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Effectiveness of Corrective Feedback during Repeated Readings

Abstract

Reading fluency is a critical component to the overall success of students' ability to read. Repeated readings has been the most researched and successful approach to improving reading fluency. In this study, the role of corrective feedback during repeated readings was evaluated. All participants completed repeated readings three days a week. One group received corrective feedback during their readings and one group did not. Both groups showed improvement in their reading fluency and accuracy. However, the group that received corrective feedback showed greater gains in both fluency and accuracy from their pretest to their posttest.

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Action Research Report Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Education

The Effectiveness of Corrective Feedback during Repeated Readings
on Improving Reading Fluency

by

Lanae N. Nienhuis

B.A. Dordt College, 1999

Action Research Report
Submitted in Partial Fulfillment
of the Requirements for the
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Department of Education
Dordt College
Sioux Center, IA
March 2012

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Abstract

Reading fluency is a critical component to the overall success of students' ability to read. Repeated readings has been the most researched and successful approach to improving reading fluency. In this study, the role of corrective feedback during repeated readings was evaluated. All participants completed repeated readings three days a week. One group received corrective feedback during their readings and one group did not. Both groups showed improvement in their reading fluency and accuracy. However, the group that received corrective feedback showed greater gains in both fluency and accuracy from their pretest to their posttest.

In 2001, Congress reauthorized the Elementary and Secondary Education Act of 1965 (ESEA) and passed the No Child Left Behind Act (NCLB) in an effort to ensure that all students in the United States were provided adequate instruction which allowed them to meet grade level performance standards. Schools are now required to demonstrate that they have made Adequate Yearly Progress (AYP) to ensure that all students are proficient in reading by the year 2014 (Allington, 2006). Annual assessments, which vary by state, are administered to all students in third through eighth grade and in high school to monitor the progress of each student, school, and district in meeting this standard. Schools which serve a large number of low-income families (schools that receive Title I funds) and schools which serve a number of students who are not performing at grade level are expected to accelerate the reading growth of struggling readers in such a way that these students must achieve more than one year's growth during a one-year time period in order to avoid federal sanctions on their schools for failing to meet AYP goals (Allington, 2006).

The focus on learning to read has become more dominant than ever before. This increased focus is due in part to the findings of the National Assessment of Educational Progress (NAEP) which found current reading scores to be drastically below grade level expectations. The NAEP found 68% of fourth graders, 70% of eighth graders, and 65% of twelfth graders scored at or below the basic level of reading achievement (Honig, Diamond, & Gutlohn, 2008). More specifically, the NAEP found that 44% of fourth graders in the United States are not fluent when reading grade-level-appropriate material (Armbruster, Lehr, & Osborn, 2001; Pilulski & Chard, 2005; Vaughn & Linan-Thompson, 2004). With almost half of our fourth graders unable to read quickly and

automatically, improvements in reading instruction must focus on reading fluency. The National Reading Panel concurred that an effective reading program must include reading fluency instruction, a critical component of learning to read, because fluency is considered the bridge between decoding and comprehension. “Differences in reading fluency distinguish good readers from poor; a lack of reading fluency is a good predictor of reading comprehension problems” (Stanovich, 1991, as cited in Honig et al., 2008, p. 321).

Statement of the Problem

As educators face increasing pressure to find ways to help students become proficient readers, many will be looking for the most efficient and effective strategies to help struggling readers succeed. Since fluency has been recognized as a key component of reading, educators need to find the best practices for implementing fluency strategies that will be effective for students. Repeated reading has long been acknowledged by most researchers as one of the most effective approaches to helping students increase their reading fluency. This study focused on a critical component of repeated reading, corrective feedback, to determine its role when using the repeated reading technique to improve reading fluency.

Research Questions

This study aimed to answer the following questions:

- 1) Is corrective feedback a critical component of repeated reading in increasing reading fluency?
- 2) Does the progress made using repeated readings with corrective feedback increase a student’s overall reading fluency and accuracy?

If educators can find tools to help struggling students become more skillful readers and can improve their reading fluency, then they can be successful in helping students meet the goal set out by Congress for all students to be proficient in reading by the year 2014. If corrective feedback is found to be a critical component of repeated reading and an effective strategy for improving reading fluency in struggling readers, educators will be able to implement this strategy easily and effectively.

Definition of Terms

The purpose of these definitions is to help define basic terminology and concepts related to reading. Unless otherwise indicated, the definitions provided are those of the author.

Audio-Assisted Reading refers to students reading along in their books while they listen to a fluent reader read the text on an audio tape.

Automaticity refers to the ability to read text quickly, accurately, and automatically rather than having to identify each word in isolation.

Benchmark is the level at which students have reached grade level requirements in reading (University of Oregon Center on Teaching and Learning, n.d.).

Cold Read refers to a student reading a text without any practice or study of the text in advance.

Choral Reading is a strategy in which an entire class or group of students read a text aloud in unison.

DIBELS (Dynamic Indicators of Basic Early Literacy Skills) is a set of procedures and measures for assessing the acquisition of early literacy skills. DIBELS passages are designed to be short (one minute) fluency measures used to regularly monitor the

development of early literacy and early reading skill (University of Oregon Center on Teaching and Learning, n.d.).

Intensive is the level at which students are found to have a high risk of not reaching grade level requirements in reading (University of Oregon Center on Teaching and Learning, n.d.).

Paired Reading is a strategy in which a struggling reader reads simultaneously with a more accomplished reader.

Peer-Assisted Reading is a strategy in which a struggling reader reads while a competent reader follows along correcting errors made by the reader.

Phonemic Awareness is defined as the ability to hear, identify, and manipulate the individual sounds (phonemes) in spoken words (Honig et al., 2008).

Phonics is the explicit relationship between sounds in our spoken language and the letters and spellings that represent those sounds in our written language (Honig et al., 2008).

Prosody is the use of proper expression, such as stress, pitch, and phrasing while reading.

Reader's Theater is a strategy in which a text is read like a script, focusing on using expression and fluency, often with minimal acting.

Reading Comprehension is the ability to construct meaning from what is read (Honig et al., 2008).

Reading Fluency is defined as the ability to decode text accurately, automatically, and with expression (Honig et al., 2008).

Reading While Listening is an approach where a struggling reader follows along while listening as a more competent reader reads the passage aloud. Then the struggling reader reads the same passage aloud, receiving help and corrective feedback on difficult words.

Repeated Reading is a technique used to increase reading fluency by having a student reread a passage until a certain criteria of correct words per minute is met.

Round Robin Reading is a technique in which students are called on one at a time to read a portion of a text aloud while the rest of the class follows along.

STAR, the Standardized Test for the Assessment of Reading, is a computer-adaptive assessment which evaluates a student's current reading skills and approximate reading level (Renaissance Learning, 2011).

Strategic is the level at which students are found to have some risk of not reaching grade level requirements in reading (University of Oregon Center on Teaching and Learning, n.d.).

