The Effect of Explicit Reading Strategy Instruction on Second Grade Student Achievement

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Abstract

The purpose for this study was to ascertain whether teaching explicit reading strategies from the Primary Comprehension Toolkit by Harvey and Goudvis would impact the reading comprehension of lower achieving second grade students. The study used a *t*-test for independent samples, which used a pre-test and post test design comparing the reading comprehension of two select groups of second grade students. Students were selected based on teacher observations, reading group placements, and ability and effort to participate. Both groups obtained the equivalent daily reading instruction within the traditional classroom setting. The treatment group of four students received five weeks of explicit reading strategy instruction during a half-hour biweekly lunch session, which met for 30 minutes. The control group consisted of four students who received no additional reading intervention support. Reading comprehension on the second grade Houghton Mifflin Content links administered prior to intervention and afterwards, disclosed no significant differences in achievement relating the treatment and control groups. Although there were no significant conclusions, observations, anecdotal notes and additional research propose that teaching specific reading strategies may enhance reading comprehension. Educational implications and classroom propositions for future research are discussed and analyzed.

CHAPTER I

INTRODUCTION

In the United States, educators are under an immense amount of pressure to have their students succeed on high stakes assessments. Reading comprehension is a critical component of many formal and informal assessments, so it is essential that students are able to comprehend test items as well as learning to read as a life skill. In Maryland, for example, students in grades three through eight complete the Maryland State Assessments (MSA). Based on their performance, students are classified as advanced, proficient or basic and results impact both students and schools. The MSA includes mathematics and reading sections, both of which require reading comprehension skills for successful completion. The reading section of the test includes sub-sections that assess language arts and reading comprehension. The reading comprehension component contains both fictional and expository texts, which students read and about which they respond to multiple choice or written response type questions. The math component requires students to read word problems and compute mathematical operations. Students must read the problems, comprehend what is being asked, and identify the correct operations to use to solve the problems, and then find the solutions to the problems. The MSA covers content learned in reading and math classes. The content is from Maryland's state curriculum. The reading MSA tests three topic areas: general reading processes, informational text comprehension, and literary text comprehension. The math MSA tests algebra/patterns, geometry/measurement, statistics/probability, number concepts/computation, and processes of mathematics. With the advent of this and new state and county assessments, it has become imperative that educators explicitly instruct students on attaining reading strategies that will be useful and purposeful with diverse texts. With a strong focus on test scores and student achievement, and pressure such as teacher salary increases being tied to student performance, educators may tend to

concentrate on students' test performance rather than their skill or strategy development. Students with skill deficits in reading are significantly affected when insufficient attention is given to reading skill and strategy development because these are students who need interventions to promote comprehension to enable them to succeed not only on assessments but in their regular studies and lives. While research such as that reported by Harvey and Goudvis (2007) indicates students with such deficits need frequent exposure to motivating and diverse texts and to authentic literature and opportunities for application of skills, these students often receive rote teaching practices with an emphasis on drill as teachers try to prepare them for high stakes testing. According to Maryland Newsline, Maryland is one of the schools supporting the connection between student performance and teacher evaluations. Baltimore is the first district in Maryland that plans to pay teachers based largely on their evaluations and student performance, as opposed to seniority. Starting in the 2012-2013 school year, all districts in Maryland will be required to use student performance data to evaluate teachers. A proposed half of a teacher's evaluation will be based on student data, according to the Maryland State Department of Education. This will likely increase teachers' teaching to the test.

Emphases on teaching to the test and preparing students earlier and earlier to perform well on high stakes assessments are evident at many schools. For example, although the second grade curriculum for Baltimore County schools recommends that teachers present students with readings from diverse genres, provide a plethora of comprehension skills to practice, and give students both short answer and multiple choice assessments to complete, the curriculum does not include ways to explicitly instruct students in ways that will help them develop strategies applicable to authentic or real world texts. In Baltimore County, the Common Core standards

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guide instruction. The standards are designed to be robust and relevant to the real world,

reflecting the knowledge and skills that our young people need for success in college and careers

For second grade Reading, these standards include: key ideas and details, craft and structure,

integration of knowledge and ideas in both literature and expository texts.) Strategies may be

explained in the context of teaching a reading skill, but they are not taught specifically or in

isolation from comprehension exercises.

The need to differentiate between and teach both strategies and skills may be overlooked,

and students may not learn important strategies when teachers focus too much on test skills and

performance versus students' ability to use basic strategies. "Reading strategies are deliberate,

goal-directed attempts to control and modify the reader's efforts to decode text, understand

words, and construct meanings of text. Reading skills are automatic actions that result in

decoding and comprehension with speed, efficiency, and fluency and usually occur without

awareness of the components or control involved." (Afflerbach, Pearson, & Paris, 2008, p. 368)

The National Reading Panel (2000) regards reading strategies as an essential element in

the reading process and direct strategy instruction may significantly and positively affect the

reading comprehension of second graders with low reading achievement. In recent years there

has been a framework of instruction advocated by some administrators that is associated with

promoting high-test scores. While high-test scores certainly are a laudable goal, not all students

benefit from such a test-oriented approach to reading instruction, as these instructional methods

may cultivate rote memorization of skills and information instead of true understanding and

comprehension. Such approaches may enhance test performance, but fail to teach reading as a

life skill. According to Harvey et al., (2007), "When it comes to reading, comprehension is the

most important thing" and "Teaching strategies for strategies' sake is simply not the point"

(p. 13). The objective of reading instruction should be "to explicitly teach a repertoire of thinking strategies that are used to further the cause of understanding and engagement." (p. 14).

