IMPACT OF LEVELED READING BOOKS ON THE FLUENCY AND

COMPREHENSION LEVELS OF FIRST GRADE STUDENTS

by

Melissa Paige Seals

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

November, 2013

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IMPACT OF LEVELED READING BOOKS ON THE FLUENCY AND COMPREHENSION LEVELS OF FIRST GRADE STUDENT ABSTRACT

The purpose of this nonequivalent, control group, pretest-posttest design study was to evaluate the effectiveness of leveled book programs on first-grade students' oral reading fluency rates and comprehension levels. This study was conducted over a 10-week time span with four first-grade classes. All of the students in each class were given a pretest to determine their current reading level, and then the classes were randomly placed into the treatment group, which used leveled books during independent reading time, or the controlled group, which used trade books selected by the students during independent reading time. Two individually administered assessments, Developmental Reading Assessment (DRA) and STAR Reading Assessment, were selected to compare students' oral reading fluency and comprehension levels pretest and posttest scores. After the data was collected, an ANCOVA was used to determine if there was a statistically significant difference between implementing leveled books are effective in increasing student oral reading fluency and comprehension level of first grade students.

Dedication and Acknowledgements

This manuscript is dedicated to all of my friends, family, and coworkers. Thanks to my mom and dad for your unending support, constant encouragement, and patience thorough this process. Without you, I would have never been successful in the dissertation process. I love you more than words can express. I would not be who I am today if it was not for your love.

I want to thank all the friends for their patience and understanding when I had homework to do or just needed a mental break. You guys really are the best! Thanks for not giving up on me when I would disappear for weeks at a time.

I also would like to thank my coworkers, especially Daphne, Cynthia, and Jamar, for constantly getting me back on track when I felt overwhelmed. I know that knowing you has made my life better. To the research assistants, thanks for opening up your classrooms, dedicating your time, and providing me with the data that made this study possible. You guys rock!

Finally, I would like to thank the people who helped make the completion of my dissertation possible. Many thanks go to Dr. Kristina DeWitt, Dr. Scott Watson, and Dr. Ralph Marino, and Dr. Bennie Pennington for pushing me through this process without losing faith that I could complete it.

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CHAPTER ONE: INTRODUCTION

Lesson plans, county pacing charts, and even state frameworks play an important role in the content that is taught to students. Both the age level and average development of the student should be considered when the curriculum is created (Scheirs & Timmers, 2009). However, school systems group curriculum by grade level and expect the general education teachers to teach all of their students using the same materials. This sometimes becomes an impossible task for teachers due to overcrowded classrooms, high stakes assessment testing, classroom management, and even teacher ability to delivery instruction.

The goal for all schools is to have children reading on grade level by third grade, but many schools fall short, and as a result many states build jail cells based on third grade reading proficiency levels (Ellis, 2011). The justification for this is that if students are not reading on grade level, they will be more likely to drop out of school and turn to drugs or crime to survive. Therefore, eventually they will end up incarcerated. There is a need for this trend to be broken. The only way to do this is to determine methods that improve reading proficiency levels. Reading proficiency is a student's ability to comprehend and use literacy skills during reading (National Assessment of Education Progress, 2011)

This quantitative research study examined the impact of leveled books on oral reading fluency and comprehension skills of first-grade students. This dissertation provided a comparison of first grade students who used leveled books with those who

did not use leveled books on their oral reading fluency rates and comprehension levels on the STAR Reading Test and the Developmental Reading Assessment.

Background

For the past 10 years, teacher accountability has become a primary focus of education with the implementation of No Child Left Behind Law (NCLB) of 2001. No Child Left Behind states that all students should be taught on their instructional level (Chatton, 2007). In order to do this, schools need to support individual curriculums. To support the individual opportunities in learning, children need support from a more experienced and trained person to assist the child's zone of proximal development (ZPD) (Vygotsky, 1978). This ZPD is the area between tasks that students can accomplish without guidance and the tasks that they cannot accomplish independently (Vygotsky, 1978). Students should be taught according to their ZPD level. Many educators find this task difficult because of the high numbers of students in their classroom and the various ability levels (Swanson, 2008).

Most elementary reading book series try to support all learners by offering a threetier system reading program: below-grade level, on-grade level, and above-grade level (Kontovourki, 2012). However, students do not always fit neatly into one of these three categories (Fawson & Reutzel, 2000). As elementary students improve their reading skills, they need a reading system that can grow with them. One suggested reading program that supports this idea is a leveled reader program (Glasswell & Ford, 2010).

Leveled reader programs are individual curriculums in which students can become fluent readers who can problem solve strategically and read leveled books independently and silently (Guastello & Lenz, 2007). Leveled books are a collection of books that vary

in the degree of difficulty in order to allow all students access to books on their instructional levels (Manning, 2006).

In 1996, Fountas and Pinnell renovated small group reading instruction now known as guided reading (Fountas & Pinnell, 2001). Guided reading is an approach that can be used with all levels of readers (Iaquinta, 2006). There are three purposes of guided reading:

- 1. Reach students on their instructional levels (Fountas and Pinnell, 2001)
- 2. Teach students to read challenging texts with fluency and comprehension (Fountas and Pinnell, 2001)
- 3. Have students gain meaning from texts while using problem solving strategies to determine unfamiliar words (Iaquinta, 2006).

Guided reading allows teachers to use explicit teaching to strengthen reading weaknesses in both oral reading fluency and comprehension through the use of leveled books (Avalos, Plasencia, Chavez, & Rascon, 2007).

Although the effectiveness of guided reading has been widely accepted, there is a great variety related to the leveled books used during guided reading. Most research on leveled books involves looking at students with English as a second language, giftedness, and disabilities rather than the general education student (Cunningham, Spadorcia, Erickson, Koppenhaver, Strum, & Yoder, 2005; Alvalos, Plasencia, Chavez, & Rascon, 2007; Housand & Reis, 2008). In 2005, Cunningham et al. found that leveled books provided some support on recognition of high frequency words, resulting in a small increase in students' oral reading fluency levels.

In 2007, Avalos, Plasencia, Chavez, and Rascon (2007), compared the results of guided reading with ESOL students and found that guided reading programs implemented by trained teachers increased student engagement and met students' literacy needs. In addition, guided reading allowed students to create and gain meaning, which allowed them to extend their reading and language proficiencies (Avalos, Plasencia, Chavez, and Rascon, 2007).

Housand and Reis, in 2008, reviewed the effects self-regulated learning strategies with gifted children using scaffolded (leveled) books. After observing two classroom settings, they discovered that student motivation and engagement in the texts allowed students to improve their reading (Housand & Reis, 2008). The results from this study are clear. If students are able to read the majority of text in books and comprehend it, their reading proficiency will improve. Unfortunately, these studies focused on students with exceptionalities, and the majority of the students in schools do not belong to this group. By studying the use of leveled books in the general education classrooms, teachers can evaluate the effectiveness they have on oral reading fluency rates and comprehension levels for all of their students.

Problem Statement

In 2009, President Barack Obama issued a challenge to all governors, school boards, principals, and teachers to improve education. If they are able to improve student achievement and turn around failing schools, then the state can win a Race to the Top grant (Jennings, 2011). With the Race to the Top initiative, schools' primary focus has become to improve early learning and development programs for students. The Race to the Top Fund is a competitive grant in nature that has been created to encourage and

reward states that provide high quality education to students (Pilotin, 2010). In order to support this initiative, educators need to support all learners.

The Race to the Top initiative does not provide financial support for many general education teachers. Since learners do not enter the classroom on the same ability level, then each student needs an independent curriculum to maximize his or her learning (Henning, Verhaegh & Resing, 2011). School districts are making attempts to make this form of curriculum available for students in all content areas. However, the majority of their focus is in reading and math (Pilotin, 2010).

Reliable and valid research must be conducted on leveled books program to evaluate their effectiveness within a school district. By using standardized assessments in this study, the researcher was able to identify whether significant differences existed in oral reading fluency and comprehension. Research has shown that oral reading fluency and comprehension are directly related to students' literacy levels. Literacy levels are also a predictor of future achievement in life. While research exists on leveled book programs, research that uses standardized assessments on oral reading fluency and comprehension is needed (Calhoon, Sandow, & Hunter, 2008; Cheatham, 2010; Ellis, 2011; Klein, 2011; Thames et al., 2008; Tobin, 2008).

This study will use STAR Reading Test (STAR) and the Developmental Reading Assessment (DRA) to determine students' oral reading fluency and comprehension levels. These assessments have been selected by the school district as an assessment tool. Students involved in this study will take two pretests (Developmental Reading Assessment and Star Reading). Once pretests have been completed, students will follow the protocol for the treatment or control group that their class has been randomly assigned

to. Finally, students will take two posttests (Developmental Reading Assessment and STAR Reading). All of the data will be collected and analyzed through the use of a statistical procedure known as an ANCOVA. An ANCOVA shows whether there is a statistical difference between groups on a dependent variable after controlling for other variables (Urdan, 2010).

Purpose Statement

A quasi-experimental non-equivalent control group design study was to comprehend whether or not there is a correlation between the type of reading program used and a child's reading performance. Oral reading fluency and comprehension are key components of the reading process (Beverly, Giles, & Buck, 2009; Kostewicz & Kubina, 2010). In order to improve these components, students need to follow an individual reading curriculum through the use of leveled books. Leveled books are essential to the growth of emerging readers (Thames et al, 2008). Therefore, the purpose of this quasi experimental study is to test the theory of Lev Vygotsky's Zone of Proximal Development that relates the use of leveled books to student achievement in both oral reading fluency and comprehension while controlling for initial reading level for first grade students at one elementary school.

Significance of the Study

The findings from this study proved to be statistically significant for oral reading fluency and did not prove to be statistically significant for comprehension. The research conducted will add to the literature on oral reading fluency and comprehension of first grade students who participated in reading leveled books. Many researchers have investigated the impact of leveled books on reading proficiency, but only one researcher,

Klein (2010), evaluated Reading A to Z leveled books program. This study was conducted by an independent researcher not subsidized by the Reading A to Z company.

The research findings were significant to the field of education because they provided quantifiable data that measured leveled book participants' oral reading fluency and comprehension on the STAR Reading Test and the Developmental Reading Assessment. Building on Klein's study (2010), this research included STAR and DRA assessment scores from four first grade classes. These assessments were selected to evaluate the effectiveness of Reading A to Z leveled books program.

By using the STAR and DRA assessments to measure pretest and posttest scores, the study selected nationally used and standardized measures of reading proficiencies (Beaver, 2006; Nunnery, Ross, & McDonald, 2006; Reading Renaissance, 2011; Weber, 2000). Previous research on leveled books only used teacher observations and surveys for assessment (Armstrong, Campos, & Johnson, 2001). These types of assessments are often considered subjective and unreliable (Rathvon, 2004; Spector, 2005; Wiener, & Hall; 2004).

The STAR and DRA are assessments that are used nationwide to assess students' reading progress during a school year. The findings from this study could help other school districts analyze the progress of students who read leveled books during independent reading. This research study will also contribute to the limited body of knowledge on effective reading instruction for first graders by describing the impact of leveled books on oral reading fluency rates and comprehension levels.

With No Child Left Behind Law mandating that all students read on grade level by 2014, educators must provide enough support to ensure students are reading on grade

level by the end their third grade levels.

