

The Effects of Repeated Readings on the Fluency of First Grade Students

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## **Abstract**

The purpose of this study was to investigate the effects of repeated readings on the fluency of first grade students. This study utilized a quasi-experimental design that included a pre-assessment and treatment, followed by a post-assessment. There were ten participants in this study which included three African American males, three Caucasian females, two African American females, and two Hispanic females. Data was collected by the researcher over a period of six months. The study hypothesized that there will be no statistically significant improvement in reading fluency, as measured by the Dynamic Indicators of Basic Literacy Skills (DIBELS) assessment, of students who received repeated reading instruction over a six month period when their results are compared with their performance on the reading fluency portion of the DIBELS assessment that was administered at the beginning of the year. The results suggested that there were statistically significant differences overall in the performance of students on the DIBELS Oral Reading Fluency assessment. This study supports previous research on the effectiveness of implementing a repeated reading program in the first grade classroom.

## **CHAPTER I**

### **INTRODUCTION**

“Reading is the most critical academic skill students will learn and one of the best predictors of overall success in school and society” (Algozzine, Dugan, Kavel, & Marr, 2010, p. 74). Each year when a new group of students enters their first grade classroom, they represent both a wide range of abilities in the area of reading fluency and come from various backgrounds and have had a plethora of educational experiences. At the end of the school year, these students still represent a wide range of abilities in reading fluency. Some students have made tremendous growth, while others have made only minimal improvements from the start to the close of the school year. Students who reach the end of the school year still struggling with reading “are likely to experience continued academic challenges and have increased likelihood of disciplinary problems” (Cummings, Dewey, Good, & Latimer, 2011, p. 284). Each year, hopefully, only the most effective reading strategies are implemented in an attempt to improve the fluency of students. With the right intervention strategies, “breaking the downward spiral that struggling students often experience is possible” (Hernandez & Murphy, 2011, p. 169).

Researchers, Barkley, Hawkins, and Musti-Rao (2009) state that “the need for implicit instruction in reading fluency cannot be overstated” (p. 12). These researchers also declare that it is of the utmost importance to improve reading fluency because it is fundamental to deriving meaning from the text being read. “Classroom instruction that focuses on reading fluency is important because of the association that fluent reading has with improved comprehension” (Kuhn, Morrow, Morris, Schwanenflugel, 2009, p. 319) However, each school day has so many demands that it is hard to devote as much time as is often needed to help students make adequate progress. There are also the demands of having so many students, so little time, and often only

one classroom teacher that is responsible for it all. Each year the goal is to discover the best practices that will result in the greatest improvements. More specifically this means discovering the best reading strategies and instructional approaches that should be used to improve the reading fluency of these students.

A reading strategy that appears to work well with first graders is called Repeated Reading. “Repeated reading of texts has been proven beneficial in more than one study for students who read between a first and a third grade instructional level” (Faver, 2008, p. 350). According to Faver (2008) it is the most researched method proven in improving fluency. Faver suggests using repeated reading strategies as often as every day in the classroom because it allows for students to practice with the building blocks of reading which include phonemic awareness, phonics, fluency, vocabulary, and comprehension.

### **Statement of Problem**

The purpose of this research study was to determine whether the repeated reading strategy was significantly effective in improving the reading fluency of students in a first grade classroom that represented a wide range of abilities.

### **Hypothesis**

There will be no statistically significant improvement in reading fluency, as measured by the Dynamic Indicators of Basic Literacy Skills (DIBELS) assessment, of students who received repeated reading instruction over a six month period when their results are compared with their performance on the reading fluency portion of the DIBELS assessment that was administered at the beginning of the year.

### **Operational Definitions**

Reading Fluency: For the purpose of this study, reading fluency was operationally defined as a student's score on the reading fluency portion of the Dynamic Indicators of Basic Literacy Skills (DIBELS) assessment.

Reading Strategies: For the purpose of this study, reading strategies were operationally defined as the various strategies implemented in the classroom to aide students in improving reading fluency.

Benchmark Scores: These scores are based upon quarterly formative assessments in reading that are mandated by the Anne Arundel County Public Schools (AACPS).

DIBELS: (Dynamic Indicators of Basic Literacy Skills) This is an individually administered assessment that measures the acquisition of early literacy skills in the primary grades. It contains short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills. More information regarding the psychometric qualities of this assessment will be discussed in Chapter III.

