Children in Poverty. (2014). Child poverty. Retrieved from <http://www.nccp.org/topics/childpoverty.html>
- Oczkus, L. (2013). Reciprocal teaching: powerful hands on comprehension strategy. *The Utah Journal of Literacy*, 16(1), 34-38.
- Oster, L. (2001). Using the think-aloud for reading instruction. *The Reading Teacher*, 55(1), 64–69. Retrieved from <http://www.jstor.org/stable/20205012>

- Palincsar, A., & Brown, A. (1984). Reciprocal teaching of comprehension-fostering and comprehension-monitoring activities. *Cognition and Instruction*, 1(2), 117-175.
- Palincsar, A. S., & Klenk, L. (1992). Fostering literacy learning in supportive contexts. *Journal of Learning Disabilities*, 25, 211-225, 229.
- Pohl, M. (2000.) *Learning to think, thinking to learn: Models and strategies to develop a classroom culture of thinking*. England: Hawkin Brownlow.
- Rogoff, B. (1990). *Apprenticeships in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Routman, R. (2000). *Conversations: Strategies for teaching, learning, and evaluating*. Portsmouth, NH: Heinemann.
- Schloss, P., & Smith, M. (1999). *Conducting research*. Upper Saddle River, NJ: Prentice-Hall.
- Silver, D. (2011). Using the 'zone' to help reach every learner. *Kappa Delta Pi Record*, 47(sup1), 28-31.
- Snow, C.E., & Sweet, A.P. (2003). Reading for comprehension. *Rethinking Reading Comprehension*. 1-11.
- Stricklin, K. (2011). Hands-on reciprocal teaching: a comprehension technique. *The Reading Teacher*, 64(8), 620-625. Retrieved from <http://www.jstor.org/stable/41203462> Accessed: 27-03-2016 22:39 UTC
- Tavernise, S. (2012, February 9). Education gap grows between rich and poor, studies say. *New York Times*, pp. A1. Retrieved on November 17, 2015, from http://www.nytimes.com/2012/02/10/education/education-gap-grows-between-rich-and-poor-studies-show.html?_r=1

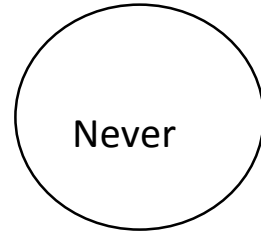
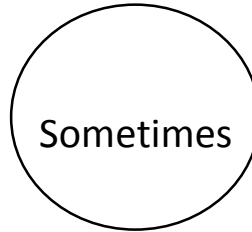
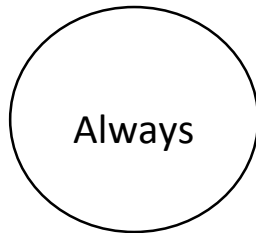
- Topping, K. J., & Ehly, S. W. (1998). *Peer-assisted learning*. Mahwah, N.J.: Routledge.
- United Way (2016). Retrieved from <http://www.unitedwaysems.org/aldersgate-mission>
- Veeravagu, J., Muthasamy, C., Mariuthu, R., & Michael, A.S. (2010). Using Bloom's taxonomy to gauge students' reading comprehension performance. *Canadian Social Science*, 6 (3), 205-212.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. M. Cole, V. J. Steiner, S. Scribner, & E. Souberman, (Eds.). Cambridge, MA: Harvard University Press.
- Wigfield, A., Guthrie, J. T., Perencevich, K. C., Taboada, A., Klauda, S. L., McRae, A., & Barbosa, P. (2008). Role of reading engagement in mediating effects of reading comprehension instruction on reading outcomes. *Psychology in the Schools*, 45, 432-445.
- Wells, G. (1999). *Dialogic inquiry: Towards a sociocultural practice and theory of education*. Cambridge: Cambridge University Press.
- What Works Clearinghouse. (2016). Retrieved from <http://whatworksclearinghouse/ies.ed.gov>

APPENDICES

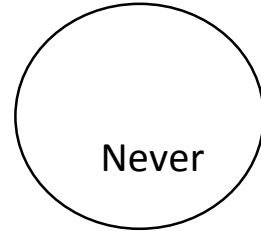
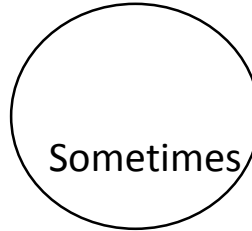
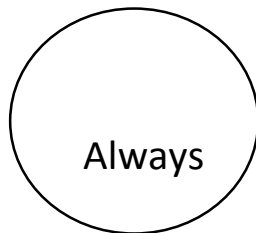
Appendix A: Reading Comprehension Questionnaire

Directions: “I will read each question to you. Fill-in or color-in the answer that seems most correct to you.”

