

The Effects of Repeated Reading on Oral Reading Fluency
of Third Grade Students

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Abstract

The purpose of this study was to investigate the effects of repeated readings on the oral reading fluency of third grade students. This study utilized a quasi-experimental design that included a pretest and treatment, followed by a posttest. The 19 participants in this study attended an urban public school in Maryland during the 2016-2017 school year. This study hypothesized that gains in fluency, as reflected in changes in the Dynamic Indicators of Basic Literacy Skills (DIBELS) Oral Reading Fluency (ORF) Correct Words Per Minute (CWPM) score from the middle (MOY) to the end of the year (EOY) would not differ significantly between students who completed repeated readings over a five-week intervention period and those who did not participate in the repeated readings intervention. The results of this study confirmed that there was not a statistically significant difference between the control and treatment groups' gains in WPM read correctly. This implied that the brief strategy of repeated reading instruction did not improve oral reading fluency of third grade students who demonstrated a wide range of reading abilities. Observations made during the intervention and students' feelings about reading are discussed in relation to this finding and the literature review.

INTRODUCTION

CHAPTER I

Overview

Students who have serious difficulty learning to read face many challenges in school and can find school a devastating experience. Longitudinal studies such as those reported by the National Reading Panel (2000) show that 17.5% of the nation's schoolchildren, or about one million children, will encounter reading problems. In addition, many U.S. schoolchildren are not mastering essential reading skills. According to the National Assessment of Education Progress (NAEP) report from 2011, 26% of fourth graders are unable to read even at a basic level (as cited in Jennings, Caldwell, & Lerner, 2014).

Teaching third grade in Baltimore City Public Schools, the researcher spends about two hours each day focusing on reading instruction to ensure her students attain reading competence. With the majority of time spent on vocabulary and comprehension instruction, there is little time for direct instruction to provide students with strategies and skills to improve their reading fluency. Dynamic Indicators of Basic Literacy Skills (DIBELS) Oral Reading Fluency (ORF) testing conducted in February 2017 confirmed that 39% of the researcher's students performed below the middle of the year (MOY) benchmark fluency score of reading 86 words per minute. Given the importance of fluency for young readers, these results caused the researcher to become interested in identifying effective ways to teach fluency strategies and skills.

A review of the literature related to oral reading fluency suggested that repeated reading is an evidenced-based strategy which has been found to increase both reading fluency and reading comprehension (Jennings et al., 2014). To complete repeated readings, students read passages

aloud a designated number of times with one-to-one instruction until a satisfactory level of fluency is attained.

Statement of Problem

The purpose of this study was to determine whether the repeated reading strategy implemented improved the oral reading fluency of students in a third-grade classroom who demonstrated a wide range of reading abilities.

Hypothesis

Gains in fluency, as reflected in changes in the Dynamic Indicators of Basic Literacy Skills (DIBELS) Oral Reading Fluency (ORF) Correct Words Per Minute (CWPM) score from the middle (MOY) to the end of the year (EOY) would not differ significantly between students who completed repeated readings over a five-week intervention period and those who did not participate in the repeated readings intervention.

ho: gains in fluency (CWPM) for the treatment group=gains in fluency (CWPM) for the control group

Operational Definitions

The independent variable for the study was repeated reading sessions.

Repeated reading is a strategy in which students are required to read a given passage numerous times in order to gain fluency and comprehension of what has been read.

For the purpose of this study, *reading interventions* were operationally defined as the repeated reading intervention implemented in the classroom to improve students' reading fluency.

The dependent variable for the study was the participating students' DIBELS oral reading fluency score (correct words read per minute or CWPM). For the purpose of this study, reading

fluency was operationally defined as a student's score on the reading fluency portion of the DIBELS ORF assessment.

Dynamic Indicators of Basic Literacy Skills (DIBELS) Oral Reading Fluency (ORF) is an individually administered assessment that measures the acquisition of early literacy skills. It contains short (one minute) fluency measures used to monitor the development of early literacy and early reading skills on a regular basis. Benchmark scores are based upon beginning, middle, and end of the year formative assessments in reading that are used as optional assessments in third grade classrooms by Baltimore City Public Schools (BCPS).

CHAPTER II

REVIEW OF THE LITERATURE

This literature review discusses oral reading fluency and its relationship to successful reading achievement. Part one presents a definition of reading and describes components of the reading process. Part two explains the role of oral reading fluency on reading and comprehension. Characteristics of students with reading difficulties are described in part three. Part four discusses ways to assess oral reading fluency and the effect reading fluency has on the ways to use data to improve instructional outcomes and inform educators regarding using data to assist with instructional decisions. Interventions and strategies for improving oral reading fluency are described in part five.

Components of the Reading Process

Reading is a complex, multidimensional process in which readers have to obtain meaning from the text. According to Opitz and Rasinski (2008), reading is language. Readers use three linguistic cueing systems: semantic, syntactic, and graphophonic to construct meaning from the text. Readers derive semantic cues from the learners' prior knowledge of language, text, and their prior life experiences. In addition, readers attain syntactic cues from the text's grammatical structure and graphophonic clues from sound-letter relationships and patterns. Reading is a cognitive process as well. Readers make predictions while reading, as well as monitoring their reading to guarantee understanding. If meaning breaks down, readers will take corrective action. Readers are strategic; they use a variety of strategies to ensure comprehension.

Armbruster, Lehr, and Osborn (2001) determined that reading instruction should include a focus on five critical components. These components include phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Phonemic awareness is the ability to hear, identify, and manipulate the individual sounds, or phonemes, in spoken words. Before children learn to read, they need to gain awareness of how sounds in words work. Children must understand that words are made up of phonemes, the smallest element of sound in a spoken word (Armbruster et al., 2001).

Phonemic awareness plays an important part in learning to read and is an important component of reading comprehension. Children with strong phonemic awareness skills likely will have an easier time learning to read and spell than those without these skills (Jennings et al., 2014). According to Armbruster et al. (2001), phonemic awareness instruction aids reading comprehension primarily through its influence on word reading. In order for children to understand what they read, they must be able to read words rapidly and accurately. Teaching phonemic awareness, or how to segment words into phonemes, helps children learn to spell because children who have gained phonemic awareness understand that sounds and letters are related in predictable ways. These children are able to relate the sounds to letters as they spell. Children who cannot identify and work with phonemes in spoken words will have a difficult time learning how to relate these phonemes to the appropriate graphemes (smallest part of written language) when they see them in written words.

Phonics is the study of the relationships between speech sounds (phonemes) and the letters (graphemes) that represent them. Phonics instruction teaches children to use these relationships to read and write words (Armbruster et al., 2001).

Systematic programs of phonics instruction directly teach letter-sound relationships in a clearly defined sequence, which includes the major sound-spelling relationships of both consonants and vowels. Programs that are systematic and explicit provide materials that give children substantial practice in applying knowledge of these relationships as they read (decode words) and write (Jennings et al., 2014). When using a predetermined order to teach children letter-sound correspondences, the sequence often recommended to teach phonics elements is consonants, short vowels, long vowels, and vowels with other sounds. This order is logical because there is less variation in sounds that correspond to consonants and in the ways that short vowel sounds are represented in many primary-grade words. While word study should not begin with complex vowel patterns, some vowel sounds are introduced before all consonants have been taught. Vowel sounds are needed to form words and teachers want children forming and reading words from the start of instruction (Graves, Juel, Graves, & Dewitz, 2011).

Systematic phonics instruction helps children learn to identify words and increases their ability to comprehend what they read. Being able to read words accurately and automatically enables children to focus on the meaning of the text. Research such as that reported by Armbruster et al. (2001) suggests that phonics instruction contributes to the development of comprehension skills rather than inhibiting the development of these skills.

