Summer 2017

# Using Repeated Oral Assisted Reading To Improve The Fluency Of Students With Learning Disabilities

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USING REPEATED ORAL ASSISTED READING TO IMPROVE

THE FLUENCY OF STUDENTS WITH LEARNING DISABILITIES

by

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A capstone submitted in partial fulfillment of the

requirements for the degree of Master of Arts in Literacy Education

Hamline University

Saint Paul, Minnesota

July, 2017

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To my children, Alex and Isaac. I love you more than words can express.

"Reading fluency refers to the ability to read quickly, effortlessly, and efficiently with good, meaningful expression. It means much more than mere accuracy in reading."

-Timothy Rasinski

# ACKNOWLEDGEMENTS

Special thanks to my family whose love, support, and encouragement meant the world to

me during this project. I couldn't have done it without you.

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CHAPTER ONE

Introduction

Can you imagine having to sound out or decode every word you encountered? What would it feel like to forget what you have read before you completed reading a sentence? How difficult would it be to understand text that was read with little prosody, pausing, or emotion? As a special education teacher and the wife of someone who has struggled with many components of reading, I am able to observe these struggles on a daily basis. This led me to the importance of being a fluent reader and to the research question: *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?* Armbruster, Lehr, and Osborn (2001), put into words exactly why I believe fluency is so vital to all students, especially those whose are struggling readers:

> Fluency is important because it provides a bridge between word recognition and comprehension. Because fluent readers do not have to concentrate on decoding the words, they can focus their attention on what the text means. They can make connections among the ideas in the text and between the text and their background knowledge. In other words, fluent readers recognize words and comprehend at the same time. Less fluent readers, however, must focus their

attention on figuring out the words, leaving them little attention for understanding

the text (p.19).

Even though fluency has such an integral role in successful reading, it has

oftentimes been disregarded in many classrooms throughout the building where I teach.

The National Reading Panel (NRP) (2000) also acknowledges how fluency instruction is

regularly neglected in the classroom. Armed with the understanding of how critical

fluency is and the realization that we may not be doing enough to improve the fluency of

struggling readers, my passion for this topic grew.

Timothy Shanahan (2005) indicates that there are multiple approaches that are

effective at improving fluency, including repeated reading, paired reading, neurological

impress, echo reading, listening-while reading, radio reading, and working with tape

recorders. He also notes that a key component to all fluency instruction is reading orally

rather than silently (p. 19). There are multiple variations of repeated reading and the most

basic variation simply involves reading short passages multiple times. Many of my

colleagues provide multiple opportunities to read brief texts, as well as utilize modeled

reading and unison reading of passages, along with error correction and feedback. Due to

their success and encouragement, I chose repeated reading as my capstone's primary area

of focus, with the goal of improving not only the rate at which my students read, but also

their prosody. Prosody involves reading with expression as well as the use of intonation,

and phrasing which allows the reader the understand the meaning of the text (Kuhn,

Schwanenflugel, Meisinger, Levy, & Rasinski, 2012). I plan on collecting data daily

using one-minute timings before and after repeated reading interventions to progress

monitor students' rate and accuracy as well as utilize a rubric developed by Rasinski (2004) to measure prosodic reading.

**Personal Experiences with Fluency**

When looking back at my literacy journey, fluency does not immediately jump to the forefront. However, when taking a closer look at my reading experiences, having a strength in the area of fluency greatly influenced my life. Reading fluently supported my reading comprehension and made reading effortless, which motivated me to read for pure enjoyment. As I read more and more, my vocabulary expanded and I acquired a wealth of background knowledge.

During my first graduate level course, I had the opportunity to write about my literacy journey. I was able to identify three distinct periods of time that had different effects on my growth as a reader. During each time period there was a special book that markedly stood out to me. *Chicka Chicka Boom Boom* (Martin, Archambault, Ehlert, & Charles, 1989)*, The Boxcar Children* (Warner, 1989)*, and *Harry Potter and the Sorcerer's Stone* (Rowling, 1998) are books that helped shape who I am as a reader. After reflecting back on these books and my experiences, I see that not only did most of these books shape me as a reader, but they pointed me in the direction of fluency.

**Earliest Reading Experiences.** *Chicka Chicka Boom Boom* (Martin et al.,1989) was the first book I ever "read" all by myself. I was four years old and had heard it so many times that I memorized it. It became my mission to read to anyone who would listen. At this early age, I already felt like a reader. It was a powerful feeling that filled me with pride. Now that I look back on the experience, I understand that I was developing fluency through repeated reading.

Some of my fondest memories of my childhood include sitting on my mom's or my grandma's lap and having them read to me. Hours upon hours were spent listening to them read. Many times my sister and cousins were gathered around, and we would all be clutching our stack of books for one of them to read, Grandma would scour garage sales and ended up purchasing what seemed like an endless supply of children's books. Mom would take me to the library every day of the summer, and I can remember giggling when the librarian asked if we really read all the books we checked out. It seemed like such a silly question. Looking back now, I see how beneficial it was for me as a child to be provided with such a myriad of read aloud experiences that allowed my mom and grandma to model fluent reading. While following along with expert readers, I was able to hear what correct intonation, phrasing, and expression sounded like.

**Elementary School.** My early childhood years provided a firm literacy foundation which led to success in school. Once school began, I was not able to spend all of my days reading with my mom and grandma, however, school provided many new and different reading experiences. In school, I especially enjoyed when my teachers would read aloud from one of their favorite chapter books. Mrs. Braml, my second grade teacher read our class *The Boxcar Children* (Warner, 1989), the most influential book of my elementary years. This was the first book that made me want to be one of its characters. Images were vivid in my mind. I could see the boxcar they lived in, the refrigerator they made using a stream, and the tiny vegetables they picked. After being introduced to this book, I read every book in the series. I realized how much entertainment reading could provide even when not being read aloud to. Reading during this time in my life was purely for enjoyment. I wanted to know what new adventure the boxcar children would

go on next. Throughout my elementary years I read many books. There were several times when I cried at the end of the book just because I did not want the experience to end.

Read alouds occurred frequently in elementary school and I am thankful to all of my teachers who beautifully modeled fluent reading and inspired me to continue reading and develop my own fluency skills. I believe very strongly that when children are given greater opportunities to practice reading, their fluency will dramatically increase.

**Adult Experiences.** As a result of my love for reading and learning I decided to pursue a career in education. Even as a child, I had always wanted to be an elementary school teacher. My plans changed a bit when I met my husband, Mark, who has a learning disability that affects his information processing. Reading and written language had always been a struggle for him. After we were married, I changed my major to special education. Mark was not read to as a child as often as I had been, and he had very few positive experiences that were related to reading. I was able to clearly see the effects of not being a fluent reader. He had difficulty reading grocery lists, important financial documents, and menus at restaurants. He struggled to independently use email and social media and was not able to pass the entrance exam at 3M, where he was seeking employment. Taking our children to the doctor or dentist was out of the question because he was afraid he would not be able fill out the necessary paperwork. Not being literate as an adult unquestionably affects many aspects of life. My husband and I had reading experiences that seem to be polar opposites. Sometimes I wonder if he would have had more success in reading if his first reading experiences had been similar to mine.

After realizing some of my husband's struggles, I knew that I could really make a difference in children's lives. I could provide them with positive reading experiences and make them feel just like I did when I read *Chicka Chicka Boom Boom* (Martin et al., 1989) by myself for the first time, however, I decided that the first person I needed to help was my husband. Both of us enjoy Harry Potter. We had both seen all of the movies but had never read the books. *Harry Potter and the Sorcerer's Stone* (Rowling, 1998) became the most influential book of my adulthood. Many nights my husband enjoyed listening to me reading this book, which shows you are never too old for a read aloud. We both decided that the book was far superior to the movie and read the next two books as well. Since then, my husband started reading more. Every night he reads our young children a bed time story. Having them see him as a reader is very meaningful to him. The look on his face when our oldest son said, "When I grow up, I want to read like Daddy," was priceless.

Through my experiences, I have come to the conclusion that multiple opportunities to listen to and practice reading developed my ability to read fluently. I have observed my husband's gains in the area of fluency, obtained by spending extended amounts of time reading aloud our children's favorite books over and over. This capstone will allow me to collect empirical evidence that answers my guiding question: *How much does repeated reading improve the reading rate and accuracy of students with learning disabilities in fifth grade?*

**Professional Experiences with Fluency**

My first year of teaching in a special education classroom was stressful to say the least. Equipped with a bachelor's degree in special education, a license in specific

learning disabilities, and a positive attitude, I did my best to teach students how to read. It became quite clear that my undergraduate studies had not prepared me for this difficult task. I had vast knowledge about disability categories, IEPs, evaluation reports, and various laws pertaining to special education. However, the majority of my day was spent teaching reading interventions, and I had only taken one brief class on teaching reading. I used the resources that were given to me by other teachers and made it through the year.

I have just completed my sixth year of teaching fifth grade students with learning disabilities. Throughout these last six years, I have learned a great deal about the components of reading and the needs of the students in my classroom. Two years ago, I had the privilege of joining my district's literacy team. This experience allowed me to collaborate with my colleagues and opened my eyes to the importance of fluency instruction.

During the last three years, I have had the opportunity to co-teach a class of 20 students who read significantly below grade level, with over half of them qualifying for special education services. My co-teacher and I spent a considerable amount of time teaching comprehension strategies and did not put a great deal of emphasis on fluency. I do believe that the comprehension strategies we teach are important, however, students' instructional reading levels often plateau and we have not seen the accelerated progress that is required to close the achievement gap.

Two years ago our school district hired a new Director of Teaching and Learning. During her first interactions with our staff, she revealed how critical she believes fluency is. She also presented our literacy team with a slew of research articles related to the five components of reading; which include phonemic awareness, phonics, fluency,

vocabulary, and comprehension. Research from the NRP (2000), was also provided. Our reading specialists began assisting general education teachers with implementing whole class fluency interventions.

Knowing that I needed to do something to increase students' overall reading ability, I began to reconsider fluency. One of our reading specialists/literacy coaches allowed me to observe her working with a student using Repeated Oral Assisted Reading (R.O.A.R), a one-on-one intervention that provides students with immediate feedback and multiple reading opportunities. After observing this session, I began to do more research on the topic of fluency and more specifically, repeated reading.

Throughout the next few months I talked with teachers in my professional learning community about what they used for fluency, all of them said they focus on phonics and comprehension and spent little time on fluency. This discussion led me to consult with our district's sixth grade special education teacher. She had also been implementing R.O.A.R. and suggested I implement it as well. After implementing this strategy for several years, she has seen a steady increase in students' instructional reading levels, rates of reading, and confidence.

Most of the students I work with struggle with fluency. Their rate of reading is less than half the rate of their grade level benchmarks and their reading is labored and choppy. It is incredibly difficult for them to understand what they are reading because they are spending all of their energy on decoding the words. They often miss the meaning or have trouble making inferences because of their lack of phrasing and expression.

I believe that when provided with consistent fluency interventions implemented with fidelity, immediate feedback, and motivating incentives, students' fluency will

improve. Improved fluency will lead to an increase in their comprehension, overall reading level, and confidence.

**Summary**

Fluency is a key component of reading well. The NRP (2000) recognizes that "classroom practices that encourage repeated oral reading with feedback and guidance leads to meaningful improvements in reading expertise for students - for good readers as well as those who are experiencing difficulties (p. 3-2)." I was extremely fortunate to benefit from numerous positive reading experiences with a variety of texts, as well as opportunities to listen to expert readers model fluent reading. Using repeated reading interventions, I hope to improve the fluency of the students I work with and provide them with reading experiences similar to those that made such an impact on me as a reader.

In the following literature review, I explore three major focus areas. This section will begin with a description of learning disabilities, which will help develop a thorough understanding of the population of students I will be working with. Also included in the literature review will be an overview of fluency, including what fluency is and why fluency is crucial for struggling readers. The final section of the literature review will discuss repeated reading interventions, detailing how these interventions are implemented and their effectiveness.

CHAPTER TWO

Literature Review

**Introduction**

This chapter will explore the capstone question: *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?* After reviewing the research, three major focus areas were determined; learning disabilities, fluency, and repeated reading interventions.

The first focus area is the topic of learning disabilities. Before implementing an intervention, teachers must understand the students they are working with. It is beneficial to have knowledge of a student's background, strengths, and deficits to help choose the most appropriate intervention for each individual student. This section will explain the definition of a learning disability, the characteristics and deficits of individuals with learning disabilities, how learning disabilities are identified, as well as the prevalence and causes of learning disabilities.

In the second major section, the topic of fluency will be outlined. This section will provide an overview of fluency, explain how fluency is related to comprehension and automaticity, as well as delve into three components of fluency; accuracy, rate, and prosody. Also included in this section will be explanations of two different approaches to improving reading fluency

The last section will focus on repeated reading interventions. This section will address variations to these interventions and the results of previous studies. Obtaining knowledge regarding the advantages and limitations can help guide me in my own research and help to avoid potential pitfalls.

**Learning Disabilities**

Learning disabilities can affect many aspects of life and can cause students to have difficulty in school. More and more students are being identified with learning disabilities and these students currently make up approximately 50% of those receiving special education services (Fletcher, Lyon, & Fuchs, 2006). Learning disabilities are a category of disorders that include deficits in at least one of seven categories. These categories include receptive language (listening), expressive language (speaking), basic reading skills, reading comprehension, written expression, mathematical calculation, and mathematical reasoning (Lyon, 1996). This section will include the definition of learning disabilities, how learning disabilities are identified, the prevalence and causes of learning disabilities, various characteristics of learning disabilities, and how learning disabilities can affect overall reading skills.

**Definition of Learning Disabilities.** Definitions for learning disabilities are provided by the Individuals with Disabilities Act (IDEA), the *Diagnostic and Statistical Manual of Mental Disorders* (DSM V), and the International Classification System (ICD-10). There are definitions used for both medical and educational purposes. For the purpose of this capstone, the definitions for educational purposes will be used. Lyon provides the following definition of learning disabilities, obtained from the IDEA,

"Specific learning disability" means a disorder in one or more basic psychological

processes involved in understanding or in using language, spoken or written, that

may manifest itself in an imperfect ability to listen, speak, read, write, spell, or to

do mathematical calculations. The term includes such conditions as perceptual

disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental

aphasia. The term does not apply to children who have learning problems that are

primarily the result of visual, hearing, or motor disabilities, of mental retardation,

of emotional disturbance, or of environmental, cultural, or economic disadvantage

(1996, p. 56).

Kavale, Spaulding, and Beam (2009) also include IDEAs definition of learning

disabilities in their 2004 research. The definition has continued to remain unchanged

since 1963, and is the most widely used definition due to the federal government's

influence and its usefulness in identifying students with learning disabilities (Kavale et

al.). The most beneficial element of IDEA's definition is what is excluded from learning

disabilities, for instance, learning problems cannot be the effect of mental retardation,

emotional disturbance, cultural difference, or environmental, or economic disadvantage

(Lyon, 1996).

When looking at learning disabilities as defined in the ICD-10 and DSM-V a

commonality in both is that learning disabilities involve unexpected poor performance in

academic areas (Büttner & Hasselhorn, 2011). Parallel to IDEA's definition, key

components of these definitions are descriptions of what are excluded from learning

disabilities, Büttner and Hasselhorn (2011) also describe how intellectual disability,

sensory impairment, emotional disturbance, cultural deprivation, and insufficient instruction must be absent from individuals with learning disabilities.

A common theme throughout the research is how learning disabilities are difficult to define and that many experts believe the current definitions to be inadequate. Fletcher (2007), acknowledges the fact that learning disabilities have a continuum of severity. This makes it difficult to have one definition that encompasses all learning disabilities. Similarly, Davis, Parr and Lan (1997) have noted how researchers have perceived that individuals with learning disabilities do not constitute a homogenous group. Kavale et al., (2009), emphasize that with no major changes to the definition and no attempt to include any theoretical advances, the definition of learning disabilities has become over-inclusive. Due to the broad definition of learning disabilities and the sizeable differences in this population, my capstone project will focus on students with learning disabilities that have IEPs that document their needs in the area of fluency, and more specifically with their rate and accuracy.

