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Case study of a student with an emotional behavioral disorder: an increase in reading fluency and its effect on reading comprehension and behavior in the general education classroom.

Betsy A. Strobl

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Case Study of a Student with an Emotional Behavioral Disorder: An Increase in Reading Fluency and Its Effect on Reading Comprehension and Behavior in the General Education Classroom.

By

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A Graduate Field Experience

Submitted in Partial Fulfillment of the

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Reading Fluency and Its Effect on Comprehension and Behavior in the General Education Classroom

This Graduate Field Experience
has been approved for Cardinal
Stritch University by

(Advisor)

(Date)

Abstract

This study investigated the effect an increase in reading fluency had on reading comprehension and on-task behavior in the general education classroom. The participant was an 18 year-old with a cognitive disability and emotional behavioral disorder. The intervention included repeated reading, vocabulary, partner reading, comprehension questions, and weekly classroom observations. Data collected throughout the course of the intervention were pre- and post-tests, parent and teacher questionnaires, and measurements of reading fluency, comprehension, and on-task behavior in the classroom. Results showed small gains in reading fluency and on-task behavior in the classroom, but no change in reading comprehension. Some limitations that may have affected progress include: the limited number and length of intervention sessions, amount of time devoted to classroom observations, and participant's attendance. Further research is needed on effective literacy interventions to determine a relationship between reading fluency, comprehension, and on-task behavior in the classroom for students with disabilities.

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Chapter 1

Introduction

Reading is inarguably one of the most important educational skills a student can have because it influences the student's performance in all other academic areas. A child must be able to read in order to understand the directions that are given on a test or worksheet in class, to take notes from the chalkboard or overhead, or to read an assigned chapter from a book. According to Valleley and Shriver (2003) 25% of 12th graders in the United States do not have basic reading skills. Because there is an expectation that all secondary-level students should be able to read words accurately and comprehend material with challenging content, considerably less attention has been provided to remediating reading difficulties at the secondary level. Reading difficulties may occur in more than 60% of students with or at risk for emotional behavioral disorders (EBD). The deficits for students with EBD can be up to a 2-year delay in reading skills and tend to remain stable or worsen over time (Oakes, Mathur, & Lane, 2010). Students at the secondary level who have difficulties in reading experience a variety of negative outcomes compared to their counterparts, such as, retention in grade, higher dropout rates, unemployment, lower incomes, and even incarceration (Oakes, Mathur, & Lane, 2010; Valleley & Shriver, 2003).

According to the National Reading Panel (2000), there are five dimensions of reading development: phonemic awareness, phonics, fluency, vocabulary, and comprehension. Fluency is one of the most difficult of the dimensions to remediate for children with reading disabilities because it is comprised of several features, which include rate of reading, prosody, and attention to punctuation, when combined with one another these features bring words on a page to life (O'Connor, White, & Swanson, 2007). Researchers in the past have conducted numerous studies to determine if there was a connection between reading fluency and comprehension. The theory behind the connection between reading fluency and comprehension is that non-fluent readers

must focus their attention on decoding the words being read, thus resulting in the loss of what the words mean.

Though research has been conducted in the past examining the effect behavior interventions have on academic outcomes, little research has been done to determine the effect a reading intervention might have on the student's behavior. Because of this lack of prior research, I wanted to further investigate the effect an increase in reading fluency would have on reading comprehension and on-task behavior in the classroom for a student with an emotional behavioral disorder (EBD) and a cognitive disability (CD). This chapter includes: (a) an introduction to the participant of this study, (b) a connection from this study to the Common Core State Standards, and (c) how it is related to the Individuals with Disabilities Education Act (IDEA).

Introduction to Participant

The participant in this case study was an 18 year-old African American female with a mild cognitive disability (CD) and an emotional behavioral disorder (EBD). "Jane" is a senior attending a small high school with a population of 152 students in a large urban school district located in the Midwest. The high school consists of students only in the 11th and 12th grades. Students enrolled must have earned at least 10 credits, needed for graduation, prior to the start of their enrollment date. Jane plans to graduate at the end of the 2011-2012 school year, but her plans for furthering her education after graduation are unknown. Jane has been receiving special education services since February of 2001. According to her 2001 evaluation, Jane was found to be functioning at the "borderline range of retardation." Testing indicated that there were delays in the areas of auditory memory, auditory association, and verbal and visual sequencing. She

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was also found to be easily distracted and needed frequent reminders to stay on task. In addition, it was noted that she often “bullied” other kids at school on the playground. During Jane’s re-evaluation in 2004, her Individualized Education Plan (IEP) team diagnosed Jane with an emotional behavioral disorder (EBD) in addition to her cognitive disability (CD).

I have been Jane’s special education teacher during the last two years and, therefore, have had the opportunity to observe Jane’s behavior. Jane is very vocal and likes to be the center of attention. She swears a lot and when asked to do something she doesn't want to do, she becomes more confrontational with staff members when her friends and fellow classmates are near her. She tends to give up too easily and is unwilling to try to do her work on her own. When she needs help, she is very impatient and expects staff members to attend to her needs and wants immediately, even when they are helping another student, to help her. Her biggest struggle is with reading and writing, which leads to her swearing at staff members who assign any reading or writing assignments that she needs to complete in order for her to earn credit for the class. Over the course of her high school career (2008-2012), Jane has been referred to the principal for being disruptive in the classroom, verbal abuse, fighting, and other offenses 78 times, which has led to being suspended 21 times.

With regards to literacy instruction, Jane has difficulties in fluency and comprehension. According to results from the Woodcock-Johnson III Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007) and the Measure of Academic Proficiency (MAPS; Northwest Evaluation Association, 2012) conducted in the fall of 2011, Jane’s reading skills are at the third grade level. She reads sentences very slowly and has a difficult time understanding what is being read due to her limited vocabulary. While reading, Jane ignores the written cues that are given to her, such as, reading through punctuation marks, which aid in comprehension.

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Jane's letter-word identification and comprehension skills are at the third grade level; she has a difficult time sounding out words and if she doesn't automatically recognize a word, she will skip over it, which interferes with her ability to understand what is being read. Jane has a difficult time activating prior knowledge and has little confidence when reading, which seems to cause her to act out and become frustrated prior to reading any material.

Though there have been some difficult times working with Jane, her sense of humor and her honesty have made it easier for me to look past some of the challenges we have shared together. She is a survivor and has endured some traumatic experiences over her short life, which makes me admire her perseverance. When working one-on-one with Jane, the emotional wall she created to show her toughness would come down and the tenderness and compassion that I saw for her family and friends made it easier for me to work with her. I saw a lot of potential in her, which is one of the reasons I chose her to work with over the course of this study.

Connection to the Common Core State Standards

The goal of this intervention was to help Jane increase her reading fluency, which would in turn lead to an increase in reading comprehension and on-task behavior in the general education classroom. By increasing her reading comprehension and on-task behavior, the increase in Jane's literacy skills would assist her in meeting the Common Core Standards for English Language Arts for grades 11-12 students (Common Core State Standards Initiative, 2010), including identifying themes or ideas and summarizing text (Standard 2), analyzing the development of the story and the sequencing of events (Standard 3), and determining the meaning of words and phrases in context (Standard 4).

Connection to the Individuals with Disabilities Education Act (IDEA)

Prior to the enactment of the Education of All Handicapped Children Act of 1975, children with disabilities did not receive appropriate educational services and were often excluded entirely from attending public schools (Friend, 2008). In addition, undiagnosed disabilities prevented students from having a successful education and the lack of resources in the public school system forced families to find alternative schooling opportunities outside of the public school system. Society and the government later realized that the education of children with disabilities can be made more effective if higher expectations were set forth and children with disabilities were provided with free appropriate education and access to the general education curriculum in the regular classroom. Through the Individuals with Disabilities Education Act of 1975, children with disabilities were able to receive education in the public school, but were often placed in self-contained classrooms or separated from the rest of the general education population. Today, some school districts provide most-restrictive placements (MRP) for students who they feel might be too disruptive in the general education classroom and will benefit more from receiving one-on-one attention in a small classroom setting outside of the general education classroom. More recently, some school districts have made the change to a full-inclusion setting or least-restrictive environment (LRE) where students with disabilities receive their education in the regular education classroom alongside their regular education peers throughout the entire school day, but might be removed from the regular education classroom in order to provide extra one-on-one support in a resource room.

In accordance with the Individuals with Disabilities Education Act (2004), Jane receives all of her instruction in the general education classroom and is given assistance when needed by her special education teacher or a paraprofessional in the classroom. Furthermore, Jane receives

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accommodations and modifications (i.e., extended time on tests/quizzes and directions and multiple-choice answers read out loud) that are created and set forth by the Individual Education Plan (IEP) team that assist with the further development of skills that are expected of Jane in the general education classroom. Due to her low levels in reading, Jane often acts out in class to mask her inability to complete the work on her own, so to minimize behavior problems in the classroom, she is often taken to a resource room in order to receive one-on-one attention with her special education teacher. Jane admitted to me in the past that her behavior had gotten worse when she was first enrolled in a large high school located within the school district. Since the school was larger, she had more room to move around without getting caught and was provided with less one-on-one attention. Due to the school district's enrollment policy, parents are able to enroll their son or daughter in any school that is located within the school district. This enabled Jane's mother to enroll Jane into a smaller school, which allowed her to receive more one-on-one attention in the classroom and less room to wander the hallways at school. This literacy intervention was intended to help her attain a specific goal: Through practice, Jane would be able to increase her reading fluency, which would lead to an increase in comprehension and increase the amount of on-task behavior in the general education classroom.