## **CHAPTER II**

### **REVIEW OF THE LITERATURE**

This literature review seeks to explore the role of reading fluency in the reading process. Section one explores reading fluency in great depth and the gives detail about its importance to young students. Section two discusses the building blocks of fluency explaining the elements that are required to build a fluent reader. Finally, section three discusses repeated reading in further detail as well as other strategies that may be used to improve fluency in reading.

#### **Reading Fluency**

Reading fluency is defined as the ability to read at an appropriate rate with expression, efficiency, and accuracy. It is measured with the use of various reading passages as number of words correctly read in one minute known as WPM. When reading fluency is lacking, comprehension will also be lacking. If struggling readers are using their mental capacity to decode most or all of the words of the text, then they will not be able to attend to the meaning of the text. (Jasmine & Schiesl, 2009) Comprehension is now lost, and the purpose for reading has not been met.

It seems that if reading fluency is often the cause of a lack of comprehension, then the obvious solution would be to improve the reading fluency of the student. However, herein lie many problems. There are many strategies, interventions, methods, activities, and the like that claim to improve reading fluency. In a perfect world, there would be the opportunity to implement several strategies or interventions in the classroom to improve the fluency of struggling readers. But in the world of education, time and resources are limited and trial and error is not a great method of identifying best practices to improve reading fluency. Therefore, strategies must be individually examined for their effectiveness to provide the classroom



educator with the strategy that will be the most effective and efficient in producing the desired results.

### **Building Blocks of Fluency**

To begin examining fluency, it is important to begin with the basics. We must first delve into the building blocks of fluency and early literacy skills to determine where the breakdown in fluency may have begun in the reader.

#### **Early Literacy Skills**

There are four stages of reading development known as the alphabetic principle. The first is the pre-alphabetic stage which occurs prior to acquiring knowledge of letters or sounds and is based on visual cues. The partial alphabetic stage the reader has learned that there is a relationship between sounds and letters and may use this connection to begin decoding and blending words, though they may often be inaccurate. As this knowledge develops children enter the full alphabetic stage where they have begun to fully grasp the sound/letter relationship and their decoding and blending becomes more accurate. These three stages build upon each other and must be mastered before entering the last stage. This last stage, the consolidated alphabetic stage, is where fluency takes place. A student in this stage begins to recognize whole words, build vocabulary, and recognize regular spelling patterns in words. Addressing phonemic awareness, phonics, and vocabulary will aide in solidifying the first three stages of the alphabetic principle to bring about the reading fluency that occurs at stage four.

#### **Phonemic Awareness**

Words are made up of sound in speech better known as phonemes. These phonemes are the building blocks of words; the smallest parts of sounds in words. When a phoneme of a word is manipulated, the word is changed, which of course changes the meaning of the word. A child

who is unaware of phonemes could easily interchange /s/ for /h/ taking the sentence, “I want to sit” to “I want to hit”; (therefore causing some problems for this misunderstood child). Because the meaning of a word can change when phonemes are changed and manipulated, it is critical for children to have phonemic awareness (Ambruster, Lehr, & Osborn, 2003).

Phonemic awareness means a child has the ability to distinguish and manipulate phonemes or the sound in spoken words described above. Becoming phonemically aware is one of the first steps necessary to allow a child to become a reader. The process of becoming a fluent reader becomes easier for children that are phonemically aware.

Phonemic awareness improves several components of reading. First, it aids a child in the spelling of words. This may be due to the fact that students that become phonemically aware notice the relationship between sounds and letters and are able to apply this knowledge in the spelling of words. Second, a phonemically aware child is well on his way to becoming a fluent reader. This improvement and development of fluency has a direct effect on improving the comprehension of what is read. This is likely because, once a child has become a fluent reader, they are able to focus less of their attention on word identification and more on the meaning of the words being read.

Phonemically aware students are able to effectively participate in the following activities; phoneme segmentation-the number of sounds in a word; phoneme categorization-sorting words according to the initial, medial, or final sound; phoneme identity-recognizing the same sounds in different words; phoneme isolation-recognizing individual sounds in words; phoneme blending-combining separate sounds to form a word. Children with these skills are likely to be more successful in learning to read.