Research Questions

Four research questions were developed:

- Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Fluency Test, when compared to first-grade students who did not participate in the leveled books program?
- 2. Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Fluency Assessment, when compared to first-grade students who did not participate in the leveled books program?
- 3. Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Comprehension Test, when compared to first-grade students who did not participate in the leveled books program?
- 4. Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Comprehension Assessment, when compared to first-grade students who did not participate in the leveled books program?

Research Hypotheses

The hypotheses were proposed:

 There will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

- There will be no statistically significant difference in Developmental Reading Assessment's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.
- There will be no statistically significant difference in STAR Reading's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.
- 4. There will be no statistically significant difference in Developmental Reading Assessment's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

Identification of Variables

Independent variable.

Leveled Books: books that vary in a degree of difficulty in order to allow all students access to books on his or her reading level (Manning, 2006; Pinnell, 2008).

Dependent variable(s).

Comprehension Scores: the measure of how well a student simultaneously extracts and constructs meaning through interaction and involvement with written language (Fisher, 2008). Students' comprehension scores will be calculated using a five- point scale rubric based on the amount of details they can recall from a given passage. If students are not able to read the text, little comprehension would be expected (Strickland, Ganske & Monroe, 2002). Through the use of leveled books, comprehension scores are expected to rise.

Oral Reading Fluency Rate Scores: the measure of how well a student reads text quickly, accurately, and with proper expression (Pikulski & Chard, 2005). Oral reading fluency

scores are calculated by adding students' reading rate (number of words in passage/ reading time in seconds multiplied by 60) and accuracy level (number of words read correctly in passage divided by the total words in passage) (Reading A to Z, 2011). If the text that students read is on their reading level, then the rate in which they read words will increase because they are not spending all of their time decoding too challenging words (Begeny, Krouse, Ross, & Mitchell, 2009). Since leveled books will be assigned to students based on their reading level, oral reading fluency rates should increase.

Definitions

Developmental reading assessment (DRA).

A criterion referenced test that evaluates student comprehension level and oral reading accuracy of readers (Weber, 2000).

Independent reading.

An independent reading session in which students choose a book to read, and read for ten minutes on a daily basis (National Reading Panel, 2011).

Reading A to Z- The leveled book program used in this study (Reading A to Z, 2011).

STAR reading assessment.

A software based assessment that determines the reading and comprehension level of readers (Nunnery, Ross & McDonald, 2006).

Trade books.

Published literature generally created to for the purpose of entertainment or informing (Neuman, 1999).

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter will review the literature on leveled books and its impact on oral reading fluency and comprehension. This review of literature will begin with the theoretical framework, followed by a discussion of research findings related to leveled books, oral reading fluency, and comprehension.

Theoretical Framework

The theoretical framework in this study corresponds to the social constructivist theory. Social constructivism states that society provides students with the cultural history, social context, and language to acquire knowledge (Wang, Bruce, & Hughes, 2011). The constructivist learning model states that individual development is based on the culture that the person resides (Wang, Bruce, & Hughes, 2011). Vygotsky is the major theorist that influenced the social constructivism (Tudge & Winterhoff, 1993).

Lev Vygotsky's social constructivist theory originated from the work he conducted during the 20th century. Compared to Piaget (cognitive development) and Bandura (social development), Vygotsky believed that all humans' cognitive development is directly related to social interaction (Vygotsky, 1978). Vygotsky (1978) stated that children begin constructing knowledge at birth. Leaning occurs when children make connections between their existing and new knowledge (Vygotsky, 1978). It is the role of the educator, whether parent, peer or teacher, to provide students with an educational environment so they can make meaningful connections with their prior knowledge.

A key component of social constructivism is the zone of proximal development (ZPD). ZPD is, "...the distance between the actual development level as determined by independent problem solving and the level of potential development as determined by through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1986 p.86). By providing students with curriculum at their ZPD level, students can build more complex understandings of curriculum then if they had content presented to them in a whole group setting (Kozulin, 1986).

In *Thought and Language* (1986), Vygotsky addresses how instruction should be delivered by stating, "Therefore the only good kind of instruction is that which marches ahead of development and leads it; it must be aimed not so much at the ripe as at the ripening functions. It remains necessary to determine the lowest threshold at which instruction in, say, arithmetic may begin, since a certain minimal ripeness of junctions is required. But we must consider the upper threshold as well; instruction must be oriented toward the future, not the past" (pp. 188-189).

Scaffolding is a temporary support that is provided so students can complete a task that they otherwise might not be able to complete (Van de Pol, Volman, & Beishuizen, 2010). The amount of scaffolding students receive should be based on the individual needs of the students. Since scaffolding is based on individual students' levels, the support given by educators varies according to the type task at hand and the learning styles of the students. As students become capable of completing tasks independently, the level of supports should lessen (Henning, Verhaegh, & Resing, 2011).

Scaffolding and zone of proximal development are often linked together in educational literature as synonyms, but they are two separate ideas (Wang, Bruce, &

Hughes, 2011). Scaffolding, originally developed by Wood, Bruner, and Ross (1976), is a concept that derived from Vygotsky's theory of ZPD. It is a type of help that students receive in order to master tasks that are in their ZPD and become more independent. In *Mind and Society* (1978), Vygotsky states, "What the child can do with assistance today, she will be able to do by herself tomorrow." (p. 87). Through scaffolding, learning can occur because it is presented on the child's ZPD level (Henning, Verhaegh, & Resing, 2011).

Review of the Literature

Brain-Based learning theory.

Brain-Based learning theory believes the brain is fully involved in, connected with, everything students and teachers do at school (Jensen, 2008). Therefore, education should be an engagement of strategies based on how the brain functions. Brain-Based education takes traditional teacher crafts and changes them to scientifically-based realm (Colburn, 2009). Brain-Based learning draws insight from neurology, psychology, technology, and other fields of science (Burnett, 2010). The components of Brain-Based learning use strategies that include goal setting, decision-making scenarios, visualization, case studies, mind mapping, logical thinking, and exercises that promote brainstorming (Jensen, 1995).

Eric Jensen (2008) is often credited with being one of the key theorists of Brain-Based learning theory (Colburn, 2009). Jensen believes that human brains are influenced by experiences in life and there is no difference if a person is in school (Jensen, 2012). Therefore Jensen concluded that there are four key areas schools and teachers need to improve inside of the classroom:

1. Students show neurological growth, the area correlated with memory, mood, and learning, is enhanced by good nutrition and exercise (Jensen, 2008).

2. The social environment of the classroom can influence students' brain to "become encoded through our sense of reward, acceptance, pain, pleasure, coherence, affinity, and stress" (Jensen, 2008, p. 411).

3. By providing students with specific brain-based skill building procedures can lead to remapping activity in the brains (Jensen, 2008).

4. Chronic stress and rehabilitation therapies also affect the brain (Jensen, 2008).

The role of the teachers who implement brain-based instruction is to eliminate the type of student that simply memorizes information and create students who make meaning with the content that they learn. Teachers are members of a classroom instead of the leader. Teachers help students create understanding by making links between previous knowledge and new knowledge (Jensen, 2008).

Jensen, 1995, notes that learning is a process that involves movement of the entire body. Jensen states "Learning physically changes the brain. Every new experience we encounter actually alters our electrochemical wiring" (Jensen, 1995, p. 30). The cerebellum is often linked to movement and the acts like the switchboard of cognitive activity, "The part of the brain known to control movement is involved in learning" (Jensen, 1998, p. 84).

Reading models.

Coady's (1979) model of reading supports social constructivism. Coady (1979) claimed that reading comprehension is directly impacted by the relationship between a conceptual abilities, background knowledge, and process strategy (Coady, 1979). Coady (1979) defined conceptual abilities as student's intellectual capacity, background

knowledge as the knowledge students have on the content being read, and process strategies as the student's knowledge of the subject and the ability to use this knowledge to make meaning with the text read (Coady, 1979). Beginner readers must be able to read 5,000 word families or 98% of the words in a text in order for reading to be more pleasurable and more accurate (Matsuoka & Hirsh, 2012). Coady states by increasing students' vocabulary levels, students will become more proficient readers who comprehend text (Lally, 1998).

Two additional models of reading were developed from Coady's model (Zainal, 2009). The first model is known as the 1986 constructivist model. This model has two components: text based and extra text based. Text based components include phonemic and grapheme features, word recognition, and syntactic (Lally, 1998). Extra text based components are perception, prior knowledge, and metacognition.

The second model was the multifactor model (Zainal, 2009). This model consists of three components: language, literacy, and world knowledge. The language component relates to the structure of the text in regards to word meaning, syntax, and morphology (Zainal, 2009). The literacy component involves students knowing how to approach a text and what to do with the text when it is presented. World knowledge is the last component of the multifactor model. World knowledge refers to the background knowledge of a reader (Zainal, 2009).

After analyzing these models, there are two similar components. Each model stresses the importance of students being able to decode words and make connections to the text and comprehend text in order to be successful readers (Lally, 1998). Students' ability to decode and automatically recognize words influences students' fluency rates

and comprehension (Begeny, Krouse, Ross, & Mitchell, 2009; Kostewicz & Kubina, 2010).

Legislation Impacting Elementary Education

No Child Left Behind.

In 2001, congress passed the No Child Left Behind Law (NCLB). NCLB requires all federal funded schools to set high expectations for student achievement. In addition school must measure, with standardized tests, how well students master these expectations (NCLB, 2008). Although each state is able to set the grade level standards and standardized tests used to measure the standards, NCLB stresses the importance of accountability of the states, schools, and teachers.

The No Child Left Behind philosophy states that all children can learn regardless of their ability level (Forte, 2010). Therefore, it is the responsibility of the states, schools, and teachers to make sure that learning occurs (United States Department of Education, 2004). The use of leveled books will be supported by an overview of the provisions of NCLB, with regards to accountability and responsibilities of the states, the schools and the teachers.

Under the No Child Left Behind Law, states have been mandated to provide a challenging academic standards at all grade levels (NCLB, 2001). These standards should specifically state what students should know and be able to perform in order to achieve the status of mastery. In addition, it is the role of the state to create a standardized test that measures and compares progress and achievement of all students in the same grade level. After assessments have been given, states become responsible for making sure that students in low performing schools receive resources that promote learning. Most

importantly, states are responsible for making sure that factors such as poverty, limited English proficiency, disabilities, or home life are not factors for non-mastery of standards (NCLB, 2008).

Another responsibility that falls on the states because of the No Child Left Behind is making sure that all teachers in the state are highly qualified. A highly qualified teacher is one that holds a bachelor degree and has received a state license to teach (Department of Education, 2004). One of the main reasons for this action was because it was discovered that many teachers were not certified to teach subjects that they were teaching. Soon questions arose about how a history teacher can effectively teach any other subject than history.

The answer became clear to the Department of Education; in order to provide the best education in all content areas, teachers need to be certified in the content area that they teach (Department of Education, 2004). This requirement also led to the restructuring of collegiate teaching programs and each state's assessments. Several experienced teachers had to return to school or take new assessments in order to become highly qualified.

