The Effect of Supplementing Guided Reading Interventions with Pre- and During Reading Discussion Strategies on First Graders’ Reading Comprehension

By Chelsea Grossman

Goucher College

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Abstract

The purpose of this study was to determine whether supplementing regular guided reading instruction, which included post-reading discussions, with pre-and during reading discussions would improve students’ reading comprehension. The Fountas and Pinnell Benchmark Assessment (Fountas & Pinnell, 2012) was used to determine the students’ comprehension levels. Students were asked “in the text” and “beyond the text” questions to determine their total comprehension scores and then grouped into closely matched treatment and comparison groups comprised of students with mixed reading comprehension levels. The treatment group received the supplemented guided reading instruction, while the control group did not. After the four-week intervention, the Fountas and Pinnell Benchmark Assessment was used again to determine their posttest comprehension scores.

While the control group outperformed the treatment group on each of the pre-intervention comprehension measures (statistically significantly on two of the measures), the treatment group’s scores were statistically significantly higher than those of the control group on all three post-intervention comprehension measures (in the text, beyond the text and total scores).

Therefore, the null hypothesis, that the two groups’ reading comprehension scores would be the same after the intervention, was rejected. These results suggested that the addition of pre-reading and during reading discussion strategies to the regular guided reading lessons benefitted the participants’ comprehension and warrants further study.
CHAPTER 1
INTRODUCTION
Overview

The ability to decode a given text and express their understanding of the text is a challenging task for many students. Some students are able to decode, or pronounce the words on the pages, but they are not able to communicate what they learned from the text. Being able to express new learning after reading, or describe what has been read, is called reading comprehension (Eldredge, Quinn & Butterfield, 1990). According to McLaughlin (2012), reading comprehension is “when readers make connections between what they know (prior knowledge) and what they are reading” (p. 3). Because educators understand that reading is a multifaceted skill, they know that student growth in reading cannot take place unless students receive support that assists them to acquire the basic skills that provide the foundation for comprehension.

Educators are continually faced with the challenges of helping struggling readers. While students of all ages and ability levels struggle with reading, research such as that reported by Brabham and Villaume (2002), indicated that if students struggle early in their academic experiences, they likely will fall behind and continue to experience difficulty throughout their school years. Thus, it is important for educators to implement a well-rounded reading curriculum to help students experience success early in their reading education.

With the growing number of students who struggle with reading comprehension, it has been a nationwide educational priority to identify strategies to help students become more successful readers. In recent years, guided reading has become a focus of interest and research amongst educators. Many school districts have adapted their reading curricula to model the
guided reading approach and have assisted students to achieve success through use of this approach. According to Scholastic (2019), “guided reading is an instructional approach that involves a teacher working with a small group of students who demonstrate similar reading behaviors and can read similar levels of text” (p.1). Since not all students learn the same way, being able to adapt and differentiate instruction to meet individual needs using guided reading can have a significant impact on students’ ultimate reading ability.

This researcher became interested in the effects of implementing specific additions to guided reading instruction in her role as a general educator teacher at a Title 1 eligible school in Maryland. The researcher observed that in the primary grades at her school, the number of students performing below grade level expectations was increasing each school year. In particular, she noted that many students were not able to successfully answer questions about the texts read. The researcher designed this study to determine whether supplementing small group instruction with increased pre- and during reading discussion strategies could improve her students’ reading comprehension.

**Statement of Problem**

The purpose of this study was to determine whether adding pre- and during reading discussion to guided reading instruction improved first grade students’ reading comprehension.

**Hypothesis**

The null hypothesis for this study is the treatment group reading comprehension scores (after guided reading instruction supplemented with pre-reading and during reading discussion strategies) = Comparison group reading comprehension scores (after usual guided reading instruction).
Operational Definitions

Guided reading interventions for the control group included lessons that already included a time for discussion after reading. The treatment group received the same lessons, but the lessons were supplemented with pre-reading and during reading discussion strategies.

Reading comprehension was measured using comprehension scores from the Fountas and Pinnell Benchmark Assessment. These were based on scores of responses to “in the text” questions and “beyond the text” questions (Fountas & Pinnell, 2012).

The Fountas and Pinnell Benchmark Assessment is a tool that measures the instructional reading level of the students by assessing their reading fluency, decoding, and comprehension. For the purpose of this study, comprehension scores (described in Chapter III) were used as indicators of students’ understanding of texts read (Fountas & Pinnell, 2012).

Reading levels were determined by the teacher using Fountas and Pinnell running records and students were grouped by the researcher based on these reading levels (Fountas & Pinnell, 2012).
When students begin their educational journey, one of the major academic tasks that students initiate is learning to read. Most students are exposed to instruction in reading skills beginning at the age of five, and some students begin reading instruction even earlier. De Naeghel, Van Keer, Vansteenkiste, Haerens, and Aelterman (2016) state, “upon completing elementary school, students are expected to learn to read and to be reading to learn” (p.1). If students miss key concepts, or struggle with learning these concepts, it can cause the students to fall behind in reading proficiency and other academic skills as they move from grade to grade.