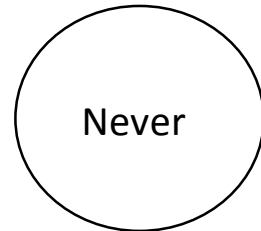
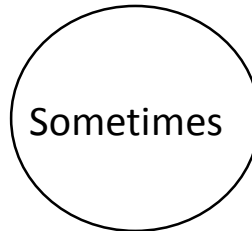
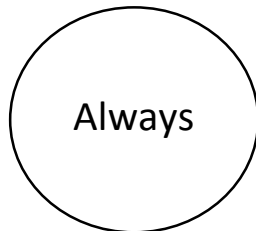
1. Before you read, do you think about why you are reading and set a purpose for reading?



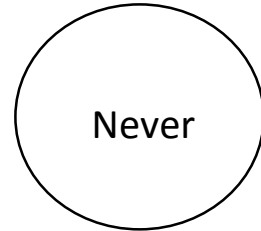
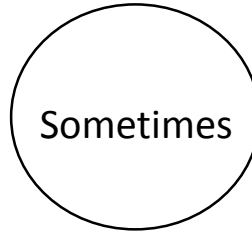
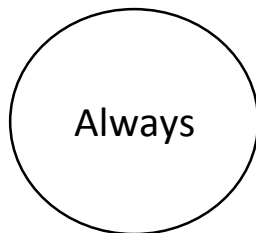
2. Before you read, do you look through the book and predict or guess what will happen?



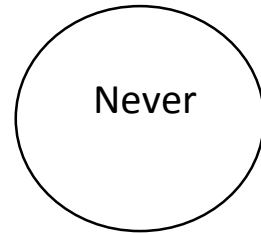
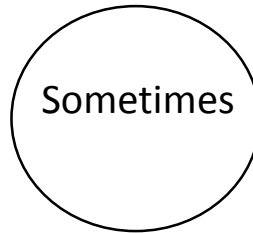
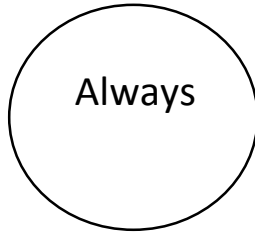
3. While you are reading, do you use a chart or a graphic organizer to help you better understand?



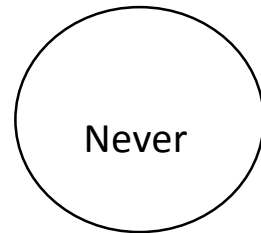
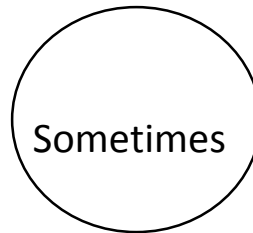
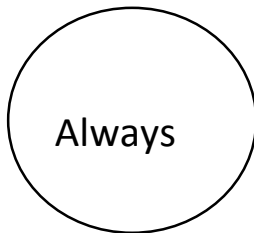
4. While you are reading, do you stop and think about what you read and reread it to help you better understand?



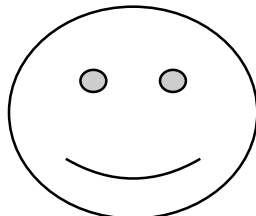
5. While you are reading, do you ask questions and look for the answers?



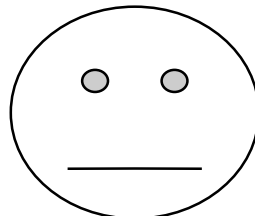
6. After you read, do you summarize what you just read?



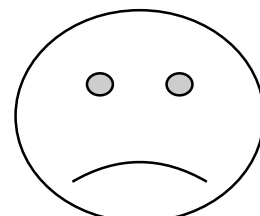
7. Do you think you are a good reader?