The final responsibility that the states acquired was the job to monitor all of its schools' progress by deciding if schools made "Adequate Yearly Progress (AYP)" (NCLB, 2008). AYP is the measure of how well schools have met their annual objectives. These objectives not only include academic success but also factors such as how many students were given the state assessment and the attendance rate at schools. If necessary, states may have to take over the schools because of poor performance and

failure to meet AYP for several years. This could lead to the firing of an entire staff or school closings (Forte, 2010).

No Child Left Behind Law also places responsibility at the school level. All schools are responsible for taking and passing the state-selected yearly exams. These exams are mandated by the federal government; however, it is the responsibility of the schools to make sure that all students make progress during the year. In order to do this, schools need to monitor instruction in all of it schools.

Common Core Standards.

Once No Child Left Behind passed, school stakeholders tried to figure out ways to meet the demands of this act. The National Governors Association and the Council of Chief School Officers got together and developed a set of standards, Common Core Standards, for English Language Arts and Math in 2009 (National Governors Association for Best Practices & the Council of Chief School Officers, 2010). With the input from school administers, teachers, and educational experts the Department of Education was able to come together and develop a set of clear goals for all students from kindergarten to twelfth grade. These standards were adopted by Georgia in 2010 and full implementation started during the 2012-2013 school year (GaDOE, 2012).

Common Core Standards identify the learning strategies and cognitive processes that students need in order to acquire and retain the curriculum content (CCSSI, 2010). The expectation of these standards is to have all students college-and-career ready upon graduation from high school (National Governors Association for Best Practices & the Council of Chief School Officers, 2010).

Common Core Standards have currently been adopted by forty-five states and three territories. The adoption of these standards, which will continue into 2014, has caused teachers to reevaluate their method of instruction, and develop lesson plans that better meet each student's individual need (GaDOE, 2012).

Teacher accountability is a major component that comes with Common Core Standards. Teachers are familiar with an evaluation process that monitors how well they perform in the areas of instructional strategies, classroom managements, and even participation in school events. However, with the implementation of Common Core Standards, teachers will now be evaluated based on how well students perform on the Common Core Standards Assessment (National Governors Association for Best Practices & the Council of Chief School Officers, 2010).

Common Core Standards for English Language Arts contain more specific language than the previous standards. Common Core Standards strive for students to be able to read more complex text (CCSSI, 2010; Porter, McMaken, Hwang, & Yang, 2011). The increases in text levels were created to help students become successful in a global society (Hiebert & Mesmer, 2013). Due to this increase of text complexity, students are not able to meet the expected proficiency levels (National Center for Education Statistics, 2011). FIGURE 1 shows the change in the Lexile levels once Core Standards were adopted.



FIGURE 1 Common Core Lexile Levels

Source: Common Core State Standards, Appendix A (2010b), p. 8

History of Reading Programs In The United States

Reading instruction in the United States has been remodeled numerous times. During the 1600's, reading was centered on the Bible (Sakai, 2010). The entire focus of this reading curriculum was placed on children knowing how to read the entire Bible (Sakai, 2010). The introduction to the alphabet method evolves. In this method, children were asked to identify the letters and then represent the letter sounds for each letter. Students were also expected to read words with one syllable.

The next reading program to emerge was spellers. Spellers were books that had list of words that students practiced in order to become proficient oral readers. One of the most well-known spellers was created by Noah Webster (Robinson, 1977). This speller not only taught phonics and spelling, it also taught students how to correctly pronounce each word that they read. This model of reading followed the listen and repeat model. The teacher would read a word or group of word, and the students would repeat the words over and over until they could do it independently. Although numerous children learned using the listen and repeat model, students did not understand the information they read in school. Jean-Jacques, Johann Pestalozzi and Horace Mann believed that the textbooks were meaningless to the students and therefore thinking was not occurring inside of the classrooms. So teachers and other philosophers got together and created a new textbook for reading (Sakai, 2011). This new book included pictures and stories that students could connect to their everyday lives. The new reading books continued to be modified over the years. The new books first added whole word development, which focuses on identifying a word by shape and letter sounds.

In the 1950s, a strong emphasis was placed on phonics skills with emerging readers. It was believed that if a strong emphasis is placed on decoding words, students will improve in fluency and comprehension (Kim, 2008). Phonics lessons are often an intense program that schools follow in a systematic way in order to teach students letters and letter sounds when they are combined.

Then around 1970 the emergence of whole language reading instruction appeared. This movement initially appeared because all words in the English language do not follow phonics rules (Kim, 2008). Teachers began to make list of words that students should solely memorize and be able to recall the words by sight.

Independent (Reading) Curriculums

As Common Core Standards are rolled out across the country, teachers and students are feeling the pressure of increased proficiency levels and high stakes testing (Sanacore &Palumbo, 2010). Teachers have the responsibility of making sure that all students are presented with content that will support their learning. This differentiation of

content often makes it difficult for teachers to instruct an entire group of students on their independent levels. Schools are beginning to focus on the individual student which is causing the grade level curriculums to become very difficult to follow (Henning, Verhaegh, & Resing, 2011).

Independent reading curriculum is a reemerging trend that was created to meet students on their independent and instructional levels (Fisher, Frey, & Lapp, 2012). Fountas and Pinnell (2001) state that students learn how to read by reading texts that are on their independent and instructional reading levels. These independent leveled texts build students' content knowledge, which improves their oral reading fluency rate and comprehension levels (Meek, 2011).

To meet the needs of the diverse population of students within a classroom, teachers are implementing differentiated instruction. Differentiated instruction is a strategy that helps teachers create the best learning experience for an individual or group of students (Jones, Yssel & Grant, 2012). Teachers can differentiate instruction based on the content, the process, the product, or the learning environment (Tomlinson, 1999).

Differentiated instruction and independent (reading) curriculum are not the same (Henning, Verhaegh, and Resing, 2011). Differentiated curriculum is a modification to a common objective with in a classroom setting (Jones, Yssel, & Grant, 2012). All students are working towards a common goal in order to learn the content presented. Independent curriculum, in contrast, is a laid-out plan that helps students master personal goals set by themselves and the teacher and may not meet the curriculum maps (Molinda, 2012). For example, if the state standards want student to multiply two digit numbers but the student does not understand the concept of multiplication, a teacher may have to change the

student's curriculum in order to help the student master a skill that is not on grade level. The hope is that the student will eventually catch up with the curriculum map, but depending on the student meeting the grade-level goal may have to be postponed.

In 2003, Whitebread, Anderson, Coltman, Page, Pino Pasternak, & Mehta, explored the possibility of children being able to learn independently. The study took place in English Nursery and Reception classrooms. Using 16 teachers and their students, ages three to five, the study aimed to develop a model of development of children's independent learning, identify interventions that would encourage independent learning abilities, and devise practical ways for independent learning to occur in classroom settings (Whitebread et, al, 2003).

The Developing Independent Learning in children aged 3-5, conducted by Whitebread, Anderson, Coltman, Page, Pino Pasternak, and Mehta, in 2003, concluded that students learned a lot by watching one another, they are more motivated if they are encouraged instead of praised, and finally to be independent students need to both openended and child initiated task with scaffolding support. One of the researches in this study stated, "Learning is intrinsic to life and because it is this important children need to be the owners of their own learning; they won't see it as intrinsic to life if they don't own it themselves – everything they do must have a purpose which makes sense to them (Whitebread et al, 2003, p. 8).

Cunningham, Spadorcia, Erickson, Koppen Have, Sturm, and Yoder (2005) investigated how supportive Reading Recovery leveled texts were on early reading instruction. Cunningham et al, took 18 measures that would "indicate whether leveled texts have word-, sentence-, and discourse-level demands that support instruction that

teaches students to recognize high frequency words or that teaches them to decode unfamiliar words comprised of high- utility onsets and rimes" (p. 419). The study concluded that Reading Recovery leveled books provide some support for an instructional emphasis but were found to be inadequate support for instructional emphasis on decoding.

The New York Department of Education (2010), piloted a research program that provided students with individualized instruction based on the students' learning needs, resources available, and scheduling. The purpose of the School of One was to transform the traditional role of assessments, instruction, and scheduling in order to create a new model of instruction for schools to follow (New York City Department of Education's research and Policy Support Group, 2010). The initial findings of the study suggested that the School of One had potential but concluded that more research was needed.

In 2010, the School of One conducted another study to evaluate the impact of individualized curriculum models. Participants who participated in the School of One model showed a statistically significant difference in math achievement compared to those who did not participate. Both students and teachers also exhibited a more positive attitude about implementing individual curriculum (Light, Reitzes, & Cerron, 2009).

Henning, Verhaegh, and Resing (2012) conducted a study that evaluated independent curriculum. In this study, researchers used personalized instruction to see if children could solve visual spatial task in their natural setting (Henning, Verhaegh, and Resing, 2012). The original study used 15 students from a primary school in the Netherlands. The students were from seven to nine years old in age. The results from this study indicated that the students who received individual instructions on how to complete

a task showed a larger increase in performance compared to the control group. Students in the treatment group also showed an increase in the amount of time it took them to complete the task. By delivering instruction tailored to students' needs, participants in were able to complete the task presented to them.

The role of the teacher is to prescribe independent curriculums to provide tailored instruction that meets each student's individual needs (Allington, 2002). Teachers serve as a model that illustrates to students effective strategies that will help them decode unfamiliar words and gain better understanding of the text that they have read.

Areas of Reading

As a result of the NCLB, a group of educators collaboratively created a booklet that provides educators with effective researched methods to teach children reading (Wiener & Hall, 2004). The booklet also released the National Reading Panel's five key areas of reading: phonemics awareness, phonics, vocabulary, fluency, and comprehension. Although these areas are primarily focused on beginning and emerging readers, mastering these skills will impact students' success until completion of college (Chatton, 2007).

Therefore, it is critical that teachers understand and use instruction that supports phonemic awareness, phonics, vocabulary, fluency, and comprehension. Although this study will focus on Oral Reading Fluency rates and Comprehension Levels, it is important to identify and describe all of the areas of reading. This is primarily due to the fact that all of the areas of reading influence each other (National Reading Panel, 2011).

Phonemic awareness is described as one's ability to understand that all words are made from letters and that each letter produces a sound depending on the word that is being created (Verhagen, Aarnoutse & Leeuwe, 2009). Being able to identify letters and having knowledge of the sounds they make is a crucial skill in reading. A study conducted by Bus and Van Ijzendoorn concluded that students that are able to identify letters and produce the sounds that each letter makes are more likely to recognize words more quickly (Pollard-Durodola & Simmons, 2009).

Phonemic awareness does not happen automatically. Therefore, students need to be placed in environments that will build and promote phonemic awareness. Students should also receive explicit instruction and be allowed to practice every day in order to strengthen phonemic awareness skills (McGee & Ukrainetz, 2009). Verhagen, Aamoutse, and Leeuwe conducted a study on the effects phonological awareness on word recognition of students in kindergarten and first grade by the end of their secondgrade year. The results in this study showed that the level of phonemic awareness student possessed in kindergarten and first grade is directly related to their word recognition level in second grade (Verhagen, Aamoutse, and Leeuwe, 2009). Therefore the study concluded that phonemic awareness is more important for the prediction of word recognition accuracy.