Learning to read involves more than just being able to pronounce the words on the page. It encompasses listening and understanding what is happening in the pages of the book, being able to make connections and to make sense of what is happening. Students need to be exposed to hearing stories, reading stories and learning how to read independently early in their school experience not only to help them become proficient readers, but to build their vocabulary as well. Students need a “reading program that incorporates effective instruction, multiple resources, and wide variety of experiences to help each student achieve optimal reading progress every year” (Baugh, 2017, p.2).

This review of literature provides support for the concept that offering students a structured reading program such as guided reading, can help them enhance their independent reading levels by focusing on the five components of reading: phonics, phonemic awareness, vocabulary, fluency, and comprehension. Section one of the review discusses the components of reading. Section two examines concepts related to students’ independent reading level. The final section describes components of the guided reading approach.

**Components of Reading**
There are many different components to learning to read that affect a student’s success. As stated above, becoming a strong reader in today’s society involves more than simply pronouncing the words on a page. It also includes being able to read in a fluent manner and being able to understand what is read. The reader must be able to recall events in the text, understand why the author included certain information, and being able to think about what could happen next in the text.

Early in students’ educational experience they are introduced to many different components of reading: phonics, phonemic awareness, vocabulary, fluency, and comprehension. Throughout students’ reading instruction, they will participate in a variety of learning experiences that will help them attain mastery of these five key components. If mastery of one component is lacking, then a student’s ability to read and grow as a reader may be hindered. Detailed knowledge of each component can help educators identify specific areas of students’ strengths and weaknesses in reading (Eldredge, 1990).

Two of the major concepts that students need to be taught at an early stage are phonemic awareness and phonics. “Phonemic awareness is a student’s ability to identify individual sounds and their order within words – to divide a whole word into parts” (Kardaleska & Karvoska-Ristovska, 2018, p. 25). Phonics involves identifying the relationship between letters and sounds. Eldredge et al. (1990) share that the goal of phonics instruction is to teach students how to segment and blend sounds in words. This skill must be mastered before the results of phonics instruction can be transferred to a student’s ability to read new words.

As students continue to progress in their reading instruction, their vocabulary increases, and they are better able to read and understand different types of text. As students’ reading vocabulary expands, their speaking vocabulary expands as well. Exposing students to a variety
of texts and assisting them to expand their sight word vocabulary will enhance their mastery of early reading skills (Kardaleska et al., 2018).

Students’ reading fluency is related to their mastery of different reading skills. According to Arens, Gove, and Abate (2018), “literacy educators realize that for children to be successful readers, they must be fluent and comprehend a range of texts” (p. 54). Early in their school experience, students focus primarily on decoding the words. As they master the strategy of decoding, they can begin to focus on making meaning of words and sentences. In essence, as students grow in their phonemic awareness and develop vocabulary and phonics skills, reading fluency will follow.

The final essential component of reading instruction is comprehension. As stated above, it is a common misconception that reading is merely being able to pronounce the words on the pages. Beyond decoding, reading entails understanding what the individual reads. Students need to think about what is happening throughout the text, gain new information, and make connections to deepen their understanding of the text. While this skill might take some time to develop and foster, it is essential (Okkinga, van Steensel, van Gelderen, & Sleeegers, 2018).

Each of the components described above is key to the success of developing readers. When students are offered reading instruction that focuses each of these five components, they likely will achieve success as readers.

**Independent Reading Level**

When assessing a student’s independent reading level, a teacher examines the student’s progress in three different areas: accuracy, comprehension, and fluency. Accuracy is the ability
to decode words correctly in a text. The way a student shares his or her understanding of the text, within and beyond the text questions, comprises the student’s comprehension, thus allowing a teacher to determine if the student understood what was read. Fluency is the rate at which a student reads, along with his or her expression (Brabham & Villaume, 2002).

Using the scores from assessments in these three areas, a teacher is able to determine a student’s independent and instructional reading level. Treptow, Burns, & McComas (2007) state that an independent reading level is achieved when a student is presented with a task or text that is sufficiently familiar, yet still provides the student with some degree of challenge. A student’s instructional level is that point at which a student is familiar with some of the concepts within the text, but he or she needs support in understanding the text or decoding more words. When the text is too challenging for a student, this is noted as a student’s frustration level. Once the teacher determines the student’s independent or instructional level, the teacher can develop and implement efficient and effective instruction for the student.

When reading with a student to determine his or her independent reading level, a teacher may use a running record or a benchmark assessment. During this time, a teacher and student work one-on-one to read a variety of different texts. As the student reads, the teacher notes the student’s errors, calculates fluency, and discusses the text with the student after reading, noting the student’s understanding. If a student is successful in reading the text at an independent or instructional level, the teacher can decide to read the next level text with the student. However, if the student is not successful, shows limited to no comprehension or less than 90% accuracy, a teacher administers less difficult texts until a level of independence is determined. Once the student has reached his or her frustration level, the highest level of independent or instructional level is determined to be the student’s reading level. For example, if a student reads a level F
passage and it is noted as his or her instructional level, but then reads a level G passage and it is noted as the student’s frustration level, the student’s instructional reading level would be identified as a level F (Fountas & Pinnell, 2012).

