The Impact of the Academic Practice of Repeated Reading on Oral Reading Fluency Rate and Accuracy

By Nancy Winter

Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Education

June 2020

Graduate Programs in Education

Goucher College

Table of Contents

List of Table i

Abstract ii

I. Introduction 1

Statement of Problem 5

Statement of Research Hypothesis 5

Operational Definitions 5

II. Review of the Literature 7

Development of Reading 7

Research-Based Reading Interventions 10

Repeated Reading on Oral Reading Fluency Rate and Accuracy 14

Issues Surrounding Intermediate Struggling Readers 15

Conclusion 16

III. Methods 18

Design 18

Participants 18

Instruments 19

Procedure 21

IV. Results 23

Statement of Problem 23

V. Discussion 25

Implications of Results 25

Theoretical Consequences 25

Threats to Validity 26

Connections to Previous Studies/Existing Literature 26

Implications for Future Research 27

Conclusion 28

References 29

List of Tables

Table 1: The pre and posttest reading words correct per minute and accuracy, were analyzed using a t-test for paired subsets. 23

ABSTRACT

The purpose of the study was to determine the impact of the academic practice of repeated reading on oral reading fluency rate and accuracy, as indicated by the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement. This study utilized a pre-experimental design that included a pretest and treatment, followed by a posttest over a four-month period. The 5 participants in this study attended an urban public school in Maryland during the 2019-2020 school year. The null hypothesis was that the academic practice of repeated reading will not increase oral reading fluency rate and accuracy for sixth grade students reading three or more years below grade level who take part in a Wilson Reading System intervention class. The results of this study demonstrated that there was a significant difference at the posttest compared to pretest. The results showed a significant difference in words correct per minute [$t(5) = 8.27$, $p < 0.001$] and accuracy [$t(5) = 3.07$, $p < 0.003$]. The p-values are less than 0.01, that indicates that it is highly unlikely that these results would be observed under the null hypothesis. Therefore, the null hypothesis was rejected.

CHAPTER I

INTRODUCTION

Twenty years ago, the International Reading Association expressed the need for adolescents to be proficient with reading and writing skills:

> Adolescents entering the adult world in the 21st century will read and write more than at any other time in human history. They will need advanced levels of literacy to perform their jobs, run their households, act as citizens, and conduct their personal lives. They will need literacy to cope with the flood of information they will find everywhere they turn. They will need literacy to feed their imagination so they can create the world of the future. (Moore, Bean, Birdyshaw, Rycik & International Reading Association, 1999, p. 99)

Currently, the results of the 2019 National Assessment of Educational Progress (NAEP), also known as the Nation's Report Card, shows that American students are struggling with reading. The most recent NAEP reading assessment was given in 2019 to about 150,600 students in grade 4 and 143,100 students in grade 8 (NAEP, 2019). The NAEP assessment measures reading comprehension by asking students to read selected grade-appropriate materials and answer questions based on what they have read. The results present a broad view of students' reading knowledge, skills, and performance. The 2019 NAEP results show that just 35% of fourth graders and 34% of eighth graders were proficient in reading (Richards, 2019). Betsy DeVos, the United States Secretary of Education, made an alarming statement about the 2019 NAEP results, "Two out of three of our nation's children aren't proficient readers" (U.S. Department of Education, 2019).

According to an article in the Baltimore Sun newspaper (2019), in the state of Maryland 35% of fourth graders and 38% of eighth-grade students scored at or above proficient in reading (Richman, 2019). These students show proper or advanced literacy abilities when tested on grade-level skills and concepts. Conversely, 65% fourth graders and 62% eighth graders show basic skills needed for their grade levels. These students show some literacy abilities when tested on grade-level skills and concepts. They can experience success on grade-level concepts with some reading remediation lessons included. However, students who are below basic level display minimal literacy abilities when tested on grade-level skills and concepts. These students might be able to work back up to grade-level material with explicit remedial instruction (Richman, 2019).

Maryland participates in The Partnership for Assessment of Readiness for College and Careers (PARCC) to measure student achievement in English Language Arts for grades 3-8 and high school. The primary purpose of PARCC is to give high quality assessment of students' progress toward postsecondary readiness and success. The PARCC tests match the Maryland College and Career-Ready Standards and assess whether students are meeting grade-level expectations. The school used in this study is a middle school in Maryland. According to 2019 PARCC the English Language Art results of this middle school are:

- 4% Exceeded expectations
- 29% Met expectations. Students who performed at level 4 and above have demonstrated readiness for the next grade level/course and, eventually, college and career.
- 29% Approached expectations. This is the minimum score students need to pass the PARCC.

- 25% Partially met expectations.
- 13% Did not yet meet expectations (Performance Matters, 2019).

As seen above, 33% of the students are college and career ready or show potential. Whereas 67% of the school's student population are approaching, partially or not at all meeting expectation to be college and career ready. Secretary DeVos states "The gap between the highest and lowest performing students is widening" (U.S. Department of Education, 2019).

According to the report by the US National Reading Panel (NRP) in 2000, the skills required for proficient reading are phonemic awareness, fluency, vocabulary, and text comprehension. Students who develop phonemic awareness and letter-sound knowledge in elementary school are more likely to be successful readers. When a student is learning to read, they need to think and work with individual sounds (phonemes) and recognize the relationship between letters and their sounds (graphemes) to then learn how to decode words (phonics). Fluency is the ability to read text accurately, quickly and with proper expression. It can be considered a bridge between decoding words and reading comprehension. Vocabulary development is learning new words and their meanings. As students read, speak and listen, they are increasing their vocabulary. Understanding what is being read is the goal of reading. When a student comprehends what they are reading, text becomes information. Reading comprehension is applied in future school experiences, as well as throughout student's lives and careers.

