



## **Using Anticipatory Reading Guides to Improve Elementary Students' Comprehension**

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One of the greatest challenges of an elementary school teacher is equipping students with comprehension strategies that transfer to all content areas. With stable levels of reading achievement over the last two decades in the United States, it is necessary that further research be conducted on methods of increasing students' comprehension proficiencies. This experimental research study explores the use of an anticipatory reading guide with third grade struggling readers across multiple subject areas. Findings indicate that the experimental treatment group outperformed the control group by a statistically significant rate on both reading and content area measures, indicating that when struggling readers practice and use strategies to explicitly think what will be asked of them after reading the passage they perform at higher levels.

**Key Words:** Anticipatory Reading Guide, Struggling Reader, Explicit Instruction, Elementary Students' Comprehension

### **INTRODUCTION**

Standardized high-stakes testing has become the norm in today's schools and some educators are frustrated with the task of getting children to perform at the expected level without the professional development instruction of high quality reading instruction needed to succeed. Governmental mandates across numerous countries such as the United States and Australia require that children to be proficient readers across a variety of text structures and genres including fiction, nonfiction, procedural texts, and poetry (Verlaan et al, in press). Students are now required to answer complex questions which call for independent integration, interpretation, critique, and evaluation of texts. To obtain mastery of reading skills in the 21<sup>st</sup> century, students must think deeply about what is being presented plus be able to organize text, identify causal relationships, and identify important details in texts, graphs, photos, and other materials (Cassidy and Ortlieb, in press, 2012, 2011; Ortlieb, 2013; Ortlieb and Norris, 2012; Raphael and Au, 2005).

The increase in academic expectations has led to children being judged, labeled, and promoted based on their performance, as are teachers and schools. Learners of diverse backgrounds are at a disadvantage because they have not always had the exposure to higher level thinking skills that mainstream children possess (Ortlieb, 2013). These

skills are not innate; they must be taught. Effective reading preparation involves making connections to the student's reading ability and content knowledge (Ortlieb, 2012, 2012). Researchers recommend that reading strategies and test-taking strategies should be taught explicitly, often in a variety of contexts (Kontovourki and Campis, 2010). "Teachers often struggle with teaching reading comprehension strategies due to the complexity of designing purposeful instruction, and many programs are overwhelming in terms of the required time to learn and implement the strategies" (Scharlach, 2008, p. 20). Children must be given the purpose for their reading, and the idea of taking a test is not motivating to many young readers (Ortlieb and Marinak, 2013). Strategies that bolster reading ability while establishing meaningful reading experiences are paramount for lasting reading growth and development.

This research investigation attempts to determine the effectiveness of using an anticipatory reading guide towards comprehension improvement in a year three (ages 8/9) inclusion classroom as measured by standardized test performance in reading and social studies.

### **THEORETICAL FRAMEWORK**

This exploratory project is grounded in cognitivist learning theories which are heavily influenced by the works of Anderson (2000), Gagne and Briggs (1974), and Schank (1991)—that information is received, processed, mapped, and constructed into mental models. Reading skill acquisition is a process beginning with early stages of cognition which progress to an associative stage before finally reaching the autonomous stages of information processing (Fitts and Peterson, 1964). As readers progress in their skill development, they utilize contextualization and reductionism to filter their understandings.

Several studies have documented significant increases in reading comprehension when strategies have been explicitly taught and used to guide students during independent practice (Dole et al, 1991; Durkin, 1981; Ortlieb, in press). Explicit teaching "is a systematic method for presenting material in small steps, pausing to check for understanding and eliciting active and successful participation from all students" (Rosenshine, 1986, p. 60). Throughout the past three decades there has been a great deal of research in comprehension strategies, skills, and strategies to enhance students' understandings of text and their ability to think critically about the texts they encounter (Durkin, 1978/1979; Goodin et al., 2009). Explicit instruction is where children learn by doing not by listening. Therefore, if application and practice are missing, then comprehension will be affected (Quirk et al., 1975).