**Identification of Learning Disabilities.** A deeper investigation of the identification process, provides a more thorough understanding of individuals with learning disabilities. The research reveals that the majority of students identified with learning disabilities are identified using an aptitude achievement discrepancy model, often times called an IQ-achievement discrepancy. Büttner and Hasselhorn's (2011) description of this model indicates that a student's' academic achievement must be significantly lower than that of someone their age and their IQ must be in the normal to above normal range. Based on the ICD-10 the discrepancy between the IQ test and the achievement test needs to be at least two standard deviations.

Similar to Büttner and Hasselhorn, Fletcher (2007) recognizes that in order to determine an aptitude achievement discrepancy, there needs to be a discrepancy between an IQ test's results and an achievement test's results. However, there were two prevalent problems presented throughout the literature regarding this topic. These problems include the disagreement on which IQ tests and achievement tests to use and the limitations of using an achievement discrepancy model. At this time there is not a universally accepted test used in identifying individuals with learning disabilities and there are large differences in how discrepancies are derived and quantified (Lyon, 1996). Many scholars have criticized the ability achievement discrepancy model and believe that it is unstable, invalid, and has wait to fail effects (Reschly, 2005). When using this type of model, students are not typically identified until they are at least eight or nine years old. Most students are not identified until they are reading several years below grade level and are already in third to fourth grade (Lyon, 1996). Not only does this model require students to fail before receiving services it also uses an unproven assumption that students cannot achieve scores higher than that of their IQ (Fletcher, 2007).

In addition to the aptitude achievement discrepancy model, is the Response to intervention (RTI) model. Models using RTI typically involve ongoing mass screenings of all students rather than a one-time test used in the aptitude achievement discrepancy model (Fletcher, 2007). Both the "problem-solving approach" and the "standard-protocol approach" are RTI models of identification. The problem-solving approach can differ from child to child but the standard-protocol approach involves evidence based interventions of increasing intensity in a multi tiered system. Most agree that the first tier consists of general education students and the last tier consists of special education

students (Reschly, 2005). Students who do not respond to the most intense interventions are those who would be identified as having a learning disability (Büttner & Hasselhorn, 2011).

Students are typically identified with a learning disability using aptitude achievement discrepancy and are often identified between the ages of 8-11, after they have experienced significant difficulty in reading. This capstone project will need to consider the motivation and self-esteem of the students involved in the study as the literature has revealed that these areas are often affected due to multiple experiences with failure in school.

**Prevalence of Learning Disabilities.** Since 1976 there has been a dramatic increase in the amount of students identified with learning disabilities (Lyon, 1996). In the majority of countries, the largest category of special education is learning disabilities, with 4-7% of school-aged children identified with a learning disability (Büttner & Hasselhorn, 2011). Some argue that these numbers are too high and that they are based on definitions that are vague and identification models that are often inaccurate (Lyon, 1996). Even if these numbers are high, there is no question that many students struggle with learning disabilities and they need research based effective interventions to improve their ability to read.

**Causes of Learning Disabilities.** When revisiting IDEA's definition of learning disabilities, we see that learning disabilities are not caused by emotional and behavioral difficulties, economic disadvantage, or inadequate instruction (Fletcher, 2007). The literature consistently revealed that a majority of individuals with learning disabilities have deficits in the area of phonological processing. "Several NICHD investigations have

indicated that these phonologically based disabilities are linked to neurobiological and

genetic factors" (Lyon, 1996, p. 65). Fletcher (2007), affirms that some individuals with

learning disabilities have biologically-based cognitive deficits, not visual processing

impairments, which can impede their ability to acquire academic skills. The literature

acknowledges that the exact cause of these cognitive deficits is unknown.

**Characteristics and Deficits of Individuals with Learning Disabilities.**

Individuals with learning disabilities make up a large and diverse group. Because of this

there is a wide range of characteristics and deficits that can be exhibited. A commonality

between individuals with learning disabilities is that their difficulties or deficits are

persistent and not simply a lag in development (Büttner & Hasselhorn, 2001). Many

individuals with learning disabilities have phonological processing deficits. Due to the

strong phonological awareness skills required to develop adequate spelling skills, many

students with learning disabilities struggle in this area (Eisenmajer, Ross, & Pratt, 2005).

Deficits in phonological awareness also make it difficult for individuals with learning

disabilities to segment words and syllables into phonemes, which in turn makes it

difficult to decode words. In order to read with sufficient fluency to comprehend,

individuals need to be able to automatically recognize and decode words (Lyon, 1996).

This demonstrates how difficulties with phonological awareness also affect both fluency

and comprehension.

The literature divulges that learning disabilities may co-occur with other

disorders, individuals with learning disabilities are twice as likely to meet criteria for

inattention, and when this happens their reading deficits are even more severe (Lyon,

1996). Learning disabilities also commonly co-occur with behavioral difficulties. It can

be difficult to determine which is the primary disability or to determine if one is the result of the other (Fletcher, 2007). In clinical studies, it was determined that 36% of those with learning disabilities also had some type of social-emotional difficulty and were receiving counseling for either low self-esteem, social isolation, anxiety, depression, or frustration (Fletcher, 2007).

*Learning Disabilities: From Identification to Intervention* (2007); a subgroup of individuals with learning disabilities is identified that does not have difficulties with phonological processing but do struggle with speeded processing. This in turn causes deficits in the areas of fluency and comprehension. Reading speed was found to be the primary deficit in those with reading fluency problems. Fletcher (2007) also determined that individuals with learning disabilities may experience fluency difficulties due to their deficits in attention, executive functions, and other skills that influence the efficient allocation of resources.

**Overview of Learning Disabilities.** This section of the literature review delves into the topic of learning disabilities. It discusses the definition of a learning disability, identification, prevalence, and causes of learning disabilities; as well as the characteristics and deficits associated with learning disabilities. Difficulties with phonological awareness affect decoding and consequently affect fluency. When reading with fluency, decoding is automatic and reading becomes effortless, requiring less attention and effort. This allows more resources to be used for understanding the meaning of the text (Fletcher, 2007). In the next section, the topic of fluency is investigated.

**Fluency**

According to the NRP (2000) fluency is one of five components of reading. These components include, phonemic awareness, phonics, vocabulary, fluency, and comprehension. The goal when reading is to understand what we have read, in order to do this well, we need to read with fluency. Reading fluently means we are reading with sufficient accuracy and expression to comprehend the text. Many students develop automaticity early on, however, some students do not develop this skill. The slow pace at which these students read does not allow students to give the required attention to comprehension (Hiebert & Fisher, 2005). When looking at the research question, *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?,* the core of the question is fluency. A thorough understanding of fluency will provide evidence of the importance of fluency in the reading process. The following section will provide an overview of fluency including how it affects comprehension as well as components of fluency such as automaticity, accuracy, rate, and prosody. In addition how fluency is developed will also be discussed.

**What is Fluency?** Fluency has gone from being rarely considered in the classroom to a key component in reading development (Kuhn et al., 2012). Throughout the literature, it was clear that fluency is necessary for successful reading. Fluency involves the speed and accuracy of reading as well as reading with proper expression (Hiebert & Fisher, 2005). In order to read fluently, readers need to have developed adequate word recognition skills (NRP, 2000). However, fluency is not simply recognizing words at a fast pace. Reading fluently requires the reader to attend to the meaning of the text while they are reading (Guerin & Murphy, 2015). When a reader is fluent, they are able to continue reading at an appropriate rate, and with adequate

accuracy and expression for extended periods of time and should be able to maintain this skill even when large amounts of time have elapsed with little or no practice (Hudson, Lane, & Pullen, 2005). Fluent readers are able to automatically recognize words and are able to effortlessly group words allowing for smooth reading that sounds as natural as if they were speaking (Armbruster, Lehr, Osborn, & Adler, 2001). One of the most important reasons to focus on fluency instruction is because of its strong ties to reading comprehension (Hudson, Lane, & Pullen, 2005).

**Fluency and Comprehension.** The NRP (2000), posed the following question regarding comprehension, "Why do problems with reading accuracy, speed, and expression interfere with comprehension?" (p. 3-8) They answered this question by looking closely at the reading process. Recognizing printed words and constructing meaning from these words were found to be the basis of the reading process. This essentially means decoding words and comprehending what was decoded. The NRP (2000) pointed out that memories limit the amount of information processed at one time, therefore, readers who need to spend considerable amounts of time decoding, slow down the reading process and take resources away from the task of comprehending.

Looking at the research on the topic of the effects of labored reading on comprehension, a majority of the literature stemmed from the work of the NRP (2000). Most of its findings still hold true today. Rasinski's (2012) view of fluency and comprehension mirrored the work of the NRP; when readers deplete their cognitive energy on decoding words rather than identifying words accurately and automatically, they have little of this energy remaining for the all-important task  of comprehending what was read. "True comprehension always requires attention" (Hiebert & Fisher, 2005,

p. 444). When assessing children who have difficulties with comprehension, as many as

90% of them have difficulties due to their deficits in word recognition and reading

fluency (Rasinski, Homan, & Biggs, 2009). There is strong evidence that suggests that

higher levels of comprehension are achieved with both average and poor readers when

they were able to read at an increased rate (Hudson, et al., 2005).

**Automaticity.** Automaticity involves reading with little effort or attention (NRP,

2001). The phenomenon of automaticity was discovered almost a century ago (Hiebert &

Fisher, 2005) and LaBerge and Samuels (1974) proposed the automaticity theory. This

theory assumes that attention is a resource with a limited capacity and that in order to

achieve comprehension, a portion of the reading process needs to be executed using

minimal attention (Gorsuch & Taguchi, 2010).

Addressed throughout the literature was the fact that even though automaticity

and fluency are regularly used interchangeably, not all researchers believe this to be true.

Armbruster et al. (2001) detail the differences between fluency and automaticity.

Automaticity is the fast, effortless word recognition that comes with a great deal

of reading practice. In the early stages of learning to read, readers may be accurate

but slow and inefficient at recognizing words. Continued reading practice helps

word recognition become more automatic, rapid, and effortless. Automaticity

refers only to accurate, speedy word recognition, not to reading with expression.

Therefore, automaticity (or automatic word recognition) is necessary, but not

sufficient for fluency. (p. 21)

Automaticity involves quick and effortless word identification that allows the reader to

allocate their resources and energy on comprehension. Simply reading accurately is not

enough to elicit comprehension, readers must also read words automatically (Rasinski, 2012). Individuals who struggle with the reading process do not always acquire automaticity, many require direct instruction as well as multiple opportunities to practice fluency related skills in their reading programs (Hudson et al., 2005). Even though some struggling readers may be able to automatically read words in isolation, this does not always relay into automaticity when reading connected text (Armbruster, et al., 2001). In order to improve the automaticity of reading connected text, Samuels (1997) suggested using repeated reading techniques. Evidence suggests that fluency is a trainable skill and reading is improved when individuals are provided with fluency training (Allington, 1983).

**Accuracy.** Accuracy is just a piece of the overall skill of reading fluency. "Readers must be able to sound out the words in a text with minimal errors (Rasinski, 2004, p. 46)." In order to do this, individuals require phonics and other decoding strategies (Rasinski, 2004). However, simply reading words accurately is not the end goal of reading instruction (NRP, 2000). Even beginning readers may read with great accuracy, but due to the slow and effortful process, accuracy is not enough to achieve fluency and comprehension is affected (NRP, 2000). The literature overwhelmingly emphasized a greater focus on automaticity than it did on accuracy. Even so, there are some struggling readers with dyslexia who have difficulties specific to the area of accuracy (Fletcher, 2007).

**Rate.** Just as accuracy and automaticity are closely linked, so are rate and automaticity. "Reading rate comprises both word-level automaticity and the speed and fluidity with which a reader moves through connected text" (Hudson et al., p. 702).

Throughout the literature, rate was synonymous with speed of reading and it is typically

measured using words per minute read. A majority of fluency interventions focus on rate,

but the literature also revealed that many teachers and programs put too much of an

emphasis on rate and this negatively impacts students. Typically, reading rate is a reliable

indicator of automaticity, but many educators incorrectly assume that increasing rate

causes automaticity (Kuhn et al., 2012). The problem with this is that students start to

believe that the primary purpose for reading is speed rather than understanding (Rasinksi,

2012). Even though rate cannot be the sole focus of fluency instruction, it is a very

important component. When looking at rate and accuracy there are distinct advantages

for a greater emphasis on rate. If students are required to read with 100% accuracy before

advancing to another passage, fear of making a mistake is going to negatively affect their

fluency (Samuels, 1997).

      **Prosody.** Automaticity and rate are often the focus of fluency instruction,

however fluency is more than reading fast and accurately, it requires prosody as well.

Prosody involves reading with expression as well as the use of intonation, stress, tempo,

and appropriate phrasing (Kuhn et al., 2012). Rasinski (2012) compares fluency to a

bridge between word recognition and comprehension and prosody completes this bridge

by connecting the words to comprehension. He also noted that emphasizing one

particular word in a sentence can completely change the intended or implied meaning.

Emphasizing certain words requires a reader to use higher levels of comprehension skills

to determine the inferred meaning. In the same way that automaticity can be improved

with wide and deep practice, Rasinski also suggests prosody may improve as well. Many

may assume that automaticity and prosody would go hand in hand, however when the

goal of reading is to increase speed, prosody suffers due to the loss of meaningful expression when reading at too fast of a pace. This will be important to remember while conducting research as repeated reading interventions should be an authentic form of reading that is expressive and enhances the meaning of the text and is not simply, fast (Rasinksi, 2012).

**How to Develop Fluency.** Several studies have shown that all readers need to look at each word in the text, no matter how fluent they are. However, as readers become increasingly skilled, they are able to focus on content words, and function words are seen at the edge of their field of vision and the reader does not have to stop and look at each individual word (NRP, 2000).Throughout the literature, researchers suggested that one of the most effective ways of improving a reader's ability is to increase their perceptual span and increase the amount of words they can process at one time through practice and repeated reading of text.

A majority of the literature has its roots in the meta-analysis conducted by the NRP (2000). This analysis looked at two different approaches to teaching fluency. These approaches are repeated oral reading and silent reading. Only three of the studies that looked at silent reading reported any gains using sustained silent reading, uninterrupted sustained silent reading, Drop Everything and Read, super quiet reading time, or Accelerated Reader. Repeated and guided repeated oral reading interventions saw clear improvements, only two studies did not show significant differences between groups receiving repeated reading interventions versus control groups. Word knowledge, reading speed, and oral accuracy were influenced the most, nevertheless, comprehension also

showed improvement (NRP, 2000). The positive results seen by repeated reading interventions, greatly contributed to this capstone research topic.

**Overview of Fluency.** Throughout this section, the topic of fluency was investigated. The definition of fluency and how fluency is related to comprehension was outlined. Automaticity, accuracy, rate, and prosody were discussed, as well as two approaches for developing fluency in struggling readers. This capstone project focuses specifically on students with learning disabilities, many of which have difficulty with decoding words as well as deciphering whether or not vowels make short or long sounds, making reading a daunting task that requires focusing almost all of their energy and resources on decoding rather than comprehension (Strickland, Boom, & Spencer, 2013). These students would benefit significantly from increased fluency. Based on the literature, repeated reading has seen positive effects in improving fluency in all students and in the next section this topic will be explored further.

**Repeated Reading Interventions**

Repeated reading is a technique that was first introduced by Samuels (1997) and Dahl (1974), and has been implemented by reading practitioners since that time (Kostewicz, 2012). Samuels (1997) emphasized that repeated reading is not intended for teaching all beginning reading skills, but is designed to supplement a reading program. Not only is it effective for students with learning difficulties, but it was shown to be a useful technique for all students (Samuels, 1997). Samuel's work was cited in virtually all of the literature reviewed, with a substantial amount of research affirming its ability to improve reading fluency. "The method consists of rereading a short, meaningful passage several times until a satisfactory level of fluency is reached. Then the procedure is

repeated with a new passage" (Samuels, 1997, p. 377). There are many different

approaches to the repeated reading technique (Samuels, 1997) and they differ in their

levels of support and emphasis (Hudson et al., 2005). Again, going back to the research

question, *How much does repeated reading improve the reading rate, accuracy, and*

*prosody of students with learning disabilities in fifth grade?,* the ultimate goal of this

question is to determine the effectiveness of repeated reading. Therefore, learning more

about repeated reading and gaining knowledge regarding previous studies will provide

guidance for my own action research. Throughout this section, repeated reading will be

discussed in detail, including required materials and procedures, limitations, and the

results of previous studies.