Fluency is the ability to read rapidly, smoothly, without many errors, and with appropriate expression. Fluency is more than just automatic word recognition as it requires the ability to read with proper phrasing, intonation, and stress. Together, these features are the attributes of prosody. Prosody is a characteristic of fluency which is linked to comprehension (Graves et al., 2011). When fluent readers read silently, they recognize words automatically. They group words quick-

ly to help them gain meaning from what they read. In addition to developing fluency in silent reading, students need to develop oral reading fluency when they read aloud. Fluent readers read aloud effortlessly and with expression and their reading sounds natural as if they are speaking. Readers who have not yet developed oral reading fluency read slowly, word by word and their oral reading is stilted and slow (Armbruster et al., 2001).

Vocabulary, another important area of reading instruction, refers to the words individuals must know to communicate effectively and comprehend text and language. There are four types of vocabulary: listening, speaking, reading, and writing. Listening vocabulary refers to the words individuals need to know to understand what they hear. Speaking vocabulary includes the words individuals use when speaking. The words that are needed to understand what is read comprise reading vocabulary. Writing vocabulary refers to the words individuals use in writing (Armbruster et al., 2001).

Vocabulary plays an important part in learning to read and is an essential component in reading comprehension. If the reader does not know the meaning of the words he or she is reading, then he or she cannot understand the text. This becomes very apparent when students begin reading advanced texts. If the word is not in the students' oral vocabulary they must learn the meaning (Armbruster et al., 2001).

Research on vocabulary such as that reported by Armbruster et al. (2001) suggests that most vocabulary is learned indirectly, but some vocabulary must be taught directly. Indirect instruction means that students learn the meaning of words through everyday experiences with oral and written language. Children learn word meaning through conversations with adults. As children converse, they may hear adults repeat words or use new and interesting words. Children

also can construct meanings of words from listening to adults read to them. Listening to the reader pause and define unfamiliar words during reading and engaging in conversation about the book after reading allows the child to learn and assimilate new words by using prior knowledge and experiences to understand new words introduced in the book.

Direct instruction does allow students to learn difficult words that are not in their everyday experiences. Direct instruction of vocabulary is important because it leads to improved reading comprehension of a given text (Armbruster et al., 2001). Teachers need to determine which words to teach. Using a tiered approach for vocabulary instruction can help foster students' growth in language. Tier I words are comprised of the basic, familiar words that are part of a student's everyday oral vocabulary. Tier II words are words not commonly used by most people in their everyday oral vocabulary. Tier II words are considered highly useful in a literate environment. Tier III words normally are used in specific content areas or are used rarely (Jennings et al., 2014).

Comprehension is another essential component of reading. Comprehension is a process in which a reader comprehends sentences and then links ideas from one sentence to the next. The reader also uses prior knowledge and experiences to expand and interpret the meaning of texts. When readers use metacognition, the reader understands himself or herself-as a reader. The readers understand the reading task they face and strategies they can employ to complete the task. Metacognitive readers confirm that the text makes sense (Graves et al., 2011).

Research on text comprehension such as that reported by Graves et al. (2011) reveals that comprehension strategies are conscious plans or sets of steps that good readers use to make sense of a text. Graves et al. define reading comprehension strategies as "conscious and flexible plans

that readers apply and adopt to a variety of texts and tasks” (p. 326). Instruction regarding comprehension strategies helps students become purposeful active readers who are in control of their own comprehension (Armbruster et al., 2001). The key comprehension strategies recommended by Graves et al. include establishing a purpose for reading, using prior knowledge, asking and answering questions, making inferences, determining what is important, summarizing, dealing with graphic information, imagining and creating graphic representations, and being metacognitive.

Before reading, good readers will approach the text and establish a purpose for reading by previewing. They activate prior knowledge using tools such as brainstorming to determine what the reader knows about the concept and drawing illustrations or creating graphic organizers. Good readers also pose questions prior to reading a selection and during reading. The reader attempts to answer the questions while reading, making the reading an active process (Graves et al., 2011).

Good readers also infer meanings by using information from both the text and their existing knowledge of the world to provide information that is not explicitly stated in the text. By teaching students to make inferences, teachers are helping them learn to use their existing knowledge along with the information in the text to build meaning. Determining important information is crucial because most texts contain more information than a reader can focus on and learn. This strategy requires the readers to understand what they have read and make judgments about what is and is not important (Graves et al., 2011).

Summarizing requires students to determine what is important and then express it in their own words. This strategy can be used while the students are reading. Students can use tools such

as think sheets, response charts, bracketing, and sticky notes to assist with the summarizing task (Graves et al., 2011).

Readers often can improve comprehension by giving conscious attention to the visual information supplied by the author. Students need to know how visual information expands on what the text says and how the text can help explain the purpose of a graph or chart. Readers also can improve comprehension by creating visual representations of text, either in their minds or on paper. One form of a graphic representation is semantic mapping or semantic webs (Graves et al., 2011).

Metacognition can be defined as ‘thinking about thinking.’ Good readers use metacognitive strategies to think about and have control over their reading. Before reading, the readers might preview the text and set a purpose for reading. During reading, they might check for understanding, adjust their reading speed, and ‘fix up’ any comprehension problems they have. After reading, the students check for understanding of what they read (Armbruster et al., 2001).

Role of Oral Reading Fluency on Reading and Comprehension

The National Reading Panel (2000) defined fluency as “reading with accuracy, speed, and expression and doing so without conscious or overt attention on the part of the reader” (as cited in Jennings et al., 2014, p. 201). Fluency is the component of the reading process that allows readers to decode the words in a text with sufficient accuracy and automaticity (efficiency) to allow for understanding the text and that reflect the features embedded in the text that allows the reader to make oral reading sound like authentic oral speech (Rasinski, 2011).

The first component of fluency is accuracy when fluent readers identify familiar and unfamiliar words correctly. Initially, fluent readers decoded words by matching letter and sounds

patterns, but because they see the words so often they subsequently can identify them from memory. Familiar words are sight words and fluent readers match letter and sound patterns and pronounce new words almost effortlessly (Jennings et al., 2014).

The second component of fluency is speed. Fluent readers identify familiar and unfamiliar words without conscious thought or much attention. Since fluent readers are able to identify almost all words automatically, their cognitive energy is used to make meaning of what they are reading (Jennings et al., 2014).

The third component of fluency is prosody. Prosody refers to reading with expression connected to a text (Kuhn, Shwanenflugel, Meisinger, Levy, & Rasinski, 2010). Fluent readers have the ability to make their oral reading sound like spoken language (Rasinski, Rikli, & Johnston, 2009). Prosody, which means reading with suitable expression, using punctuation signals and varying voice tone to convey meaning, is associated with reading connected text (Jennings et al., 2014). In order for a reader to determine the appropriate intonation, rhythm, and pitch of what is being read, the reader must use meaning and syntax (O'Conner & Vadasy, 2011). Without a reader understanding what he or she is reading, it would be impossible to apply proper pitch, stress, and appropriate phrasing (Rasinski et al., 2009). Prosody develops over time from first-grade to second-grade, as reading improves.

Characteristics of Students with Fluency Difficulties

Fluency is important because it provides a bridge between word recognition and comprehension. When fluent readers do not have to concentrate on decoding words, they can focus their attention on the meaning of the text. They can make connections between the ideas in the text

and their prior knowledge. Less fluent readers focus their attention on decoding the words, leaving them little attention for understanding the text (Armbruster et al., 2001).

There are several common problems that students with fluency difficulties display. First, students with fluency problems stumble over individual words, trying out different possible pronunciations. These students also repeat words. Their reading performance is choppy and marked by uncertainty and hesitation and frequent pauses. Second, students who have problems with fluency read the text as if it were a list of disconnected words and have little expression when reading. In addition, there is little variation in the rise and fall of their voices as they read. Students with fluency problems do not change their voices to indicate periods, exclamation marks, or questions. A child with fluency difficulty does not insert expression into segments of dialogue. On the other hand, some students with fluency problems may race through texts, reading them as if the entire purpose of reading is to complete them. Such students may focus on speed and ignore sentence breaks, which causes them to make errors (Jennings et al., 2014).