As the nature of literacy has changed over the years, so must the methods for teaching comprehension (New London Group, 1996; Rennie and Ortlieb, 2013; Unsworth, 2002, 2006). The use of a scaffold approach (Wood et al., 1976), where the child has temporary support, promotes the holistic view of reading comprehension (Pearson and Dole, 1987). This model includes five levels: direct instruction and modelling, guided practice, consolidation, independent practice, and application. This approach allows the

teacher to move the children at their own instructional pace while adjusting the amount of support given, which is a key component in differentiated instruction.

Students with diverse backgrounds score lower on standardized reading tests (Ortlieb, 2012) which can be connected to the amount of time spent interacting with texts at home prior to school (National Assessment of Education Progress, 2002). Researchers suggest that instruction designed to engage students in targeted comprehension instruction that focuses on higher level thinking strategies will promote high levels of reading achievement (Henry, 2006; Leu et al., 2004). The teaching profession is aware that the means for teaching explicit reading comprehension effectively requires planning, motivation and time within the day to perform the many levels of instruction needed.

What follows is a rich discussion of current literature around reading comprehension, students experiencing difficulties in reading, and how using the anticipatory reading guide can improve the text comprehension of struggling readers and in turn, provide the foundation for this study- to make comprehension gains towards content learning in all subject areas at the elementary level.

### **Reading Comprehension**

Teaching comprehension strategies to students was largely unrecognized prior to Durkin's (1978/1979) influential study. She questioned whether these strategies could be taught and sought to determine what comprehension instruction would look like. Although comprehension improves through extensive reading, research has concluded that comprehension could improve more if all readers were taught to use the comprehension strategies that good readers use (Ortlieb et al, 2013; Scharlach, 2008; Shaw, 2013). The study's eight reading comprehension strategies were (1) predicting/infering, (2) visualizing, (3) making connections, (4) questioning, (5) determining main idea, (6) summarizing, (7) checking predictions, and (8) making judgments (evaluating). Recognizing the difference between reading skills; an acquired ability to perform well and strategies; systematic plans to improve education, was pivotal in the idea that strategies support skills (Afflerbach et al., 2008). When Afflerbach and his colleagues asked what good readers do in a survey, respondents had a difficult time answering because their strategies had become automatic. Explicit instruction of strategies was found to be especially effective for students who had begun with poor comprehension – probably because they were less likely to have the background knowledge of other readers (Barry, 2002). Afflerbach et al. (2008) pointed out that not all strategies are effective for all students at all times; successful readers have the ability to assess which strategies will be effective for the given task.

Scharlach (2008) suggested teachers often struggle with teaching reading comprehension strategies due to the complexity of designing purposeful comprehension strategy instruction. She further stated that the amount of time that is required to learn and implement explicit instruction to be overwhelming for some. Her goal was to design, implement, and evaluate an instructional framework to enhance reading comprehension instruction, achievement, and self-regulated use of strategies. Reading comprehension should be the ultimate goal of any reading activity (Hock and Mellard,

2005). Hock and Mellard further explain that the reader employs skills such as identifying the main idea, summarizing, and asking questions about the information read, as well as making inferences. Dole et al. (1991) noted children use different strategies when reading expository and narrative text. For reading comprehension to be achieved, it must be taught in a variety of ways. Teachers need to repeatedly model strategies, even simple ones like asking questions (Barry, 2002), but to be effective they should have a small repertoire of strategies that can be modeled, explained, and used to scaffold practice within the lesson (Scharlach, 2008).

Strategies cannot be taught in a lecture, so teachers need to prepare a lesson that will engage the learner (Barry, 2002). Motivation is a barrier that a struggling reader must overcome, and engagement could be the fastest way to overcome that barrier. Teachers must strive to move the student to the metacognitive level of operations so that he or she can transfer the strategy to other settings once the teacher is not present to provide guidance (Scharlach, 2008). When children are thinking about their thinking, they will know when and where to use the strategy.

### **Students Experiencing Difficulties in Reading**

Many school-age children struggle to learn to read: over one-third of fourth graders and one-fourth of eighth graders cannot read at a basic level (National Center for Education Statistics [NCES], 2005). Reading difficulties often persist into adulthood; approximately 23% of U.S. adults meet only basic reading proficiency levels (NCES, 2004; Pressley et al., 2006). These issues have led to public concern and policy initiatives that emphasize the need for effective approaches for teaching reading, particularly for struggling readers (Rapp et al., 2007).