  **Materials.** Repeated reading involves minimal resources and materials. When

provided with adequate time to implement repeated reading, teachers need only to gather

reading passages. Even though there are many variations to repeated reading, a common

theme throughout the literature is that repeated reading utilizes short reading passages.

These passages can be obtained from numerous sources. Sources of these passages cited

in the literature include short stories from the Penguin Readers series (Gorsuch &

Taguchi, 2010), passages measured for readability using Fry (1989) procedures

(Kostewicz, 2012), and probes from the Dynamic Indicators of Basic Early Literacy

Skills 6th Edition (DIBELS) (Begeny, Krouse, Ross, & Mitchell, 2009). The NRP's

(2000) review of repeated reading research found considerable variation between the

materials used. Even though materials may vary, positive effects are consistently seen.

When selecting reading passages, a common procedure includes choosing passages

slightly above a student's reading level (Begeny et al., 2009). To the contrary, Meyer and

Felton (1999) as cited by Lo, Cooke, and Starling (2011), advise that in order to increase

fluency, passages should be able to be read accurately with little difficulty in decoding.

Vaughn, Coleman, and Bos (2002), also recommend using passages that range between

an instructional level (90-95% accuracy) to an independent level (95% accuracy and

above).

When looking at appropriate reading passages for repeated reading interventions,

teachers should not only look at students' accuracy, but also the speed at which the

passage was read. Kostewicz (2012), used three levels when choosing what grade level

passage to choose, frustration, instructional, and fluent. These levels were used regardless

of grade level. Frustration involved reading less than 50 correct words per minute

(CWPM), instructional required students to read between 50-150 CWPM, and fluent

readers read at a rate of 150 or more CWPM. When using these levels, students began

reading a passage at their grade level and were moved up or down until they fell into the

instructional level (Kostewicz, 2012). FastBridge Learning (2015) uses four levels which

are College Pathway, Grade Level, Some Risk, and High Risk. Unlike Kostewicz (2012)

there are different criteria for each grade level and even different criteria for fall, winter,

and spring.

**Procedures.** When looking at the literature, procedures for repeated reading

varied in their length of implementation, how many timings were required in each

session, what kind of previews were provided, how modeling and feedback was provided,

error correction, and even who implemented the intervention. The NRP's (2000) report

noted that in the studies it reviewed, interventions were delivered by teachers, parents,

other students, or even the student themselves. Even though there are variations to the

procedures used to implement repeated reading, a majority of repeated reading interventions have similar key components.

When repeated reading was first introduced, Samuels (1997) outlined the procedure used in one of his early studies. Short sections of passages were marked off for practice, students read these sections to an assistant and the speed and accuracy were recorded. After data was recorded, students would return to their seat to continue practicing while another student worked with the assistant. This procedure was repeated until the criterion of 85 words-per-minute was obtained. In this study rates improved with each passage and fewer re-readings were required to meet the criterion (Samuels, 1997).

Kostewicz (2012), expanded upon Samuels' (1997) procedure by looking at the length of time spent on repeated reading, how to conduct the reading process, error correction, performance feedback, progress monitoring, and goals. He pointed to research that suggests repeated reading should last approximately five to ten minutes as often as possible in the week, preferably daily, and that there is a consensus that one-minute timings should be used at least once in the session. Also noted was that beginning readers require a much higher level of supervision from instructors, but can eventually spend more time practicing on their own or with less supervision. One disadvantage of students practicing individually is the absence of error correction. Students may not be able to correct all of their own errors and an increase in errors leads to lower comprehension. For this reason Kostewicz (2012) provides two options; student-teacher dyads and student-student dyads. When a teacher is working with a student, he mentions the use of model-lead-test error correction that involves a teacher identifying mispronounced words for the reader, pronouncing the word correctly, and then having the reader read the word

correctly. Another important addition to repeated reading suggested by Kostewicz (2012) is providing feedback and monitoring progress. He concludes that when individuals are practicing, they need to be told how they did and how their performance relates to previous performances and the goal they are working towards. This feedback can be as simple as providing students with a count of how many words they read correctly and providing them with a graph of their progress (Kostewicz, 2012). Goal setting was also included in Kostewicz (2012) work. He states, "goal-less practice borders on simple play differentiating itself from deliberate practice. Individuals engaged in purposeful practice often move toward result" (p. 20). Samuels (1997), advises that using charts to graph students' progress can be a great tool to motivate students by showing them how much progress they have made.

Lo et al. (2011) identified eight steps in the repeated reading process. In their study, individuals were provided with 15-20 minute sessions with a tutor four times per week. Each of the sessions used a new passage. The eight step process involved initial performance cueing and feedback, preview of difficult passage words, an initial timed passage reading, performance feedback and error correction, error word or sight word practice, unison reading, repeated performance cueing and feedback, and timed passage reading. Each session began with the tutor showing the participant their graphs and encouraging them to increase their scores. Next, the tutor read the title of the passage and previewed five words that had been preselected as words the participant may have difficulty with. After previewing these words the participant was given a one-minute timing without assistance and their score was recorded on their graph. The tutor would then announce the participant's score and go over words they may have read incorrectly.

Participants would be prompted to read the word correctly and then read the word correctly in a short phrase. Words that had been read incorrectly were written down on flashcards to practice along with randomly selected high frequency sight words. In order to improve the reader's rate and model expressive reading, the tutor and participant would then read in unison at a rate slightly faster than that of the participant's rate. After reading in unison, the participant repeated reading the passage several times to increase their speed and improve their expression. Cueing and feedback was also given during these repeated readings. Finally, the participant would be timed for one minute reading the passage one last time and the score would be documented on the participant's graphs using a different color in order to see the improvement (Lo et al., 2011).

**Results of Previous Studies.** Therrien (2004), conducted a meta-analysis to answer the following questions; is repeated reading effective in increasing reading fluency and comprehension, what components within a repeated reading intervention are critical to the success of the program, and do students with cognitive disabilities benefit from repeated reading. He looked at studies conducted between 1977 and 2001 that were obtained through Educational Resources Information Center (ERIC) and Psychological Information (PsycInfo) databases. Articles were reviewed to determine effect sizes for fluency and comprehension, and these effect sizes were coded. His findings indicated that not only did repeated reading improve fluency, but it also improved comprehension for both students with learning disabilities and non disabled students. All students were able to show a moderate mean increase in their fluency and a smaller increase in comprehension. Results were divided into non transfer and transfer measures. Non transfer was described as measuring the ability to read or comprehend a passage after

multiple readings and transfer measures involve measuring a student's ability to read new passages that have not been previously read. Non transfer studies showed a larger effect size (ES = .83, SE = .066). However, students in the transfer studies were shown to have a moderate mean fluency effect size increase (ES=.50, SE=.058) (Therrien, 2004). This shows that through repeated reading, students not only increase their fluency on the individual passages they read, but the increase also transfers to other passages.

The NRP (2000), conducted an extensive systematic literature review on the effectiveness of oral reading procedures and encouraging students to read more. Only studies that involved experimental tests of the procedures under examination, students in grades kindergarten through twelfth grade, had appeared in a refereed journal, and had been implemented using English were used in the review. Studies that met the criteria were summarized and then coded. There were 364 unique articles found using PsycINFO and ERIC and after review, 77 articles were used in the final analysis. The NRP (2000) discovered that most of the studies that involved encouraging independent reading failed at proving there was an increase in reading achievement. On the contrary, guided oral reading, which includes repeated reading, had a consistent and positive impact on not only fluency, but word recognition and comprehension as well. An average weighted effect size 0.41 was found, which shows guided oral reading has a moderate impact on reading improvement. Reading accuracy was found to have the highest impact with an effect size of 0.55. Fluency had the next highest effect size with 0.44 and comprehension had an effect size of 0.35. The NRP (2000) encourages repeated oral reading utilizing feedback and guidance because it leads to meaningful improvements in reading expertise for all readers.

Begeny et al. (2009) examined three small group interventions that targeted fluency; repeated reading, listening passage preview, and listening only. Four second grade students from a rural Southeast school participated in the study. DIBELS (Bergeny et al., 2009) reading passages administered using Curriculum Based Measurement (CBM) directions were used. In this study repeated reading was used in a small group where there was a group leader who read the passage with the other group members reading along slightly quieter. Students take turns being the leader of the group. The purpose of the study was to determine the impact of each intervention when implemented in isolation. The repeated reading intervention was found to be more effective than listening passage preview and listening only and resulted in more words correct per minute (WCPM). The findings of the study support the use of fluency-based interventions to increase the fluency of elementary aged students (Begeny et al., 2009).

Strickland et al., (2013) reviewed literature on the use of repeated reading to improve reading fluency and comprehension skills of elementary-age students with learning disabilities. They performed a systematic review of nineteen studies published between 2001 and 2011. Criteria for the studies reviewed included the use of repeated reading interventions, students that were identified with learning disabilities in kindergarten thru fifth grade, instruction delivered in English, and the studies use of an experimental/quasi-experimental treatment/comparison group design, a pretest-posttest case design, or a single-subject research design.  The studies involved in the review used four approaches; repeated reading as the primary intervention, repeated reading compared to other reading interventions, repeated reading in combination with other reading interventions, and repeated reading as part of a reading program. The review of the

studies showed that repeated reading is an effective strategy and results in moderate to large gains in fluency and comprehension. However, it was noted that it would be beneficial to establish a standard set of procedures and protocols to use when implementing repeated reading interventions, as there is considerable variation (Strickland et al., 2013).

**Overview of Repeated Reading.** Throughout the literature, repeated reading was cited as an effective method of improving reading fluency for all students, including those with learning disabilities. In the last section of this literature review is a breakdown of the materials and procedures required for repeated reading, as well as results of previous studies. In order for students to gain automaticity in their word reading, which is a major component of reading fluency, students need continued practice. Repeated reading allows students to have the practice required to become automatic (Samuels, 1997). In addition to improving students' automaticity, "repeated readings emphasize practice as a way of working on all of the areas of reading fluency -accuracy, rate, and prosody - and is one of the most studied methods for increasing reading fluency" (Hudson et al., 2005, p.705).

**Summary**

The question *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?* was the driving force behind this capstone project research. The research began by looking deeper into what learning disabilities are in order to have a greater understanding of the students. The research reiterated time and time again how individuals with learning disabilities are a heterogeneous group and there is considerable variability between each individual.

After researching learning disabilities, the topic of fluency was explored. The capstone research question involves reading rate, accuracy, and prosody which are the three major components of fluency. Fluency is the backbone of this project and it is critical to have a deep understanding of this topic before implementing interventions and documenting improvement. The literature emphasized the importance of fluent reading to comprehension. Fluent readers are able to automatically recognize words and are able to effortlessly group words allowing for smooth reading that sounds as natural as if they were speaking (Armbruster, et al., 2001), and this allows readers to focus their energy on comprehending the text. Continued practice is recommended as an effective way to increase fluency. One method of providing this practice is through repeated reading.

In the last major section of the literature review the focus was on the topic of repeated reading interventions. This topic is imperative to the capstone project as it provides guidance in implementing repeated reading procedures as well as reveals how repeated reading has effectively improved both the fluency and comprehension of individuals who receive these interventions.

This literature review provides the foundation for chapter three. The next chapter will provide the methodology of my action research. This includes the research paradigm, setting and participants, data collection process, and how the R.O.A.R interventions will be implemented with students in my resource room.

CHAPTER THREE

Methods

**Introduction**

In chapter two, the literature review helped answer the research question,  *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?,* by reviewing three central themes; learning disabilities, fluency, and repeated reading. Working with students with learning disabilities on a daily basis has allowed me to see how students with learning disabilities frequently struggle with fluency and I am passionate about finding ways to help students with this skill. Repeated reading has been shown to have positive effects on fluency. Several of my colleagues use an intervention called Repeated Oral Assisted Reading (R.O.A.R.) and recommended that I try it. One of the advantages of an intervention like this is that it does not focus solely on reading speed and accuracy, but also takes prosody into consideration. This one-on-one intervention had not been implemented in the past due to a limited amount of time and adults to assist with implementation. The goal of this study was to determine how effective R.O.A.R was at improving reading rate, accuracy, and prosody compared to a nationally normed assessment. Analyzing the data helped determine whether one-on-one interventions were the best use of time and resources and was able to see if students exhibited similar gains without a specific intervention

In this chapter, information is provided regarding the research paradigm, the school setting where research was conducted, a description of the participant in the study, as well as the data collection tools. Also included in this chapter are the procedures utilized to complete this project and steps taken to make sure the study was completed ethically and participants were protected.

**Research Paradigm**

The research paradigm chosen for this study was quantitative. Creswell (2014), states that "quantitative research is an approach for testing objective theories by examining the relationships among variables. These variables, in turn can be measured, typically on instruments, so that numbered data can be analyzed using statistical procedures" (p. 4). Quantitative research allowed for a reliable and objective study that allowed for the testing of the theory that repeated reading would improve all areas of fluency; rate, accuracy, and prosody. In contrast to quantitative research, qualitative research often involves a flexible structure and allows the researcher to make interpretations (Creswell, 2009). Interpretations in this study could be biased and would not be a true representation of the progress the student made.

A quasi-experimental design using a control-group interrupted time series was chosen for this study. A pre-experimental design would not have been appropriate as it does not include a control group (Creswell, 2009). In order to determine if R.O.A.R. was the variable that improved fluency, a control group was required to compare the results to. A control-group interrupted time series design involves observing both an experimental group and a control group over time and a treatment is administered to only one of the groups (Creswell, 2009). Unlike a true experiment design, a quasi-

experimental design does not assign participants to groups randomly (Creswell, 2009).

Working with a small group of students, the most efficient way to conduct this study was

to administer the intervention to the participants and then compare the results to a

nationally normed assessment. The scores of nationally normed one-minute reading

probes from FastBridge Learning (2015) were used to compare the results to. Originally,

the intent was to administer the intervention to six students and compare their scores to

another six students' scores who did not receive the intervention. In past years, many

students in the building were identified with learning disabilities, so two groups of six

was a reasonable estimate of projected group size. When caseloads were finalized in

September, there were only three students who had learning disabilities with needs in the

area of reading. At that time the intervention was administered to those three students

with the intent of comparing their scores to a nationally normed assessment at the end of

the year. By November, two of the three students moved away and the study became a

case study with one participant. In the next section, the setting and participant involved in

this study will be described.

**Setting and Participants**

In the previous section, the research paradigm was discussed. This section will

provide information regarding the setting and participant of the study. This study was

conducted in a public elementary school in Minnesota, approximately 60 miles southwest

of the Twin Cities. The population of the community is 13,872 with a median household

income of $49,945. The school serves 836 students in grades 2-5. Employed at the school

are 112 staff members. Of these staff members, 61 of them are classroom teachers and

seven are special education teachers. There are 95 special education students that receive

services. There is limited diversity in ethnicity, with 741 white, 14 black, 67 Hispanic, and 14 Asian/Pacific Islander. Approximately 33% of the students qualify for free and reduced lunch.

The study took place in a special education resource room, which contained students with learning disabilities, autism, emotional behavior disabilities, and other health disabilities, however only one student was identified with a specific learning disability and received direct reading services. This student became the single participant in the experimental group. The control group consisted of all students nationwide who were administered one-minute Curriculum Based Measurement (CBM) reading probes from the FastBridge Learning (2015) computer software program. The participant was a white female in the 5th grade who has been receiving special education services since early childhood.

## Data Collection

In the last section, a description of the setting and the participant of the study was outlined in order to provide some background knowledge and a context for the study. In this section the methods for conducting research will be described.

**Data Collection Method One: Reading Probes.** The first form of data collection used was the results of a one-minute grade level reading assessment using FastBridge Learning (2015), CBM reading passages (Appendix A). FastBridge Learning (2015) is a program the school district uses to manage multiple assessments and to progress monitor students. It allowed for online test administration and also provided a course on administering the assessment that ensured consistent, valid data was collected. FastBridge Learning (2015) was chosen because it offered nationally normed data that the

participant's progress could be compared to. This data is provided in Appendix B. After

the initial assessment in November, the participant was assessed once a month until the

end of April when state testing began and reading interventions were over for the school

year. Reading rate and accuracy were documented and grade level passages were used

throughout the year.