This researcher became interested in helping struggling readers develop strategies to enhance reading comprehension that would benefit not only their test performance but also their ability to apply these strategies to real world applications and be successful readers in and out of school. She observed that comprehension skills were being taught and was interested in learning more about how to teach her students comprehension strategies that support active literacy and enhance their motivation to read and learn.

Statement of Problem

The purpose of this study is to determine whether explicit instruction in specific reading strategies will impact the reading comprehension of lower performing second grade students.

Statement of Hypothesis

There will be no difference between the reading comprehension gains of students who receive specific strategy instruction in addition to traditional instruction and the reading comprehension gains of similar students who receive only traditional instruction.

Operational Definitions

The *dependent variable* in this study was reading comprehension.

Reading comprehension, for purposes of this study, was measured using an average of scores from three 10-question content links, one each of which assessed comprehension of either an expository or fictional text that reflected the content areas of Science, Social Studies, and Health. These links teach skills such as reading a map, identifying the main idea and details, comparing and contrasting, and following directions. The content links were administered to all

participants in the experimental and control groups before and after the experimental group received explicit strategy instruction.

The ***independent variable*** in this study was mode of instruction. The treatment group of students received both traditional reading/language arts instruction and explicit strategy instruction. The control group received only the traditional reading/language arts instruction.

Explicit strategy instruction consisted of lessons regarding monitoring comprehension, visualizing/inferencing, asking questions, and determining importance. These lessons were based on the Comprehension Toolkit, which is a program designed to provide engaging practices that cultivate active thinking and literacy through explicit strategy instruction in the primary grades. The treatment group received an additional hour per week of explicit reading strategy instruction over a six-week period.

Traditional reading instruction consisted of whole and small group instruction, in addition to phonics and language arts lessons and took place for a combined total of 90 minutes per day.

CHAPTER II

REVIEW OF THE LITERATURE

This literature review investigates the history of methods for improving reading comprehension proficiency with an emphasis on strategies that can be utilized to enhance reading comprehension at the primary elementary school level. Section one introduces and defines the history of comprehension strategy instruction and describes the reading strategies that have been recognized by the National Reading panel as efficient and purposeful. Section two discusses reasons why students have difficulty with reading comprehension and strategy utilization. Section three examines strategies and techniques for increasing reading comprehension.

Background and History of Strategy Instruction

Comprehension is the most crucial component of the reading process. If readers are not reading to comprehend, then there is no purpose to reading at all.

Good readers instinctively incorporate reading strategies into the reading and comprehension of a text. At some point, these readers were taught explicit reading strategies and they subsequently practiced these strategies until they became routine and were able to implement them. Children must observe strategies modeled and be given multiple exposures and opportunities to practice in order for reading to become an automatic function" (Harvey et al.,2007, p. 27).

It is vital to provide direct and explicit strategy instruction to students who may have deficits with reading comprehension (Harvey et al., 2007). Skilled readers may cultivate their own strategies; however, most students can benefit from instruction and practice in the application of specific cognitive processes to increase their comprehension. Explicit

comprehension instruction commences with a teacher modeling the strategy. Students gradually learn to employ the strategy on their own. A commonly used process is "scaffolding," in which the teacher shifts from directly teaching the strategy through gradually releasing responsibility through modeling, practicing, and application. In the scaffolding model, meaning first is constructed by an experienced reader or the teacher and then is conveyed to the students. Finally, students can manage their own reading by practicing until they internalize the strategies and attain mastery (Bouchard & Trabasso, 2003). Strategy instruction is an essential component for comprehension that fosters active reading. Active readers are able to incorporate significant before, during, and after reading strategies in order to improve their comprehension.

Comprehension is more complex than previously thought and entails knowledge, experience, thinking, and teaching. According to Bouchard et al., (2003), interest in teaching reading comprehension strategies developed as a result of a broadened understanding of cognition that emerged in the late 20th century. For example, Durkin (1979), observed reading instruction in classrooms over an extensive period of time and ascertained that the questions in basal readers and on worksheets were the primary focus of comprehension instruction. Teachers were assessing comprehension through these questions rather than teaching students the strategies necessary to become better readers across the variety of genres (Harvey et al., 2007).

Markman (1981) conducted a study to determine whether readers would recognize obvious logical contradictions in reading passages. Findings demonstrated that readers did not notice logical inconsistencies in the passages read because there was inadequate comprehension instruction provided within the classrooms. Teachers-assigned questions and told students about the content of the reading passages, but no time was devoted to teaching readers how to discover and comprehend meaning from their reading (Durkin, 1979). Studies such as those reported by

Durkin (1979,1981, as cited by Harvey & Goudvis, 2007, p.8.) that were conducted in the late 1970's stimulated an interest in helping students learn strategies to assist them to construct meaning from the text. In 1978, Durkin provided insights on comprehension instruction, stating that, "teachers do not teach comprehension skills but simply mention or question" (p. 516). She noted that there was limited attention given to vocabulary development, as well as only literal level comprehension questions asked. There was little to no opportunity for higher level questioning or thinking.