As students' progress through secondary grade levels, reading proficiency becomes an important means of acquiring new knowledge. Unfortunately, students who do not have enough reading skills cannot comprehend what they are reading and are often unable to keep up with the curriculum. Reading difficulties affect adolescent students' engagement and connections to

school. Remember, word-level decoding, automatic word recognition and fluency is taught up to the third grades, yet many adolescent students need to learn those skills to become proficient readers. To support struggling adolescent readers in the secondary grade levels, they need supplemental reading interventions that directly addresses their reading needs, such as vocabulary, comprehension and/or decoding.

The Wilson Reading System (WRS) is a multi-sensory, research-based reading and writing program. It is a complete curriculum for teaching decoding (sounding out words) and encoding (spelling), beginning with phoneme segmentation. WRS directly teaches the structure of words in the English language so that students master the coding system for reading and spelling. Unlike other programs that overwhelm the student with rules, the language system of English is presented in a systematic and cumulative way so that it is manageable. It provides an organized, sequential system with extensive controlled text to help teachers carry out a multi-sensory structured language program.

For the purpose of this study, the sample sixth grade group will take part in daily WRS classes. Along with strengthening foundational reading skills, students will develop oral reading skills using controlled decodable text passages. They will practice repeated readings with passages for oral reading fluency rate and accuracy. It is important that students develop their ability to read independently while simultaneously decoding and comprehending. Students need to practice, reading connecting texts with the word structures they have mastered. Although the passages would not be considered good literature, it is high-quality, decodable text that incorporates core and academic vocabulary and uses sentence structure (Wilson, 2018a).

Statement of Problem

The purpose of the study was to determine the impact of the academic practice of repeated reading on oral reading fluency rate and accuracy, as indicated by the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement.

Hypothesis

The null hypothesis is that the academic practice of repeated reading will not increase oral reading fluency rate and accuracy for sixth grade students reading three or more years below grade level who take part in a Wilson Reading System intervention class.

Operational Definitions

- The independent variable for the study was the academic practice of repeated reading.
- Repeated reading is a strategy in which students are required to read a given passage numerous times in order to improve accuracy, fluency, and comprehension. The accuracy and fluency that students achieve through this strategy is the ability to read the passage without long pauses when decoding unfamiliar words and to use three to four-word phrases. Students should sound as if they are having a conversation.
- The dependent variable for this study was the participating students' pretest and a posttest of the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension (Oral Reading Fluency, or ORF). This subtest measures a student's ability to orally read connected text with a highly controlled passage for the current Step. It measures words read correctly per minute (WCPM), accuracy, and reading with expression (prosody and intonation). ORF provides data that will aid in making instructional decisions. Students must meet Benchmark requirements for both WCPM

and Accuracy based off the 50th Percentile Oral Reading Fluency Norms of Hasbrouck and Tindal, 2017 to progress from one Step to the next (Wilson, 2018b).

CHAPTER II

A REVIEW OF THE LITERATURE

This review of the literature seeks to explore reading and at-risk readers in middle school. Section one discusses development of reading. The next section includes research-based reading interventions. Finally, section three includes issues surrounding intermediate struggling readers.

Development of Reading

Children are expected to learn how to read in early elementary school. The National Reading Panel's report, published in 2000, state that teachers in grades K to 3 must focus on five key "building blocks" of literacy: phonemic awareness (recognizing how individual sounds combine to make syllables and words), phonics (learning how letters go together to make those sounds and words), fluency (decoding those letters and words quickly and accurately enough to make sense of texts), vocabulary, and comprehension (NRP, 2000).

Early reading instruction is important because reading proficiency in primary grades is a strong predictor of achievement in upper grades (Fuchs, Fuchs, & Kazdan, 1999).
Many elementary students with reading difficulties will academically fall behind their peers and will continuously struggle with reading difficulties as they get older (Nelson & Manset-Williamson, 2006). Students who have been diagnosed with a reading learning disability in elementary school encounter even more academic challenges (McKinney, 1989).

Adolescent students who have trouble with basic reading skills avoid reading text. Without exposure to text, students' reading is typically labored and slow. They do not build vocabulary knowledge, which impairs their reading comprehension (Stanovich, 2008). Moreover, lacking reading skills crushes the excitement and love for learning that most students have when they enter kindergarten. Students who do not learn to read adequately in the early

elementary grades remain impaired in reading as long as they are in school (Torgesen & Burgess, 1998).

Why is reading important? It is how students discover new things. Books, computers and the Internet are great learning tools which require students to have the ability to read and understand what they have read. We live in a time where there is easy access to information and students need effective reading skills to take advantage of it. Reading improves a student's vocabulary, which leads to highly developed language skills and improves the student's ability to write well. Not only do students learn new words as they read, they also unconsciously absorb information such as how to structure sentences and how to use words and language effectively.

Reading is the process of developing meaning from written or printed text. It is a complex process which includes various components. Many of the reading problems older students encounter are related to the five components of reading; phonemic awareness, word decoding and phonics, fluency, vocabulary, and comprehension. For some students, the problem may be the result of a combination of factors. They may have a weakness in one or more of the five components with some form of processing difficulty such as auditory, phonological, or language. For other students, there may be a secondary problem, such as attention, memory, or the challenge of learning English as a second language. It is particularly essential for older struggling readers to learn and understand each component in order to achieve reading success (Roberts, Torgesen, Boardman, & Scammacca, 2008). Before establishing good comprehension skills, students must acquire decoding skills, fluency skills, background knowledge, vocabulary, motivation, and engagement.

According to the article, *Causal Relationships Between Phonics, Reading Comprehension, and Vocabulary and Achievement in the Second Grade,* a student's reading

development is dependent on their understanding of the alphabetic principle, which is the idea that letters and letter patterns represent the sounds of our spoken language. (Eldredge, Quinn & Butterfield, 1990). Good readers do not depend primarily on context to identify new words. When good readers encounter an unknown word, they decode the word, name it, and then attach meaning. The context of a passage helps readers to get the meaning of a word once a word has been decoded.

