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Improving Reading Fluency in a Struggling Reader by Using Repeated Reading Strategies and  
Spelling Pattern Writing Interventions

By

Kaylene Fiala

A Graduate Field Experience

Submitted in Partial Fulfillment of the

Requirements for the Degree of

Master of Arts

Urban Special Education

At Cardinal Stritch University

Milwaukee, Wisconsin

2013

# MULTIPLE INTERVENTIONS IMPROVE READING FLUENCY

This Graduate Field Experience  
Has been approved for Cardinal  
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8/5/2013

## MULTIPLE INTERVENTIONS IMPROVE READING FLUENCY

### **ABSTRACT**

The purpose of this case study is to examine using repeated reading interventions along with spelling pattern writing interventions to improve a struggling reader with ADHD's oral reading fluency. The interventions in this study occurred over 10 sessions with the target student. The methods used in the study resulted in improvement both over daily fluency intervention sessions as well as over the entire case study. While the impact of the writing interventions as compared to the reading interventions on the student's oral reading fluency was unclear, the student's oral reading fluency was positively impacted over the course of the case study. The current study suggests that struggling readers would benefit from literacy interventions that focus on improving oral reading fluency.

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## **CHAPTER ONE: INTRODUCTION**

The present case study examines improving reading fluency in a struggling reader through repeated reading interventions and spelling pattern writing interventions. Reading fluency is the ability to read a text accurately at an appropriate rate and with appropriate expression. Reading fluency is an essential precursor to effective reading comprehension. Therefore, it is of utmost importance that teachers work on improving reading fluency with struggling readers.

In the following thesis, there are five chapters. The chapters include an introduction to the study, a review of the literature, procedures for the study, results, and conclusions. The first chapter contains three sections. The first section provides an introduction to the child that participated in this case study. The second section describes how the law mandates that students must be educated in their least restrictive environment. The third section discusses the Common Core State Standards and their connection to this case study. In order to maintain confidentiality, the student that participated in this case study will be referred to by a pseudonym, DC.

### **Introduction to the Child**

DC is an upcoming fifth grade student in an urban charter school in the Midwestern United States. As of July 2013, DC is ten years, six months old. His current school is the second school he has attended during his elementary school years. DC was referred for an initial evaluation for special education services on December 4, 2009 under the category of Other Health Impairments (OHI). He qualified under the category of OHI due to how his Attention Deficit Hyperactivity Disorder (ADHD) affected his academic performance. At the time of his initial evaluation, DC was reported as becoming “explosive” and reacting “violently when he



becomes angry”; he also was reported to complete little work independently and to have a very difficult time staying on task and focusing on his school work. His inability to control his emotions and react appropriately when angered was determined to severely impact his ability to be successful in his general education classroom. As a result of this evaluation, DC began to receive 30 minutes of behavior instruction regarding anger responses per day, 30 minutes of specialized instruction in reading per day, 30 minutes of specialized instruction in writing per day, and five minutes of bus behavior instruction per day.

On September 7, 2012, an IEP meeting was held and resulted in DC exiting special education due to his considerable growth in all academic areas, which resulted in him no longer qualifying for his OHI label. At the time of the meeting, DC was on grade level for math and very close to grade level in reading. Although it was noted that he did need some behavior support, it was decided that the student’s support at home and school as well as his great effort and growth did not demand support from the special education teacher. In a conversation with the student’s previous special education teacher (E. Mazza, personal communication, June 12, 2013), it was discerned that the student had made great strides in his behavior and academics. However, it was recommended that, because of his ADHD and his unique learning needs, he should be provided with a clear structure and routine, should be given choices, and should be offered breaks. The special education teacher stated that he struggles with impulse control and often blurts things out without thinking about them, which is followed by him feeling remorse about what he has said; she said that if a teacher tells him, “It looks like you are becoming angry. Would you like to take a break?” he responds well and is able to re-focus after the break. The teacher indicated that DC takes medication for his ADHD regularly and that his father is very quick to respond if there is any behavior problems in school.

On the fourth grade WKCE taken in the fall of 2012, DC scored a Basic in the area of math and a Minimal in the area of reading. This year, the cut-scores changed for the WKCE, so many students in Wisconsin are scoring at lower levels than they have previously, which may have been the case for DC. DC's previous special education teacher told me that DC is not a good test taker, so his scores sometimes do not reflect his true ability. DC took the Measures of Academic Progress (MAP) three times this year for both math and reading. In the fall, winter, and spring, respectively, DC scored 210, 200, and 225 in math and 195, 188, and 211 in reading. This means that at the end of fourth grade, he scored above the national average of 212.5 for fourth graders in the spring for math and above the national average of 206.7 for fourth graders in the spring for reading. Nevertheless, DC's special education teacher reported to me that in his general education class, DC struggles in reading and actually works in her reading group. She said that, despite the fact that he no longer has an IEP, she still meets with him multiple times per week to work on reading. She said that he would not have made as much growth this year if he did not have as much support as he had. Math appears to be DC's relative strength, while reading is his relative weakness. This indicates that he requires more support in reading. His previous special education teacher indicated that he would benefit from extra instruction this summer (2013) in reading to ensure that he maintains the progress he has made and does not fall behind and experience the reading failure that he has experienced in the past. She said that he struggles with reading fluency and comprehension.

During my conversation with his previous special education teacher, I was told that DC does not exhibit information processing delays academically but that he greatly struggles with impulse control and blurting out his thoughts. The implications for instruction are, again, that he should be provided with a clear structure and routine, should be given choices, and should be

offered breaks. DC learns best in a setting that is structured and in which the teacher understands how to respond to his impulsive behavior. He also benefits from repetition in what he is learning, especially when it is multi-modal (e.g. kinesthetic, oral, visual, etc.).

DC's previous special education teacher indicated that he gets along "well enough" with his peers. He plays with others on the playground. However, he struggles to maintain friendships because he is "not easygoing" and becomes angry easily. She noted that DC does not seem isolated or lonely.

Overall, DC is known to be a very neat, organized student. He is polite with teachers. DC always completes his homework and shows responsibility in his academic endeavors. His previous special education teacher said that he tends to do the minimum when writing, but that he enjoys writing more when he can draw a picture to accompany his writing. She said that he enjoys coloring. DC is a big fan of superheroes and wrestling. He enjoys reading fiction – especially imaginative stories, but he has a hard time being imaginative himself. He also enjoys games that are not especially competitive, like Scrabble, because he has a hard time with his anger when he loses. Through all of the information here that was gathered from DC's cumulative record and a conversation with his previous Special Education teacher, it is clear that DC would benefit from a literacy intervention this summer.

### **Special Education Law**

Under the Individuals with Disabilities Education Act (IDEA, 2004), there is a statute regarding the least restrictive environment. The statute states, "To the maximum extent appropriate, children with disabilities...are educated with children who are not disabled..." (IDEA, 2004). As determined during DC's IEP meeting in September 2012, the least restrictive

environment for DC was in his general education classroom full-time. It was determined at the IEP meeting that DC no longer needed special education services to continue making academic gains at that time. Nonetheless, DC's teachers believe that he is a struggling reader, so he was chosen for a summer intervention.

### **Connection to the Common Core State Standards**

DC struggles with reading fluency and reading comprehension. As a result, a unique intervention was developed for DC that targeted his oral reading fluency. Under the Common Core State Standards (2012), the standard CCSS.ELA-Literacy.RF.4.4b, as well as the standard CCSS.ELA-Literacy.RF.5.5b, state that fourth and fifth grade students, respectively, should be able to "read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings." These standards are greatly supported by my case study, as this case study aims to improve DC's oral reading fluency so that he is closer to reading grade-level text in a fluent manner. Because he has just finished the fourth grade and is now an upcoming fifth grade student, these standards apply to him.

### **Conclusion**

DC is an upcoming fifth grade student with ADHD that struggles with reading fluency and reading comprehension. Reading fluency is an essential component of reading comprehension. If a student reads too slowly, with too many errors, or in an unexpressive manner, they will likely not understand what they are reading. Therefore, a unique, individualized series of interventions were designed and implemented over a three week period to ultimately improve DC's reading fluency. In the next chapter, a review of the literature will be presented surrounding four topics: ADHD and its academic implications for students, literacy

interventions, fluency interventions, and writing interventions. This review of the literature will set the stage for the methods and procedures used in the present case study.

## **CHAPTER TWO: A REVIEW OF THE LITERATURE**

### **Introduction**

The nature of students' disabilities often puts them at a disadvantage when it comes to their academic performance. Such a struggle leads to an achievement gap that pervades between students with disabilities and students without disabilities. As a result, it is imperative that effective interventions be produced and implemented to help students with disabilities, or at risk for disabilities, make progress that is critical to their academic success. The purpose of this chapter is to present a review of the current literature regarding literacy instruction. There are four sections in this chapter. The first section will present current research surrounding the impact of Attention Deficit Hyperactivity Disorder (ADHD) on the academic outcomes of children. The second section will broadly discuss the existing research about literacy interventions. The third section will explore research surrounding oral reading fluency and effective interventions to improve oral reading fluency. Finally, the fourth section will present research regarding the ties of writing interventions to success in reading performance.

### **Students with Attention Deficit Hyperactivity Disorder (ADHD)**

This first section presents two studies that examine the effect of Attention Deficit Hyperactivity Disorder on students' academic success. The first study, conducted by Willcutt, Betjemann, Pennington, Olson, DeFries, and Wadsworth (2007), explores the academic outcomes of students that have Reading Disability, ADHD, or both disabilities comorbidly. The second study, conducted by DuPaul, Jitendra, Volpe, Tresco, Lutz, Vile Junod, Cleary, Flammer, and Mannella (2006), examines the effects of reading and mathematics interventions on academic outcomes of students with ADHD. Together these two studies illuminate the

importance and possibility of effectiveness of academic interventions in improving academic outcomes for students with ADHD.

Willcutt et al. (2007) conducted a longitudinal follow-up study for a sample that was collected from the Colorado Learning Disabilities Research Center (DeFries, Filipek, Fulkner, Olson, Pennington, & Smith, 1997); an ongoing twin study was conducted there to explore the genetic and environmental causes and cognitive weaknesses related to Reading Disability, Attention Deficit Hyperactivity Disorder (ADHD), and their comorbidity. The 2007 study expanded on the previous study by giving novel information about the stability of Reading Disability, ADHD, and their comorbidity during adolescence and young adulthood by clarifying the impact of ADHD and Reading Disability on important developmental outcomes and by assessing and analyzing how different variables affect different outcomes in children with Reading Disability or ADHD. The authors hypothesized that (a) Reading Disability and ADHD would be most stable when they co-occur, (b) Reading Disability would predict negative academic and educational outcomes at follow-up while ADHD would be associated with academic impairment and significant social difficulties, and (c) certain variables would be outcome measures and markers for different outcomes in children with Reading Disability or ADHD.

Participants for this study were chosen from the initial CLDRC study. In the initial CLDRC study, the researchers sought parent permission for all twin pairs between 8 and 18 years of age in 22 local school districts to look at the school records of the twins. They searched for evidence of problems and acquired parent and teacher ratings of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) ADHD symptoms on the Disruptive Behavior Rating Scale (DBRS; Barkley & Murphy, 1998). If they found that either of the twins had a history of

reading difficulties or met their screening criteria for ADHD, they included both twins and their 8 to 18 years of age siblings in the study. A control group was created of twins that did not meet the screening criteria for Reading Disability or ADHD. Students were excluded from the study if either twin experienced documented brain injury, significant hearing or visual impairment, or other rare genetic or environmental etiology.

Subjects that completed the Reading Disability and ADHD assessments in the initial study between January 1, 1997 and April 30, 2002 were asked to participate in this study via mailed invitation. By April 2007, 62% of subjects had completed the follow-up testing. Of those that were retested, there were 71 subjects with just Reading Disability, 66 subjects with just ADHD, 51 subjects with both Reading Disability and ADHD, and 118 subjects without Reading Disability or ADHD. Subjects were tested by a trained examiner, and a separate researcher collected the parent rating scales and administered the Diagnostic Interview for Children and Adolescents IV (DICA-IV) to each parent (Reich, Welner, & Herjanic, 1997). Some of the tests administered to the subjects included the Peabody Individual Achievement Test, Revised (PIAT-R; Markwardt, 1989) and the Sight-Word Efficiency subtest from the Test of Word Reading Efficiency (Torgeson, Wagner, & Rashotte, 1999), which were used to assess reading and spelling achievement. Parent and teacher ratings on the DBRS were used to calculate measures of inattention, hyperactivity-impulsivity, and total ADHD behaviors. The DBRS was used in conjunction with the parent report version of the DICA-IV to decide current ADHD diagnostic status. Three questionnaires were used to assess key developmental outcomes. The Child Behavior Checklist (CBCL) or Youth Self Report (YSR) was also completed by parents and twins (Achenbach & Rescorla, 2001). An academic performance composite was calculated using the student's current grade point average, CBCL and YSR



ratings, and parent and self-reported ratings of areas in which the individual experienced difficulty. Social functioning was assessed using the CBCL and YSR. The DICA-IV was used to make categorical diagnoses of generalized anxiety disorder, major depressive disorder, oppositional defiant disorder, and conduct disorder.

Data analyses were conducted to determine whether Reading Disability or ADHD at Time 1 were associated with significant negative outcomes at Time 2. Furthermore, analyses were conducted to determine whether the negative outcome was explained by comorbidity of disorders rather than Reading Disability or ADHD alone. The study found that subjects with Reading Disability scored significantly lower at both Time 1 and Time 2 on the reading composite measure than those subjects that did not have Reading Disability. They found that the majority of subjects who met criteria for Reading Disability or ADHD during the initial testing also met criteria during the follow-up assessment. Subjects that met criteria for both Reading Disability and ADHD during the initial testing displayed significantly higher stability of Reading Disability in the follow-up assessment. The study found that Reading Disability and ADHD were independently associated with negative outcomes on the follow-up assessment's three academic measures. There were fewer positive social outcomes reported for students with ADHD than Reading Disability, but comorbidity of Reading Disability and ADHD indicated more severe social difficulties than the group of subjects with just ADHD. Subjects with ADHD displayed higher rates of all comorbid disorders, including anxiety, depression, and externalizing disorders.

This study showed that Reading Disability and ADHD often co-occur and that their co-existence shows stability over time. It also found that even if subjects only met criteria for Reading Disability or ADHD alone, they frequently exhibited subclinical elevations of the other

disorder. The study concluded that due to how Reading Disability and ADHD independently predict negative academic outcomes, when they co-occur, both disorders warrant intervention. They suggested that when either Reading Disability or ADHD are diagnosed with an individual, that individual should be tested for the other disability or disorder. Furthermore, they suggested that all teachers and staff – rather than just special education teachers – should be trained in working with students with Reading Disability, ADHD, and other related disorders so that they are knowledgeable on the characteristics and causes of the disorders, their implications in the long-term, and effective interventions that can be used with the students.

While Willcutt et al. demonstrated the need for academic interventions for students with Reading Disability, ADHD, or both disabilities, DuPaul et al. (2006) examined the effectiveness of using two different basic types of academic interventions with students with ADHD.

The study conducted by DuPaul et al. explored the relative efficacy of using an Individualized Academic Intervention (IAI) versus using a Generic Academic Intervention (GAI) as an academic intervention for children with ADHD. The authors hypothesized that there would be greater growth in academic achievement for those students that received the Individualized Academic Intervention as compared to those that received the Generic Academic Intervention using the typical school-based consultation model. Data were collected through the use of subtests of the Woodcock-Johnson III Tests of Achievement (WJ-III; Woodcock, McGrew, & Mather, 2001) and teacher ratings of academic skills that were conducted on four occasions over the 15 months of the interventions.

The sample consisted of 175 students in grades one through four at 52 urban, rural, and suburban public elementary schools in eastern Pennsylvania. The students that participated were

referred by their classroom teachers due to significant difficulties with ADHD symptoms and below average academic achievement. The sample included 133 boys and 42 girls. The demographics were as follows: 58% White, 26.9% Hispanic, and 11.4% Black. The students primarily came from socioeconomically lower middle class and middle class families. The students were randomly divided into the two educational consultation groups – IAI or GAI.

Of the 175 initial subjects involved in the study, 167 of them completed at least one semester of consultation in math or reading, including 54 that received consultation in both areas. For the Generic Academic Intervention group, the researcher asked the classroom teacher to choose from an array of intervention options to address academic goals the teacher had in mind for the student. The consultants gave the teachers intervention plans to follow. For the Individualized Academic Intervention the interventions were based on functional and academic assessment data. The consultants worked with the classroom teachers to use this data to identify areas of concern and choose from an array of intervention options. The interventions used in both groups included teacher-mediated, peer-mediated, computer-assisted, and self-mediated strategies. Reading interventions often involved repeated readings, listening passage preview, collaborative strategic reading, and group story mapping.