For the purpose of this study, I chose to focus on increasing Jane's fluency to determine if there was a relationship between low comprehension levels and behavior problems in the classroom. I theorized that (a) an increase in reading fluency will lead to an increase in reading comprehension and (b) an increase in comprehension will lead to an increase in on-task behavior in the general education classroom. A glossary is provided in Appendix A to assist with any terms that are unfamiliar to those that are reading this case study. The following chapter is presented into two separate sections. The first section presents a review of the literature related

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to evidence-based best practices, particularly repeated reading interventions, to help increase fluency among students with reading difficulties. The second section includes a more specific look at literacy interventions for students with emotional behavioral problems.

Chapter 2

Review of Literature

Reading is the foundation for all academic disciplines, which makes it one of the most important and most critical skills a person can learn throughout his or her educational experience. A child must be able to read in order to gain information from texts, read directions correctly, take notes from the chalkboard, and complete a job application. For children that fall behind early in reading, research indicates they continue to lag behind other children throughout their educational career (Francis, Shaywitz, Steubing, Shaywitz, & Fletcher, 1996). According to the National Reading Panel (2000) there are five dimensions of instruction that are essential in reading development: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The research studies presented in the first section focus their attention on one of the five targets essential in reading development-fluency. The second section narrows its focus on the effects the development of reading fluency has on students with emotional and behavioral disorders.

Fluency is defined as “the ability to read connected text rapidly, smoothly, effortlessly, and automatically with little attention to the mechanics of reading, such as decoding” (Roundy & Roundy, 2009, p. 54). The studies in this section illustrate and provide information regarding the best practices and evidenced-based methods for delivering an effective literacy instruction to help increase fluency.

Effective Literacy Instruction to Help Increase Reading Fluency

Morris and Gaffney (2011) designed a year-long intervention to help increase the fluency of a eighth grade reader who read at the speed of a second grader. The student had a history of a seizure disorder and was diagnosed with attention-deficit disorder (ADD).

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When the student was enrolled in the school district he was given an intelligence test (WISC-IV), which determined that the student was in the extremely low range (1%) in processing speed. He had difficulties with decoding and read at a very slow rate (<60 words per minute [wpm]). The student was placed in the Wilson Reading System (Wilson, 1996), which was used throughout the school district to help increase students' reading abilities, and over the course of two years, he made great gains, but by the end of the sixth grade, the student was still reading very slowly, around 70 wpm when reading third-grade material.

While in the seventh grade, the student attended a tutoring program at the university reading clinic two days a week after school. In the summer of his seventh-grade year, the student attended a four-week summer reading clinic in which the clinic director (Morris) and the assigned tutor (Gaffney) examined the student's records and determined that the student had significant deficits in reading fluency.

Based on the assessment data retrieved at the beginning of the summer school session, it was determined that the student had relative strengths in word recognition and comprehension. Therefore, the researchers decided to attack fluency by utilizing a 1-hour intervention prepared by the tutor (Gaffney) that focused on fluent contextual reading at or just above the student's third-grade instructional level as the independent variable. The dependent variable was an increase in reading fluency. Overall, the student received 47 hours of tutoring over the course of the study.

The reading material chosen to use throughout the intervention was based on the student's interests in social studies and history; more specifically, the student was interested in reading about the Civil War, World War II, the Civil Rights movement, and Greek mythology.

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Part one of the intervention began with a check of the student's tape-recorded reading assignment. Each night, the student listened to a six to eight page pre-recorded chapter audio taped by his tutor. After listening to a page, the student re-read the page, aloud or silently. The student completed the entire chapter in this manner, and once completed, he practiced the first two or three pages of the chapter in preparation for a homework check. The home-work check took place during the next tutoring session and consisted of a 2-minute oral reading of a passage selected from the first three pages of the chapter read the previous night. The tutor counted and recorded the number of words read during those 2-minutes.

Part two of the intervention consisted of a guided reading session of an instructional text at the third or fourth grade level. The instructional text usually consisted of a biography due to the high level of interest the student had towards reading that particular genre. The student and his tutor began a chapter by partner reading or alternated reading pages aloud.

Part three of the intervention included a repeated reading section in which the tutor pre-counted a 300-word passage from a chapter that the student had previously read during the guided reading portion of the lesson. The student read the passage twice for 2-minutes each time; the tutor then stopped the student and recorded the number of words read on a repeated reading chart. During the next tutoring session, the student read the same passage two more times, and again, his rates were charted. During the last section of the lesson, the tutor would read aloud to the student for 7-10 minutes.

When comparing the pre and post-test results from the Informal Reading Inventory (IRI; Woods & Moe, 2003), the results indicated that the student increased his reading fluency rate by 33%. In the year prior to the intervention, the student had only increased his reading rate by four

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wpm; during the intervention year, the student increased his rate by 27 wpm. At the start of the intervention, the student's reading fluency rate was 73 wpm, which was 34 wpm below the average rate for third graders. In the summer to early fall while the student was reading third-grade biographies, his reading rates were consistent across all four trials of repeated reading. He had started off reading 95 wpm (trial 1) and increased to 105 wpm (trial 4). When the switch was made from biographies to novels, the student's reading rates increased 8 to 12 wpm on the first and second trials and an 18 to 24 wpm increase on the third and fourth trials. When changes were made from narrative to informative texts and instructional levels of informative texts increased from the fourth to fifth grade, the reading rates went down. During the late spring, when they decided to lower the level of text back to the fourth grade level, the student's reading rate increased again.

The results from the tape-recorder readings (homework readings) showed similar gains and decreases in reading rate based only on the instructional level of the material. Since the student was able to listen to a page of text prior to reading it, the tutor increased the instructional level each time a new biography was introduced by one-half grade level. During the summer, the student averaged 98 wpm reading an early fourth grade text, 94 wpm reading a late fourth grade text, and 90 wpm reading a mid fifth grade text.

In summary, the authors stated that when given a limited amount of time to implement a reading intervention, it is important to determine which of the five dimensions of reading instruction a student might struggle the most with so one can create or customize an intervention that focuses solely on that given area. The authors also suggested that it is critical to work at the student's instructional level to keep the student from becoming uncooperative over the course of the study. In addition, they recommended consideration of the participants' interest. Since there

was only one student participating, it was easy to accommodate the student's interests. When students are provided with something of interest, they are more willing to participate and are able to concentrate more because they are focusing on something that is of interest. It is not unusual for struggling students to doubt themselves or question the praise they are receiving from their teachers. The authors concluded that it is important to provide written feedback on the participant's progress. The use of charts and graphs should be used to help validate the growth and/or praise they are receiving throughout the course of the intervention.

After further analysis of the results of the intervention, Morris and Gaffney determined that there are two factors that contributed to the gains in reading fluency when using a rereading strategy: sight vocabulary and phrasing. Perfetti (as cited in Morris & Gaffney, 2011) argued that by repeatedly reading a printed word it allows the word to move from a "functional to autonomous lexicon" (p. 339). When a reader is able to automatically recognize words more frequently, he or she should be able to read faster. In regards to phrasing, written sentences often do not contain cues indicating phrase boundaries; therefore, dis-fluent readers need to learn to use the subtle cues that are often used in the written language. According to Peter Schreiber (as cited in Morris & Gaffney, 2011) repeated readings and tape-recorded reading demonstrate the "morphological, semantic and syntactic cues" (p. 340) that are present in order to properly chunk the appropriate phrases together.

While Morris and Gaffney's (2011) study demonstrated that gains in reading fluency can be achieved for a student who has a learning disability, Roundy and Roundy (2009) paid particular attention to the effects a repeated reading intervention had on reading fluency among middle school students with learning disabilities from diverse backgrounds.

Effects of Repeated Reading Interventions

Roundy and Roundy's (2009) primary interest was analyzing the effects of a repeated reading intervention on reading fluency, reading-oriented self-esteem, and confidence of students of diverse academic, economic, and culturally diverse backgrounds. The independent variable in this study was the implementation and participation in a repeated reading intervention. The dependent variables were a words per minute (wpm) assessment indicating an increase in reading fluency, reading-oriented self-esteem, and an increase in reading confidence.

The participants included 110 academically, economically, and culturally diverse seventh-grade students attending an urban school located in the southeastern United States. The students were classified academically as gifted, honors, regular, and intensive, in addition to either reading "below grade level," "at grade level," and "above grade level."