One way a teacher is able to determine a student’s reading level is using the A to Z text level gradient developed by Fountas & Pinnell. When students enter Kindergarten, they are expected to be reading at a Concepts of Print (COP) level. A COP level is defined as the level at which a student is able to identify the front and back cover, title and illustrations within a book, but cannot read the words. By the end of Kindergarten, students are expected to be reading at a level D. When students are reading at a level D, they are reading about 10 words on a page. The words are sight words, decodable words, and words that students can use the illustrations to identify. Students entering first grade should begin at a level D and work their way up to a level J. At a level J, students rely more on word patterns than decoding individual sounds. First grade is the only grade where students are expected to make six levels growth; in every other grade, students are expected to grow three levels. Therefore, student growth in reading is especially important during the early years of a student’s educational journey.

As stated above, the instruction students receive in their early years of education is essential for students’ success in subsequent years. It is imperative for students to receive high quality and meaningful reading instruction to help support their acquisition of reading skills and ultimate reading success. Therefore, teachers continually need to examine the type of instruction they are providing students to be certain that it is sufficiently challenging, but also geared towards the individual learner, ensuring that students are working alongside peers who are functioning at their level but also a little above and below that level. When teachers reevaluate
their teaching to ensure that the students’ needs are being met, students are more likely to experience success (Lipp & Helfrich, 2016).

**Guided Reading**

Nationwide, one of the most familiar instructional approaches to teaching reading is guided reading. Guided reading is an instructional approach in which teachers create “homogenous grouping of students in order to ensure that all of the students are reading material at their instructional reading levels” (Schirmer & Schaffer, 2010, p.54). This means that the reading materials presented to the students are “just difficult enough to offer opportunities to learn and apply new strategies with support from the teacher” (p.54). The guided reading approach allows teachers to work closely with students to address any skills the students might need to work on and for the students to become more confident as readers.

Similar to many different approaches to reading instruction, guided reading has a structured plan for classroom implementation. Schirmer and Schaffer (2010) state that Fountas and Pinnell (1996) have created four steps to help successfully plan a guided reading approach in any classroom. The first step is to place students into homogenous groups and begin to select leveled texts based on their reading levels. Using texts based on their reading levels allows students to feel confident when reading and begin to develop a love of reading.

Schirmer and Schaffer (2010) explain that when teachers meet with the selected groups, they can begin implementing steps two through four as defined by Fountas and Pinnell (1996). The second step in the guided reading process is introducing the book to the students. This introduction involves showing students the front cover, reading the title, and providing background information. This step also offers opportunities to introduce new vocabulary words that the students might need to help them read the text. The third step is for students to read the
text independently. During this time, the teacher is listening to how students read. The teachers might support students to decode words on which they are struggling and collects notes to use for data analysis. A teacher might have students pause and answer discussion questions or complete a small task before finishing the text. The final step in the process is to discuss the book. During this time, students may ask questions about the book, look back into the text to find evidence to respond to a question, or work with a partner to answer the text questions. Fountas and Pinnell (1996) created this instructional flow to encourage students to become independent readers with the support of the teacher.

A benefit of using the guided reading approach is that it incorporates differentiated instruction. Because teachers are grouping students homogenously, the levels of the texts that are being selected are different for each group. “Classrooms are full of wonderfully diverse children and differentiated instruction is needed to reach all of them” (Fountas & Pinnell, 2012, p.1). Students do not all learn and express their learning in the same way. When work is too easy, students are not being challenged; however, when the work is too challenging, the students become frustrated and often develop a dislike for the subject. It is essential that students develop a sense of confidence about their reading.

One of the critical components of a successful guided reading program in the classroom is having access to an array of leveled texts. Brabham & Villaume (2002) define leveled texts as “reading material that represents a progression from simpler to more complex and challenging text” (p. 3). Students begin at a level COP and work their way up to a level Z. Each grade level has expected growth levels that students are to achieve by the end of the year; however, for some students that can be a challenge. While it might be difficult for certain schools to purchase leveled texts, there are many online resources teachers can access to help support the need for
leveled texts. For example, teachers might consult the website Reading a to z. Reading a to z provides teachers with over 2,500 leveled books in a range of languages with lesson materials to use alongside the text. These texts can be printed and used in place of published books.

Since the guided reading approach involves establishing small groups to work on skills, it is important for teachers to create a learning environment that supports students’ success. An essential factor in creating a positive learning environment is ensuring that students have a place to work with the teacher during their guided reading instruction. Teachers also need to identify space for the students who are working independently. These students might be working on sentence structure, word study, or sight words. Additionally, teachers must decide how they want to collect data. Data should be collected every day a teacher works with a child to inform the teacher of any possible adjustments that need to be made and if there are any concerns to address (Fountas & Pinnell, 2012).