Phonics is instruction in which students learn and understand the relationship between letters and the individual sounds letters form when combined. By being able to decode new words, through the use of phonics skills, students can more quickly figure out new words when they read (Swain Leader-Janssen & Conley, 2013). Phonics is different from phonemic awareness because phonemic awareness is based on

auditory skills and phonics is based on written words found in text (Kotaman, Tekin & Tekin, 2007). Although all of the words in a given text are not decodable through phonics, students with strong phonics skills are able to use context clues to determine new words (Beverly, Giles & Buck, 2009).

Phonics lessons are usually incorporated in all reading programs. However, the manner in which it is taught greatly influences its success. Phonics instruction should be explicit and help students make connections between letters and groups of letters when combined (Kotaman, Tekin, &Tekin, 2007). Teachers should also provide opportunities for students to apply their new phonics skills in the context of their everyday world (Wyse & Goswami, 2008). Beverly, Giles and Buck (2009) concluded explicit phonics instruction and reading practice of decodable book can be the stepping stone for successful comprehension levels. All of the 16 participants in the treatment groups showed significant gains on the DIBELS assessment.

Vocabulary has many meanings, but with regards to this study it is defined as students' ability to acknowledge and understand words in a text and conversation (Kessler, 2010). In order for students to understand what they are reading, it is important for them to have a large vocabulary background. This background knowledge will help them make connections and gain understanding with the texts that they read. When it comes to emergent readers, vocabulary is critical. Teachers can help these students improve vocabulary acquisition by reading various genres of texts and introducing new unfamiliar words in order for students to understand what they are reading (Firen, Santoro, Baker, Park, Chard, Williams & Haria, 2011).
Reading programs often introduce vocabulary words before students read a passage or text. This allows students to make connections with the new words and the content that they are presented in (Kessler, 2010). If students have a limited vocabulary, then understanding what they have read becomes very difficult (Lervag & Aukrust, 2010). Reciprocally, students with high vocabulary knowledge will have higher reading comprehension.

Fluency is defined as a student's ability to quickly and accurately read text with expression (National Reading Panel, 2000). Fluency is an important area of reading because it serves as the bridge between word recognition (phonemic awareness, phonics, and vocabulary) and comprehension (Atkins, 2011). The rate of fluency varies with each individual reader. However, the level the reader has been placed on determines the skills practiced on fluency. Fuchs, Fuchs, Hosp, & Jenkins, 2001) suggested that a student's oral reading fluency rate is a good predictor of the student's performance.

Beginning readers need to spend the majority of their time focusing on the accuracy of their reading by monitoring word recognition and word analysis abilities (Pikulski & Chard, 2005). Advanced readers, on the other hand, focus on accuracy and how quickly they can completely read a passage. It is imperative to note that reading a passage too quickly could cause damage to the level of understanding a reader gains.

Comprehension is the main purpose for reading. It is defined as one's ability to think, understand, and construct meaning from texts while reading (National Reading Panel, 2011). The level of comprehension that a student has depends on his or her ability to take written words and make connections with their own knowledge

(Johnston, Barnes, & Desrochers, 2008). Comprehension strategies should be taught to readers so that they can gain purpose for reading a text and stop any possible constraints to understanding the material they read. Students can improve their comprehension skills if teachers use explicit instruction, modeling, and independent practice (Pikulski & Chard, 2005).

In order for a reader to comprehend a text, three things must occur (Blachowic & Ogle, 2001). Readers must be able to focus on a given text and visualize what is happening in the text. Readers must also be motivated to read a given text by knowing the purpose for reading a book. Lastly, readers must possess various sets of knowledge that helps them identify new vocabulary and connect current knowledge and topic knowledge (Johnston, Barnes, & Desrochers, 2008).

Although the National Reading Panel identifies five separate areas of reading, they cannot exist without each other (Kontovourki, 2012). Comprehension relies heavily vocabulary and fluency. Vocabulary and fluency rates are influenced by students' ability to use their phonics and phonemic awareness skills to decode and read new words. Therefore, if students are weak in one of the areas of reading, their levels in the other areas of reading are typically also affected (Kotaman, Tekin & Tekin, 2007). For the purpose of this study, the five components of reading have been placed into two categories: Oral Reading Fluency (phonemic awareness, fluency and phonics) and Comprehension (vocabulary and comprehension).

Effective Reading Strategies

Students enter into the classroom on different ability levels. Regardless of this, teachers are expected to help all students' master standards. Ford and Optiz, 2002, offered these strategies to help teachers become more effective reading teachers.

- 1. State the reason the book was chosen as well as the purpose of the lesson
- 2. Provide an introduction to the book
- 3. Give students the topic of the book.
- 4. Evaluate and connect the book to student prior back ground number.
- 5. Make a strategy statement: How to decode the book.
- 6. Have students read the book independently
- 7. Teach a mini lesson (phonics, fluency, vocabulary, & comprehension)
- 8. Provide Feedback

Although this list of task seems simple, it is very complex (McPherson, 2007). If teachers chose to use these steps, then they will most likely use the basal book over leveled text. The reason for choosing basal books over leveled books is time. Would it be possible for a teacher to adequately follow these eight steps if the students all have different text books? The answer is no. Teachers, however need to realize that although it may be easier to use the basal book, students are not being taught on their instructional level. As a result, learning is not occurring.

Leveled Books versus Trade Books

Reading is defined as the ability of a person to possess skills in phonemic awareness, phonics, fluency and comprehension, and vocabulary (Pinnell, 2008). In order for a student to learn how to read, all of these skills should be taught and mastered (Pinnell, 2008). Pinnell states that there is a need for teachers to understand and redeliver the skills to students so that they may meet the expected outcomes. If teachers can find the balance of these components, students can be successful (Elder & Richards, 2008). In order for reading instruction to be effective, a teacher must provide ongoing observations, motivation, and frequent feedback. This section will discuss the most current reading instruction models.

There are two main types of reading programs a school can use for developing readers: leveled readers or basal readers. Leveled reader programs are individual programs where students become fluent readers who can problem solve strategically and read independently and silently (Guastello & Lenz, 2007). Leveled reading programs involve accurate data collection and reflection as well as a flexible teacher. While leveled readers are being implemented, teachers will keep running records and give frequent assessments to determine when a child is ready to move to a new reading level.

Basal reader programs are comprehensive core reading programs. Typically, they are purchased by a school district and used for all schools inside of the district (Fawson & Reutzel, 2000). They are scientifically- based reading programs that involve all of the elements of reading (Strickland, Ganske, & Monroe, 2002). In most cases, basal series are a way to guarantee that all students in a specific grade are receiving the exact same education.

Today's elementary schools use reading programs that come prepackaged and incorporate both programs (Fawson & Reutzel, 2000). This package typically contains a set of basal books, leveled books (for below grade level, on-grade level, and above grade

level readers), decodable books, and workbooks that support the books in the kit. The difficulty with these programs is that children do not always fit perfectly into a category and as a result they end up struggling or unchallenged (Glasswell & Ford, 2011). The new push for reading instruction is to teach students on their instructional level by using leveled text, but many programs are not designed to reach individual children but instead to make a one size fit all program that will educate the masses (Pinnell, 2008).

Leveled Books

Leveling books refers to both the practice of identifying the difficulty of the text levels and assigning specific levels to books (Glasswell & Ford, 2011). Based on the text level, students are matched with books that they should be able to fluently read (Kontovourki, 2012). Fountas and Pinnell, 1999, explain why matching readers to books on their level. "The young children we teach are building the network of understandings that make up a reading process....When children are reading a book that they can read, they are able to use many different sources of information from the text in a smoothly operating system." (Fountas & Pinnell, 1999 p. 1)

Schools that support leveled book programs provide daily opportunities for students to increase their oral reading fluency (Fountas & Pinnell, 2003). Teachers initially support the readers by modeling appropriate fluency, and then allow the students opportunities to practice independently. When students use their word solving strategies to read text, they become better at reading words accurately and automatically, which results in students being to focus more on the meaning of the text (Fountas & Pinnell, 2003).

The goal of leveled books is to provide students with a set of books that are "just right" (Kontovourki, 2012). "Just right" books are those books given to students and are on the student's instructional level where they are able to read the majority of the words quickly with a high accuracy level (Fountas & Pinnell, 1999). Fountas and Pinnell created a leveling system that corresponds to the letters of the alphabet. The difficulty of the text increases as it gets closer to level Z. By leveling texts, teachers and students are able to pace themselves as they become more proficient readers (Jones, Yssel, & Grant, 2012).

Challenges with Leveled Books Programs

Leveled books programs create many challenges for educators. One of the most common challenges is the formulas used to level the text. With a variety of leveling systems, Fountas and Pinnell, Fry's, and Lexile, it is possible for one book to be placed into different levels even though the content is identical (Hiebert, 2010). Most readability formulas focus on the frequency of vocabulary words, the complexity of the language, the length of the sentences on the page, repetition of vocabulary words and syntax structure (Strickland, Ganske, & Monroe, 2002).

Once books are leveled, regardless of readability formula, a teacher needs to assign students to a reading level. Unfortunately, in one classroom it is possible for a teacher to have as many as ten reading levels in the classroom. These ten reading levels leads to ten guided reading groups in one English Language Arts time block and one teacher. In order to reduce the number reading groups, students are often grouped together by the number of students instead of their actual reading levels. As a result, their

ZPD is not met, and maximum reading instruction is not achieved (Glasswell & Ford, 2010).

With No Child Left Behind Law pushing schools to guarantee that all students master the standards, many schools have leveled book rooms. A leveled book room is a collection of pre-leveled text that teachers can use to conduct guided reading. When teachers walk into the book rooms, they just find the levels they need and leave instead of focusing on the content and skill that each book promotes (Brabham & Villaume, 2002).

Complications with Properly Assessing Students

Teachers should administer a reliable reading assessment test that will reveal a student's Lexile or Fountas and Pinnell levels (Pinnell, 2008). These assessments will focus on the five area of reading: vocabulary, fluency, comprehension, phonemic awareness, and phonics. Students are assessed first on a grade level text, but if necessary they get assessed on a lower or high level (Rathvon, 2004). Unfortunately, there are some complications when using reading assessments because most of these assessments involve one on one testing, which takes away teaching time (Fawson,& Reutzel, 2000).

Most reading assessments are given to students on an individual basis, making the result from the assessments subjective (Invernizzi, Landrum, Howell & Warley, 2005; Rathvon, 2004). Teachers answer yes or no questions while the students read text and answers questions about the text. These types of assessments do not allow partial credit for answers that are no exactly accurate. So either the teacher gives students full credit for an incomplete answer, or they mark answers wrong when students partially

answered the assessment question (Spector, 2005). Assessment companies have attempted to use rubrics for their assessments to create more reliable result, but unless the assessment states the exact answer that student should give, the assessments remain subjective (Wise et al., 2010).

One of the key components of a reading assessment is running records. Running records is when a student and teacher have the same text, and as the student is reading, the teacher checks off the correct readings of words (Thames et al., 2008). During the time that a running record is being conducted, teachers are also responsible for recording miscues, omissions, self-corrections, and sounding out words (Spector, 2005).

Since students are assessed on their reading levels, their fluency during assessment is sometimes too quick for teachers, and they are not able to keep up with their marking on the running records. As a result, sometimes teachers have to ask the students reread the page, which jeopardizes the authenticity of the assessment. This is because students do better when they reread the same material repeatedly (Beverly, Giles & Buck, 2009 ; Musti-Rao, Hawkins & Barkley, 2009).