Phonics develops word recognition skills. Automatic word recognition is necessary for reading comprehension (Wilson, 2018). If students learn the relationship between letters and their sounds, they will have an easier time identifying words, which leads to improving reading comprehension. Failure to master phonics is the number one reason for reading comprehension difficulties (Eldredge, Quinn & Butterfield, 1990). When students spend so much energy on deciphering each word, they are unable to read with phrasing and fluency. Fluency refers to the ability to read smoothly with proper pacing to ensure the meaning is captured. Fluency depends on students recognizing words as they read. If students are struggling to decode individual words, they cannot concentrate on other strategies that support their overall understanding of what they read (Sample, 2005).

As stated earlier, students need to learn the five components of reading to become proficient readers. What about older students who are still struggling to learn how to read? According to an article *Reading Skill Components and Impairments in Middle School Struggling Reader*, students are supposed to “learn how to read” by the 3rd grade and then they are supposed to "read to learn" for the rest of their lives. In a perfect world, nobody would still be learning how to read in middle school. Unfortunately, teachers who teach in middle schools are reminded every day that this is not the case, as many students struggle with reading in middle

school. Any student who leaves their elementary school as a struggling reader will require interventions and support from their middle school (Cirino, et al., 2013). Reading is a lifelong skill that all students deserve to learn.

However, at the middle school level, there are several difficulties that make reading instruction more challenging. First, most teachers at the middle school level do not consider themselves to be reading teachers. Many have never received training in reading instruction and their priority is to teach the content area in which they were trained, such as science or math. Secondly, it is hard for any teacher to teach a student to read when they only see that student for fifty minutes a day. And thirdly, students who are still struggling with reading in middle school are not usually very motivated to learn to read. In fact, middle school students will do almost anything to avoid class activities that involve reading.

Middle school students who struggle with reading need different support than elementary school age struggling readers. Readers in kindergarten through third grade are provided lessons on learning how to read, whereas adolescent students are expected to learn from reading. Many older struggling readers have been receiving reading education for many years and have not yet mastered learning how to read (Boardman et al., 2008).

Research-Based Reading Interventions

Just as there are excellent reasons for providing reading interventions in elementary school, there are also many excellent reasons for providing reading interventions in middle school (Fletcher, Lyon, Fuchs, & Barnes, 2006). Older students may have difficulty with reading for several reasons: (a) not all students are provided with substantive early intervention, (b) some students are provided with inadequate early intervention, (c) some students who are provided with effective intervention early struggle later when text and knowledge demands increase, and

(d) some students manifest reading difficulties later in their schooling who did not have reading difficulties early (Leach, Scarborough & Rescorla, 2003). For these reasons, providing reading intervention programs in middle school is important.

As the number of at-risk middle school readers increases, educators must implement Response to Intervention (RTI). Denton (2012) describes RTI as "a comprehensive school-wide framework through which students at-risk for reading difficulties are identified and provided with evidence-based and data-informed instruction and interventions before they fall farther behind their peers" (p. 232). Additionally, RTI provides fluctuating levels of intervention, which are then frequently monitored to determine and document students' responsiveness to the intervention. Cavanaugh and Wanzek (2012) explain that instructional adaptations are then made, based on the observations of student performance, which then meet the needs of the at-risk reader.

Research shows that reading interventions are proven to be effective with older struggling readers. For example, the National Institute of Child Health and Human Development (2000) has found that older struggling readers can indeed develop strong reading capabilities under the right instructional conditions. However, successful remediation of reading problems among older students requires extensive, intensive instruction. Moreover, in addition to providing a comprehensive reading program, consistency and duration of instruction are crucial factors for older readers (Stage & Davis, 2005).

In order to provide for the most effective method of remediation for older struggling readers, the challenge lies in providing instruction that is powerful enough to narrow or close the gap with grade-level standards in reading (Roberts & Togessen, 2008). Research-based reading

interventions, such as Corrective Reading, Language! Live, Soar to Success, and the Wilson Reading System are taught in middle schools.

Corrective Reading – Science Research Associates (SRA) is based on direct instruction. Corrective Reading "involves teaching word attack skills in isolation and in context with an emphasis on basic sound-symbol associations of individual letters, digraphs, and blends as well as teaching correct identification of similarly spelled words" (Joseph & Schisler, 2009, p. 132). Corrective Reading Part B2 and C are used in middle schools. It is for the student who has acquired very basic word attack skills. Reading skills focus on multisyllabic words, increasing fluency, and helping students read expository text or content-area textbooks.

LANGUAGE! Live is a research-based reading program designed for students grades 5 and up who are significantly behind in reading. It is a web-based and teacher-led intervention. It provides individualized, engaging, explicit, and systematic literacy instruction. It promotes at least a two-year gain in grade-level reading, resulting in sixth to eighth grade reading levels over four semesters of daily lessons averaging 90 minutes each.

Soar to Success is based upon two strong aspects of successful reading intervention: reading books at student's level, and using cognitive strategies of good readers, such as Reciprocal Teaching (summarize, predict, clarify, question). Soar is for students in grades 3-8 who are behind in reading. It does not include decoding.

The Wilson Reading System (WRS) aims to improve reading ability for students second grade through adulthood with dyslexia and other reading issues. A large part of the program is geared toward middle-schoolers. The overriding goal of WRS is to provide an intensive program that includes strategies of instruction in phonemic awareness, explicit and systematic phonics, repeated oral reading practice with feedback, and to have students independently read grade level

text with ease and understanding. The instructional goals for the fourth edition of the Wilson Reading System (2018) are to develop:

- Accurate and speedy word recognition;
- Spelling and proofreading proficiency;
- Increased vocabulary, background knowledge, and listening comprehension skills;
- Fluency with an emphasis on expression and meaning; and
- Grade level independent silent reading with narrative and informational text.