Children who struggle have not been explicitly and effectively taught the connection between the question-answer-relationships that guide other students to higher levels of literacy (Raphael and Au, 2005). Carlise et al. (2010) conducted research on students in the Reading First program, revealing that the program showed success in students from high-poverty grades one and two but not grade three. The metacognition required to comprehend complex text begins for many readers at the third grade, so if children are struggling with decoding, they have no idea that there is really something to think about (Torgesen, 2001).

With many students, metacognitive awareness and use of strategies improves over time. Students become more aware of and able to use reading strategies by early adolescence (Cantrell et al., 2010). However, the author of this study asserts that by ninth grade, some students have experienced extended failure in reading and are often significantly behind their peers. In addition, the texts these struggling readers encounter in school are increasingly complex (Ortlieb, et al, 2012; Cheek and Cheek, 1983). This extended failure with reading comprehension can contribute to apathy and lack of motivation which can stifle their progress and prevent any movement toward increased competence (Marinak and Gambrell, 2013). It is helpful to give adolescents strategy instruction early in their adolescent development (Shea and Murray, 2013). While the results supported a significant impact on sixth-grade struggling readers' awareness of strategies for overcoming and at least compensating for their reading difficulties, the

difference in impact between sixth- and ninth-grade students points to the need to further examine for whom strategy-based interventions work best. Intensive one-to-one reading instruction for fifty minutes twice every day for eight weeks produced scores that were stable over a two-year follow-up period (Torgesen, 2001). Within one year following the intervention 40% of the children were found to be no longer in need of special education where the typical program can produce a 0.4% standard deviation reading growth improvement to general education environment.

Martin and Pappas (2006) define non-readers as struggling readers who lack the skills, desires, and rewards of a fluent reader. They read below grade level and struggle with comprehension, phonics, and vocabulary (Ortlieb and Cheek, 2012, 2013, 2013). Feelings of defeat have turned off their desire to read and they exhibit inappropriate behaviors to hide their inability to read and comprehend (Neuman and Gambrell, 2013; Ortlieb and Marinak, 2013). They read very little and lack effective word attack skills, exhibit poor comprehension skills, and have limited language and vocabulary. When asked about reading, their responses include the following: "This is boring and frustrating," "I will misbehave, so I won't have to read," "I can't understand this assignment," "I will never learn to read for the rest of my life," and "I'm stupid – this is stupid – you're stupid." This level of negative self-evaluation will not allow students to perform at optimum levels on a test (Sena et al., 2007).

#### **Anticipatory Study Guides**

Having gained widespread acclaim in her book, *Mastery Teaching* (1994), Madeline Hunter brought anticipatory study guides into the limelight. The aim of this strategy/technique is to increase the probability of learning through informing students about what they need to pay particular attention to within the upcoming reading. Assigning a purpose for the reading has long been known to be effective at directing the learner's attention towards particular goals and in turn, results in increases in comprehension of content (Ortlieb, 2012, 2013; Snow, 2002). Knowing what to expect within a text prior to reading allows for students to begin the brainstorming process of anticipating outcomes; later, they can check their original thinking against what actually transpired in the text. This method of engaging students in thinking around the text ensures critical connections that might not otherwise occur (Frankel et al., 2013).

Anticipatory reading guides engage learners in subskills such as prediction, making connections, and questioning (Head and Readence, 1992). The utility of anticipatory reading guides as a meta-strategy is unique in that it is particularly effective across a variety of text structures (Duffelmeyer, 1994). Teachers who adhere to the phased transfer model (Wood et al., 2008) demonstrate, explain, and think aloud all the while working through the guide's questions. In addition to teacher-led strategy modelling, students can engage in cognitive apprenticeships by answering questions on the anticipatory reading guide in pairs (Pearson and Fielding, 1991). These phases of the implementation of anticipatory reading guides are necessary to promote strategic readers. Though originally created for use in the secondary grades, anticipatory study guides have become a fixture within many elementary classrooms towards the advancement of content learning (Wood and Mateja, 1983) and test performance (National Institute for Literacy, 2001).