Teacher-Assisted Reading is a strategy in which a student follows along while a teacher reads aloud modeling to the student how to read at an appropriate rate and with proper expression.

Vocabulary is defined as the development of stored information about the meaning and pronunciation of words necessary for students to be able to communicate (Honig et al., 2008).

Review of the Literature

Reading is a critical component of education and the foundation of a student's overall achievement and success over his or her lifetime. Because a majority of students are not meeting the basic levels of reading achievement in the United States (Honig et al, 2008), it is essential that reading instruction be effective and efficient for the overall academic success of all students. In an effort to improve reading performance in students across the country, the National Reading Panel (NRP) issued a report in 2000 that responded to a congressional mandate to help identify skills and methods central to reading achievement. The panel looked at research in reading instruction and focused on kindergarten through third grade, the years they defined as critical for reading instruction. The NRP identified five key components needed in a successful reading program. They are phonemic awareness, phonics, fluency, vocabulary, and text comprehension (Armbruster et al., 2001).

The first two key components of a successful reading program, phonemic awareness and phonics, work together to increase students' word recognition skills and their ability to decode words. "In reading, decoding is a basic skill, one that is absolutely essential to success" (Rasinski, 2003, p. 76). Students must learn not only to decode words accurately, but also automatically. "Before children learn to read print, they need to become aware of how the sounds in words work. They must understand that words are made up of speech sounds, or phonemes" (Armbruster et al., 2001, p.1). Phonemic awareness is the ability to notice, think about, and work with the individual sounds. It includes the understanding that sounds in our spoken language can be blended together to

make words. Phonemic awareness also involves understanding how the phonemes can be separated, blended and manipulated in different words.

It is essential that students are taught phonemic awareness because it improves their word reading and reading comprehension. Students who have been taught and understand phonemic awareness are more likely to become successful readers (Armbruster et al., 2001; Honig et al., 2008; Vaughn & Linan-Thompson, 2004).

Phonemic awareness is necessary because it helps children understand and use the alphabetic system to read and write (National Institute of Child Health and Human Development [NICHD], 2000).

Once students have an understanding of sounds, they can relate those sounds to letters; this is phonics (Armbruster et al., 2001). Phonics is the “method of instruction that teaches students the systematic relationship between the letters and letter combinations in written language and the individual sounds in spoken language and how to use these relationships to read and spell words” (Honig et al., 2008, p. 170). Phonics involves the study of the rules of words in their written form and the ability to remember the correlation between sounds and the letter(s) that represent them. It is taught primarily to all students in the primary grades and to struggling readers in upper grades. A process called decoding, looking at letters and sounds and blending them together to make words, is used. Readers use their phonics skills to automatically and accurately read familiar words as well as to assist them in decoding unknown words.

Phonics instruction is a key component in teaching reading because it helps students to apply rules that match letters and sounds. It helps readers recognize and blend letters and sounds into words more accurately and rapidly, leading to more fluent reading

and, therefore, increased comprehension (Armbruster et al., 2001; Honig et al., 2008; Vaughn & Linan-Thompson, 2004).

Two other key components identified by the NPR for successful reading programs, fluency and vocabulary, also play critical roles in a student's ability to comprehend. When students are able to read fluently, they do not have to concentrate on decoding which allows them to gain meaning from the text. Additionally, students have an easier time reading words that are part of their vocabulary. Having strong skills in fluency and vocabulary allows a reader to recognize words and comprehend at the same time (Armbruster et al., 2001).

Reading fluency, an essential component in learning to read, is the ability to read text accurately, automatically, and with appropriate prosody. All three of these characteristics are necessary to reading. First, students must be able to read accurately or they will not be able to make sense of the author's intended meaning. Second, if a student reads slowly and laboriously, too much of the reader's attention is focused on decoding and he or she is unable to construct meaning which can affect comprehension. Finally, poor prosody can lead to misunderstanding when words are grouped together incorrectly or when expression is used inappropriately. Fluent readers have the ability to recognize words and comprehend the text at the same time. "At its heart, fluency instruction is focused on ensuring that word reading becomes automatic so that readers have sufficient cognitive resources to understand what they read" (Honig et al., 2008, p. 321).

Vocabulary is the knowledge of words and word meanings. Students can develop their vocabulary through listening, speaking, reading, or writing. Vocabulary is learned

both indirectly and directly. Most words children learn are obtained indirectly, through their everyday experiences, while some words are explicitly taught through direct vocabulary instruction. Vocabulary instruction plays an important part in reading as it allows readers to make meaning of the words they see and helps them understand what they are reading. The size of a student's vocabulary will impact their reading comprehension (Armbruster et al., 2001; Honig et al., 2008; Vaughn & Linan-Thompson, 2004).

The fifth and final key component of successful reading programs according to the NPR is text comprehension. Comprehension, which is the culmination of all other reading skills, is often viewed as the heart and soul of reading. Reading comprehension involves connecting the words being read with the reader's prior knowledge to make meaning of the text. Phonemic awareness, phonics, fluency, and vocabulary all play a role in helping a reader comprehend what they read. If a reader does not comprehend what he or she is reading, the purpose of reading is lost (Armbruster et al., 2001; Honig et al., 2008; Vaughn & Linan-Thompson, 2004).

During their study, The National Reading Panel found a close relationship between reading fluency and comprehension. Students who scored low in fluency also scored low in reading comprehension (as cited by Armbruster et al., 2001). This suggests that fluency is a skill that students need opportunities to practice and develop. Many studies have found that fluent reading is important because it connects word recognition and comprehension (Armbruster & Osborn, 2003; Honig et al., 2008; Pikulski & Chard, 2005). Students who have difficulty decoding words quickly enough to read fluently do not have the ability to focus on the meaning of the text. Unlike students who easily

recognize words and can focus on what the text is saying, students who need to focus on reading the words do not have the same amount of attention to give to understanding the text (Meyer & Felton, 1999; Reutzel & Hollingsworth, 1993; Therrien, 2004). Research by Reutzel and Hollingsworth (1993) concluded that there is a “strong effect of fluency development on second graders’ reading comprehension” (p. 329).

Although researchers consider fluency a key component in the goal of enhancing a reader’s comprehension of a text, Rasinksi, Linek, Sturtevant, and Padak (1994) recognized that “it has not been as widely studied as other reading processes and factors such as comprehension, vocabulary, and metacognition” (p. 185). The importance of fluency as a critical component of reading development was first recognized around 1969 (as cited in Therrien, 2004) and sporadically received attention from researchers and educators after that. Fluency became a topic of interest for many researchers after LeBerge and Samuels (1974) began to look at reading fluency problems and its effects on reading comprehension. LeBerge and Samuels noted that humans can perform only one task at a time. Therefore, a reader cannot focus his or her attention on both decoding and comprehending at the same time. Since the work of LeBerge and Samuels, reading fluency (automaticity) has been recognized as a critical component of reading so that the goal of comprehension can be achieved (Pikulski & Chard, 2005).