In 1981, Durkin investigated comprehension instruction found in five published basal reading series. She concluded "teachers often have difficulty telling the difference between teaching and testing when it comes to reading comprehension" (page 516). As a result-of Durkin's contributions and studies on comprehension, new definitions of understanding included acquiring knowledge, as well as literal story knowledge. "Isabel Beck and others define a constructivist view of understanding as being able to explain information, connect it to previous knowledge, and use information" (1997, as cited by Harvey et al., 2007, p.8).

There are numerous ways to teach reading comprehension and no single correct way to provide this essential instruction. However "true comprehension goes beyond literal understanding and involves the reader's interaction with the text" (Harvey et al., 2007, p.14). Harvey et. al., 2007 further advise "In order for students to become thoughtful, insightful readers, they must merge their thinking with the text and extend their thinking beyond a superficial understanding" (p. 14).

In the 1980's, reading research acquired a new perspective, wherein researchers identified various thinking strategies that proficient readers utilize to comprehend. Pearson, Dole, Duffy, and Roehler (as cited in Harvey et al., 2007) summarized these strategies and concluded

that proficient readers "look for connections between existing knowledge and the new information they are reading, ask questions, make inferences during reading and after reading, distinguish important ideas from unimportant ideas, synthesize information, monitor their understanding, and repair comprehension when they have difficulties"(p.17). Kintsch and Van Dijk (1978) found that readers actively participating with the text and making sense out of what they read will make connections between the text and what they already know. Readers build meaning by utilizing mental representations and store them as semantic representations in the memory during reading. Representations allow the reader to remember, use, and understand what has been read.

Reading Comprehension Strategies

In recent years, a more comprehensive understanding of comprehension and strategies to develop and enhance comprehension has emerged. "Once thought of as the natural result of decoding plus oral language, comprehension is now viewed as a much more complex process involving knowledge, experience, thinking and teaching" (Fielding and Pearson, 1994, p. 62). The National Reading Panel (2000) recognized twelve strategies that sustain reading comprehension. These strategies, summarized below, contribute to the construction of meaning, which is associated with enhanced reading comprehension.

1) **Active listening** requires readers to listen carefully while others read aloud. Active listening augments participation, allows for more thoughtful responses, enhances memory of what has been read, and focuses attention and interest on materials being read and interpreted.

2) **Comprehension monitoring** helps readers to clarify understanding as they read. This strategy assists the reader to detect text inconsistencies, and leads to enhanced memory of the text and higher performance on standardized tests.

3) **Prior knowledge** enables readers to make connections to the text in conjunction with experiences and knowledge that they already know. Prior knowledge instruction positively affects factual and inferential comprehension as well as enhancing recall and improving achievement on standardized tests.

4) **Predictions/visualizing** help readers to create and paint a mental picture in their minds regarding what they are reading.

5) **Mental imagery/Graphic Aids** assist readers in identifying inconsistencies in the text. Graphic organizers permit students to structure important ideas from the text and significantly assist students in creating well-written summaries.

6) **Vocabulary instruction** helps students better understand what they are reading, especially if the material is new or unfamiliar.

7) **Utilizing contextual clues** and explaining the importance of text features may be beneficial in enhancing students' comprehension. Generating and responding to questions focus readers' attention on the content and can assist students by motivating and directing them to refer back to the text for answers.

8) **Story structure** helps readers identify and understand the "who, what, where, when, and why" of texts, as well as to determine what has happened and what has occurred.

9) **Story elements** instruct readers to identify the main characters, setting, problem, and solution. This strategy improves the reader's ability to respond and answer short questions and retell and summarize story events.

10) **Summarization** demonstrates for readers how ideas in the text are related and teaches readers how to identify main ideas, exclude unimportant details and make generalizations.

11) **Multiple strategy instruction** allows readers to utilize several strategies simultaneously to ascertain the meaning of a text.

12) **Cooperative learning** by peers implies that readers may learn more effectively when they are in a situation with other readers who are in close proximity to their level of understanding. This strategy promotes discussion, collaboration, and communication and increases control over learning and social interactions.

Teacher preparation and knowledge are fundamental for explicit strategy instruction. Teachers must be well prepared to provide instruction on reading strategies and knowledgeable in each area of strategy instruction. Adequate preparation makes it possible for teachers to determine which strategies should be used with particular texts and to know how to properly execute explicit strategy instruction (Bouchard et al., 2003).

Reasons Why Children Struggle with Reading Comprehension

There are numerous reasons why children may struggle with strategy use and reading comprehension. "Research has shown that many children who read at the third grade level in grade 3 will not automatically become proficient comprehenders in later grades. Therefore, teachers must teach comprehension explicitly, beginning in primary grades and continuing through high school" (RAND Reading Study Group, 2002, p.10).

Deficiency at the word attack level can impact students' comprehension since anytime the flow of ideas is interrupted by word decoding; the ability to comprehend becomes compromised. Weaknesses in working memory can affect comprehension because by the time

these students reach the end the sentence or paragraph they may have forgotten what they have read (McCormick, 2007). Hirsh (2006) and Kamhi (2007) note that a lack of background knowledge on the topic can influence reading comprehension.

Further reasons for deficient comprehension among students can be related to learning disabilities, minimal home support, inadequate access to reading materials outside of school, poor attendance, behavior problems, lack of prior knowledge, experiences that result in unfamiliarity with many topics, low socioeconomic status, attention problems, and inferior classroom instruction (McCormick, 2007). Educators should determine the general cause of comprehension difficulties to formulate appropriate solutions and strategies to assist students in becoming more active readers who know about accurately constructing meaning from text and comprehending what they read.