## **Phonics**

There is a specific relationship between graphemes and phonemes. Graphemes are defined as the letters used when language is written and phonemes is defined as the sounds heard in oral language. This relationship is known as phonics and when taught effectively, this relationship becomes quite predictable to students. Once the predictability comes into place, students will develop automaticity in reading words and have the skills to decode or sound out unfamiliar words. Furthermore, once automaticity and the ability to decode are developed, students will read words in various texts as well as in isolation. (Ambruster, B.B. & Lehr, F. & Osborn, J., 2003).

There are a few key points to remember in phonics instruction which include. First, phonics instruction is extremely beneficial, but not comprehensive enough for the development of fluency if taught in isolation. Phonics instruction should be part of a much larger, more developed reading program that includes phonemic awareness, exposure to various texts, and writing. Instruction in phonics is beneficial to all students of various levels and backgrounds. It improves reading comprehension because it first improves fluency. Once fluency is developed, a child is free to focus on understanding the words that are being read. Lastly, it is most effective when it is systematic and explicit. There are several labels attached to the phoneme/grapheme relationships that are used by various phonics programs such as letter sound associations or sound symbol correspondence.

Though the label changes, the programs all offer systematic approaches to phonics instruction. There are several systematic approaches to phonics instruction and some programs use a combination of the approaches. These approaches include synthetic phonics, embedded phonics, phonics through spelling, onset-rime phonics instruction, and analytic phonics. While each program varies, when a program is chosen for phonics instruction it should offer several

things. First, it should be adaptable to the needs of students. Second, it should help students apply their knowledge of phonics to their own reading and writing. There must be instruction on how to blend words and break words into sounds. Finally, students must be given an understanding of the need for learning the relationships between letters and sounds.

## **Vocabulary**

Each and every day, adults and children alike, orally communicate with each other. The words that we use to communicate with are called vocabulary. There are four identified types of vocabulary. The first is listening vocabulary which allows us to understand the words that we hear. The second is reading vocabulary which allows us to understand the words that we read. Writing vocabulary is defined as the words we use when we are writing. Lastly, is speaking vocabulary, which is comprised of the words we need to speak. In addition, there are three levels of word knowledge; unknown (vocabulary is completely unfamiliar), acquainted (basic understanding of a vocabulary word), and established (identify the meaning of the word and use it correctly). (Ambruster, Lehr, & Osborn, 2003)

Exposure to vocabulary is important for many reasons. First, it aids a child in becoming a reader. When a child is attempting to read words, it is much easier for him or her if the words he or she is reading are a part of their vocabulary. For example, a child may sound out the letters in the word “cat”. Once each letter is sounded out and put together, the child will quickly recognize that the word sounds familiar because it is part of his or her vocabulary. The child will then be able to confirm that the word is indeed cat.

Another benefit of exposure to vocabulary is the improvement in reading comprehension. When a child is reading, the understanding of what is being read can only occur if the vocabulary

in the text is part of the reader's knowledge. In short, if the reader knows the meaning of the words, it will assist with comprehension of the text.

Much of the vocabulary that is learned is done so indirectly. These indirect methods include having conversation, listening to books, or reading books themselves. These methods allow a child's vocabulary to grow as he or she listens to and engages in the words he or she is hearing. It is particularly helpful when a new word is heard or read, that this word is defined and discussed so that it, too, becomes a part of the child's vocabulary. (Ambruster et al., 2003)

While vocabulary can be acquired indirectly, it is of most importance that a child receives direct vocabulary instruction as well. This direct instruction of vocabulary includes teaching specific words and providing strategies for students to learn unfamiliar words on their own.

In teaching specific words instructors should remember that students should be taught words that are important to the text being read, words that are useful because they are seen often, and words that are difficult for students. Repeated exposure to vocabulary ensures learning of the vocabulary. Students should be given opportunities to actively work with the words and students should have exposure to as well as utilize new vocabulary in various contexts. Teaching specific words found in the text will aid in comprehension of the text. It is impossible to teach all the words students need to know which brings in the need for teaching vocabulary strategies.

### **Strategies to Improve Reading Fluency**

#### **Sight Word Fluency**

One component of reading fluency is automaticity in word recognition. (Jasmine & Schiesl, 2009) Therefore, one way to improve reading fluency is by increasing the number of sight words a student can recognize by using sight word activities. Students should be taught words that are useful because they are seen often. (Ambruster, et al., 2003). When these useful

words are taught in various ways and students have the opportunity to repeated exposure to these words, they “become anchored in long term memory allowing quick and easy access” (Jasmine, & Schiesl, 2009). There are many sight word activities often fun and game like that can be implemented in the classroom to improve sight word fluency such as rainbow words, word wall toss, guess the word, and WORDO (like BINGO).