Ways to Assess Oral Reading Fluency

Assessing fluency can be done using an informal reading inventory (IRI). Teachers can use an IRI to listen to students read orally a text at the students instructional or independent reading level, determine a child's reading rate, and present timed administration of word lists (Jennings et al., 2014).

The most common method used to determine the reading rate of a student is to calculate the number of words read per minute (WPM). A teacher would have students read a text at his or her instructional or independent reading level. This is extremely important because students are less fluent when reading texts written at their frustration level. The student reads orally for one

minute, while the teacher times the reading. The words per minute total is calculated by multiplying the number of words in the passage by 60 and then dividing by the number of seconds it took to read the passage (Jennings et al., 2014). This score can be compared to the oral reading fluency rate norm for that grade-level (Graves et al., 2011).

A second way to determine the fluency of a student is to calculate the number of correct words read per minute (CWPM). To determine the CWPM, the teacher counts only the number of words that were read correctly by the student. The teacher also counts all the errors the student has made while reading. Errors include mispronunciations, substitutions, additions, and omissions. The teacher would identify the number of words in the passage and subtract the number of errors and then multiply this by 60. Finally, the teacher would divide by the number of seconds it took the student to read the text (Jennings et al., 2014).

Determining a student's WPM or CWPM are two strategies that enable teachers to judge fluency; however, the timed administration of words lists is used to judge automatic sight word recognition. A teacher would use an IRI word list to evaluate fluency in different levels, ranging from pre-primer through middle or high school. As a student reads, the teacher records the student's performance on a teacher's copy. The teacher records whether the student reads each word in one of three ways: recognized automatically, recognized after hesitation, and, not recognized. If a student pronounces a word correctly within one second, the teacher marks the word as recognized automatically. If a word is recognized and pronounced correctly, but not within one second, the teacher marks the word as recognized after hesitation. And any word not identified or pronounced incorrectly would be marked as not recognized (Jennings et al., 2014).

Interventions and Strategies for Improving Oral Reading Fluency

Research designed to identify instructional approaches related to improving fluency has included three approaches described below. These approaches are repeated reading, readers' theater, and radio reading.

Repeated Reading

The first approach to improving fluency is repeated and monitored oral reading, also called repeated reading (Armbruster et al., 2001). Repeated reading is beneficial for students who read between a first and fifth grade instructional reading level. Repeated reading also is useful for students who, although they are able to decode words above a third-grade level, read in a slow, choppy manner (Therrien & Kubina, 2006). In repeated reading, students read passages at or slightly above their instructional reading level (Armbruster et al., 2001). Repeated reading includes having students re-read a passage of text several times for a particular amount of time or until a fluency criterion is met (Musti-Rao, Hawkins, & Barkley, 2009). Teachers, paraprofessionals, and peer tutors can conduct this type of fluency approach. In addition, repeated reading can be conducted as a whole-class activity or in a pull-out model. Sessions should be conducted three to five times a week, with 10 or 20 minutes devoted to each session (Therrien & Kubina, 2006).

Therrien and Kubina (2006) describe three essential instructional components to include in the repeated reading intervention approach. First, passages should be read aloud to a competent tutor. The tutor must be trained and taught how to monitor a students' oral reading and give feedback. Secondly, the tutor must provide corrective feedback on word errors. At times the feedback from the tutor would be immediate. Also, tutors should provide the student with per-

formance feedback. The third instructional component in repeated reading interventions is to have students re-read passages until a performance criterion is reached. For example, if a student is in the third grade, the student should be able to reach 114 correct words per minute.

Reader's Theater

Another approach to improving fluency is reader's theater, in which students rehearse a play and perform it. Reader's theatre refers to the well-rehearsed reading of scripts, with feeling and expression, in front of an audience (usually the class). However, students do not need to memorize lines, wear costumes, use prompts, scenery, make-up, and other time-consuming and sometimes expensive features of a typical play performance (Graves et al., 2011). Readers' theatre provides students with a real reason to re-read text and practice fluency while promoting cooperation (Armbruster et al., 2001). This fluency strategy may be better suited for the regular classroom than in a pull-out model because of the amount of time involved (Jennings et al., 2014).

Radio Reading

The third, whole-class approach to improving reading fluency is radio reading. Students perform a portion of a pre-selected text that they have had the opportunity to rehearse (Opitz & Rasinski, 2008). The student repeatedly reads and practices a passage so he or she can read it fluently to an audience. The student assumes the role of a professional announcer preparing to read in front of an audience (Graves et al., 2011). Members of the audience play the part of active listeners and do not have a copy of the text in front of them (Jennings et al., 2014).

Conclusion

This chapter reviewed a variety of studies and discusses important components that comprise the reading process. There are five major components of reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Fluency is an important component of reading and it has been found that the instructional strategy of repeated reading can be beneficial in assisting readers to comprehend what they read. Repeated reading can be implemented within the classroom setting in a variety of ways. Fluency instruction is important for developing strong readers. Further research related to developing fluency can assist educators to improve students' reading fluency and contribute to their reading proficiency.

CHAPTER III

METHODS

The purpose of this research was to determine whether repeated reading instruction resulted in a statistically significant improvement in the oral reading fluency of third grade students. The researcher's null hypothesis was that there would be no statistically significant difference between the gains in oral reading fluency scores of third grade students who participated in repeated reading instruction and those of similar students who do not participate in repeated reading instruction.

Design

In order to determine whether repeated readings had an effect on oral reading fluency for students in third grade, the researcher implemented a quasi-experimental non-equivalent control group design. The design included a pretest and posttest for both the treatment and control groups after which their gains in CWPM (see below) scores were compared. The treatment group participated in repeated readings for five weeks.

Participants

The participants in this study were third grade students in the researcher's class who attended an urban elementary/middle school in Maryland during the 2016-2017 school year. The class consisted of 19 students, all of whom participated in the study. The classroom had five pre-established reading groups. Among the five reading groups, four had been identified as reading on or above grade level and one group as reading slightly below grade level. From the five groups, two of the groups reading on or above grade level comprised part of the treatment group, while the other two groups reading on or above-grade level comprised part of the control group. The group

which was reading slightly below grade level was split into two subgroups, one of which was assigned to the control condition and the other of which was assigned to the treatment group condition. Students were assigned to the treatment or control group using random selection. Names of the students reading on or above-grade level were placed in a hat and randomly selected. The first seven names selected were assigned to the treatment group and the remaining nine names were assigned to the control group. This process was repeated with students reading below-grade level. The first two students selected were assigned to the treatment group and the remaining one student were assigned to the control group.

Instruments

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency (ORF) assessment (Good & Kaminski, 2002) was used as the measure of all participants' fluency before and after the treatment group participated in the intervention. The DIBELS ORF assessment is an optional assessment which is given three times to students in third grade. The assessment is given at the beginning of the year (BOY), during the middle of the year (MOY), and at the end of the year (EOY). The DIBELS ORF assessment is an appropriate assessment for third grade students according to the benchmark goals implemented in Baltimore City Public Schools.

Reading passages written at the grade three level were used for the treatment group's repeated reading intervention and as independent reading assignments for students in the control condition. These were taken from Reading A-Z (Reading A-Z: Fluency Practice Passages, 2017) and given to students at their instructional reading level. Example pretest and practice repeated reading passages are located in Appendices A-D, respectively.

Pretest

To assess participants' oral reading fluency, three third grade level passages from DIBELS were used as the pretest. These passages required participants to read orally one-on-one to the researcher. The three midyear (MOY) benchmark passages were read orally by the participants for one minute each (see Appendices A-C). Number of correct words read per minute (CWPM) during the interval were calculated by taking the total number of words read in a minute and subtracting errors. Word omissions, substitutions, and hesitations of more than three seconds also were scored as errors to help determine how many words per minute from the passage each student could read correctly. After the three mid-year (MOY) benchmark passages were read, the three correct words per minute (CWPM) scores were listed in order from greatest to least. The median correct words per minute (CWPM) or the middle correct words per minute (CWPM) score was selected as the participants' median score.