Difficulties in reading are common, affecting from 20 to 40 percent of students, and frequently are attributed to learning disabilities and issues with early precursors of the alphabetic principle. Difficulties learning how to read are risk factors for school failure, low grades, behavior problems, juvenile delinquency, truancy, unemployment, jail time, and substance abuse.

Techniques for Teaching Reading Strategies to Improve Comprehension

Walt Whitman (as cited in Harvey et al., 2007) said, "the process of reading is not a half sleep, but in the highest sense, an exercise, a gymnast's struggle: that the reader is to do something for him or herself, must be on the alert, must construct indeed the poem, argument, history, metaphysical essay- the text furnishing the hints, the clue, the start, the framework" (p.1). Reading is "an exercise" because in order to make connections, activate prior knowledge, question, visualize, infer, determine importance, and synthesize, the reader must work to actively comprehend the text and use strategies to do so.

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Research such as that reported by Reading Improvement (Project Innovation, 2006) has verified that explicit instruction in reading comprehension strategies expands students' ability to understand text. With the prevalence of standardized testing, much classroom instruction has emphasized measuring student comprehension with individual stories. Because reading instruction in many classrooms involves use of basal readers and relies on teacher-generated questions, use of these practices provides little time for direct strategy instruction or application. This type of instruction may focus on comprehension of specific content, but it does not teach students the skills necessary for comprehending other texts (Eilers &Pinkley, 2006).

Reciprocal Teaching

Pilonieta and Medina (2009) conclude that teaching comprehension strategies should be an integral component of primary grade reading programs. Research such as that reported by The International Reading Association (2009) suggests that proficient readers utilize strategies with the majority of reading tasks, whereas poor readers use fewer strategies. Reciprocal teaching can be employed to teach students how to organize the use of four powerful comprehension strategies: predicting, clarifying, generating questions and summarizing. These four strategies are vital in assisting primary teachers with developing relevant and age-appropriate strategies. These strategies can include using picture clues, asking and answering questions using contextual clues, cooperative learning opportunities, and utilizing graphic organizers to gain meaning. Reciprocal Teaching for the Primary Grades (RTPG) is composed of three critical elements including explicit instruction of strategies through declarative, procedural and conditional knowledge, the gradual release of responsibility from the educator to the student, and the synchronized use of multiple strategies.

Stricklin (2011) defines Reciprocal Teaching as "a research based technique that utilizes the comprehension strategies of predicting, clarifying, questioning and summarizing" (p. 620). This strategy provides flexibility for student and teacher roles, as well as offering engaging opportunities in which teachers can incorporate student's interests, learning styles, and diversities within instruction. Reciprocal teaching has been proven effective in developing a constructivist, process-oriented reading comprehension strategy. The teacher models the four components and then a gradual release of adult support was withdrawn as students demonstrated their ability to work independently. (Stricklin, 2011)

Strategies that Work

Effective strategy instruction occurs when teachers demonstrate how to construct meaning as they read. In the text, "Strategies that Work," it is recommended that strategy instruction implements Pearson and Gallagher's (1983) (as cited in Harvey & Goudvis, 2007) Gradual Release of Responsibility framework. This framework embraces five components of comprehension strategy that are thought to be the most effective techniques for teachers to use when introducing individual strategies. **Teacher modeling** is the initial component of strategy instruction. Modeling occurs when the teacher defines and explains the strategy, then demonstrates how to efficiently use the strategy to comprehend, and models think alouds to illustrate her thinking process and how the strategy is being used. Teacher modeling should be succinct, so that the teacher can promptly transition students to guided practice. **Guided practice** occurs when the teacher facilitates large group conversation to follow a particular line of thinking. The **teacher and students** practice the strategy jointly in a shared reading where they can collectively construct meaning. During this time, the teacher imparts support and feedback while scaffolding students' thinking, thus making certain that the students understood the

strategy. Students then participate in **collaborative practice**. This activity occurs with partners or small groups, where students share their thinking with peers while the teacher circulates and replies to students' needs. After multiple opportunities for practice with the teacher and peers, students are permitted time to **independently practice the strategy** on their own. During this time, teachers continue to provide feedback, as will other peers. Once a student "owns" a strategy, he or she can apply it to numerous texts across genres (Harvey et al., 2007).

Strategy lessons offer many opportunities for explicit instruction. Approaches that can be used when explicitly teaching a strategy include think-alouds, read-alouds, interactive read alouds, lifting text, guided discussions, anchor lessons and anchor charts, and rereading for deeper meaning (Harvey et al. 2007). The thinking aloud strategy models for students the inner conversations good readers are having with themselves as they read a text. Other think alouds are more strategy-specific. Reading aloud is exactly that, taking place when teachers read aloud to students without the purpose of instruction. Interactive read alouds generally relate to listening comprehension since students do not have a copy of the text, but listen, react, and respond through guided discussion. Lifting text is when teachers use short pieces of text to model instruction. In this strategy, students have a copy of the text and are able to make notes and generate questions about their thinking as well. Guided discussion arises when the entire class gathers with the teacher who facilitates conversation around a certain topic, idea, skill, or theme. The teacher does not dominate the conversation but rather develops and makes possible a line of thinking in which students can participate actively by commenting and reflecting one another's ideas. Anchor lessons and charts provide visuals that can be referenced when supporting students to use particular strategies. The anchor lesson is the lesson during which the strategy is introduced. Anchor charts illustrate and demonstrate student thinking visually. Rereading texts

enables a more thorough connection with the writing with the intent that it will increase the probability that they will comprehend the material.