Allington (1983) also stated that while poor reading fluency is recognized as a characteristic of poor readers, it is seldom treated. It is often a missing component of reading curriculums, teacher manuals, and lesson plans. Allington (1983) found that studies had proven that reading fluency is teachable, and can improve a student’s overall reading ability. Almost 25 years later, Allington (2006) revisited the importance of

reading fluency, recognizing that it had been neglected for a number of years. Allington (2006) stated that reading fluency did not really become a focal point of educators' concerns until the National Reading Panel (NRP) published its report in 2000.

Congress mandated educators to identify skills and methods for effective reading instruction when statistics showed a large numbers of students struggling to read and/or not proficient at reading (Armburter et al., 2001; Honig et al., 2008). When researchers and educators took a closer look at current reading instruction and practices, it was not surprising that they found that out of the five key components in reading instruction, “fluency instruction may be the missing element in reading instruction for most teachers, because most teachers learned to teach reading with a focus on accuracy and comprehension; few teachers were taught how to teach students to reading quickly and automatically” (Vaughn & Linan-Thompson, 2004, p. 51). Reutzel and Hollingsworth (1993) agreed that fluency is often missing as part of reading instruction in spite of the fact that many reading experts found it to be a vital part of the reading curriculum.

Recognizing that fluency is a critical component of reading instruction, a number of studies have examined how to improve reading fluency. According to Therrien (2004), one of the early strategies for improving reading fluency was a technique known as the neurological impress method. This is a method that is based upon the idea that by having students and teachers read aloud simultaneously, a student's reading fluency would improve. Although early studies showed this method to have potential, studies that followed did not show significant results. However, from the neurological impress method three new models evolved: assisted reading, reading while listening, and paired

reading. Therrien (2004) concluded that studies on these three methods have shown mixed results.

Another strategy often used for improving fluency is independent silent reading. Educators have long used independent silent reading as a way to help students become more fluent readers. This is based on the findings of many studies that show a strong relationship between a student's reading ability and how much time they spend reading (Armbruster et al., 2001; Honig et al., 2008). This is why silent reading is often part of any reading curriculum. However, struggling readers often try to avoid reading or attempt to read books that are not at an appropriate reading level for them which limits the amount of time these students are engaged in reading as compared to their peers. For these students, silent reading has no effect on improving their reading fluency.

According to the No Child Left Behind Act, "no research evidence is available to confirm that instructional time spent on silent reading with minimal guidance and feedback improves reading fluency and overall reading achievement" (as cited in Vaughn & Linan-Thompson, 2004, p. 51). However, researchers believe there is a correlation between a student's reading ability and the amount of time they spend reading. Good readers are likely to read more than struggling readers based on the idea that struggling readers find reading more difficult and are therefore less likely to engage in independent reading (Honig et al., 2008; Pikulski & Chard, 2005). Teachers often give time for silent reading, or have students read in a round robin format, but these techniques have not been found to improve the reading fluency of students (Armbruster et al., 2001).

While there are many studies that illustrate the failure of some strategies to improve reading fluency, researchers have several suggestions on strategies to help

students improve their reading fluency. Some of these strategies include teacher-assisted reading, peer-assisted reading, audio-assisted reading, choral reading, reader's theater, and repeated readings (Allington, 2006; Honig et al., 2008; Kuhn & Stahl, 2003). Out of all of these strategies for improving reading fluency, repeated reading has received some of the most extensive research both before and after the NRP's report in 2000. Studies by Dowhower (1987), Kuhn & Stahl (2003), Meyer and Felton (1999), the NICHD (2000), and Rasinski (1990) have all shown repeated reading to be an effective strategy that works for improving reading fluency.

Therrien (2004) completed a meta-analysis that looked at repeated reading procedures to help increase reading fluency and comprehension. He recognized that when reading is slow, too much of a student's cognitive ability is spent on decoding words and not on comprehending the text. On the contrary, students who read quickly and with automaticity have the cognitive ability to focus on comprehending the text. Therrien's (2004) meta-analysis focused on three questions: Is repeated reading effective in increasing reading fluency and comprehension? What components within a repeated reading intervention are critical to the success of the program? Do students with cognitive disabilities benefit from repeated readings? Therrien (2004) looked at the impact of cued reading, corrective feedback, and performance criteria on students with and without learning disabilities. He concluded that repeated readings helped to improve students' fluency and comprehension in both groups. He also found that the improvements students made in their fluency during repeated reading transferred to new reading material they were presented with.

Honig et al. (2008) recommended using repeated reading as a tool for building a student's reading rate and accuracy. They noted that it is most beneficial for students who are slow but accurate (who possess good decoding skills) and who need intense practice with increasing their automaticity (Honig et al, 2008). Allington (2006) also recommended repeated readings as a tool to use with students who have strong decoding skills, but who continue to lack reading fluency. He stated it is effective for developing fluency, while fostering comprehension at the same time (Allington, 2006).

According to Rasinski (2003), Dowhower reviewed the research on repeated reading and found a number of benefits including helping readers recall facts and remember important information, improving story comprehension and promoting faster reading with higher word recognition. In addition, Dowhower found repeated reading helped struggling readers transition from word-by-word reading to reading with more meaningful phrases.

Research studies have concluded that repeated reading is an effective strategy for improving reading fluency (Armbruster et al., 2001; Pressley, Gaskins, & Fingeret, 2006). However, the required components of repeated reading strategies are not always clear and have varied between studies. In his study, Therrien (2004) was quick to point out what he found to be essential components of instruction that need to be included in order for repeated readings to be effective. He stated that students need to read to an adult (showed more growth than when students read to peers and is required to improve students' overall reading ability and growth in "transfer" readings), that students should be given cues (read for speed, comprehension, or both), and that a passage should be read three to four times (showed a greater increase than when a passage was read only twice

and the continued increase was minimal after four readings). Therrien (2004) also found it critical to include corrective feedback if students were trying to increase both fluency and comprehension, as studies using corrective feedback showed significant increases. Therrien (2004) concluded that, “repeated reading can be used effectively to improve students’ ability to fluently read and understand a particular passage and as an intervention to improve students’ overall reading fluency and comprehension ability” (p. 259).

In their article, Therrien and Kubina (2006) presented four key elements to consider when using repeated readings. First, students should be reading at a minimum of a first-grade reading level. Second, repeated reading needs to be delivered appropriately with some essential components. Repeated reading can be conducted by competent teachers, paraprofessionals, and peer tutors. It can also be delivered in a whole group or in a pull-out format. Corrective feedback needs to be provided to the reader during the repeated readings and a passage is to be reread until performance criteria is reached. Third, appropriate reading materials should be carefully selected. Passages should be at the student’s instructional level and short enough for a student to read in a one to two minute time frame. Finally, repeated reading should follow a structured instructional sequence. Therrien and Kubina (2006) concluded that using these essential components and selecting appropriate materials maximizes the effectiveness of repeated readings on improving reading fluency.