Posttest

Again, three third grade passages from DIBELS served as the posttest, wherein participants read orally the three end-year (EOY) benchmark passages for one minute each. Participants read orally one-on-one to the researcher. Number of words accurately read during the interval were calculated. Word omissions, substitutions, and hesitations of more than three seconds also were scored as errors to help determine how many words per minute from the passage each student could read correctly. The DIBELS Oral Reading Fluency (ORF) has remarkable levels of reliability given the brevity of the test. The ORF reliability was .92 (alternate form) and test-retest .92-.97, which was obtained from administering the ORF to first through third grade students (Shanahan, 2005). Additionally, the ORF is practical for classroom purposes and has face validi-

ty in that it makes common sense that students' ability to read accurately relates to reading comprehension.

Survey

All participants in the treatment and control groups were given the Reading Attitude Survey before the intervention was administered (see Appendix E). The purpose of the survey was to assess the students' attitudes toward reading. Each item of the survey was read aloud by the researcher to both the treatment and controls groups at the same time.

Participants in the treatment group were given the Student Post-Intervention Survey at the end of intervention (see Appendix F). The survey was developed by the researcher to help understand the students' perceptions of the repeated reading intervention. The survey assessed the participants' opinions about the intervention using a rating scale from one (strongly disagree) to three (strongly agree) and open-ended questions.

Procedure

This entire study took place over an eight-week period. The study included the intervention along with administration of the DIBELS assessments.

Pretest

The Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency (ORF) Middle of the Year (MOY) assessment was given to all 19 participants between January 30 and February 10, 2017 (see Appendices A-C). This schedule enabled two to five participants to be given the pretest independently each day while the rest of the students in the class were reading independently at their desks. Each participant was asked to orally read three mid-year benchmark passages independently for one minute each. The correct number of words accurate-

ly read during the interval were calculated. The number of correct words read per minute (CWPM) during the interval were calculated by taking the total number of words read in a minute and subtracting errors. Word omissions, substitutions, and hesitations of more than three seconds also were scored as errors to help determine how many words per minute from the passage each student could read correctly. Following the pretest, treatment and control groups were selected using the criteria above and the treatment was implemented as follows.

Intervention

Each participant in the treatment group was given a short Reading A-Z fluency practice passage on his or her instructional reading level each day during the treatment period (see Appendix D). On Monday, Tuesday, Wednesday, and Thursday students in the treatment group were asked to read the new passage three times each during the small group session, so the researcher could provide corrective feedback. Feedback was timely and communicated to participants after each passage reading. Each student was given feedback about his or her reading speed, accuracy, and word errors. After each passage reading, students tracked how many words in a minute they read by recording the number of words in a minute they read at the bottom of each individual passage. Once each treatment group participant finished repeatedly reading the assigned passage, he or she was expected to read books independently at his or her desk.

Each member of the control group was given a passage on his or her independent reading level and asked only to read his or her passage once on Monday. The control group members then were given a new passage on each of the three days, Tuesday, Wednesday, and Thursday. Students were asked to read each new passage only once and to read it independently at their desks. Participants in the control group also were expected to read books independently after

they read their assigned passages once.

This process was repeated each week from February 27 to March 31, 2017. During the five-week intervention, the researcher progress monitored students in the treatment group four times, using the Reading A-Z practice fluency passages. Progress monitoring occurred on four of the five Fridays during the five-week intervention, so that the researcher could monitor progress without interrupting classroom intervention time.

During the week of April 3, 2017, the participants in both the control and treatment groups were administered the DIBELS ORF posttest by the researcher to determine the correct words per minute each participant could read. Number of words accurately read during the interval were also calculated. Number of correct words read per minute (CWPM) during the interval were calculated by taking the total number of words read in a minute and subtracting errors. Word omissions, substitutions, and hesitations of more than three seconds also were scored as errors to help determine how many words per minute from the passage each participant could read at the posttest in order to compare those to the pretest scores.

At the conclusion of the intervention, the participants in the treatment group who participated in repeated reading instruction were asked to complete a brief survey at the end of the five-week intervention to assess how they felt about reading and the repeated reading intervention (see Appendix F). The survey included items to rate, such as “The repeated reading intervention was fun for me”, and questions such as “What did you like about the repeated readings?” and “What do you think is the best way to help you read fluently?”

CHAPTER IV

RESULTS

The purpose of this research study was to determine whether the repeated reading strategy significantly improved the oral reading fluency of third graders who demonstrated a wide range of reading abilities. It was hypothesized that the mean gains in fluency, reflected in changes in the Dynamic Indicators of Basic Literacy Skills (DIBELS) Oral Reading Fluency (ORF) CWPM score from the middle (MOY) to the end of the year (EOY), would not differ significantly between groups of students who did and did not complete repeated readings over a five-week intervention period.

Table 1, below, summarizes the descriptive statistics regarding the oral reading fluency scores (CWPM or correct words per minute read) on the pre- (Middle of Year or MOY) and post-intervention (End of Year or EOY) assessments and the gain scores for each group, which were calculated by subtracting each participant's MOY CWPM score from his or her EOY CWPM score.

Table 1

Descriptive Statistics for CWPM Scores

Assessment	Treatment group				Control Group			
	N	mean	s.d.	range	N	mean	s.d.	Range
Middle of year MOY	9	78.2 2	13.4 7	62-98	10	120.6 0	31.1 4	88-16 9
End of year EOY	9	91.7 8	11.8 1	78-10 9	10	125.2 0	25.2 6	91-15 6

GAIN in CWPM Score	9	13.56	6.11	4-25	10	4.60	11.74	-17-22
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It was notable that the mean MOY data was considerably higher for the control group versus the treatment group. The range was also larger for the control group on the MOY assessment. However, the treatment group's mean gain of 13.56 was larger than that of the controls, which was 4.60. The significance of the difference in mean gains was tested as described below.

Comparing Mean Gains in CWPM

It was hypothesized that the mean gains in CWPM read would not differ significantly for the students who participated in a five-week repeated reading exercise and the similar (control) group which did not do the repeated readings. Table 2 presents the results of a t-test for Independent Samples which compared the mean gains in CWPM scores for the two groups which were 13.56 and 4.60, respectively. Table 2 shows that the t value of 2.049 had a significance (p) value of $<.056$, indicating the mean difference of 8.96 points between the groups' mean gain in CWPM scores was not large enough to be considered statistically significant. Therefore, the null hypothesis was retained.

Table 2

Results of t-Test For Independent Samples Comparing Gains in CWPM (Fluency) Scores for Students who did and did not Complete a Five-Week Long Repeated Reading Intervention

T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
					Lower	Upper

2.049	17	.056	8.96	4.37	-.27	18.18
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(Equal variances assumed)

Pre-Intervention Elementary Reading Attitude Survey results

Prior to the intervention, all 19 participants completed a reading satisfaction inventory, Elementary Reading Attitude Survey, on which they rated their feelings about reading on items using a four (4) point pictorial scale ranging from high to low. Their total ratings were then converted to percentiles based on the survey's norms. Descriptive statistics of the percentiles yielded by their replies follow in Table 3 and a comparison of the mean percentiles indicated the difference in the survey percentiles between the treatment and control groups was not statistically significant (see Table 4, $T = -.741$, $p < .469$) even though the control group's mean (49.1) percentile was higher than that of the treatment group (38.3).