### **Choral Reading**

“Whole class choral reading is a flexible strategy that can be used to help students increase their oral reading fluency skills, and one that many students respond to favorably” (Paige, 2011, p. 45). This strategy is one in which the entire class reads aloud from the same text along with the teacher who is modeling fluent reading by providing an appropriate rate, automaticity, and prosody. The text being read should take no longer than 2 minutes for the readers to complete.

Before reading, a text should be presented to the class that represents an average reading level of the students. Background knowledge should be provided about the passage and the passage should be read aloud. During reading, the students will together on cue with an emphasis on one voice being used. Miscues should be recorded as students are reading. After the passage is read feedback should be provided to the students that includes praise for what was done well and corrections to the mistakes that were made. (Paige, 2011, p. 45)

### **Paired Reading**

This reading strategy is similar to choral reading, but instead of the entire class reading aloud together, students read aloud in pairs. In this manner, students can learn from each other depending on their strengths and weaknesses. The teacher should model paired reading with

another student so that the expectations are clear for students. As the students are reading, the teacher should provide feedback for each pair of students as necessary.

### **Repeated Readings (Poetry and Reader's Theater)**

With so many strategies it can be difficult for the educator to choose what he or she will implement in the classroom. "Fluency is among the most difficult dimensions of reading to remediate" (Staudt, 2009, p. 142); therefore, it is essential to find what will be most effective. How effective would it be if the teacher could find one method that would incorporate many of these strategies in an efficient little package? "Recent reviews of classroom practices suggest that one basic element might include repeated oral readings" (Kuhn et al., 2009, p. 319). One such package that does incorporate these strategies is a repeated readings program with the use of poetry.

"Students can best improve their fluency through repeated reading of the same text, but that is often boring and mundane. Poetry is a fun, motivational way to allow repeated reading of text" (Clementi, 2010, p. 85). Repeated readings incorporate many of the strategies discussed and allow practice with the building blocks of fluency, ultimately creating a fluent reader. Poems for young children are typically short enough to make them easy to read multiple times and are successful in helping students gain a sense of accomplishment by reading the poems fluently" (Rasinski, Rupley, & Nichols, 2008, p. 258).

Sight Word Fluency is addressed through this strategy because students will use the poem or readers theater piece to identify and do word work with sight words. The students can read the passage aloud with the class or in pairs which addresses both the strategies of paired reading and choral reading. The alphabetic principle is also attended to with the use of repeated

readings. Students have the opportunity to recognize regular patterns in words as well as blend and decode the words they encounter in the passage.

Repeated reading can be easily integrated into the daily routines of the classroom following a few simple steps. Introducing the weekly poem to the class by reading it to the students, then discuss the poem. This includes discussion of any difficult or unfamiliar words, any rhyming words, the rhythm, the punctuation, and the voice of the piece. Then the students and teacher read the poem together as a choral reading. The teacher should gradually stop reading, allowing the students to take over. The students then practice for a few minutes, depending on the length of the poem, with their poetry fluency partner. When selecting pair a less fluent reader with a more fluent reader, enabling the less fluent reader to have another opportunity to hear the poem read fluently. The teacher should circulate the room to listen and offer assistance, encouragement, or praise to each of the groups. Each day, practice the weekly poem with the students as a whole group, and then allow the students work in small groups with their poetry fluency partners. The partners continue to read the poem aloud, both together and individually to their partners. When we gather again as a whole group, each student has the opportunity to perform for the class once he or she feels prepared to do so. Students are encouraged to take home their passage for at home practice.

With these simple steps, implementation is easy. Numerous studies have provided evidence that repeated readings improve fluency. It is up to the educator to choose what is most effective for the classroom. “A call has been made for incorporating techniques to develop reading fluency in the classroom. Repeated reading directly targets oral reading fluency, can be easily integrated in an existing reading program, and is effective with a variety of students” (Kubina & Therrien, 2006, p. 159).