In the intensive model of implementation, a Wilson certified instructor provides small group instruction to students. WRS principles include the use of instruction through modeling, taught to mastery, with multiple opportunities to practice learned skills. The program utilizes diagnostic planning and teaching (Wilson, 2018).

The WRS provides instruction that is well organized, incremental, and cumulative through a 12-step system: (Steps 1-2) the student learns to blend and segment up to six sounds in a closed syllable; (Step 3) focus is on decoding and encoding multisyllabic words; (Steps 4-6) the vowel-consonant-e syllable, open syllable, consonant-le syllable, and suffix endings are taught; (Steps 7-12) advanced word analysis, spelling, vocabulary development, comprehension, and metacognition are taught (Mather & Wendling, 2012).

The WRS has been cited as an effective intervention by reading experts and it is used in thousands of schools nationwide. A study conducted by Duff, Stebbins, Stormont, Lembke, & Wilson (2016) proved the effectiveness of the WRS for students with disabilities. School professionals monitored the growth of students over time using curriculum-based measurements. Participants included 51 students from six schools. All students were receiving special education and related services, and most had either a learning disability or a language impairment. Certified

teachers implemented the WRS. Results demonstrated students had significant growth in their reading over time.

Another study conducted by Wood (2002) examined the progress of 375 students in grades three through eight using pretest and posttest results on the Wilson Reading Mastery Test. Data on student performance were collected over a 2-year period. The results indicated that students of all grade levels who received the WRS demonstrated significant gains on word identification, word attack, passage comprehension, the basic skills cluster and the total reading cluster. Furthermore, the most severe group showed the greatest gains in the total reading cluster.

Repeated Reading on Oral Reading Fluency Rate and Accuracy

A new summative assessment has been added to the 4th edition of the WRS, which is the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension (Oral Reading Fluency, ORF). This subtest measures a student's ability to orally read connected text with a highly controlled passage for the current Step. It measures words read correctly per minute (WCPM), accuracy, and reading with expression (prosody and intonation). ORF provides data that will aid in making instructional decisions. Students must achieve Benchmark requirements for both WCPM and Accuracy based off of the 50th Percentile Oral Reading Fluency Norms of Hasbrouck and Tindal, 2017 to progress from one Step to the next (Wilson, 2018).

The Wilson Reading System is made up of building blocks of instruction, each necessary for a student to master. It is an intensive program organized into 12 Steps, divided into subsets, each teaching new word structure and building upon previously learned concepts (Wilson, 2018). Within each subset, students read multiple short passages with controlled vocabulary containing only the studied words elements. As stated by Snow, Griffin, and Burns (2005), "As soon as a

new word structure is introduced, put it into context to be read accurately and with ease and comprehension" (pp. 117-118). Also, according to Snow et al. (2005), struggling readers need extensive practice with reading connected text (including repeated reading of the same material). Repeated Reading is a method proposed by S. Jay Samuels to develop decoding automaticity with struggling readers. In this approach, students are asked to read aloud short text passages (50-200 words) until they reach a criterion level of success (particular speed and accuracy goals). Scientific studies revealed the importance of "automaticity" to reading. Readers must be able to decode without thinking about decoding (Samuels, 1997). Osborn, Lehr, & Hiebert (2003) state, "Because struggling readers must put a great deal of effort into recognizing and pronouncing words, their oral reading is rarely fluent" (p. 5).

In the WRS intervention, students have ample amount of time to practice repeated oral reading with feedback. Formative oral reading assessments are built into reading lessons. They provide quick checks of students' understanding and application of taught skills by providing immediate feedback for oral reading fluency rate and accuracy for both the teacher and the students. A teacher can adjust instruction accordingly, and students can self-regulate their learning (Ainsworth &Viegut, 2015).

Issues Surrounding Intermediate Struggling Readers

As students get older, reading becomes a vital part of their learning. They are expected to learn from what they read. By middle school, the differences in reading abilities become more noticeable and students begin to feel self-conscious about how different or behind they are from their peers. According to the Nation's Report Card, nearly two-thirds of 8th and 12th graders read below the proficient level and about one-fourth are unable to read at the most basic level (Toews & Kurth, 2019). There are an estimated six to eight million adolescents who struggle with

reading in secondary schools (Vaughn, Denton & Fletcher, 2010). Furthermore, struggling middle school readers experience years of frustration, which affects their confidence as readers. As a result, many teachers view older struggling readers' reluctance to participate in reading activities as defiance or laziness. Left feeling defeated, struggling older readers may dislike going to school.

It is crucial for middle schools to support their struggling readers. Fisher and Ivey (2006) state "The recent flood of information on later reading difficulties has received much attention in the United States and has created a sense of crisis in adolescent literacy that begs for immediate solutions" (p. 123). Students' reading ability does affect their desire to stay in school, as research noted, "What is known is that if a student cannot read by the 8th grade, the likelihood of dropping out of school is almost a given" (Papalewis, 2004, p. 1). This is in addition to the alarming results from a study conducted by Daniel et al. (2006), "Youth with poor reading abilities exhibit significantly more suicidal ideation and suicide attempts and have a much greater chance of not completing secondary school than their peers with typical reading abilities" (p. 508). Addressing the literacy needs of middle school students involves efforts to raise the achievement levels of struggling readers.

Summary

From elementary to high school, the importance for all students to achieve grade level reading proficiency is a goal for every educator. Reading proficiency is foundational to a student's ability to master complex subject matter. However, for struggling adolescent readers, the transition from learning to read to reading to learn has been problematic. In middle school content classes, students are expected to navigate complex texts and understand what is being studied. Most middle school teachers are unfamiliar with strategies to support students who

struggle with reading. The task of getting struggling middle school readers to meet the expectations needed to be successful in higher grades is immense but not impossible. Research has proven that older struggling readers can develop strong reading capabilities under the right instructional conditions. Oral reading fluency instruction could be considered sending older struggling readers back to basics taught in elementary school. However, with research developed reading interventions for older students, teachers can teach their students fluency skills, such as repeated reading. Most teachers agree, readers with strong fluency skills become proficient readers with excellent comprehension skills.