        **Data Collection Method Two: Progress Monitoring.** The next data collection

method involved the daily implementation of R.O.A.R. The protocol developed by

Anderson (n.d.) is provided in Appendix C. As a part of R.O.A.R, the participant read

DIBELS (Bergeny et al., 2009) passages during her intervention. DIBELS passages were

included as one of the resources recommended for use with CBM by Fuchs and Fuchs

(2011). Samples of these passages are included in Appendix D. The participant had been

reading end-of-second-grade reading passages in her previous year's intervention. When

given an end-of-third-grade reading passage to read for a minute, she read less than 62

words per minute which placed her in the high-risk category for fall using FastBridge

Learning's (2015) benchmarks which are found in Appendix E. At the beginning of each

session, a one-minute cold timing was recorded. The cold timings involved the

participant reading a story she had never read before. At the end of the intervention,

another one-minute timing was administered using the same passage the student

practiced. Both the reading rate and accuracy were documented on charts found in

Appendix F. CBM procedures recommend students read the same level of passages for

the duration of the year. However, the participant increased her instructional level as she

became increasingly fluent throughout the year. In March, the participant moved onto

end-of-third-grade level passages. Having the participant change throughout the year

made it difficult to compare her to a control group, which is why the participant was also assessed using grade level probes for her base score and monthly check. However, the daily data collected as part of the intervention was valuable to see over time.

**Data Collection Method Three: Prosodic Reading Rubric.** A rubric developed by Rasinski (2004) to score prosodic reading was also utilized. This rubric is provided in Appendix G. Each month, this rubric was filled out immediately following the one-minute reading assessment. Scores of 1-4 were given for four areas of prosodic reading which are expression and volume, phrasing, smoothness, and pace.

**Data Collection Method Four: Daily journal.** Throughout the first several months of working with the participant, notes were taken immediately following the intervention. In the notes the participant's attitude, my thoughts and observations, and comments that the student had made that day were included. These notes are found in Appendix H. The journal was discontinued midway through the year, as many of the comments were becoming repetitive once the participant started making progress with her prosody and speed.

## Implementation of R.O.A.R.

Dr. Jane Anderson from Saint Mary's University of Minnesota developed R.O.A.R. The participant was provided with a 15-minute one-on-one R.O.A.R. intervention four times per week. This intervention begins and ends with a one-minute timing for progress monitoring purposes. During the actual intervention, a teacher and student read a passage one sentence at a time, repeating each sentence three times. The first time the teacher reads, the second time it is read together, and the third time the

student reads independently. Both the student and teacher follow along with their fingers. Dr. Anderson provides more directions, training videos, and materials at no cost online.

**Ethics**

In order to ensure the protection of all of the participant involved in the study, the procedures of the Human Subjects Committee (HSC) were followed. When the proposal was approved, the project was registered with the Hamline University Institutional Review Board (IRB). With the help of my committee advisor, the HSC long form was completed and submitted to the IRB along with a letter of consent from the school district where the research was conducted, which is included in Appendix I. Once the proposal was fully approved, the study proceeded. A letter of informed consent was sent to the child participant's guardian and was returned prior to participating in the study. This letter contained a description of the study including the research topic, purpose, and rationale and is included in Appendix J. Also included in the letter was a statement regarding how the individual would participate, assurance of confidentiality and voluntary participation, as well as explanations of both the risks and benefits of participation. The student's name was also changed to protect her identity.

**Summary**

In this chapter the research paradigm, setting, participant involved in the study, and the data collection methods used were examined. A description of R.O.A.R., the repeated reading intervention implemented in this study throughout the 2016-2017 school year was also provided. In addition, information detailing the ethics of the study was also included. In chapter four, the results of the study as well as an analysis and interpretation of the data will be share

CHAPTER FOUR

Results

**Introduction**

In chapter one, I shared both my personal and professional experiences with fluency. Chapter two, the literature review, presented research on the topics of learning disabilities, fluency, and repeated reading interventions. The literature review also explored the topic of learning disabilities, including the definition of learning disabilities, identification, prevalence, causes, as well as characteristics of individuals with learning disabilities. Several components of fluency, including automaticity, accuracy, rate, and prosody were discussed, as well as how to develop fluency and how fluency affects comprehension. In the last major section of chapter two, repeated reading was discussed in depth. Throughout chapter three, I specify my plan for administering the intervention Repeated Oral Assisted Reading (R.O.A.R.) to an individual student as well as my plan for monitoring the student's progress and comparing her scores to nationally normed data. To protect the student's identity, she was given the pseudonym of Jessica.

Chapter four will focus on the data collected throughout the 2016-2017 school year which helps to answer the research question: *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?* This chapter will outline detailed intervention procedures as well as analyze the four collection methods I utilized throughout the year, including reading probes,

progress monitoring, prosodic reading rubrics (Rasinski, 2004), and my personal daily

journal to determine student growth and the effectiveness of improving reading rate,

accuracy, and prosody of the participant in the research study.

**Data Collection**

When I first began considering capstone topics, R.O.A.R was one of the first

ideas to come to mind. In the past, I used a computer based fluency program called Read

Naturally (Ihnot & Ihnot, 2006). Having large numbers of students at a time working at

various levels, this computerized program was the best fit for my classroom. After

hearing plenty of criticism for this program, several of my colleagues introduced me to

R.O.A.R. The only problem I foresaw with R.O.A.R. is that it is a one-on-one

intervention. I ultimately decided to study R.O.A.R as my capstone project, with the goal

of using this research to determine whether or not it was effective enough to completely

overhaul my current special education program to provide one-on-one interventions to

the students struggling with fluency. In order to determine the effectiveness of the

intervention, I took advantage of several data collection methods. This next section will

present an overview of each data collection method as well as an analysis of the data

collected.

**Data Collection Method One: Reading Probes.** To begin my project I first

needed to collect some baseline data. FastBridge Learning (2015) is used as a universal

screener in my school district and also has a progress monitoring component. I chose to

utilize this program, as I was already familiar with it and had received training in how to

use the program, it also allowed for computerized assessments and data collection. It was

also a program Jessica was familiar with using so it made her more comfortable.

FastBridge Learning (2015) has many assessments, but I used CBM Reading. This assessment requires students to read a grade level passage for one minute and documents both accuracy and rate. By using grade level passages throughout the school year, I was able to compare her progress to national norms. If I had used probes at her instructional level, her level could have changed throughout the year which would not provide an accurate picture of her growth. It would also make it difficult to compare her to same aged peers if students were reading passages at different levels.

After my project was approved in November and Jessica's parents signed the consent form, I immediately administered the first assessment. Jessica had already been assessed at the beginning of the school year along with her peers and her score was considered high risk. Before administering the assessment, Jessica read a portion of her independent reading book aloud to me as a warm up. By developing a relationship with Jessica during the two months prior to beginning this research, I learned that she does much better on most tasks, after given a chance to warm up. Her score on the first probe administered in November, was 52 correct words per minute (cwpm), which again put her in the high-risk range. She read this passage with 95% accuracy. High risk means that a student requires immediate intervention to make adequate gains. Based on FastBridge Learning's (2015) fifth grade benchmarks (Appendix E) any fall score under 107 cwpm is considered high-risk. Jessica's score was less than half of this score, which documents her high need in the area of reading fluency.

After the initial assessment, I chose to progress monitor Jessica using grade level FastBridge Learning (2015) reading probes once a month. I could have chosen once a week, but decided against it because it would have taken away from our limited

intervention time to administer assessments. I felt that assessing once a month would

provide sufficient data points to see growth throughout the year. Especially since the

nationally normed data only uses three data points for fall, winter, and spring. The

R.O.A.R intervention provided daily data, included later in this chapter, which allowed

me to track Jessica's individual progress over time. Administering grade level reading

probes once a week, felt redundant with all of the data already collected.

As previously stated, Jessica's baseline score was 52 cwpm. Her last assessment

for the year occurred on April 13, 2017. State testing as well as an early end to the school

year due to construction made continuing the intervention into May very difficult. On the

chart below, Jessica's last score was 86 correct words per minute. Although this score

placed Jessica in the high-risk range, her accuracy increased to 100% and her rate

increased by 34 words per minute while receiving the R.O.A.R. intervention. When

comparing her score from the beginning of the school year to her score in April, her rate

increased by 39 words per minute.

Figure 1: Graph of FastBridge Learning Monthly Data



CBMreading English Progress Monitoring Report
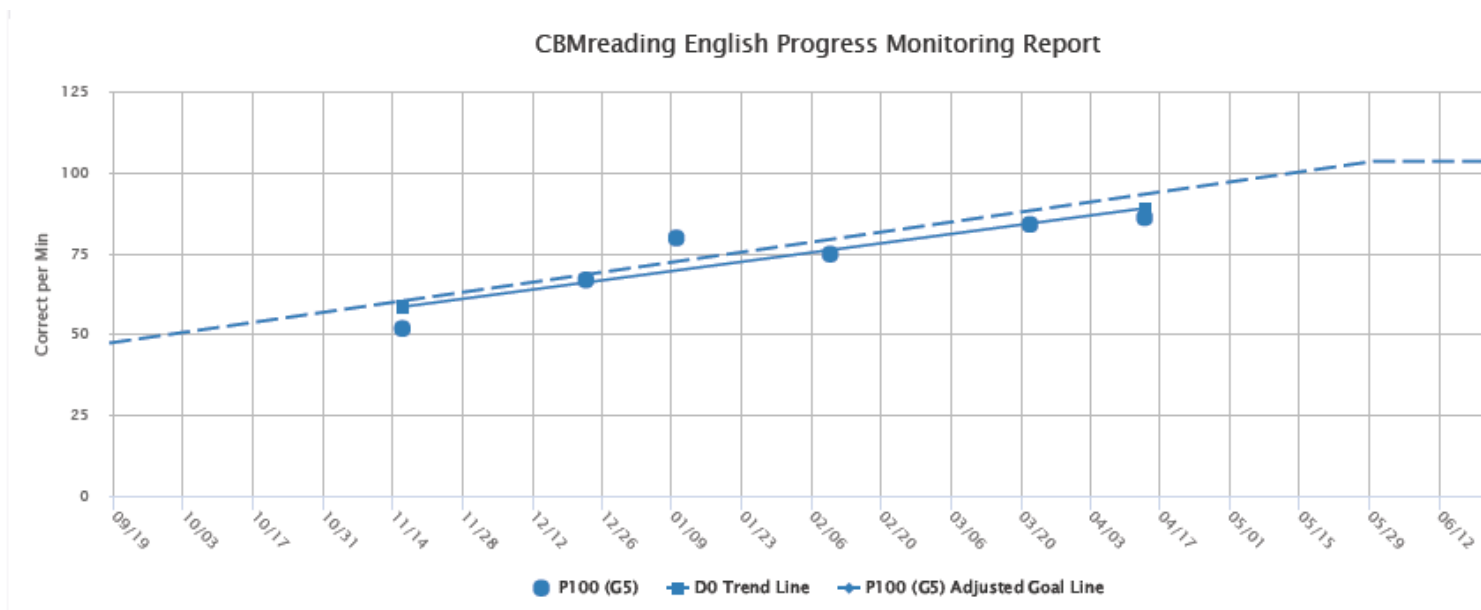
Table 1: FastBridge Learning Monthly Data

| Date | 11/15/2016 | 12/22/2017 | 1/20/2017 | 2/21/2017 | 3/21/2017 | 4/13/2017 |
|------|------------|------------|-----------|-----------|-----------|-----------|
| Score | 52 | 67 | 80 | 75 | 84 | 86 |

FastBridge Learning's (2015) fifth grade 2016-2017 national norms are provided in the table below. I decided to look at the average growth from fall to spring in words per minute read of all of the sub groups. This average growth was 28 words per minute. Comparing this growth to Jessica's, Jessica had increased her reading rate by 11 words per minute more than the national average. I also decided to look at the growth made by students in the fifth percentile and below, as this is where Jessica originally scored. This would allow me to compare her score to the scores of students of similar ability who were likely receiving fluency interventions as well. The growth made by the students in this group was 26 words per minute from fall to spring. Jessica's growth was 13 words per minute higher than this comparable group.

Figure 2: FastBridge Learning Fifth Grade Norms



2016-17 Academic Year

Norm : CBMR-English : FIVE

| % | Screening Scores Rate | | | Seasonal Score Differences by Percentile Weekly Growth | | | Aggregate Weekly Growth | | | Student Growth Percentiles Weekly Growth | | |
|---|------|--------|--------|-----------|--------------|-------------|-----------|--------------|-------------|--------|--------|--------|
| | Fall | Winter | Spring | Fall-Winter | Winter-Spring | Fall-Spring | Fall-Winter | Winter-Spring | Fall-Spring | F-W Mean | W-S Mean | F-S Mean |
| 95th | 189 | 207 | 223 | 1.04 | 0.93 | 0.99 | 2.11 | 2.07 | 1.56 | 0.64 | 0.50 | 0.57 |
| 90th | 182 | 197 | 213 | 0.87 | 0.93 | 0.90 | 1.88 | 1.82 | 1.43 | 0.75 | 0.58 | 0.48 |
| 85th | 174 | 190 | 205 | 0.93 | 0.88 | 0.90 | 1.71 | 1.64 | 1.32 | 0.84 | 0.62 | 0.50 |
| 80th | 168 | 185 | 198 | 0.98 | 0.76 | 0.87 | 1.56 | 1.48 | 1.24 | 0.86 | 0.63 | 0.55 |
| 75th | 163 | 179 | 193 | 0.93 | 0.82 | 0.87 | 1.44 | 1.35 | 1.17 | 0.85 | 0.65 | 0.61 |
| 70th | 158 | 175 | 188 | 0.98 | 0.76 | 0.87 | 1.32 | 1.24 | 1.10 | 0.83 | 0.65 | 0.66 |
| 65th | 154 | 170 | 184 | 0.93 | 0.82 | 0.87 | 1.22 | 1.12 | 1.04 | 0.83 | 0.65 | 0.70 |
| 60th | 151 | 166 | 179 | 0.87 | 0.76 | 0.81 | 1.12 | 1.02 | 0.99 | 0.84 | 0.66 | 0.74 |
| 55th | 146 | 162 | 175 | 0.93 | 0.76 | 0.84 | 1.03 | 0.93 | 0.93 | 0.88 | 0.67 | 0.77 |
| 50th | 142 | 158 | 170 | 0.93 | 0.70 | 0.81 | 0.94 | 0.82 | 0.88 | 0.93 | 0.68 | 0.78 |
| 45th | 138 | 154 | 166 | 0.93 | 0.70 | 0.81 | 0.84 | 0.73 | 0.82 | 0.98 | 0.70 | 0.77 |
| 40th | 133 | 151 | 163 | 1.04 | 0.70 | 0.87 | 0.76 | 0.63 | 0.77 | 1.05 | 0.71 | 0.76 |
| 35th | 128 | 146 | 158 | 1.04 | 0.70 | 0.87 | 0.67 | 0.53 | 0.72 | 1.09 | 0.74 | 0.74 |
| 30th | 123 | 141 | 154 | 1.04 | 0.76 | 0.90 | 0.57 | 0.44 | 0.66 | 1.11 | 0.77 | 0.73 |
| 25th | 119 | 136 | 150 | 0.98 | 0.82 | 0.90 | 0.47 | 0.33 | 0.60 | 1.12 | 0.80 | 0.73 |
| 20th | 113 | 130 | 143 | 0.98 | 0.76 | 0.87 | 0.36 | 0.20 | 0.53 | 1.12 | 0.83 | 0.76 |
| 15th | 107 | 123 | 137 | 0.93 | 0.82 | 0.87 | 0.24 | 0.07 | 0.46 | 1.12 | 0.84 | 0.82 |
| 10th | 100 | 116 | 128 | 0.93 | 0.70 | 0.81 | 0.10 | -0.07 | 0.37 | 1.13 | 0.84 | 0.90 |
| 5th | 91 | 106 | 117 | 0.87 | 0.64 | 0.76 | -0.09 | -0.28 | 0.26 | 1.15 | 0.81 | 0.94 |
| M | 141.02 | 157.45 | 170.82 | 0.95 | 0.77 | 0.86 | 0.96 | 0.85 | 0.89 | | | |
| SD | 29.76 | 29.80 | 30.93 | 0.06 | 0.08 | 0.05 | 0.66 | 0.70 | 0.39 | | | |
| N | 58393 | 61506 | 59961 | 19 | 19 | 19 | 22628 | 23822 | 21282 | | | |

1 of 1
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Research to Results™

When looking at this data, it is evident that R.O.A.R. is an effective intervention for improving reading fluency in the area of rate. Not only did Jessica experience more growth than any other subgroup, she also made more growth than she had ever experienced before. In all of her previous years, her growth fell far below that of the national average which resulted in her less than fifth percentile scores and a large achievement gap. Students will never close the achievement gap if they continue to perform below or even at national norms. To close the gap, they must exhibit more growth than that of their peers. The data shows that this is what Jessica did this year and that R.O.A.R. can be implemented with students with learning disabilities to improve their reading rate.