When students read, they can code the text according to the strategy they are applying. This technique is called text coding or leaving tracks. Students can make connections to other texts (text-to-text connections, text–to self connections, or text-to world connections.) For example, when making text-to-self connections, students can mark a post-it note with T-S and attach it to the page to remind them of a connection to their own experiences. They then can write the scenario from their own experience on a sticky note for a later discussion with the class. Text coding is a written pathway that follows students' thinking during reading. It can be used to demonstrate connections, guide new learning, highlight key ideas, questions, inferences, and identify startling information. This strategy promotes students' active reading and thinking about their own thinking, or metacognition.

Support Reading Strategy

Bishop (2006), Reyes (2006), and Pflaum (2006) (as cited in Harvey et al., 2007) describe the use of Support Reading Strategy teaching as a feasible approach to teaching readings strategies. This approach teaches students many different strategies that can be applied to a variety of reading tasks and genres of text. These strategies include paraphrasing text information, taking notes, questioning, participating in discussions, and utilizing reference aids. These researchers found that students' achievement increased when a comprehensive group of strategies was taught as opposed to providing traditional instruction. In addition, Bouchard et al., (as cited in Harvey et al., 2007) surmised " there is very strong empirical, scientific evidence that the instruction of more than one strategy in a natural context leads to the acquisition and use of reading comprehension strategies and transfers to standardized comprehension tests. "Multiple

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strategy instruction facilitates comprehension, as evidenced by performance on tasks that involve memory, summarizing, and identification of main ideas" (p.24).

Read Naturally

Read Naturally is a computer-based reading program that emphasizes comprehension. The comprehension element of the program is consistent with instruction offered in word attack (decoding) and fluency (automaticity and accuracy). The Read Naturally Program was developed to assist students in developing skills and strategies to overcome difficulties with decoding, fluency, and comprehension.

Summary

Reading instruction that is limited to use of basal readers and teacher-generated questions has been found ineffective for many students. Such limited instruction may limit student learning to basic understanding of particular texts. To become active and engaged readers who are able to comprehend diverse texts, children must be taught comprehension strategies at an early age. There are various approaches, practices, and techniques for teaching reading strategies; however, they all share common principles. The instruction commences with the teacher who models and demonstrates how to use a strategy. Then, students need to be given sufficient time to practice strategies cooperatively and apply them, independently, to varied texts. Strategy instruction is even more imperative for less skilled readers and readers with comprehension deficits. Strategies have been identified that can assist these students in thinking about what they are reading, while making the connections necessary to become engaged in the text. This engagement will lead to more understanding and ownership of what is being read.

A student depicted in "Strategies That Work" (2007) articulated it best when he said, "reading is thinking…when you read, you have to figure out the words and what they mean…sometimes it is easy, sometimes it is hard" (Harvey et al., 2007, p.13). Reading is more than decoding words. As Harvey et al., state, "It involves cracking the alphabetic code to determine the words and thinking about what those words mean to construct meaning" (p.13). In conclusion, equipping students with effective strategies may enhance their comprehension and motivation to read as well as improve their achievement in school and on standardized tests.

CHAPTER III

METHODS

The purpose of this study was to establish whether teaching explicit reading strategies (monitoring comprehension, visualizing/inferencing, asking questions and determining importance) would impact the reading comprehension of lower performing second grade students.

Design

This study used a quasi-experimental pretest-post-test design to compare the changes in reading comprehension scores of two groups of second grade students on content link assessments. The experimental group received traditional reading comprehension instruction with an additional hour per week of explicit reading strategy instruction over a six-week period of time. The control group was instructed using only the traditional reading comprehension instruction. The two groups' post-intervention scores and gains were compared at the end of the six-week period.

Participants

The participants in this study formed a convenience sample of eight students who attended a public elementary school in Baltimore County, Maryland. The school is 76% Black or African American, 11% Asian, 11% White and 3% Hispanic. The age of the eight students selected to participate in this study was between seven and eight years old.

The researcher selected eight students with low achievement and four were assigned to either the treatment and control group comparable based on their low academic achievement so far this year, teacher observations and effort they put into reading. The experimental group of four students was selected from my afternoon reading class, and the four students, in my control

group were selected from my morning class. Due to time and scheduling, I selected four lower achieving students from each of my two reading classes to be in either the experimental or control groups.

The experimental group consisted of four students, two boys and two girls, all of whom were African American. The control group also consisted of two boys and two girls, three of whom were African American, and one of whom was Caucasian. In the experimental group, one student has a history of poor attendance in school that has impacted her performance. Another student in the experimental group was new to the school this year, and lacks focus and effort during daily instruction. One student in the control group has an IEP for Dyslexia, and another student has a history of poor attendance in school that impacts her performance.

Both groups were given the pre and post tests so that the researcher was able to compare their content link scores before the intervention as well as compare the gains of both groups after the intervention.

Instrument

The instruments used in this study were Content links from the Houghton Mifflin Reading Company, 2005. These content links are nonfiction texts that are high interest and encompass a social studies, science or health connection to expository texts. These content links were used by the participants' school to assess student comprehension, writing, language arts and phonics skills attainment. Content Links are given as a "cold read", with no prior reading or discussions and illustrate to teachers what students can comprehend independently. The Content links used each included five multiple-choice questions and one constructed response question. The written answers required the students to comprehend and provide support from the text to correctly answer the question.