Honig et al. (2008) also gave specific instructions about how to use repeated reading to improve reading fluency. They recommended using corrective feedback for both accuracy and prosody. They stated that it is important for students to reread a

passage until they can read it accurately, but also to be able to read with correct expression and phrasing. They recommended treating errors as puzzles to be solved, rather than big mistakes.

Although most would agree that repeated reading is a beneficial tool for increasing reading fluency in struggling readers, Allington (2006) had a different view on how and why repeated reading should be used. He examined current instruction for struggling readers in school. Allington (2006) recognized that a struggling reader's desk is filled with a grade-level basal, a grade-level science book, a grade-level social studies book, and a grade-level trade book. If a student reading below grade level is exposed to grade level books all day, the amount of success they have is minimal and little progress will be made in improving their reading ability. Therefore, Allington (2006) theorized that in order to help students improve their reading fluency, curriculum and instruction needs to be redesigned so that all students have easy, frequent access to material that is at an appropriate reading level and will provide successful reading experiences for all students. Allington (2006) believed there is a purpose for repeated readings in improving reading fluency, but more for a short term use. He thought repeated reading can be used to help struggling readers understand what fluent reading feels like. Repeated reading is a strategy that should break the habit of reading texts word by word. However, it is not simply a tool to increase fluency only. Allington (2006) stated that attention should also be given to comprehension as reading for understanding is the ultimate goal of any reading experience.

Summary

There is no question that research studies have validated the importance of teaching reading fluency and teaching it effectively. There is strong consensus that shows repeated reading is an efficient and effective method for doing so. Within the strategy of repeated readings, there are variations in how it is developed, delivered, and monitored.

Methodology

Participants

Participants in this study were second graders from a public school in Washington State. The school had approximately 500 students in grades kindergarten through fifth. The school demographics were 61% military dependents, 54% free/reduced lunch, 17% special education, 26% minority, and 2.4% English Language Learners (ELL). The demographics of the study participants were 72% military dependents, 77% free/reduced, no special education, 27% minority, and 6% ELL.

Participants were selected to participate in the study based on their oral reading fluency scores from the DIBELS benchmark assessment. The students selected to participate in the study were identified as strategic or intensive on their DIBELS test, which meant they were performing below grade level in reading fluency. The participants selected did not receive any special education services in the area of reading. There were 18 students in the second grade that fit the criteria of the study. The range of the participants' reading fluency was 20-62 correct words per minute with 68% – 98% accuracy on the DIBELS benchmark assessment. DIBELS stated benchmark was 68 correct words per minute with 96% accuracy, for second graders. (University of Oregon Center on Teaching and Learning, n.d.) The participants were chosen for the study because according to Honig et al. (2008), repeated reading was designed for students who are struggling in reading, not all students. It should also be used to build a student's oral reading fluency, not to see if a student is meeting grade level expectations (Honig, et al., 2008).

Students in this study were ranked based on their DIBELS score in correct words per minute from low to high. The first student was placed in the control group and the next student was placed in the study group. This process was repeated, alternating students between the control group and the study group, until all students had been placed in a group. Out of all of the students who qualified to participate in the study, 17 out of the 18 participants received 35 minutes of their reading instruction time in a smaller class size setting with a stronger focus on the five components of reading.

The control group had a total of nine participants, three boys and six girls. Eight participants were identified as intensive in their reading rate. They scored between 19-48 correct words per minute below benchmark. One student was identified as being strategic and was 10 correct words per minute below benchmark. Four of the participants were identified as intensive and two were strategic in reading accuracy.

The study group had a total of nine participants, four boys and five girls. Eight participants were identified as intensive in their reading rate. They scored between 13-47 correct words per minute below benchmark. One student was identified as being strategic and was eight correct words per minute below benchmark. Five of the participants were identified as intensive and two were strategic in reading accuracy.

All participants in the study read through the repeated reading process. Students in the control group received no feedback on misread or omitted words while students who were in the study group received corrective feedback both during and after their one minute timings.

Methods and Procedures

The design of the study was based on the recommendations of Honig et al. (2008) on how to effectively implement repeated readings and use corrective feedback during repeated reading to improve reading fluency.

All students in the second grade were given the DIBELS benchmark assessment and the STAR reading assessment as part of a district-wide screening. These assessments were used to help determine who would qualify to participate in the study.

The reading level at which participants started was based on their DIBELS pretest fluency score and their STAR assessment grade equivalent score. Students were placed at the reading level just below their current level on STAR and DIBELS to ensure that students would be reading at their independent or instructional level. Tables 1 and 2 show the results of the STAR reading test and the beginning Read Naturally level for the participants. The Read Naturally passages that were selected to be part of this study were pre-numbered at each reading level to ensure that all participants read through the passages in the same sequential order to ensure consistency.

All participants performed a cold read on each text. They were timed for one minute. The teacher or para-educator recorded the text level, the total number of words read, the number of errors, and the total correct words read in a minute.

The control group performed their repeated readings with no feedback. Participants were given a passage to read and were timed for one minute. If participants paused on an unknown word for more than three seconds, they were instructed to skip it and continue reading. At the end of the one minute, participants were not told which words were read incorrectly or what the words were that they skipped. Participants

reread the same passage until they reached the goal of 75 correct words per minute, the preset goal. (This aspect of the study was based on the recommendation of Therrien (2004) who suggested that students read until a set criteria is reached, rather than a set number of readings.) Once the participants met the goal of 75 correct words per minute, they were given another passage at the same reading level and the process was repeated. However, if participants were able to reach the goal of 75 correct words per minute on the first reading of the passage, they moved up to the next reading level. If participants were not able to meet the goal of 75 correct words per minute after reading the same passage six times, they moved down to a lower reading level. Honig et al. (2008) noted in their research that if a student is unable to meet their reading goal after six attempts of reading the same passage, the teacher may need to change either the student's reading goal or independent reading level. In addition, research studies have shown that after about four readings of the same passage the amount of improvement levels off and little gain is made in fluency beyond that number of readings (Therrien, 2004).

The study group performed their repeated readings with corrective feedback. Participants were given a passage to read and were timed for one minute. If participants paused on an unknown word for more than three seconds, they were told the word, they repeated it, and then continued reading. When a participant misread or mispronounced a word, the para-educator or teacher would stop them, pronounce the word, have them repeat the word correctly, and then continue reading. At the end the one minute reading participants went back to the passage and reviewed all the skipped and misread words. The para-educator or teacher would tell the participant the word, the participant would repeat the word and then reread the entire sentence the word was in. When using

corrective feedback, Honig et al. (2008) recommended that it is important for students to correct their mistakes. They proposed to have the teacher say the incorrect word correctly, have the student repeat it, and then have the student read the whole sentence again until they can accurately read it. They stated this process should be repeated with all misread or omitted words in the passage before the student rereads the passage again.