**Data Collection Method Two: Progress Monitoring.** This second form of data collection occurred during each daily intervention session. Each session began with a cold timing which simply means that it is the first time a student is reading the passage. At the end of each session a hot timing was administered. This is a timing that occurred after the student practiced the same passage several times. Both the accuracy and rate were recorded with each of these one-minute timings. Collecting this data each day allowed me to track Jessica's progress and show Jessica how she was doing. Each day, I graphed Jessica's data with her.

At the beginning of the school year Jessica had been given an end-of-third-grade passage to read for one minute and read it at a rate of 62 words per minute which placed her in the high-risk range for third grade. I did not want Jessica to be frustrated when participating in the daily R.O.A.R intervention so I chose to start Jessica on end-of-second-grade passages. I chose to use DIBELS (Bergeny et al., 2009) passages for these

timings as they are free and easy to obtain online. Many interventionists I work with also use Dibels for their fluency interventions. Not only were the passages used for the cold and hot timings, but they were also used for the R.O.A.R. intervention itself, which will be discussed later in this chapter.

When looking at Jessica's graphs for the year which are provided in the following pages, there was not a steady increase in her cold timings, which I was expecting to see. Her scores were all over the place and her hot timings seemed to be just as sporadic. The chart that I used had a range of 60 to 120, which was the largest range available using the charts typically used with R.O.A.R. Eight of her cold timings were lower than 60 and nine of her hot timings were over 120, which demonstrates the wide variability in Jessica's scores.

Even though the data was not what was expected, it did provide some valuable information. When looking at Jessica's graph for the year, it is evident that she has very little difficulty with reading accurately. All except for seven data points were at 97% or higher for accuracy, which placed her at the independent reading level. Even when Jessica moved up to level three passages in March, her accuracy remained very high. This provided valuable information to me as a teacher. I was able to praise Jessica for her strength, which was very valuable as she started out the year with very low confidence in the area of reading. It also showed me that accuracy was something we did not need to work on during the intervention, which allowed me to focus on increasing Jessica's rate and improving her prosodic reading which includes expression, phrasing, and smoothness.

When looking at Jessica's graph, one thing was quite clear early on. Repeatedly reading passages using the R.O.A.R. intervention significantly increased Jessica's reading rate from the cold timing to the hot timing. On several days, Jessica more than doubled her score, with her highest increase being 70 cwpm in one day. After looking over Jessica's graph, I decided to calculate how much growth Jessica averaged from her cold timing to her hot timing. What I discovered was that over the course of the year, Jessica averaged a 40 word improvement from her cold timing to her hot timing. I believe that her reading rate on her hot timings was much more conducive to comprehending the text. Many of Jessica's cold timings were slow and expressionless but after practicing each passage using R.O.A.R. her rate of reading was much closer to that of grade level benchmarks and contained meaningful expression. This data was a valuable tool to look at with Jessica. She was able to see how much she improved and we decided together that when she is in other classes, she should practice reading the text a few times so that she is able to read it smoothly and with expression in addition to reading at a faster pace which will aid in her comprehension of the text.

When looking at Jessica's daily R.O.A.R. data, there was not the increase in cold timing that I would like to have seen, but when also looking at the FastBridge Learning (2015) scores that were discussed previously there is evidence that the daily fluency instruction had an effect on the gains Jessica made on grade level reading passages, even though the same gains were not as observable on her daily graph. One reason for this could have been because Jessica was given a warm up reading passages to read before she was assessed using FastBridge Learning (2015). When Jessica began her R.O.A.R intervention, it began with the cold timing rather than an alternate warm up activity. This

again shows that Jessica benefits from getting her brain ready to do the work prior to beginning a task. When looking at Jessica's graph, six of her lowest scores occurred on Mondays. It is very likely that Jessica did not practice reading over the weekend which also reduced her scores.

Figure 3: Daily Progress Monitoring Chart 1



WPMC: Correct number of words read in 1 minute

% Accuracy: Number of correct words read divided by total number of words read

Figure 4: Daily Progress Monitoring Chart 2



WPMC: Correct number of words read in 1 minute

% Accuracy: Number of correct words read divided by total number of words read
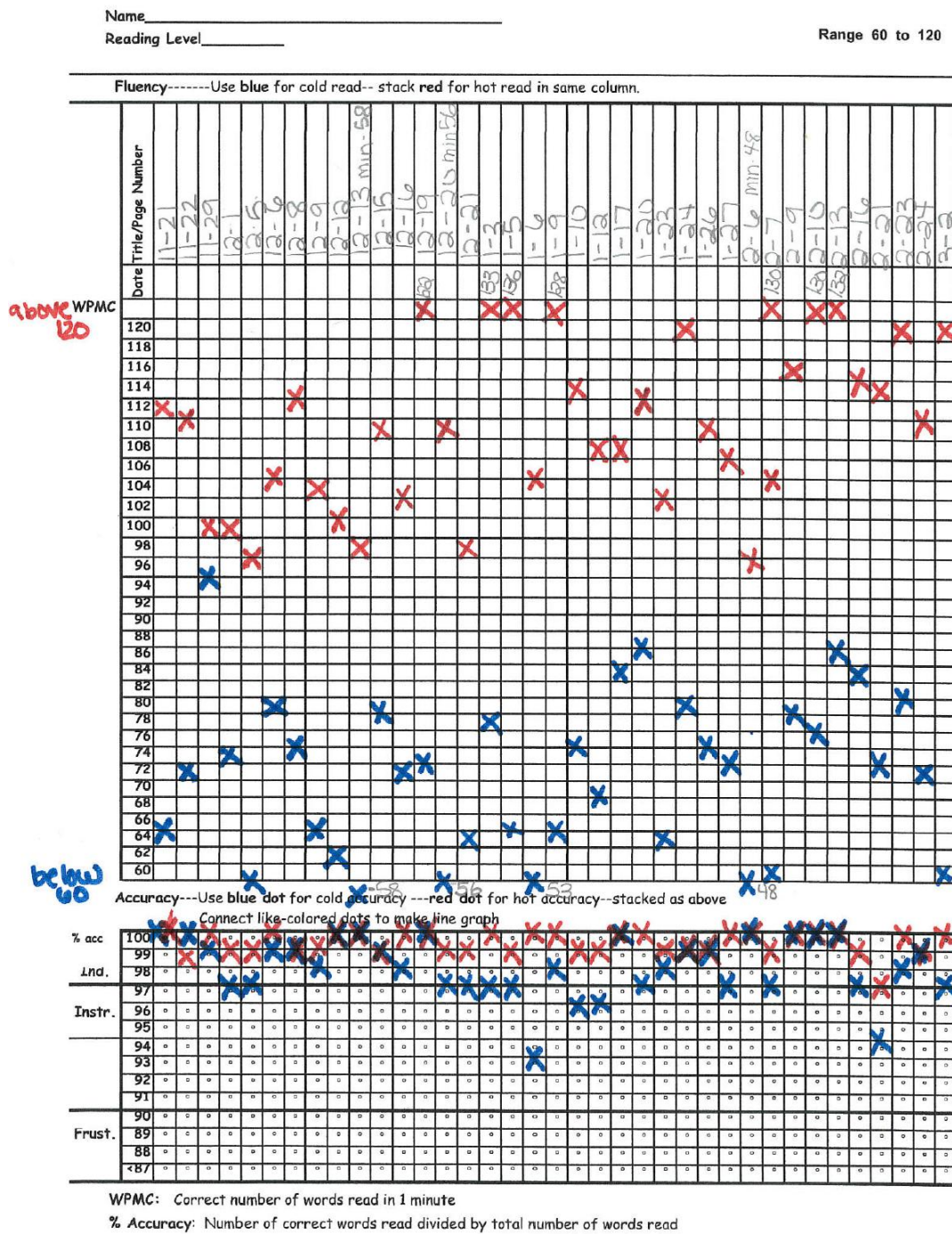
**Data Collection Method Three: Prosodic Reading Rubric.** Fluency is about more than reading fast and it is more than reading accurately. In order to comprehend what we read, we need to read smoothly, with expression, and using appropriate phrasing as well as read accurately at an adequate pace. Part of the reason I chose to utilize R.O.A.R as a fluency intervention was because it allows the teacher to model fluent reading to the student.

While reading with Jessica each day, I was able to emphasize the importance of prosodic reading. As stated in the literature review, prosody involves reading with expression as well as the use of intonation, and appropriate phrasing (Kuhn et al., 2012). By utilizing R.O.A.R, I was able to fluently model each sentence in the text, read with Jessica at my pace, while she matched my expression and phrasing, and then listen to Jessica read each sentence on her own. This method helped to deemphasize speed as the most important aspect of reading.

In order to document the improvement in Jessica's prosodic reading, I chose to use a fluency rubric developed by Timothy Rasinski (2004) (Appendix G). This rubric was simple and easy to use and allowed for quantitative data to be collected which was easy to interpret and observe growth. Due to our limited intervention time, I chose to administer this rubric immediately following the monthly FastBridge Learning (2015) assessments rather than administer them daily. By looking at the rubrics, I was able to see where Jessica's strengths and needs were and could focus more on her needs during our time together. The rubrics provided on the next pages document Jessica's improvement in the area of prosodic reading during the course of the year.

Figure 5: Prosodic Reading Rubric for November

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Expression and Volume** | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| **Phrasing** | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| **Smoothness** | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/or sentence structures. |
| **Pace** | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.     Score ___10___

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

Figure 6: Prosodic Reading Rubric for December

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Expression and Volume** | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| **Phrasing** | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| **Smoothness** | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/or sentence structures. |
| **Pace** | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.     Score ___11___

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

Figure 7: Prosodic Reading Rubric for January

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Expression and Volume | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| Phrasing | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| Smoothness | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures. |
| Pace | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.

Scores below 10 indicate that the student needs additional instruction in fluency.

Score ___13___

Rubric modified from Tim Rasinski – Creating Fluent Readers

Figure 8: Prosodic Reading Rubric for February

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| Expression and Volume | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| Phrasing | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| Smoothness | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures. |
| Pace | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.

Scores below 10 indicate that the student needs additional instruction in fluency.

Score ___15___

Rubric modified from Tim Rasinski – Creating Fluent Readers

Figure 9: Prosodic Reading Rubric for March

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Expression and Volume** | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| **Phrasing** | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| **Smoothness** | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures. |
| **Pace** | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.          Score ___15___

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

Figure 10: Prosodic Reading Rubric for April

## FLUENCY RUBRIC

| | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Expression and Volume** | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| **Phrasing** | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| **Smoothness** | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures. |
| **Pace** | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.          Score ___16___

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

In order to see the growth in each category clearly, I created the table below that integrated all of Jessica's rubrics for the year.

Table 2: Scores from Prosodic Reading Rubrics

| Date | November | December | January | February | March | April |
|------|----------|----------|---------|----------|-------|-------|
| Expression and Volume | 2 | 3 | 3 | 4 | 4 | 4 |
| Phrasing | 3 | 3 | 3 | 4 | 4 | 4 |
| Smoothness | 3 | 3 | 3 | 3 | 3 | 4 |
| Pace | 2 | 2 | 4 | 4 | 4 | 4 |

When looking at each category, Jessica made the most improvement in the areas of expression and volume; and pace. At the beginning of the year, Jessica was reading very quietly and did not sound natural while she was reading. By the end of the year, she was varying her volume and expression and her voice matched the tone of the text.

Jessica's phrasing was fairly consistent throughout the year. For the first half of the year she read with some choppiness and would lose her rhythm and take long pauses. Starting in November this began to improve and she exhibited improved phrasing while also paying closer attention to punctuation. She was considerably more comfortable during timings and took fewer extended pauses.

Even though Jessica made fewer pauses mid-year, Jessica's smoothness took the longest to improve. She consistently made breaks in her reading rhythm and had difficulty with sentence structures she was not accustomed to. However, by April she was reading increasingly smoother and when a break was necessary, she was able to get back into a rhythm in substantially less time.

Jessica's pace of reading started out moderately slow. After only two months of R.O.A.R., she was able to read the FastBridge Learning (2015) assessments at a conversational pace. When looking at FastBridge Learning (2015) passages compared to DIBELS (Bergeny et al., 2009) passages, the FastBridge Learning (2015) passages contained a larger amount of easily decodable words and a more basic sentence structure. This resulted in fewer breaks and a more appropriate pace.

**Data Collection Method Four: Daily Journal.** When I initially began this research, I knew that my thoughts and observations during the year would be extremely valuable and would help to document growth not measured by one-minute reading timings or the prosodic reading rubric (Rasinski, 2004). Therefore, I took brief notes at the end of each R.O.A.R session (Appendix H). I stopped journaling in February, when my comments became very repetitive.

What stood out to me when reading over my journal was that at the beginning of the year, Jessica had trouble tracking using her finger, was very accurate but slow and expressionless, and frequently lost her rhythm when she would get stuck on a word. Sometimes the words were very basic words, but the sentence structure was slightly awkward and caused her problems.

A theme throughout my notes was that after reading with me, her hot timings had drastically improved expression than her cold timings and the practice during each R.O.A.R. session resulted in fewer pauses during her hot timings. I made multiple comments regarding the benefit of Jessica and I reading together and how she was improving. Another recurring comment was my opinion that Jessica needed a chance to

warm up and that may be why many of her cold timings were so low and there was

minimal progress documented on her daily graph. Jessica does have an information

processing deficit which affects her speed, but I was able to observe her perform much

more quickly when she was given the opportunity to practice.

When looking at my notes near February, Jessica continued to make frequent

breaks in her reading. I did note that several passages had incredibly awkward phrasing,

and I do not plan on using those again. I frequently mentioned how her expression

continued to improve. After working with Jessica for the year, she became increasingly

more confident in her reading, not only did her pace increase, but her expression,

smoothness, and ability to phrase improved as well.

In this section, my four data collection methods were described in detail. These

included FastBridge Learning (2015) reading assessments, progress monitoring using

DIBELS (Bergeny et al., 2009) passages, prosodic reading rubrics developed by Timothy

Rasinski (2004), and my daily journal. The next section will detail the exact intervention

procedures I utilized during this research.

**Intervention Procedures**

Ideally, I would have been able to provide Jessica with a fifteen minute

intervention every day. However, due to scheduling conflicts, the intervention was

administered four days a week. Each session began with Jessica reading an instructional

level DIBELS passage for one minute. Jessica began the year reading end-of-second-

grade passages and switched to end-of-third-grade reading passages in March. After the

timing, Jessica's rate was recorded on a graph in blue, indicating it was a cold timing.

Jessica and I calculated her accuracy together using a calculator and also recorded it on her graph.

Using the same DIBELS (Bergeny et al., 2009) passage as the cold timing, Jessica placed her finger below the first word in the passage and I placed my finger above the first word in the passage. I began by reading the first sentence with appropriate pacing and expression while both of us followed along with our fingers. Next, both Jessica and I read the same sentence again and she matched my pace and expression. Lastly, Jessica read the same sentence a third time on her own while both of us followed along with our fingers. Before moving on to the next sentence, Jessica needed to read the sentence fluently and with 100% accuracy. After reading three sentences this way, Jessica was required to go back and put the three sentences together, again with both of us following along with our fingers. We continued doing this for twelve minutes.

At the end of the twelve minutes, Jessica read the passage again for one minute. She was typically reminded to follow along with her finger and to do her best reading. At the end of the minute, Jessica's rate was recorded on the same graph in red, indicating it was a hot timing. Together, Jessica and I calculated her accuracy using a calculator and recorded it on her graph.