## **CHAPTER III**

### **METHODS**

The purpose of this research was to determine if repeated reading instruction resulted in a statistically significant improvement in the reading fluency of first grade students. The researcher's null hypothesis was that the students who received repeated reading instruction would not make statistically significant improvements in reading fluency as measured by the DIBELS oral reading fluency assessment when their results were compared with their performance on the DIBELS assessment that was administered at the beginning of the year.

#### **Design**

This study utilized a quasi-experimental design that included a pre-assessment and treatment, followed by a post-assessment. Progress was measured by comparing the participants against themselves using their pre-assessment scores and the post-assessment scores. The difference in students' pretest versus posttest scores on the oral reading fluency portion of the Dynamic Indicators of Basic Literacy Skills (DIBELS) was the dependent variable for this study, and the treatment that was implemented (repeated reading instruction) served as the independent variable.

#### **Participants**

The participants in this study were students attending a suburban elementary school in the central Maryland area during the 2012-2013 school year. There were four hundred eighty-three students enrolled, with the breakdown of race as follows; 18.8% Asian, 19.3% African American, 23.9% Hispanic, 16.5% Caucasian, and 17.0% Two-or-More Races, 20.7% Special Education, and 23.9% Free and reduced meal students (FARMS). Of the educators in this school, 45% hold a Standard Professional Teaching Certificate and 55% hold an Advanced

Professional Teaching Certificate. The student mobility percentages are as follows: 17.8% in 2010, 16.5% in 2011, and 18.6% in 2012.

The participants in the study were all enrolled in the researcher's first grade class. These students began and ended the school year in this classroom. The classroom consisted of twenty students, of whom ten participated in this study. All ten of the participants attended the study school in their kindergarten year as well. There was a random selection process used to select the participants in this study. When students were placed in the researcher's class, they were each given a label describing their reading level according to their DIBELS scores during the kindergarten year. Students were labeled as Approaching (below grade level), On (meeting grade level expectations), or Beyond (above grade level). From this group, three students were chosen from the Approaching and On groups, and four students were chosen from the Beyond Group. The study included three African American males, three Caucasian females, two African American females, and two Hispanic females.

### **Instrument**

The Dynamic Indicators of Basic Literacy Skills (DIBELS) was the measure used for pre-assessment and post-assessment. The DIBELS assessment is a county mandated assessment given three times during the first grade school year. The DIBELS assessment is an appropriate assessment for first grade students according to the core curriculum and benchmark goals implemented in Anne Arundel County. The scores that students receive on the DIBELS assessment provide accurate feedback about students' abilities. These abilities that are assessed are aligned with Anne Arundel County's reading program and curriculum making the content validity of DIBELS evident.

The DIBELS assessment consists of several sub-tests that are each administered to students in one minute intervals. At the end of each administration, the students are given a score and the data is used for analysis of student progress. The DIBELS score is useful for educators to determine the level of basic reading skills for each student. After the level of the student is identified, the educator can teach reading according to the abilities of each student. DIBELS allows teachers to create individualized reading plans for each student according to their needs.

One of the sub-tests of the DIBELS assessment includes a passage that measures oral reading fluency. The DIBELS website also offers many passages similar in length and vocabulary that can be used to monitor reading fluency throughout the school year. One such passage was chosen and given by the researcher to the participants in this study. The assessment was given three additional times to monitor oral reading fluency progress.

### **Procedure**

This study took place over a six-month period. With each DIBELS administration, time allowed for two of the ten participants to be given the assessment each day so that for each month it was given, there was an assessment given Monday through Friday to allow for all participants to be tested. The first administration of DIBELS was given to the participants during the week of September 10<sup>th</sup>. Each participant was tested on an individual basis for one minute each. They were given the chosen DIBELS passage to read and their words read correctly were recorded. Following this administration, the treatment was implemented as follows.

Each participant was given a poem or short passage to practice on Monday. The participants practiced the poem each day at school and each evening at home. On Monday the

poem was read to the participant by the researcher at school and by the parent at home to allow for the participant to hear the passage being read fluently. On Tuesday, the participant and the researcher read the passage together. On Wednesday and Thursday, the student read the passage to the researcher to focus on improving reading fluency. On Friday, each participant read the poem or the passage to the other participants. After all of the participants read his or her passage, the researcher provided general feedback to the participants to apply to the next week of repeated reading. Each week this process was repeated with participants being given a new passage or poem each Monday.