CHAPTER III

Methods

The purpose of the study was to determine the impact of repeated reading on oral reading fluency rate and accuracy, as indicated by the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement.

Design

The study used a pre-experimental design. Pre- and post-measures were gathered through measuring reading fluency rates and accuracy progress. Students were selected based on their IEP goals and objectives, PARCC results, and classroom performance; there was no randomization of students.

Research Design: Pre-Experimental Design

- One Group: One designated intervention group (X1)
- No Control groups
- Individuals are not randomly assigned. Individuals are from a Reading Intervention class.

One-Group Pretest-Posttest Design

- Single group is pretested (O), exposed to an intervention (X), and post-tested (O).
- Symbolic Design: OXO

Participants

The small sampling group are sixth grade students who read several grade levels below their peers. They are currently enrolled in a tier three reading intervention class at a middle school in Anne Arundel County. According to the 2018 Maryland Report Card (2018), the study school has 585 students enrolled. Of those 585 students, 320 are males and 265 are females. Additionally, 246 of the students are White, 167 are Black/African American, while 104 are Hispanic; the remaining 68 students are of various ethnicities such as Indian or Asian. Of the study school student population, 53.9% receive Free and Reduced Meal Services (FARMS),

8.2% receive special education services, and 6.5% have a Code 504 form (2018 Maryland Report Card, 2018).

The students selected to participate in this study were chosen based on data collected from their fifth-grade elementary schools. These students scored below proficient on the Partnership for Assessment of Readiness for College and Careers (PARCC) test. They have been given Individualized Education Plan (IEP) with reading and decoding goals. Current teachers have shared concerns regarding these students' lack of reading development.

Four out of the five students received FARMS and all five students received special education services. Of the five students, two students are White/Caucasian and one Hispanic female. Two students are males; one Black/African American and one Hispanic. All five students entered the Wilson Reading System program at a beginning decoder reading level. A beginning decoder has basic phonemic awareness (letter names and letter-sound correspondence) skills and foundational phonics skills. All students' reading levels were three or more years below grade level.

Instruments

The Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension (Oral Reading Fluency, ORF) is a summative assessment. This subtest measures a student's ability to orally read connected text with a highly controlled passage for the current Step. It measures words read correctly per minute (WCPM), accuracy, and reading with expression (prosody and intonation). ORF provides data that aids in making instructional decisions. Students must achieve Benchmark requirements for both WCPM and Accuracy based off of the 50th Percentile Oral Reading Fluency Norms of Hasbrouck and Tindal, 2017 to progress from one Step to the next (Wilson, 2018).

Jan Hasbrouck and Gerald Tindal (2017) wrote a technical report describing the origins of the widely used curriculum-based measure of oral reading fluency (ORF) and the creation and use of ORF norms. Norms for ORF can be used to help educators make decisions about which students might need intervention in reading and to help monitor students' progress once instruction has begun. In the past, norms were originally developed at the school or district levels using only local data obtained from specific curriculum materials or assessments. Within the research of Hasbrouck & Tindal (2017a), there is research based oral reading fluency norms.

Steps Followed in the Development of ORF Norms 2017:

We first accessed primary documents from Dibels 6th Edition, Dibels Next, and easyCBM to extract individual ORF scores associated with each percentile rank (PR) at each grade and for each season (fall, winter, spring). See below for documents used to create individual data files. We then developed a master file that included the following variables: grade, season, percentile rank, measure type (easyCBM, DibelsSixth, and DIbelsNext), and score. Finally, we calculated the norms as the average of all scores within a grade, season, and measure for that specific PR. The Technical Report does not include all ORF scores for individual PRs but only the 10th, 25th, 50th, 75th, and 90th.

In some instances, a range of scores was present within and across measures for a single PR. In the Technical Report, the 10th PR reported for the Winter in Grade 2 was 35 WCPM. This calculation represented the average of the scores below (which computed to 35.14 and was rounded to 35).

• Grade 4 Spring – Dibels Sixth ranged from 35-36 (2 scores)

• Grade 4 Spring – Dibels Next ranged from 33-34 (2 scores)

• Grade 4 Spring – easyCBM ranged from 35-37 (3 scores)

In other instances, only one score value was present for a grade, season, and measure. In the Technical Report, the 50th PR reported for the Spring in Grade 5 was reported as 146 wcpm. This calculation represented the average of the three single scores below (which computed to 145.67 and was rounded to 146).

• Grade 5 Spring – Dibels Sixth was 136

• Grade 5 Spring – Dibels Next was 133

• Grade 5 Spring – easyCBM was 168

Finally, in some instances, both a range of scores and a single score was present among the three measures. In the Technical Report, the 90th PR reported for the Fall in Grade 6 was reported as 185 wcpm. This calculation represented the average of the three single scores below (which computed to 185.25 and was rounded to 185).

• Grade 6 Fall – Dibels Sixth was 173-174 (2 scores)

• Grade 6 Fall – Dibels Next was 170 (1 score)

• Grade 6 Fall – easyCBM was 191-195 (5 scores)

(Hasbrouck & Tindal, 2017b).

Procedure

Each lesson has 10 Parts and moved at a quick pace with constant interaction between teacher and students. Students participated in 50-minute daily instruction. From one Part to the next, students practice the same skills but in a different way. The word structure that was taught

for decoding (reading) in Block 1 of the lesson was then taught for encoding (spelling) in Block 2 for further practice.

It is divided into 2 Blocks: (Wilson, 2018).