Prior to the implementation of the intervention, the authors collected data from the following: (a) student interviews, (b) a student reading survey, (c) teacher observations, and (d) written reflections that provided information about the students' behavior and attitude towards reading and prior repeated reading experiences. Pre-tests were given to measure the reading rates (wpm) to establish baseline scores and reading levels. Fluency charts (individual and class) tracked progress measured throughout the intervention along with observations and transcribed audio tapes of the sessions.

The authors used the Timed Reading Plus series (Spargo, 2001) for all participants because it consisted of a variety of fiction and non-fiction stories and students had no prior-experience with the texts. Repeated reading sessions took place three days per week, for 20-minutes, over a course of five-weeks. Students individually read, rehearsed, and re-read each

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story at their grade level during one minute intervals until they reached a score of 120 wpm. Before moving on to the next passage, students recorded their results on a bar graph to show any progress and were given a wpm test. Over the course of the intervention, the authors collected interviews, reflections, and observations were completed.

After the five week intervention period, the authors administered a final wpm test, conducted and analyzed post-reading surveys, post-student interviews, teacher observations and reflections, students' fluency graphs, and reviewed and transcribed audio-tapes. The researchers concluded that there were some disparities between the students' perceived fluency rates and their abilities to read well to show their actual abilities. Some students possessed an over-inflated idea that they read well, while others possessed a negative attitude towards reading and repeated reading interventions prior to the intervention. Results indicated that throughout the course of the intervention, negative perceptions about reading and the repeated reading intervention decreased; behaviors and attitudes changed for the better and there was an increase in reading fluency. In addition, evidence showed that as fluency improved, so did the students' ability to comprehend the text better; therefore, researchers concluded that the use of repeated reading as an intervention to help increase reading-oriented confidence, fluency, and comprehension among a diverse group of students is an effective instructional method.

The researchers' results indicated that to properly implement an effective reading intervention, you must first know the instructional and skill levels of those that are participating in the intervention, so you can create a program customized specifically for each student. It is also important to know the student's strength and weaknesses or else you won't be able to address the area of need. There were no recommendations on how to improve confidence and self-perceptions, however, the researchers mentioned that because the students were more

willing to learn after they saw an increase in reading fluency, self-esteem increased and disruptive behaviors decreased.

While Roundy and Roundy (2009) showed that repeated reading is an effective strategy to help increase fluency among students with diverse backgrounds at the middle-school level, Valleley and Shriver (2003) further investigated the effects of using repeated reading as an intervention to help increase fluency and comprehension among secondary students.

Impact on Reading Fluency for Secondary Students Using a Repeated Reading Intervention

According to the National Reading Panel (2000), in the area of fluency, repeated reading procedures can have an impact on the reading ability of beginning readers. Since our educational systems have an expectation that all secondary students will be able to read words accurately and fluently, considerably less attention has been given to the remediation of secondary students with reading difficulties.

Valleley and Shriver (2003) examined the effectiveness of a repeated reading intervention with secondary students who had difficulties in reading. The independent variable consisted of a repeated reading intervention. The dependent variables were an increase in fluency and comprehension and decrease in the amount of reading errors committed during the implementation of the reading intervention.

Participants in the study included four students of mixed race between the ages of 10 and 18 living at a residential treatment facility in the Midwest, whose reading rates were between 30 to 50 words per minute (WPM-C) and a reading score below 85 on the Woodcock Reading Mastery Tests-Revised (WRMT-R; Woodcock, 1987). In addition, four students who were

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between 15 and 17 years of age from the same facility, who were considered average readers and scored between 90 and 110 on the WRMT-R, participated in the comparison group. All of the participants were identified as having learning disabilities in reading and mathematics.

The intervention was implemented for 20-minutes, three times per week, over a course of 10-weeks inside the educational building at the residential treatment facility. These students also attended public school during the course of the day, in which no further interventions were implemented. The authors used passages from the Timed Reading Series (Spargo, 1989) for the repeated reading intervention, pre- and post test ninth-grade level readings using passages from the participants' English and Social Studies textbooks, cloze procedures to measure comprehension, and tape recorded 20% of the sessions to achieve inter-scorer agreement.

Though some students tested below the fourth grade level, the Timed Reading Series only provided passages at the fourth through college reading levels, therefore, all of the students, not a part of the comparison group, began the intervention at the fourth grade level or higher. Students were required to repeat read a passage until they improved at least one additional word, three consecutive times. If a student did not demonstrate fluency improvements after 10 readings, the students were able to proceed to the next passage at the same instructional level.

The authors used a cloze procedure once a week to measure any gains in comprehension. Every seventh word was removed from the passages and replaced with a line, the participants then filled in the lines with words that best fit into the sentence. Passages consisted of 200 words and included 30 words that were replaced with a line. Increases in comprehension were also measured by having participants read the entire 400 word passage for the initial reading of every third passage in order to answer the 10 multiple choice comprehension questions. The basis for

this procedure was to ensure that the reading did not teach the participants to read for comprehension on the initial reading and speed for each additional reading. In addition, it allowed researchers to gather information on whether or not the participants were making gains in comprehension throughout the repeated reading intervention.

Since some of the students were uncooperative at the start of the intervention, the authors created a point system aligned with the residential facility's already established system to gain privileges. Points were given when students showed up to reading sessions, read passages when asked, and stayed in the room until the session was completed.

The results of this study indicated that gains in fluency were demonstrated on all measures among those that participated in the intervention and the comparison group. Only one student failed to make adequate gains throughout the intervention. On average, while participating in the repeated reading intervention, participants demonstrated an increase of 15 words per minute at the fourth grade level and a decrease in the number of errors. Students also increased their reading fluency by 6 to 17 WPM-C from pre to post-testing when given the ninth-grade reading probes. Though gains in fluency were evident, none of the participants experienced gains in comprehension questions answered correctly when comparing baseline to intervention scores.

Though there was evidence indicating an increase in reading fluency among struggling secondary students with only 10 additional hours of a repeated reading intervention, the authors noted that it is difficult to conclude whether or not repeated reading is an effective intervention when behavior reinforcements are not in place. In addition, the reading series that was used to implement the repeated reading program began at a higher level than some of the students'

instructional level based on pre-test scores, which may have caused some of the behavior problems encountered throughout the intervention. Furthermore, the criterion used to indicate when a student could continue onto the next passage caused some frustrations amongst the participants because it was extremely difficult for some students to experience three consecutive fluency gains. When considering comprehension measures, the authors concluded that the cloze passages completed throughout the study may have been too advanced for those participating in the study. Thus, further research needs to be conducted on the effects of a repeated reading intervention among secondary students, which should include more participants, extended intervention time, and reading passages that are within the participant's current instructional reading level.

Even though Valleley and Shriver (2003) demonstrated that repeated reading was an effective intervention for secondary students struggling in reading, Wexler, Vaughn, Roberts, and Denton (2010) took their research one step further by comparing the efficacy of repeated reading and wide reading practice on the reading fluency, comprehension, and word reading outcomes of high school students with severe reading disabilities.

The independent variables in this study consisted of the use of repeated reading, continuous wide reading, and peer-pairing interventions. The dependent variables were increases on fluency, comprehension, and word reading outcomes for students that were diagnosed with a learning disability and had significant reading difficulties.

Participants in the study included 96 students between 13 and 17 years of age attending school in a metropolitan area in the southwestern United States. Students were eligible to participate if they were enrolled in special education English and reading classes and were

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identified as having significant reading difficulties based on the results of the reading portion of the Texas Assessment of Knowledge and Skills (TAKS) tests.

Participants were paired together based on the results of the Oral Reading Fluency (ORF) pre-test, in which higher-level readers were paired with lower-level readers. After participants were paired, they were randomly assigned to one of the three interventions being used for this study. Prior to the implementation of the interventions, one full-time employee and two graduate research assistants participated in two 3-hour long training sessions on partner reading procedures and on intervention and monitoring procedures. Students participated in the interventions for 15-20 minutes each day, five times per week, for 10-weeks.

The authors chose to use three different published fluency programs in order to provide enough material at all levels for the participants to read. In addition, expository texts were used because they are most commonly used at the high school level. The passages consisted of approximately 175-450 words.

The repeated reading condition consisted of participants reading the same text three times with their assigned partners, which meant that each student was being exposed to the text a total of six times; modeling was done with the higher level reader, reading first. A week before the intervention began, participants were taught on how to provide feedback to their partners. After the second read, students reviewed the words that were missed while reading the passage. Students graphed the results from their last read on the words read correct per minute (WPM-C) each day.

The wide reading conditions, also known as continuous reading, were similar to the repeated reading procedures, but participants did not read the same text more than one time.

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Students read three different texts out loud, while their partner followed along. Instead of being exposed six times to the same text, participants in the wide reading condition, were exposed to six different texts. At the end of the day, students graphed their best read of the day. Reading levels were raised during both the repeated reading and wide reading conditions. When a lower-level reader was able to read 100 (WPM-C) with less than five errors for two consecutive sessions, the pair was able to move up a level. Levels were lowered if the lower-level reader made more than two errors in every 10 words read.