Overall, the researchers found that academic consultation was supported in their study. However, they found that there was not a significant difference between the two types of interventions conducted. The researchers found that while there was positive growth for raw scores on all of the WJ-III subtests for both groups, but there was a significantly positive growth in the Reading Fluency subtest. The researchers stated that they were not surprised by this finding, as reading fluency was the focus of the reading interventions. They suggested that the GAI group was more intensive and data-based than “consultation as usual,” which may suggest

why their hypothesis was not supported. Nonetheless, with the results found, the researchers suggested that the less time consuming intervention method be used, which would be Generic Academic Intervention.

The studies conducted by Willcutt et al. and DuPaul et al. both focused on academic outcomes of students with Attention Deficit Hyperactivity Disorder. Willcutt et al. provided insight into the achievement gap that develops for many students with Attention Deficit Hyperactivity Disorder and suggested that teachers be informed as to what interventions work best with students with ADHD as to close this achievement gap. Meanwhile, DuPaul et al. explored two general types of academic interventions and their effectiveness when used with elementary age students with ADHD. DuPaul et al. found that Individualized Academic Intervention did not appear to have a statistically significant effect as compared to Generic Academic Intervention. These two studies demonstrate the importance of creating effective academic interventions for students with ADHD so as to counteract the historical trend of low academic achievement that many students with ADHD experience.

### **Literacy Interventions**

In this second section, two studies will broadly discuss the existing research about literacy interventions. Students that have disabilities or that are considered at risk for reading failure need extra support to improve their literacy skills. As students age, the gap in literacy skills between them and their peers without disabilities or risk for reading failure tends to increase. As a result, studies have been conducted with students across all grade levels to see what kind of an impact can be made by holding academic interventions with students. The two studies in this section highlight the possibility for significant gains that can be made via literacy

interventions in prekindergarten and kindergarten to decrease the literacy gap that occurs between students with disabilities and/or at risk for reading failure and students without these difficulties.

The study conducted by MacDonald and Figueredo (2010) explored the implementation of a literacy intervention program for at risk kindergartners in urban schools. The purpose of the study was to implement and assess a literacy intervention program that would improve oral-language and emergent-literacy skills for kindergartners over the school year. The intervention program was called the KELT program and consisted of a specific curriculum developed using the Ontario Ministry of Education (2006) kindergarten program and oral-language developmental continuums (Brailsford & Stead, 2006). The authors hypothesized that kindergarten students that participated in the KELT program in addition to their regular education class would make a greater improvement in their academic achievement than those students that only participated in their regular education class.

The sample consisted of 96 kindergarten students in four inner-city schools in central-east Canada. The sample was broken up into two groups. The experimental group that involved the KELT program included students identified as at risk at the end of four-year old kindergarten. The control group was made up of students that were not identified as at risk. The four schools in which the study occurred were considered Ministry-identified needy schools. Significant amounts of the students in the sample came from economically disadvantaged families and/or English-language learner families. All subjects participated in pre-tests (at the beginning of the year) and post-tests (at the end of the year) that contained measures of oral language, concepts of print, phonemic awareness, letter-sound knowledge, letter-sound correspondence, word knowledge, and reading ability.

Both the control and the experimental groups attended their regular five year old kindergarten class during the second half of the day. However, just the experimental group participated in the KELT program during the first half of the day. The KELT program consisted of students participating in primary, hands-on experiences in which they learned vocabulary and developed a context for talking about the stories that they read in class; furthermore, the students participated in read-alouds, shared reading, and independent reading, and, after teacher modeling, they wrote about their experiences.

The researchers found that the experimental KELT group's average rate of growth was faster than that of the control group in the majority of the measures of academic progress. Therefore, their hypothesis was supported. They also found that the academic gap closed most noticeably across gender and for English Language Learners. This study shows that students that are considered at risk for reading failure in kindergarten can greatly benefit from literacy interventions that include reading and writing components.

While the study conducted by MacDonald and Figueredo (2010) explored the gains that could be made over a year of interventions for at risk kindergarten students, Bailet, Repper, Murphy, Piasta, and Zettler-Greeley (2011) looked at the gains that could be made via literacy interventions with at risk prekindergarten students.

The study conducted by Bailet et al. (2011) explored the effectiveness of an emergent literacy intervention for prekindergarten children at risk for reading failure in years two and three of a three-year study. The purpose of the study was to determine whether their emergent literacy intervention could be effective in closing the achievement gap that exists between children who enter kindergarten lacking certain foundational reading skills and those that enter without this

risk for reading failure. The authors listed multiple hypotheses for their study: (a) at risk students would show significant and meaningful gains in emergent reading skills, (b) the fall intervention group and the spring intervention group would not differ in their re-assessment at the end of the school year (i.e. would not show a “time of year” effect), and (c) students in the fall intervention group would maintain their gains over the second half of their prekindergarten year after their intervention’s end.

The *Get Ready to Read* (GRTR; Whitehurst, 2001) screening measure was given to screen for four-year old prekindergarten students that would be identified as at risk for reading failure. The data for Year 2 of the study came from 72 private preschool and child care sites in a large city in the southeastern United States and resulted in 266 children providing scores for analyses. The data for Year 3 of the study came from 102 sites in the same city as that used in Year Two and resulted in 374 children providing scores for analyses.

If students were eligible for the study after the screening measure, they were assigned to one of two treatment groups: an immediate intervention group or a delayed intervention group. The immediate intervention group was the group that received nine weeks of twice weekly, 30-minute interventions in the fall, while the delayed intervention group was the group that received these interventions in the spring. The delayed intervention group served as the control group for the fall, while data was compiled for the immediate intervention group at the end of the spring for retention data. Testing occurred three times during the year, in August/September, January/February, and April/May. The assessments included the GRTR, the *Test of Preschool Early Literacy* (TOPEL; Lonigan, Wagner, & Torgesen, 2007), and the *Assessment of Literacy and Language Rhyme Knowledge* sub-test (Lombardino, Lieberman, & Brown, 2005). The interventions focused on specific emergent literacy skills and a literary element that supported

the specific skill focus or letters for that lesson. The interventions also involved a predictable routine, with plenty of repetition and practice of concepts within and across interventions.

The authors found over all three years that the experimental group resulted in significant and meaningful gains in phonological awareness skills. Additionally, they found that there was not a significant difference in the assessment results between the intervention groups that occurred in the spring and in the fall, indicating that there was not a significant “time-of-year” effect occurring. This study suggests that emergent literacy interventions that occur as early as pre-kindergarten can have a significant and meaningful impact on students’ literacy growth and that these interventions can help to close the achievement gap for students at risk of reading failure early on in their schooling years.

The studies conducted by MacDonald and Figueredo (2010) and Bailet et al. have illuminated the gains that can be made via literacy interventions with students as young as prekindergarten and kindergarten. MacDonald and Figueredo (2010) showed that kindergarten students that are given extra time for interventions outside of their regular class time can progress at a faster rate than students without these interventions. These authors included both reading and writing activities in their interventions to help their students achieve significant gains in literacy. Meanwhile, Bailet et al. found that their literacy interventions focusing on emergent literacy skills with at risk prekindergarten students yielded significant and meaningful gains in phonological awareness skills, that it did not matter when during the year these interventions occurred, and that the growth in skills was maintained until the end of the school year. These two studies have demonstrated the possible growth that can be made in literacy skills for at risk students by conducting literacy interventions. Through these interventions, the



gap between students with disabilities and/or at risk for reading failure and their peers without these situations has the potential to narrow.

### **Fluency Interventions**

In this third section, research is presented surrounding oral reading fluency and effective interventions to improve oral reading fluency. By improving a student's oral reading fluency, the student is able to expel less energy towards decoding the words and more energy towards comprehending the words. Thus, when students struggle with oral reading fluency, it is imperative that effective interventions be designed and implemented to aid students in their oral reading fluency skills. In the following six studies, the possibility for significant gains in literacy are made through interventions targeting oral reading fluency, and findings are presented that substantiate the importance of oral reading fluency to students' reading comprehension and overall reading progress.

The study conducted by Abbott, Wills, Miller, and Kaufman (2012) explored the relationships of oral reading speed and error rate on comprehension for elementary age students identified as at risk for reading failure. The purpose of the study was to illuminate the relationship between oral reading speed and error rate on passage comprehension for second and third grade students identified as at risk for reading failure. The authors did not state a clear hypothesis in this study.

The sample consisted of 920 second and 974 third graders from 12 elementary schools in a large Midwestern metropolitan area. The elementary schools included 9 public suburban, one public urban, one urban parochial, and one urban charter school. The demographics of the study

were diverse, including Caucasian, African American, Latino, and Asian students. Forty-seven percent of participants were minority, and 48% received free or reduced lunches.

Data used in the study came from grade-appropriate fall, winter, and spring *Dynamic Indicators of Basic Early Literacy Skills* (DIBELS; Good, Simmons, & Kameenui, 2001) raw score data points and a yearly *Woodcock Reading Mastery Test* (WRMT; Woodcock, 1987). These assessments yielded data regarding students' oral reading speed, error rate, and passage comprehension.

The authors found that there was a significant relationship between oral reading speed, oral reading fluency, and reading comprehension performance. They found that low reading fluency and high error rates predicted the level of reading comprehension performance. Furthermore, fall assessment error rate predicted comprehension performance. One of the major findings of this study was that students at moderate and high risk for reading problems could have the same oral reading speed, but depending on their error rates, their reading comprehension performance could be quite different.

While Abbott, et al. (2012) found that there is a significant relationship between oral reading speed, error rates, and reading comprehension performance, Wise, Sevcik, Morris, Lovett, Wolf, Kuhn, Meisinger, and Schwanenflugel (2010) determined that real-word oral reading fluency is a strong predictor of reading comprehension as compared to other oral reading fluency measures.

The study conducted by Wise, et al. (2010) explored the relationship between various measures of oral reading fluency and reading comprehension for students with oral reading fluency difficulties. The purpose of the study was to look at this information from two samples

of second-grade students: (a) students struggling with nonsense-word oral reading fluency, real-word oral reading fluency, and oral reading fluency of connected text (ORFD), and (b) students only struggling with oral reading fluency of connected text (CTD). The authors hypothesized that nonsense-word oral reading fluency would most highly correlate with reading comprehension performance as compared to other oral reading fluency measures.

Both groups of students were initially recruited to participate in different reading intervention studies. The ORFD sample participated in a study that explored the effectiveness of different reading interventions focused on the remediation of phonological awareness and word identification skills. All of the students were referred to this study due to difficulties with learning to read and poor word decoding and word identification skills. The ORFD sample included data from 146 second-grade students, which included 75 African Americans and 71 Caucasians. Sixty of the participants were female, and 86 were male. The students were recruited from Atlanta, GA, Boston, MA, and Toronto, Canada. The CTD sample participated in a study that explored the effectiveness of improving the oral reading fluency of connected text skills. The students in this study displayed significantly higher nonsense-word oral reading fluency skills and real-word oral reading fluency skills than the ORFD sample. The sample was made up of 949 second-grade students, which included 457 African American students, 242 Hispanic students, 189 Caucasian students, 38 Asian students, and 23 students that identified as “Other”. Four hundred fifty-five of the students were female, and 494 were male. The students were recruited from public elementary schools in metropolitan and urban Georgia and suburban New Jersey.

Students from both the ORFD sample and the CTD sample were given the Sight Word Efficiency and Phonemic Decoding subtests of the Test of Word Reading Efficiency (TOWRE;

Torgeson et al., 1999). They were also given the Gray Oral Reading Test-Fourth Edition (GORT-IV; Wiederholt & Bryant, 2001) to assess fluency. To assess reading comprehension skills, the students were given the Reading Comprehension subtest of the Wechsler Individual Achievement Test (WIAT; Wechsler, 1992).

The authors found that real-word oral reading fluency was most highly correlated with reading comprehension performance for both sample groups: (a) students struggling with nonsense-word oral reading fluency, real-word oral reading fluency, and oral ready fluency of connected text (ORFD), and (b) students only struggling with oral reading fluency of connected text (CTD). It was also noted that these results occurred despite significant differences in reading comprehension scores between the two sample groups, with the ORFD sample scoring 1 SD below the mean and the CTD sample scoring in the typical range for second-grade students. Therefore, the authors proposed that real-word oral reading fluency could be used as an efficient method to identify possible reading comprehension problems. This study shows that oral reading fluency is a strong predictor of reading comprehension as compared to other oral reading fluency measures.

While Wise et al. determined that real-word oral reading fluency is a strong predictor of reading comprehension as compared to other oral reading fluency measures, Morgan, Sideridis, and Hua (2012) looked at the effectiveness of fluency interventions immediately and over time, as well as the responses of students with different characteristics to the fluency interventions.

The study conducted by Morgan et al. (2012) was a meta-analysis that explored the initial and over-time effects of fluency interventions for students with or at risk for disabilities. The purpose of the study was to (a) determine which interventions resulted in immediate increases in

oral reading fluency for students with or at risk of disabilities, (b) determine to what degree the gains remained over time, and (c) determine whether different characteristics of students had a relationship with their response to fluency interventions. The authors did not list clear hypotheses as to what they expected for each of these study motives.

The authors included studies that met five criteria: (a) included a single-participant design made up of at least two phases, (b) used a school-aged sample in Grades K-12, (c) was published in a peer-reviewed journal, (d) assessed a student's oral reading fluency in English, and (e) included at least three time points for the phases of their intervention. The authors searched for qualifying articles in two electronic databases and in nine major education and special education journals. The electronic search resulted in 2,659 abstracts, which yielded 42 studies that met inclusion criteria. Meanwhile, the journal search included nine journals that resulted in two additional studies that met inclusion criteria. Thus, a total of 44 studies were included in this study's meta-analysis.

There were 290 students that were involved in the 44 qualifying studies. Of these students, 223 were boys, and 67 were girls. There were 251 White, 23 Black, 13 Chinese, and 3 Hispanic students included. Of the 290 total students, 188 were identified as having learning disabilities or being at risk for learning disabilities (i.e. qualifying for Title I services or referred for special education services by their teacher), with 17 students considered nondisabled, five visually impaired, 54 having emotional and behavioral disorders, 24 having mental retardation, and two having autism.

The studies' effects were measured using an extension of multilevel modeling procedures. These multilevel modeling procedures resulted in contrasts of the interventions'

initial effects, contrasts of the interventions' over-time effects, and contrasts by student sociodemographics, placement, and disability status. The authors found that goal-setting was the most initially effective intervention. They also found that goal-setting was the most effective intervention over-time. Students of minority racial/ethnic heritage as well as older students responded well to fluency interventions. Meanwhile, there was not a statistically significant effect for gender or placement. The authors found that students without disabilities presented with significantly larger fluency gains than those students with disabilities. Of the students with disabilities, the students with autism, mental retardation, or behavioral disorders tended to make much smaller gains than students with learning disabilities or visual impairments. Following the results of this study, the authors suggested that goal-setting might be an effective strategy to improve students' oral reading fluency. They also suggested that special education teachers provide students with disabilities fluency interventions of relatively greater intensity as compared to those provided to students without disabilities.

While Morgan et al. explored both the effectiveness of fluency interventions immediately and over time, in addition to the responses of students with different characteristics to the fluency interventions, Turner (2010) looked at the effectiveness of a specific type of reading instruction that aimed to increase reading fluency in an ethnically diverse sample of students.

The study conducted by Turner (2010) examined the effectiveness of Fluency-Oriented Reading Instruction (FORI) on elementary students from ethnically diverse backgrounds. The purpose of the study was to see if FORI would promote significant reading fluency gains for Asian, Black, Latino, and White second graders. Turner hypothesized that the FORI method would significantly increase reading efficiency and reading comprehension for Asian, Black, Latino, and White second grade students.

The sample consisted of 112 second grade students from three classrooms in an urban elementary school in New Jersey. The school was located in a predominantly working-class community in the Newark-New York metropolitan area; it was part of a school district that was identified as “in need of improvement” by the *No Child Left Behind* (NCLB, 2002) standards. The school served students in which 47% of the school population was qualified for free or reduced lunch. Of the participants in the study, 13% were Asian, 19% were Black, 42% were Latino, and 26% were White. Forty-six percent of the study’s participants were female, and 54% were male.

Students involved in the study were given pre-tests and post-tests. The *Test of Word Reading Efficiency* (TOWRE; Torgesen, et al., 1999) was used to measure word recognition skills, while the *Wechsler Individual Achievement Test* (WIAT; Wechsler, 1992) was used to measure reading comprehension skills. The second grade teachers were trained prior to implementing the FORI method over one school year. The FORI method consisted of five lessons over one academic week using the same grade-level text. The method begins with the teacher modeling reading the text and is followed by teachers facilitating choral, echo and partner reading of the text. The FORI method gives students repeated exposure to the grade-level text so as to increase their reading fluency. It provides students with a significant amount of classroom time that is spent actually reading.