Participants in this study reread the same passage until they reached the goal of 75 correct words per minute, the preset goal. Once the participants met the goal of 75 correct words per minute, they were given another passage at the same reading level and the process was repeated. However, if participants were able to reach the goal of 75 correct words per minute on their first reading of the passage, they moved up to the next reading level. If participants were not able to meet the goal of 75 correct words per minute after reading the same passage six times, they moved down to a lower reading level.

The study was conducted three days a week over an eight week period. In order for students to receive sufficient, consistent practice, Therrien (2004) stated that repeated readings should take place at least three days a week. All participants from both the control group and the study group read to a para-educator or teacher in a one-on-one setting. Therrien (2004) found that repeated reading is most effective when the student reads to an adult rather than a peer.

During the study, data was collected about participants' fluency rate and accuracy on each reading. Data was also collected on the number of readings each participant needed to reach the goal of 75 correct words per minute and at which reading level each participant was reading.

Materials

The DIBELS reading assessment was used to determine the participants that would qualify to participate in the study. DIBELS was designed as a standardized, individually administered test which assesses a student's reading fluency and accuracy. It uses benchmark passages that are meant to be used as screening assessments (University of Oregon on Teaching and Learning, n.d.).

The Read Naturally texts were selected as the passages for repeated readings and were used to measure participants' oral reading fluency and accuracy during the study. The Read Naturally program is a standardized set of preleveled texts that range from 50-200 words, which is close to the recommended length to use for repeated readings. Therrien (2004) recommended that repeated reading texts selected should be between 100-250 words long and at a student's independent or instructional reading level, not their current grade level. The Read Naturally program was selected based on the large quantity of non-fiction stories available at a wide range of reading levels within each grade level. This program has been used in the educational setting for twenty years and has been proven to be effective in helping improve reading fluency. The passages are short, contain a large number of sight words, and use repetition to help build fluency.

To help determine the reading level participants would begin on, the STAR reading assessment was given to determine an approximate reading level. The STAR reading assessment measures student achievement and provides data for screening. This test is reliable, valid, and efficient. It provides educators with information about students' general reading achievement and comprehension (Renaissance Learning, 2001).

This study used readily available materials in order to ensure that if correct feedback was found to be beneficial, the school could continue to use corrective feedback during repeated readings without having to buy any additional materials to support the practice of corrective feedback.

Results

The purpose of this study was to examine the role of giving corrective feedback during repeated readings to improve reading fluency in struggling readers. Fluency was measured by the correct number of words per minute and accuracy rate of the participants during the study.

Both the control group and the study group made growth in improving their oral reading fluency over the eight week testing period. Combined, they averaged an 18.4 correct words per minute gain from their pretest to their posttest. The control group started with an average fluency score of 39.3 correct words per minute on their DIBELS pretests. The posttests showed an average fluency score of 54.8 correct words per minute. The control group averaged a 15.4 word per minute gain with a range of 10-26 words per minute. Students who received corrective feedback started with an average fluency score of 42.3 correct words per minute on their DIBELS pretests. Their posttests showed an average fluency score of 63.8 correct words per minute, an average gain of 21.4 correct words per minute with a range of 2-36 words per minute during the eight week study. According to Honig et al. (2008), second grade students should gain an average of 1.5-2 words per minute weekly on their oral reading fluency scores. That means most students should have gained between 12-16 words per minute on their fluency score during the eight week study. Three participants in the control group exceeded the average gain on their reading fluency, while seven out of the nine students in the study group exceeded the average gain of 12-16 words per minute in an eight week period. The fluency scores for the participants' DIBELS pretests and posttests with and without corrective feedback are presented in Figures 1 and 2.