Lipp and Helfrich (2016) state that the most important consideration when beginning to plan for a guided reading approach is that the teacher’s excitement about the approach is evident. Lipp & Helfrich explain that the students will want to read the texts teachers introduce if students believe it is worth their time. When teachers model a connection with the text and are excited to read the books, students likely will be excited about reading the books as well.

**Conclusion**

This review of literature supports the concept that guided reading instruction can have a positive and significant effect on students’ reading achievement. It is important for educators to help students become proficient readers as skill in reading will support their academic success throughout their educational journey.
CHAPTER III

METHODS

Design
This study was developed to identify the effect on first graders’ reading comprehension with supplementing existing guided reading instruction which included after reading text discussions with pre-reading discussion strategies and during text discussions. This research used a quasi-experimental pretest-posttest design to compare the reading comprehension scores of the control and treatment groups. The independent variable was the type of guided reading provided. The treatment group received guided reading intervention supplemented with pre-reading discussion strategies and during and after reading text discussions. The control group received guided reading instruction which included only after reading text discussions. The dependent variables were the groups’ reading comprehension scores obtained after the treatment interval.

**Participants**

The participants in the study were enrolled in a public elementary school in a suburban Maryland county. The school was identified as a Title 1 eligible school and at the time of the study, had 410 students enrolled. Among the students enrolled in the school, 35% were Caucasian, 32% were African American, 20% were Hispanic, 9% were two or more races, and 3% were Asian (Maryland State Department of Education, 2018).

The sample consisted of 20 students, seven of whom were girls and 13 of whom were boys. The students ranged in age from six to seven years old. Seven students were Caucasian, seven students were African American, four students were Hispanic, one student was American Indian, and one student was of two or more races. Eight of the 20 students received special education services and had Individualized Education Plans (IEPs). Sixteen of the 20 students also identified as students who qualified for Free and Reduced Meals Students, (FARMS).

A convenience sample was used for the study, but participants were determined as appropriate for inclusion in the intervention due to their low performance in reading. Their low
performance was attributable to varied causes or needs. These 20 students all were performing below grade level expectations and received reading instruction in a co-taught classroom with a general education teacher and a special education teacher. The participating students had been receiving guided reading instruction for two months prior to the intervention and had received individually selected reading interventions to help them become more successful readers.

**Instrument**

For this study, the Fountas and Pinnell Reading Benchmark (Fountas & Pinnell, 2012) comprehension subtest data were used to quantify reading comprehension skills. The Fountas and Pinnell Benchmark Assessment is a one-on-one reading assessment used to determine a student’s independent reading level (A-Z), fluency, and comprehension. Students are given a percentage score for their reading accuracy and a numerical score from zero to three for comprehension. This assessment tool is mandated by Harford County Public Schools, Maryland, for elementary teachers to use to determine student reading levels.

The Fountas and Pinnell Benchmark Assessment (Fountas & Pinnell, 2012) allows students to read from either a fiction or non-fiction text. Students are able to move up to a higher reading level if they score an overall rating of independent or instructional in both decoding and comprehension. The Fountas and Pinnell Assessment provides teachers with over “58 high-quality original titles” to choose from (p. 1). Teachers use a running record to record students decoding strategies and answers to comprehension questions. Using the scores for accuracy and comprehension, teachers use a flow chart provided by Fountas and Pinnell to determine if students can move up or down levels to be at an independent or instructional level versus levels at which they are likely to experience frustration.
The Fountas and Pinnell Benchmark Assessment (Fountas & Pinnell, 2012) is considered to be a valid assessment for teachers to use to determine student reading levels. According to the Fountas and Pinnell Field Study of Reliability and Validity of the Fountas and Pinnell Benchmark Assessment Systems one and two, “formative evaluations were conducted with a broad spectrum of classroom readers in different regions across the United States” (Fountas & Pinnell Field Study, 2006, p. 1). The data derived from these ongoing formative assessments were used to develop, and continue to develop, the program to “ensure that it meets standards of reliability and validity” (p. 2).

**Procedure**

The sample was divided into two small groups of students with similar ranges of varied reading comprehension scores. The composition of these two small groups was determined using the students’ pre-test comprehension score. These scores were identified using the school system’s regulated reading assessment, the Fountas and Pinnell Reading Benchmark Assessment (Fountas & Pinnell, 2012). Students’ reading comprehension was scored in two different areas of comprehension: “in the text” questions and “beyond the text” questions. To determine individual students’ scores, the teacher read one level C text with each of the 20 students and asked them a set of comprehension questions about what was read. A sample of the pre-test text questions are provided in Appendix A. All students read the same leveled text to determine their comprehension scores. Since student reading levels ranged from level B to level D, the pre-test text was a level C. Using the students’ comprehension levels, the teacher determined student groups to begin the guided reading intervention. The teacher scored the comprehension assessments using the Fountas and Pinnell comprehension rubric (see Appendix B). Students could receive a score ranging from zero through three for their responses to the “in the text”
questions and for their responses to the “beyond the text” questions. These scores reflected overall understanding of the in and beyond the text questions. Scores of zero indicated students had unsatisfactory understanding of the text, scores of one indicated they had limited understanding, scores of two indicated they had satisfactory understanding and scores of three indicated they had excellent understanding of the text. Total scores were calculated by combining the overall scores (from zero to three) from the in and beyond the text questions to get a total score which could range from zero to six (see Appendix B). As noted in the chart in Appendix B, total scores could range from zero through three, which indicated unsatisfactory comprehension to six, which indicated excellent understanding overall.