Once students have been assessed, the data provided to teachers is often ignored (Invernizzi, Landrum, Howell & Warley, 2005; Rathvon, 2004). According to the data results, students will fall into specific group based on a range of categories. Based on these categories, students reading ability is place into a specific reading level (Weber, 2000). However, a student may still be placed into the wrong reading level. It is possible for a student to have strong phonics skills and can read a text four grade levels higher than their current grade, but their comprehension level is two grade levels below their actual grade placement (Tobin, 2008).

Teachers now have to decide where to place this student based on their observations instead of assessment data (Kontovourki, 2012). Should the student be moved down to their comprehension level (texts would be too easy and boredom may occur), up to their phonics level (texts would be appropriate but there would be no comprehension), or stay on grade level (texts would be too easy comprehension would be too hard)? The majority of teachers would place the student in the group that works best for the structure of the class (Gusstello & Lenz, 2007; Klein, 2010). If they had several students who were struggling with phonics, the student would not be placed in that group in order to build comprehension; likewise if the on grade level students has great comprehension skills, a teacher would not place the student in that group either (Tobin, 2008).

Complications with Grouping Students

Once assessed, students should be placed in groups based on their weaknesses. This placement into groups also raises some complications. Students have various reading ability levels. As a result, it is very hard to correctly place them into a group that is perfect for them. Students' groups should be one that allows them to grow, a process known as scaffolding. Scaffolding is a process in which the learner participates in the full performance of a given activity to the degree that they are capable of (Reutzel, Fawson & Smith, 2008).

The teacher-student ratio during small group instruction also complicates reading instruction (Begeny, Krouse, Rose, & Mitchell, 2009; Strickland, Ganske, & Monroe, 2002). A teacher may be able to work with four or five students at a time, but the students are not getting the one-on-one support for their weaknesses. For example,

if a student does not know the correct sound for /e/, a teacher, in a one-on-one, situation, can serve as a model and can help the student master the skill. On the other hand, if the student is the only person in the group that has not mastered that skill, the teacher may focus on a different topic which could cause the student to fall further behind.

When grouping students, the availability of materials also influences the groups a student is placed in (Strickland, Ganske & Monroe, 2002). When students are in groups and they need specific materials such as dictionaries, magnetic letters, or computers, teacher need to make sure that all students, regardless of their group, can use all the materials. One of the most complicated materials is the computer (Strickland, Ganske & Monroe, 2002). Some students know exactly which link or website to log on to, while others take thirty minutes to type in the web address. If they spend their entire group time typing in the address, then they did not work on the skill that was intended.

A teacher's ability to know when students are ready to move to a different reading level is a complex process (Kontovourki, 2012; Rathvon, 2004). Students show progress at a different times and knowing when a child is ready for change is often a subjunctive change (Allington, 2002; Guastello & Lenz, 2007). Most of the time teachers notice small spurts of growth, and move the child to a higher group (Manning, 2006). Wilde, Goerss, and Wesler (2006) recommend that teachers use more than one assessment to make sure that students growth spurts are not random but instead are accurate measures supported by data.

In order to gain authentic data, teachers should document the progress, and when they feel like the student is ready to move up they should once again administer

the assessment to see if the student has truly made growths in reading. If the teacher is unable to reassess the student, then there might be harmful long-term effects on the students. Students will begin to show strengths in one of the area of reading (comprehension, phonics, phonemic awareness, vocabulary, or comprehension) because they have mastered their skills. However, the same students may have massive delays or difficulties in another area. Students should be holistic readers instead of masters in small areas (Dunn, 2010; Scheirs & Timmers, 2009).

Summary

Leveled book reading programs have become a key component of current reading programs. They have been found to support the No Child Left Behind (NCLB) federal mandate that states all students should be proficient in English Language Arts and Mathematics by the year 2014 (Jennings, 2011). Leveled books allow students to comfortably progress at their own pace which tends to reduce frustration levels of emerging readers (Brabham & Villaume, 2002).

Some studies have suggested that statistical significant gains have occurred in students' oral reading fluency and comprehension levels when leveled books were used to instruct reading, while other studies show that little gains were made when leveled books were implemented. The amount of growth a leveled book produces can be measured by many instruments. However, not until student gains are measured and data is analyzed can the leveled book programs be identified as a successful reading program for emerging readers.

This study looked at the data of first-grade students who participated in leveled book reading instruction programs to see if significant gains would be made in the areas

of oral reading fluency and comprehension skills. The STAR Reading Literacy and Developmental Reading Assessment were used to measure the differences in student progress over a 10-week period. Chapter 3 will provide an in depth description of the study's research design and methods that occurred during the study. It will also include details of the participants, instruments used throughout the study, and an explanation of how the data was analyzed.

CHAPTER 3: METHODOLOGY

Introduction

This quasi-experimental, non-equivalent control group design was designed to evaluate the impact of leveled books on first grade students' oral reading fluency rate and comprehension level when measured by the Standardized Test for the Assessment of Reading (STAR Reading Assessment) and the Developmental Reading Assessments (DRA). This chapter is designed to explain the methods used for this study. In addition, it will provide a description of the following subsections: design, research questions, participants, setting, instrumentation, procedures, and data analysis.

Research Design

A quasi-experimental, non-equivalent control group design has been chosen to determine if students' oral reading fluency and comprehension skills will differ based upon the incorporation of leveled books used during independent reading. The purpose of non-equivalent group design is to assess the relative effectiveness of the different treatment (Campbell & Stanley, 1963). Non-equivalent control group designs are appropriate for studies involving preexisting groups of participants (Urdan, 2010). Since the classrooms were intact before the study began, participants were assigned to either the treatment or control group based on the random assignment of their classroom (group).

Pretests were given to all participants. Campbell and Stanley (1963) recommended using pretest to evaluate the similarity between the treatment and control groups before the treatment was administered and to statistically adjust for preexisting differences. By initially assessing participants, comparisons of the change in pretest and

posttest across the two groups can occur, which will remove any preexisting differences (May, 2012).

After pretests were administered, students' oral reading fluency and comprehension levels were analyzed. Students in the treatment group classes received 10-weeks of leveled books implementation during silent reading time in their classrooms for 10-minutes each day with their regular classroom teachers. Students in the control group classes had their normal reading instruction without the use of leveled books but still participate in daily 10-minute silent reading time. Throughout this 10-week study, students in the both groups continued receiving their normal reading instruction during the whole class reading period in their classroom. After 10-weeks, all students in the study took individual posttest that determined their oral reading fluency and comprehension scores. Once all data was collected, an ANCOVA determined if the independent variable of leveled books made a statistically significant difference in oral reading fluency and comprehension skills compared to the dependent variable for students who did not read leveled books.

Research Questions and Hypotheses

The research questions for this study were:

- Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Fluency Test, when compared to first-grade students who did not participate in the leveled books program?
- 2. Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Fluency Assessment,

when compared to first-grade students who did not participate in the leveled books program?

- 3. Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Comprehension Test, when compared to first-grade students who did not participate in the leveled books program?
- 4. Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Comprehension Assessment, when compared to first-grade students who did not participate in the leveled books program?

The hypotheses were proposed:

- There will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.
- There will be no statistically significant difference in Developmental Reading Assessment's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.
- 3. There will be no statistically significant difference in STAR Reading's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.
- 4. There will be no statistically significant difference in Developmental Reading Assessment's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

Participants

A convenience sample was used from previously-formed elementary classrooms. The participants in this study included 66 students in four first-grade rooms. The treatment and control group both had 33 participants. The treatment group used leveled books during 10 minutes of independent silent reading. The control group used traditional, non-leveled books during 10 minutes of silent reading number. There were 43 males (65%) and 23 females (35%). The ethnic make-up of the participants was 2 Asian students (3%), 24 African students (36%), and 40 African American students (60%). As first grade students, all participants were between six and eight years old at the beginning of the study. The average age of the participants was seven years and six months. Each classroom was randomly placed into the control or treatment group. The reason for 66 participants is so that the power of this study remained at 0.80.

The teachers involved are all certified teachers in the state and have at least a bachelor's degree in early childhood education for grades pre-kindergarten to 5th grade. All have a minimum of six years of teaching experience. The teachers in this study followed the school districts' curriculum map, and all taught the same reading skills for the first semester of the 2012-2013 school year. All reading skills taught were aligned with the pacing chart and curriculum maps outlined by the state and district. All involved teachers were trained on how to properly administer both of the assessments and conduct 10 minutes of daily silent reading time. The teachers who were randomly placed in the treatment group also received additional training on the expectations of using leveled books.

Setting

The population for this study comes from elementary school located in the southern hemisphere of the United States. The population of the town, according to the United States Census (2011) was 699, 893. This child population in the county where the school is located is 219,066 (GaDOE, 2012). The total enrollment for Elementary 1 in 2012 was 541 (GaDOE, 2012). There are several private, theme, and magnet schools that children in the school district attend. Ninety-four percent of the students at Elementary 1 receive free and reduced means (GaDOE, 2012).

Instrumentation

The test instruments, STAR Reading and DRA, were given to each student individually as both the pre and posttest. STAR Reading Test and DRA assessed oral reading fluency and comprehension. Oral reading fluency is an important and significant predictor of reading comprehension (Wise et al., 2010; Musti-Rao, Hawkins, & Barkley, 2009). Therefore, this study solely focused on oral reading fluency and comprehension skill scores.

Both instruments chosen for assessment in this study (STAR Reading and the Development Reading Assessment) were used as students' pretest and posttests. However, students do take different versions of the assessments on the STAR Reading Assessment and Developmental Reading Assessment to guarantee testing effect. Below is the purpose for each test and its level of reliability and validity.

STAR Reading Assessment is a computerized assessment tool that takes approximately 10 minutes for each student to complete. It produces three types of scores: scaled score, criterion-referenced scores, and norm-referenced scores (Wilde, Goerss, & Wesler, 2003). Each score measures student progress differently. Scaled scores make

the test scores comparable to all students taking the test (Nunnery, 2006). Criterionreferenced scores measure what a student knows or can do at test time (Wilde, Goerss & Wesler, 2003). Norm-referenced scores compare students' test scores to the entire group of test scores who have taken the same test (Nunnery, Ross, & McDonald, 2006). The STAR Reading Assessment, like other standardized tests, also reports a standard score, percentile rank, percentile rank range, grade-equivalence, and instructional reading level of each student that is assessed.

The data that STAR Reading Assessment provides is available for me to analyze instantly after the participants complete it (Reading Renaissance, 2011). The assessment provides an objective measurement of the growth in comprehension over a given time period. The STAR Reading Assessment has an average reliability level of 0.85 (Reading Renaissance, 2011; Wilde, Goerss & Wesler, 2003), making it a reliable instrument for assessment of comprehension. The STAR Reading Assessment has been compared with other well established measures of reading achievement and the results suggests it is a valid measure of reading achievement (Wilde, Goerss & Wesler, 2003).

Developmental Reading Assessment (DRA) is a paper pencil assessment tool that takes between 6-20 minutes for each student to complete. It assesses students' phonemic awareness, phonics, vocabulary, reading engagement level, comprehension, and oral reading fluency level by calculating students' words per minute rate and asking students questions about the passage they have read. For the purpose of this study, students' oral reading fluency rates and comprehension levels will be the only data analyzed. The scores on the oral reading fluency subtest will be represented as words per minute that a student reads. Comprehension scores will be represented by a raw score on a rubric.