The authors found that using the FORI method had a significant effect on all the racial/ethnic groups involved in the study on both word efficiency and reading comprehension assessments. The study showed that providing reading instruction that involves much repeated reading can result in significant gains for students of all ethnic groups in a school serving a population of moderate and low socioeconomic status.

While Turner (2010) looked at using the FORI method to significantly improve reading fluency and reading comprehension in second grade students from moderate and low socioeconomic status families, Morra and Tracey (2006) looked at using multiple fluency interventions for an elementary school student.

The study conducted by Morra and Tracey (2006) explored the impact of multiple fluency interventions on a single subject in grade three. The purpose of the study was to investigate the effectiveness of using multiple fluency interventions, rather than just a single fluency strategy, to positively impact oral reading. The authors hypothesized that using multiple strategies to improve fluency would be more effective and more motivating than using just one instructional approach.

The sample consisted of one subject, an 8-year, 7-month old Caucasian female, who attended a public elementary school in an upper-middle class suburban community. This student was first recommended for and received instructional review services in reading in second grade. In third grade, the student opted for private tutoring. She was chosen for the study due to her difficulty in reading fluently.

The student was given the Writing and Reading Assessment Profile (W.R.A.P.; Griffiths, 2001) to determine her independent reading level. Subsequently, she read aloud passages from two independent level texts to determine her baseline of words read correctly in one minute (WCPM). Other passages at this reading level were also read to establish stability of her WCPM. Following this baseline assessment, the student received fluency interventions two to three times per week for eight weeks for 20-30 minutes at a time. During each of these sessions, the student received a fluency intervention including echo reading, choral reading, rereading,



teacher modeling, or audio book modeling. At the end of the eight-week period, the student's WCPM was determined again.

The authors found that working one-on-one with the student using multiple fluency strategies while using text at the student's independent level improved the student's overall reading skills in the area of fluency. They found that repeated reading was especially effective in improving the student's WCPM in a single intervention session. The study noted that they could not determine which strategy was most effective in improving the student's reading fluency. Overall, the authors found a positive association with using multiple fluency interventions in an individual student's reading fluency performance. These results suggest that using multiple, rather than just one, type of fluency intervention is beneficial in improving a student's reading fluency.

While Morra and Tracey (2006) explored how using multiple types of fluency interventions to improve a student's reading fluency may be beneficial, Swain, Leader-Janssen, and Conley (2013) looked at the effectiveness of different types of fluency interventions on a student's reading fluency.

The study conducted by Swain et al. (2013) explored the effectiveness of different fluency interventions on a fifth grade student experiencing struggles with fluency skills. The purpose of their study was to discern the growth in words correctly read per minute (CWPM) using three different fluency interventions: repeated reading, listening passage preview, and audio listening passage preview. The authors hypothesized that the student's fluency rate would increase given the implementation of one or more interventions. Data was collected using

academic assessments and fluency passages prior to the study to determine that the subject had difficulties with reading fluency.

The sample consisted of a fifth grade boy experiencing reading fluency difficulties. The interventions occurred at a Midwestern university's clinic for students with academic learning needs. The student in the case study did not qualify for Special Education. Results from his initial assessments determined that his fluency skills were below average, his comprehension skills were above average, and his reading rate was 82 CWPM.

Following the pretests, the student participated in nine of 12 weekly, 60-minute intervention sessions. Each day, the student participated in three interventions that were consistently in the same order: 1) repeated reading, 2) audio listening passage preview, and 3) listening passage preview. The repeated reading intervention involved the student reading a fifth grade passage of 350 to 400 words two times. The audio listening passage preview intervention consisted of the student listening to a factual, high interest expository passage on the computer two times in varying sized chunks. The listening passage preview intervention consisted of the researcher reading one factual, high interest expository passage as the student listened and followed along with their own copy. For each intervention, the student's reading rate in CWPM was calculated using the mean average of the one or two passages read.

The authors found that all three interventions resulted in increases in reading fluency performance. During the interventions, they found that audio listening passage preview resulted in the most growth (96 WCPM). However, on the five-month follow-up measures, this growth was not maintained, although the student still scored above their baseline performance. Nonetheless, the growth achieved during the repeated reading and listening passage preview

interventions was maintained at the five-month follow-up (105 WCPM and 110 WCPM, respectively). The authors concluded that practitioners should choose particular fluency interventions based on their fit with the student and the feasibility of implementation.

The studies conducted by Abbott et al., Wise et al., Morgan et al., Turner (2010), Morra and Tracey (2006), and Swain et al. have covered a broad range of research surrounding oral reading fluency and effective interventions to improve oral reading fluency. Abbott et al. found that there is a significant relationship between error rate, oral reading fluency, and reading comprehension performance. This finding is significant as it highlights how it is not only a student's oral reading fluency that affects their reading comprehension performance, but their error rate also affects it. The study conducted by Wise et al. found that real-word oral reading fluency is a strong predictor of reading comprehension as compared to other oral reading fluency measures. As comprehension is generally the goal of reading, this finding is significant as it pertains to providing fluency interventions that will be the highest yielding for students with fluency difficulties. The study conducted by Morgan et al. examined the effectiveness of fluency interventions immediately and over time, in addition to the responses of students with different characteristics to the fluency interventions. Their findings give insight into providing fluency interventions for students with disabilities and/or risk for reading failure. Turner (2010) found that Fluency-Oriented Reading Instruction (FORI), which focused on repeated reading of a grade-level text over an academic week, is an effective form of reading instruction for students of all racial and ethnic groups that they studied. These findings suggest that using repeated readings of grade-level text can help students of many diverse backgrounds. Morra and Tracey (2006) explored how using multiple types of fluency interventions to improve a student's reading fluency may be beneficial to a student struggling with reading fluency. Meanwhile, Swain et al.

looked at the effectiveness of different types of fluency interventions on a student's reading fluency. These six studies illuminate many unique types of fluency interventions and measures that can be used to improve a student's reading fluency and inform practitioners about a student's reading progress.

### **Writing Interventions**

In this fourth section, research is presented from two studies regarding the ties of writing instruction and writing interventions to success in reading. In order to write, a student must recognize letters, letter sounds, and combinations of these two variables. Reciprocally, in order to read, a student must also possess these skills. In the following two studies, the authors examine how writing instruction and writing interventions can be used to improve the reading skills for a range of readers.

The study conducted by Graham and Hebert (2011) was a meta-analysis of the impact of writing and writing instruction on reading. The purpose of their study was to answer three questions. (a) Does writing about material read enhance students' comprehension of text? (b) Does writing skills instruction strengthen students' reading skills? (c) Does increasing how much students write improve how well they read? The authors listed hypotheses for each of these three questions, respectively. They hypothesized "that writing about reading would enhance students' comprehension of text, that writing instruction would improve students' reading skills, and that increasing how much students wrote would improve their reading" (Graham & Hebert, 2011, p. 713-714).

The researchers found studies to use based on certain inclusion and exclusion criteria. In order to be included in this study, the study had to be a true experiment or a quasiexperiment,

had to include a treatment group in which the students wrote about what they read, were taught to write, or improved how much they wrote, had to involve one or more reading measures that tested the impact of the writing treatment or condition, looked at students in grades 1-12, was published in English, and contained necessary statistics to determine a weighted effect size. Studies were excluded in which the writing treatment/condition did not involve creation of meaningful text, the control condition wrote or received writing instruction, the writing treatment occurred in a school for students with disabilities, or if the only reading outcome assessment was the same as the writing treatment.

Using these conditions, the researchers conducted 260 electronic searches using the following databases: ERIC, PsychINFO, Education Abstracts, and ProQuest. The last search date they included was January 2010. There were 752 documents that were collected, and, of these, 95 experiments qualified under the inclusion criteria. The experiments were categorized according to their questions and methods. The studies were then coded for study descriptors, quality indicators, and variables needed to calculate effect sizes. Effect sizes were calculated for each study, and then an average weighted effect size was calculated for each of the three research questions.

For question 1, they found that 94 percent of studies produced a positive effect size, which indicates that writing about material read does indeed enhance reading comprehension for students in grades 2 through 12. They also found that writing about reading was beneficial in the comprehension of weaker readers and writers. For question 2, they found that all qualifying studies produced a positive effect size for writing instruction enhancing students' reading for grades 4 through 12. They found that reading fluency and word reading were only significantly improved for grades 1 through 7 and grades 1 through 5, respectively. For question 3, the

researchers found that increasing writing improves reading comprehension in grades 1 through 6. This meta-analysis shows that having an elementary student practice writing should improve their reading. More specifically, it shows that writing skills instruction strengthens students' reading skills in the areas of reading fluency and word reading for students that are elementary age students.

While the study conducted by Graham and Hebert (2011) examined the impact of writing and writing instruction on reading performance, Santoro, Coyne, and Simmons (2006) implemented a beginning spelling intervention for children at risk of reading disability to examine whether this intervention could be translated into instructional practice.

The study conducted by Santoro et al. (2006) developed and evaluated a beginning spelling intervention for children at risk of reading disability. The purpose of their study was to determine whether the research-based intervention they developed was effective for young children at risk of reading disability so that it could then be translated into instructional practice. The authors hypothesized that by integrating phonemic awareness and alphabetic understanding into their spelling intervention, children's ability to read words would be improved.

The sample consisted of 116 kindergarten students from seven elementary schools in the Pacific Northwest. All of the schools from which the students were selected received Title I funding, and there was a 32 to 63-percent range of free- and reduced-lunch services at the schools. The 116 students were a sample that resulted from a screening. They were chosen to be included in the study based on (a) scoring at or below the 25<sup>th</sup> percentile in the district on letter naming fluency and onset recognition fluency measures and based on (b) the confirmation of their kindergarten teachers that they were at risk of reading difficulty. The students that were

excluded from the study after this screening were those that (a) had severe hearing or visual acuity problems or (b) were determined to have significantly limited English proficiency.

Eighty-four percent of the students in the study were white, 13% were Latino/Hispanic, and two of the students were black/African American. Fifty-eight percent of the sample was male, and the mean age of students in the fall was 5 years 7 months, with a range of 5 years 0 months to 6 years 9 months.

The 116 subjects were randomly divided into three instructional groups, including two experimental groups and a comparison group. The experimental groups both participated in a base intervention focusing on increasing beginning reading skills through pointed attention to effective instruction. One experimental group received a spelling intervention that emphasized phonological awareness and alphabetic skills through writing and spelling, while the other received instruction focusing on building vocabulary and reading comprehension via a storybook read aloud approach. The comparison group participated in a commercial reading program's sounds and letters module that focused on developing beginning reading skills. All of the groups received their instruction during an extended day kindergarten program that was not during regular classroom instruction. Interventions occurred in groups of five or less.

The researchers conducted pre-tests and post-tests using the DIBELS letter naming fluency and initial sound fluency measure (Kaminski & Good, 1996, 1998), a modified version of Tangel and Blachman's (1992, 1995) spelling measure, and the Berninger, Vaughan, Graham, Abbott, Abbott, Rogan, Brooks, and Reed (1997) letter writing dictation measure. Data was also collected post-intervention for all groups on phonemic segmentation and nonsense word reading fluency, and data was collected using the Woodcock Reading Mastery Test-Revised word attack and word identification subtests (Woodcock, 1987).

The authors found that the spelling intervention group performed better than the storybook and comparison groups on spelling and letter dictation measures. There was a large difference in the performance of the spelling intervention and storybook groups. It was also found that children in the spelling intervention group outperformed the other groups on word attack, nonsense word reading, and “real” word reading measures. The final results of the study showed that students in the spelling intervention group were able to read more words compared to the children in the other groups. Thus, the authors’ hypothesis was supported: by strategically integrating phonemic awareness and alphabetic understanding into their spelling intervention, children’s ability to read words was improved.

The studies conducted by Graham and Hebert (2011) and Santoro et al. examine the relationship between writing instruction and writing interventions on reading performance. Graham and Hebert (2011) specifically looked at whether writing instruction enhances reading comprehension skills, whether writing instruction improves how well a student reads, and whether increasing the amount of writing instruction improves reading performance. They found that in all of these cases, writing instruction did indeed improve students’ reading performance. Meanwhile, Santoro et al. designed, implemented, and evaluated a writing intervention for children at risk of reading disability and found that it was effective in improving the students’ reading performance. These two studies show the potential that writing interventions have for improving students’ reading performance.

### **Conclusion**

This chapter provided an overview of the literature regarding the academic needs of students with Attention Deficit Hyperactivity Disorder, the potential for success in literacy



interventions, effective fluency intervention strategies and implications, and the potential for great improvement in reading performance via implementation of writing interventions. More specifically, this chapter demonstrated the need for effective literacy interventions for students with ADHD. It presented effective literacy interventions, including research on fluency interventions and writing interventions, that can be used to impact the reading performance of students that have disabilities or are at risk for reading failure. The synthesis of this research presents the basis for the methods of the present case study, which examines the improvement of reading fluency in a struggling reader with ADHD by using repeated reading and spelling pattern writing interventions.

In the following chapter, Chapter 3: Procedures for the Study, the methodology of the case study will be presented. This chapter will detail the procedures used in a research-based series of reading and writing interventions that aim to improve the target student's oral reading fluency.

## **CHAPTER THREE: PROCEDURES FOR THE STUDY**

### **Introduction**

The third chapter details the methods and procedures used during this case study. This chapter has four sections. The first section describes the case study's methodology, including the setting, sample population, and data collection. In the second section, a detailed description of the student of interest is given. The third section provides a description of the pre-tests, post-tests and materials used daily throughout this case study. In the fourth section, a rationale for the selection of interventions and an overall preview of the case study is given. Then, in the fifth section, a more specific description of the daily procedures is given.

### **Methodology**

This section provides a description of the case study's setting, sample population, and data collection. The setting is described first.

#### **Setting**

This case study took place during summer school in a charter school located in an urban Midwestern city. One-on-one interventions were provided to the student during 60-minute sessions for three weeks, three times per week for the first two weeks, and four times per week for the third week. The sessions took place at the back table of the school's computer lab.

#### **Sample Population**

This case study focused on one African-American male student attending summer school in an urban Midwestern city. The student recently completed the fourth grade and will be promoted to the fifth grade in fall of 2013. In an effort to maintain confidentiality, the student

will be referred to as DC. DC's fourth grade classroom teacher as well as his previous special education teacher selected DC to receive an intervention due to his struggles with reading fluency and comprehension. As a result, DC was the focus of this oral reading fluency case study.

### **Data Collection**

Data was collected over the 10 sessions of this case study. In Sessions 1 and 10, the Qualitative Reading Inventory (QRI), fifth Edition (Caldwell, 2010) was used to assess DC's word identification skills, fluency, and comprehension. The QRI-5 was used as an informal reading assessment to identify DC's reading level by measuring his word identification skills, fluency, and comprehension. Additionally, two Words Their Way, third Edition (Bear, 2004) spelling inventories were given in Sessions 1 and 10 to identify DC's strengths and struggles with different spelling patterns. Words Their Way is an informal spelling assessment generally used to assess the word knowledge that students bring to their reading and spelling. During Sessions 2 through 9, the student's oral reading fluency was tested three times daily to find his correct words read per minute (CWPM) rate using a Reading A-Z fluency passage (Reading A-Z, 2013) that was at his instructional reading level. During Session 1, the student's oral reading fluency was tested twice, and during Session 10, his oral reading fluency was tested using these fluency passages once more.

### **Student Description**

DC is an upcoming fifth grade student that has Attention Deficit Hyperactivity Disorder (ADHD). DC has attended the Midwestern public charter school in which the interventions occurred for two years. Prior to this school, he attended a public school in the same Midwestern

city since prekindergarten. In December 2009, when DC was in the first grade, he was evaluated and accepted for special education services under the label of Other Health Impairments (OHI) due to how his ADHD negatively affected his academic performance. During his initial evaluation, he was reported as becoming “explosive” and reacting “violently when he becomes angry.” His classroom teacher reported that he completed little work independently, that he had a very difficult time staying on task, and that he struggled to focus on his school work. It was determined that his inability to control his emotions and to react appropriately when angered severely impacted his ability to be successful in his general education classroom. Therefore, he was given special education services, which included 30 minutes of specialized instruction in reading per day. In September 2012, an IEP meeting was held that resulted in the exit of DC from special education. This decision was based on DC making considerable growth in all academic areas.

On the fourth grade WKCE taken in the fall of 2012, DC scored a Minimal in the area of reading. DC took the Measures of Academic Progress (MAP; Northwest Evaluation Association, 2011) three times in fourth grade, which resulted in reading scores of 195, 188, and 211. This means at the end of fourth grade, he scored above the national average of 206.7 for fourth graders in the spring for reading (NWEA, 2013).