There are no data or reports regarding the reliability or validity of the content links. However, they are used in daily practice to provide an overall picture of student comprehension on expository texts and they do have face validity in that the items require readers to understand the text to respond to them accurately. For the pre-and post-intervention assessments, three content links were completed by all students, one with a Science focus, one with a Social Studies focus and one with a Health focus. (The pre-and post-test links were similar but not identical to avoid practice effects.) The scores on the 3 content links were averaged to obtain pre-and-post intervention measures of comprehension and to reduce the possible influence of students' interest in the links' topics to their scores.

The Comprehension Toolkit was used as a resource for teaching and implementing reading strategies (Harvey et al.,2007). The Comprehension Toolkit is a functional and practical resource for comprehension development and enhancement that instructs comprehension through the explicit use of strategies utilizing non-fiction texts. A description of the specific interventions implemented with the Comprehension Toolkit follows.

Procedure

Group selection

In January, the researcher divided her reading class into three reading groups in preparation for the new Common Core reading program, Wonders (McGraw Hill-Education, 2012). A group of eight students was selected from her lower performing groups and four of these students were identified to participate in a two-day a week class during lunch for a six-week period. The researcher divided the eight lower achieving students into two groups. Selection was based primarily on their low achievement, and teacher observations. For assignment to the treatment group, also considered was student willingness and availability to participate in the treatment during lunch. Both groups had similar characteristics with regard to achievement and effort in the classroom. The treatment group met during lunch twice a week for six weeks (on Tuesdays and Thursdays). Throughout this six-week period, all eight students received traditional reading instruction daily during the reading and language arts period. Traditional instruction incorporated 75 minutes of lessons using the Wonders reading curriculum and lessons created by the researcher and her colleagues, and 15 minutes of independent reading for Strive for 25. The treatment group received an additional hour of instruction each week, focused on a specific reading strategy each week for four weeks, and then using a combination of strategies for the two additional weeks. In case attendance affected the outcomes, student attendance data were collected for both groups and are described in Chapters IV and V.

Intervention

Four specific strategies were selected, modeled and practiced by the treatment group over the six weeks of lessons. These included monitoring comprehension, asking questions, determining importance and inferencing and visualizing. Each strategy will have two half-hours

of explicit strategy instruction, and during the last two weeks, the previously taught strategies will be reviewed and practiced. Some will focus on two separate examples for examining a strategy.

Monitoring Comprehension

For the monitoring comprehension lessons, students were taught to actively listen to the inner conversation. The inner conversation is when students monitor what they are reading by making connections and thinking inside their heads about what they hear, see and read. Students were instructed to actively listen to these inner conversations while reading by leaving tracks of their thinking on post it notes. Students may use sentence starts such as "I wonder", "I learned" or "This reminds me of". Another monitoring comprehension strategy taught was noticing and thinking about text features. Students in the treatment group had a graphic organizer chart that was divided into two columns (text feature/how it helps the reader). Students were given post it notes to identify text features in a nonfiction text. As a group, students constructed an anchor chart. Students then had an opportunity to practice identifying text features and describing how they help the reader. This also allowed students to review and recall what was learned during the lesson.

Questioning

The questioning lessons taught students how to ask questions while reading and further reminded students to follow their inner conversations so they are thinking, noticing and wondering while they are reading. Another questioning comprehension strategy was having students keep a question in mind as they read to answer it. This was intended to help them make the connection that one question can lead to another question to extend thinking.

Determining Importance

The determining importance lesson taught students how to tell the difference between interesting details and more important information and ideas. Students learn how to "code" the text. For example, codes can include an "L" for learned something new, a "*" for important information/idea about the topic, and a "?" for a question. This lesson was vital because it taught students how to maintain their thinking, so that they are able to process, and later recall and retell important information.

Inference and Visualization

The inference and visualization lessons taught students to visualize in order to fill-in missing information. For this strategy students took the clues revealed in the photographs and illustrations and combine them with the missing pictures that are created in our minds to make meaning. Another strategy taught for inference and visualizing was to model and practice having students taking background knowledge and adding clues from the text to it in order to make connections and visualizations. Students also practiced getting a picture in their mind as they read or listen to a text.

Strategy lessons were designed to scaffold and support a gradual release of responsibility from teacher to student, in a manner in which students gain confidence and skill ownership. The Primary Comprehension Toolkit provides teachers lessons with a systematic teaching procedures, and language to instruct students in explicit strategy instruction. All lessons followed the same framework/procedure, which models how traditional daily instruction occurs, in a model, practice, apply format.

1) The researcher will activate and build background knowledge. This may be done by asking a question that engages students in the topic/strategy of the day. Students will be

able to share prior knowledge, connections, etc. Students will then preview the text, picture walk, skim the text and make oral predictions. Graphic organizers (KWL charts, or anchor charts) may be created as needed.

2) This portion of the lesson is the teacher model component of the lesson. Here the researcher models think alouds, inner conversations to model for the students the thinking process. The researcher explained the strategy then demonstrated/modeled how to utilize it. Anchor charts, visuals (post-it notes, white boards) may be used during this time as a reference for students when they are able to practice the strategy.

3) Students are then given the opportunity to practice the strategy with the researcher/and or a peer. As a group a text was read. This can be completed whole group, popcorn reading (students read and then call on another to continue reading), choral reading or silently, to vary for the different learning styles. The researcher was listening for fluency, conversation/questions about the text and overall attainment of the text.