The data that the DRA provides is also available immediately after students take the assessments (Beaver, 2006; Rathvon, 2004). The difference between the pre and posttest scores will show the progress in oral reading fluency and comprehension scores of the students during the time of the study. DRA has an average reliability level of 0.95 with students in first grade through third grade (Rathvon, 2004), making it a reliable assessment of fluency for trained administrators. Some research states that the DRA is not a validated instrument due to the discretion by teachers' methodology when assessing students (Spector, 2005; Iveernizzi, Landrum, Howell, & Warley, 2005). This instrument was chosen because it has been mandated by the school district.

In order to maintain the internal consistency for this study, the participants took two versions of the assessments. Each assessment that was used provided the researcher with an assessment that measures identical skills in the areas of oral reading fluency and comprehension. By having different versions of the pre and posttest, the researcher avoided changes in scores due to memorization, frustration from repeating the same test, and errors in the procedures of the test because the assessor is too comfortable in giving the assessment and as a result he or she does not follow guidelines.

Procedures

This research was conducted by following specific step-by-step procedures in the following paragraphs. After applying and gaining approval from Liberty University and the participating school board's internal review board (IRB), the research was executed in September of 2012. The participating teachers were notified that permission to collect participant data was granted from Liberty University's Institutional Review Board (IRB)

and the school districts' IRB. Pretests were administered to all participants by either the classroom teacher or the researcher during the prescribed testing window.

The STAR Reading Test and DRA were administered early in the first semester of the school year as pretests. The initial results were used to determine the similarity between the groups and statistically adjust for differences (Campbell & Stanley, 1963). In 2006, Ary, Jacobs, and Sorensen stated, "The pretest enables you to check on the equivalence of the groups on the dependent variable before the experiment begins...and use ANCOVA to statistically adjust the posttest scores for the pretest differences." (p. 342).

The participating teachers administered both the STAR Reading Test and the DRA as the pretest and posttest. All testing materials were provided by the school district. Data were gathered by the classroom teachers and picked up by the researcher from Elementary A. When collecting data, each participant was given an identification number. The students' name and identification number were stored on flash drive A to protect student identity. Identification numbers and test results were inputted into the SPSS grid and stored on flash drive B. The use of student names was needed to match all data collected from student assessments.

Since classes were already intact when the study began, it was not feasible to randomly place students into either the control or treatment group. Therefore, entire classes were randomly assigned to either the treatment or control group. Participants in the treatment group used leveled books during daily ten-minute silent reading time. Participants in both the treatment group and the control group received their normal

reading instruction from their classroom teacher. A total of 66 participants completed this study by taking the pretest and posttest.

Data Analysis

All test scores will be checked for accuracy. The statistical procedure, ANCOVA, was used to determine if students' oral reading fluency and comprehension skills will differ based upon the incorporation of leveled books used during independent reading. An ANCOVA is used to determine if significant differences between two groups on the dependent variable exist while controlling for other variables (Siegle, 2002; Urdan, 2010). Therefore, this statistical procedure determined the effect of leveled books on oral reading fluency and comprehension.

To determine the number of participants needed for this study, a statistical calculator will be used. First, the power was set to 0.80, the p value to 0.05, and the effect size to 0.4. These numbers have been chosen based on correlations for a strong study (Urdan, 2010). The statistical calculator claims in order to have a power of 0.80, p value of 0.05, and effect size of 0.4, then the sample size should be at least 66 participants with 33 participants in each group. This is why four classrooms were selected for this study. On average, each classroom had between 20-25 students to make a sample size 100 for this study. However, since there is a possibility of participants removing themselves from the study, extra participants were placed in both groups.

The pretest and posttest scores were compared by looking at their percentile rates, their grade equivalence scores, and their standard scores in both oral reading fluency and comprehension. From these comparisons, the average gains for the groups and the class subgroups with regards to fluency and comprehension was exposed. The gains of the

groups were calculated by taking the mean scores of the pretest scores and the mean scores of the posttest scores and finding the differences between them. The scores were compared to the predicted scores by using an ANCOVA. The results of this study are located in Chapter 4. The graphs, tables, and narrative explanations illustrate how the data were analyzed.

CHAPTER FOUR: FINDINGS

Chapter Four provides the results of the statistical analysis performed on the collected data though the use of IBM® SPSS version 19. The purpose of this study was to examine the effectiveness of leveled books on first grade students' oral reading fluency and comprehension scores. The independent variable was books, either leveled books or trade books. The dependent variable was performance on the STAR Reading Test (STAR) and the Developmental Reading Assessment (DRA). The research questions and the null hypotheses for this study are:

Research question 1: Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Fluency Test, when compared to first-grade students who did not participate in the leveled books program?

Null hypothesis 1, H_o: There will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

Research question 2: Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Fluency Assessment, when compared to first-grade students who did not participate in the leveled books program?

Null hypothesis 2, H_o: There will be no significant differences in oral reading fluency scores, as measured by the Developmental Reading Assessment pretest and posttest, for the treatment group, who used leveled books during silent reading time, and the control group, which did not use leveled books during silent reading time.

Research question 3: Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Comprehension Test, when compared to first-grade students who did not participate in the leveled books program?

*Null hypothesis 3, H*_o: There will be no statistically significant difference in STAR Reading's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

Research question 4: Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Comprehension Assessment, when compared to first-grade students who did not participate in the leveled books program?

Null Hypothesis 4, H_o: There will be no statistically significant difference in Developmental Reading Assessment's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books.

The results yielded from this study are described in this chapter. Data related to each hypothesis are presented in this chapter. The collected data were sorted into the following categories: STAR Fluency pretest and posttest, STAR Comprehension pretest and posttest, DRA Fluency pretest and posttest, DRA Comprehension pretest and posttest, and group (treatment or experimental). An alpha level of 0.05 was used for all tests.

Descriptive Statistics

Sixty six students, from four first-grade classrooms, completed this study. Thirtythree students were in the treatment group and 33 students were in the control group. All of the participants, who took the pretests, completed this study. This study was equally distributed by gender with 35 male participants (53%) compared to 31 female participants (47%). All of the participants in this study have been identified as African American (60%), Asian (3%), or African (36%). All participants' race was reported by the STAR Reading Assessment.

Descriptive statistics for the STAR Reading Assessments and the Developmental Reading Assessment pretest and posttest results are listed in Tables 4.1 and 4.2. STAR Reading Test is a 25-question multiple choice assessment designed to analyze student's reading proficiency level. Pretest and posttest means were out of 25 correct answers.

After transformation of the STAR Fluency assessment (Ln), the treatment group had a mean pretest score of 2.320 (SD=1.381) and a posttest mean score of 3.593(SD=0.660), which was an increase of 1.273. The control group had a mean pretest score of 2.671 (SD=1.262) and a posttest mean score of 3.289 (SD 0.899), which is an increase of 0.618.

The mean scores and standard deviations for the DRA Fluency measures also showed increases between the groups. The treatment group had a pretest score of 52.904 and posttest of 76.197, which is a difference of 23.293. The control group had a pretest score of 61.631 and posttest scores of 70.589. The difference between the pretest and posttest scores is 8.976.

The STAR comprehension assessment scores were sorted by group. The treatment group had mean pretest score of 50.485 and posttest score of 73.477. The difference between the pretest and posttest scores was 22.992. The control group had mean pretest

score of 51.121 and mean posttest score of 67.852. The difference between the pretest and posttest scores was 16.731.

After transformation of the DRA comprehension assessment (Ln), n mean scores and standard deviations measures showed the treatment group's mean pretest score were 4.018 and posttest scores were 4.316, which is a gain of 0.205. The control group had a pretest score of 4.316 and posttest score of 4.296, which is a difference of 0.02.

Table 4.1

Assessment	Group	Ν	Μ	SD
	Treatment	33	2.320	1.381
STAR Fluency Pretest	Control	33	2.671	1.262
	Total	66	2.496	1.325
	Treatment	33	3.593	0.660
STAR Fluency Posttest	Control	33	3.289	0.899
	Total	66	3.441	0.797
STAR	Treatment	33	50.485	18.785
Comprehension Pretest	Control	33	51.121	17.571
	Total	66	50.803	18.051
STAR -	Treatment	33	73.477	14.122
Comprehension Posttest	Control	33	67.852	13.943
Posttest	Total	66	70.664	14.230

Descriptive Statistics for STAR Reading Assessment

Descriptive Statistics for Research Questions 1 and 3

Table 4.2

Descriptive	Statistics for	Developmental	l Reading As	ssessment
		4	0	

Assessment	Group	Ν	Μ	SD
DRA Fluency Pretest	Treatment	33	52.904	10.681
	Control	33	61.613	18.589
	Total	66	57.259	15.670
DRA Fluency Posttest	Treatment	33	76.197	9.133
	Control	33	70.589	16.222
	Total	66	73.393	13.364
DRA Comprehension Pretest	Treatment	33	4.018	.530
	Control	33	4.223	.094
	Total	66	4.120	.392
DRA Comprehension Posttest	Treatment	33	4.316	.266
	Control	33	4.296	.086
	Total	66	4.306	.196

Descriptive Statistics for Research Questions 2 and 4

Analysis of Covariance (ANCOVA) Summary

Using IBM SPSS version 20, all data were analyzed. ANCOVA was used to determine whether there were differences in posttest scores for the treatment and control groups once the pretest scores were considered the covariate. Assumption tests for homogeneity of regression slopes were conducted to make sure that no violations occurred. The between-subject tests confirmed that the interaction between independent variable (group) and the covariate (pretest scores) was not significant: STAR Fluency (F (1, 62) = .045, p > .05); STAR Comprehension (F (1, 62) = .047, p > .05); DRA Fluency (F (1, 62) = 2.266, p > .05); DRA Comprehension (F (1, 62) = .024, p > .05)). Levene's Test for Equality of Variances was run and determined the p-value for the dependent variables to be greater than 0.05 which met the assumption for the equality of variances (see Table 4.3).

The Analysis of Covariance (ANCOVA) was used to find significant differences between groups on the dependent variable while controlling for other variables (Siegle, 2002; Urdan, 2010). An ANCOVA was run for oral reading fluency and comprehension scores. The dependent variable was posttest scores, the fixed variable was group (treatment/ control), and the pretest scores were the covariate. Oral reading fluency rates and comprehension levels were measured by two assessments: STAR Reading Test and DRA.

Table 4.3

	F	df1	df2	Sig
STAR	1.500	1	64	.225
FLUENCY				
DRA	3.472	1	64	.067
FLUENCY				
STAR	1.049	1	64	.310
COMPREHENSION				
DRA	5.363	1	64	.024
COMPREHENSION				

Levene's Equality of Variance Test

After the analyses of the mean posttest scores of both the treatment and control group, the ANCOVA results established that there was a statistically significant difference between the groups measured by the STAR Fluency Test, the DRA Fluency Assessments, and the STAR Comprehension Test. The effect size for each ANCOVA was calculated the results stated: the STAR Fluency effect size was .519, DRA Fluency effect size .208, STAR Comprehension .334, and DRA Comprehension .143. Results for oral reading fluency and compression levels are shown in Table 4.4, Table 4.5, Table 4.6, and Table 4.7. The significance level alpha was set at 0.05 for all statistical tests.