During the weeks of November 4<sup>th</sup> and January 13<sup>th</sup>, the participants were given the DIBELS assessment again to monitor progress in the same manner as described. The repeated readings treatment continued throughout these months. The final DIBELS administration was given on March 11, 2013 and the final scores for words read correctly in one minute were recorded.

## CHAPTER IV

### RESULTS

The purpose of this study was to determine whether first grade students participating in a repeated reading program implemented over a six month period would make statistically significant improvements in their reading fluency. This quasi-experimental study measured the reading fluency of the participants using a pre-assessment and a post-assessment from the oral reading fluency portion of the Dynamic Indicators of Basic Literacy Skills Assessment. The reading fluency of the students measured in number of words correctly read in one minute was the dependent variable and the implementation of the repeated reading instruction was the independent variable.

The results reported in Table I below and in Figure A reflect the mean oral reading fluency scores of students on the DIBELS assessment which was administered every other month between September and March. These results suggest that there was a steady improvement in students' performance during this seven month period.

Table 1

*Average DIBELS Scores for Students Receiving Repeated Reading Instruction  
Over a Seven- Month Period*

	September	November	January	March
Mean	18.7	26.6	41.5	48.5
S.D.	11.4	15.9	19.6	19.9
N	10	10	10	10

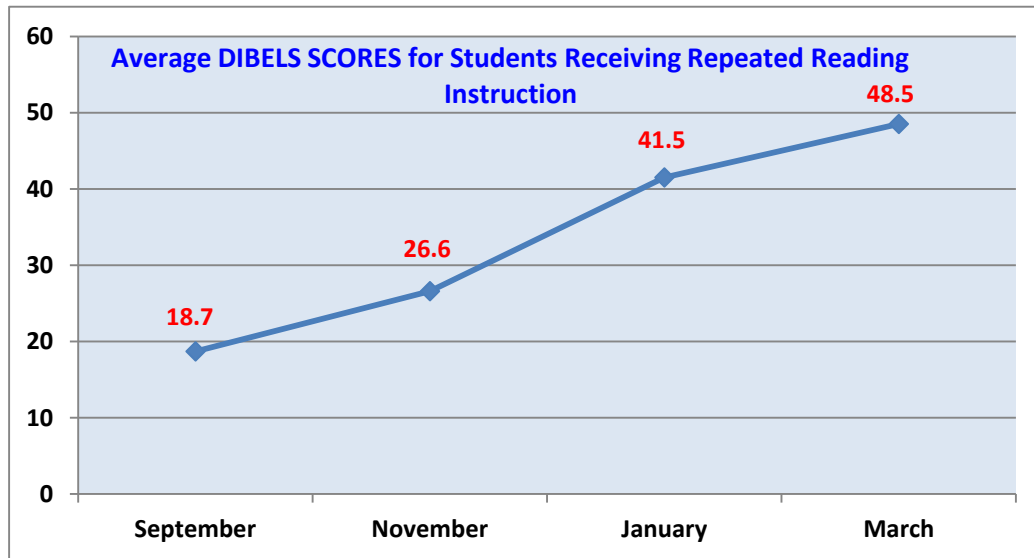


Figure 1: Average DIBELS Scores for Students Receiving Repeated Reading Instruction

The amount of improvement at each assessment point is reported in Table 2 below. As this table indicates, the greatest amount of growth in students' performance occurred from November through January, 2013.

Table2

*Average DIBELS Scores for Students Receiving Repeated Reading Instruction*

*Over a Seven- Month Period*

	September to November	November to January	January to March	Total Growth
Amount of Growth	7.9	14.9	7.0	29.8
N	10	10	10	10