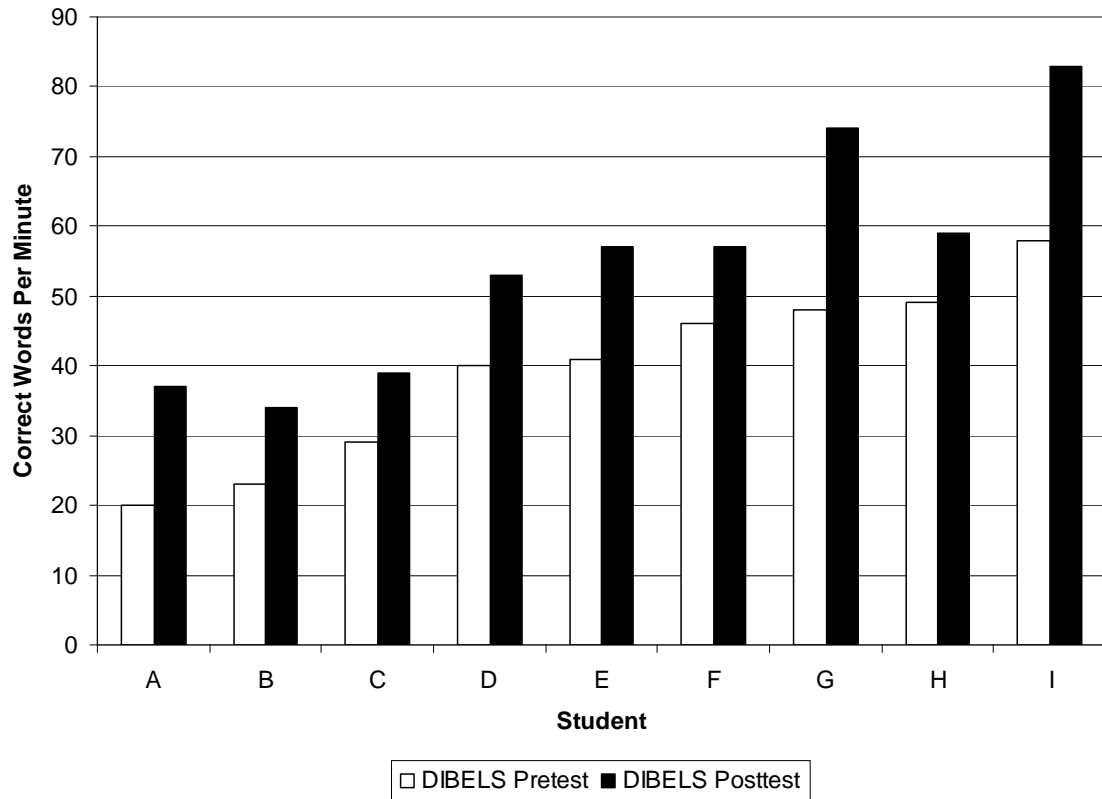


Figure 1. Fluency scores for control group with no corrective feedback

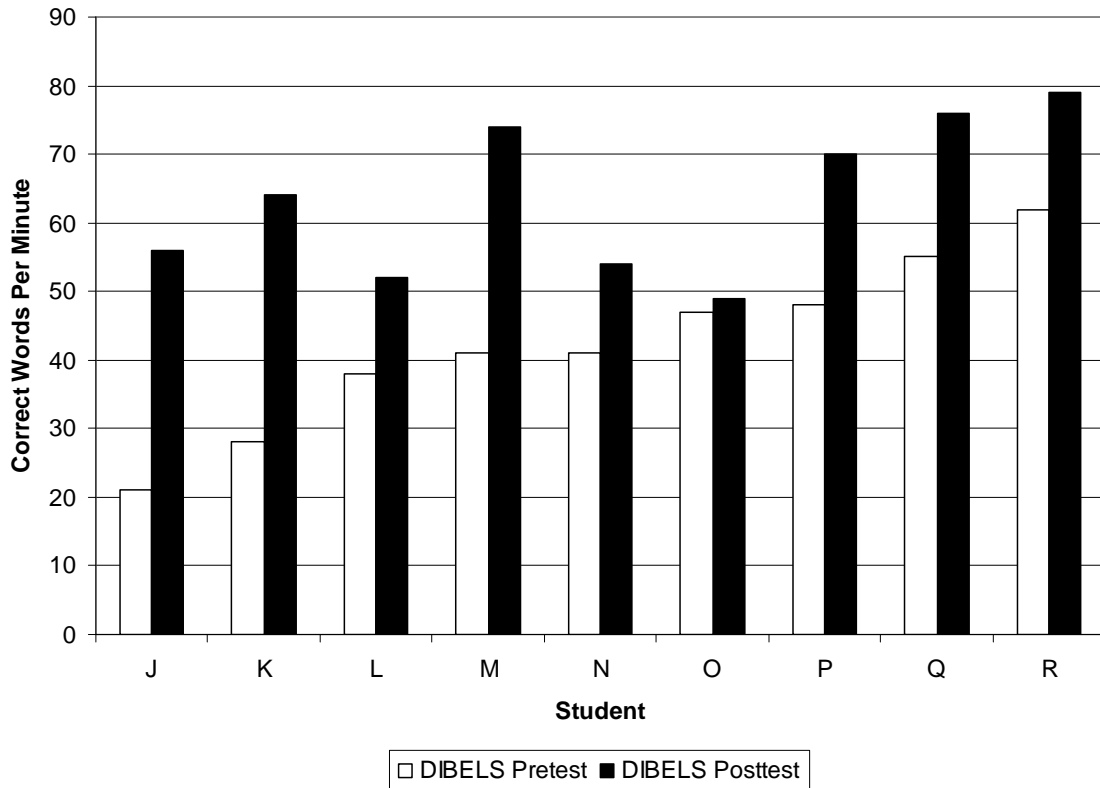


Figure 2. Fluency scores for study group with corrective feedback

Since errors negatively affect a student’s oral reading fluency score, it is important for students to increase their accuracy as well as their speed. Figures 3 and 4 present the participants’ accuracy scores on their DIBELS pretests and posttests. The average accuracy score for the DIBELS pretest was 88.6%. The control group had an average of 90.6% and the study group had an average of 86.7%. The DIBELS posttest showed an average accuracy score of 94.1%, a gain of 5.5%. The control group’s posttest average was 94.7%, which was an increase of 4.1%. The study group’s posttest average was 93.6%, which was an increase of 6.9%.