The researcher then created two matched groups comprised of students with varied pre-test levels of comprehension by assigning similar numbers of students with unsatisfactory, limited, satisfactory, and excellent comprehension scores to each group, one of which would serve as the treatment group and one of which would serve as the comparison group. This enabled the teacher to determine if the intervention was successful for students with a range of reading comprehension levels, although, as noted, all participants had some reading difficulty.

Once students were placed into two small groups, the teacher began to plan and implement 15-minute small group lessons for the four-week intervention period. The treatment group utilized three discussion strategies related to guided reading: pre-reading, during reading and after reading discussions. The comparison group utilized only one discussion strategy of guided reading: after reading discussions. Both groups read the same texts, all at a level C, throughout the four-week intervention period.

**Treatment Group Intervention:**
For the first week of the study, the teacher read and modeled with the treatment group two level C texts. With these two texts, the teacher modeled how to answer “in the text” questions by demonstrating how to find answers throughout the text and how to answer “beyond the text” questions by making connections and going into the text to find evidence. During the next couple weeks, the students read seven more level C texts. The teacher supported students with their reading by asking pre-reading, during reading, and after reading discussion questions and working to answer, “in the text” and “beyond the text” questions. At the end of each of the seven texts, the students were asked three “in the text” questions and three “beyond the text” questions. The teacher used the same scoring guide as used on the Fountas and Pinnell Benchmark Assessment and the pre-test to yield “in the text” and “beyond the text” question scores at the end of each text read. The teacher noted the individual scores for each student for both “in the text” and “beyond the text” questions and each student’s overall total score for each text read during the intervention period.

**Comparison Group Intervention:**

During the four-week intervention period, the comparison group also participated in guided reading instruction. However, when the students met with the teacher to read the selected level C texts, the teacher utilized only after reading discussion strategies, not pre- or during reading discussion strategies. During the first week of the intervention, the teacher modeled how to read two level C texts, the same two texts as the treatment group, and how to answer after reading discussion questions. Over the next couple weeks, students read a total of seven level C texts, the same texts as the treatment group, and worked with the teacher to answer after reading questions. At the end of each of the seven texts, the students were asked three “in the text” questions and three “beyond the text” questions. As was the case with the treatment group, the
teacher used the same scoring guide as used on the Fountas and Pinnell Benchmark Assessment and the pre-test to yield “in the text” and “beyond the text” question scores at the end of each text read. The teacher noted the individual scores for each student for both “in the text” and “beyond the text” questions and each student’s overall total score for each text read during the intervention period.

Following the four-week intervention, each student in both groups read the same level C text one-on-one with the teacher to determine their post-intervention score. The posttest given to each student was offered in the same format as the pretest; however, the text that the students read was different. An example of what the pretest and posttest included can be found in Appendix A. Using the same scoring method as on the pretest, each student, received individual scores for “in the text” and “beyond the text” questions. These two scores then were totaled to yield each student’s total overall post-intervention comprehension score. The researcher then compared the two groups’ pre- and post-intervention total scores to determine whether there was any difference in comprehension scores or gains in the scores across treatment conditions.

CHAPTER IV
RESULTS
The purpose of the study was to determine whether supplementing regular guided reading instruction, which included post-reading discussions, with pre- and during reading discussions would improve students’ reading comprehension.

The null hypothesis was tested and compared the treatment group’s mean reading comprehension scores (after guided reading instruction supplemented with pre-reading and during reading discussion strategies) to the comparison group’s mean reading comprehension scores (after usual guided reading instruction). Descriptive statistics and those comparisons follow.

**Group Composition**

Table 1 summarizes the pre-intervention reading levels of the treatment and control groups. These groups were matched, based on these levels the pre-intervention comprehension test results, as closely as possible to ensure the groups were similar in terms of reading comprehension abilities at the outset of the intervention.