4) The researcher had the students share how they used the strategy; how it helped them better understand the text. Lastly, students can independently summarize what was learned. This could be done in many ways, including exit tickets, completing a KWL-the L section what was learned, or adding to an anchor chart final thoughts and ideas.

These procedures of model, practice, apply allowed for students to have repetition in instruction and by the gradual release of responsibility, ownership of the strategy and various texts. Tools utilized were chart paper, post it notes, graphic organizer, white boards and markers. The texts utilized were of high interest to the students that in itself is a positive. Texts were from the Primary Comprehension Toolkit, and were in color, of interest to the students and had an

added technology component of being projected on an ELMO document camera and projection system.

After six weeks of the reading strategy intervention, students in both the treatment and the control groups were administered another set of three content links, one in each genre as noted above. Changes in the groups' scores are described and compared in Chapter IV.

CHAPTER IV

RESULTS

The purpose of this study was to determine whether explicit instruction in specific reading strategies would impact the reading comprehension of lower performing second grade students.

Scores on each of three types of content links (science, social studies and health) were computed and their means were calculated before and after the treatment group underwent explicit strategy instruction intended to improve comprehension. Gains on the mean scores were computed and compared to test the null hypothesis that there would be no difference between the reading comprehension gains of students who received specific strategy instruction in addition to traditional instruction and those of similar students who received only traditional instruction.

Descriptive statistics for the individual and mean content link scores before and after the intervention and the gain scores comparing the pre and post intervention means are presented on the following page in Table 1.

Table 1

Pre and Post-intervention Individual, Mean and Gain Scores on Content Links by Group

	Control		Treatment	
Content Link Scores	**Range**	**Mean**	**Range**	**Mean**
PRETESTS				
SCIENCE	38-63	50.25	13-88	44.00
SOCIAL STUDIES	50-88	59.50	38-100	75.25
HEALTH	38-63	53.50	38-88	59.75
POSTTESTS				
SCIENCE	50-63	59.75	63-100	75.25
SOCIALSTUDIES	50-88	66.00	75-100	87.50
HEALTH	63-100	75.25	75-88	84.75
MEAN PRETEST SCORE		54.42		59.67
MEAN POSTTEST SCORE		67.00		82.50
MEAN GAIN SCORES		12.58		22.83

As noted, mean pre and post-test content link scores were computed by averaging the scores on each of the three types of content links for each student. Each student's mean pretest score was then subtracted from his or her mean posttest score to yield his or her gain score. A t-test for independent samples was conducted to compare the mean gain scores of 22.83% for the treatment group and 12.58% for the control group. The results, presented below in Tables 2 and 3 indicated the mean difference of 10.25% in the gain scores for the treatment and control groups was not large enough to be considered statistically significant (t=.946, p<.381). Therefore, the null hypothesis that there would be no difference in the gains across groups was retained, even though the group that received explicit strategy instruction did improve more on their content link scores.

Table 2

Descriptive Statistics for Mean Gains by Group

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
MEAN READING SCORE GAINS	Treatment	4	22.83	21.662	10.831
	Control	4	12.58	.167	.083

Table 3

T-test for Independent Samples Comparing Mean Gains for the Treatment and Control Groups

	t-test for Equality of Means*						
	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
MEAN GAIN SCORES	.946	6	.381	10.250	10.831	-16.253	36.753

*Equal variances assumed

CHAPTER V

DISCUSSION

The purpose of this study was to determine whether explicit instruction in specific reading strategies would impact the reading comprehension of lower performing second grade students.

Analysis of data from the study confirmed the null hypothesis that there would be no significant difference between the gains in reading comprehension of lower performing second grade students who received explicit strategy instruction from the Primary Comprehension Toolkit by Harvey et al., (2007) and those of comparable students who did not receive explicit strategy instruction.

Implications of Explicit Strategy Instruction for Reading Comprehension

While the results of this study demonstrated no statistically significant difference between reading comprehension gains for the treatment and control groups, it was notable that the average post-test mean comprehension score of the treatment group (82.5%) was higher than that of the control group (67%). Were these percentages used to derive classroom grades; they would have resulted in meaningful differences and be expressed as P-progressing and N-needs improvement respectively.

The researcher also observed changes in student participation and behavior that may have been attributable to the intervention. For example, the researcher noted that students in the treatment group began employing strategies they were taught as part of the intervention during the traditional reading class sessions. Members of the treatment group also increased their classroom participation, on task behavior, and active engagement during instruction. For instance, the students began to use wiki sticks to track their thinking and make connections to the

text and used post-it notes to monitor comprehension of text, including "I wonder" and "I think" statements. Students also made use of the post it notes to generate questions that they had regarding texts and to facilitate discussions about content materials. The students in the treatment group also monitored their comprehension by identifying and explaining how text features helped them comprehend and ascertain word texts. In addition, students in the treatment group utilized repeated readings to employ cloze reading to make inferences using story details and prior knowledge. Students who received the intervention demonstrated increased participation, asked for and utilized manipulatives, and contributed actively to classroom discussions. With the multiple opportunities and exposures to explicit instruction of comprehension strategies the treatment provided in the traditional classroom environment, the treatment group students were able to augment proficiency.