The comparison group participated in the instruction that they typically received in class. A typical class period consisted of students reading independently and answering comprehension questions with minimal feedback while practicing for the reading portion of the TAKS.

Descriptive statistics were calculated from the pre-and post-test assessments given in fluency, comprehension, and word-identification, along with brief assessments that were administered bi-weekly. The results showed minimal increases in fluency, comprehension, and word recognition for both of the intervention conditions. The findings in this study contrasted with the positive results found when the use of a peer-tutoring intervention was implemented among younger students with learning disabilities.

In conclusion, the authors did not support using the peer-pairing strategy as an intervention for high school readers with significant reading difficulties. The absence of direct instruction might be inadequate for students with seriously impaired reading abilities. According to an earlier study conducted by Wexler (as cited in Wexler, Vaughn, Roberts, & Denton, 2010), interventions that consistently improved reading rate included (a) a previewing procedure such as listening to an audiotope or model of good reading prior to reading a text or (b) provision of

corrective feedback. Though seriously struggling readers were paired with partners that read at a higher level over the course of the study, it is likely that an insufficient amount of modeling and feedback was provided. Overall, the researchers concluded that even if given more time, the implications of the study show that the interventions being used in the study did not impact the reading performance among students with significant reading impairments.

Though there were no significant increases in reading fluency, comprehension, and word-identification evident in Wexler, Vaughn, Roberts, & Denton's (2010) study on the effects of repeated reading and wide reading among high school students with severe reading disabilities, O'Connor, White, and Swanson (2007) conducted similar research using repeated reading and continuous reading interventions among elementary school students who were considered poor readers.

Repeated Reading Interventions versus Continuous Reading Interventions

In their 2007 study, O'Connor, White, and Swanson wanted to determine if repeated reading would have more of an effect than a continuous reading intervention on reading rate and overall reading outcomes for struggling readers. Furthermore, would there be a difference in reading rate gains for poor readers in the second grade compared to fourth grade struggling readers?

The independent variables used in the study were the use of repeated reading and continuous reading interventions. The dependent variables were an increase in reading fluency, comprehension, and word-identification skills.

There was no mention of where the participants of the study attended school. The researchers chose the participants of the study from the second and fourth grades that met the

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following criteria: (a) second graders that read between 12 to 45 words per minute (wpm), on all grade level passages, and fourth graders who read between 20 to 80 wpm, and (b) scored greater than 69 on the Peabody Picture Vocabulary Test-III (PPVT-III; Dunn, Dunn, & Dunn, 1997).

Based on the criteria set forth by the authors, a total of 37 poor readers and 16 average students, used as a comparison group, participated in the study from start to finish. Of the 37 poor readers who participated in the study, 16 were classified as having a learning disability and seven spoke English as their second language.

Both the repeated reading and continuous reading interventions consisted of participants reading aloud to a trained adult for 15-minutes, three times a week, for 14-weeks. During the repeated reading intervention, participants reread each page three times, while those participating in the continuous reading intervention continuously read as many pages as they could read during the 15-minutes. The reading materials chosen for the interventions were based on the students' reading levels and selected by O'Connor and White. The authors used alternate forms of the Peabody Picture Vocabulary Test-Third Edition (PPVT-III; Dunn, Dunn, & Dunn, 1997), the Woodcock Reading Mastery Tests-NU (WRMT-NU; Woodcock, 1998), and the Gray Oral Reading Tests, Fourth Edition (GORT4; Wiederholt & Bryant, 2001) to collect reading measures for pretests, midway tests, and posttests to assess fluency, comprehension, and word-identification. In addition, trained tutors kept daily logs on the number of pages read and time spent reading.

The results from the comparison of pre- and post-test data showed that growth occurred at similar rates regardless of grade level and there were greater improvements in fluency, comprehension, and word-identification among students with or without a learning disability that participated in the interventions versus the control group. On average, students increased their

reading rate by 20 wpm. However, based on a statistical analysis of the data, there were no significant differences found between using a repeated reading and continuous reading intervention, therefore, the authors concluded that both interventions will help increase the reading rate among students with or without a disability.

The authors concluded that a small sample size may obscure differences and that a larger sample size would provide insight on whether poor readers with specific learning characteristics might benefit more from one fluency intervention to another. More importantly, for poor readers to make any gains in fluency similar to average readers, interventions specifically created to help improve reading rate need to be used. In addition, because no comprehension instruction was included in the practice sessions of the intervention, O'Connor, White, and Swanson provided evidence to support the verbal efficiency theory of reading development, which states that "large gains in reading fluency- over 20 wpm- were associated with gains in comprehension" (p. 44). Furthermore, the authors recommended further exploration into how to incorporate oral reading practices during routine general class instruction to further improve reading rate among poor readers.

According to the NRP (2000), the most commonly recommended intervention for improving fluency among students with a learning disability is repeated reading. Similar to the questions asked by O'Connor, White, and Swanson (2007), the authors of the next study, Homan, Kelsius, and Hite (1993) wanted to determine if there was a better method, other than repeated reading, that would improve reading fluency among struggling readers.

Homan, Kelsius, and Hite (1993) wanted to compare the effectiveness of repeated readings to assisted non-repetitive oral reading strategies, which included echo reading, unison

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reading, and cloze reading procedures. To be more specific, the research questions consisted of (a) “Do the instructional methods of repeated reading and assisted non-repetitive reading have an effect on sixth grade Chapter I students’ reading performance?” and (b) “Is the effect of repeated reading instruction greater than that of assisted non-repetitive reading methods on the reading performance on sixth-grade Chapter I students? ” (p. 96)

The independent variables in the study were the use of both repeated reading and non-repetitive oral reading strategies (i.e., echo reading, unison reading, and close reading procedures). The dependent variables were an increase in reading performance, specifically an increase in fluency and comprehension skills.

The participants of the study consisted of 26 sixth-grade students who were below-grade readers and qualified for Chapter I classes. To qualify for Chapter I classes, students had to score in the bottom 30% on the combined vocabulary and comprehension scores on the Comprehensive Test of Basic Skills implemented throughout the school district. Participants were randomly selected to participate in one of the two intervention groups (13 students per intervention group).

A pre-test was administered to determine passage difficulty. Students were asked to read a passage and retell the story once they were finished reading. In addition, students were recorded while they read out loud and when retelling the story. The authors recorded word omissions, substitutions, insertions, and errors for each student. Comprehension was tested based on the taped re-telling of the passages read. Points were earned for including: (a) main character(s), (b) story setting, (c) problem, (d) main events and proper sequence of events, and (e) resolution of the problem. Students were also timed when reading the passages; the authors

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converted the amount of time it took to read all three passages and then divided by three to find the average time spent (in seconds) it took for students to read the passages. Posttests were administered the eighth week of the intervention, which included the same methods used during pretesting.

The two interventions were implemented by three different teachers three times a week, 20-minutes each session, for seven weeks to a group of students, which included anywhere from 4 to 5 students per group, for each intervention. During the 90-minute reading block, each teacher spent 20-minutes with one treatment group and then 20-minutes with the other group. Each student participated in both interventions throughout the study.

The first of the non-repetitive reading strategies used was echo reading, which consisted of the students reading a passage once, while echoing the teacher's reading. The second strategy was the use of unison reading, during which the students and the teacher read together out loud. The third strategy, cloze reading, consisted of the teacher reading a selection and then pausing to let the students read randomly selected words aloud. Instruction of the three different strategies were rotated each day using echo reading the first day, unison reading the second day, and cloze reading the third day.

During the repeated reading intervention, each student was paired with another student, while a teacher paid close attention to their reading. The first reader read the first page of the story or continued from where he finished from the last session four different times. Their partners were directed not to give any assistance if the reader had difficulties pronouncing a word and if necessary, were allowed to skip a word after attempts were made at pronouncing the word.

A multivariate analysis of variance (MANOVA) was used to determine the results of the study. Pre-test results showed that there were no significant differences between groups among reading rate, error rate, or comprehension. Post-test results showed a significant difference between pre- and post-test scores among both intervention groups. Overall, the study indicated that there were gains in comprehension among sixth-grade Chapter I students, but showed that there were no significant differences between repeated reading and assisted non-repetitive reading on any of the three strategies that were used.

Though the study showed that repeated reading is an effective intervention to help improve fluency and comprehension, the authors concluded that there are some areas of concern that one might want to think about before implementing a repeated reading strategy. First, students may find the intervention not stimulating because they are asked to read the same passage over and over again, which also limits the exposure to vocabulary, content topics, and genre. Secondly, older at-risk readers might think that participating in a repeated reading intervention is more like punishment if they do not read a selection well enough the first time. Thus, a variety of different passage genres and topics should be considered and a vocabulary component should be added to the intervention. Lastly, the use of narrative text over expository texts among older students might positively affect their attitudes towards the activity and the results of the intervention. Therefore, it is important to know what the student's interests are, so they can be incorporated into the intervention material. The authors main concern is that repeated reading will be over-used as an intervention to help at risk readers and as a result it may have a negative effect on their reading attitude, but they offer no recommendations on how to prevent this from occurring.