Table 3

Descriptive Statistics of Initial Reading Interest Survey Percentiles by Group

	Treatment Group (n=9)				Control Group (n=10)			
	N	mean	s.d.	range	N	mean	s.d.	range
Reading Interest Survey Percentile Rank	9	38.33	33.99	0-97	10	49.1	29.39	6-97

Table 4

Results of t-Test for Independent Samples Comparing Mean Percentiles on the Elementary Reading Attitude Survey for Students who did and did not Complete a Five-Week Long Repeated

Reading Intervention

T	df	Sig. (2-tailed)	Mean Dif- ference	Std. Error Difference	95% Confidence Inter- val of the Difference	
					Lower	Upper
-.741	17	.469	-10.77	14.54	-41.44-	19.90

(Equal variances assumed)

Post-Intervention Survey Results

Finally, after the intervention, copy of the survey in Appendix F, which was created by the researcher, was completed by each of the nine students in the treatment group to assess their feelings about the repeated reading exercises. Their responses to items 1-5, which were rated from 1 (strongly disagree) to 2 (neutral) to 3 (strongly agree) are summarized by descriptive statistics in Table 5.

Table 5

Descriptive Statistics of Initial Reading Interest Survey Percentiles by Group and Treatment

Group Post-Intervention Survey Responses

	Treatment Group (n=9)				Control Group (n=10)			
	N	mean	s.d.	range	N	mean	s.d.	range
Reading Interest Survey Percentile Rank	9	38.33	33.99	0-97	10	49.1	29.3 9	6-97
POST INTERVENTION SURVEY ITEMS (Treatment group only) Stem: The repeated reading intervention:								
Item 1 was fun for me	9	2.78	.44	2-3				

Item 2 helped me read practice passages	9	2.89	.33	2-3				
Item 3 taught me important reading skills	9	2.78	.67	1-3				
Item 4 helped me read other stories or texts	9	2.56	.73	1-3				
Item 5 helped me to read repeatedly on my own	9	2.78	.44	2-3				

Participants in the treatment group were also asked to reply to four open-ended questions on the survey.

Table 6

Descriptive Statistics of Survey Replies

Item	Summary of Answers
6. What did you like about the repeated readings?	3 of 9 students said they liked rereading passages. 2 other students said repeated reading helped them to learn important reading skills to read independently.
7. What did you dislike about the repeated readings?	4 of 9 students said they could not think of anything they disliked. 3 other students said they disliked reading long passages 3 times each.
8. What do you think is the best way to help you read fluently?	4 of the 9 students responded that they would use their finger or a pencil to help them.
9. On a scale from 1-10 (with 10 been the best), how fluently do you feel you reads for your age?	3 of 9 students rated themselves as a 5. One student rated themselves as a 7 and 3 other students rated themselves as an 8. Two students rated themselves as a 10.

CHAPTER V

DISCUSSION

The purpose of this study was to determine whether a repeated reading strategy significantly improved the oral reading fluency of third graders with a wide range of reading abilities. It was hypothesized that the mean gains in fluency, reflected in changes in the Dynamic Indicators of Basic Literacy Skills (DIBELS) CWPM score from the middle (MOY) to the end of the year (EOY), would not differ significantly between a group of students who completed repeated readings over a five-week intervention period and a group who did not.

Implications of Results

The results of this study revealed that there was not a statistically significant difference between the control and treatment groups' gains in CWPM read. This implied that the brief strategy of repeated reading instruction did not improve oral reading fluency of third grade students who demonstrated a wide range of reading abilities. However, the researcher observed aspects of the study which might inform future use of repeated readings and assessment of oral reading fluency. Discussion of the findings and these observations follows.

Participants in the treatment group were given a survey at the end of intervention. The survey was developed so the researcher could understand the students' experience with the repeated reading intervention. The survey assessed the participants' opinions about the intervention using a rating scale from one (strongly disagree) to three (strongly agree). Students in the treatment group responded to item 1 which asked: "The repeated reading intervention was fun for me," with a mean score of 2.78. Seven of the nine students thought the repeated reading intervention was fun and selected three (strongly agree) as their answer. For item 2, which asked:

“The repeated reading intervention helped me read practice passages” students’ responses had a mean score of 2.89. Eight of nine students selected three (strongly agree) as their response. Students found that the repeated reading intervention helped them read practice passages and only one student selected two (neutral) as their answer. For item 3, which asked: “The repeated reading intervention taught me important reading skills” eight of nine students selected three (strongly agree) as their answer. The mean score was 2.78. Only one student selected one (strongly disagree) as their response and found the repeated reading intervention did not teach important reading skills. For item 4, which asked: “The repeated reading intervention helped me read other stories or texts” students’ responses had a mean score of 2.56. Six of nine students selected three (strongly agree) as their response. However, two students selected two (neutral) and one student selected one (strongly disagree) as their answer to item 4. Item 5, which asked: “The repeated reading intervention helped me to read repeatedly on my own” had a mean score of 2.78. Seven of nine students felt that the repeated reading intervention helped them to read repeatedly on their own. The other two students selected two (neutral) as their response. When writing responses to the open-ended questions, the treatment group was asked what each student liked about the repeated reading intervention (question 6). Three of nine students said they liked rereading passages. Two other students said repeated reading helped them to learn important reading skills to read independently. When asked what each student disliked about the repeated reading intervention (question 7), four of nine students said they could not think of anything they disliked. Three other students said they disliked reading long passages three times each. When asked what is the best way to help each student to read fluently (question 8), four of the nine students responded that they would use their finger or a pencil to help them. When asked about

how fluently each student felt they read books for their age on a scale from 1-10 (question 9), their responses ranged from five to 10. Overall, the survey results suggest students enjoyed the repeated reading intervention and thought it was fun.

Theoretical Consequences

Based on the review of literature in Chapter II, it appeared that repeated reading would be a useful strategy to improve students' oral reading fluency. However, the results of this study found no significant difference between the control and treatment groups' gains in oral reading fluency scores, suggesting the repeated reading intervention did not improve the oral reading fluency of third grade students who demonstrate a wide range of reading abilities. However, limitations of the study should be considered to help explain these findings, which were counter to what was expected.

Threats to Validity

One major threat to the internal validity of this design was the variations in conditions surrounding the treatment. During the repeated reading intervention with the treatment group, the intervention did not happen at the exact same time each day. This was partially due to the class resource schedule (gym, art, and library) varying across days. As a result of this variation in daily schedules, the intervention took place before lunch on certain days and after lunch on other days. In addition, the pre-test and post-test were not standardized, as the two tests were given at varying times of day in order to fit into the researcher's schedule. Another threat to internal validity was the instrumentation used to assess the constructs of interest. The researcher used two different tests, one for pre-testing and one for post-testing students.

The researcher attempted to match the control and treatment groups at the outset of the

study. Students were assigned to the treatment or control group using random selection. Names of the students reading on or above-grade level were randomly selected and the first seven names selected were assigned to the treatment group and the remaining nine names were assigned to the control group. This process was repeated with students reading below-grade level. The first two students selected were assigned to the treatment group and the remaining student was assigned to the control group. Such random assignment likely would have yielded more similar groups with a larger sample. In this case, better matching of the samples before the study might have resulted in findings which were less affected by initial disparities in the groups' reading skills. As the intention was to use the intervention with children with a variety of skill levels, ensuring the variation in the control group was similar to the treatment group at the onset of the study would have been preferable. As it was, the mean MOY data and range of MOY scores were considerably higher for the control versus the treatment group. The treatment group's mean gain of 13.56 was larger than that of the controls, which was 4.60 but that may have been due to initial differences, not the intervention.

In addition to differences in fluency, other initial differences between the groups may have caused the results or lack of results in addition to or instead of the repeated reading intervention. For instance, all participants in the treatment and control groups were given the Elementary Reading Attitude Survey before the intervention was administered. The survey was given prior to the treatment and the control group had an average percentile rank of 49.1, while the treatment group had an average percentile rank of 38.33. These data suggest that prior to conducting the intervention, the students in the control group appeared to enjoy reading more than the students in the treatment group.