## METHODS

### Participants

The target population for this study included Grade 3 students in Texas. The accessible population included grade three reading students in a small urban school district in South Texas. This was a sample of convenience. This Title I elementary school campus has a total third grade population of 189 students. Of that total third grade population, 55% of the students are male, and 45 % of the students are female. The ethnicity of the entire third grade population included 52.9% White, Non-Hispanic, 41.4% Hispanic, 2.7% Asian, 2.2 % Black, and 0.7% Native American. Of the total third grade population, 9.4% were considered to be LEP (Limited English Proficient) students. One hundred thirty of the 189 third grade students (69.0%) were considered economically disadvantaged. Refer to Table 1 to view the comparison of the third grade sample population to the District and State Third Grade populations.

This action research quantitative project involved a classroom of convenience involving 24 third grade students attending an elementary school in South Texas where the focus was directed to the struggling readers. For this research, a struggling reader was a student who was labeled special education, retained, and/or read below the Fountas and Pinnell Guided Reading level of an M. The students were comprised of 50% Hispanic, 42% White, Non-Hispanic, 4% Black and 4% Asian. Instruction in each classroom followed the approved curriculum appropriate to grade three reading as outlined in CSCOPE. The Texas Education Service Center Curriculum Collaborative (TESCCC) includes a team of Education Service Centers that represents all areas of the state. The collaborative's goal is to provide a quality curriculum support system to Texas K-12 schools. TESCCC has developed CSCOPE, a comprehensive, customized, user-friendly curriculum support system. In addition to the curriculum, CSCOPE encompasses resources for the implementation, monitors the curriculum and establishes an accountability process to ensure a quality implementation. The test group of 14 students was identified as 29% At Risk,

Table 1: Comparison of the third grade sample population to the district and state third grade populations

| <i>Population</i>          | <i>Sample Campus</i> | <i>District Population</i> | <i>State Population</i> |
|----------------------------|----------------------|----------------------------|-------------------------|
| Total Population           | 189                  | 3024                       | 4,728,204               |
| <b>Ethnicity</b>           |                      |                            |                         |
| White, Non-Hispanic        | 54.9%                | 56.5%                      | 34.0%                   |
| Hispanic                   | 39.1%                | 37.3%                      | 47.9%                   |
| Asian                      | 2.2%                 | 3.4%                       | 3.6%                    |
| African American           | 2.7%                 | 2.3%                       | 14.2%                   |
| Native American            | 1.0%                 | 0.4%                       | 0.4%                    |
| LEP                        | 9.0%                 | 4.3%                       | 16.9%                   |
| Economically Disadvantaged | 69.0%                | 60.6%                      | 56.7%                   |
| English as Second          | 9%                   | 4.3%                       | 16.0%                   |
| Language Special Ed.       | 5%                   | 10.0%                      | 9.4%                    |

(Texas Education Agency, 2009)

50% Learning Disabled, 7% English as a Second Language and 14% Regular Ed. The 10 students in the control group were 20% Learning Disabled, 50% At Risk, and 3% Regular Ed. Pseudonyms will be used throughout the study to preserve the anonymity of the participants.

### **Materials**

The measurements used in this research were a reading multiple-choice pretest derived from the first six weeks CSCOPE reading unit assessment and a multiple-choice posttest benchmark taken from a complete released STAAR; State of Texas Assessment of Academic Readiness. STAAR tests are the new state-mandated standardized tests, given annually starting in third grade. The students were given as much time as needed to complete the tests within the four-hour timeframe permitted by Texas Education Agency for STAAR. Analysis of variance for pretest scores indicated that there were no significant differences between each class of students; the two-tailed P value equals 0.2818 (see Table 2). Therefore, each class of students began the study with comparable levels of reading comprehension which provide equal baseline from which improvement can be measured equitably.

The lessons were taught using passages and articles taken from the commercially produced resources Texas STAAR Coach and Buckle Down Texas STAAR. An Anticipatory Reading Guide was created for the students to use to record answers and direct their reading focus (Figure 3). The teacher created a three column spreadsheet where the first column told the student which paragraph to read. The second column stated what to look for and the third column gave space to record responses. The student then took the guide and answered the multiple choice questions. This technique was a twist to the old idea of reading the questions prior to the article.