Summary

In summary, though it is important to address all literary components to help improve reading skills among students with reading difficulties, the authors in this group of studies paid particular attention to improving reading fluency to determine if whether or not there was a relationship between reading fluency and comprehension. Based on the results of the previous studies, the authors of the articles determined that the use of a repeated reading intervention helped increase the reading fluency among students with a learning disability, offered several suggestions on how to create a successful intervention, and stressed the need for further research on the affects of a repeated reading intervention among students at the secondary level.

Morris and Gaffney (2011), Roundy and Roundy (2009), and O'Connor, White, and Swanson (2007) agreed that it is important to determine what areas of the five dimensions of reading instruction a student struggles with the most, so one can customize an intervention that solely focuses on that area. If a student is unable to read fluently, it is then important to focus solely on increasing reading fluency. Morris and Gaffney (2011), Roundy and Roundy (2009), and Valley and Shriver (2003) agreed that it is critical to work at the student's instructional level. This will keep the student interested in participating and prevent participants from becoming uncooperative over the course of the study. In addition, Morris and Gaffney (2011) suggested that one should consider the student's interests when designing an intervention. It is important to provide material that is associated with something the student is interested in learning about. By doing so, participants will be more engaged and willing to participate. Homan, Kelsius, and Hite (1993) believed the use of narrative text over the course of an intervention would keep participants more interested and engaged than the use of expository texts. According to Morris and Gaffney (2011) it is not unusual for struggling students to doubt themselves or question the praise they are receiving from their teachers. It is important to provide written feedback on the

participant's progress by stated that older at-risk readers might think that they are being punished if they are not able to read the passage well enough the first time, so it's important to set achievable goals. In addition, Valleley and Shriver (2003) recommended that an intervention should consist of a criterion that is understandable. During the course of their 2003 study, they created a criterion that was impossible for some of the students to reach, which caused frustration and unwillingness to participate. Though research has shown that peer-pairing interventions are successful in increasing fluency among elementary students, Wexler, Vaughn, Roberts, and Denton (2010) believed that they are not useful for high school students that have significant learning disabilities. Direct instruction, modeling, and feedback are all needed when properly implementing an intervention. O'Connor, White, and Swanson (2007) recommended the use of a larger sample size. A larger sample size would provide further insight on the successfulness of one intervention over another among poor readers with specific learning characteristics. Overall, the authors of the previous studies suggested that the use of more participants, extended intervention time and the use of reading passages that are within their instructional levels should be used to further evaluate the effectiveness of an intervention designed to help increase reading fluency and comprehension among struggling readers.

Literacy Interventions for Students with Emotional Behavioral Disorders

Much of the current research is associated with the literacy development of younger students with learning disabilities and the effectiveness of utilizing a repeated reading intervention to help increase reading fluency and comprehension. Since the majority of the students that I teach are identified as having emotional and behavioral problems, I wanted to narrow my search in order to learn more about the affects a comprehensive literacy intervention

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can have on fluency and comprehension among students with emotional behavioral disorders (EBD), so I can further assist them in the classroom.

The link between academic underachievement and emotional behavioral disorders has been given little attention in research literature. According to the U.S. Department of Education (1998), the number of students identified with emotional and behavioral disorders has increased 21% over the past 10 years. According to Wehby, Falk, Barton-Arwood, Lane, and Cooley (2003), students with EBD often are deficient in the area of reading. In addition, based on the longitudinal studies reported by the National Institute of Child and Human Development, an estimated 40% of students with EBD have reading problems (as cited in Scott & Shearer-Lingo, 2002).

Behavior problems among students with EBD may limit the teacher's attempts to provide instruction in class. Students with EBD are often placed in self-contained classrooms, which are often characterized by an emphasis on behavior management with little time devoted to reading instruction (Alber-Morgan, Ramp, Anderson, & Martin, 2007). According to Rylance and the U.S. Department of Education (as cited in Wehby, Falk, Barton-Arwood, Lane & Cooley, 1997), students with EBD are more likely to drop out of school because the combination of academic deficits and behavioral difficulties is typical for students with EBD. Analyses from a study conducted by The Kentucky Office of Educational Accountability (1998) stated that an estimated 62% of ninth grade students diagnosed with having EBD will drop out of school and that 70% of those students that drop out are more likely to be arrested within three years of dropping out of school. This section investigates the impact a comprehensive literacy intervention can have on the academics and behaviors of students with EBD.

The first study by Wehby, Falk, Barton-Arwood, Lane, and Cooley (2003) investigated the effectiveness of a structured and supplemental reading program on the reading achievement and behavior of elementary students with EBD who showed significant deficiencies in reading performance. The independent variable was the implementation of an Open Court Reading (Adams, Bereiter, Carruthers, Hirshberg, & Mckeough, 2000) program combined with Peer-Assisted Learning Strategies (PALS) modified to address the specific learning needs of the students. The dependent variable was the increase in reading achievement and positive social behavior of students identified as having EBD.

Participants consisted of eight students, ranging in age from 7 to 10 years, enrolled in a self-contained classroom for students with EBD in a southeastern metropolitan school district. All of the students were referred to special education based on the following behavior and social deficits: poor anger management, physical and verbal aggression, non-compliance, and disruptive behavior.

Prior to the implementation of the two reading interventions, students were pre-tested to determine their current reading and language ability using the Woodcock Reading Mastery Test-Revised (Woodcock, 1998), the Comprehensive Test of Phonological Processing (Wagner, Torgesen, & Rashotte, 1999), and the Peabody Picture Vocabulary Test-Third Edition (Dunn, Dunn, & Dunn, 1997).

The authors decided to implement the following reading interventions to determine academic achievement: Open Court Reading and PALS; and utilized the Multiple Option Observation System for Experimental Studies (MOOSES; Tapp, Wehby, & Ellis, 1995) to record student engagement and disruptive behavior over the course of the intervention.

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Prior to the implementation of the two interventions, classroom teachers participated in several training sessions and practiced instruction in the classroom. On average, Open Court Reading requires 1 ½ to 2 hours of reading instruction in phonemic awareness and phonics, reading and responding to text, and a variety of other activities. Due to time constraints, the authors modified the Open Court Reading intervention. Instead of providing reading instruction for 1 ½ to 2 hours, the intervention was cut down to 45-minutes per day for four days, which included instruction in phonemic awareness and explicit phonics and comprehension skills for the kindergarten and first-grade curricula. In addition, they included a section that focused on dictation and spelling for the first-grade curricula.

During the first step of the Open Court Reading instruction, phonemic awareness was taught by using alphabet sound (kindergarten) and sound/spelling cards (first grade). The second step, students were taught a sound-by-sound blending strategy for reading unfamiliar words. The third step in teaching phonemic awareness, students read short pre-decodable and decodable books multiple times out loud and silently to increase fluency, which was then followed up with discussion questions directed by the teacher. Instructional time for teaching comprehension skills and strategies was approximately 15-minutes for kindergarten and 7 to 15 minutes for first-graders. Teachers modeled effective strategies and encouraged students to use those strategies independently with increased automaticity. The last component in the Open Court Reading program, which required 3 to 5 minutes of instructional time, focused on dictation and spelling activities for first graders using letter cards, which students built words through the correct sequencing of letters. Eventually, students dictated sentences that included punctuation and capitalization.

The PALS program was implemented four times a week for no more than 30-minutes in conjunction with the Open Court Reading Program. Higher performing students were paired with lower performing classmates alternating between roles of coach and reader. Students participated in a variety of activities supervised by a teacher that focused on fluency and comprehension, more specifically, making letter and sound associations, decoding simple words, and recognizing sight words.

In addition to the Open Court Reading and PALS program, weekly probes were given to each student to monitor progress. “These probes measured student performance on nonsense word fluency, blending, letter-sound correspondence and sight word recognition” (Wehby, Falk, Barton-Arwood, Lane, and Cooley, p. 229). MOOSES is a computer-based observation system that allows researchers to collect events and duration of time simultaneously. Over the course of the intervention, the teacher and two students were observed using MOOSES every day, each for 20 minutes. Two types of data were collected: the percentage of time a student attended during reading instruction and the frequency of inappropriate behavior (e.g. talking out, aggression, disruptions).

The results of this study showed moderate improvement in students’ performance on sound naming, blending, and nonsense words. Based on pre-post test analysis, most of the first grade group showed improvements in segmentation skills, but little change was noted among the kindergarten group and on sight word probes and standardized measures. In regards to social behavior changes, some individuals showed slight improvement in the average percentage of time spent attending; however, there were no improvements in the rate of inappropriate behavior displayed by the students during the course of the reading intervention.