DC’s previous special education teacher reported that she continued to work with DC during the fourth grade in his reading class (E. Mazza, personal communication, June 12, 2013). She said that despite his test scores, in class he struggled in reading and worked in her reading group. She believed that if he had not worked as extensively as he did with her that year, he would not have made as much growth as he made in reading. She said that reading was his

relative weakness and that reading was the subject area in which he needed the most support. Specifically, she said that he struggles with oral reading fluency and reading comprehension.

DC's previous special education teacher suggested that due to his ADHD, he should be provided with a clear structure and routine, should be given choices, and should be offered breaks. She said that DC learns best in a setting that is structured and in which the teacher understands how to respond to his impulsive behavior. He also benefits from repetition in what he is learning. She said that DC tends to do the minimum when writing. Furthermore, she informed me that DC loves superheroes.

Through my own observations, I have learned that DC is not yet reading at a rate that upcoming fifth grade students should be reading. He reads very slowly and in a choppy manner when he first reads a passage. However, after practice with the passage, his fluency greatly improves. DC also appears to struggle with comprehension. As he focuses on reading the words, he does not focus so much on understanding them. DC loses focus one to five times per intervention session. However, he is easily redirected to the task.

After communicating with DC's previous special education teacher, reading through his cumulative folder, educating myself on the current research regarding ADHD and fluency interventions, administering various pre-tests, and meeting DC, I developed an intervention that I believed would greatly benefit DC's oral reading fluency. In the next section, an explanation of the tests and materials used will be presented.

### **Tests and Materials**

Data was collected during every session of this case study. In Sessions 1 and 10 the Qualitative Reading Inventory (QRI), fifth Edition (Caldwell, 2011) and the Words Their Way,

third Edition (Bear, 2004) spelling inventories were used as pre- and post-test assessments. During Sessions 2 through 9, the student's oral reading fluency was tested three times daily to find his correct words read per minute (CWPM) rate using a Reading A-Z fluency passage (Reading A-Z, 2013) that was at his instructional reading level. During Session 1, the student's oral reading fluency was tested twice, and during Session 10, it was tested using these fluency passages once more.

### **Qualitative Reading Inventory**

The Qualitative Reading Inventory (QRI), fifth Edition (Caldwell, 2010) was used to assess DC's word identification skills, fluency, and comprehension. The QRI-5 was used as an informal reading assessment to identify DC's instructional reading level by measuring his word identification skills, fluency, and comprehension. The first step in the QRI-5 was to give DC student word lists for him to read. The list that resulted in DC reading words at a level that correlated with his "instructional level" of reading was the point at which we stopped reading from the word lists. This instructional level was then used to choose a fictional passage to read that would give a more detailed view of DC's word identification skills, fluency, and comprehension. Based on DC's performance on this passage, more passages would be read if necessary in order to find his final, true instructional reading level. His final instructional reading level would later be used to choose what level of Reading A-Z fluency passages he would read.

### **Words Their Way**

Two Words Their Way, third Edition (Bear, 2004) spelling inventories were given to identify DC's strengths and struggles with different spelling patterns. The spelling inventories

included a “Primary Spelling Inventory” and an “Elementary Spelling Inventory.” For each spelling inventory, I read a series of 26 and 25 words, respectively, that DC had to write down. For each word, I read the word, said it in a provided sentence, and read the word again. By looking at how DC spelled each word, I was able to use a provided chart that indicated different spelling patterns in the words that he either correctly spelled or incorrectly spelled. The spelling patterns that he incorrectly spelled would later be used to determine what spelling patterns we would practice in our reading and writing interventions.

### **Reading A-Z**

The fluency passages that DC read daily were taken from Reading A-Z (Reading A-Z, 2013). Reading A-Z has a correlation chart that tells what levels, in the form of letters (e.g. Level W), correlate with different grade levels. Each grade level correlates to more than one Reading A-Z level/letter, as students are expected to improve in their reading over each school year. I used the instructional reading level from the QRI-5 assessment to determine what levels of fluency passages DC would read on Reading A-Z. Then, I searched within the available passages for texts that usually included four or more words that contained the spelling pattern of interest for the day. During each of our daily assessments, DC was timed while he read the entire fluency passage. I kept track of his errors by writing on my own separate copy of the fluency passage. I wrote his pronunciation of misspelled words above the word, circled words that I needed to provide to him after he struggled with them for three seconds, wrote extra words/letters that he said, and circled parts of words that he did not pronounce; each of these was an indication of an error. I also made note of words or phrases that DC read more than once (as he often would re-read parts that he had read) by underlining the word/s, but these were not counted as errors. I subtracted the number of errors from the total number of words (provided at

the bottom of the page by Reading A-Z) to find the total correct words that DC had read. Then, I divided this number by the total number of minutes, found by dividing the number of seconds he read by 60, to the tenths place that he had read. This resulted in a rate of correct words per minute (CWPM) for the reading fluency passage.

### **Writing Materials**

Each day, I focused on a different spelling pattern that DC had struggled with in his Words Their Way spelling inventories. I made a page with the spelling pattern written at the top and words with this spelling pattern from the fluency passage below. I also made a page with a picture of a superhero and lines below for DC to write a story on using words with the spelling pattern of interest.

### **Overview of Procedures**

An overview and justification of the procedures used during this case study is described in this section. After a review of research regarding students with ADHD, academic interventions, fluency interventions, and writing interventions, procedures were developed which focused on improving DC's oral reading fluency. Oral reading fluency is a key indicator of a student's reading comprehension (Wise, Sevcik, Morris, Lovett, Wolf, Kuhn, Meisinger, & Schwanenflugel, 2010). Due to DC's struggle with oral reading fluency, as discerned via a conversation with his previous special education teacher (E. Mazza, personal communication, June 12, 2013), I decided to design an intervention that would focus on improving his oral reading fluency. I figured that this intervention may have a two-fold effect; not only would it aim to improve his reading fluency, but it may also concurrently help to improve his reading comprehension.



Willcutt, Betjemann, Pennington, Olson, DeFries, and Wadsworth (2007) found that students with ADHD are at an elevated risk for reading disability and reading failure. As a result, effective literacy interventions need to be designed, implemented, and assessed for students with ADHD. DuPaul, Jitendra, Volpe, Tresco, Lutz, Vile Junod, Cleary, Flammer, and Mannella (2006) found that academic interventions can result in significant, positive growth for students with ADHD. Some of their academic interventions involved repeated readings, listening passage preview, collaborative strategic reading, and group story mapping. Meanwhile, Swain, Leader-Janssen, and Conley (2013) conducted a study in which they evaluated different fluency interventions and concluded that practitioners should choose particular fluency interventions based on their fit with the student and the feasibility of implementation. Furthermore, Morra and Tracey (2006) found that using multiple types of fluency interventions may be beneficial in improving a student's oral reading fluency.

With such research in mind, I decided to design an intervention that would target improving DC's oral reading fluency through the use of multiple types of fluency interventions. However, rather than just using multiple types of reading interventions to improve his oral reading fluency, like Morra and Tracey (2006), I decided to also include a writing intervention. Graham and Hebert (2011) found that having an elementary age student practice writing should improve their reading. Santoro, Coyne, and Simmons (2006) implemented a beginning spelling intervention for children at risk of reading disability; they found that by integrating phonemic awareness and alphabetic understanding into their spelling intervention, children's ability to read words would be improved. Therefore, I decided to make each of my sessions (besides the pre-assessment and post-assessment sessions) include interventions in multiple types of oral reading fluency interventions and a spelling pattern writing intervention. More specifically, each of my

intervention sessions included a component of either choral reading or echo reading as well as a writing activity that focused on a specific spelling pattern; I linked all of these activities during individual sessions by focusing on my one spelling pattern in both the reading and writing activities. To make the intervention more appealing and exciting for DC, I consistently used pictures and conversations about superheroes as a starting point for his writing activities.

Morgan, Sideridis, and Hua (2012) looked at the effectiveness of fluency interventions immediately and over time and found that goal-setting was the most effective strategy in the short-term and long-term for improving oral reading fluency. To track daily progress as well as to involve goal-setting, I assessed DC's oral reading fluency at the beginning and end of every session. In the next section, an overview of daily procedures involved in this case study will be given.

### **Overview of Daily Procedures**

This section will give an overview of the daily procedures that occurred over the 10 sessions. In the first session, I began by having an informal discussion with DC about his interests and what we would be doing over the next few weeks. Then, I administered the QRI-5 to DC, which resulted in finding that he was at a fourth grade instructional reading level. I then administered the two Words Their Way spelling inventories. Following this session, I found that a fourth grade instructional reading level correlated with Levels U, V, and W on the Reading A-Z fluency passages. From the Words Their Way spelling inventories, I discovered that some of the spelling patterns DC struggled with included the "ch" digraph, the "dr" blend, the vowel-consonant-e" long vowel pattern, the "-ed," and "-er" suffices, the "ed" inflected word ending,

and the “-ure,” “-ate,” and “-ent” suffices. Each of these spelling patterns was used in the eight following sessions for the reading and writing interventions.

For Session 2, I found a Reading A-Z fluency passage that contained four or more words with the spelling pattern of interest – the “ch” digraph. I made a Word document that had the spelling pattern (“ch”) written at the top, and I listed the words from the Reading A-Z fluency passage that had this spelling pattern below (e.g. children, each). I also found a superhero, “The Human Torch,” to focus our writing lesson on. I did a search on the internet to find some basic information about this superhero so that I would have something to talk about with DC prior to writing a story about the superhero. Finally, I prepared a document for DC to work on that contained a picture of “The Human Torch” at the top and blank lines below, which was accompanied by another page of pictures of “The Human Torch”. Session 2 began with me timing DC and tracking his errors as he read a fluency passage that contained four or more words with the “ch” digraph. I showed DC his CWPM for this passage and asked him to make a goal to reach by the end of the session. This took about five minutes. Then, I presented the document with the spelling pattern and example words to DC. I discussed the spelling pattern with him and asked him to help me brainstorm other words with the spelling pattern. This took about five minutes. Next, I spent 20 minutes modeling and choral reading the fluency passage he had read earlier with him. We first discussed what reading fluently meant. Then, I began by modeling reading the passage in a fluent manner. Following this, DC and I choral read the fluency passage together two times. The next activity was the writing activity. I presented DC with pictures of the superhero, “The Human Torch,” and we discussed the superhero’s backstory. Then, DC wrote a story about this superhero trying to use as many “ch” words from the list we had made as possible. Once he was done, I had him read his story to me in its complete state. The writing

activity took about 20 minutes. Next, I had DC practice reading the entire fluency passage to me, while I supplied him with words he struggled with. Finally, I timed DC reading the fluency passage while I tracked his errors. We then compared his beginning of class fluency rate to his end of class fluency rate and commented on whether he had met his goal. This final reading activity took about 10 minutes.

Sessions 3 through 9 followed the same procedure as Session 2, except they included one more activity at the beginning of the session, and the amount of time spent on the reading and writing activities was decreased. The additional activity consisted of DC beginning the session by first practicing reading the previous day's fluency passage with my support as needed; then, DC read the fluency passage again as I timed and tracked his correct words per minute (CWPM). I included this extra step so that I could track DC's retention of oral reading fluency from the previous day's session. This additional step took five to 10 minutes to complete. Due to this extra time, I took 15-20 minutes for both the reading fluency (i.e. choral reading or echo reading) activity and for the writing activity instead of 20 minutes for each. For Sessions 2 to 5, the reading intervention that I conducted consisted of choral reading following me modeling reading the fluency passage. For Sessions 6 through 9, the reading intervention that I conducted consisted of echo reading following me modeling reading the fluency passage.

Session 10 began with DC practicing reading the fluency passage from the day before. Then, I timed DC as he read the passage and tracked his errors. Next, I administered the QRI-5, followed by the two Words Their Way spelling inventories. Finally, I had a conversation with DC about how much progress I'd seen in his oral reading fluency over the course of the three weeks of interventions.

Once all of the data had been gathered from the pre-test and post-test assessments as well as from the progress made during each session and the retention of progress between one session and the next session, the data was analyzed. I found the mean average of the daily fluency progress and the mean average of the retention of progress between sessions. I used this information to support the effectiveness of my case study's interventions.

### **Conclusion**

This chapter detailed the methods and procedures used throughout the present case study. In the Methodology section, the setting, sample population, and data collection were described. The second section provided a description of DC, focusing on his academic experiences related to literacy. The third section discussed an overview of the tests and materials used in the case study's procedures. The fourth section gave an overview of the procedures used in the case study. Finally, the last section gave a detailed view of what occurred over the 10, one-hour intervention sessions.

In the following chapter, Chapter Four: Results, samples of student work as well as DC's assessment results will be presented. The assessment results that will be presented include pre-test and post-test QRI-5 results, pre-test and post-test Words Their Way spelling inventory results, and daily Reading A-Z fluency passage results.

## CHAPTER FOUR: RESULTS

The purpose of this study was to examine the effect of repeated reading interventions and spelling pattern writing interventions on the reading fluency of a struggling reader with Attention Deficit Hyperactivity Disorder (ADHD). The data in this chapter were collected over a three-week period of 10, one-hour intervention sessions with an upcoming fifth grade student. This chapter has five sections. The first section presents results from the Qualitative Reading Inventory – Five (QRI-5) pre-test and post-test assessments. The second section presents the pre-test and post-test information given by the Words Their Way spelling inventories that were administered to the student. In the third section, the daily Reading A-Z fluency passage results are displayed. The fourth section presents findings from the daily writing activities that the student completed. Finally, the fifth section presents the overall findings of the case study.

### Qualitative Reading Inventory

During the first and the last intervention sessions, the Qualitative Reading Inventory – Five (QRI-5; Caldwell, 2010) was administered to DC. The QRI-5 is an informal reading assessment that was used to measure DC's word identification skills, fluency, and comprehension. This assessment was important to this case study as it yielded DC's instructional reading level from which instruction would be based. It also would be used as a comparison to see if DC had improved in word identification skills, fluency, or comprehension over the course of the intervention sessions.

In Session 1, DC was administered the QRI-5 as a pre-test. The first portion of the test involved a word identification task in which DC read words from leveled lists. The Pre-Primer 1 word list contained 17 words, while each of the following word lists contained 20 words. Once

DC read 14-17 words correctly in a list, I was able to find his instructional reading level at which he would start reading QRI-5 passages. DC read 17 words correctly at the second grade level, while he only read 9 words correctly at the third grade level. Therefore, according to the word lists, DC needed to start reading QRI-5 passages during the next portion of the test that were at the second grade instructional reading level.

From the QRI-5 level 2 passage, it was discerned that DC read second grade text independently for accuracy and comprehension. He read 77 correct words per minute (CWPM) for the second grade passage. Because I was looking for DC's instructional reading level, I tested him using a QRI-5 level 3 passage. This third grade passage resulted in DC reading independently for acceptability and comprehension. Acceptability means that of the errors in DC's reading, there were certain errors that did not change the word meaning, so he read the passage in an acceptable manner. He read 61 CWPM for the third grade passage. As I still had not found DC's instructional reading level, I had him read a level 4 passage. From this passage, it was determined that DC read fourth grade level text at an instructional level for accuracy and comprehension. He read 43 CWPM for the fourth grade passage.

In Session 10, DC was administered the QRI-5 as a post-test. From the word identification task, it was determined that DC again read the second grade words at an instructional level. With the knowledge of DC's previous performance during the pre-test of the QRI-5, I did not spend time on him reading the Level 2 passage, as I knew it would not be at his instructional level. Rather, I began by having him read a Level 3 passage. On this passage, he read at the instructional level for accuracy, but he answered the comprehension questions at an independent level. He read the third grade level text at 52 CWPM. I had DC read a Level 4 passage from the QRI-5. From this passage, I found that DC reads fourth grade level text at an

instructional level for accuracy and comprehension. He read the fourth grade level text at 53 CWPM.

When comparing DC's performance on the pre-test and post-test of the QRI-5 for the fourth grade level passages, he improved from reading 43 CWPM to 53 CWPM. However, his level of accuracy and comprehension remained very similar for both assessments.

### **Words Their Way**

Two Words Their Way, third Edition (Bear, 2004) spelling inventories were given as pre-tests and post-tests in Sessions 1 and 10 to identify DC's strengths and struggles with different spelling patterns. Words Their Way is an informal spelling assessment generally used to assess the word knowledge that students bring to their reading and spelling. The two spelling inventories that were administered to DC included the "Primary Spelling Inventory" and the "Elementary Spelling Inventory."