- Block 1: Word Study/Foundational Reading Skills

  Lesson Plan Parts 1-5 & 9**:** Phonemic Awareness, Decoding, Vocabulary, High Frequency Word Reading, Single/Multisyllable accuracy/Automaticity, Phrasing/Prosody, fluency and Comprehension; along with Oral Reading Fluency

- Block 2: Spelling/Foundational Writing Skills

  Lesson Plan Parts 1-2 & 6-8**:** Phonemic Segmentation, Encoding, English Spelling Rules, High Frequency Word Spelling, Vocabulary, Concept Mark Up, Sentence-Level Punctuation and Proofreading.

  Repeated Reading will occur in parts 5 (sentence reading) and part 9 (passage reading).

The controlled texts were at the students independent reading level, with 95-100% of the words composed of taught elements. Many of these passages had 98% or more of the words corresponding to structures that had been taught either in the current or previous subsets. So, in other words, the passages used for repeated reading were 80-90% decodable for students, therefore not at their independent level but at their instructional level (Wilson, 2018). Text-level fluency frees up the reader's brain to focus its attention and working memory on making connections between what they were reading and their background knowledge rather than on decoding words and effortful memory retrieval. This facilitates comprehension (Perfetti, 1985).

CHAPTER IV

RESULTS

The purpose of the study was to determine the impact of the academic practice of repeated reading on oral reading fluency rate and accuracy, as indicated by the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement.

The pre and posttest reading words correct per minute and accuracy, were analyzed using a t-test for paired subsets. The results are presented in Table 1 below.

Table 1

Pre and Posttest Reading Results for Students in Tier Three of the Wilson Reading System

Reading Measure	**Pretest Posttest**	**Mean**	**n1**	**Standard Deviation**	**t**	**Significance**
Words Correct Per Minute	Pre	45.6	5	24.36	8.27	0.001*
	Post	95.4	5	12.64		
Accuracy	Pre	86.0	5	8.44	3.07	0.003**
	Post	96.8	5	1.11		

*p < 0.001 ** p < 0.003

The null hypothesis is that the academic practice of repeated reading will not increase oral reading fluency rate and accuracy for sixth grade students reading three or more years below grade level who take part in a Wilson Reading System intervention class. The results of this study demonstrate that there was a significant difference at the posttest compared to pretest. The

results showed a significant difference in words correct per minute [$t(5) = 8.27$, $p < 0.001$] and accuracy [$t(5) = 3.07$, $p < 0.003$]. The p-values are less than 0.01, that indicates that it is highly unlikely that these results would be observed under the null hypothesis. Therefore, the null hypothesis was rejected in favor of the alternative hypothesis.

CHAPTER V

DISSUSSION

The purpose of the study was to determine the impact of the academic practice of repeated reading on oral reading fluency rate and accuracy, as indicated by the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement. The null hypothesis is that the academic practice of repeated reading will not increase oral reading fluency rate and accuracy for sixth grade students reading three or more years below grade level who take part in a Wilson Reading System intervention class. The results of this study demonstrate that there was a significant difference on the posttest compared to pre-test and the null hypothesis were rejected.

Implications of Results

After viewing the results, this study showed that the repeated reading strategy does have an impact on the fluency rate and accuracy of sixth grade struggling readers. This strategy had a positive and significant impact on the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension posttest benchmark scores of the students in the group. The students made significant gains from their pretest to their posttest scores. Without the use of the repeated reading strategy, it is possible that this group of students might have made improvements. However, the significant gains made indicate that the repeated reading strategy is best practices for increasing the fluency rate and accuracy of sixth grade struggling readers.

Theoretical Consequences

Based on the review of literature in Chapter II, Wilson Reading System provides struggling older readers extensive practice with reading connected text (including repeated reading of the same material). Repeated Reading is a strategy used to develop decoding

automaticity with struggling readers. Repeated reading is an effective teaching strategy to improve student's reading. The results did support this belief.

Threats to Validity

The study was conducted with a small sampling group of five students that received the intervention, and this may pose a threat to the validity of the study. The impact on a larger group cannot be made. Additionally, there are other outside threats to the validity of the results of the study. If the students had poor school attendance, the results could have been less significant.

To reduce threats to the internal and external validity of the study there are some changes that could be implemented. One would be to create a comparison by forming a control and experimental group. A suggestion to solidity the validity of the study is to make sure that the Wilson Reading System program is being implemented with fidelity, to increase the duration of practicing repeated reading within the reading intervention, to study more than one intervention group, and to have the same teacher teach the reading intervention classes to eliminate any differences in teaching style. These elements could affect the validity of the study.

Connections to Previous Studies/Existing Literature

Research shows that reading interventions are proven to be effective with older struggling readers. For example, the National Institute of Child Health and Human Development (2000) has found that older struggling readers can indeed develop strong reading capabilities under the right instructional conditions. However, successful remediation of reading problems among older students requires extensive, intensive instruction. In addition to providing a comprehensive reading program, consistency and duration of instruction are crucial factors for older readers (Stage & Davis, 2005).

Adolescent students who have trouble with basic reading skills avoid reading text. Without exposure to text, students' reading is typically labored and slow. They do not build vocabulary knowledge, which impairs their reading comprehension (Stanovich, 2008). Also, lacking reading skills crushes the excitement and love for learning that most students have when they enter kindergarten. Students who do not learn to read adequately in the early elementary grades remain impaired in reading as long as they are in school (Torgesen & Burgess, 1998). Middle school students who struggle with reading need different support than elementary school age struggling readers. Readers in kindergarten through third grade are provided lessons on learning how to read, whereas adolescent students are expected to learn from reading. Many older struggling readers have been receiving reading education for many years and have not yet mastered learning how to read (Boardman et al., 2008).

In the Wilson Reading System intervention, students have time to practice repeated oral reading with feedback. Formative oral reading assessments are built into reading lessons. They provide quick checks of students' understanding and application of taught skills by providing immediate feedback for oral reading fluency rate and accuracy for both the teacher and the students. A teacher can adjust instruction accordingly, and students can self-regulate their learning (Ainsworth &Viegut, 2015).