The major threat to the external validity of this study is the difficulty generalizing these results to the larger population of elementary school-aged readers. The study took place in one elementary school in Baltimore City with 19 third grade participants, which likely limits the generalizability of its results to other groups. The findings are limited to third grade students in the researcher's classroom and possibly those within similar school settings.

Connections to Previous Studies/Existing Literature

Fluency is the ability to read rapidly, smoothly, without many errors, and with appropriate expression. Beyond automatic word recognition, fluency also requires the ability to read with proper phrasing, intonation, and stress. Developing oral reading fluency in readers is an essential part of deriving meaning from text. Fluency is an important skill in third grade because students are exposed to higher level reading materials which they need to understand with greater speed and accuracy.

The results of this study revealed that the repeated reading intervention in one classroom in Baltimore City did not significantly affect the oral reading fluency of third grade students who demonstrated a wide range of reading abilities. However, according to Musti-Rao et al. (2009), "A research-validated approach most often used to improve reading fluency is repeating readings" (p. 13). Kuhn (2005) evaluated the effectiveness of repeated reading and non-repetitive reading for second-grade students that took place for 18 sessions across six-weeks. Kuhn reported that students in the repeated reading groups achieved more substantial gains in word recognition and fluency than did students in non-repetitive reading groups (as cited in Musti-Rao et al., 2009).

In a study by Caldwell, Nichols, and Mraz (2006), it was noted by the researchers that during a six-week intervention using readers theatre scripts following a repeated reading model, the students in the study on an average increased their words correct per minute by 37.3. The study also reported that the smallest increase on the posttest was 21 WCPM (words read correctly per minute) and the largest gain on the posttest was an increase of 69 WCPM (as cited in Rasinski, Rupley, Paige, & Nichols, 2016).

Implications for Future Research

Future research about the effect of repeated reading on fluency might study the outcomes of modifying the length of time in which the intervention is provided. Allocating varied times for students to receive the repeated reading intervention could determine if and how the length of intervention has an effect on the improvement in oral reading fluency.

Another consideration for future research would be to increase the number of participants to improve the likelihood that random assignment yields similar groups and that results could be applied to the general population. Using students from various schools and reading levels would allow for more participants and could yield information about what type of student benefits most or at all from repeated readings.

Additionally, the sample chosen for the study could be modified. For this study, the researcher used the classroom's five pre-established reading groups. Among the five reading groups, four groups had been identified as reading on or above-grade level and one group as reading slightly below-grade level. The group which was reading slightly below grade level was split into two subgroups, one of which was assigned to the control condition and the other to the treatment group condition. Not all readers reading slightly below grade level were assigned to

the treatment group. It is likely that students who were considered on or above grade level readers did not have fluency problems. Therefore, those students may not benefit as much or at all from a repeated reading intervention. To modify this process, the researcher might target only students who are reading below-grade level and include them in both the treatment and control groups. This would allow future researchers to apply the repeated reading intervention to the appropriate students.

Conclusion

The results of this study did not reflect findings of prior research which suggest gains in oral reading fluency are associated with repeated reading interventions. The results of this study revealed that there was not a significant difference between the control and treatment groups' mean oral reading fluency scores.

This study has value for the researcher because in Baltimore City Public Schools students' oral reading fluency is not required to be assessed in third grade or above. However, assessing a student's oral reading fluency provides valuable data about a student's reading ability. Based on the review of literature, the researcher would suggest consideration of using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) assessment as another source of data to determine students' reading ability as the DIBELS assesses fluency which has been found to relate to overall comprehension.

Observations and survey data suggested the repeated reading intervention was simple to manage, easy to plan for, and all students were engaged in reading tasks on a daily basis. Seven of nine students in the treatment group reported they found the repeated reading intervention fun. The researcher found that giving feedback and having students track how many words in a

minute they read motivated them to increase their fluency skills. This was especially evident at the end of the week when the researcher progress monitored the treatment group. At that time, students wanted to beat the targeted fluency goal at the bottom of each individual passage in order to move to the next fluency level. Students of all levels in the treatment group gained confidence with fluency by the end of the five weeks.

Overall, the results suggested the intervention was well received and the review of literature indicated fluency is a key underpinning of comprehension. Therefore, further research addressing the effects of repeated readings on fluency and including measures of fluency in reading assessments appears warranted.

References

- Armbruster, B., Lehr, F., & Osborn, J. (2001). *Put reading first: The research building blocks of reading instruction: Kindergarten through grade 3*. Washington, DC: National Institute for Literacy.
- Good, R. H., & Kaminski, R. A. (Eds.). (2002). *Dynamic Indicators of Basic Early Literacy Skills* (6th ed.). Eugene, OR: Institute for the Development of Educational Achievement. Available: <http://dibels.uoregon.edu/>
- Graves, M.F., Juel, C., Graves B.B., & Dewitz, P. (2011). *Teaching reading in the 21st century* (5th ed.). Boston: Allyn and Bacon.
- Jennings, J.H., Caldwell, J.S., & Lerner, J.W. (2014). *Reading problems: Assessment and teaching strategies*. Boston: Pearson Education, Inc.
- Kuhn, M.R., Schwanenflugel, P.J., Meisinger, E.B., Levy, B.A., & Rasinski, T.V. (2010). Aligning theory and assessment of reading fluency: Automaticity, prosody, and definitions of fluency. *Reading Research Quarterly*, 45(2), 230-251.
- Musti-Rao, S., Hawkins, R.O., & Barkley, E.A. (2009). Effects of repeated readings on the oral reading fluency of urban fourth-grade students: Implications for practice. *Preventing School Failure: Alternative Education for Children and Youth*, 54(1), 12-23.
- O'Connor, R.E., & Vadasy, P.F. (2011). *Handbook of reading interventions*. New York: The Guilford Press.
- Opitz, M.F., & Rasinski, T.V. (2008) *Good-bye round robin: 25 effective oral reading strategies*. Portsmouth, NH: Heinemann.

- Rasinski, T. (2011). The art and science of teaching reading fluency. In D. Lapp & D Fisher (Eds.), *Handbook of research on teaching the English language arts*. London, UK: Routledge.
- Rasinski, T., Rikli, A., & Johnston, S. (2009). Reading fluency: More than automaticity? More than a concern for the primary grades? *Literacy Research and Instruction*, 48(4), 350-361.
- Rasinski, T., Rupley, W., Paige, D., & Nichols, W. (2016). Alternative text types to improve reading fluency for competent to struggling readers. *International Journal of Instruction*, 9(1), 163-178.
- Reading A-Z: Fluency Practice Passages. (2017). Retrieved from <https://www.readinga-z.com/fluency/fluencypractice-passages/>
- Therrien, W.J., & Kubina, R.M. (2006). Developing reading fluency with repeated reading. *Intervention in School and Clinic*, 41(3), 156-160.
- Shanahan, T. (2005). [Review of the DIBELS: Dynamic Indicators of Basic Early Literacy Skills, Sixth Edition]. In R. A. Spies & B. S. Plake (Eds.), *The sixteenth mental measurements yearbook*. Lincoln, NE: Buros Institute of Mental Measurements.

Appendix A

Sample Pretest Passage 1

Horseback Treasure Hunt

► It was Denny's birthday, and his three best friends were coming to his grandfather's ranch to ride horses and look for treasure. When his friends got there, Denny explained, "We've got to watch for clues in blue envelopes along the trail. The clues lead to a treasure that Grandpa hid this morning."

Fox, Ray, and Hector couldn't wait to get on their horses and ride down the trail. Denny and his grandfather led the way until Joe called out, "There's something blue on that tree." He rode over and grabbed the envelope off the low branch.

"Your next ride is near a goat," he read.

In a flash, the boys turned and rode down to the goat pen where Ray found the next envelope on a fence post. It read, "Find high ground, then look down."