On the Primary Spelling Inventory pre-test, DC spelled 10 of 26 words correctly and spelled 42 of 56 feature points correctly. Feature points are awarded for each spelling pattern of interest that is spelled correctly. On the Primary Spelling Inventory post-test, DC spelled 17 of 26 words correctly and spelled 49 of 56 feature points correctly. The feature points that DC gained between the Primary Spelling Inventory pre-test and post-test included the "ch" digraph, the "dr" and "bl" blends, the "oa" and "i-e" long vowel patterns, the "ir" vowel pattern, and the "ed" and "ies" inflected endings. On the pre-test, DC spelled the "es" inflected ending correctly, but he spelled the same word incorrectly in the post-test. The Primary Spelling Inventory post-test is presented in Appendix A.



On the Elementary Spelling Inventory pre-test, DC spelled eight of 25 words correctly and spelled 28 of 53 feature points correctly. On the Elementary Spelling Inventory post-test, DC spelled 11 of 25 words correctly and spelled 31 of 53 feature points correctly. The feature points that DC gained between the Elementary Spelling Inventory pre-test and post-test included the “er” word ending, the “le” unaccented final syllable, and the “-ed” suffix. The Elementary Spelling Inventory post-test is presented in Appendix B.

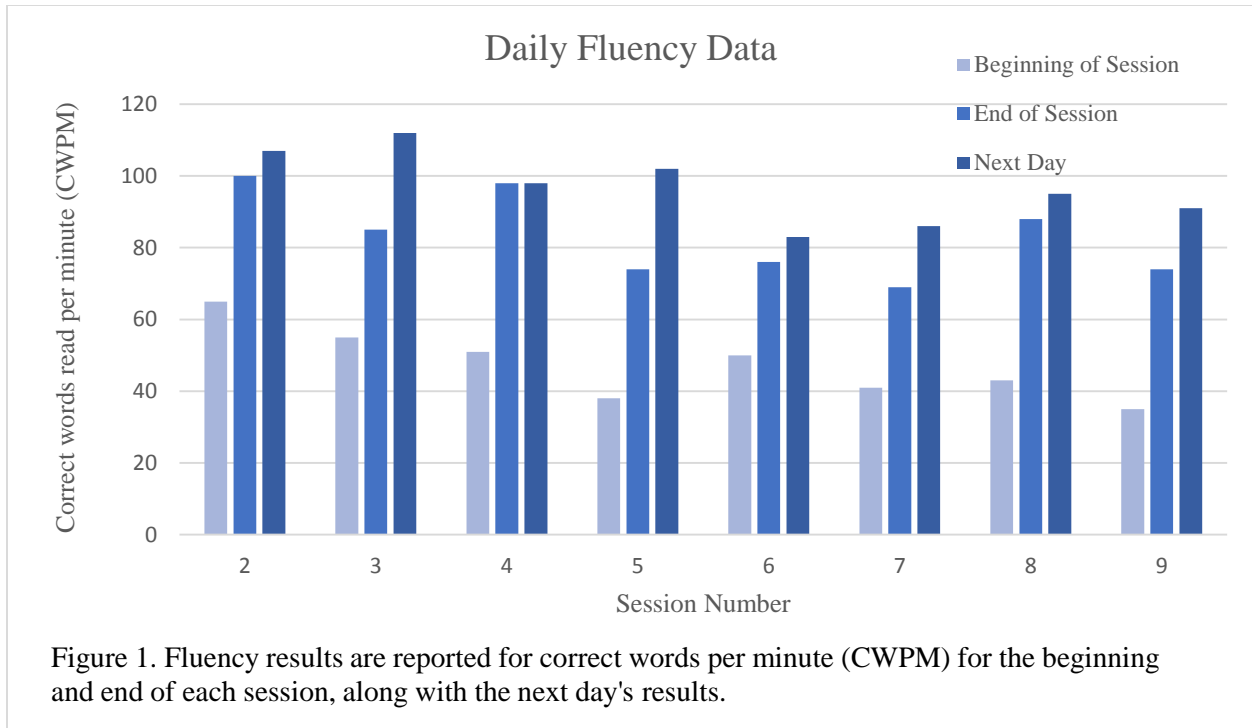
The spelling inventories were used throughout the intervention sessions to plan what spelling patterns would be focused on. The spelling patterns that were focused on in the intervention sessions included the “ch” digraph, the “-ed” suffix, the “er” word ending, the “dr” blend, the “-ure” suffix, the “-ent” suffix, the “v-c-e” long vowel pattern, and the “-ate” suffix. From the Primary and Elementary Spelling Inventory pre-tests and post-tests, we can see which spelling patterns that we focused on carried over to improvement on the spelling inventory tests. According to the tests, of the eight spelling patterns we focused on, DC improved on spelling words with the “ch” digraph, the “-ed” suffix, the “er” word ending, the “dr” blend, and the “i-e” long vowel pattern. This indicates that DC learned 62.5% of the spelling patterns that we practiced in our intervention sessions.

### **Reading A-Z**

The fluency passages that DC read daily were taken from Reading A-Z (Reading A-Z, 2013). I used the instructional reading level from the QRI-5 assessment to determine what levels of fluency passages DC would read on Reading A-Z. Because DC read at a fourth grade instructional reading level on the QRI-5 assessment, I chose fluency passages that were at a

fourth grade level for our interventions. The Level U, Level V, and Level W passages correlated with a fourth grade reading level, so I used these levels of passages daily with DC.

I assessed DC's reading fluency at various times throughout each day's session. Each day, we focused on a new spelling pattern that was present in a new fluency passage. For each session, I measured DC's correct words per minute (CWPM) for the fluency passage at the beginning of the session, at the end of the session, and at the beginning of the next day's session. This helped me to assess how much fluency progress DC made within one hour-long session and whether his fluency progress was maintained until the next session. DC improved every day, in the fluency assessments pertaining to Sessions 2 through 9, between the beginning of the session and the end of the session. He also improved every day between the end of the day's session and the next day's session, except for one occurrence – Session 4 – where he read the fluency passage with the same fluency rate at the end of the day's session and the beginning of the next day's session. An example of a fluency passage that was used at the end of Session 2 is presented in Appendix C. The daily results for Sessions 2 through 9 are presented in Figure 1 below.



In calculating DC's CWPM during each fluency passage reading, I kept track of how many errors he made while reading. I wrote his pronunciation of misspelled words above the word, circled words that I needed to provide to him after he struggled with them for three seconds, wrote extra words/letters that he said, and circled parts of words that he did not pronounce; each of these was an indication of an error. In so doing, I kept track of how many errors he made in his initial reading of the fluency passage at the beginning of the session, how many errors he made in his reading of the fluency passage at the end of the session, and how many errors he made in his reading of the same fluency passage at the beginning of the next day's session. The results of these findings are displayed in Figure 2. As the graph shows, every day DC decreased the number of errors he made while reading each passage between the beginning of the session and the end of the session. He also decreased the number of errors he made each day while reading each passage between the beginning of the session and the beginning of the next day's session. On average, DC made 18.6 errors while reading at the

beginning of the session, 3.9 errors while reading at the end of the session, and 2.3 errors while reading the same fluency passage the next day. These numbers indicate a downward trend in number of errors he made while reading the same fluency passage.

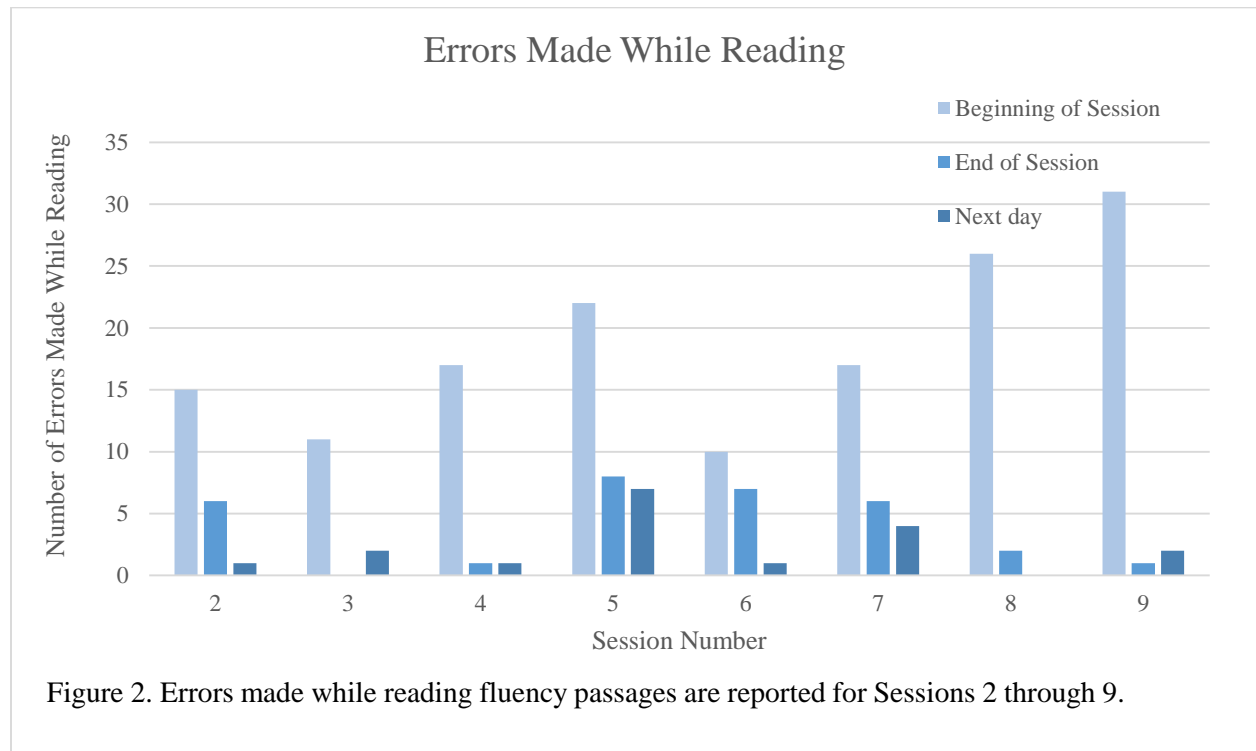


Figure 2. Errors made while reading fluency passages are reported for Sessions 2 through 9.

The mean average fluency rate at the beginning of each session, end of each session, and the beginning of the next day’s session is presented in CWPM in Table 1 below, along with the standard deviation from the mean. Standard deviation tells, on average, how far scores were from the mean average. The values were calculated using the results from Sessions 2 through 9 for the eight fluency passages that were read over the eight intervention sessions. From these results, we find an overall improvement of 35.7 CWPM on average between the beginning and end of each session as well as a 13.8 CWPM increase on average between the end of the session and the next day’s assessment.

Table 1

Reading Fluency: Combined Intervention Scores

	<b>Beginning of Session</b>	<b>End of Session</b>	<b>Next Day</b>
<b>Mean average (CWPM)</b>	47.3	83.0	96.8
<b>Standard Deviation (CWPM)</b>	9.9	11.6	10.1

The mean average fluency rate, along with the standard deviation, at the beginning of each session, end of each session, and the beginning of the next day’s session is presented in CWPM in Table 2 below for Sessions 2 through 5. During Sessions 2 through 5, the reading fluency intervention used was that of choral reading.

Table 2

Reading Fluency: Choral Reading Intervention Scores

	<b>Beginning of Session</b>	<b>End of Session</b>	<b>Next Day</b>
<b>Mean average (CWPM)</b>	52.3	89.3	104.8
<b>Standard Deviation (CWPM)</b>	11.2	12.1	6.1

The mean average fluency rate, along with the standard deviation, at the beginning of each session, end of each session, and the beginning of the next day’s session is presented in CWPM in Table 3 below for Sessions 6 through 9. During Sessions 6 through 9, the reading fluency intervention used was that of echo reading.

Table 3

## Reading Fluency: Echo Reading Intervention Scores

	<b>Beginning of Session</b>	<b>End of Session</b>	<b>Next Day</b>
<b>Mean average (CWPM)</b>	42.3	76.8	88.8
<b>Standard Deviation (CWPM)</b>	6.2	8.1	5.3

The mean average fluency rates, along with the standard deviations, at the beginning of each session, end of each session, and the beginning of the next day's session are shown side by side in Table 4 below for Sessions 2 through 9 for both the choral reading and echo reading interventions. There was, on average, a 37 CWPM increase between the beginning and end of the session when the choral reading intervention was used, while there was a 34.5 CWPM improvement, on average, between the beginning and end of the session when the echo reading intervention was used. A two-tail dependent t-test was run to determine if there was a significant difference between the improvement made across each session (i.e. between the beginning and the end of each session) during the choral reading interventions and the echo reading interventions. Based on the results, with a p-value of 0.39, we can conclude that there was not a significant difference between the mean differences (i.e. end of session CWPM – beginning of session CWPM) at a  $p < 0.05$  level of significance.

Table 4

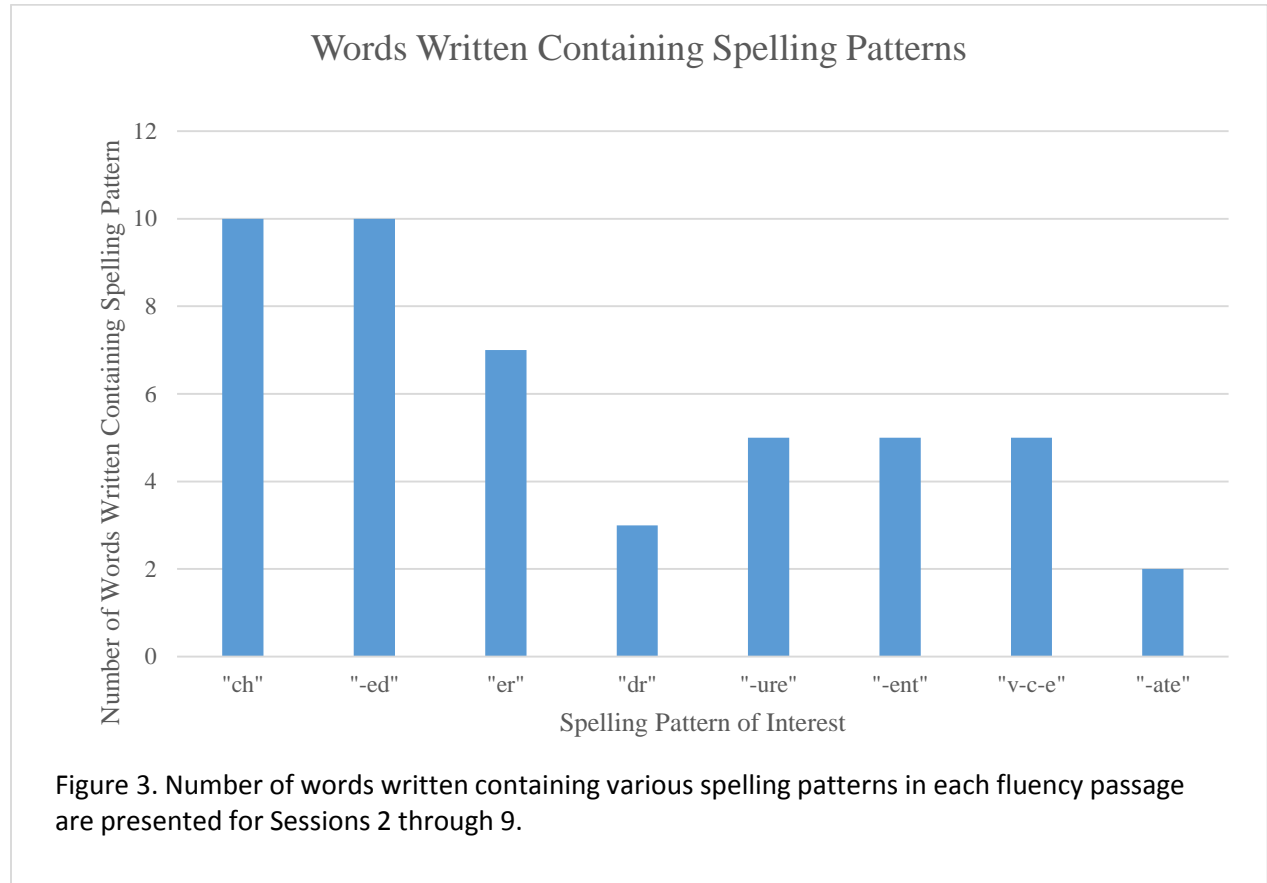
Reading Fluency: Choral Reading and Echo Reading Intervention Scores

	<b>Beginning of Session</b>		<b>End of Session</b>		<b>Next Day</b>	
	Choral	Echo	Choral	Echo	Choral	Echo
<b>Mean average (CWPM)</b>	52.3	42.3	89.3	76.8	104.8	88.8
<b>Standard Deviation (CWPM)</b>	11.2	6.2	12.1	8.1	6.1	5.3

### Writing Samples

During Sessions 2 through 9, towards the beginning of the intervention session, a spelling pattern was introduced to DC, a few words from the session’s fluency passage were presented, and new words using the spelling pattern of interest were brainstormed. Later on during each of Sessions 2 through 9, a writing activity occurred in which the student and I discussed a superhero. Then, the student wrote a story about the superhero using words with the spelling pattern of interest. An example of the paper that was used to present words and to brainstorm words using the spelling pattern of interest is presented in Appendix D; the particular example shown is from Session 2. An example of a story DC wrote about the superhero “The Human Torch” using the “ch” digraph during Session 2 is presented in Appendix E. The amount of writing that DC did each day varied by the amount of time we had for the writing activity, the student’s interest in the superhero, and the familiarity the student had with the spelling pattern of interest. Some spelling patterns and superheroes were easier to write about than others. Each day, the student wrote five to 10 sentences about the superhero we discussed, using words with the spelling pattern of interest. The amount of words that actually included the spelling pattern

of interest were counted each day and are presented in Figure 3 below. There was a range of two to 10 words in his stories that contained the spelling pattern of interest.