By the end of the research project the students were able to preview the questions to create their own Anticipatory Reading Guide to provide guidance to their reading. Utilizing the gradual release of responsibility model (Pearson and Gallagher, 1983), students were first taught the strategy of using anticipatory study guides through a teacher modelling phase. Then, the teacher and students engaged in collaborative creations of study guide elements before they were given full responsibility for creating study guide questions that were related to content within the unit of study.

Tally sheets were used to record when each student applied this strategy in reading and social studies classroom lessons during the six-week research time. Figure 1 contains the data from application of strategy in other content areas.

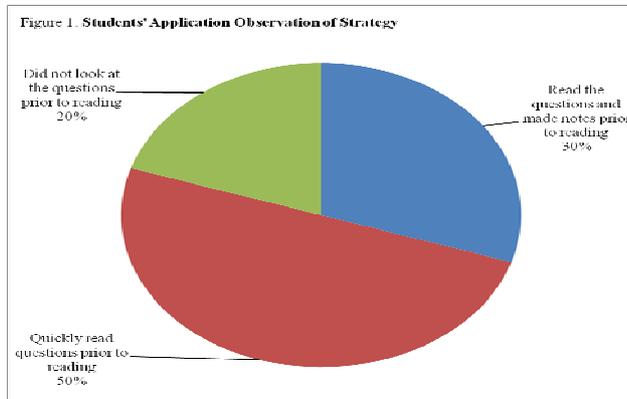


Figure 2: Samples of research lessons, questions, and anticipatory guides.

| Selective Reading Guide                    |   |  |
|--|---|--|
| Lord of the Taiga                          |   |  |
| Look at the title, subheadings, and photo  | What genre is this article? What can you most likely learn from reading this article? |  |
| Look at the subheadings                    | Where would I find information about the place where Amur tigers live?                |  |
| Read Paragraph 1 & Taiga, Not Jungle (2&3) | Why should the Amur tiger not be called "lord of the jungle"?                         |  |
| Read In Danger – Subheading (5&6)          | What is causing the tigers the greatest danger?                                       |  |
| Paragraph 5 - Prey                         | What word helps you know that prey means?   |  |
| Read A Success Story – Subheading (7&8)    | Why is the story of the Amur tiger a success?   |  |
| Photograph & Caption                       | What can you learn from reading this?   |  |
| Read What You Can Do (9)                   | How can you help?   |  |

Table 2: Pretest reading comprehension scores of third-grade participants.

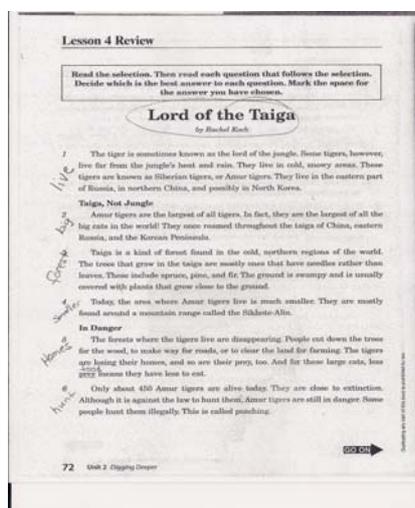
| Framework             | M  | SD    | SEM     |
|-----------------------|----|-------|---------|
| ControlGroup (n=10)   | 42 | 10.32 | 3.26600 |
| TreatmentGroup (n=14) | 50 | 21.1  | 5.63921 |

**Control Group**

The article or passage was distributed with the questions attached. The Control Group received traditional classroom instruction which included the strategic steps that follow. The students put their names on the paper as well as circling the title. Subheadings

were underlined, if present. The teacher read paragraph by paragraph and together the class wrote the main idea of each paragraph in the margin. If a vocabulary word was present, visible by being bold or underlined, the students wrote a synonym or definition above the word. An example can be found in Figure 3. When the entire passage or article was completed, the students answered the questions alone. The third week they began the reading alone and writing the main ideas before answering the questions, after which the teacher reviewed the main idea of the paragraphs and the correct answers to the questions. Children discussed difficulties they had or misconceptions.

Figure 3: Example of traditionally taught reading strategies.