By the conclusion of the study, the treatment group of four students was able to determine independently the importance of information in expository texts by identifying the main ideas and details. Students were able to read selections and organize and clarify understanding by utilizing graphic organizers such as KWL charts and note cards to purposefully ask questions about the text. Visualizing was another strategy that students in the treatment group learned to use. Students were able to visualize and imagine using content clues, imagery, character traits, and prior knowledge to make inferences about a text. Students were taught these skills through guided modeling, peer practice, and using prior experiences incorporated with text clues to draw conclusions. Though not all students in the treatment group demonstrated equal proficiency with these strategies, each student made progress. The control group collectively achieved a 67% average on the post tests, reflecting an improvement of 12.58% from their pre-

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test scores, while the treatment group's post-test average was 82.5%, increased from a mean pre-test score of 59.67, which reflects a substantial improvement of 22.83%.

These observations and the larger increases in content link scores demonstrated by the treatment group suggest that with coherent exercise, time and opportunity, instruction of explicit reading strategies could help students increase their comprehension and consequently enjoy reading more.

Limitations and Threats to Validity

Several threats to validity of this study could limit ability to make generalizations of the findings to other settings or populations. The most influential threat to validity was the amount of time during which the treatment was implemented. The researcher selected four strategies from the Primary Comprehension Toolkit that she felt would be beneficial for the students. These strategies were determining importance, monitoring comprehension, questioning and making inferences, and visualizing. The treatment group met twice a week for five weeks. Each lesson was 30 minutes in duration, which resulted in one hour a week of explicit strategy instruction. This may not have been ample time for students to construct meaning, practice the strategies, and then apply them independently. Treatment sessions took place during the students' and researcher's lunch-time, and students often lost minutes of instruction because they were eating their lunches. Results may have been different if the treatment group had met for more time daily, either before or after school and over a more extended period.

Another limitation was the instrumentation used to assess comprehension. Houghton Mifflin Content Links were used as the measurement tool. However, even though three pre and post test assessments containing varied content were administered to alleviate any content area biases, student engagement and participation in the materials based on their level of interest

could have affected the validity of this study. Additionally, the Content Links were scored by the researcher. Even though a teacher's edition or sample response was provided, subjective evaluation of the written responses may have affected both the validity of the scores and the study.

Student attendance may have affected the validity and outcomes of students' performance on the Content Links as well. One student in the treatment group missed two days. This student is homeless and recently relocated to another school. Home conditions directly influence student attendance, focus on school-work, and level of support at home. Two other students in the treatment group missed one day, again impacting participation and possibly strategy attainment and application. In contrast to the impact of absences, on the day when there were only two students in the treatment group, these students received more individualized instruction, discussion, practice, and application of strategies. The control group also had a student absence that could have impacted student performance. Missing daily classroom instruction can limit students' ability to learn targeted strategies, and comprehend classroom materials. Additionally, the control group had a special educator who provided daily services during traditional classroom instruction, which may have affected their performance on the content links and the magnitude of the groups' differences in post-test scores.

Connections to Prior Research

In the past two decades, comprehension instruction has been a topic of much interest among researchers (Fielding et al., 1994) note that "comprehension is now viewed as a much more complex process involving knowledge, experience, thinking and teaching" (p. 62). The focus of comprehension instruction changed during the 1990's, becoming centered on the importance of students constructing meaning and not simply repeating information from their

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reading materials. Researchers emphasized that comprehension skills were not meant to be taught in isolation. Rather, teachers were encouraged to facilitate higher order questioning and comprehension skills.

Comprehension strategies are tools designed to help students formulate and generate meaning from texts. They are "a means to an end, not an ending themselves" (Harvey et al., 2007, p.14). Research conducted by Palincsar and Brown (1984) (as cited in Harvey et al., 2007) and Paris, Lipson, and Wixon (1983)(as cited in Harvey et al., 2007) surmises that students need to know a strategy and, "they must know when, why and how to use it" (Harvey et al., 2007, pg. 16). As was done in this study, children must observe strategies modeled and be given multiple exposures and opportunities to practice them for reading to become an automatic function. More importantly, it is vital to provide direct and explicit strategy instruction to students who may have deficits with reading comprehension. By explicitly, systematically, and gradually releasing responsibility to students after instruction, students likely will be able to increase their comprehension by effectively and effectively applying the strategies they have learned.

Recommendations for Future Studies

Future research regarding explicit strategy instruction to enhance reading comprehension would benefit from providing strategy instruction for a longer time period so students are better able to take ownership of the strategy. The researcher suggests meeting with students for an hour twice weekly, and having two weeks to review new skills. This increase in time for instruction would allow students more opportunities for guided, partner, and independent application.

Another suggestion for future research is to include more partner/peer discussions during the intervention. In the half hour block utilized in this study, it was difficult to provide ample

time for partner practice and collaboration. Lessons during this intervention followed a model, practice, and apply format, but more time was needed for discussion and processing.

The researcher also recommends using an assessment that is supported with and by current curriculum content. The researcher's school had been using Content Links from Houghton Mifflin to monitor and assess student achievement even though new state curriculum is based upon the Common Core. Using an instrument that correlates and supports current curriculum and assessments likely would increase greater alignment and fluency.

Finally, it would be beneficial to have the treatment group(s) meet for two weeks instead of just one to learn each strategy. Extending time in this way would provide ample time to hone the skills and more opportunities to practice them. Increasing the time for strategy instruction to an hour each week might afford students enough time to thoroughly investigate and analyze each reading comprehension strategy.

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