**Table 1: Frequency of Reading Levels at Start of Study, Disaggregated by Group**

<table>
<thead>
<tr>
<th>Pre-Intervention Reading Levels</th>
<th>n</th>
<th>Percent</th>
<th>Treatment Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>4</td>
<td>20</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>5</td>
<td>25</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>9</td>
<td>45</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>100</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
Descriptive Statistics

Descriptive statistics were computed to summarize the pre- and post-intervention reading comprehension scores of each group. Those results follow in Table 2 and indicated that the treatment and control groups’ mean each exceeded the other on three of the six measures and variance on the tests was fairly consistent. The standard deviations ranged from .483 to .738 on the in and beyond the text question tests, the ranges of which were from zero to two on the pretests and one to three on the posttests, and from .699 and .823 on the total scores (pre and post, respectively) tests, the ranges of which were from zero to four on the pretest and three to six on the posttest.

Table 2:

Descriptive Statistics for Pre- and Post-Intervention Scores

<table>
<thead>
<tr>
<th>Interval/Score</th>
<th>N</th>
<th>Mean</th>
<th>S.D.</th>
<th>SEM</th>
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</thead>
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<td>Pre In Text</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>10</td>
<td>1.2</td>
<td>.632</td>
<td>.200</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>1.3</td>
<td>.483</td>
<td>.153</td>
</tr>
<tr>
<td>Pre Beyond Text</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>10</td>
<td>.50</td>
<td>.527</td>
<td>.167</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>1.30</td>
<td>.483</td>
<td>.153</td>
</tr>
<tr>
<td>PRE TOTAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>10</td>
<td>1.70</td>
<td>.823</td>
<td>.260</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>2.60</td>
<td>.699</td>
<td>.221</td>
</tr>
<tr>
<td>Post In Text</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>10</td>
<td>2.70</td>
<td>.483</td>
<td>.153</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>2.10</td>
<td>.738</td>
<td>.233</td>
</tr>
<tr>
<td>Post Beyond Text</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>10</td>
<td>2.40</td>
<td>.516</td>
<td>.163</td>
</tr>
<tr>
<td>Control</td>
<td>10</td>
<td>1.80</td>
<td>.421</td>
<td>.133</td>
</tr>
</tbody>
</table>
Comparison of Mean Scores

The results of t-tests for independent samples comparing the treatment and control groups’ mean scores on the six tests follow in Table 3. They indicated that five of the mean differences between each of the groups’ scores were large enough to meet the criteria for statistical significance. The only mean difference that was not large enough to meet criteria for statistical significance was that of -.100 on the pre-intervention in text questions scores (p<.696).

While the control group outperformed the treatment group on each of the pre-measures (statistically significantly on two of the measures), the treatment group’s scores were statistically significantly higher than those of the control group on all three post-measures. Therefore, the null hypothesis that the reading comprehension scores of the two groups would be the same after the intervention was rejected and the results reflected expectations that the treatment group would perform better than the control group on all three post-intervention reading comprehension scores. In summary, these results suggested that the addition of pre-reading and during reading discussion strategies to the regular guided reading lessons benefitted the participants’ comprehension.

<table>
<thead>
<tr>
<th>POST TOTAL</th>
<th>Treatment</th>
<th>10</th>
<th>5.10</th>
<th>.738</th>
<th>.233</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Control</td>
<td>10</td>
<td>3.90</td>
<td>.738</td>
<td>.233</td>
</tr>
</tbody>
</table>

Table 3:

Results of t-test Comparing Treatment and Control Group Mean Scores on the Pre and Post tests
<table>
<thead>
<tr>
<th>TEST</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed) (p value)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Pre In Text</td>
<td>-.397</td>
<td>18</td>
<td>.696</td>
<td>-.1</td>
<td>.252</td>
<td>-.629</td>
</tr>
<tr>
<td>Pre Beyond Text</td>
<td>-3.539</td>
<td>18</td>
<td>.002</td>
<td>-.8</td>
<td>.226</td>
<td>-1.275</td>
</tr>
<tr>
<td>PRE TOTAL</td>
<td>-2.635</td>
<td>18</td>
<td>.017</td>
<td>-.9</td>
<td>.342</td>
<td>-1.618</td>
</tr>
<tr>
<td>Post In Text</td>
<td>2.151</td>
<td>18</td>
<td>.045</td>
<td>.6</td>
<td>.279</td>
<td>.014</td>
</tr>
<tr>
<td>Post Beyond Text</td>
<td>2.846</td>
<td>18</td>
<td>.011</td>
<td>.6</td>
<td>.211</td>
<td>.157</td>
</tr>
<tr>
<td>POST TOTAL</td>
<td>3.637</td>
<td>18</td>
<td>.002</td>
<td>1.2</td>
<td>.330</td>
<td>.507</td>
</tr>
</tbody>
</table>

*Equal variances assumed*

These results, along with observations about the intervention, are discussed and related to the literature and future research in Chapter V.
The purpose of this research was to determine whether supplementing regular guided reading instruction, which included post-reading discussions, with pre-and during reading discussions would improve students’ reading comprehension. After the completion of the study, the null hypothesis was rejected as the treatment group performed better than the control group on each posttest.