**Summary**

Chapter Four allowed me to interpret the data I collected using the four data collection methods that were discussed throughout Chapter Three. These methods included once monthly FastBridge Learning (2015) assessments, daily DIBELS one-minute timings, as well as prosodic reading rubrics (Rasinski, 2004) and a daily journal.

Also embodied in this chapter were the procedures I utilized while implementing

R.O.A.R.

The data that was collected throughout the research paralleled Chapter Two's

literature review. Jessica was assessed for special education and has a documented

learning disability. In Chapter Two, Büttner and Hasselhorn's (2011) description of a

severe discrepancy model indicates that a student's academic achievement must be

significantly lower than that of someone their age and their IQ must be in the normal to

above normal range. When Jessica was assessed for special education services, this

model was used. Fletcher (2007) determined that individuals with learning disabilities

who have difficulties with fluency, have the most difficulty with rate. They may

experience these difficulties due to their deficits in attention, executive functions, and

other skills that influence the efficient allocation of resources. Jessica has documented

deficits in the areas of information processing and working memory which are both

aspects of executive functioning. When looking at Jessica's data, it is clear that similar to

other students with learning disabilities, reading rate was her greatest need and R.O.A.R.

was an appropriate intervention to address this need.

When a reader is fluent, they are able to continue reading at an appropriate rate,

and with adequate accuracy and expression for extended periods of time and should be

able to maintain this skill even when large amounts of time have elapsed with little or no

practice (Hudson, Lane, & Pullen, 2005). Jessica's FastBridge Learning (2015) scores

were below the fifth percentile at the beginning of the year, which shows she was not

reading at an appropriate rate. It was also evident that her expression was severely

lacking based on her scores on the prosodic reading rubric (Rasinski, 2004). The

importance of automaticity to reading fluency was included in the literature review. Even though some struggling readers may be able to automatically read words in isolation, this does not always relay into automaticity when reading connected text (Armbruster, et al., 2001). Samuels (1997) suggested that one way to improve this automaticity is by using repeated reading techniques. Evidence suggests that fluency is a trainable skill and reading is improved when individuals are provided with fluency training (Allington, 1983). Throughout the literature, repeated reading was cited as an effective method of improving reading fluency for all students, including those with learning disabilities.  By utilizing the repeated reading intervention, R.O.A.R., Jessica was able to increase her rate of reading by 39 words per minute, which is 13 words more than other students nationwide who were also reading below the fifth percentile. The results of my study highly corroborate the information provided in the literature review.

Rasinski (2012) said that most people assume that automaticity and prosody would go hand in hand, however when the goal of reading is to increase speed, prosody suffers due to the loss of meaningful expression when reading at too fast of a pace. Looking back at my journal, there were several entries that were in agreement with this statement. When Jessica was too focused on speed, her expression suffered and she made errors that affected the phrasing and smoothness of her reading, which is also in agreement with the literature.

In Chapter Five, I will share my conclusions as I reflect upon the research question, *How much does repeated reading improve the reading rate, accuracy, and prosody of students with learning disabilities in fifth grade?* This culminating chapter

will revisit my literature review, discuss major learnings and limitations, identify

implication for education, and provide recommendations for future research.

CHAPTER FIVE

Conclusion

**Introduction**

As a special education teacher, I work with students who struggle on a daily basis. My role is to assist students who have academic needs and are performing significantly below grade level. By the time students get to me, they are in the fifth grade and a majority of them struggle greatly with fluency, especially their rate of reading. Working in a resource room every day, I have had the opportunity to see firsthand how slow, labored reading affects comprehension. When students need to stop frequently to decode words, they are not able to attend to the meaning of the text. I often listen to students read in a monotone voice without appropriate phrasing. They repeatedly miss the author's cues and key points. In my experience working with readers who are struggling, if their accuracy falls below 94%, their comprehension drops considerably. I believe that accuracy and automaticity are closely linked. If readers have automaticity, and are able to automatically identify most words as well as put words together into phrases effortlessly, the amount of errors will be drastically reduced.

When I began my capstone project I knew that I wanted to study something that would be valuable to me and that would benefit the students I work with. Observing the struggles my students experience in the area of fluency led me to the research question, *How much does repeated reading improve the reading rate, accuracy, and prosody of*

*students with learning disabilities in fifth grade?* Chapter Two, provided a review of prominent literature, Chapter Three outlined my plan for completing my capstone project, and in Chapter Four, the results of this research were shared.

In Chapter Five I will revisit the literature review and describe the connections and understandings I have made to the most influential aspects of the literature. After reviewing the literature, I will disclose the major learnings I acquired after completing this study. The limitations of my study in addition to the implications for education will also be documented. Following these limitations I will share my recommendations for future research.

**Revisiting the Literature**

I was able to make several connections between the information provided in the literature review in Chapter Two and what I saw in my classroom completing this capstone project. The literature review contained three major sections including, learning disabilities, fluency, and repeated reading interventions. The most important connections I made to the literature while completing the project include the characteristics of students with learning disabilities and their struggles, understanding fluency and how to improve the fluency of struggling students, and using repeated reading as an effective fluency intervention.

In my school district, students with learning disabilities make up the largest percentage of students in special education. Since 1976 there has been a dramatic increase in the amount of students identified with learning disabilities (Lyon, 1996). With so many students struggling with academics, I feel it is extremely important to utilize the most effective research based interventions to assist students in making greater gains.

This led me towards the topic of repeated reading. A common theme throughout the research was how learning disabilities are difficult to define and that individuals with learning disabilities make up a large and diverse group. Because of this there is a wide range of characteristics and deficits that can be exhibited. I feel like it is incredibly important to have a basic understanding of learning disabilities but to remember that students with learning disabilities do make up such a diverse group.  Fletcher (2007) addressed the fact that the majority of students with learning disabilities who struggle with fluency, struggle with rate. This information became especially useful while conducting this research. It allowed me to have some idea of the struggles Jessica might have, but reminded me that because students with learning disabilities are so diverse, I should not expect her to have the same needs as other students or to grow at the same rate. I wondered if R.O.A.R. would be effective and this made documenting Jessica's growth very important, as I would need to determine if another intervention should be utilized instead.

Many students that I work with have difficulties with fluency, but it is important to look at each student as an individual and meet their unique needs with the most appropriate intervention for them. Before implementing any intervention, teachers should accurately assess a student's needs. Jessica had significant needs in the area of fluency, which brings me to my next connection in the literature review.

Not so long ago, like many others, I believed that fluency meant reading fast. A majority of fluency interventions focus on rate, but the literature revealed that many teachers and programs put too much of an emphasis on rate and this negatively impacts students. I have seen students who were so worried about reading as fast as possible that

they made many careless mistakes, which prevented them from attending to the meaning of the text.

What the literature review taught me was that even though automaticity and rate are often the focus of fluency instruction, fluency is more than reading fast and accurately, it requires prosody as well. Prosody was a new term for me and I learned that prosody involves reading with expression as well as the use of intonation along with phrasing that allows the reader to understand the text (Kuhn et al., 2012). Armed with this new knowledge I decided that I wanted to focus on rate, accuracy, and prosody during my study. When assessing Jessica's needs, it was evident she was a very accurate reader, so my focus became rate and prosody. During our interventions together, I was able to really emphasize reading with expression and made sure I was modeling this for her as well. Because of the knowledge gleaned from the literature review I tried my best to balance the importance of both rate and prosody.

The literature review also suggested that fluency is a trainable skill and that reading is improved when individuals are provided with fluency training (Allington, 1983). "Repeated readings emphasize practice as a way of working on all of the areas of reading fluency -accuracy, rate, and prosody - and is one of the most studied methods for increasing reading fluency" (Hudson et al., 2005, p.705), which brings me to the connections made between what I learned about repeated reading in the literature review and what was learned during this study.

Throughout the literature review, the evidence showed that repeated reading improved reading fluency for all students, including those with learning disabilities. Kostewicz (2012), looked into the length of time spent on repeated reading, how to

conduct the reading process, error correction, performance feedback, progress monitoring, and goals. He pointed to research that suggested repeated reading be administered as often as possible in the week, preferably daily, and that one-minute timings should be used at least once in the session. Beginning readers also require a much higher level of supervision from instructors, but can eventually spend more time practicing on their own or with less supervision. One disadvantage of students practicing individually is the absence of error correction.

The information I learned about repeated reading interventions in the literature review was incredibly helpful when implementing R.O.A.R. I tried to work with Jessica as many days of the week as I could and used one-minute timings every day which allowed both Jessica and myself to see her growth, she felt really good about her reading accuracy, which she would not have seen if we did not chart it every day. In the past, when I used the computer program Read Naturally (Ihnot & Ihnot, 2006) for fluency instruction, there was very limited supervision.  After working with Jessica one-on-one for over five months, I agree with the importance of providing this increased supervision. I feel it held her accountable, allowed for immediate feedback, helped us build a relationship where she trusted me and was comfortable, and most importantly allowed me to model fluent reading multiple times each day, which I believe improved Jessica's prosodic reading considerably.

After looking back and reflecting on the literature in Chapter Two, I was able to make connections to the struggles of students with learning disabilities, the importance of fluency, and how repeated reading techniques can be used to improve overall fluency.

The following section will provide a reflection on the major learnings that occurred throughout this capstone project.

**Major Learnings**

I shared much of what I learned in the previous section when I related what I learned in this study to what I learned in the literature review. When looking back at my journey, I believe there are several important things I learned that I will use throughout my teaching career. These include not focusing solely on speed of reading, the importance of progress monitoring, providing consistent interventions, providing meaningful feedback, and most importantly modeling fluent reading to students.

If I only looked at Jessica's improvement in the area of rate, I would see that she is still significantly below grade level. In special education, it is easy to look at all of the students' needs and become overwhelmed and not know where to start. By not focusing solely on her speed of reading, I was able to see her strength in reading accuracy and had the privilege of watching her become an expressive reader that others enjoy listening to. It is amazing to see the change in attitude when students feel successful and it is important to acknowledge that success and celebrate students' accomplishments.

Another important lesson was the importance of progress monitoring. As mentioned in Chapter Four, progress monitoring allowed for Jessica to see how strong she was in reading accuracy. Even though her daily charts were very sporadic, Jessica was also able to see each day, the dramatic difference in her rate before and after practicing each passage. Her FastBridge Learning (2015) assessments and prosodic reading rubrics (Rasinski, 2004) showed consistent gains which also increased her confidence.

After a few months of implementing R.O.A.R, Jessica would come into the room excited to get started. She knew where all the materials were and was able to set everything up. Every day provided the same consistent routine. Having this routine down allowed for more time focused on learning and again for Jessica to feel comfortable and confident. Going forward, I want to make sure I am continuing to provide consistent interventions to replicate the atmosphere I created while working with Jessica.

Out of everything I learned, I would have to say that learning how important it was to provide meaningful feedback and modeling fluent reading were the two most important. Working one-on-one with Jessica allowed for me to provide error correction immediately, which prevented Jessica from continuing to make the same mistakes over and over. I feel that we cannot allow students to practice things incorrectly. It is much more efficient to fix a problem immediately than to allow students to continue to make the same mistake until it is so ingrained in them that it is difficult overcome.

Throughout my previous years of teaching, I would say modeling fluent reading was not something I did every day. Not only did R.O.A.R. allow me to model fluent reading, but it also allowed Jessica to read with me and match my reading rate, phrasing, and expression. Jessica worked very hard at improving her reading rate by 39 words per minute over the course of the year but her improvements to her phrasing, expression, intonation, tone, and smoothness of reading were undeniable to everyone who read with her. Several other teachers and paraprofessional mentioned the improvements. I also had the opportunity to co-teach Jessica's English class and was able to see firsthand how these improvements affected her ability to comprehend what she was reading much more easily.

This section included the major learnings I gained through this experience such as fluency being more than speed, progress monitoring, consistency, feedback, and modeling fluent reading. In the next section I share the limitations of my study.

**Limitations**

The biggest limitation to this study was having only one participant. In previous years, I typically worked with five to ten students with learning disabilities. At the beginning of the year, there were only three students with documented learning disabilities on my caseload. By November, two of these students had moved out of the district. If conducting the study with a larger number of participants I would have been able to analyze a larger sample of data and more accurately determined R.O.A.R.'s effectiveness.

Another limitation was beginning the R.O.A.R. intervention in November. I was not able to obtain HSC approval and parental consent until mid-November which prevented me from beginning the study at the beginning of the school year in September. State testing also began in April which prevented implementation of  R.O.A.R for almost a month at the end of the school year. Scheduling conflicts also prevented me from working with Jessica on Wednesdays, which only allowed for me to implement R.O.A.R. four times a week. With more than three additional months of intervention, as well as an added day each week, Jessica could have had even higher gains in her rate of reading.

Even though there were limitations, my results did agree with other studies and I found the information I gathered and the lessons I learned extremely valuable. In the next section I will share what my results mean for the field of education.

**Implications for Education**

Now that I have a solid understanding of fluency and have seen the positive effects of R.O.A.R. I realize that my school district is not doing enough to improve the outcomes of students in special education. I have seen Title I programs provide one-on-one interventions, but when students qualify for special education, one teacher provides math, reading, and written language services for up to 20 students a day, with little assistance. No wonder there is such an achievement gap. After conducting this research, I have discovered several educational implications.

The first implication is that special education teachers should have access to progress monitoring data for all of the years where data has been collected. This would allow the teacher to see what kind of intervention was used and to analyze its effectiveness. When working with Jessica, I feel like I had to start from the beginning to find what worked, even though she had been in special education for several years before coming to me. It is my understanding that after documents are over a year old, they need to become part of a student's permanent record so a lot of the data is discarded. I think there needs to be a change in mindset, because that data should be a part of a student's record so teachers can make better educational decisions and not waste precious instructional time. When students receive special education services, they are being pulled out of a general education class. To not use their time efficiently is a disservices to students and could prevent students like Jessica from falling so far below grade level.

The second educational implication is the need to rethink special education services. Many of the elementary students in my building receive up to 60 minutes of reading service a day in groups from anywhere from two to ten. Instead of working on each particular student's needs, the teacher is forced to provide an intervention that a

majority of the students need. While working with Jessica, I accomplished more in 15 minutes than I do in 60 minutes with a large group of diverse struggling readers. Special education should consider using assessments to determine students' needs and then provide intensive interventions to meet those unique needs. Providing shorter interventions would allow for a teacher to work with smaller groups. This would allow for the resource room to be run more efficiently and would result in students spending more time in general education with their non-disabled peers.

The last implication is the importance of one-on-one instruction for students who are significantly behind. I wonder what would have happened if Jessica had received one-on-one interventions several years ago. Would she have seen incredible growth at that time? Would that growth have resulted in a much smaller achievement gap? I believe that if students are assessed for fluency and score below the 5th percentile, something drastic needs to be done and schools should invest in providing training and resources to provide more one-on-one instruction. Special education paraprofessionals and teacher's aides could be easily taught how to implement R.O.A.R., which is already being done with Title I paraprofessionals. With previous years' progress monitoring data, teachers could easily determine whether or not students made adequate progress when provided with small or whole group interventions and provide them with one-on-one interventions such as R.O.A.R.

This section provided several educational implications of this study, including maintaining progress monitoring records, restructuring special education services, and providing one-on-one interventions. The next section will include my plan for the future as well as recommendations for future research.

**Next Steps**

Throughout this project, there are many things I have learned. With this new knowledge, my passion for teaching reading has dramatically increased and continuing to teach in the same manner as past years, is not an option. Changes need to be made in the way special education students receive reading instruction in my school, and I will need help to make that change.

My first step is to share what I have learned with my colleagues in special education. During the first weeks of the new school year, I would like to show them the progress that Jessica made over the year and advocate for making a change to the academic special education services we provide.

Next, I would like to work with administrators and other reading interventionists to determine the most effective ways for placing students in phonemic awareness, phonics, fluency, or comprehension interventions. These assessments are already in place with Title I students, but have not yet been utilized in the special education department in my building.

With my colleagues, I would like to develop a schedule that would provide one-on-one or very small group instruction for as many students as possible. We would need to get the general education teachers on board with the new system. Special education students would spend more time in their classrooms and the special education classrooms would need to spend less time on homework completion and more time on specific interventions.