Though some improvements in reading performance were observed, the authors indicated that there are a number of limitations that need to be considered. First, if a student has significant reading difficulties, one should consider the length of the intervention. Though the authors never specified the actual duration of the intervention period, they have noted that the intervention was implemented for “a relatively short period of time” (Wehby, Falk, Barton-Arwood, Lane, and Cooley, p. 236). In addition, previous studies have indicated that weekly probe performance among this population of students can be variable. It is unclear as to what contributes to this variability, but the researchers noted that the students that participated in this study had speech and language difficulties that could have contributed to the inconsistencies in their weekly probe scores. Lastly, previous research, which showed improvements in behavior, included students that were at risk for later conduct problems. The students that participated in this study were identified with having significant behavioral problems and according to Wehby, Falk, Barton-Arwood, Lane, and Cooley (2003) significant behavioral problems become more stable and embedded and more difficult to amend with interventions. Overall, further research needs to be conducted in the area of reading instruction with students with EBD.

While Wehby, Falk, Barton-Arwood, Lane, and Cooley’s 2003 study was concerned with implementing a comprehensive reading intervention, that addressed all areas of literacy development for students with EBD, Oakes, Mathur, and Lane (2010) paid particular attention to a reading intervention that focused solely on increasing fluency among students with challenging behaviors.

The purpose of this study was to examine the effect of implementing a multi-dimensional secondary intervention on the oral reading fluency (ORF) of students who have reading difficulties and behavior problems. The independent variables consisted of a primary and

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secondary reading intervention that included instruction in reading accuracy, behavioral supports, and fluency building. The dependent variable was the growth of oral reading fluency among students with reading difficulties and challenging behaviors patterns.

Participants in the study were chosen from the second grade that met the following criteria: (a) were at risk for reading difficulties based on the results of the DIBELS reading screening administered the first week of second grade; (b) made limited reading progress measured by DIBELS Oral Reading fluency in the first five weeks in a primary and targeted small group program; and (c) received classroom reading instruction with treatment integrity of 80% or better. Of the 522 students that attended the school, which was located in a large suburban public school district in a southwestern city, 9 second-grade students ranging from 7 to 8 years of age, qualified to participate. Of the nine students, four demonstrated challenging behavior patterns in addition to having difficulties in reading, but none were eligible for special education.

The Wechsler Intelligence Scale for Children (WISC-IV; Wechsler, 2003), the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen, & Rashotte, 1999) and the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) were used prior to the implementation of the secondary intervention to measure areas of cognitive ability, reading, and behavior, among participants to provide additional information on why students may or may not have benefited from the intervention. In addition, parents, students, and teachers were surveyed pre- and post-intervention to determine if they felt the intervention was useful or not.

The primary reading instruction consisted of a district-wide program, in which the students' progress was monitored three times a year using DIBELS benchmark assessments. The

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reading program consisted of two components: (a) teachers focused on practicing vocabulary and daily reading (choral reading, partner reading, and listening to an audiotape) 45-minutes, 4-days per week using the Harcourt Trophies series; and (b) phonemic awareness, phonics instruction, decoding, vocabulary, and spelling instruction for an additional 30-minutes, 4-days per week using the Foundations: Wilson Language Basics for K-3 (Wilson, 2002).

The secondary intervention was provided to students that did not show improvements in reading rates after six weeks of small group instruction. The secondary intervention was provided in three phases: (a) reading accuracy and behavioral supports (A/BS 1); (b) A/BS and fluency building (A/BS + F); and (c) a return to reading accuracy and behavioral supports (A/BS 2).

A/BS 1 and 2 included instruction for reading accuracy using the Foundations series, which was segmented into three different phonics activities: drill sounds, echo/find letters and words, and dictation for 20-minutes, 4-days per week. An additional 10-minutes were included for read-aloud, which made the total intervention time 30-minutes, 4-days per week. In addition to reading accuracy instruction, behavioral expectations were taught to students, which included: (a) enter the class and get all necessary materials ready; (b) respond during instruction time as appropriate (either individually or unison); (c) follow along with the lesson activities; and (d) participate in each class activity. Students earned and recorded their own tally marks when they demonstrated expected behaviors. In addition, the teacher kept track of tally marks when a student needed redirection. If the student earned more tallies than the teacher during the course of instruction, the student received a small sticker to put on their behavior chart. When a student earned eight stars, he or she was able to choose a small prize from the teacher's treasure box.

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A/BS + Fluency consisted of the same procedures as mentioned above, but the 10-minute read aloud was replaced with a fluency component that included corrective feedback and self-charting of progress. The fluency component was introduced once their ORF scores remained stable. Students were given fluency goals, which ranged from 55 to 90 correct words per minute (CWPM). Students took turns reading to the teacher and were able to move onto the next passage in *The Voyager's Blastoff to Reading* program (Voyager Expanded Learning, 2004) when they reached their CWPM goal within the minute with two or fewer errors. Students graphed the number of words read correctly and the number of errors in the notebooks that were given to them. After the students completed 10 passages (timings), the student notebook, recording chart and a letter written about the progress the student made was sent home with the student.

The results of the study showed that the students participating in the study did not make any adequate progress in reading fluency during the course of the primary reading instruction. During phase 1 of the secondary intervention (ABS 1) four students' demonstrated positive trends, three students indicated stable trends, and two students showed decreasing trends in reading fluency. Four students had a mean increase of more than 10 words. Once the fluency component was introduced during phase 2 (A/BS + F), all students experienced increases in mean levels of performance. Six of the nine students demonstrated increasing trends, while three students witnessed slight decreases in reading fluency during the ABS + F phase.

Analysis of the surveys that were administered before and after the intervention was conducted to the parents, students, and teachers showed that expectations of the intervention were not only met for the parents, but also for the students that participated in the intervention.

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Oakes, Mathur, and Lane (2010) offered several suggestions for further research on the implications of implementing a fluency intervention for students with EBD and reading difficulties. First, since a behavioral support system was included in all secondary intervention phases, it is difficult to determine if whether or not it was needed to increase reading fluency. Future research should include interventions with and without behavioral supports to determine its value. Second, it is important to identify the characteristics of students with EBD and their relationship to academic performance, so one can specifically design an intervention unique to the student's needs. Third, it is not only important to implement an intervention that measures reading fluency, but when addressing interventions for students with EBD, it is also important to examine behavioral growth as a dependent variable, which has socially important outcomes. In conclusion, it is important to provide behavioral supports with targeted small group instruction in order to make gains in reading fluency among students with EBD.

The results of the study Oakes, Mathur, and Lane (2010) conducted showed increases in reading fluency among students at-risk for behavioral problems that were receiving instruction in the regular education classroom. Since most students that have been diagnosed with having EBD often are provided instruction in a self-contained classroom, Scott and Shearer-Lingo (2002) wanted to determine the effects of reading fluency instruction on the academic and behavioral success of middle school students with EBD that were provided instruction in a self-contained EBD classroom.

The independent variables used in this study were the *Teach Your Child to Read in 100 Easy Lessons* (Englemann, Haddox, & Bruner, 1986) and the Great Leaps Reading program (Campbell & Mercer, 1994). The dependent variables consisted of measuring reading fluency

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(words read per minute) and the rates of on-task behavior for all students participating in the study.

Participants of the study included 3 seventh-grade boys who were receiving instruction in a self-contained classroom due to high rates of disruptive behavior in the general education classroom. Prior to the implementation of the reading intervention, the authors of the study analyzed the most recent IEPs of the three students to determine reading levels and observed the students' behaviors in class while participating in a student-directed reading program in the self-contained classroom. Observations showed that students exhibited on-task behaviors, on average, 30% of the time and were functioning at a third-grade reading level.

The baseline instruction consisted of the current reading program that was being implemented in the self-contained classroom. Students were able to select their own reading materials and read, on their own, for a half hour. Comprehension worksheets were completed after the students completed their reading and on-task behavior measures were taken for each student. In addition, each student was given weekly oral reading fluency probes that lasted anywhere from 1 to 4 weeks per student.

The two interventions were sequentially introduced and delivered one-on-one with the instructor during individual sessions. During the course of implementing the *Teach Your Child to Read in 100 Easy Lessons*, the teacher modeled letter-sound correspondences, led the student through practice with sounds, and then tested the student based on the instructions that were provided from the *Teach Your Child* lesson book. Once per week for 10 to 15 minutes, students completed the reading portion of the daily lesson and were observed for rate of on-task behavior, which lasted for approximately two weeks for each student.

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The Great Leaps program was used throughout the remainder of the study and consisted of a one minute timed reading for each of the three segments: phonic sounds, sight phrases, and a brief story. Each lesson took approximately 10-minutes to complete where students read from the same timed pieces each day and charted their fluency gains until they met the program dictated criterion for the correct number of words per minute (CWPM), which they were then able to move onto the next passage in the series.

The amount of on-task behavior was measured by monitoring each student, once a week, while the interventions were being implemented. Student's on-task (+) and off-task (-) behaviors were measured every six seconds using a time-based instrument that recorded the student's behavior. During 25% of the observations, on and off-task behavior were compared to the measures taken by two observers.