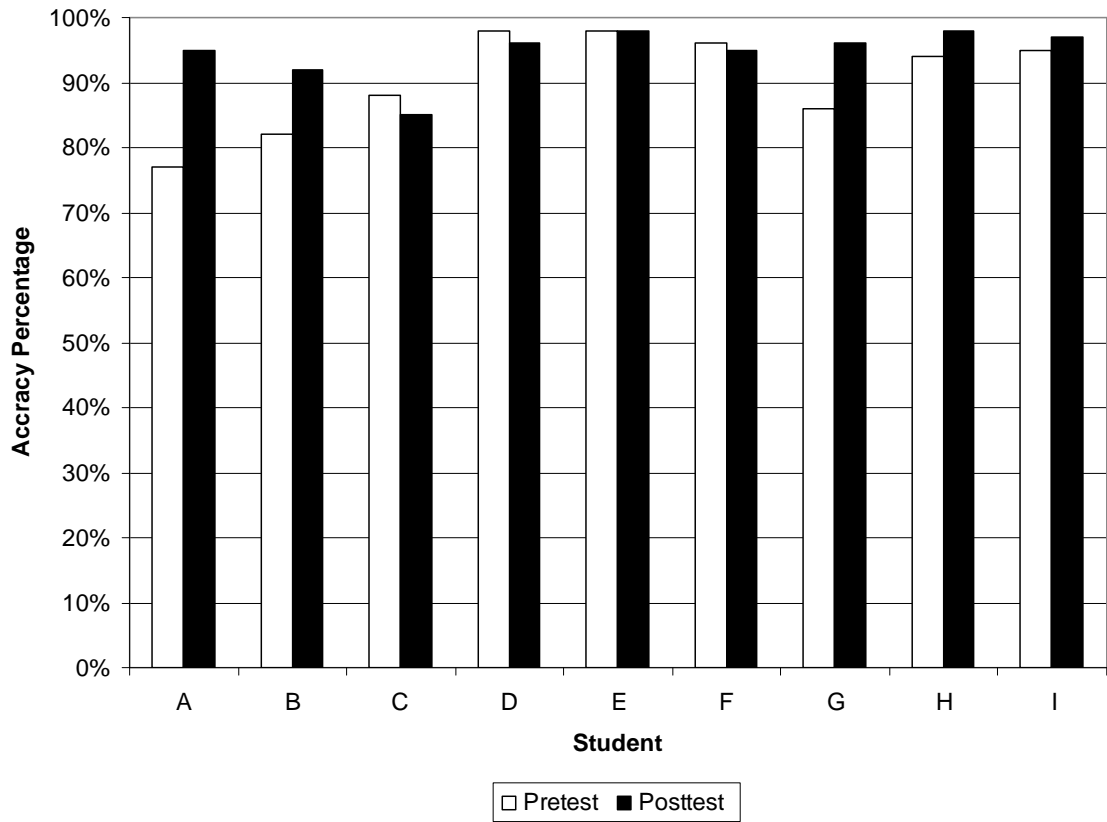


Figure 3. Accuracy scores for control group with no corrective feedback

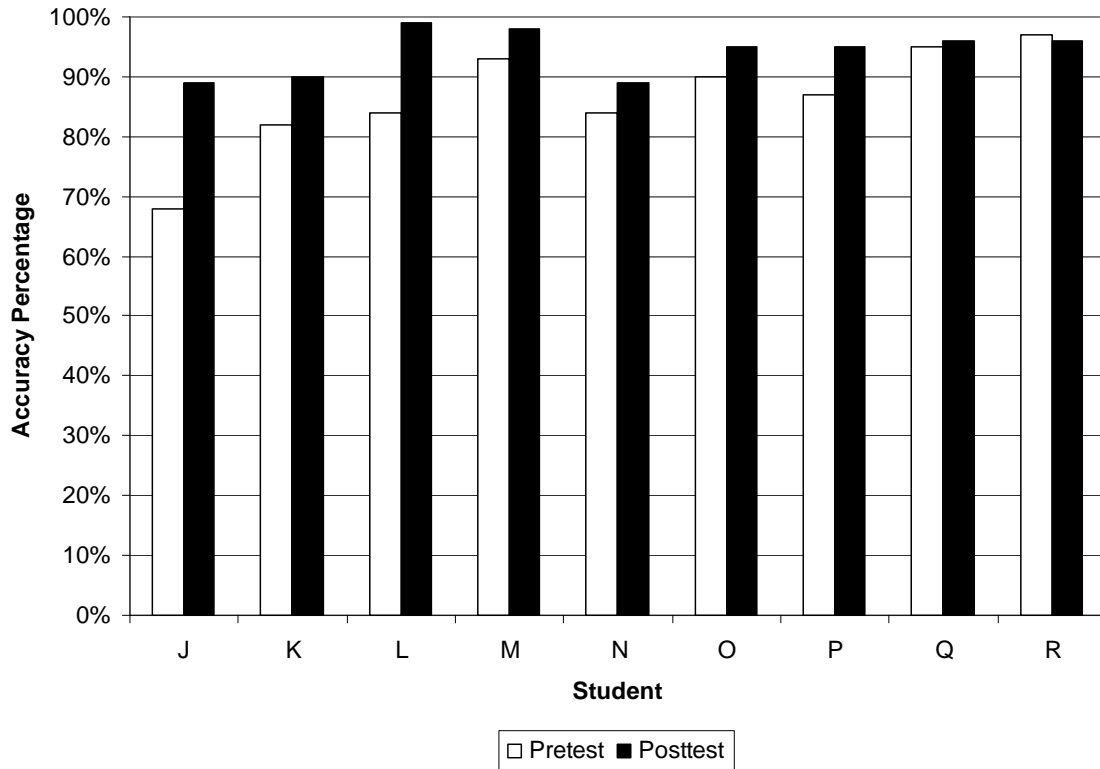


Figure 4. Accuracy scores for study group with corrective feedback

When a student was able to meet their reading goal on a cold read, the student advanced to the next level of reading passages. On the other hand, if a student was unable to meet their reading goal within six attempts, the student was given passages at a lower reading level. Figures 5 and 6 show how many reading levels students in the control and study group gained or lost during the study. Out of the nine participants in the control group, two dropped two reading levels, two dropped one reading level, two stayed on the same reading level, two went up one reading level, and one went up two reading levels during the eight week study window. Out of the nine participants in the study group that received corrective feedback, two students went up one reading level, four students went up two reading levels, and three students went up three reading levels.

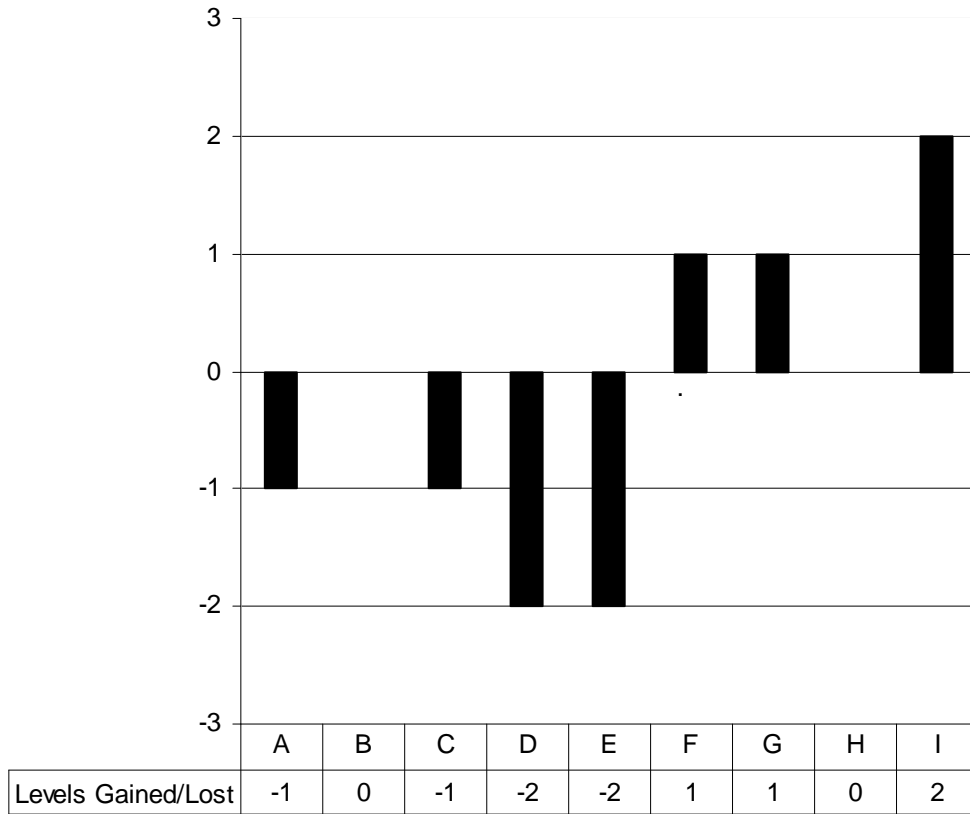


Figure 5. Number of reading levels gained/lost for control group with no corrective feedback

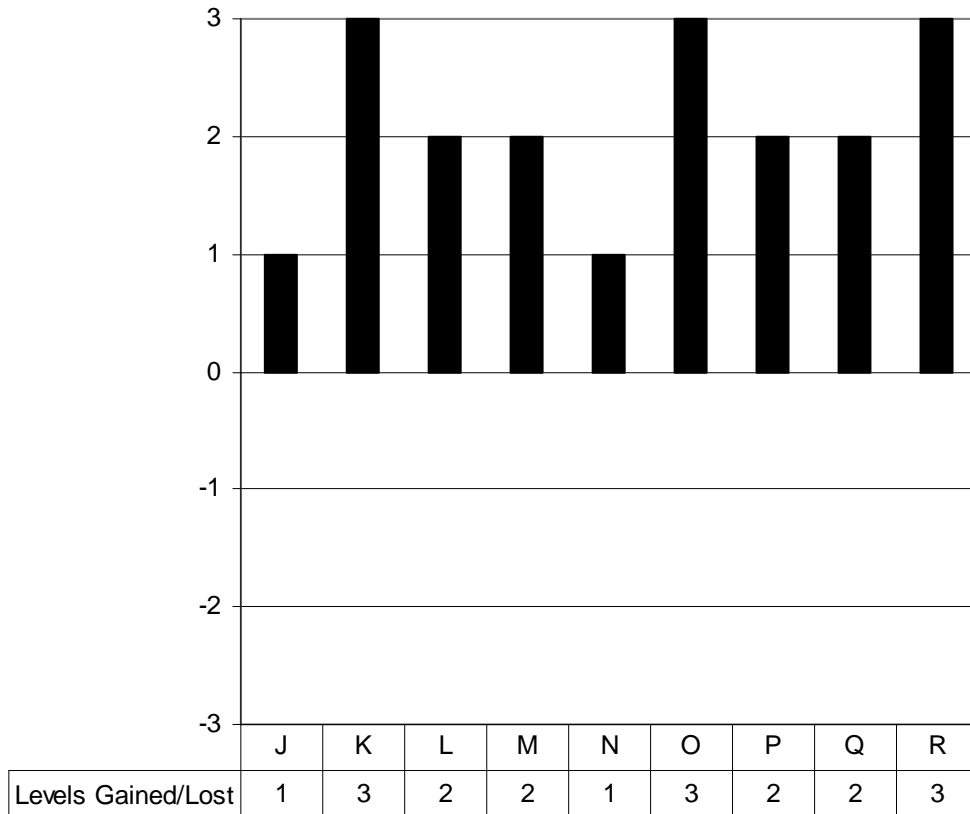


Figure 6. Number of reading levels gained/lost for study group with corrective feedback