### Treatment Group Procedures

The Treatment Group received a copy of the Anticipatory Reading Guide and the article or passage. The questions were not distributed. The title was circled after the children put their name on the paper. The teacher directed the students in reading the guide before the questions were passed out and the students answered the questions completely alone. Three weeks into the research, the students began to complete the reading guide alone as well as the questions. The last three lessons were spent showing the children how to make their own reading guide using the questions at the end of the passage/article to direct their focus. The final assessment, which they had to complete independently, using the strategy taught. A sample passage can be located in Figure 3 as well as the anticipatory reading guide.

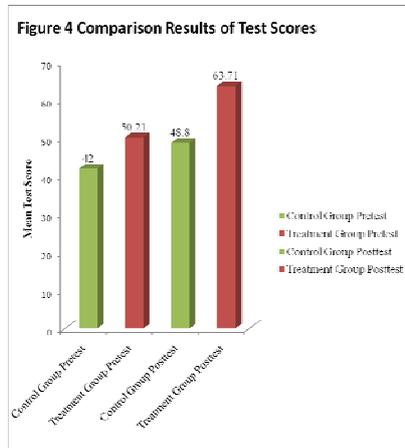
The third grade reading benchmark #1 (posttest) was given approximately six weeks after the pretest. Those grades were recorded for this research and compared to the pretest scores. Daily tally sheets were used to record frequency of strategy application across Social Studies and Reading content.

## RESULTS AND DISCUSSION

This research investigation sought to determine the effectiveness of using an anticipatory reading guide on third grade struggling readers' achievement as measured by comprehension and vocabulary questions derived from a standardized test. A comparison of mean gains for both control and treatment groups revealed that the treatment group scores ( $M = 63.71$ ,  $SD = 14.21$ ), which increased by 13.5 points were statistically significant to mean scores in the control group ( $M = 48.8$ ,  $SD = 20.38$ ), an increase of 6.8 points ( $p = 0.04$ ,  $CI_{95} = 0.31, 29.51$ ) following eight weeks of explicit comprehension instruction using anticipated reading guides (see Figure 4). Further, Cohen's effect size value ( $d = .43$ ) suggested a moderate to low practical significance. Therefore, the null hypothesis was rejected that there would be no difference in reading scores between the treatment group and the control group.

Data results suggest and provide further evidence that explicit instruction of comprehension strategies such as anticipatory reading guides can improve elementary reading achievement. The need to repeatedly model strategies cannot be understated. In this study children were taught to read the question and think what it was asking and where the answer would be located including examining the title, caption, paragraph, and entire passage. The explicit instruction of an anticipatory reading guide led students in the treatment group to significantly outperform their peers in the control group. These results suggest that thinking about one's reading can not only develop reading skills but increase performance on standardized tests.

The second question posed was: Would students use the strategy of preparing an anticipatory guide in other content areas. When students were given passages to read in Social Studies and Reading class, they did not apply this strategy until being reminded of this technique, after which all of the students previewed the questions prior to reading. During the final three weeks of research, the teacher did not remind students of the strategy and only tallied the number of students who read questions and made notes before reading the selection. These observations are represented in Figure 1. Seven students (50%) quickly read the questions prior to reading the passages where three students (20%) made no attempt to implement the strategy. The remaining four students (30%) totally applied the strategy across content areas. The limited time constraints hindered the amount of practice required to repeatedly model and apply the strategy.



The data scores were compared to the entire third grade which consists of three teachers and seven classes (see Figures 5 & 6). Teacher A and B experienced increases of 2% where teacher C did not have an increase. The two classes involved in the experimental treatment group experienced an overall increase of 7%. At the end of this study, a Social Studies test was administered where Teachers A and B had a mastery rate of 50% and Teacher C experienced 80%, where the research group had a mastery of 79%. The experimental group was the primary inclusion classroom with struggling readers at the lowest Fountas and Pinnell Guided Reading Level. The amount of explicit instruction to think about the question being asked may have benefitted the students as they completed the Social Studies assessment.

The content transfer rate was not as high as expected, but with more practice this could become a skill instead of a strategy. Children need numerous opportunities to practice strategies and due to the fact that this study took place at the beginning of the school year, the number of comprehension passages was at a minimum.