The results of this study indicated that fluency rates remained the same during the baseline phase, which was the original reading program implemented in the self-contained classroom. Similar results were evident after implementing the first phase of the intervention, which included the *Teach Your Child to Read in 100 Lessons*, little to no progress was made in reading fluency among participants. With the implementation of the Great Leaps phase, students demonstrated significant gains and increasing trends in reading fluency. On-task behavior improved accordingly with the implementation of the three phases. The Great Leaps program yielded the highest gains in on-task behavior, which indicated that students were able to stay on-task close to 90% of the time while participating in the intervention. In some cases, students' on-task behaviors improved by 60% after the interventions were introduced.

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Based on the results of the study, the researchers concluded that implementation of a reading fluency intervention in a self-contained classroom among students with EBD, can have a positive effect on both reading achievement and on-task behavior. The authors provided several key components that need to be included in an intervention in order for it to be successful: (a) reading instruction should be delivered at the student's level, allow opportunities for repeated practice, provide direct teacher-student interactions, and have the student's monitor and keep track of their own progress; (b) effective instruction not only allows for natural reinforcers, but has the biggest impact on behavior in the classroom; (c) and create opportunities for success with instructional tasks every day. Students with EBD often give up easily if they don't see improvements on a daily basis.

Though the intervention showed increases in reading fluency because there was no mention of how long the interventions were used in the classroom, duplication of this study would be difficult. In addition, since the two intervention phases were given one-on-one with the student, further research is needed to determine the effects on reading fluency and behavior when being implemented to an entire class at one time.

In Scott and Shearer-Lingo's 2002 study, the largest gains in reading fluency and on-task behavior was most evident using the Great Leaps program, which utilized a repeated reading method to help increase reading fluency among students with EBD. According to the NRP (2000), the most commonly recommended intervention for improving fluency among students with a learning disability is repeated reading. Further research, on the effect a repeated reading intervention can have on an increase in reading fluency and comprehension among students with behavioral problems, was conducted in 2007 by Alber-Morgan, Ramp, Anderson, and Martin.

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Alber-Morgan, Ramp, Anderson, and Martin's 2007 study was designed to answer the following research questions: (a) What are the combined effects of systematic error correction, performance feedback, and repeated readings on the reading fluency comprehension of students with EBD? (b) What are the effects of this repeated readings package plus prediction on the reading fluency and comprehension of middle school students with EBD? (c) Lastly, what are the student's opinions of the repeated reading intervention?

The independent variable consisted of the use of a repeated reading intervention that incorporated systematic error correction, performance feedback, and a predictions section. A number of dependent variables were measured, which included: (a) number of words read correctly per minute, (b) number of errors per minute, (c) the number of literal and inferential comprehension questions answered correctly, and (d) students' opinions of the repeated reading intervention.

Participants included four students, 12 to 15 year olds, receiving three hours of instruction in a self-contained classroom in the morning and attending counseling services for three hours in the afternoon due to behavior problems that required their removal from the regular education classroom. Students were nominated by their teacher based on observed deficiencies in reading and reading scores measured on the Mississippi Curriculum Test (MCT; Mississippi Department of Education [MDE], 2001).

Prior to the implementation of the intervention, students were pretested to determine their reading level and comprehension skills using the Analytical Reading Inventory (ARI; Woods & Moe, 2003). In addition, data collectors were trained, given opportunities to role-play, and were provided procedural checklists for each condition presented in the study.

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All of the reading passages used throughout the three experimental conditions were selected from the MacMillan McGraw-Hill basal reading series (Flood, Hasbrouck, Hoffman, Lapp, & Medearis, 2003) and A New Day basal reading series (Pearson, 1991). Comprehension questions were developed by the experimenters, which included four literal and four inferential questions for each passage. The interventions were conducted over a course of an hour during instructional time, 3-days each week (Tuesday-Thursday), for 11-weeks.

The first of the three experimental conditions implemented throughout the study was the baseline condition, which consisted of one-on-one instruction between the data collector and student. Students were asked to read a passage out loud for one minute, while the data collector recorded the number of words read correctly (WPM-C) and the number of errors committed. Students were allowed extra time to finish reading the entire passage, so they would be able to answer the eight comprehension questions that were later asked by the data collector. The students were given immediate feedback on their responses to the comprehension questions and praise for completing the task.

The second condition consisted of the repeated reading condition, which also included a systematic error correction procedure. Students were asked to read an entire passage out loud while the data collector recorded the number of words read correctly and incorrectly. As a part of the error correction procedure, when a student read a word incorrectly, the data collector read the word correctly, had the student repeat the word, and provided praise if the word was said correctly. After reading the entire passage, the data collector reviewed each incorrect word read with the student by pointing at the word and asking “What’s this word?” if the student responded correctly, they were given praise; if the student responded incorrectly, the data collector repeated the error correction procedure again and gave the student praise for completing the exercise.

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During the timed reading portion of this condition, students read the same passage twice for one-minute while the data collector documented the number of words read correctly and reported the number to the student. If the student increased the number of words read correctly the second time reading the passage, the student was given praise. Comprehension questions were administered using the same procedures used in the baseline condition and were administered immediately after the second timed reading.

The third condition consisted of all the components mentioned in the repeated reading condition, but the authors included a predictions component. Students were asked to read the title and to predict what they thought the passage would be about. After reading the first two sentences, students were asked if they wanted to modify their predictions and then continued reading the entire passage. After the passage was completed, data collector and student discussed how close their predictions matched the story.

In order to measure social validity, one week after the completion of the study, students were interviewed by the data collector to determine their opinions of the intervention. The following questions were asked: “How do you think this study affected your reading performance?” “What did you like about doing repeated readings and answering questions?” and “What did you dislike about it?” (Alber-Morgan, Ramp, Anderson, & Martin, p. 22)

Analysis of pre and post-intervention data indicated that repeated reading had a significant effect on the increase in reading fluency for three of the four students who participated in the study and reading errors decreased for all four participants even as fluency gains were made. The addition of the predictions component to the repeated reading condition showed no increase in reading fluency for any of the participants. In addition, data indicated that

the use of a repeated reading intervention had an immediate effect on the ability to answer literal questions more consistently among the four participants, but showed a delayed effect on the number of inferential comprehension questions answered. Student opinions about the repeated reading procedures were positive and students rarely exhibited disruptive behaviors during data collection sessions.

Based on the results of this study and previous research conducted on the effects of a repeated reading intervention, the researchers recommend using repeated reading as a supplement to an evidenced-based reading program in the classroom. It is also important to include a systematic error correction system and performance feedback for students, so they can further develop their vocabulary skills and feel a sense of accomplishment when provided positive feedback and praise. Since individual instruction was provided over the course of the study, it may be difficult to implement the reading intervention in a classroom setting. Teachers should consider using any and all resources, such as, paraprofessionals, tutors, volunteers, or parents to help implement the intervention. In regards to reading comprehension because the passages used throughout this study were short in length, which made it difficult to generate more than eight questions, it may have contributed to a ceiling effect. The use of cloze procedures, retelling, paraphrasing, or writing might provide further evidence in increasing reading comprehension skills among students with EBD.

Similar to the questions that were asked by Alber-Morgan, Ramp, Anderson, and Martin during their 2003 study regarding the effects of a repeated reading intervention on gains in reading fluency and comprehension, Staubitz, Cartledge, Yurick, and Lo (2005) expanded on the use of a repeated reading intervention. By utilizing a peer- and trainer-mediated instruction for students with EBD, Staubitz, Cartledge, Yurick, and Lo (2005) further validated the effects a

repeated reading intervention has on reading fluency and comprehension among students with EBD.

The authors designed a study to answer the following research questions: (a) “evaluate the effects of repeated reading (RR) as a sole reading intervention for students with and at risk for EBD; (b) determine the effectiveness of peer-mediated strategies with students with or at risk for EBD; (c) assess the generalizations of improvements to unpracticed passages; and (d) verify the intervention effects with a standardized test” (p. 52).

The independent variables consisted of the use of a peer-mediated RR intervention using the passages from the Scholastics Biography Series grades 3-7. The dependent variables were the measurements of oral reading rate, accuracy, and comprehension.

Participants in the study consisted of six students 9 to 11 years of age, in which, five were diagnosed with having EBD and one student was at risk. All six students were nominated by their teacher for being deficient in reading, which was also verified by the results from standardized assessments that indicated that they were functioning at least one year below grade level on three of the four subtests administered.

A pre-test was administered assessing letter-word identification, reading fluency, passage comprehension, and word attack. An alternate form of the Woodcock-Johnson III Tests of Achievement (WJ III; Woodcock, McGrew, and Mather, 2001) was used as a post-test assessment. The intervention consisted of three separate conditions: (a) sustained silent reading (SSR) was used as the baseline condition; (b) peer-mediated RR; and (c) three different generalization conditions were implemented. Accuracy was measured by dividing the total number of words read correctly by the total number of words read during the one minute sample

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implemented during all conditions. Students averaged 32 sessions of repeated reading lasting 10-15 minutes.