Implications for Future Research

This study showed a positive increase in oral reading fluency rate and accuracy of sixth graders after practicing repeated reading strategies. The data showed that practicing the repeated reading strategy within Wilson Reading intervention produces significant growth in reading fluency rate and accuracy of struggling older readers. Although the study was done using a small sample group of students, it has implications for conducting a study with a more

than one group of students. It can be used as an example for creating a program designed to support students who are lacking fluency skills in co-taught classrooms.

The findings of this study indicate the implications for content teachers who teach older struggling readers. It is important to be aware that older struggling readers have a variety of needs in reading. Struggling readers usually have needs in more than one area of reading. If a student has a deficit in any one area (phonics, phonological awareness, fluency, vocabulary, comprehension) it is going to affect their academic success. An additional area for further investigation is whether or not professional development is necessary to help secondary content teachers to prepare and implement fluency instruction among struggling older readers.

Conclusion

In conclusion, this pre-experimental study proved to be successful. The students who participated in the study made significant gains from their pretest to their posttest scores after repeated reading was practiced in the Wilson Reading intervention. It is important to note that this study took place over a four-month period between the pretest of the Wilson Reading System End-of-Step Assessment, subtest Passage Fluency and Comprehension Benchmark Achievement in the month of November and the posttest subtest Passage Fluency and Comprehension Benchmark Achievement in the month of February. The pre and posttests were equivalent forms that reflected the same content, outcomes, and difficulty. The researcher in this study used Wilson Reading System materials and strategies that students were able to understand, retain, and apply in order to make gains on the Passage Fluency and Comprehension benchmark. This study demonstrates that practicing the repeated reading strategy within the Wilson Reading System intervention, students are able to increase their oral fluency rate and accuracy which will support their comprehension.

References

Adolescent Literacy and Older Students with Learning Disabilities. (2008). *Learning Disability Quarterly, 31*(4), 211–218. https://doi-org.goucher.idm.oclc.org/10.2307/25474653

Ainsworth, L., & Viegut, D., (2015). Common formative assessments 2.0: How teacher teams intentionally align standards, instruction, and assessments. Thousand Oaks, CA: Corwin.

Boardman, A. G., Roberts, G., Vaughn, S., Wexler, J., Murray, C. S., Kosanovich, M., & Center on Instruction. (2008). Effective Instruction for Adolescent Struggling Readers: A Practice Brief. *Center on Instruction*. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=eric&AN=ED521836&login.asp&site=ehost-live&scope=site

Cavanaugh, C., Wanzek, J. (2012). Characteristics of general educational reading interventions implemented in elementary schools for students with reading disabilities. *Remedial and Special Education*, 33(3), 192-202.

Cirino, P. T., Romain, M. A., Barth, A. E., Tolar, T. D., Fletcher, J. M., & Vaughn, S. (2013). Reading skill components and impairments in middle school struggling readers. *Reading and Writing, 26*(7), 1059-1086. doi:http://dx.doi.org.goucher.idm.oclc.org/10.1007/s11145-012-9406-3

Daniel, S. S., Walsh, A. K., Goldston, D. B., Arnold, E. M., Reboussin, B. A., & Wood, F. B. (2006). Suicidality, school dropout, and reading problems among adolescents. *Journal of Learning Disabilities*, 39(6), 507–514. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=eric&AN=EJ757989&login.asp&site=ehost-live&scope=site

Denton, C. A. (2012). response to intervention for reading difficulties in the primary grades: Some answers and lingering questions. *Journal of Learning Disabilities,* 45(3), 232–243. Retrieved by https://doi-org.goucher.idm.oclc.org/10.1177/0022219412442155

Duff, D., Stebbins, M. S., Stormont, M., Lembke, E. S., & Wilson, D. J. (2016). Using curriculum-based measurement data to monitor the effectiveness of the Wilson Reading System for students with disabilities: an exploratory study. *International Journal on Disability and Human Development*, *15*(1), 93-100.243.

Eldredge, J. L., Quinn, B., & Butterfield, D. D. (1990). Causal relationships between phonics, reading comprehension, and vocabulary achievement in the second grade. *Journal of Educational Research*, 83(4), 201–214. Retrieved from https://doi-org.goucher.idm.oclc.org/10.1080/00220671.1990. 10885957

Fisher, D., & Ivey, G. (2006). Evaluating the interventions for struggling adolescent readers. *Journal of Adolescent & Adult Literacy*, 50(3), 180+. Retrieved from http://link.galegroup.com.goucher.idm.oclc.org/apps/doc/A155039873/PROF?u=goucher_main&sid=PROF&xid=3c10ff4a

Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2006). Learning disabilities: From identification to intervention. New York: Guilford Press.

Fuchs, L. S., Fuchs, D., & Kazdan, S. (1999). Effects of peer-assisted learning strategies on high school students with serious reading problems. *Remedial and Special Education*, 20, 309-318.

Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41*, 92-99.

Hasbrouck, J., & Tindal, G. (2017b). Steps Followed in the Development of ORF Norms 2017. Retrieved from Behavioral Research and Teaching, University of Oregon. website: https://intensiveintervention.org/sites/default/files/Development%20of%20ORF%20Norms%202017v2.pdf

Hasbrouck, Jan, & Tindal, G. (2017a). An Update to Compiled ORF Norms Technical Report # 1702. Retrieved from Behavioral Research and Teaching University of Oregon website: https://www.brtprojects.org/wp-content/uploads/2019/05/TechRpt_1702ORFNorms.pdf

Joseph, L. M., & Schisler, R. (2009). Should adolescents go "back" to the basics?: A review of teaching word reading skills to middle and high school students. *Remedial and Special Education*, *30*(3), 131–147. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=eric&AN=EJ839024&login.asp&site=ehost-live&scope=site

Leach, J. M., Scarborough, H. S., & Rescorla, L. (2003). Late-emerging reading disabilities. *Journal of Educational Psychology*, 95, 211−224.