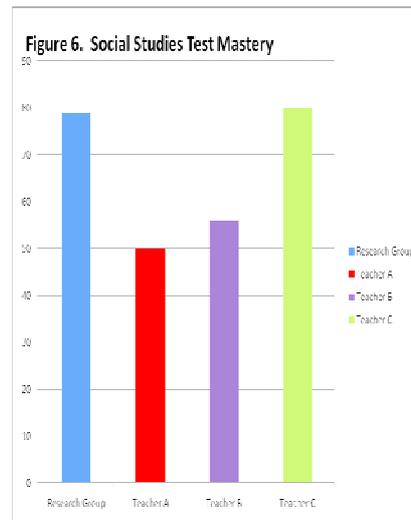
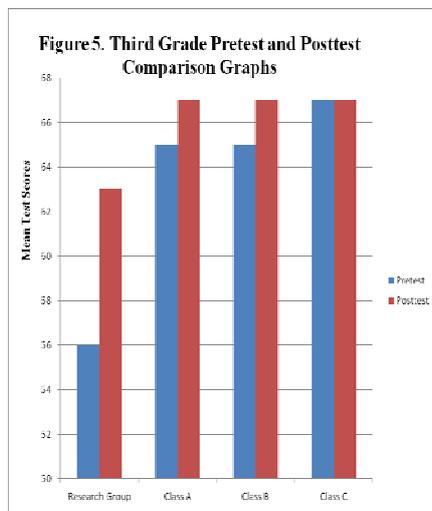
### Limitations

The participant population in this study was a convenience sampling of third-grade students in a school district. Treatment assignments were not randomized as the treatment group contained the majority of identified special education students because of the requirement of time and support from the Special Education teacher. A *t*-test comparison of pretest scores determined that each class of students began the study with comparable levels of reading comprehension (differences were not statistically significant), which provide equal baseline from which improvement can be measured.

The effects of small sample sizes for each group could not be eliminated. Replicating this study on a larger scale using numerous reading classes throughout district would render results with increased generalizability.

The intervention program lasted six weeks in duration and results may have varied if additional time was provided for students to gain mastery of the application of an

Anticipatory Reading Guide; however, it is common practice to provide compact periods of strategy instruction when working with struggling readers (Author, 2013). Devoting only 30 minutes to the work on anticipatory reading guides each day may have limited student mastery of the strategy. Many of the children expressed concerns of not having enough time. More time would allow the student to have material on their personal reading level and learn the new strategy to mastery before complex reading material was presented.



## CONCLUSION

The results provide additional evidence that anticipatory reading guides can be an effective strategy to bolster the comprehension reading abilities of grade three students as well as performance across the content areas. Though comprehension is universally known as the ultimate goal of reading (Hock and Mellard, 2005; Ortlieb et al, 2013), explicit instruction of comprehension reading strategies is not always provided in the elementary grades. Anticipatory reading guides, though, are particularly effective in developing struggling readers abilities to deconstruct both fiction and nonfiction texts (Kamps and Greenwood, 2005). Building a small repertoire of comprehension strategies is critical for success in all content areas (Scharlach, 2008).

Strategies, though, are not learned in one lesson. Teachers need to repeatedly model strategies, even simple ones like asking questions (Barry), alongside explanations and scaffolding of student usage and even creation of anticipatory study guides (Scharlach).

The findings support the teaching of the “language of the test” which refers to the vocabulary and words commonly found in test questions which include “author’s purpose,” “according to,” “except,” etc. (Kontovourki and Campis). Teaching struggling readers what is being asked allows them to think about what would make sense, which is why understanding the structure of the anticipatory study guide is

perfectly suited to the format of tests they will take. The deconstruction process allows them to understand the nuisances of how to effectively answer questions by having them create similar questions on the study guide. One child in the study who reads at a kindergarten level told the researcher, "My brain is telling me this..." He was reminded to always listen to his brain. These strategies allowed these children to feel successful and during the study they never said, "I cannot read this." They already knew that the teacher knew the text was challenging and all they were required to do was think critically. This allowed for a rise in self-esteem, risk-taking, and test performance, which made for both a happy child and teacher.

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