Lastly, I plan on working with other special education teachers and administrators to train special education paraprofessionals how to implement interventions such as

R.O.A.R. so paraprofessionals can be effectively utilized and more students can be

provided with one-on-one research based interventions that are proven effective and are

designed to meet their needs.

After completing this project, I am confident that these changes will improve

student outcomes. This journey is not over, there is still much to be done and I am excited

to help develop better ways to service students in special education. The next section

briefly describes my recommendations for future research.

**Future Research**

I am interested in additional studies on the effectiveness of R.O.A.R. when

students have documented slower processing speed. What kind of growth is typically

made by this population of students? In my experience, students do not move on to

comprehension interventions until they have sufficient fluency. If students with slower

processing speeds are always going to struggle with fluency, at what point should

teachers focus on comprehension rather than spending years on fluency with insufficient

growth.

**Summary**

Working with students who struggle with fluency first attracted me to the topic of

fluency and repeated reading interventions. This ultimately led me to the research

question, *How much does repeated reading improve the reading rate, accuracy, and*

*prosody of students with learning disabilities in fifth grade?* Through the literature review

and this action research, I learned more than I could have imagined. This chapter allowed

me to revisit the literature review and connect it to what I learned implementing R.O.A.R.

I shared my major learnings, discussed limitations and education implications, and outlined my future plans and recommendations for future research.

Writing this capstone has been the most difficult thing I have ever done. I dedicated much of my time and energy into broadening my knowledge of the topics of learning disabilities, fluency, and repeated reading. Through this experience I am more organized, am able to collect accurate and meaningful data, was able to reflect on my teaching practices, and gained the confidence required to go forward and be a leader for change in my school. This research has shown that R.O.A.R. effectively improves reading rate and prosody, and I am incredibly proud of what Jessica accomplished this year. I am certain that my future students will benefit from all that I have learned through this experience.

APPENDIX A


Sample FastBridge Learning Passage

**Administrator Copy**                                    **Grade 5 Progress Monitoring Form 8**

**Alice**

| | |
|---|---|
| Everyone in Alice's class was getting sick, and she was too. She | 12 |
| had a stuffy nose and her eyes were watery. During the day she felt | 26 |
| a tickle far in the back of her throat. Alice asked her teacher for a | 41 |
| pass to see the nurse. The nurse gave her medicine and said to call | 55 |
| her parents. Her father came to get her and talked to the nurse. She | 69 |
| told him how to help Alice feel better. | 77 |
| Once home, her father sent her straight to bed. Alice curled | 88 |
| up with her teddy bear. Her father came in to check her | 100 |
| temperature, and she did not complain because it should not get | 111 |
| too high. Unfortunately, she had a fever, which gave her a | 122 |
| headache. Her father told her to drink orange juice and take | 133 |
| medicine. These things would help her fever and headache go | 143 |
| away. He brought her some red medicine in a little cup. | 154 |
| Alice was afraid the medicine would taste bad. She knew she | 165 |
| would feel worse if she refused. So she held her nose and drank the | 179 |
| medicine. Because she was so brave, her father gave her ice- | 190 |
| cream. It got rid of the bad taste. | 198 |
| Alice tried to take very good care of herself. She ate well, | 210 |
| rested, and drank lots of orange juice. She also took the medicine | 222 |
| when her father told her to, and each time she was braver about it. | 236 |
| Soon, Alice began to feel better again. It was not long before she | 249 |
| could go outside and play. | 254 |

**Total Words Read:** _____ **- # of Errors:** _____ **= WRC/min:** _____

**Student:** _____ **Teacher:** _____ **Grade:** _____ **Date:** _____

APPENDIX B


Nationally Normed FastBridge Learning Data

2016-17 Academic Year

**FastBridge Learning**

Norm : CBMR-English : FIVE

| % | Screening Scores Rate | | | Seasonal Score Differences by Percentile Weekly Growth | | | Aggregate Weekly Growth | | | Student Growth Percentiles Weekly Growth | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Fall | Winter | Spring | Fall-Winter | Winter-Spring | Fall-Spring | Fall-Winter | Winter-Spring | Fall-Spring | F-W Mean | W-S Mean | F-S Mean |
| 95th | 189 | 207 | 223 | 1.04 | 0.93 | 0.99 | 2.11 | 2.07 | 1.56 | 0.64 | 0.50 | 0.57 |
| 90th | 182 | 197 | 213 | 0.87 | 0.93 | 0.90 | 1.88 | 1.82 | 1.43 | 0.75 | 0.58 | 0.48 |
| 85th | 174 | 190 | 205 | 0.93 | 0.88 | 0.90 | 1.71 | 1.64 | 1.32 | 0.84 | 0.62 | 0.50 |
| 80th | 168 | 185 | 198 | 0.98 | 0.76 | 0.87 | 1.56 | 1.48 | 1.24 | 0.86 | 0.63 | 0.55 |
| 75th | 163 | 179 | 193 | 0.93 | 0.82 | 0.87 | 1.44 | 1.35 | 1.17 | 0.85 | 0.65 | 0.61 |
| 70th | 158 | 175 | 188 | 0.98 | 0.76 | 0.87 | 1.32 | 1.24 | 1.10 | 0.83 | 0.65 | 0.66 |
| 65th | 154 | 170 | 184 | 0.93 | 0.82 | 0.87 | 1.22 | 1.12 | 1.04 | 0.83 | 0.65 | 0.70 |
| 60th | 151 | 166 | 179 | 0.87 | 0.76 | 0.81 | 1.12 | 1.02 | 0.99 | 0.84 | 0.66 | 0.74 |
| 55th | 146 | 162 | 175 | 0.93 | 0.76 | 0.84 | 1.03 | 0.93 | 0.93 | 0.88 | 0.67 | 0.77 |
| 50th | 142 | 158 | 170 | 0.93 | 0.70 | 0.81 | 0.94 | 0.82 | 0.88 | 0.93 | 0.68 | 0.78 |
| 45th | 138 | 154 | 166 | 0.93 | 0.70 | 0.81 | 0.84 | 0.73 | 0.82 | 0.98 | 0.70 | 0.77 |
| 40th | 133 | 151 | 163 | 1.04 | 0.70 | 0.87 | 0.76 | 0.63 | 0.77 | 1.05 | 0.71 | 0.76 |
| 35th | 128 | 146 | 158 | 1.04 | 0.70 | 0.87 | 0.67 | 0.53 | 0.72 | 1.09 | 0.74 | 0.74 |
| 30th | 123 | 141 | 154 | 1.04 | 0.76 | 0.90 | 0.57 | 0.44 | 0.66 | 1.11 | 0.77 | 0.73 |
| 25th | 119 | 136 | 150 | 0.98 | 0.82 | 0.90 | 0.47 | 0.33 | 0.60 | 1.12 | 0.80 | 0.73 |
| 20th | 113 | 130 | 143 | 0.98 | 0.76 | 0.87 | 0.36 | 0.20 | 0.53 | 1.12 | 0.83 | 0.76 |
| 15th | 107 | 123 | 137 | 0.93 | 0.82 | 0.87 | 0.24 | 0.07 | 0.46 | 1.12 | 0.84 | 0.82 |
| 10th | 100 | 116 | 128 | 0.93 | 0.70 | 0.81 | 0.10 | -0.07 | 0.37 | 1.13 | 0.84 | 0.90 |
| 5th | 91 | 106 | 117 | 0.87 | 0.64 | 0.76 | -0.09 | -0.28 | 0.26 | 1.15 | 0.81 | 0.94 |
| M | 141.02 | 157.45 | 170.82 | 0.95 | 0.77 | 0.86 | 0.96 | 0.85 | 0.89 | | | |
| SD | 29.76 | 29.80 | 30.93 | 0.06 | 0.08 | 0.05 | 0.66 | 0.70 | 0.39 | | | |
| N | 58393 | 61506 | 59961 | 19 | 19 | 19 | 22628 | 23822 | 21282 | | | |

1 of 1
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APPENDIX C

R.O.A.R Protocol

# Saint Mary's University i.t.a. Literacy Clinic
# ROAR Protocol Checklist

Jane Flynn Anderson, Ph.D.

**Directions:** Observe ROAR session and check all procedures that are present. Discuss any that need to be included or deleted.

## ROAR: Pretest
- ☐ If beginning a new story, preview it by taking a picture walk, or giving a **brief** summary
- ☐ If there are pictures, cover them up
- ☐ Point to where student is to begin reading
- ☐ Record for one minute
- ☐ Keep track of **ALL** deviations from print (DFPs), including repetitions of a single word or group of words
  - o Count on fingers
  - o Tally marks on paper
- ☐ Do **NOT** call attention to DFPs that student has made

## Charting Pretest
- ☐ WPMC computed
  - o total words read – deviations from print (DRPs)
- ☐ %ACC computed
  - o WPMC / total words read
- ☐ WPMC and %ACC charted in blue (cold read)

## ROAR Practice (10-12 minutes)
- ☐ "My turn."
  - o Slide finger smoothly under each word as sentence is read.
  - o **Ensure that student tracks WITH you at every step.**
  - o **Read at a normal or close-to-normal pace.** (If student is very slow, may start by reading slower, but should speed up when reviewing sets of sentences that have been practiced in isolation.
- ☐ "Together."
  - o Keep going if student stumbles.
  - o Do not call attention to errors/DFPs.
  - o **Go back and repeat steps "My turn, together" until student reads fluently with you.**
- ☐ "Your turn."
  - o Student reads sentence alone.
  - o Repeat My turn, Together, Your turn if student stumbles or reads very slowly.
- ☐ Repeat "My turn, together, your turn" with next sentence.
- ☐ **Combine sentences to build fluency with longer segments.**
- ☐ **Student tracks at all times: "My turn, together, your turn."**

## ROAR Post Test
- ☐ Go back somewhere near or at the beginning of the practice session.
- ☐ Time student as (s)he reads for one minute.
- ☐ Keep track of Deviations From Print (DFP)
- ☐ Compute WMPC and %ACC
- ☐ Chart in red (pink).

## Chart Daily Progress: Post-Test
- ☐ WPMC computed: total words read – deviations from print (DRPs)
- ☐ %ACC computed: WPMC / total words read
- ☐ WPMC and %ACC charter in red or pink
- ☐ Review chart with student to highlight improvement pre to post for both accuracy and fluency

## ROAR: Practice MUSTS
- ☐ Repeat a sentence until your student is reading accurately AND fluently with you
- ☐ Combine sentences to build fluency on longer sequences
- ☐ Make sure (s)he is tracking at every step!
- ☐ **Don't get bored with ROAR!** It works, but requires sustained effort across months, sometimes years

## ROAR Session Summary

Book_____ pp._____

|  | Pre-test | Post-test | Gain |
|---|---|---|---|
| ACC |  |  |  |
| WPMC |  |  |  |

## Reflection:
- O How often did you need to repeat/combine sentences?
- O Was progress satisfactory?
- O Should same passage be repeated next time?
- O Other issues: Tracking, refusal, attempts to distract you, time on task

## Using data to make decisions about moving student to higher levels

- O When should my student move to higher reading materials?

  Watch for when (s)he frequently reads $\geq$98% acc. on pretest and WPMC is within 10 WMPC of average for instructional level.
    - O For example, Sarah (6th grader) is instructional at 3rd grade (3.5 to 3.9 materials). Average WPMC at 3rd grade is 117. She is generally reading at 98-100% accuracy and 110 WPMC on pretest. She is ready to move to 4.0-4.5 reading materials.

## Oral Reading Fluency Guidelines: End-of-year WPMC on grade-level CBA Passages

Although many programs use the national norms reported by Hasbrouck and Tindahl (2006), review of other fluency studies suggests that these guidelines are too low for assessing average words per minute read correctly (WPMC), especially for grades 3-8. The following guidelines represent an amalgamation of numerous sources.

| Grade Level | WPMC |
|---|---|
| 1 | 55 |
| 2 | 102 |
| 3 | 117 |
| 4 | 127 |
| 5 | 134 |
| 6 | 150 |
| 7 | 160 |
| 8 | 171 |

APPENDIX D


Sample DIBELS Passages

### Riding the Bus to School

I ride a big yellow bus to school. I stand on the corner of our street with my friends and we wait for the bus. My friend's grandma waits with us. When it's raining, she holds an umbrella to keep us dry. Sometimes when it's cold she brings us hot chocolate.

I leave my house to walk to the bus stop after my parents go to work. I watch the clock so I know when to leave. Sometimes mom phones me from her office to remind me. Sometimes she can't call, so I have to be sure to watch the time.

Our bus driver puts his flashing yellow lights on and then stops right next to us. When he has stopped he turns the red lights on so all the cars will stop. He makes sure we are all sitting down before he starts to go. He watches out for us very carefully.

My friends and I are the first ones to be picked up by the bus. We like to sit right behind the bus driver and watch while he picks up all the other kids. We know where everyone lives. By the time we get to our school, the bus is almost full. Sometimes the kids get noisy and the driver has to remind us to keep it down. He says their noise makes it hard for him to concentrate and drive safely. I am glad that our bus driver is so careful.

## A Present From Me

I wanted to take my stepmother out to dinner for her birthday and pay for our dinner with my own money. I wanted it to be a surprise and I wanted it to be just from me. The problem was, I didn't have any money!

I went out to try to find ways to earn money. The lady who lives in the apartment upstairs said she wanted to get rid of all her empty soda cans and bottles. She said I could keep the money for the deposit if I took all of the cans and bottles back to the store. It took me five trips, but I got them all taken back to the store.

The man in the apartment downstairs said I could walk his dog after supper every night for two weeks. Our neighbor lady said she could use some help putting out the trash and getting rid of old newspapers. One lady in our building said she would like some help with her groceries, but she couldn't afford to pay me. I helped her anyway. She said she would give me some flowers to give to my stepmother.

The day before her birthday I asked Mom if she would go on a date with me for dinner. She was surprised when I paid for the dinner with the money I had earned. She made me tell her where I had gotten the money. Then she gave me a big hug and said it was the best birthday present ever. I think she liked the flowers the best of all.