Mather, N., & Wendling, B. J. (2012). Essentials of psychological assessment series. Essentials of dyslexia assessment and intervention**.** Hoboken, NJ, US: John Wiley & Sons Inc.

McKinney, J. D. (1989). Longitudinal research on the behavioral characteristics of children with learning disabilities. *Journal of Learning Disabilities*, 22(3). https://doi-org.goucher.idm.oclc.org/10.1177/002221948902200302

Moore, D. W., Bean, T. W., Birdyshaw, D., Rycik, J. A., & International Reading Association, N. D. (1999). Adolescent literacy: a position statement for the commission on adolescent literacy of the international reading association. Retrieved from

http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=eric&AN=ED437640&login.asp&site=ehost-live&scope=site

Msde. (2019, November). Welcome to the Maryland Report Card. Retrieved from https://reportcard.msde.maryland.gov/.

NAEP Report Cards - How did U.S. students perform on the most recent assessments? (n.d.). Retrieved from https://www.nationsreportcard.gov/

National Assessment of Educational Progress. (2019, October 30). 2019 Reading findings. Retrieved from https://nces.ed.gov/nationsreportcard/reading/.

National Institute of Child Health and Human Development (2000). Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction Washington, DC: U.S. Government Printing Office (NIH Publication No. 00-4769).

National Reading Panel: Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. (2000). Retrieved from https://www.nichd.nih.gov/sites/default/files/publications/pubs/nrp/Documents/report.pdf

Nelson, J. M., & Manset-Williamson, G. (2006). The impact of explicit, self-regulatory reading comprehension strategy instruction on the reading-specific self-efficacy attributions and affect of students with reading disabilities. *Learning Disability Quarterly*, 29, 213-230

Osborn, J., Lehr, f., & Hiebert, E. H. (2003). A focus on fluency. Honolulu: Pacific Resources for Education and Learning, 5.

Papalewis, R. (2004). Struggling middle school readers: successful, accelerating intervention, 1. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=eric&AN=EJ703707&login.asp&site=ehost-live&scope=site

Perfetti, C.A., (1985). Reading ability. New York: Oxford University Press.

Performance Matters. (2019, November). Student achievement PARCC ELA. Retrieved from https://unify.performancematters.com/core/homepage/.

Richards, E. (2019, October 30). Despite common core and more testing, reading and math scores haven't budged in a decade. Retrieved from https://www.usatoday.com/story/news/education/2019/10/29/national-math-reading-level-test-score-common-core-standards-phonics/2499622001/.

Richman, T. (2019, October 30). 'Frankly, devastating': Maryland reading scores decline on national assessment. Retrieved from https://www.baltimoresun.com/education/bs-md-naep-score-release-20191030-vyfuhrsfq5egviee35g42e2fxq-story.html.

Roberts, G., Torgesen, J. K., Boardman, A., & Scammacca, N. (2008). Evidence-based strategies for reading instruction of older students with learning disabilities. *Learning Disabilities Research & Practice (Wiley-Blackwell)*, *23*(2), 63–69. Retrieved from https://doi-org.goucher.idm.oclc.org/10.1111/j.1540-5826.2008.00264.x

Sample, K. J. (2005). Promoting fluency in adolescents with reading difficulties. *Intervention in School & Clinic*, *40*(4), 243–246. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=trh&AN=16266074&login.asp&site=ehost-live&scope=site

Samuels, S. J. (1997). The method of repeated readings. *Reading Teacher*, *50*(5), 376. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=9702093562&site=ehost-live&scope=site

Snow, C. E., Griffin, P., & Burns, M. S. (Eds.). (2005). Knowledge to support the teaching of reading: Preparing teachers for the changing world. San Francisco, CA: Jossey-Bass

Stage, K. A., & Davis, A. S. (2005). Overcoming dyslexia: A new and complete science-based program for reading problems at any level. *Psychology in the Schools*, *42*(1), 117–118. Retrieved from https://doi-org.goucher.idm.oclc.org/10.1002/pits.20036

Stanovich, K. E. (2008). Matthew effects in reading: some consequences of individual differences in the acquisition of literacy. *Journal of Education*, *189*(1/2), 23–55. Retrieved from http://search.ebscohost.com.goucher.idm.oclc.org/login.aspx?direct=true&db=a9h&AN=46795581&site=ehost-live&scope=site

Toews, S. G., & Kurth, J. A. (2019). Literacy instruction in general education settings: A call to action. *Research & Practice for Persons with Severe Disabilities*, *44*(3), 135–142. Retrieved from https://doi-org.goucher.idm.oclc.org/10.1177/1540796919855373

Torgesen, J. K., & Burgess, S. R. (1998). Consistency of reading-related phonological processes throughout early childhood: Evidence from longitudinal-correlational and instructional studies. In J. L. Metsala & L. C. Ehri (Eds.), *Word Recognition in Beginning Literacy* (pp. 161-188). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

U.S. Department of Education. (2019, October 30). Statement from Secretary DeVos on 2019 NAEP Results. Retrieved from https://www.ed.gov/news/press-releases/statement-secretary-devos-2019-naep-results.

Vaughn, S., Denton, C. A., & Fletcher, J. M. (2010, March 10). Why intensive interventions are necessary for students with severe reading difficulties. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/pits.20481

Wilson, B. A. (2018b). End-of -step assessment teacher guide steps 1-6. In *Wilson Reading System*, 4th ed. Oxford: Wilson Language Training Corporation, p.20.

Wilson, B. A. (1996). *The Wilson Reading System* (3rd ed.). Millbury, MA: Wilson Language Training.

Wilson, B. A. (2018a). *Wilson Reading System* (4th ed.). Oxford, MA: Wilson Language Training Corporation.

Wood, F. (2002). Data analysis of the Wilson Reading System. Published in Wilson Literacy Solutions: Evidence of Effectiveness.