### Overall Results

The overall results demonstrate improved reading fluency over the time of the intervention sessions. From the QRI-5 results, we see a 10 CWPM improvement on the fourth grade level reading passages from the pre-test to the post-test. Nonetheless, the level of comprehension and accuracy did not change much between the pre-test and post-test assessments. From the daily intervention fluency results, we see that, on average, DC improved 32.7 CWPM between the beginning of each session and the end of each session while reading the same fluency passage. On average, DC improved 49.5 CWPM between the beginning of



each session and the beginning of the next day's session, which indicates that DC maintained his progress – and actually even progressed more – between one session and the next session while reading the same fluency passage. From the errors tracked during DC's daily fluency passage readings, a trend is seen where DC decreased the number of errors he made while reading the same passage between the beginning and end of each session from 18.3 errors to 3.9 errors on average. Furthermore, on average, he decreased the number of errors he made while reading the same fluency passage from 3.9 to 2.3 errors between the end of each session and the next day's reading of the passage. From the Words Their Way spelling inventories, we can see that DC learned 62.5% of the spelling patterns that were taught to him during his intervention sessions. From all of these combined results, we see an improvement in oral reading fluency with individual fluency passages over each session as indicated by Reading A-Z fluency passage results, an improvement overall in fluency rate as indicated by the QRI-5 pre-test and post-test, and an improvement in spelling patterns as indicated by the Words Their Way spelling inventories.

### **Conclusion**

This chapter presented the results found during the 10 intervention sessions that occurred with DC. The first section presented results from the QRI-5 pre-test and post-test assessments. The second section presented the information gathered from the pre-test and post-test assessments of the Words Their Way spelling inventories. The third section displayed the daily fluency data from the Reading A-Z fluency passages that were used. The fourth section displayed data from the spelling pattern writing activities that occurred daily. Finally, the fifth section presented the overall findings of the case study. The results presented in this section provide support for the fluency intervention conducted with the student of interest.

In the next chapter, there will be a discussion of these results. The discussion will include connections between this study and existing research, connections to Common Core State Standards, explanations for the data findings, strengths and limitations in the case study, and recommendations for future instruction with the target student.

## **CHAPTER FIVE: DISCUSSION**

This case study examined improving reading fluency in a struggling reader with ADHD through repeated reading interventions and spelling pattern writing interventions. Data was collected over 10 intervention sessions. The data presented in Chapter Four from the Qualitative Reading Inventory – Five, Words Their Way spelling inventories, and daily fluency assessments support the improvement of reading fluency through repeated reading interventions and spelling pattern writing interventions for a struggling fifth grade reader with ADHD. This chapter will present an analysis of the findings and provide a discussion of the results. This chapter contains two sections. The first section provides a discussion of the results. The second section presents implications of the case study for the student of interest, as well as potential future research that could be conducted to further our understanding of improving reading fluency with struggling readers with ADHD.

### **Discussion**

In this first section, the results from Chapter Four will be analyzed and discussed. Furthermore, the findings from this case study will be tied in with the research explored in the literature review in Chapter Two. This case study will be tied back to the research discussed in Chapter Two in order to explore the similarities and differences regarding fluency interventions and students with ADHD between the studies. Then, the strengths and limitations of this study will be discussed in order to provide suggestions for future research studies.

## **Explanation of Results**

The results of the Qualitative Reading Inventory – Five pre-test and post-test indicate a 10 correct word per minute (CWPM) improvement on the fourth grade level reading passages from the pre-test to the post-test. On the pre-test, DC read 43 CWPM, and on the post-test, DC read 53 CWPM for the fourth grade level passages, which were determined to be at his instructional reading level. According to the QRI-5, normal readers reading at their instructional fourth grade reading level should read 54-112 CWPM (Caldwell, JoAnne, & Leslie, Lauren, 2011). DC increased his oral correct reading rate by 10 CWPM, which is a 23% increase from his original oral correct reading rate. Over the time that the intervention sessions were conducted, DC closed the gap between his oral correct reading rate and the normal oral correct reading rate for students with a fourth grade instructional reading level so that he was only 1 CWPM short of the lowest number in the normal range by the end of the interventions sessions. This is a significant increase, but it is also only displaying DC's improvement as indicated by him reading one fourth grade QRI-5 passage during Session 1 and one fourth grade QRI-5 passage during Session 10. Inherently these two passages contained different words and may not have been the perfect indication of his oral reading rate. The QRI-5 post-test resulted in comprehension and accuracy levels that were very similar, suggesting that DC did not indicate improved comprehension or accuracy on this assessment. As the purpose of this study was primarily to focus on improving DC's oral reading fluency rate, this is not surprising. We did not spend much time during our intervention sessions discussing passage comprehension. The fact that his accuracy remained at about the same level is not surprising, as DC often makes many mistakes the first time that he reads a passage and subsequently improves after practicing the passage. Since he only read each passage one time and did so without guidance, and since

the passages did not necessarily focus on the spelling patterns that we had been practicing, it is understandable that his accuracy did not change much from the pre-test to the post-test.

The results from the Words Their Way pre-test and post-test spelling inventories indicate that DC learned 62.5% of the spelling patterns that were practiced during the intervention sessions. The spelling patterns that he learned came from earlier stages in spelling development, while the ones that he apparently did not learn came from more advanced stages in spelling development. This suggests that DC is not at an advanced stage in spelling yet. The fact that five of eight spelling patterns appeared to have been learned indicates that our writing and/or reading interventions were effective in improving DC's spelling. However, it is unclear whether such writing interventions contributed to improving his oral reading fluency.

The results from the Reading A-Z fluency passages show an upward trend in correct words read per minute (CWPM) and a downward trend in number of errors made while reading the same passage over three assessments held at the beginning of each session, at the end of each session, and the following day. On average, there was a 35.7 CWPM improvement between the beginning of each session and the end of each session while reading the same fluency passage, and there was a further 13.5 CWPM improvement between the end of each session and the next day's assessment. The fact that DC tended to make improvement even during the next day's assessment is an indication that each time he read the passage, the practice helped him to improve on his fluency rate. On average, DC made 18.6 errors while reading at the beginning of the session, 3.9 errors while reading at the end of the session, and 2.3 errors while reading the same fluency passage the next day. This downward trend in number of errors made also indicates that each time DC read the passage, the practice helped him to improve on his accuracy. From my experiences working with DC, I know that he was very conscientious of

learning how to accurately say words after I had corrected him on his pronunciation. I also know that DC sounded like a different reader by the end of each session. He tended to start off sessions reading in a choppy manner and making many errors, most of which were with mispronouncing words he did not readily recognize. By the end of the sessions, he would only make a few errors and would read with increased expression and rate. His reading at the end of the session would sound markedly more fluid and natural than the manner in which he read at the beginning of the session.

Two types of reading interventions were used with DC over Sessions 2 through 9, either choral reading or echo reading. Based on the results, with a p-value of 0.39, there was not a significant difference between the mean differences (i.e. end of session CWPM – beginning of session CWPM) at a  $p < 0.05$  level of significance. Therefore, there was not a significant difference between the effects of the choral reading interventions and the echo reading interventions on the progress DC made between the beginning and end of each session. Such results indicate that, for DC, both types of reading interventions were effective, and it didn't necessarily matter which one was being used. On one occasion, I asked DC which reading intervention he enjoyed more, and he told me he liked the choral reading intervention better. However, this apparently did not cause the choral reading intervention results to be significantly different from the echo reading intervention results.

From the writing intervention samples, I found that DC tended to struggle more with writing stories using the more advanced spelling patterns that we worked with. This is not surprising, as words with more advanced spelling patterns are often more difficult to use in a sentence and may not be very common words. For example, DC struggled to write a story when we were working on the “-ate” spelling pattern. Meanwhile, he seemed to easily write a story

when we were working on the “ch” spelling pattern, as he was more familiar with words containing the “ch” spelling pattern than words containing the “-ate” spelling pattern. DC’s quantity of writing also tended to vary depending on his mood. DC seemed to have more energy during our writing interventions during the first and third weeks of our interventions. I do not know why he did not seem as engaged during the second week.

### **Connections to Existing Research**

The current study was conducted to examine the effect of repeated reading interventions and spelling pattern writing interventions on the reading fluency of a struggling reader with Attention Deficit Hyperactivity Disorder (ADHD). The decision to use repeated reading interventions and writing interventions to improve DC’s reading fluency was made after discussions with one of DC’s previous special education teachers, a review of DC’s cumulative record, and an extensive review of the literature. DC’s previous special education teacher had informed me that he greatly struggled with reading fluency and comprehension. While the primary purpose of this study was to improve DC’s reading fluency, another hope was that it would also improve his reading comprehension.

Willcutt, Betjemann, Pennington, Olson, DeFries, and Wadsworth (2007) found that students with ADHD are at an elevated risk for reading disability and reading failure. Meanwhile, DuPaul, Jitendra, Volpe, Tresco, Lutz, Vile Junod, Cleary, Flammer, and Mannella (2006) found that academic interventions can result in significant, positive growth for students with ADHD. As a result, I decided to design, implement, and assess the effectiveness of a unique literacy intervention for a student with ADHD. My case study would focus on improving reading fluency for an upcoming fifth grade student with ADHD.

Through a review of the literature, I found that many different fluency interventions existed that were shown to improve reading fluency. From Swain, Leader-Janssen, and Conley (2013), I discovered that practitioners should choose particular fluency interventions based on their fit with the student and the feasibility of implementation. From Morra and Tracey (2006), I found that using multiple types of fluency interventions may be beneficial in improving a student's oral reading fluency.

With such research in mind, I decided to design an intervention that would aim to improve DC's oral reading fluency through the use of multiple types of fluency interventions. Graham and Hebert (2011) found that having an elementary age student practice writing should improve their reading. Meanwhile, Santoro, Coyne, and Simmons (2006) implemented a beginning spelling intervention for children at risk of reading disability and found that by integrating phonemic awareness and alphabetic understanding into their spelling intervention, children's ability to read words would be improved. Therefore, I decided that I would not just include multiple types of fluency interventions in my methods but also a spelling intervention as well. More specifically, each of my intervention sessions would include a component of either choral reading or echo reading as well as a writing activity that focused on a specific spelling pattern.

After reviewing the data collected as well as the observations that were made, it became apparent that through the use of multiple fluency interventions, the goal of improving DC's reading fluency was obtained. DC improved his reading fluency between the pre-test and post-test on the QRI-5. He also showed improved reading rate and accuracy during his daily fluency interventions on the various readings of the Reading A-Z fluency passages. The interventions also resulted in him improving his understanding of various spelling patterns. Nonetheless, as



measured by the QRI-5 pre- and post-assessments, this case study did not result in markedly improved reading comprehension for DC.

### **Strengths and Limitations of the Current Study**

The current study was designed based on input from DC's previous special education teacher, a review of DC's cumulative record, and an extensive review of the literature on reading fluency interventions, writing interventions, and working with students with ADHD. While the case study contained many strengths, it also contained limitations.

One of the greatest strengths of this case study was that it was designed following an extensive review of the literature. All of the components used to improve DC's literacy were research-based. Another strength was that the intervention was individualized. Many details that I had discovered about DC prior to meeting him were taken into account in designing the case study. For example, knowing that DC sometimes struggles with impulsive behavior and subsequently remorseful emotions, I let him know that it was okay if he ever needed a break if he became frustrated. Another example is that the writing portion of the intervention session involved writing about superheroes, which are one of DC's greatest interests. Furthermore, the entire intervention was based on DC's needs. I focused the purpose of my study on improving reading fluency because that was what I had been told he needed.

While there were many strengths to this study, there were also limitations. While I tried to align the spelling patterns with the words in the fluency passages that we were using, it was difficult to find passages that repeatedly used words with the same spelling pattern. The fluency passages that I chose usually contained over 200 words, but each passage only contained two to 10 words with the spelling pattern of interest. If I had had access to fluency passages that

focused on certain spelling patterns, I may have been able to establish a stronger correlation between teaching spelling patterns and improving reading fluency. Because this was not so, it is hard to say whether the spelling pattern interventions actually had an impact on DC's reading fluency. Since the spelling pattern interventions occurred in conjunction with the reading interventions, there is no way of measuring the extent to which each type of intervention improved DC's reading fluency. Nonetheless, from my own observations, it did appear as though DC remembered different spelling patterns we had previously learned and used them to help him read new words in the fluency passages. Thus, I do believe that the spelling interventions were beneficial to his reading. While it was not necessarily the intent of the study, the spelling interventions also appeared to improve DC's spelling.

Another limitation of this study was that it only included 10 sessions. Because two of those sessions consisted merely of assessments, I was actually only able to implement my interventions over eight sessions. If the study had occurred over a longer period of time, there may have been an even greater improvement in DC's reading fluency. Additionally, we may have had more than just one day to practice each of the spelling patterns that DC struggled with on his spelling pre-test. Thus, with more time, the impact of the methods of this study may have become greater and perhaps more long-lasting.

### **Implications**

This section describes the implications of this case study for educators, researchers, and DC. It begins with recommendations specifically for DC's educators. Then, it provides ideas for future research surrounding the topic of reading fluency interventions for struggling readers with ADHD.

### **Recommendations for Student**

The current case study was uniquely designed to fit DC's individual needs. Something that DC struggles with greatly in literacy is the component of reading fluency. According to the Common Core State Standards (2012), the standard CCSS.ELA-Literacy.RF.4.4b, as well as the standard CCSS.ELA-Literacy.RF.5.5b, state that fourth and fifth grade students, respectively, should be able to "read grade-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings." These standards were greatly supported by my case study, which aimed to improve DC's oral reading fluency so that he would become closer to reading grade-level text in a fluent manner.

As DC enters fifth grade, he will continue to need to work on his reading fluency. Oral reading fluency is so imperative to success in literacy as it is a key indicator of a student's reading comprehension (Wise, Sevcik, Morris, Lovett, Wolf, Kuhn, Meisinger, & Schwanenflugel, 2010). In order for DC to improve both his reading fluency and comprehension, I suggest that he receive literacy interventions. The literacy interventions should involve repeated reading interventions, such as choral reading or echo reading, to improve DC's reading fluency. Concurrently, there should be a comprehension component, which will help DC to connect the importance of his proper reading fluency to his understanding of the text. From my experiences providing literacy interventions to DC, I know that he makes great progress when he works one-on-one with a teacher and when he practices skills repeatedly. By having DC do repeated readings of a text and stimulating his thought process concerning reading comprehension, his literacy skills – specifically reading fluency and comprehension – should improve. I also suggest including informal and/or formal assessments throughout these

interventions, as it will help both the teacher and DC gauge his progress and maintain motivation.

### **Future Research**

The current study joins the body of research surrounding literacy interventions for struggling readers with ADHD. The study suggests that combining multiple types of reading interventions with a spelling pattern writing intervention can improve a struggling reader with ADHD's oral reading fluency. As alluded to previously, a weakness of this study was that it did not include fluency passages that contained many of the words with the spelling patterns that we were focusing on. It would be insightful if fluency passages could either be found or made for upper elementary age students that focused on certain spelling patterns. Then, a correlation could be determined between a student's spelling pattern intervention and their performance on a fluency passage assessment. Also suggested before, it would be interesting to see the impact that the interventions in this study could have had on the student's oral reading fluency if it had been conducted over a longer period of time. Therefore, for future research, I suggest a longer-term study that uses fluency passages that have a greater focus on words of certain spelling patterns.

### **Conclusions**

This study demonstrates that using repeated reading interventions along with spelling pattern writing interventions can have a positive effect on improving a struggling reader with ADHD's oral reading fluency. The methods used in the study resulted in improvement both over daily fluency intervention sessions as well as over the entire fluency intervention case study. While the impact of the writing interventions as compared to the reading interventions on the student's oral reading fluency remains unclear, it is certain that the student's oral reading fluency

was positively impacted over the course of the case study. The current study, along with existing research, suggest that struggling readers would benefit from literacy interventions that focus on improving oral reading fluency. In the future, additional research that includes multiple types of fluency interventions with students with ADHD would be insightful; particularly, fluency interventions that use fluency passages focusing on particular spelling patterns would be beneficial in order to expand the current case study's findings.