This study also examined the average number of re-readings it took for participants to meet the reading goal on a passage and move on to another story. The overall average was 3.4 readings per passage. The control group averaged 3.7 readings per passage while the study group averaged 3 readings per passage. These results are shown on Tables 1 and 2.

Table 1

Reading Levels for Control Group with No Corrective Feedback

Student	STAR Reading Level	Starting Read Naturally Level (Grade Equivalent)	Ending Read Naturally Level (Grade Equivalent)	Number of Reading Levels Gained or Lost	Average Number of Readings per Passage
A	1.5	3 (1.3)	2 (1.0)	-1	5
B	1.6	3 (1.3)	3 (1.3)	0	4.3
C	1.3	2 (1.0)	1 (0.8)	-1	4.1
D	1.5	3 (1.3)	1 (0.8)	-2	3.8
E	2	4 (1.5)	2 (1.0)	-2	3.6
F	1.8	4 (1.5)	5 (1.8)	+1	3.3
G	1.7	4 (1.5)	5 (1.8)	+1	3.4
H	2	5 (1.8)	5 (1.8)	0	3
I	2.6	6 (2.0)	8 (2.5)	+2	2.8

Table 2

Reading Levels for Study Group with Corrective Feedback

Student	STAR Reading Level	Starting Read Naturally Level (Grade Equivalent)	Ending Read Naturally Level	Number of Reading Levels Gained or Lost	Average Number of Readings per Passage
J	1.3	2 (1.0)	3 (1.3)	+1	3.6
K	1	2 (1.0)	5 (1.8)	+3	3
L	1.6	3 (1.3)	5 (1.8)	+2	2.7
M	1.7	4 (1.5)	6 (2.0)	+2	2.6
N	1.7	4 (1.5)	5 (1.8)	+1	3.3
O	1.3	2 (1.0)	5 (1.8)	+3	2.8
P	1.5	3 (1.3)	5 (1.8)	+2	3.2
Q	1.4	3 (1.3)	5 (1.8)	+2	3.1
R	2.2	6 (2.0)	9 (2.6)	+3	2.7

Discussion

With the government's reauthorization of the No Child Left Behind Act and a mandate that requires all students to be proficient in reading by the year 2014, there is increasing pressure on educators to help struggling readers make large gains in their reading ability. One area in which many students continually fail to meet standards is the area of reading fluency. Research has found reading fluency to be one of the five key components of reading, but an area that is often neglected in reading curriculums and classrooms today. One of the most commonly suggested tools by researchers for

improving reading fluency is to use a method called repeated reading. Repeated reading is the most researched and recognized method to help improve reading fluency.

However, the method of conducting repeated reading has not been extensively studied, and the question of whether or not to provide corrective feedback to students has largely been ignored. This study investigated whether or not providing corrective feedback during repeated readings helped to improve the participants' reading fluency and accuracy.

The findings of this study indicated that repeated reading is an effective strategy for educators to use to help improve reading fluency for struggling readers. In addition, the study found that including corrective feedback as a component of repeated readings will make the repeated readings more effective and successful. The participants in this study who received corrective feedback improved their reading fluency by 28% more than those who did not receive corrective feedback in just an eight week period. In addition, it took a fewer number of readings for the participants to read at their target reading rate when they received corrective feedback as compared to participants who did not receive any corrective feedback.

This study verified what research has proven in the past, that repeated reading is an effective strategy to help improve reading fluency for struggling readers. However, it also demonstrated that providing corrective feedback during repeated reading is beneficial and increases a student's growth in their reading fluency and accuracy. With so many students not meeting grade level standards and the government mandating all students become proficient readers by 2014, educators need to be using the most effective and efficient methods to help struggling students meet these requirements. Repeated

reading with corrective feedback is one of those methods that will help educators increase reading fluency in struggling readers.

Conclusion

Based on the above data, it was concluded that repeated reading, administered both with and without corrective feedback, helped increase a student's reading fluency. The students who received corrective feedback showed even greater growth than students who did not receive corrective feedback. Students who received corrective feedback during the study saw an average of six more correct words per minute on their posttest, which is approximately a 25% bigger gain than the students who did not receive corrective feedback. In addition to a greater increase in their correct words per minute, students who received corrective feedback had an average increase in their accuracy of 6.9% as compared to the study group which had an of 4.1%, which is 2.8% higher.

This study also examined if repeated readings with corrective feedback accelerates a students' growth in reading fluency. Most students in second grade make an average of 1.5-2 words per minute gain per week in their reading fluency scores. This would lead to students making a 12-16 word per minute gain during the eight week study. The study group excelled beyond this average with an average gain of over 21 words per minute. Three students in the study group made 30 words per minute or more gain in reading fluency in just an eight week period.

The results of this study correlate with past research that repeated reading is an effective strategy for improving reading fluency. In addition, it supports the idea that corrective feedback is a critical component of repeated reading and helps improve

reading fluency in struggling readers faster and more accurately than using repeated readings without corrective feedback.

Limitations of the Study

Although the research of the study proved the effectiveness of corrective feedback in repeated readings, there were some limitations. First, the study was only conducted to a population of second graders who attend a public school in Washington State.

Therefore, the results were generalized and may not accurately represent the larger population repeated readings may be used with. Second, the study was only conducted over an eight week period, while most studies are at least 12-16 weeks. Further testing might be needed to determine if student growth would be sustained while repeated reading is being conducted or if their growth would plateau. Third, the number of participants in the study was small. There were only a total of 18 participants in the entire study, nine in the control group and nine in the study group. If there were more participants in the study, the outliers would have less effect on the averages and the data would be more definitive. Finally, although reading fluency has three components: speed, accuracy, and prosody, this study focused and tested only speed and accuracy. Additional studies would have to be conducted to determine if corrective feedback during repeated reading had any effect on students' prosody.

Students who participated in the study were tested three days a week over an eight week period. Some students may have been absent during the eight week period and had to be tested on additional days to make up for their absences. Therefore, some participants may have had only two days of reading in one week and four in the next. In the end, they all completed 24 days of testing.

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