The researcher began by identifying the students’ individual reading comprehension scores using the Fountas and Pinnell Benchmark Assessment (Fountas & Pinnell, 2012). Because the teacher had been using the guided reading model in the classroom since the beginning of the school year, the classroom teacher regrouped the students into two randomized groups in order to form groups with similar reading skills and yield reliable results. During the intervention, the teacher worked with the treatment group to answer pre, during, and after reading discussion questions. The control group was asked only after reading discussion questions. At the end of the four-week period, the students’ reading comprehension levels were re-assessed to determine whether growth was made. Findings indicated that although the control group outperformed the treatment group on each of the pre-intervention measures, the treatment group’s scores were statistically significantly higher than those of the control group on all three post-intervention measures. Thus, the null hypothesis was rejected.

Implications of Results

The results from this study suggest that including pre- and during reading discussions as part of intentional teaching of comprehension strategies in a guided reading setting can have a beneficial effect on students’ reading comprehension level. This implication was supported by the data which indicated that the treatment group earned significantly higher “in the text” and “beyond the text” comprehension scores than the control group after the intervention.
The results may also indicate that guided reading instruction with a strong focus on comprehension via pre- and during reading discussions can help students who are reading below grade level expectations. However, since none of the participants were reading on grade level or above grade level expectations, one cannot say conclusively that these interventions would yield the same results with those students conducting similar studies with such students.

Based on these findings, it is recommended that teachers continue to consider how they administer and reinforce reading strategies during guided reading lessons. Slight variations in activities or comprehension checks could make a difference in how much or how rapidly students at various levels develop and use comprehension skills.

**Theoretical Consequences**

Findings in the review of literature emphasized that reading contains many components which build and depend on one another. When one of these components is not mastered at an early age, the acquisition of other components can be delayed and reading comprehension likely will be negatively affected (Clemens, et al. 2019). With the use of guided reading, teachers are able to target and teach each of the key components of reading which enables students to be most successful through instruction that includes use of small groups.

One of the larger studies completed was noted by Fountas & Pinnell (2012). In it, 8,500 students in grades kindergarten through third grade and 240 teachers from 17 different schools took part in a four-year study that investigated the effects of using the guided reading strategy. It was noted that “the average rate of student learning increased by 16% in the first implementation year, 28% in the second year, and 32% in the third year” (p. 283). During these four-years, the teachers focused their instruction on the key components of reading: phonemic awareness, phonics, vocabulary, fluency, and comprehension. The teachers in this study shared that although
the process was not always easy to implement, they began to notice many changes within their students. Those changes did not simply relate to growth in students’ reading abilities but were also seen in their confidence and attitude towards reading.

Related to this research conducted by Clemens, et al. (2019) is that it indicated that it is important to provide students with reading instruction at their reading level. This not only allows the teacher to teach skills that particular students are lacking and give more individualized instruction, but also provides students opportunities to build confidence as readers. Extrapolating from these studies, using Fountas and Pinnell’s A to Z text level gradient (Fountas & Pinnell, 2012) may be beneficial as it allows teachers to select appropriately leveled texts for different groups of children which in turn helps them read more proficiently and may have the added benefit of improving motivation and confidence related to reading.

**Threats to Validity**

While this study yielded the expected results, it did contain some threats to its validity. For instance, a sample of just 20 students was used in this study. A larger sample size may have yielded more generalizable and valid results.

Also, all of the students in the current sample were reading below grade level expectations. Having a sample with a larger range of reading abilities could enable researchers to determine if the use of guided reading has varied degrees or rates of impact on students who are reading below as compared to at or above grade level expectations.

The brief duration of the study may also have affected the findings and validity of the results obtained. For instance, some students might need more than four weeks to make progress in reading skill development and could have shown more growth given more time. Conversely, if
the intervention had been implemented for a longer time, some students in either group may have reached a plateau in growth due to maturation or other factors.

In addition to the brevity of the study, student attendance may also have posed a threat to the validity of the results. Some students were absent during the four-week intervention and/or arrived late for the guided reading lessons. Since reading instruction was scheduled for the beginning of the school day, some of the students who arrived late missed time from and elements of the intervention. Attendance was also affected by scheduling conflicts. During the four-week intervention period, many of the students attended sessions for related services such as speech therapy and guidance lessons that took place outside the classroom. These experiences resulted in students missing some small group instruction, and thus, may have affected the results.

Connections to Existing Literature

For decades, researchers have studied the impact of varied instructional strategies with the goal of improving students’ reading comprehension, fluency, and decoding skills (Scholastic, 2019). Given the findings from such research, educators have been able to implement practices to support students’ acquisition of reading skills. This research and these efforts are critically important, as research suggests that one in three children experience difficulties in learning to read and students who struggle with acquisition of beginning reading skills rarely catch up (Iaquinta, 2006).

Relatively, Duke and Block (2012) found that teachers were spending a small amount of instructional time on comprehension instruction. Lack of sufficient time for comprehension instruction could delay students reading growth if educators are focusing only on decoding and fluency. Duke and Block cited findings that indicated a first-grade teacher who was able to spend
extended time on focusing students’ learning on reading comprehension was able to enhance students’ reading comprehension levels.