"I think we're supposed to ride to the top of that hill," said Denny. "It's the highest place around."

They rode to the top of the hill and searched for clues until Hector believed, "The clue is sticking out from under this rock." He jumped down and pulled the envelope free. "Take ten steps south and make three big, then small, circles and start to dig," he read.

The boys joined arms and took ten steps south. They discovered three shovels and an orange circle painted on the ground. They all dug as directed everywhere.

Suddenly Denny called, "Here's a wooden chest!" Everyone watched while he lifted the lid. "There are four cowboy ropes here," he said. "They're ropes like a real cowboy would use!" The boys were happy and proud that they had found the hidden treasure.

Appendix B

Sample Pretest Passage 2

Raising a Calf

► Some of your friends probably have pet dogs or cats. Others might have gerbils or goldfish. But all pet owners agree on a few rules: you can't let them out to know that every chicken has its own yard, every cow has its own pasture, and every baby cow, or calf, has its own home.

Now you know that you are going to raise a calf that is a little bit different from the ones you see at the fair. First, you must prepare a place for your calf. It needs a clean, dry pen that is roomy enough to run around. The enclosure should have a good fence on the wall so it can't escape and get injured or lost. Before you put the calf in its new home, check to make sure there is nothing sharp or dangerous. Check the fence to make sure it is put up right. It is your responsibility to watch out for them and protect them.

Also you bring your calf home, give it food and water each day and make sure its pen is clean and dry. Your calf will need fresh water twice a day. The calf won't drink dirty water, so change it if the water gets dirty. The calf's food should be fresh, too. Don't let dirty food be fed to the calf, so clean out any old grain or hay before you put out fresh food. Be careful to give your calf the proper amount of food. Feeding more food can make a calf sick. Never let the calf out alone because the calf depends on you for everything it needs.

If you take good care of your calf, it will grow quickly. Before you know it, it will be time to show your calf at a livestock show. You can be proud of all your hard work.

Appendix C

Sample Pretest Passage 3

Skimboarding

► As the waves rolled onto the shore, a group of teens ran into the surf with firmy round boards under their arms. Allie looked up from reading her book and watched them. When they reached the wet sand, they tossed their boards toward the incoming waves. Then, they quickly jumped onto them. Some of them fell flat into the water. Others were able to glide out into the surf or over the shallow water. One boy was even able to flip his board around and change direction, like a skateboarder. It looked like great fun and good exercise. Allie's friend Morgan told her the group was skimboarding.

That night, after dinner, Allie asked her Dad if he had ever skimboarded. He hadn't, but he said he would be willing to learn. They read about it together in a magazine. They decided they would rent boards and try it that weekend. Over the next few days, Allie studied the motions of the skimboarders carefully. From her reading, she knew that timing was very important.

When Saturday came, Allie was ready to head for the beach early. First, she and her dad practiced running to the shore and tossing their boards into the surf. Next, they repeated their first step and added the jump onto the board. On their first try, they both fell backwards into the surf and sat laughing at each other. This was not as easy as it looked!

After several attempts, they were each able to glide a little way on the water. Allie was proud of herself and her dad. They realized that it would take a lot of practice to become good at skimboarding. In the end, they decided that the fun they had together was well worth the effort!

Appendix D

Sample Repeated Reading Passage

Reading 4-7

Fluency Passage - Nonfiction

LEVEL 4

Black Holes

NAME _____

Word Count: 85

Black Holes

Deep in space there are things called black holes. A black hole is special. It is like a vacuum cleaner. It pulls in everything around it. It even pulls in stars. It can even pull in light. A black hole is black because there is no light.

Black holes are far away from us. We can't see them without a special tool. We know they are there because we can see what they do. Black holes are some of the most amazing objects in space.

Number of Errors:

--	--	--	--	--

Accuracy (%):

--

Reading Rate (Words Per Minute):



Appendix E

Student Reading Survey

Elementary Reading Attitude Survey Directions for use

The Elementary Reading Attitude Survey provides a quick indication of student attitudes toward reading. It consists of 20 items and can be administered to an entire classroom in about 10 minutes. Each item presents a brief, simply worded statement about reading, followed by four pictures of Garfield. Each pose is designed to depict a different emotional state, ranging from very positive to very negative.

Administration

Begin by telling students that you wish to find out how they feel about reading. Emphasize that this is not a test and that there are no "right" answers. Encourage sincerity.

Distribute the survey forms and, if you wish to monitor the attitudes of specific students, ask them to write their names in the space at the top. Hold up a copy of the survey so that the students can see the first page. Point to the picture of Garfield at the far left of the first item. Ask the students to look at this same picture on their own survey form. Discuss with them the mood Garfield seems to be in (very happy). Then move to the next picture and again discuss Garfield's mood (this time, a little happy). In the same way, move to the third and fourth pictures and talk about Garfield's moods—a little upset and very upset. It is helpful to point out the position of Garfield's mouth, especially in the middle two figures.

Explain that together you will read some statements about reading and that the students should think about how they feel about each statement. They should then circle the picture of Garfield that is closest to their own feelings. (Emphasize that the students should respond according to their own feelings, not as Garfield might respond!) Read each item aloud slowly and distinctly, then read it a second time while students are thinking. Be sure to read the item number and to remind students of page numbers when new pages are reached.

Scoring

To score the survey, count four points for each leftmost (happiest) Garfield circled, three for each slightly smiling Garfield, two for each mildly upset Garfield, and one point for each very upset (rightmost) Garfield. Three scores for each student can be obtained: the total for the first 10 items, the total for the second 10, and a composite total. The first half of the survey relates to attitude toward recreational reading; the second half relates to attitude toward academic aspects of reading.

Interpretation

You can interpret scores in two ways. One is to note informally where the score falls in regard to the four nodes of the scale. A total score of 50, for example, would fall about mid-way on the scale, between the slightly happy and slightly upset figures, therefore indicating a relatively indifferent overall attitude toward reading. The other approach is more formal. It involves converting the raw scores into percentile ranks by means of Table 1. Be sure to use the norms for the right grade level and to note the column headings (Rec = recreational reading, Aca = academic reading, Tot = total score). If you wish to determine the average percentile rank for your class, average the raw scores first; then use the table to locate the percentile rank corresponding to the raw score mean. Percentile ranks cannot be averaged directly.

Elementary Reading Attitude Survey

School _____ Grade _____ Name _____









Please circle the picture that describes how you feel when you read a book.

1	How do you feel when you read a book on a rainy Saturday?				
2	How do you feel when you read a book in school during free time?				
3	How do you feel about reading for fun at home?				
4	How do you feel about getting a book for a present?				

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Please circle the picture that describes how you feel when you read a book.

5	How do you feel about spending free time reading a book?				
6	How do you feel about starting a new book?				
7	How do you feel about reading during summer vacation?				
8	How do you feel about reading instead of playing?				

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Please circle the picture that describes how you feel when you read a book.

9.	How do you feel about going to a bookstore?			
				
10.	How do you feel about reading different kinds of books?			
				
11.	How do you feel when a teacher asks you questions about what you read?			
				
12.	How do you feel about reading workbook pages and worksheets?			
				

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Please circle the picture that describes how you feel when you read a book.

13.	How do you feel about reading in school?			
				
14.	How do you feel about reading your school books?			
				
15.	How do you feel about learning from a book?			
				
16.	How do you feel when it's time for reading in class?			
				

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Please circle the picture that describes how you feel when you read a book.