Figure B

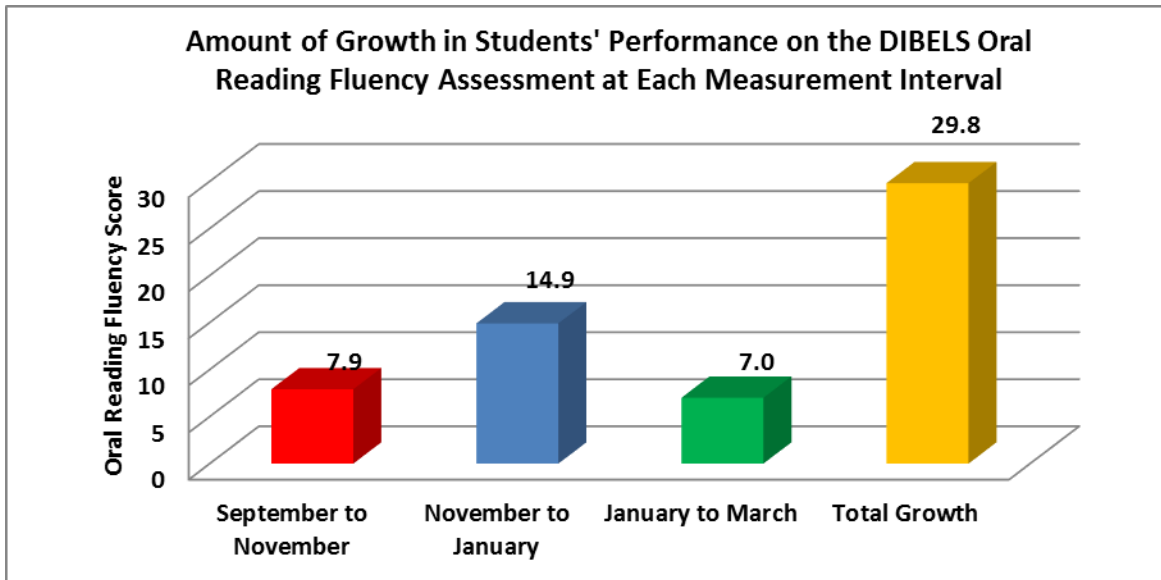


Figure 2: Amount of Growth in Students' Performance on the DIBELS

In order to determine whether these increases in students' performance were statistically significant improvements, an analysis of variance with repeated measures procedure as used. The results ( $F=6.366$ ,  $df=3$ ,  $p < .0014$ ) suggests that there were statistically significant differences overall in the performance of students on the DIBELS Oral Reading Fluency assessment. In order to determine where, during the different monthly intervals in which the assessment was administered, the amount of improvement occurred.

Based upon the above-mentioned results, the null hypothesis that there would be no statistically significant improvement in reading fluency, as measured by the Dynamic Indicators of Basic Literacy Skills (DIBELS) assessment, of students who received repeated reading instruction over a six-month period when their results are compared with their performance on the reading fluency portion of the DIBELS assessment that was administered at the beginning of the year, is rejected.

## **CHAPTER V**

### **DISCUSSION**

The purpose of this research was to determine whether there was a statistically significant improvement in the reading fluency of first grade students as a result of repeated reading instruction over a six month period. The researcher's null hypothesis was that the students who received repeated reading instruction would not make statistically significant improvements in reading fluency as measured by the DIBELS assessment. The null hypothesis was rejected, thus providing support for the alternative hypothesis that implementation of repeated reading may significantly improve the reading fluency of first grade students. This was evident in the gains in oral reading fluency that were made by students in two-month intervals from September to November, December to January, and February to March as reported in Tables 1 and 2 of Chapter IV.

#### **Threats to Validity**

##### **Internal Validity**

While the null hypothesis in this study was rejected thus suggesting that repeated reading instruction may in fact significantly improve students' oral reading fluency, there are potential problems of internal validity that may also help to explain the results that were reported. The first issue is that of maturation of the subjects. During the course of the school year, the students sometimes make progress with reading fluency even without the implementation of the treatment. It is also important to note that the participants in this study were also immersed in a mandated county wide reading curriculum on a daily basis which includes many reading strategies embedded in the everyday requirements of teaching reading. Thus, while the amount of progress that students would have made may have varied, it is likely that improvements in



reading fluency would occur during a six-month period because of the everyday requirements of the school day.

The time interval for the study may have also affected the internal validity. During the months the study was conducted, there was a school wide push for reading in order to prepare for MSA. Teachers in this school which included the researcher participated in many workshops that focused on improving reading scores in all grade levels. The researcher also participated in many collaborative planning sessions in which the DIBELS scores of the students were discussed across the grade level. This push for improving reading scores may have been an underlying cause of an increase in reading fluency scores. If the study had taken place during a different time of year without the pressures induced by the statewide testing, there may not have been a statistically significant improvement in reading fluency scores.

Experimenter bias must also be accounted for when considering threats to internal validity. The researcher had a vested interest in the students because the increase in oral reading fluency scores throughout the year are indicative of their final DIBELS score that will be analyzed by the school improvement team. This could have been subtly conveyed to the participants therefore affecting the scores.