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Appendix A

302

Feature Guide for Primary Spelling Inventory

Directions: Check the features that are present in each student's spelling. In the bottom row, total features used correctly. Check the spelling stage that summarizes the student's development. Begin instruction at that stage with a focus on the types of features where the student missed two or more features in a column.

Student's Name \_\_\_\_\_ Teacher \_\_\_\_\_ Grade 5 Date 7/18/13

SPELLING STAGES→	EMERGENT		LETTER NAME-ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES & AFFIXES	
	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	
Features→	Beginning Consonants	Final Consonants	Short Vowels	Consonant Digraphs	Consonant Blends	Long Vowel Patterns	Other Vowel Patterns	Inflected Endings	Feature Points	Words Spelled Correctly
1. fan	f	n	a							
2. pet	p	t	e							
3. dig	d	g	i							
4. rob	r	b	o							
5. hope	h	p				o-e				
6. wait	w	t				(ai)				
7. gum	g	m	u							
8. sled			e		sl					
9. stick			i		st					
10. shine				sh		i-e				
11. dream					dr	ea				
12. blade					bl	(a-e)				
13. coach				ch		oa				
14. fright					fr	igh				
15. chewing				ch		(ew)	ing			
16. crawl					cr	(aw)				
17. wishes				sh			(es)			
18. thorn				th		or				
19. shouted				sh		ou	ed			
20. spoil					(sp)	oi				
21. growl						ow				
22. third				th		ir				
23. camped							ed			
24. tries							ies			
25. clapping							(pping)			
26. riding							ding			
Cells with 2 or more errors	7 (7)	7 (7)	7 (7)	7 (7)	6 (7)	5 (7)	5 (7)	5 (7)	49 (56)	17 (26)

**SPELLING STAGES:**  
 EARLY  MIDDLE  LATE  
 LETTER NAME-ALPHABETIC  
 WITHIN WORD PATTERN  
 SYLLABLES & AFFIXES  
 DERIVATIONAL RELATIONS

Words Spelled Correctly: 17/26  
 Feature Points: 49/56  
 Total: 66/82

Appendix B

906

Feature Guide for Elementary Spelling Inventory-1

Directions: Check the features that are present in each student's spelling. In the bottom row, total features used correctly. Check the spelling stage that summarizes the student's development. Begin instruction at that stage with a focus on the types of features where the student missed two or more features in a column.

Student's Name _____	Teacher _____	Grade <u>5</u>	Date <u>7/18/13</u>											
SPELLING STAGES →	EMERGENT		LETTER NAME-ALPHABETIC			WITHIN WORD PATTERN			SYLLABLES & AFFIXES			DERIVATIONAL RELATIONS		
	LATE	EARLY	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE	EARLY	MIDDLE	LATE
Features →	Consonants Beginning Final		Short Vowels	Digraphs & Blends	Long-Vowel Patterns	Other Vowel Patterns	Syllable Junctures & Easy Prefixes & Suffixes	Harder Prefixes, Suffixes, & Unaccented Final Syllables	Reduced & Altered Vowels, Bases, Roots, & Derivatives			Feature Points	Words Spelled Correctly	
<b>Late EMERGENT to LETTER NAME-ALPHABETIC</b>														
1. bed	b	d	e											
2. ship		p	i	sh										
3. when		n	e	wh										
4. lump	l		u	(mp)										
<b>WITHIN WORD PATTERN</b>														
5. float				fl	(oa)									
6. train		n		tr	ai									
7. place					a-e									
8. drive		v		dr	i-e									
9. bright					igh									
10. throat					(oa)									
11. spoil						oi								
<b>SYLLABLES &amp; AFFIXES</b>														
12. serving						er	ing							
13. chewed				(ch)		(ew)	ed							
14. carries							(rries)							
15. marched				ch		ar	ed							
16. shower						(ow)	(et)							
17. bottle							(tt)	le						
18. favor								(or)						
19. ripen								en						
20. cellar								(ll)	(ar)					
<b>Middle SYLLABLES &amp; AFFIXES to Middle DERIVATIONAL RELATIONS</b>														
21. pleasure								(ure)	(pleas)					
22. fortunate						or		(ate)	(fortun)					
23. confident								(ent)	(confid)					
24. civilize								(tze)	(civil)					
25. opposition								op	(position)					
<b>Totals →</b>	2 (2)	5 (5)	4 (4)	6 (8)	4 (6)	4 (6)	4 (9)	2 (8)	0 (5)	31 (53)	11 (25)			

**SPELLING STAGES:**  
 EARLY  MIDDLE  LATE  
 LETTER NAME-ALPHABETIC  
 WITHIN WORD PATTERN  
 SYLLABLES & AFFIXES  
 DERIVATIONAL RELATIONS

Words Spelled Correctly: 11/25  
 Feature Points: 31/53  
 Total: 42/78

Appendix C

Day 2

End of class  
7/2/13

**Reading a-z Fluency Passage**

**Level U**

A Project for Kevin

Name \_\_\_\_\_

Word Count: 237

2:18 = 138 second  
= 2.3 min.s

For months, Kevin’s mother had shared stories about her work at the children’s hospital. Each week, she collected books to take to the hospital. Then she wheeled a cart to each room and gave the children books to read. Sometimes she read to them, and sometimes they read to her. “Reading aloud builds confidence,” she explained.

Kevin was not allowed to accompany his mother to the children’s rooms, but he was eager to find a way to help her. “What can I do?” he asked. His mother suggested that he make a poster for his classmates that explained about the hospital’s program. They could help collect books for the children, too.

The next day, Kevin’s teacher allowed him to put up a colorful poster he had made in his classroom. Then he told his friends about his mother’s visits to the hospital. It didn’t take long for his friends to respond. In just a few days, Kevin had collected more than 100 books for the patients at the hospital.

“This is just wonderful,” Kevin’s mother said on the way to the hospital to drop off the books. “I’m delighted to see so many chapter books for the older kids.”

As they pulled up to the entrance to the hospital, a nurse greeted them outside. “Kevin, I want to thank you for your kindness,” she said.

“It was fun,” Kevin said. “I just hope they enjoy the books.”

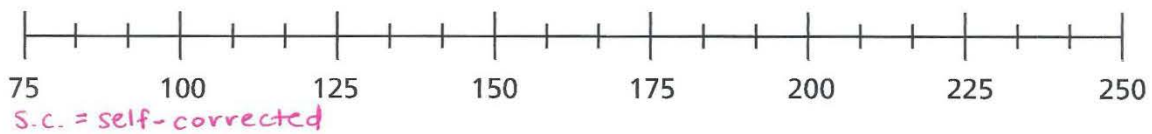
$$237 - 6 = \frac{231 \text{ correct words}}{2.3 \text{ minutes}} = 100 \text{ cwpm}$$

Number of Errors 

1	2	3	4	5	6

 Accuracy (%):

Reading Rate (Words Per Minute):



Appendix D

Day 2

ch

children

each ✓

teacher ✓

chapter

chip

chipp

peacher

peach

cherry ✓

## Appendix E

Day 2

7/2/13

**THE  
HUMAN  
TORCH**

Once upon a time there was a  
weird child <sup>named</sup> Johnny. Each time he  
played he got Hater and Hater.  
His teacher told him to cool  
down. One day he turned cherry red  
and got dizzy. He tripped on  
a peach. He woke up in a chilly  
spacecraft. Then it landed on a  
cherry red planet. He was walking  
around then he found these  
fire chips. He ate the chip and it  
unlocked his fire power. He was  
cheerful.

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Appendix F

SESSION DATE	INSTRUCTIONAL PLAN	SPECIFIC OBSERVATIONS FROM LESSON	CONCERNS/CHANGES WARRANTED
7/1/13	<p>1) Getting to know you conversation</p> <p>2) QRI-5 test administration</p> <p>3) “Words Their Way” spelling inventories (Primary and Elementary)</p>	<p>The student was shy when I first picked him up from his classroom. I acted very enthusiastic while with him, and he started to open up more.</p> <p>1) The student discussed their love for superheroes, especially Spiderman. I told him a little bit about myself, including my hobbies and family. I let him know that if he ever needs to take a break while working with me, he can just let me know and I will understand.</p> <p>2) During the testing, he was very focused, and there were no behavior issues. I used the QRI-5 Examiner Word Lists to determine what passage for him to read – he scored at a second grade instructional reading level, so I started there. He made few errors in the second grade reading passage, so we tried the third grade reading passage. On this passage, he scored at a third grade independent reading level and read 61 correct words per minute</p>	<p>Because the student scored at a fourth grade instructional reading level on the QRI-5, I will choose fluency reading passages from Reading A-Z that correlate with a fourth grade reading level (ie. Levels U, V, W).</p> <p>Because I cannot work on all spelling patterns that the student struggled with on the “Words Their Way” spelling inventories, I will only focus on certain ones. I will provide interventions that include the “ch” digraph, the “dr” blend, the “-ed” suffix, the “er” word ending, and v-c-e long vowel pattern.</p> <p>In order to give the student motivation during our subsequent fluency interventions, I will time him reading his fluency passages both at the beginning and end of every day’s class. On the following day, we will begin by him re-reading the previous session’s fluency passage. If he reads <math>\pm 10</math> CWPM (correct words per</p>

		<p>(CWPM). On the fourth grade reading passage, the student scored at an instructional reading level and read 43 CWPM.</p> <p>3) On the spelling inventories, the student often would start to write words correctly, and then he would erase a letter to write the next correct letter, making the word incorrect. For some words, he recognized that the word of interest was similar to another word he knew and would use that other word to write his word. For short words, he would sound out the entire word and write the letters, but for longer words he often would just write down a few of the letters for the sounds he heard in the word, neglecting to sound out the entire word. Through these spelling inventories, I found that the student struggles with the “ch” digraph at the beginnings of words, the “mp,” “dr,” “bl,” and “sp” blends, the “o-e,” “i-e,” “a-e,” and “oa” long vowel patterns, the “er,” “ir,” “aw,” “ew,” and “ow” vowel patterns, the “ed,” “er,” “tt,” and “ll” suffices, the “rr” syllable juncture, and most of the harder</p>	<p>minute) as compared to the day before, I will begin a new spelling pattern lesson that day. If he does not read <math>\pm 10</math> CWPM as compared to the day before, we will use another fluency passage that focuses on the same spelling pattern as the previous day’s intervention session.</p>
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		<p>prefixes, suffixes, and unaccented final syllables. He struggled with the “ed,” “ies,” and “pping” inflected word endings. He also did not show evidence of knowing reduced and altered vowel patterns, bases, roots, and derivatives.</p>	
<p>7/2/13</p>	<p>1) Read fluency passage (Reading A-Z Level U, “A Project for Kevin”)/time it (5 min)</p> <p>2) Learn “ch” digraph – it can appear at the beginning/middle/end of words, look at words from story with “ch” digraph, brainstorm more words with “ch” digraph (5 min)</p> <p>3) Choral read fluency passage (20 min)</p> <p>4) Look at pictures of the superhero “The Human Torch” and then write sentences and/or a story using words with the “ch” digraph about that superhero (20 min)</p>	<p>When I picked up the student from their classroom, they were very excited to come with me and happily discussed the previous night’s events with me.</p> <p>1) The student was very choppy in his reading of the fluency passage. He read 65 correct words per minute after 15 errors were taken into account. He often left off the ends of words while reading.</p> <p>2) The student was very confident about the “ch” digraph and brainstormed a few words with the “ch” digraph. I pointed out to him that yesterday in his spelling evaluation, when he had words that started with “ch”, he wrote them “cy”.</p> <p>3) It was apparent that the student’s rate and accuracy improved during the choral</p>	<p>Today ran very smoothly, so I plan to continue the same planned procedure tomorrow.</p>

	<p>5) Choral read fluency passage once/ time student reading fluency passage again (10 min)</p>	<p>reading activity. After I discussed the correct pronunciation and meaning of words like “accompany” and “patients,” he did not struggle with those words anymore.</p> <p>4) The student was very excited about the superhero writing activity. I told him that I wanted us to write 10 sentences, with each sentence including a word with “ch”. He was extremely enthusiastic about doing this. He wrote a story that contained 11 sentences, 10 of which contained words with “ch”. He was very creative in his writing and was conscientious of his punctuation after I made it clear to him that sentences should express complete thoughts and must end with punctuation. At the end of the writing activity, the student proudly read his story to me.</p> <p>5) We choral read the fluency passage one more time. Afterwards, the student was excited to see how fast he could read the passage. I asked him to set a goal for himself, and he decided on 100 CWPM. His CWPM ended up being</p>	
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		<p>100 CWPM, which made him happy.</p> <p>*At the end of the class, I asked him what his favorite part was, and he said he liked writing the story about the superhero.</p>	
7/3/13	ABSENT	ABSENT	ABSENT
7/8/13	<p>1) Read fluency passage from previous session (Reading A-Z Level U, “A Project for Kevin”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level U, “Emma the Artist”)/time it (5 min)</p> <p>3) Learn “-ed” suffix – a suffix comes at the end of a word, the “-ed” suffix comes at the end of action words and can sound like “d” or “id”, brainstorm more words with “-ed” suffix (5 min)</p> <p>4) Choral read fluency passage (20 min)</p> <p>5) Look at pictures of the superhero “The</p>	<p>1) The student read the previous session’s fluency passage at a rate of 107 CWPM. His reading only included one error (saying the “s” at the end of a word). That is a 7 CWPM improvement since the end of our session yesterday.</p> <p>2) The student’s reading of today’s fluency passage was very choppy. He went back to repeat phrases he had read multiple times (5+ times). He made 11 errors while reading that were not self-corrected, which included not saying the “d” or “id” sounds at the end of “needed”, “opened”, and “handed”.</p> <p>3) We looked at the action words that ended in the “-ed” suffix in the fluency passage, and the student brainstormed other action words that would end in the “-ed” suffix. When he wrote the words he</p>	<p>It was hard to complete each activity within the allotted time. Therefore, for the following sessions I will change the reading and writing activity time to be 15-20 minutes rather than exactly 20 minutes. This will allow for more flexibility based on the student’s pace during the intervention session.</p>

	<p>Elongated Man” and then write sentences and/or a story using words with the “-ed” suffix about that superhero (20 min)</p> <p>6) Choral read fluency passage once/time student reading fluency passage again (5 min)</p>	<p>brainstormed on the paper, he consistently wrote “-ed” correctly at the ends of those words.</p> <p>4) After practicing some of the words he had previously made errors with, the student tended not to make those errors again. He seemed to do well with the choral reading, only struggling to keep pace with me on a couple of occasions after he mispronounced words.</p> <p>5) The student was very excited to write about “The Elongated Man”. He was very curious about who this superhero was and whether parts of the background information I gave him were true in real life (like the “gingo” fruit). He was surprised to see that many of the sentences he wrote about this superhero naturally had action words with the “-ed” suffix in them. This activity was fun and relatively easy for him. After writing his story, he read it back to me, making some corrections for words that he forgot to include. Something I noticed in today’s activity is that when he didn’t know how to spell a whole word, he</p>	
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		<p>would start to spell it and then erase the last letter to put in another sound he knew (even though the letter he erased should have remained), and he would mix up the order of the letters in the word.</p> <p>6) The student seemed much more relaxed in his reading of the fluency passage at the end of the hour than at the beginning of the hour. He only went back to re-read phrases a couple of times. He actually made no errors after self-correcting three words. He read at a rate of 85 CWPM.</p>	
<p>7/9/13</p>	<p>1) Read fluency passage from previous session (Reading A-Z Level U, “A Project for Kevin”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level U, “The Flat Flounder”)/time it (5 min)</p> <p>3) Learn “er” word ending– The sound /r/ at the end of a word can be written in three ways – “er”,</p>	<p>1) The student seemed very comfortable with yesterday’s passage. After practicing reading it once, I timed him reading it, and he read 112 CWPM, with just two errors. That is a 27 CWPM improvement since the end of our session yesterday.</p> <p>2) The first reading of “The Flat Flounder” was very choppy. The student paused at many words, such as “either”, “caterpillar”, and “nerves”. After 3 seconds of wait-time, I provided him with</p>	<p>When we were choral reading the passage in step 6, another tutor and student entered the room. The student in the room (a computer lab) turned on a loud game on his computer, and my student became angry. He said, “He’s forcing it!” in an angry tone. I told him that I would go ask for them to turn down the volume. When I returned, my student seemed as though he had forgotten it happened. This is the first time I have witnessed an</p>