YES

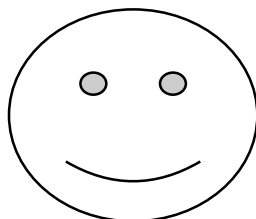


Kind-of

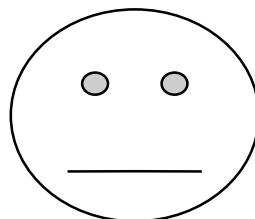


NO

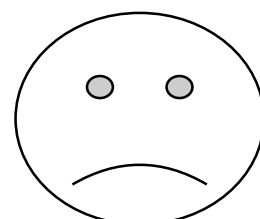
8. Do you like to read?



YES



Kind-of



NO

Appendix B: Reading Comprehension Pre-Test

1. Which of the following is the best definition of migration?
 - A. Going on a trip to a new place to find food.
 - B. Taking food from another place back to your home.
 - C. Collecting food near your home.
 - D. Traveling to a new place to find safety.

2. Which statement from the book does not support the fact that sperm whales are very large animals?
 - A. Sperm whales are the largest toothed predator on the planet.
 - B. Male sperm whales are larger than female sperm whales.
 - C. Male sperm whales weigh up to 50 tons and grow up to 60 feet.
 - D. A sperm whale's brain is the largest of any animal on Earth.

3. Which of the following best represents a pod?
 - A. A boy and his dog.
 - B. 1,000 people on a street in New York City.
 - C. A grandmother and her grandson.
 - D. Kindergarten teachers and their students.

4. Choose the answer that best explains why sperm whales travel in pods.
 - A. So they won't get lonely.
 - B. So they will know how long of a distance to travel.
 - C. To keep each other safe and take care of one another.
 - D. So that no one will get lost.

5. What would most likely happen if a whale in a pod got sick or injured?
 - A. The pod would leave the sick or injured whale behind.
 - B. The pod would take care of the sick or injured whale and feed it.
 - C. The older female whale would guide the sick or injured whale.
 - D. The sick or injured whale would swim alone.

Appendix C: Reading Comprehension Test (PALS/PS)

1. Which of the following is the best definition of a herd?
 - A. A large group of animals.
 - B. A national park.
 - C. One animal.
 - D. A trip.
2. Choose the answer that best explains why zebras migrate, or move from one place to another.
 - A. To find a safer place to live.
 - B. To find food and water.
 - C. To find warmer weather.
 - D. To join the cattle along the Boteti River.
3. What would most likely happen if the Boteti River dried up in the middle of the dry season (before the rainy season begins)?
 - A. The zebras would get water from a nearby river.
 - B. The zebras would get water from the Makgadikgadi salt pans.
 - C. The zebras would not be able to find any water until the rainy season.
 - D. The zebras would find water in the national park.
4. Which statement from the book best represents why it was a problem for the cattle to eat and drink around the Boteti River?
 - A. In recent years, cattle owned by local people were drinking the water and eating the grasses along the Boteti River area.
 - B. There was not enough food and water for all of the cattle and wild animals.
 - C. During the dry season, the zebras stay near the Boteti River.
 - D. Now the 150-mile fence separates the cattle and zebras so they have their own territory.
5. Choose the answer that best explains why the people put a large fence in the Makgadikgadi and Nxai Pan National Park.
 - A. The fence keeps the animals out of the man-made water holes.
 - B. The fence protects the people from the zebras.
 - C. The fence keeps the cattle from drinking all of the zebras' water and eating their food.
 - D. The fence protects the cattle from the zebras.

Appendix D: Reading Comprehension Test (RT)

1. Which of the following BEST explains why warmer average temperatures on Earth are bad for walruses?
 - A. Warmer temperatures cause the walruses to become too hot.
 - B. Warmer temperatures cause the fish that the walruses eat to die.
 - C. Warmer temperatures cause the ice that the walruses migrate with to move too quickly.
 - D. Warmer temperatures cause the summer ice that the walruses haul out on to shrink.
2. Which statement from the book BEST supports the fact that ice floes are important to walruses?
 - A. When at sea or on ice floes, walruses stay in small groups.
 - B. The ice shrinks in the summer and gets larger in the winter.
 - C. Walruses rest from feeding and swimming by pulling themselves onto ice floes.
 - D. Artic summer sea ice is shrinking from the Chukchi Sea.
3. Which of the following BEST represents an ice floe?
 - A. A raft floating down a river.
 - B. A bed.
 - C. A car driving down the road.
 - D. A fishing boat.
4. Which of the following is the BEST definition of “haul out”?
 - A. To move with the ice floes.
 - B. To rest from feeding.
 - C. To pull yourself out of the water.
 - D. To haul an ice floe to a new location.
5. What will likely happen if the Arctic summer ice continues to shrink?
 - A. The walruses will move very far north.
 - B. More walruses will drown without ice floes to rest on.
 - C. The walruses will stop fishing.
 - D. The walruses’ habitat will remain the same.