ANCOVA results indicated that there were no statistical significant differences between the treatment and control groups' comprehension score when measured by the DRA Comprehension assessment p>.0005. The results for comprehension are shown in Table 4.4.

Table 4.4

ANCOVA Results: STAR Fluency Posttest

Source	Df	MS	F	Sig.
Corrected Model	2	13.928	65.142	.000
Intercept	1	70.370	329.135	.000
Pretest	1	26.322	123.113	.000
Group	1	3.654	17.090	.000
Error	63	.214		
Total	66			

R Squared=.674 (Adjusted R Squared = .664)

Table 4.5

Source	Df	MS	F	Sig.
Corrected Model	2	5149.179	247.560	.000
Intercept	1	2995.302	144.007	.000
Pretest	1	9779.560	470.178	.000
Group	1	2456.193	118.088	.000
Error	63	20.800		
Total	66			

ANCOVA Results: DRA Fluency Posttest

R Squared=.887 (Adjusted R Squared = .884)

ANCOVA results established that there were statistically significant differences between the treatment and control groups' posttest oral reading fluency and comprehension scores measured by STAR Fluency, DRA Fluency, and STAR Comprehension. However, ANCOVA result established that the fixed factor variable, group, was not a statistically significant for comprehension posttest score when measured by the DRA, p>.005. Therefore, this study was able to reject Null Hypotheses 1, 2, and 3, but failed to reject Null Hypothesis 4.

Table 4.6

Theo VI Results. STIR comprehension resi								
Source	Df	MS	\overline{F}	Sig.				
Corrected Model	2	4198.983	55.964	.000				
Intercept	1	11487.419	153.105	.000				
Pretest	1	7875.868	104.970	.000				
Group	1	596.444	7.949	.006				
Error	63	75.030						
Total	66							

ANCOVA Results: STAR Comprehension Test

R Squared=.640 (Adjusted R Squared = .628)

Table 4.7

Source	Df	MS	F	Sig.
Corrected Model	2	1.127	284.393	.000
Intercept	1	2.814	710.321	.000
Pretest	1	2.247	567.138	.000
Group	1	.223	56.387	.000
Error	63	.004		
Total	66			

ANCOVA: DRA Comprehension Test

R Squared=.900 (Adjusted R Squared = .897)

Descriptive and inferential statistics were collected, and an ANCOVA was used to determine if there was a statistically significant difference in posttest scores between the control and treatment groups with the pretest scores as a covariate.

Null Hypothesis and Research Question One

This study investigated the impact that leveled books would have on first-grade students' oral reading fluency rate and comprehension level during silent reading time. Research question one asked do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Fluency Test, when compared to first-grade students who did not participate in the leveled books program? The first null hypothesis states that there will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books. The results from the ANCOVA indicated that there were significant differences between the treatment and control group's posttest fluency scores on the STAR Reading Fluency Assessment: F (1, (63) = 24.029, p<.0005, partial n²=.276 (See Table 4.8) with the treatment group estimated marginal mean of 3.711 (Std. error = .063) which was significantly higher than the control group posttest mean of 3.272 (Std. error= .063). The power was .983. The partial n² value of .276 indicates that 27.6 % of students' gains were related to the type of book read during silent reading time. Based on the results from the ANCOVA, null hypothesis one, which stated there will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books, was rejected.

Null Hypothesis and Research Question Two

Research question two asked, "Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Fluency Assessment, when compared to first-grade students who did not participate in the leveled books program?" The null hypothesis stated there will be no significant differences in oral reading fluency scores, as measured by the Developmental Reading Assessment pretest and posttest, for the treatment group, who used leveled books during silent reading time, and the control group, which did not use leveled books during silent reading time.

The main effect of type of book used was statistically significant F (1, 63) = 118.09, p<.0005, partial n²=.652 with the treatment group having an estimated marginal mean of 79.748 (std. error = .811) and the control group having an estimated marginal mean of 67.038 (std. error = .811) (see Table 4.9). Therefore, gains in posttest scores were dependent on the group. Null hypothesis two, which states that there will be no significant differences in oral reading fluency scores, as measured by the Developmental Reading Assessment pretest and posttest, for the treatment group, who used leveled books during silent reading time, and the control group, which did not use leveled books during silent reading time was found to be statistically significant at the p > .05 level.

Null Hypothesis and Research Question Three

Comprehension level differences between the treatment and control group were investigated in research question three. Research question three asked, "Do first grade students who participated in the use of leveled books show significant difference on the STAR Reading Comprehension Test, when compared to first-grade students who did not participate in the leveled books program?" The null hypothesis stated there will be no

statistically significant difference in STAR Reading's comprehension scores for first grade students who used leveled books as compared to first grade students who did not use leveled books. The main effect of group was significantly related to the scores on the STAR comprehension posttest (1, 63) = 7.949, p>.0005, partial n²= .112 (see Table 4.10). The ANCOVA revealed that there was statistical significance between the groups,

p<.005.

Table 4.8

Test of Between Subject Effects with Dependent Variable: STAR Fluency Posttest									
Source	Type III	df	MS	F	Sig.	Partial Eta	Noncen	Power	
	Sum					Squared			
	Squares								
Corrected	27.855	2	13.928	65.142	.000	.674	130.285	1.000	
Model									
Intercept	70.370	1	70.370	329.135	.000	.839	329.135	1.000	
Pretest	26.322	1	26.322	123.113	.000	.661	123.113	1.000	
Group	3.654	1	3.654	17.090	.000	.213	17.090	.983	
Error	13.470	63	.214						
Total	822.770	66							
Corrected	41.325	65							
Total									

R Squared=.674 (Adjusted R Squared = .664)

The estimated marginal means for each group are listed in Table 4.11. Table 4.11 shows that the treatment group had higher estimated marginal mean scores than those in the control group on posttest scores. These higher scores were statistically significant p<.05 level. Based on the results from the ANCOVA, null hypothesis three was rejected because there was statistically significant difference in STAR Reading's comprehension

scores for first grade students who used leveled books as compared to first grade students who did not use leveled books.

Table 4.9

Test of Between Subject Effects with Dependent Variable: DRA Fluency Posttest

Source	Type III	df	MS	F	Sig.	Partial Eta	Noncen	Power
	Sum					Squared		
	Squares							
Corrected	10298.356	2	5149.179	247.560	.000	.887	495.121	1.000
Model								
Intercept	2995.302	1	2995.302	144.007	.000	.696	144.007	1.000
Pretest	9779.560	1	9779.560	470.178	.000	.882	470.178	1.000
Group	2456.193	1	2456.193	118.088	.000	652	118.088	1.000
Error	1310.380	63	20.800					
Total	367119.194	66						
Corrected	11608.738	65						
Total								

R Squared=.887 (Adjusted R Squared = .884)

Null Hypothesis and Research Question Four

Research question four asked, "Do first grade students who participated in the use of leveled books show significant difference on the Developmental Reading Comprehension Assessment, when compared to first-grade students who did not participate in the leveled books program. The null hypothesis for research question four stated there will be no statistically significant difference in Developmental Reading Assessment's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books. Inferential statistics were used to evaluate null hypothesis four.

Table 4.10

Source	Type III	df	MS	F	Sig.	Partial	Noncen	Power
	Sum					Eta		
	Squares					Squared		
Corrected	8397.966	2	4198.983	55.964	.000	.640	111.929	1.000
Model								
Intercept	11487.419	1	11487.419	153.105	.000	.708	153.105	1.000
Pretest	7875.868	1	7875.868	104.970	.000	.625	104.970	1.000
Group	596.444	1	596.444	7.949	.006	.112	7.949	.793
Error	4726.871	63	75.030					
Total	342695.797	66						
Corrected	13124.837	65						
Total								

Test of Between Subject Effects with Dependent Variable: STAR Comprehension Posttest

R Squared= .640 (Adjusted R Squared = .628)

Table 4.11

STAR Comprehension Posttest Estimated Marginal Means

			95% Confidence Interval				
Group	Mean	Std. Error	Lower Bound	Upper Bound			
Treatment	73.671	1.508	70.658	76.685			
Control	67.658	1.508	64.645	70.672			

Covariates, pretest, appearing in the model are evaluated at the following values: Comprehension- Pretest= 50.8030.

The main effect was not statistically significant between the groups (F (1, 63) =

56.387, p < .05) (See Table 4.12). The estimated marginal mean for the treatment group

was 4.366 (std. error = .011) and the control group 4.246 (std. error = .011). The

treatment group's estimated marginal means was higher than the control group, but the

difference was not found to be statistically significant at the p < .05. Thus, the null hypothesis has been rejected.

Summary of Results

Four research questions were posed at the beginning of the study. A statistical analysis of the covariance was run using IBM SPSS version 20. The descriptive and inferential statistics were reported. The use of leveled books to increase first grade students' oral reading fluency and comprehension was supported and the null hypotheses one, two, and three were rejected. In chapter five, a more detailed discussion of the study results will be explained. Chapter five will also include the implications of the results and recommendations for possible research in the future. Although students showed growth in reading comprehension, null hypothesis four was rejected because the results were not significant p<.05 level.

Table 4.12

Test of Between Subject Effects with Dependent Variable: DRA Comprehension Posttest

Source	Type III	df	MS	F	Sig.	Partial Eta	Noncen	Power
	Sum					Squared		
	Squares							
Corrected	2.253	2	1.127	284.393	.000	.900	568.786	1.000
Model								
Intercept	2.814	1	2.814	710.321	.000	.919	710.321	1.000
Pretest	2.247	1	2.247	567.138	.000	.900	567.138	1.000
Group	.223	1	.223	56.387	.000	.472	56.387	1.000
Error	.250	63	.004					
Total	1226.286	66						
Corrected	2.503	65						
Total								

R Squared= .900 (Adjusted R Squared = .897)
CHAPTER FIVE: DISCUSSION

This final chapter was designed to summarize the findings, discuss the connections relevant to literature and theory, outline the limitations, and review the implications found in this study. A discussion for future research will also be provided.

Summary of the Findings

The purpose of this nonequivalent, control group, pretest-posttest design study was to investigate the impact of leveled books on first-grade students' oral reading fluency and comprehension. This study included 66 students from four first grade classes located in a large urban elementary school. The data were analyzed using ANCOVA. The results revealed that leveled books are effective in increasing student oral reading fluency and comprehension level of first grade students.

Research Question One and Null Hypothesis One

Research question one asked, "Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Fluency Test, when compared to first-grade students who did not participate in the leveled books program? The null hypothesis stated, "There will be no statistically significant difference in STAR Reading's oral reading fluency scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books". The results from the ANCOVA led to the rejection of null hypothesis one. Students who used leveled books during a daily ten minutes of silent reading time had a statistically significant higher posttest scores than the control group who used trade books during ten minutes of silent reading.

Research Question Two and Null Hypothesis Two

Research question two asked, "Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading Fluency Assessment, when compared to first-grade students who did not participate in the leveled books program?" Null hypothesis two stated that there will be no statistically significant difference in Developmental Reading Assessment's oral reading fluency scores for first grade students who used leveled books as compared to first grade students who did not use leveled books. After running an ANCOVA, the results rejected null hypothesis two. The mean posttest score for first grade students in the treatment group were higher than the mean posttest scores of first grade students in the control group. The difference between the mean posttest scores for the treatment and control group was statistically significant, p<.05.