	<p>“or”, or “ar”. Most of the time when we hear /r/ at the end of a word, it is spelled “er”. Provide examples from the text of words that end in “er,” and have the student brainstorm more words that end in “er.” (5 min)</p> <p>4) Choral read fluency passage (15-20 min)</p> <p>5) Look at pictures of the superhero “The Elongated Man” and then write sentences and/or a story using words with the “-ed” suffix about that superhero (15-20 min)</p> <p>6) Choral read fluency passage once/time student reading fluency passage again (5 min)</p>	<p>the word. His rate of reading was 51 CWPM after accounting for 17 reading errors.</p> <p>3) The student recognized the “er” word ending and was able to brainstorm a few words that end in “er.” He consistently spelled this word ending correctly when writing the words and only needed assistance with how to spell the beginning of some of these words.</p> <p>4) We discussed what fluent reading is – not reading choppy like a robot, reading smoothly, reading like we talk, etc. Before reading the passage, I pointed out some of the mistakes that the student had made while reading, such as pronouncing vocabulary incorrectly. I had him practice saying those words. I then read the passage to him as he followed along with his finger. Afterwards, we choral read the passage two times together.</p> <p>5) The student struggled to come up with a story that included words ending in “er” about The Joker. He said that this was a hard character to write about</p>	<p>outburst of anger from my student.</p>
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		<p>because “nobody knows his backstory.” I suggested I should only have us write about superheroes rather than super villains in the future, and he agreed. Just like in the spelling pattern introduction (step 3), the student correctly spelling the “er” ending in the words that he brainstormed for his story.</p> <p>6) I choral read half of the passage with the student and had him finish reading it alone. He made a goal for himself after looking at the 51 CWPM rate he read at the beginning of the hour – his goal was 100 CWPM. Next, we timed him reading the passage independently. He read at a rate of 98 CWPM. A couple of times, he re-read phrases even though he had begun reading them correctly the first time he read them. Overall, there was a stark improvement since his first reading of the passage, and it seemed that he started to recognize this.</p>	
<p>7/10/13</p>	<p>1) Read fluency passage from previous session (Reading A-Z Level U, “The Flat</p>	<p>1) The student read yesterday’s passage at the same rate (98 CWPM) as he did at the end of the session yesterday. He only made one error, in which he</p>	<p>The student seemed like he had low energy today. When walking from and to his classroom, he walked very slowly. When I asked if anything was wrong at</p>

	<p>Flounder”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level V, “The Lost Dutchman”)/time it (5 min)</p> <p>3) Learn “dr” blend – When we see “d” and “r” together, we do not pronounce them separately. Rather, they form a blend, which means that we blend the two letters together. Provide examples from the text of words that have the “dr” blend, and have the student brainstorm more words with the “dr” blend. (5 min)</p> <p>4) Choral read fluency passage (15-20 min)</p> <p>5) Look at pictures of the superhero “Captain America” and then write sentences and/or a story using words with the “dr” blend about that superhero (15-20 min)</p>	<p>added an /s/ to the end of a word.</p> <p>2) The student really struggled with today’s passage. There were many new vocabulary words in it that he did not know and that I had to provide him with the pronunciation of in his first reading. He read the passage at 38 CWPM. He made 22 errors, seven of which were from not knowing how to pronounce new words (ie. concentrate, legendary, willingly, exasperated, ideal).</p> <p>3) The student appeared to be familiar with the “dr” blend. When we brainstormed words including this blend, he was only able to come up with one word. This may be because this is a less common spelling pattern than others we have discussed previously.</p> <p>4) Prior to reading the passage, I discussed the meaning of many of the vocabulary words with the student. Then, I modeled reading the passage to him as he followed along with his pencil. Next, we choral read the passage together twice. As we read together,</p>	<p>the end of class, he did not indicate having any problems. He concentrated well during this session, but he did seem distracted with his pencil when I was modeling reading the passage to him. He was most engaged when we were talking about Captain America and coming up with the story. He was excited to bring home a picture that I had printed out of Captain America.</p> <p>Starting tomorrow, instead of choral reading, we will be doing echo reading.</p>
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	<p>6) Choral read fluency passage once/time student reading fluency passage again (5 min)</p>	<p>he still struggled with some of the newer vocabulary words, but he did not struggle with the “dr” blend.</p> <p>5) The student was very excited to talk about Captain America and to begin writing a story about him. He struggled to integrate the “dr” words that we had brainstormed earlier for the story because they were somewhat random. However, he included four words in his story with the “dr” blend, and he did not need reminding for how to spell these words. Additionally, something that I noticed was that when words ended in “ed” or “er”, he spelled these endings correctly. There was one instance where he forgot to put the ending on, but when I told him to look at that word again, he added the correct ending.</p> <p>6) I choral read half of the passage with the student and had him finish reading it alone. He made a goal for himself after looking at the 38 CWPM rate he read at the beginning of the hour – his goal was 100 CWPM. Next, we timed him reading</p>	
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		<p>the passage independently. He read at a rate of 74 CWPM. On five occasions, he re-read words or phrases even though he had read them correctly the first time he read them.</p>	
<p>7/11/13</p>	<p>1) Read fluency passage from previous session (Reading A-Z Level V, “The Lost Dutchman”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level W, “The History of Comics”)/time it (5 min)</p> <p>3) Learn “-ure” suffix – When we see “u-r-e” at the end of a word, it is pronounced /yur/. Provide examples from the text of words that have the “-ure” suffix (e.g. adventure, failure), and have the student brainstorm more words with the “-ure” suffix. (5 min)</p> <p>4) Echo read fluency passage paragraph by</p>	<p>1) The student read yesterday’s passage at the rate of 102 CWPM, which is a 31 CWPM increase since the end of the session yesterday. He only made seven errors, with three being meaning-changing errors.</p> <p>2) The student read the passage at 50 CWPM. He made 10 errors, seven of which were meaning-changing errors. During this reading, the student had a hard time sitting still.</p> <p>3) The student appeared not to know the “-ure” suffix. However, they caught on after reading a few words in the provided list with this suffix. When we brainstormed words including this blend, he was only able to come up with one word. However, he quickly caught on as to how to spell the suffix at the end of the word when I provided him with words to spell.</p>	<p>The student again seemed very low-energy today. When I picked him up from his class, I told him that he looked frustrated and asked him why. He said that he doesn’t like the teachers that teach him in the morning (ie. the teachers that work with him right before I pick him up). At the end of the day’s session, I asked him if he was upset about working with me. He said that he wasn’t and that nothing was wrong.</p> <p>I think that he may be becoming bored or frustrated with his summer school experience even prior to working with me, which is affecting his attitude when he comes with me.</p> <p>Note that at the end of the class, just when he started to do his final reading of the passage, he heard clapping from the same student that had been</p>

	<p>paragraph two times (15-20 min)</p> <p>5) Look at pictures of the superhero “The Flash” and then write sentences and/or a story using words with the “-ure” suffix about that superhero (15-20 min)</p> <p>6) Choral read fluency passage once/time student reading fluency passage again (5 min)</p>	<p>4) Prior to reading the passage, I explained our new procedure for echo reading. Just like the previous sessions, I said that I would first model reading the whole passage. Then, I explained that I would read a paragraph, he would read a paragraph, I would read the paragraph again, and he would read the paragraph again. The procedure went well, but the student seemed unenthused.</p> <p>5) The student seemed very low-energy about writing today. He said that he didn’t really understand the superhero The Flash, and he wrote very slowly and sloppily.</p> <p>6) The student read the passage by himself once, and I supplied words that he struggled with, rather than us just choral reading the whole passage together. Then, he read the passage again, and I timed it. During this timed passage, he seemed to be putting forth his best effort. He read at a rate of 76 CWPM, which is a 26 CWPM gain since reading the passage at the beginning of the session. In this reading, he</p>	<p>making noise with his game in our room yesterday. My student made an angry face, looked at the student, and growled. I gave him a moment to calm down, and I let him begin again. This is the second noted occurrence of a burst of anger during our sessions, with both occurrences being preceded by a young student making noise as my student is trying to read.</p>
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		<p>made seven errors, with three of these errors being meaning-changing errors.</p>	
<p>7/15/13</p>	<p>1) Read fluency passage from previous session (Reading A-Z Level W, “The History of Comics”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level W, “Does Color Make a Difference?”)/time it (5 min)</p> <p>3) Learn “-ent” suffix – When we see “e-n-t” at the end of a word, it is pronounced /int/ or /ent/. Provide examples from the text of words that have the “-ent” suffix (e.g. parent, student), and have the student brainstorm more words with the “-ent” suffix. (5 min)</p> <p>4) Echo read fluency passage paragraph by paragraph two times (15-20 min)</p> <p>5) Look at pictures of the superhero</p>	<p>1) The student read the previous session’s passage at the rate of 83 CWPM, which is a 7 CWPM increase since the end of the session last time. He only made two errors, saying “anothers” instead of “others”.</p> <p>2) The student read the passage at 41 CWPM. He made 17 errors, 15 of which were meaning-changing errors. Two of the errors were due to him not being able to pronounce “equipment” or “accomplishment”, which both have the “-ent” suffix. The student really seemed to struggle with this reading.</p> <p>3) After modeling how to say a couple of words, the student was able to read the other words with the “-ent” suffix; however, he sometimes needed help sounding out the beginning of the words. He was able to come up with a few words that ended in the “-ent” suffix on his own.</p> <p>4) Prior to reading the passage, I again explained</p>	<p>The student seemed much more engaged today and did not seem distracted like he had during some of last week’s sessions. I did not witness any outbursts of anger today.</p>

	<p>“Superman” and then write sentences and/or a story using words with the “-ent” suffix about that superhero (15-20 min)</p> <p>6) Choral read fluency passage once/time student reading fluency passage again (5 min)</p>	<p>our procedure for echo reading. Just like the previous sessions, I said that I would first model reading the whole passage. Then, I explained that I would read a paragraph, he would read a paragraph, I would read the paragraph again, and he would read the paragraph again. The procedure went well, and the student seemed engaged. Because of the length of the passage, we only had time to echo read through the passage once.</p> <p>5) The student was excited to write about Superman today. He excitedly told me Superman’s back-story. As he was writing about Superman, he actively tried to use our “-ent” words in his story.</p> <p>6) The student read the passage by himself once, and I supplied words that he struggled with, rather than us just choral reading the whole passage together. Then, he read the passage again, and I timed it. During this timed passage, he seemed to be putting forth his best effort. He read at a rate of 69 CWPM, which is a 28 CWPM gain since reading the passage at</p>	
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		<p>the beginning of the session. In this reading, he made six errors, with two of these errors being meaning-changing errors.</p>	
<p>7/16/13</p>	<p>1) Read fluency passage from previous session Reading A-Z Level W, “Does Color Make a Difference?”/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level U, “The Peasant and the Eagle”)/time it (5 min)</p> <p>3) Learn “v-c-e” spelling pattern – When we see “v-c-e” at the end of a word, the vowel says its name. Provide examples from the text of words that have the “v-c-e” spelling pattern (e.g. cage, stone), and have the student brainstorm more words with the “v-c-e” spelling pattern. (5 min)</p> <p>4) Echo read fluency passage paragraph by</p>	<p>1) The student read the previous session’s passage at the rate of 86 CWPM, which is a 17 CWPM increase since the end of the session last time. He made four errors, three of which were meaning-changing errors.</p> <p>2) The student read the passage at 43 CWPM. He made 26 errors, 20 of which were meaning-changing errors. None of the errors involved the “v-c-e” spelling pattern, despite there being 12 words that followed this pattern.</p> <p>3) The student said that they had not learned about the “v-c-e” spelling pattern before. He seemed to start to understand the pattern after some practice. He was able to come up with some words on his own and to spell them correctly. However, he did suggest some words for the pattern that did not actually follow the pattern.</p>	<p>The student again seemed very engaged. He struggled with focusing during the transition from reading the second fluency passage at the beginning of the hour (Step 2) and learning the v-c-e spelling pattern, but once we began learning the spelling pattern, there were no issues with him focusing.</p>



	<p>paragraph two times (15-20 min)</p> <p>5) Look at pictures of the superhero “The Hulk” and then write sentences and/or a story using words with the “v-c-e” spelling pattern about that superhero (15-20 min)</p> <p>6) Choral read fluency passage/time student reading fluency passage again (5 min)</p>	<p>4) Prior to reading the passage, I again explained our procedure for echo reading. Just like the previous sessions, I said that I would first model reading the whole passage. Then, I explained that I would read a paragraph, he would read a paragraph, I would read the paragraph again, and he would read the paragraph again. I emphasized using feeling as we read so as to make our reading sound more fluent. The procedure went well, and the student seemed engaged.</p> <p>5) The student was excited to write about The Hulk today. He told me a few stories about The Hulk. As he was writing about The Hulk, he was easily able to use words from our “v-c-e” spelling pattern list.</p> <p>6) The student read the passage by himself once, and I supplied words that he struggled with, rather than us just choral reading the whole passage together. Then, he read the passage again, and I timed it. During this timed passage, he seemed to be putting forth his best effort. He read at a rate of 88 CWPM,</p>	
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		<p>which is a 45 CWPM gain since reading the passage at the beginning of the session. In this reading, he made two errors, with neither error being a meaning-changing error. The student commented that he had improved a lot today and seemed pleased with himself.</p>	
<p>7/17/13</p>	<p>1) Read fluency passage from previous session Reading A-Z Level U, “The Peasant and the Eagle”)/time it (5 min)</p> <p>2) Read today’s fluency passage (Reading A-Z Level V, “Speedy Cheetahs”)/time it (5 min)</p> <p>3) Learn “-ate” spelling pattern – When we see “-ate” at the end of a word, we either say “it” or “ate”. Provide examples from the text of words that have the “-ate” spelling pattern (e.g. private), and have the student brainstorm more words with the</p>	<p>1) The student read the previous session’s passage at the rate of 95 CWPM, which is a 7 CWPM increase since the end of the session last time. He made no errors.</p> <p>2) The student read the passage at 35 CWPM. He made 31 errors, 28 of which were meaning-changing errors. He pronounced “private” incorrectly, which is a word that represents today’s spelling pattern.</p> <p>3) After some practice, the student seemed to start to understand the spelling pattern. He was able to come up with some words on his own and to spell them correctly.</p> <p>4) The echo reading procedure went well, and the student seemed very engaged. We did not have</p>	<p>The student seemed very engaged and enthusiastic during today’s intervention session. He seemed to enjoy the passage about cheetahs, and he joked about how you would escape a cheetah by zig-zagging (which shows that he understood what he was reading).</p>

	<p>“-ate” spelling pattern. (5 min)</p> <p>4) Echo read fluency passage paragraph by paragraph one time (15-20 min)</p> <p>5) Look at pictures of the superhero “Spiderman” and then write sentences and/or a story using words with the “-ate” spelling pattern about that superhero (15-20 min)</p> <p>6) Choral read fluency passage/time student reading fluency passage again (5 min)</p>	<p>enough time to echo read the passage twice, so we just echo read it once.</p> <p>5) The student was excited to talk and write about Spiderman today. It was hard for him to incorporate words with the “-ate” suffix, so I helped him more than usual in coming up with sentences that followed his storyline. He remembered how to spell this spelling pattern at the end of the applicable words.</p> <p>6) The student read the passage by himself once, and I supplied words that he struggled with, rather than us just choral reading the whole passage together. Then, he read the passage again, and I timed it. During this timed passage, he seemed to be putting forth his best effort. He read at a rate of 74 CWPM, which is a 39 CWPM gain since reading the passage at the beginning of the session. In this reading, he made one error, which was not a meaning change error. I think the student seemed pleased with himself when he found out that he went from 31 errors to just one error. However, he did not</p>	
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		<p>seem satisfied with his fluency rate. He had repeated and self-corrected many words while reading, so he had thought that he actually read slower than his first reading of the fluency passage.</p>	
<p>7/18/13</p>	<p>1) Read yesterday's fluency passage (Reading A-Z Level V, "Speedy Cheetahs")/time it</p> <p>2) QRI-5 test administration</p> <p>3) "Words Their Way" spelling inventories (Primary and Elementary)</p> <p>4) Discuss reading progress made this summer and advice for the future.</p>	<p>1) The student read yesterday's fluency passage at a rate of 91 CWPM, which is a 17 CWPM improvement since the end of yesterday's session. He made just two errors, with only one of them being a meaning-changing error.</p> <p>2) The student seemed somewhat bored during the QRI-5, but they appeared to try their best.</p> <p>3) This test was a little bit rushed. However, I noticed the student listening to the spelling patterns he heard in our intervention sessions, and he applied the spelling pattern rules appropriately in many cases. In one case, he applied the spelling pattern "ch" appropriately but then changed his spelling.</p> <p>4) I congratulated the student on how much reading fluency progress they had made this summer and encouraged them to</p>	

		continue working on reading texts fluently.	
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