Guided reading is a teaching strategy that has been implemented in classrooms around the world. “Guided reading programs support a comprehensive reading program by integrating small group instruction, assessment, and independent practice into the classroom” (Scholastic, 2019, p.1). In this study, students were placed into two small guided reading groups which focused either on using pre, during, and after reading discussion questions or just after reading discussion questions to review texts. This allowed the study to assess whether modeling and questioning students throughout the whole text in the context of guided reading improved student comprehension of texts better than just having them participate in discussions after reading texts.

**Implications for Future Research**

Future research that investigates the effects of various aspects of guided reading instruction on a students’ independent reading levels is warranted to ensure basic skills are developed and result in strong comprehension skills. Research should consider the environment in which guided reading instruction takes place. For example, there often can be many distractions in the classroom and ideally students learn best when they are in a quiet environment and are able to participate fully in small groups. Controlling for issues such as noise, group size, seating and other environmental variables might inform teachers about how to offer lessons most effectively.

Future researchers should also consider completing studies like the current one with a larger and more diverse samples of early readers. While this study included first grade students who were performing below grade level expectations, conducting similar studies with students who are on grade level or above grade level may be a meaningful way to compare and contrast
the findings across reading skill levels. It also may be beneficial to explore guided reading across multiple grade levels and language proficiency levels to determine if the results are similar across groups with varied developmental and demographic characteristics.

Finally, future researchers may want to extend the duration of similar studies. This study was conducted over just four weeks. Allowing more time for students to partake in variations of guided reading instruction may yield different results than those found in this study.

Conclusion

This study focused on determining whether augmenting a first-grade teacher’s guided reading instruction with pre- and during reading discussion strategies would affect students’ reading comprehension. The results of this study supported the benefit of using pre- and during reading discussion questions on students’ comprehension. While both groups of students demonstrated growth in terms of their comprehension levels, the students whose guided reading lessons were supplemented with pre- and during reading discussion questions made more progress on average than those students who engaged only in after reading discussion questions.

The literature review in this paper and the results of this study seem to suggest that some discussion components of guided reading instruction have positive effects on students’ reading and comprehension development. Further studies should continue to seek effective ways to enhance the effectiveness of guided reading instruction to benefit students of varied reading abilities.

References


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**APPENDIX A**
The example below shows how to note and score a student’s reading comprehension.

Since students were reading at different levels, not all comprehension questions were the same for all participants. This is a sample of what a pretest and posttest comprehension assessment item. Scoring instructions are found in Appendix B.

<table>
<thead>
<tr>
<th>Key Understandings</th>
<th>Questions/Prompts (ask students all questions)</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IN THE TEXT:</strong></td>
<td>What was Kate’s problem in the story?</td>
<td></td>
</tr>
<tr>
<td>Kate had a loose</td>
<td>What did Kate try to do to solve the story?</td>
<td></td>
</tr>
<tr>
<td>tooth and she was</td>
<td>problem? What else did she do?</td>
<td></td>
</tr>
<tr>
<td>doing everything</td>
<td>Talk about how the story ended.</td>
<td></td>
</tr>
<tr>
<td>she could to make</td>
<td></td>
<td></td>
</tr>
<tr>
<td>it come out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Gives 2-3 examples, such as wiggled it, played with it, brushed it.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In the end, she ate an apple and the tooth came out in her soup!</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BEYOND TEXT:</strong></td>
<td>Why do you think Kate really wanted her tooth</td>
<td></td>
</tr>
<tr>
<td>Kate really wanted</td>
<td>to come out because (gives a plausible reason).</td>
<td></td>
</tr>
<tr>
<td>her tooth to come</td>
<td></td>
<td></td>
</tr>
<tr>
<td>out because (gives a plausible reason).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>She felt great when her tooth finally came out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kate’s mom wasn’t worried because she knew the tooth would come out.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The most important part of the story was when she took a bite of apple (or when the tooth fell out).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPENDIX B
Scoring instructions and Reading Comprehension Categorization Chart:

The teacher will use the score ratings below to determine each student’s comprehension score for both three in and three beyond the text questions on his or her running record. Then those two scores will be summed to yield a total score/rating which will be compared with possible scores on the chart below to rate their overall comprehension for in the text and beyond the text information.

**Comprehension Scoring Key for In the Text and Beyond the Text Questions Chart**

This scoring tool is used for both in the text and beyond the text questions. A teacher will listen to student responses to the questions and determine their level of overall understanding for in the text and beyond the text questions using this scoring guide.

<table>
<thead>
<tr>
<th>Comprehension Scoring Key for In the Text and Beyond the Text Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

**Guide to Total Score Chart**
This scoring tool is used to determine a student’s total score. A teacher combines the students score from in the text questions and beyond the text questions. Combining these two scores will allow a teacher to note the students overall understanding of the text.

<table>
<thead>
<tr>
<th>Guide to Total Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>0 - 3</td>
</tr>
</tbody>
</table>