Appendix E: Reading Comprehension Post-Test

1. What would **MOST LIKELY** happen if the kerosene that is now used to light lamps was **NEVER** discovered?
 - A. People would have no way to light their lamps.
 - B. Many more whales would have been hunted for their oil.
 - C. Whaling would be outlawed.
 - D. The number of sperm whales would increase.
2. Do the people who outlawed whaling think about whaling in the same way that the Greenpeace organization does?
 - A. Yes, they both think that whaling should be stopped.
 - B. Yes, they both think that whaling should continue.
 - C. No, the people who outlawed whaling want whaling to stop, but the Greenpeace organization wants it to continue.
 - D. No, the Greenpeace organization wants whaling to stop, but the people who outlawed whaling want it to continue.
3. What would happen if a sperm whale could not find enough food to eat for a short amount of time?
 - A. It would starve.
 - B. It would try to eat a different kind of food.
 - C. It would store energy in its blubber and use it when it finally found food.
 - D. It would use energy from its blubber to survive.
4. Explain why young whales cannot dive deep under the water to hunt for food.
 - A. They don't know how to dive.
 - B. They cannot hold their breaths long enough to make the dive.
 - C. Their mothers do the hunting.
 - D. They can only hold their breath for 45 minutes.
5. Which of the following is the best example of echolocation?
 - A. Giant squid are a sperm whale's worst enemy. Sperm whales fight their attackers with their tails.
 - B. Giant squid are a sperm whale's worst enemy. Scars shaped like suction cups on a sperm whale's body are signs of a battle with a squid.
 - C. Giant squid can grow up to 59 feet long and weigh more than one ton. In fact, some meetings with a squid can lead to a deadly fight.
 - D. When attacked, sperm whales form a circle to protect the sick and young.

Appendix F: IRB Approval



THE UNIVERSITY OF
SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD

118 College Drive #5147 | Hattiesburg, MS 39406-0001

Phone: 601.266.5997 | Fax: 601.266.4377 | www.usm.edu/research/institutional.review.board

NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the "Adverse Effect Report Form".
- If approved, the maximum period of approval is limited to twelve months.
Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 15102304

PROJECT TITLE: An Evaluation of Two Literacy Strategies for the Development of Reading Comprehension in Third Grade Students

PROJECT TYPE: New Project

RESEARCHER(S): Olivia Herring

COLLEGE/DIVISION: College of Education and Psychology

DEPARTMENT: Curriculum, Instruction and Special Education

FUNDING AGENCY/SPONSOR: N/A

IRB COMMITTEE ACTION: Exempt Review Approval

PERIOD OF APPROVAL: 11/03/2015 to 11/02/2016

Lawrence A. Hosman, Ph.D.

Institutional Review Board

Appendix G: Aldersgate Mission Consent Letter



Aldersgate Mission a mission of
Main Street United Methodist Church
402 East 2nd Street Post Office Boxes 1009
Hattiesburg, Mississippi 39403-1009
E-Mail: lfdixon3@yahoo.com

Rev. Linda F. Dixon

Office (601) 544-8141

Executive Director

FAX (601) 545-8234

September 10, 2015

To Whom It May Concern:

Olivia Herring is permitted by Aldersgate Mission and Reverend Linda Dixon, director of Aldersgate Mission, to work with 3rd grade students in the after-school tutoring program beginning October 1, 2015 and ending June 30, 2016.

Aldersgate Mission Director

10-1-15

Date

USM Student Researcher

10-1-15

Date

Appendix H: Informed Parent Consent Letter

Authorization to Participate in a Research Project Conducted in Affiliation with

The University of Southern Mississippi

Title of Project: An Evaluation of Two Literacy Strategies for the Development of
Reading Comprehension in Third Grade Students

Researcher: Olivia Herring

USM Advisor: Stacy Reeves, Ph.D.