Research Question Three and Null Hypothesis Three

Research question three asked, "Do first-grade students who participated in the use of leveled books show significant difference on the STAR Reading Comprehension Test, when compared to first-grade students who did not participate in the leveled books program?" Null hypothesis three stated, "There will be no statistically significant difference in STAR Reading's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books." Based on the results from the ANCOVA, null hypothesis three was not rejected, p>.05.

Research Question Four and Null Hypothesis Four

Research question four asked, "Do first-grade students who participated in the use of leveled books show significant difference on the Developmental Reading

Comprehension Assessment, when compared to first-grade students who did not participate in the leveled books program?" The null hypothesis stated that there will be no statistically significant difference in Developmental Reading Assessment's comprehension scores for first-grade students who used leveled books as compared to first-grade students who did not use leveled books. Based on the ANCOVA results, leveled books did not create a statistically significant difference in mean posttest scores of first-grade students in the treatment group. Thus, null hypothesis four was not rejected. **Discussion**

A review of the literature revealed that there is a limited amount of information regarding leveled text. Although a large amount of studies can be found on strategies that may improve oral reading fluency and comprehension, little has documented the relationship between leveled texts and reading proficiency. The literature that was found and reported often did not focus on the general education population, but instead it focused on a specific group of students: English as a Second Language (ESOL), gifted, Independent Education plan (IEP), emotional behavior disorder (EBD), and Early Intervention Program (EIP). These studies revealed that there are benefits to using leveled books. Recently, studies have been conducted to investigate the impact of level books, but very few studies involved first grade students who are emerging readers. This study was conducted to add to the literature related to area of educational research.

The results in this study found that leveled books made a statistically significant difference in improving the oral reading fluency rates and comprehension levels of first grade students. The partial n^2 values (Tables 4.8, 4.9, 4.10, & 4.12) indicated that the type of book, leveled book or trade book, used during silent reading time created differences

between the treatment and control group posttest scores. Similar to other studies conducted on oral reading fluency and comprehension, this study revealed that if students are able to automatically decode and identify words, their oral fluency rate will improve, which leads to an improvement in comprehension. Although students in the treatment group had higher mean posttest scores than those in the control group, some participants were classified as below-grade-level readers.

The data from this study on the impact leveled books have on oral reading fluency and comprehension levels were consistent with Coady's model of reading (1979). Coady's model of reading states the relationship between intellectual capacities (achievement level), background knowledge, and process strategies directly impacts student comprehension levels (Lally, 1998). As students read texts on their reading levels, they make connections between their prior knowledge and their new knowledge, and learning occurs (Vygotsky 1978). This process points out how learning occurs, but it does not assume all students have the same background knowledge or intellectual capabilities. Leveled books were designed to meet students on their instructional level instead of their equivalent grade level (Guastello &Lenz, 2007).

Fountas and Pinnell (1999) explain that children build internal networks of understanding during the reading process. Oral reading fluency and comprehension levels that students exhibit are directly impacted by the level of texts the students read (Kontovourki, 2012). Students, who are able to accurately and automatically identify the words in a text, are able to focus on the meaning of the text (Fountas & Pinnell, 2003). The amount that students are able to understand and construct meaning from text, is equal to their comprehension level (National Reading Panel, 2011). "Just right" books provide

emergent readers with opportunities to build both their fluency and comprehension (Kotovourki, 2012).

Emergent readers are students that have learned some word attack skills and types of comprehension strategies (Fountas & Pinnell, 2003). On average, emergent readers are found in grades kindergarten to second grade (Klein, 2010). As emergent readers learn, they become more capable of connecting new knowledge to old knowledge. Therefore, it is imperative for educators to understand that students in their classroom advance through the stages of reading development at their own pace (Wang et. al, 2011). This form of teaching and learning leads to the possibility of independent reading curriculums for all students. In order for students to receive instruction on their independent level, scaffolded curriculum should be implemented (Henning, Verhaegh, & Resing, 2011).

Students who are identified as emergent readers are constantly striving to improve both their fluency and comprehension rates in order to become fluent readers (Zeece, 2010). They need to practice reading challenging texts that allow them to develop their reading skills. This study has shown students who used books that were written on their reading level had statistically significant difference in their oral reading fluency and comprehension score. Although some students were still reading below grade level, they showed growth at their independent levels.

Vygotsky, 1978, stated that instruction works best when students are engaged in the learning activities within a supportive environment and receive guidance and support from another person. The role of this person is to help students make connections between their prior knowledge and the new content knowledge. The leveled books used

in this study provided students with texts that presented familiar words and pictures that supported students in forming relationships between their prior knowledge and their new knowledge (Reading A to Z, 2011). If assessed appropriately, the leveled books presented to the participants were on their instructional level; students can read 90%-95 % of the words in text (Meek, 2011). This study found that the leveled books provided students with enough support to improve the development of oral reading fluency and comprehension skills of first grade students.

Study Limitations

Several factors might have impacted the results of this quasi-experimental, nonequivalent control group design study. Before the study was conducted, participants were already placed into classrooms with no regard to participation in this study. Therefore, there was a lack randomization in this study. This lack of randomization is a limitation in this study. Since the participating school had other first grade classes which did not participate in this study, students had equal opportunities to be included in this study as excluded. In order to adjust for the initial differences between the treatment and the control groups, an ANCOVA was used and the pretest scores were used as the covariant.

This study had a sample size in this study was 66 participants. Although the number of participants yielded a power of .80, there was not a true representation of the first grade population (Urdan, 2010). This study was mostly represented by African and African American participants, although this sample represented the school population in surrounding elementary schools, other schools in other locations of the country do not have similar ethnic backgrounds. The location of this study was at an urban school, where 98% of the students receive free or reduced lunch and most families were classified

economically disadvantage. This limitation stresses the need for further studies of students in urban, suburban and rural schools where a broad range of socioeconomic populations are represented.

The average academic school year for students last approximately ten months. The length of time students used leveled books was limited to one grading period of ten weeks. Ten weeks is a short span of time; however, this time frame coincides with the dates that the assessments are required to be administered by teachers across the school districts. Therefore, the timeframe that this study is conducted in is also considered a limitation to the study. In order to measure the full impact of leveled books, students should use leveled books during silent reading for an entire school year. Further studies of the effects of leveled books on oral reading fluency and comprehension for first grade students should be conducted for an entire school year.

Implications

The findings in this study revealed that leveled books are effective for improving oral reading fluency and comprehension for first grade students. All of the students in the treatment group benefited from the use of leveled books. The school district should do further review on the effect of leveled books to clarify if there are statistical significant differences on oral reading fluency rates and comprehension levels. The school district should also assess the effect leveled books have on racial subgroups and gender because they might have a positive outcome on student reading oral reading fluency and comprehension levels. If leveled books are continuously proven to be an effective tool, the school district may need to look into restructuring their reading curriculum to a more effective, research-based reading program.

All participants in the study showed an increase in their oral reading fluency and comprehension scores. So it is important to note that students in the control group, despite the implementation of leveled books, had higher posttest scores than pretest scores. This change in scores could have been directly related to the curriculum and method of instruction that all students received during the school day. Since it is impossible to remove teachers and instruction from the classroom, this study, at the very least, has shown that leveled books are effective tools for creating a supportive silent independent reading time environment.

Recommendations for Future Research

Participants in this study used leveled books during silent reading time for ten weeks. After an analysis of the data, participants who used leveled books showed an increase in their oral reading fluency and comprehension levels during a very limited time frame. Future research studies should be conducted to determine the effects leveled books have on oral reading fluency and comprehension over an entire school year.

To build upon the current study, future studies should be conducted and include more schools with more diverse population. The current study was conducted in one elementary school whose students all came from similar socioeconomic backgrounds. By adding a more diverse population to this study, the results from this study might yield a different outcome for student reading proficiencies. In addition, by expanding the population, research could also be conducted across multiple grades instead of solely focusing on first grade students.

Future research should also be conducted on Reading A to Z leveled books program. There are a limited number of studies that have been conducted on Reading A to Z leveled books program. The most current study was performed by an independent researcher who was hired by the company Reading A to Z. Therefore the program should conduct some independent research to reject or fail to reject the null hypotheses in this study.

Conclusion

With the increase of teacher accountability under the NCLB mandate, all students are expected to read on grade level by the end of their third grade year. In order to do this, school districts must provide teachers with effective reading programs that meet the needs of individual students. The research in this study indicated that there was significant difference on STAR Reading Fluency, DRA Fluency, and DRA Comprehension assessment scores for first grade students participating in the implementation of leveled books when compared with students who did not use leveled books. Additional studies should be conducted in other school districts to determine if leveled books improve oral reading fluency and comprehension levels. The results from these studies should be used to determine if schools should adopt leveled books curriculum.

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APPENDIX A



The Giaduate School at Liberty University

June 26, 2012

Melissa Seals IRB Approval 1296.062612: Leveled Reading Books: Can They Improve First Graders' Fluency And Comprehension?

Dear Melissa,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB and we wish you well with your research project.

Sincerely,

Fernando Garzon, Psy.D. Professor, IRB Chair Counseling

(434) 592-4054

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APPENDIX B

Paula Swartzberg Director



Dr. Cheryl L. H. Alkinson Superintender:

Department of Research and Evaluation

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June 21, 2012

Reference: Research Proposal, Leveled Bocks: Can They Improve First Graders' Fluency and Comprohension? (File No. 2011.024)

Dear Ms. Seals:

This effer is to advise you that your research proposal has been approved by the Department of Research and Evaluation for Implementation in the DeKaib County School District (DCSD). You may now invite principals to participate in your study. Please remember that the principal/chief site administrator has the final right of approval or denial of the research proposal at that site. In addition, now that leachers and others may elect not to participate in your research study, even though the clatrict has granted permission. Before your research study begins, you must complete the following:

- Contact the principal/chief sile administrator(s) for all schools ramed in the proposal. Attach the abstract all refters of consent, a list of data to be provided by the principal or designee, copies of all data optiection instruments, and this approval latter to the Local Site Research Authorization Form. Submit these documents to the principal/chief site administrator(s)
- Return the signed Local Site Research Authonization Form(s) to the Department of Research and Evaluation before you begin your study.

This approval is valid for one year from the date or this approval letter. Should there be any changes, addence, design changes, or adverse events to the approved protocol, a request for mese changes must also be submitted in writing to the DCSS Director of Research and Evaluation during this one year approval parised. Changes should not be initiated until written approval a received. Further, should there be a need to extend the time requested for the project, the researcher must submit a written request for approval at least one month prior to the anniversary date of the most recent approval. If the time for which approval is given expires, it will be necessary to resubmit the proposal for another review by the Research Review Committee.

Please forward a copy of your results to me when they are completed. Also, we would appreciate your feedback on our research approval process. Please complete the enclosed survey and return it in the postage paid envelope.

Best wishes for a successful research project. Feel free to call me at 678.676.0023 if you have any questions.

Sincere.y.

Pauls Swartzbe/g Director, Research and Evaluation

Cc: File

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