The final major issue of internal validity is with testing. The testing situation was not exactly the same for each assessment. The location of the assessment was different because the classroom used for pre-assessment was not available for the post-assessment. The time of day in which the assessment was given changed from pre-assessment to post-assessment. When giving these assessments, the researcher must assess the participants outside of the regular classroom. Because the researcher is also the only teacher in the classroom, assessment can only happen

when another teacher is available to teach the remainder of the students. Though these are minor details, these changes may have affected the internal validity of the results.

### **External Validity**

In addition to the concerns with internal validity, discussion about problems of external validity is also a must. The first issue is with the selection of subjects. To try to eliminate this threat to external validity, the researcher used random selection when choosing the participants. However, a small sample size was used for this study which in itself could pose a threat to the study's external validity. With such a small sampling it is difficult to apply the results of this study as the expected outcome for the general population.

The second issue of external validity concerns the Hawthorne effect. The group of students that were selected to participate were singled out and chosen to work directly with the researcher. The participants may have been pleased with receiving direct attention from the researcher and thereby felt important. This alone may have been enough for the participants to want to work harder and show growth because they recognized that they were receiving opportunities that other students did not.

### **Comparison with Other Research**

Developing reading fluency in early learners is critical because students that are nonfluent experience difficulty in understanding what is being read. The results of this study show that repeated reading instruction is an effective way to improve the reading fluency of first grade students. "Repeated reading has been used for many years to help the nonfluent reader become more fluent." (Faver, 2008, p. 350) In a similar study conducted by Rasinski and Griffith (as cited in Clementi, 2010), the results showed tremendous growth in reading fluency

when students were immersed in a repeated reading program. Over the course of the one year in which study was conducted, the participants improved their word list recognition by 1.25 years.

Yet another study conducted by Casey and Chamberlain (as cited in Clementi, 2010) showed that participants immersed in repeated reading instruction over a 12-week period showed an average increase of 18 more words read correctly per minute. Finally, participants in a study conducted by Corcoran (as cited in Clementi, 2010) showed an average gain of 17 more words read correctly per minute.

These studies all show similar results that provide evidence and support for the effectiveness of implementing a repeated reading program in the classroom. Participants in each study made statistically significant improvements in reading fluency.

### **Recommendations for Future Research**

If this study were replicated in the future there are several recommendations that this researcher would like to make. First, the random sampling that was chosen for the study could be modified. For this study the researcher chose three to four students from each group that had been previously identified as “Approaching”, or “On”, or “Below”, grade level in reading. For future research, there could be multiple studies completed that focused on each of those identified reading level groups separately. Also, instead of comparing one group of participants to itself, future research could compare one identified group to another identified group. With this type of research each group could receive the pre-assessment and post-assessment to determine which group made greater gains. This would provide information on which reading level group in which the treatment was found to be more effective. Increasing the number of participants may also be a consideration for future research to determine if the results could be applied to the general population. The researcher could also modify the length of time in which

the study is conducted. A longer or shorter study could determine if the length of time has an effect on the improvement in reading fluency and determine if the treatment is more or less effective based on the amount of time implemented.

The final recommendation for future replication would be to increase the independent variables. Repeated reading in isolation may not produce results that repeated reading paired with other intervention strategies may provide. Reading interventions that incorporate “modeling, error correction, and contingent reward along with repeated reading have been shown to improve students’ oral reading rate” (Klubnik & Ardoin, 2010, p. 8).

### **Conclusion**

The results of this study support prior research on the relationship between improvements in reading fluency and implementing a repeated reading program. These findings are useful for primary teachers seeking to increase the reading fluency of their students. With the time constraints that exist within a classroom, educators must find and implement the most effective reading strategies to ensure improvement in reading fluency. Therefore, this study provides support for implementing a repeated reading program in the classroom. Educators that implement this type of program should expect to see an improvement in reading fluency as in this study.

This study has great value for primary teachers in the Anne Arundel County because they are required to assess students three times each year using the DIBELS assessment. When teachers receive the results of the first assessment, they begin to implement reading strategies in the classroom that will increase the scores of each of their students. These teachers can use this study and its results as a guide for implementing an effective reading strategy program in the classroom that will improve the future scores of the DIBELS assessment.



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