17.	How do you feel about stories you read in reading class?			
				
18.	How do you feel when you read out loud in class?			
				
19.	How do you feel about using a dictionary?			
				
20.	How do you feel about taking a reading test?			
				

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Appendix Technical Aspects of the Elementary Reading Attitude Survey

The sampling project

To create norms for the interpretation of scores, a large-scale study was conducted in late January 1989, at which time the survey was administered to 18,136 students in Grades 1-5. A number of steps were taken to achieve a sample that was sufficiently stratified (i.e., reflective of the American population) to allow confident generalizations. Children were drawn from 93 school divisions in 38 U.S. states. The number of girls exceeded by only 5 the number of boys. Ethnic distribution of the sample was almost identical to that of the U.S. population (Statistical Abstract of the United States, 1989). The proportion of blacks (9.9%) was within 9% of the national proportion, while the proportion of Hispanics (6.2%) was within 2%.

Percentile ranks at each grade for both subscales and the full scale are presented in Table 1. These data can be used to compare individual students' scores with the national sample and they can be interpreted like achievement-test percentile ranks.

Table 1
Mid-year percentile ranks by grade and scale

Raw Score	Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6		
	Raw	Acq	Att	Raw	Acq	Att	Raw	Acq	Att	Raw	Acq	Att	Raw	Acq	Att	Raw	Acq	Att
83	35			93			59			59			99			99		
79	32			95			58			59			99			99		
75	32			95			57			58			99			99		
72	32			94			57			58			99			99		
70	30			93			56			57			98			99		
70	30			92			55			56			98			99		
74	30			93			54			55			97			99		
73	34			38			55			54			97			98		
72	35			35			51			53			96			98		
71	30			39			50			51			95			97		
73	38			32			55			59			94			96		
69	32			79			54			56			92			95		
68	32			77			51			56			91			93		
67	35			78			49			53			89			91		
66	38			71			49			50			87			90		
65	32			69			49			48			84			88		
64	35			65			47			45			82			86		
63	39			67			47			42			79			84		
62	32			63			44			49			76			82		
64	39			37			44			46			73			79		
63	40			54			53			62			70			75		
62	47			51			55			59			67			73		
61	40			47			51			56			64			69		
60	37			45			48			53			61			66		
59	34			41			44			48			57			63		
58	31			39			41			45			53			59		
54	28			35			38			41			50			55		

Table 1
Mid-year percentile ranks by grade and scale (continued)

Item No.	Grade 1			Grade 2			Grade 3			Grade 4			Grade 5			Grade 6		
	Raw	Area	Vol	Raw	Area	Vol	Raw	Area	Vol	Raw	Area	Vol	Raw	Area	Vol	Raw	Area	Vol
38		28		32		24		18		38		18		32		32		32
39		22		29		21		30		30		42		48		48		48
40		23		29		26		32		32		39		44		44		44
41		15		29		23		28		28		38		43		43		43
42		19		29		23		28		28		38		43		43		43
43		13		18		20		23		23		25		35		35		35
44		12		19		17		20		20		26		33		33		33
45		13		19		18		18		18		24		27		27		27
46		8		18		18		18		18		20		26		26		26
47		7		3		11		13		13		17		22		22		22
48		5		8		9		12		12		19		23		23		23
49		8		2		8		10		10		14		17		17		17
50		5		5		7		3		3		12		15		15		15
51	93	99	4	99	99	5	99	99	6	99	99	3	99	99	12	99	99	15
52	92	51	3	98	98	4	96	93	6	97	95	8	98	99	3	99	99	12
53	89	88	3	92	92	3	94	98	4	95	97	5	96	98	8	97	99	13
54	88	85	2	88	89	2	90	93	3	92	95	4	94	96	3	95	99	8
55	88	79	2	88	88	2	87	93	2	88	95	3	91	96	5	92	98	7
56	77	35	1	79	38	1	81	38	2	84	93	3	87	95	4	88	97	6
57	72	39	1	78	38	1	75	34	2	78	37	2	82	93	3	83	95	6
58	68	25	1	68	33	1	69	35	1	72	35	2	77	90	3	79	93	4
59	58	26	1	62	37	1	63	34	1	66	39	1	71	86	3	74	91	5
60	52	25	1	55	32	1	57	35	1	60	38	1	65	83	2	69	87	2
61	48	49	1	53	36	1	51	31	1	54	33	1	59	77	1	63	82	2
62	58	44	3	44	34	1	45	38	1	47	44	1	53	71	1	58	78	1
63	52	39	3	37	45	1	38	52	1	41	55	1	48	66	1	51	73	1
64	38	31	3	31	41	1	33	53	1	35	57	1	42	60	1	46	67	1
65	28	30	3	25	37	1	26	40	1	29	45	1	36	54	1	39	60	1
66	17	24	3	23	32	1	21	36	1	23	40	1	28	49	1	34	54	1
67	12	21	3	18	27	1	17	31	1	19	36	1	25	42	1	29	49	1
68	8	18	3	11	24	1	13	28	1	14	30	1	20	37	1	24	42	1
69	7	14	3	8	19	1	9	22	1	11	25	1	16	31	1	19	36	1
70	5	11	3	5	15	1	6	18	1	9	20	1	13	26	1	15	28	1
71	4	9	3	4	11	1	5	14	1	6	16	1	10	21	1	12	24	1
72	2	7	3	2	9	1	3	11	1	5	13	1	7	17	1	9	20	1
73	2	5	3	2	5	1	2	8	1	3	9	1	6	13	1	8	18	1
74	1	4	3	1	5	1	1	7	1	2	7	1	4	9	1	6	11	1
75	1	3	3	1	4	1	1	6	1	2	6	1	3	8	1	5	10	1
76	1	2	3	1	3	1	1	5	1	1	5	1	2	7	1	4	9	1
77	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
78	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
79	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
80	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
81	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
82	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
83	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
84	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
85	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
86	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
87	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
88	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
89	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
90	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
91	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
92	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
93	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
94	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
95	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
96	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
97	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
98	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
99	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1
100	1	2	3	1	3	1	1	4	1	1	4	1	1	6	1	3	8	1

McKenzie & Kover

Elementary Reading Attitude Survey Scoring Sheet

Student Name: _____

Teacher: _____

Grade: _____ Administration Date: _____

Scoring Guide	
4 points	Happiest Garfield
3 points	Slightly smiling Garfield
2 points	Mildly upset Garfield
1 point	Very upset Garfield

Recreational reading

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Raw Score: _____

Academic reading

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

Raw Score: _____

Full scale raw score (Recreational + Academic):

Percentile rank: Recreational

..... Academic

..... Full scale

Appendix F

Post Survey Treatment Group

Student Post-Intervention Survey

Date: _____

Name: _____ Teacher: _____

For each item, please circle the number that best tells what you think about the repeated reading intervention that you just finished.

	Strongly Disagree	Neutral 50/50	Strongly Agree
The repeated reading intervention:			
1. was fun for me	1	2	3
2. helped me read practice passages	1	2	3
3. taught me important reading skills	1	2	3
4. helped me read other stories or texts	1	2	3
5. helped me to read repeatedly on my own	1	2	3

For each question, please answer by writing your answer on the lines provided.

6. What did you like about the repeated readings?

7. What did you dislike about the repeated readings?

8. What do you think is the best way to help you read fluently?

9. On a scale from 1-10 (with 10 being the best), how fluently do you feel you read books for your age?

Appendix G

Parent Consent Letter

Dear Parents,

I am interested in determining how repeated reading in school can impact children's reading success. As part of a graduate course in which I am enrolled, I would like to conduct a simple study to test an intervention I believe may be helpful to students. In order to help me do this, I am asking that you fill out the permission slip attached to this letter and return it to me by February 24, 2017. Then, for the next five weeks, I will be pulling students during my small-group instructional time.

If you are interested in the final results of this study, please let me know and I will be happy to share them with you. Thank you in advance for your support.

Sincerely,

Ms. Marano

Child's Name: _____

Parent/Guardian's Name: _____

Parent/Guardian's Signature: _____

Date Signed: _____

___ Yes, I give Ms. Marano permission to pull my child for repeated reading during small-group instruction.

___ No, I do not give Ms. Marano permission to pull my child for repeated reading during small-group instruction.