APPENDIX E


FastBridge Learning  Benchmarks

2016-17 Academic Year

**FastBridge** Learning

## Benchmark : CBMR-English

| Grade | Metric | Risk Level | Fall | Winter | Spring |
|-------|--------|-----------|------|--------|--------|
| TWO | Rate | College Pathway | >= 85.0 | >= 115.0 | >= 130.0 |
| | | Some Risk | < 58.0 | < 87.0 | < 106.0 |
| | | High Risk | < 30.0 | < 61.0 | < 79.0 |
| THREE | Rate | College Pathway | >= 118.0 | >= 140.0 | >= 154.0 |
| | | Some Risk | < 90.0 | < 116.0 | < 131.0 |
| | | High Risk | < 62.0 | < 89.0 | < 103.0 |
| FOUR | Rate | College Pathway | >= 143.0 | >= 161.0 | >= 175.0 |
| | | Some Risk | < 116.0 | < 136.0 | < 150.0 |
| | | High Risk | < 92.0 | < 110.0 | < 122.0 |
| FIVE | Rate | College Pathway | >= 158.0 | >= 175.0 | >= 188.0 |
| | | Some Risk | < 133.0 | < 151.0 | < 163.0 |
| | | High Risk | < 107.0 | < 123.0 | < 137.0 |

APPENDIX F


Progress Monitoring Charts

Name_____

Reading Level_____

Range 10 to 70

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

**WPMC** — Date Title/Page Number

| WPMC |
|------|
| <70 |
| 70 |
| 68 |
| 66 |
| 64 |
| 62 |
| 60 |
| 58 |
| 56 |
| 54 |
| 52 |
| 50 |
| 48 |
| 46 |
| 44 |
| 42 |
| 40 |
| 38 |
| 36 |
| 34 |
| 32 |
| 30 |
| 28 |
| 26 |
| 24 |
| 22 |
| 20 |
| 18 |
| 16 |
| 14 |
| 12 |
| 10 |

Accuracy---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above

Connect like-colored dots to make line graph

| % acc | |
|-------|-----|
| | 100 |
| | 99 |
| Ind. | 98 |
| | 97 |
| | 96 |
| | 95 |
| Instr. | 94 |
| | 93 |
| | 92 |
| | 91 |
| | 90 |
| Frus. | 89 |
| | 88 |
| | <87 |

**WPMC:** Correct number of words read in 1 minute

**% Accuracy:** Number of correct words read divided by total number of words read

Name_____

Reading Level_____

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

**WPMC**

Date Title/Page Number

| | |
|---|---|
| 90 | |
| 88 | |
| 86 | |
| 84 | |
| 82 | |
| 80 | |
| 78 | |
| 76 | |
| 74 | |
| 72 | |
| 70 | |
| 68 | |
| 66 | |
| 64 | |
| 62 | |
| 60 | |
| 58 | |
| 56 | |
| 54 | |
| 52 | |
| 50 | |
| 48 | |
| 46 | |
| 44 | |
| 42 | |
| 40 | |
| 38 | |
| 36 | |
| 34 | |
| 32 | |
| 30 | |

**Accuracy**---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above

Connect like-colored dots to make line graph

| % acc | | |
|---|---|---|
| | 100 | |
| | 99 | |
| Ind. | 98 | |
| | 97 | |
| Instr. | 96 | |
| | 95 | |
| | 94 | |
| | 93 | |
| | 92 | |
| | 91 | |
| | 90 | |
| Frust. | 89 | |
| | 88 | |
| | <87 | |

**WPMC:**   Correct number of words read in 1 minute

**% Accuracy:**  Number of correct words read divided by total number of words read

Name_____

Reading Level_____

Range 40 to 90

---

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

Date Title/Page Number

**WPMC**

| <90 |
| 90 |
| 88 |
| 86 |
| 84 |
| 82 |
| 80 |
| 78 |
| 76 |
| 74 |
| 72 |
| 70 |
| 68 |
| 66 |
| 64 |
| 62 |
| 60 |
| 58 |
| 56 |
| 54 |
| 52 |
| 50 |
| 48 |
| 46 |
| 44 |
| 42 |
| 40 |

**Accuracy**---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above

Connect like-colored dots to make line graph

| % acc | 100 |
| | 99 |
| **Ind.** | 98 |
| | 97 |
| **Instr.** | 96 |
| | 95 |
| | 94 |
| | 93 |
| | 92 |
| | 91 |
| | 90 |
| | 89 |
| **Frust.** | 88 |
| | <87 |

**WPMC:** Correct number of words read in 1 minute

**% Accuracy:** Number of correct words read divided by total number of words read

Name_____

Reading Level_____

Range 40 to 90

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

Date | Title/Page Number

WPMC

| <90 |
| 90 |
| 88 |
| 86 |
| 84 |
| 82 |
| 80 |
| 78 |
| 76 |
| 74 |
| 72 |
| 70 |
| 68 |
| 66 |
| 64 |
| 62 |
| 60 |
| 58 |
| 56 |
| 54 |
| 52 |
| 50 |
| 48 |
| 46 |
| 44 |
| 42 |
| 40 |

**Accuracy**---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above

Connect like-colored dots to make line graph

| % acc | 100 |
| | 99 |
| Ind. | 98 |
| | 97 |
| Instr. | 96 |
| | 95 |
| | 94 |
| | 93 |
| | 92 |
| | 91 |
| | 90 |
| | 89 |
| Frust. | 88 |
| | <87 |

**WPMC:** Correct number of words read in 1 minute

**% Accuracy:** Number of correct words read divided by total number of words read

Name_____

Reading Level_____

Range 60 to 120

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

**Date Title/Page Number**

**WPMC**

| 120 |
| 118 |
| 116 |
| 114 |
| 112 |
| 110 |
| 108 |
| 106 |
| 104 |
| 102 |
| 100 |
| 98 |
| 96 |
| 94 |
| 92 |
| 90 |
| 88 |
| 86 |
| 84 |
| 82 |
| 80 |
| 78 |
| 76 |
| 74 |
| 72 |
| 70 |
| 68 |
| 66 |
| 64 |
| 62 |
| 60 |

Accuracy---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above

Connect like-colored dots to make line graph

| % acc | 100 |
| | 99 |
| Ind. | 98 |
| | 97 |
| Instr. | 96 |
| | 95 |
| | 94 |
| | 93 |
| | 92 |
| | 91 |
| | 90 |
| Frust. | 89 |
| | 88 |
| | <87 |

**WPMC:** Correct number of words read in 1 minute

**% Accuracy:** Number of correct words read divided by total number of words read

Name_____

Reading Level_____

Range 100 to 160

Fluency-------Use **blue** for cold read-- stack **red** for hot read in same column.

Date Title/Page Number

**WPMC**

| 160 |
| 158 |
| 156 |
| 154 |
| 152 |
| 150 |
| 148 |
| 146 |
| 144 |
| 142 |
| 140 |
| 138 |
| 136 |
| 134 |
| 132 |
| 130 |
| 128 |
| 126 |
| 124 |
| 122 |
| 120 |
| 118 |
| 116 |
| 114 |
| 110 |
| 108 |
| 106 |
| 104 |
| 102 |
| 100 |

Accuracy---Use **blue dot** for cold accuracy ---**red dot** for hot accuracy--stacked as above
Connect like-colored dots to make line graph

**% acc**

| 100 |
| 99 |
**Ind.** | 98 |
| 97 |
**Instr.** | 96 |
| 95 |
| 94 |
| 93 |
| 92 |
| 91 |
| 90 |
**Frus.** | 89 |
| 88 |
| <87 |

**WPMC:** Correct number of words read in 1 minute

**% Accuracy:** Number of correct words read divided by total number of words read

APPENDIX G


Timothy Rasinski Prosodic Reading Rubric

**NAME** _____

## FLUENCY RUBRIC

|  | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Expression and Volume** | Reads in a quiet voice as if to get words out. The reading does not sound natural like talking to a friend. | Reads in a quiet voice. The reading sounds natural in part of the text, but the reader does not always sound like they are talking to a friend. | Reads with volume and expression. However, sometimes the reader slips into expressionless reading and does not sound like they are talking to a friend. | Reads with varied volume and expression. The reader sounds like they are talking to a friend with their voice matching the interpretation of the passage. |
| **Phrasing** | Reads word-by-word in a monotone voice. | Reads in two or three word phrases, not adhering to punctuation, stress and intonation. | Reads with a mixture of run-ons, mid sentence pauses for breath, and some choppiness. There is reasonable stress and intonation. | Reads with good phrasing; adhering to punctuation, stress and intonation. |
| **Smoothness** | Frequently hesitates while reading, sounds out words, and repeats words or phrases. The reader makes multiple attempts to read the same passage. | Reads with extended pauses or hesitations. The reader has many "rough spots." | Reads with occasional breaks in rhythm. The reader has difficulty with specific words and/or sentence structures. | Reads smoothly with some breaks, but self-corrects with difficult words and/ or sentence structures. |
| **Pace** | Reads slowly and laboriously. | Reads moderately slowly. | Reads fast and slow throughout reading. | Reads at a conversational pace throughout the reading. |

Scores of 10 or more indicate that the student is making good progress in fluency.        Score _____

Scores below 10 indicate that the student needs additional instruction in fluency.

Rubric modified from Tim Rasinski – Creating Fluent Readers

APPENDIX H


Daily Journal

# Daily Journal

11/21/2016 - Very accurate reading, but slow and expressionless. Expression and phrasing improved after reading with me.

11/22/2016 - Again, slow and expressionless reading. Talked a little today about reading with expression. At the end of the intervention, I modeled monotone reading and reading with expression and asked her which was easier to understand.

11/29/2016 - Today she was reading much smoother while following along with her finger. On her hot read, she got stuck and made a long pause which affected her score.

12/1/2016 - Her expression is really improving and she is becoming more comfortable with being timed.

12/5/2016 - Again, her expression was getting better. She gets nervous being timed and it seems like she is able to read faster when she is not being timed.

12/6/2016 - She got stuck on a word in the cold read and took considerable time to get back on track. She also has to be reminded to follow along with her finger when doing the cold and hot reads.

12/8/2016 - Today she did not need to be reminded to follow along. I have observed that there really is not a trend line for her data points. They are really scattered all over the graph. It seems to depend on her level of background knowledge. Sometimes she just gets stuck, not on a difficult word, but her rhythm breaks and then she has a hard time getting started again, which explains some of the low scores.

12/9/2016 - Today's reading passage had awkward sentence structure. Her cold timing reflects this difficulty. But after practicing during the intervention, she made over a 40 word per minute gain on her hot timing.

12/12/2016 - Today she had another lower cold timing and again increased by 40 words per minute after practicing. Reading along with an adult really improves her phrasing and expression.

12/13/2016 - The last few reading passages have really been awkward to read even for me. In the future I think I will take these reading passages out, as it has been a little defeating for her to see her scores go down.

12/15/2016 - Today she had great expression and her cold timing started to increase again.

12/16/2016 - She is getting much more comfortable reading with me and her attitude is great. She even gets out the intervention materials set up. Her accuracy has been consistently high,

12/19/2016 - Today she had her highest hot timing. Her ability to track is also improving and her expression matched mine when she read alone.

12/20/2016 - Cold timings continue to be difficult. She gets stuck and stops for extended periods of time. Today her score was below the chart.

12/21/2016 - Today she got stuck on both her cold and hot timing. Again, once she stops she has a hard time getting back into a rhythm.

1/3/2017 - Even after a long break, her cold timing increased. Her hot timing was her highest yet and was off the charts. Today she did not pause as long when she got stuck or hung up.

1/5/2017 - Today her cold timing was lower than normal but her hot timing was the highest she has had. There were some unfamiliar words that tripped her up and resulted in a lower score on her cold timing.

1/6/2017 - The passage was more difficult. It was about shuffleboard which she did not have a lot of background knowledge about. She even mentioned that this was a hard one.

1/10/2017 - When looking at her chart, I still do not see a trend line. Her accuracy is consistently high and her cold timings are all over the place, as well as the hot timings. I really think that she just needs to warm up before reading to get her brain ready. I am wondering if with her processing deficit, what is realistic to expect for growth.

1/12/2017 - Her first readings continue to be labored and after the intervention she reads smooth and uses appropriate expression. However, again, if she loses her rhythm or gets stuck on a word she has a hard time getting back on track, so it really just depends on if she gets stuck or not on how high her score is.

1/17/2017 - Today she had her fastest cold timing and her expression is improving on the cold reads. On her hot read, she was trying too hard to beat her score which caused her to make mistakes and get stuck.

1/20/2017 - Today I looked at some of her grade level reading probes from her monthly assessments. They are growing steadily. Before she reads these, I make sure she reads a different passage to warm up. It is interesting that her scores on her daily intervention seem to be all over the place but her grade level reading probes are steadily increasing. It is also interesting that her scores on grade level probes are higher than many of her timings on second grade level passages.

1/23/2017 - She is really doing a great job with expression, especially on the cold timings. You can tell she is intentionally reading with expression, where at the beginning of the year she was just focused on reading the words correctly.

1/24/2017 - Her other reading teacher commented today how much she has noticed the improvement in her reading expression.

1/26/2017 - Today during the intervention, I lost my place and made a mistake. She was very happy to be able to correct me. I think it is important to show students that it is ok to make mistakes.

1/27/2017 - Looking at her chart today, I find it interesting how several of her cold timings are off the chart low and many of her hot timings are off the charts high. I really believe that she really benefits from warming up to get her brain ready and then she is able to read at a more appropriate pace.

2/6/2017 - Today was another awkward passage, the phrasing just did not sound like how someone would actually talk. Her scores reflect this difficulty.

2/7/2017 - Expression continues to improve. After practicing her timings are great. Her hot timing was off the chart today.

2/9/2017 - I feel that working one-on-one with her and modeling fluent reading and expression, has improved her expression much more than the other students who are not getting one-on-one interventions.

2/13/2017 - She had her highest cold timing in several months. The passage was of high interest and that really made a big difference.

2/16/2017 - Her hot timings have been consistently higher and she is getting stuck in her reading a lot less often. Her accuracy continues to be a strength.

2/21/2017 - After a long President's Day weekend I could tell she was nervous about the timing. During the intervention she tried to read too fast and made multiple mistakes.

APPENDIX I


Approval Letter from Principal

April 11, 2016

Dear

I am a currently working on an advanced degree in education at Hamline University, St. Paul, Minnesota. As part of my graduate work, I plan to conduct research with 4th and 5th grade students with learning disabilities in our district from September 2016 thru May 2017. The purpose of this letter is to request your permission to conduct this research. This research is public scholarship, the abstract and final product will be cataloged in Hamline's Bush Library Digital Commons, a searchable electronic repository and it may be published or used in other ways.

The topic of my master's capstone (thesis) is how repeated reading interventions improve the reading rate, accuracy, and prosody of students with learning disabilities. I plan to implement repeated reading interventions to students with documented needs in the area of fluency and to document their progress throughout the year. These interventions will use Dibels passages at students' instructional level and I will use the benchmarks providing by FastBridge as a guide to decide when to move students to a higher level. A rubric will be used to document students' improvement with prosody. After completing the capstone, I will summarize the findings in a report to be distributed to participants and to our school administrators.

If you agree to this research, please sign and date below and return this form to me at your earliest convenience. If you have any questions, please contact me.

Sincerely,
Angela Leyk
Special Education Teacher
(320)234-2650 X1201
angela.leyk@isd423.org

---

Angela Leyk has my permission to conduct research on the topic of how repeated reading interventions improve the reading rate, accuracy, and prosody of students with learning disabilities at Park Elementary School in Hutchinson, Minnesota from September 2016 thru May 2017.

_____          4-12-16
Signature                                                Date

Principal
_____
Title

*Names of school, district, and principal, were covered to protect student identity.

APPENDIX J


Parental Consent Letter

October 28, 2016

Dear Parent or Guardian,

I am your child's special education teacher and a graduate student working on an advanced degree in education at Hamline University, St. Paul, Minnesota. As part of my graduate work, I plan to conduct research in my classroom from November thru April. The purpose of this letter is to ask your permission for your child to take part in my research. This research is public scholarship and the abstract and final product will be cataloged in Hamline's Bush Library Digital Commons, a searchable electronic repository and that it may be published or used in other ways.

I will be studying the effectiveness of a fluency intervention called repeated oral assisted reading. Our Title I program and the special education department at _____ have seen great results using this program, and I would like to collect and analyze data to determine if we should be providing this intervention to more students in the special education program at _____. This intervention will be administered four times a week and is given one-on-one. Students are given a cold read at the beginning of the session. A cold read is a one minute timing of a passage a student has never read before. The actual intervention involves an adult and the student reading a passage at the student's instructional level sentence by sentence. First, the adult reads the sentence, then the adult and student read the sentence together, and lastly, the student reads the sentence independently. At the end of the session, students are given a hot read, which is another one-minute timing that will show the student's progress after practicing.

There is little to no risk for your child to participate in this study, as this is the chosen research based fluency intervention that has been chosen for the resource room this year. However, your permission is needed to use the data that is already being collected as part of my research. All results will be confidential and anonymous. I will not record information about individual students, such as their names, nor report identifying information or characteristics in the capstone. Participation is voluntary and you may decide at any time and without negative consequences that information about your child will not be included in the capstone.

I have received approval for my study from the School of Education at Hamline University and from the principal of _____The capstone will be catalogued in Hamline's Bush Library Digital Commons, a searchable electronic repository. My results may also be included in an article for publication in a professional journal or in a report at a professional conference. In all cases, your child's identity and participation in this study will be confidential.

If you agree that your child may participate, keep this page. Fill out the duplicate agreement to participate on page two and have your child return the form to me no later than November, 4th 2016. If you have any questions, please email or call me at school.

Sincerely,

Angela Leyk
Address:
Telephone:
Email:

*Names of schools, district, and principal, were covered to protect student identity.

**Informed Consent to Participate in Quantitative Research**
*Return this portion to Angela Leyk*

I have received your letter about the study you plan to conduct in which you will be studying the effectiveness of repeated oral assisted reading. I understand there is little to no risk involved for my child, that his/her confidentiality will be protected, and that I may withdraw or my child may withdraw from the project at any time.

_____          _____

Parent/Guardian Signature                                                      Date

Parent Copy

**Informed Consent to Participate in Quantitative Research**

*Return this portion to Angela Leyk*

I have received your letter about the study you plan to conduct in which you will be studying the effectiveness of repeated oral assisted reading. I understand there is little to no risk involved for my child, that his/her confidentiality will be protected, and that I may withdraw or my child may withdraw from the project at any time.


_____                                          _____

Parent/Guardian Signature                                                                                Date



Researcher Copy

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