Informed Consent Letter

The purpose of this letter is to inform the participants about the study, to emphasize their protection, and to document willingness to participate.

Purpose- The purpose of this study is to determine whether or not there is a measurable change in student success when using different reading comprehension methods. Third grade is a critical time period for students, especially those who are having difficulties in reading, and this study seeks to find one or more reading comprehension strategies that better benefits our students, specifically these third graders at Aldersgate Mission. Students will be selected from Aldersgate Mission by Linda Dixon to participate in this study, and information will be gathered via questionnaires and multiple choice assessments. Once the study is complete, an undergraduate thesis will be submitted to The University of Southern Mississippi's Honors College and all participants may view the completed work. Additionally, each student will receive a report of his/her results that will be in a sealed envelope. The researcher will be available to discuss the reports.

Description of Study- Questionnaires and multiple choice quizzes will be used to collect data. The questionnaires will inquire about students' interests and experiences with reading, and the quizzes will be prepared to accompany grade appropriate text passages. There will be a total of six students from the third grade who will participate in this study.

This research project has received approval by USM's Institutional Review Board and permission from the Aldersgate Mission director. Your decision to allow your child to participate is entirely voluntary, and participants may withdraw from the study at any time without penalty. Participation in this study will be kept completely confidential and the participants and their guardians will be fully informed of all aspects of the study throughout its duration.

The researcher will meet with students in approximately one hour intervals, twice a week for a total of four weeks. During the first meeting, participants will be presented with a pre-test questionnaire; baseline scores will be collected when they read a grade-level appropriate passage and answer multiple choice questions which gauge reading comprehension. In weeks two and three, students will be instructed in two new reading comprehension strategies, reciprocal teaching and peer-assisted-learning, and assessed again with reading passages and multiple choice questions. In the last week, students will be allowed to choose their preferred comprehension strategy and given a final reading multiple choice comprehension questioning and a post-test questionnaire.

After the four weeks, all scores will be compiled and the differences between each test will be determined in an effort to find a more effective reading comprehension strategy for these students.

Confidentiality- All information provided by participants will be kept private and confidential. When not being used for data analysis, all data will be placed in sealed envelopes and locked in a drawer in the USM advisor's office. The names and other distinguishing factors of participants will be changed or omitted in any shared information and only known by the researcher and USM advisor in an effort protect the identity of participants. All raw data collected during the study will be destroyed within six months of the project's submission to The University of Southern Mississippi's Honors College.

Benefits- The researcher is interested in gaining information about the effectiveness of reciprocal teaching and peer-assisted-learning in regards to third grade students who live in low-income public housing as well as having reading comprehension levels determined to be below-grade level. By participating in the study, students will be exposed to two reading comprehension methods that could be beneficial for their future education purposes and life-long endeavors. Additionally, the results of this study will be provided to Aldersgate Mission, to the guardians as well as the participants, and published in an undergraduate thesis through The University of Southern Mississippi's Honors College. This thesis will be available for viewing by the public (with all identities masked) and could potentially assist teachers in choosing reading comprehension strategies. Once this study is completed it could serve as a catalyst for this researcher's future studies.

Risks- No risks are associated with participation in this project. Data will be kept confidential and participants will be unidentifiable in all shared and published work. The results of this study will have no bearing on the students' academic scores and will not be shared with their affiliated schools. Participants may choose to withdraw from this study at any time, and for any reason, without consequence.

Questions concerning the research should be directed to Olivia Herring via email at Olivia.Herring@eagles.usm.edu or Dr. Stacy Reeves, the USM advisor, at Stacy.Reeves@usm.edu. *This project and this consent form have been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the Chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5147, Hattiesburg, MS 39406-0001, (601) 266-6820.*

Participant's Assurance- The researcher will take every possible precaution to protect the anonymity of the participants in the study by modifying all identifying information in any oral presentations or written documents that will be shared with parties other than the researcher and USM advisor. The results of this study will have no negative academic consequences and the students' affiliated schools will not receive this data.

Signature- My signature indicates that I understand the above statements, and I agree to allow my child to participate in the study.

Name of Participant (Printed)

Date

Signature of Parent/Guardian of Participant

Date

Signature of Researcher

Date

Signature of USM Advisor

Date