Over the course of the SSR condition, students were required to read silently a 180-200 word, third grade passage, for 10-minutes. Unaware that they were being timed, students were asked to read out loud to the experimenter for one minute after they completed their reading. Students then responded to comprehension questions using a cloze procedure. No feedback was given to the students, but the experimenter repeated their responses to ensure that they were understood.

Prior to the implementation of the peer-mediated RR intervention, students were trained in pairs during three, 20-minute sessions, on appropriate reading and listening skills and correction procedures. In addition, the experimenter modeled the appropriate behavior and students were able to practice several times prior to starting the intervention. Students also received a folder that contained graphs for charting their words per minute read (WPM), a script for correction procedures, and a good listener card that listed the behaviors that were associated with good listening skills.

During the peer-mediated RR, students were paired with another student based on similar reading levels. Participants read out loud a 180-200 word passage for 10-minutes, while their partner followed along and corrected any miscues using a scripted correction procedure. In addition, the experimenter observed the pairs and provided corrective feedback, verbal praise, and stickers whenever appropriate. After the 10-minute practice, students were asked to read out loud for one minute with the experimenter and given three opportunities to increase the number of words correctly, the best performance was then graphed in their reading folder. The fluency

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criterion was set to 145 WPM for fourth-graders and 180 WPM for fifth-graders with 10 or less errors. Once the criterion was met, students were asked to answer five comprehension questions, if all the comprehension questions were answered correctly, they were then able to advance to the next grade-level passage.

Three generalization conditions were implemented once the intervention began. The first condition, covertly timed generalization (GEN), was similar to the SSR condition and was administered once a week. The second condition, timed generalization (TGA), was similar to the GEN, but students were told that they were going to be timed. The last condition, timed and charted generalization (CGA), was similar to the TGA, but students were asked to mark their WPM with an X on the same graphs they were using during the RR intervention.

Results of the study showed improvements in WPM for all students during the RR condition by an average increase of five WPM at each grade-level. Not only were students reading faster, but they were able to meet the fluency criteria more rapidly with each successive passage. During the generalization conditions, all of the students read faster, especially when they knew they were being timed during the TGA condition. WJ III post-test results demonstrated improvements in all four sub-tests with group gains of three months in reading fluency.

Similar to the increase in reading fluency, the participants' accuracy increased during each successive RR text, except for the seventh grade passage, and during the generalization conditions. In addition, students were able to answer more questions correctly during the RR and generalization conditions compared to the SSR. WJ III post-test results in the

comprehension sub-test showed the greatest gains, with a group average increase of eight months.

At the end of the intervention, the authors interviewed students and sent questionnaires to the teachers and parents to assess the opinions of the RR procedures that were used. All of the responses received from the students, teachers, and parents were favorable and expressed their desire to continue with the program.

Though the study demonstrated positive effects on reading fluency and comprehension with the use of a peer-mediated repeated reading intervention, the authors noted that there was one major problem with this study. Because the students progressed at different rates over the course of the intervention, they were not always paired with the same partner each session and often the experimenter had to participate due to absences. Seventeen out of the 20 sessions that the fluency criterion was met, the students were partnered with the experimenter. Because of this discrepancy, it is difficult to attribute the findings solely on the basis of peer-mediated instruction. In addition, because students progressed at a different rate, the advanced reader often dominated the session making it difficult for their partner to follow along, which put them at a disadvantage.

According to the authors, one of the biggest advantages in using a peer-mediated intervention is that it provides more opportunities for practice in the classroom because it allows for less teacher-instruction. In addition, by matching students' abilities with the appropriate reading level texts, students are less likely to become frustrated and are more willing to participate in reading instruction.

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The previous studies by Alber-Morgan, Ramp, Anderson, and Martin (2003) and Staubitz, Cartledge, Yurick, and Lo (2005) provided evidence that repeated reading was an effective intervention to help increase reading fluency and comprehension among students with EBD at the elementary level. Strong, Wehby, Falk, and Lane (2004) conducted a study to determine the impact a structured reading curriculum and repeated reading intervention would have on the performance of junior high students with EBD.

Strong, Wehby, Falk, and Lane (2004) addressed the following research questions in their study: “(1) What is the impact of a class-wide implementation of the Corrective Reading curriculum on the reading fluency and reading comprehension of adolescents with EBD? (2) What are the additive effects of a repeated reading intervention, in conjunction with Corrective Reading, on the fluency and comprehension scores of these participants?” (p. 564)

The independent variables were the use of the Corrective Reading (CR; Engelman, Meyer, Carnine, Becker, Eisele, & Johnson, 1999) curriculum and a repeated reading intervention. The dependent variables were an increase in oral reading fluency and comprehension.

Participants in the study consisted of six students in the seventh and eighth grade with a mean age of 13 years. The students with EBD were enrolled in a single classroom within a self-contained school for students, first through eighth grade, located in a southeastern metropolitan school district. Students are referred to this school when the local school district determines that their behavior is too difficult to manage in a typical special education setting. Based on school records, some of the social/behavioral issues of the students consisted of the following: disruptive behaviors, aggression, in-attention, and verbal and physical abuse.

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Prior to the implementation of the intervention, three different standardized tests were administered to assess the students in the area of reading and social behavior: the Woodcock Reading Mastery Tests-Revised (WMRT-R; Woodcock, 1998), the Gray Oral Reading Test-Third Edition (GORT-3, Wiederholt & Bryant, 1992) and the Social Skills Rating System (SSRS-T; Gresham & Elliott, 1990).

The existing reading program used prior to the implementation of the Corrective Reading curriculum acted as the baseline condition. During the first ten minutes in class, students were told to write in their journals. Then, the teacher reviewed the spelling words for the week, discussed the parts of speech the words represented and then students were asked to use their spelling words in a writing activity. During the last 15-minutes of the class, students took turns reading aloud a story that was selected by the teacher. Weekly reading probes were administered to monitor the increase in reading fluency during this phase.

The Corrective Reading curriculum was implemented for 30-40 minutes, 4-days a week, 7-weeks prior to the implementation of the repeated reading condition, using a series of lessons designed to teach decoding strategies that included: word attack skills, group reading, and workbook exercises. The teacher received five hours of training and was provided feedback regarding her adherence to the instructional scripts that were provided to ensure fidelity of the program. Based on the results from the Corrective Reading Placement Test, all of the students met the criteria for the B1 level. This level is designed for students who exhibit the following reading habits: “(1) typically guess at words; (2) exhibit difficulty reading words such as “that,” “what,” “a,” and “the;” (3) and are inconsistent in the way they read” (Strong, Wehby, Falk, & Lane, p. 567).

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The repeated reading intervention was implemented for 20-30 minutes, 4-days a week, using the Great Leaps Reading Stories (Campbell, 1999) in the second to seventh grade reading range. Implementation of the intervention took place after the completion of the Corrective Reading curriculum. Students were taken in pairs, by the research assistant (RA), to the school library to allow for uninterrupted training. Students began each session by chorally reading aloud twice with the RA. Students took turns reading out loud, while reading out loud; the other student followed along and corrected the student when there were any unknown words. After the students read the passage a total of four times, the RA would individually time the students reading a new passage from the Great Leaps series, so they could monitor their reading progress on the final passage.

The results of this study indicated moderate growth in reading fluency during the implementation of the CR program. With the addition of the repeated reading intervention, four out of the six students showed increases in reading rates at both their functional reading level and in age/grade leveled texts. For the two students that showed little progress, there may have been a ceiling effect due to the fact that they were already reading at a higher level compared to the other participants. In addition, four students increased their accuracy in regards to answering the comprehension questions that were asked during the repeated reading intervention.

Though the results showed progress, the researchers concluded that at the end of the study, the oral reading rate was still below what might be expected from students at the same age without disabilities and that the improvement in reading performance was probably not significant enough to overcome the struggles in reading that were displayed by the participants prior to the intervention.

This study supports the use of a consistent, teacher-implemented reading program with the addition of a repeated reading intervention to help increase the reading fluency of students with EBD. Further research is recommended to investigate the obstacles in implementing an effective academic program in the classroom for students with EBD and the ability to use existing classroom resources to provide supplemental instruction for this population of students. In addition, reading difficulties might trigger frustration, which may lead to many of the behavior problems that are prevalent among students with EBD. Because of this co-occurrence, further research needs to be conducted to determine the impact of an academically based intervention on the inappropriate behavior problems that are associated with students with EBD.

Summary

Though there is a limited amount of published research relating to the reading instruction for students with EBD, Wehby, Falk, Barton-Arwood, Lane, and Cooley (2003) found that the students with EBD that participated in their study responded positively to a comprehensive reading instruction, even if it was implemented over a relatively short period of time. Oakes, Mathur, and Lane (2010) concluded that students at risk of behavioral problems are capable of making the same gains in reading fluency similar to students with reading risks alone when a behavioral support plan is implemented in conjunction with a structured intervention plan. Scott and Shearer-Lingo (2002) indicated that when instruction includes a component that sets students up to succeed and offers the opportunity to monitor progress on a daily basis, increases in reading fluency and on-task behavior are more likely. Alber-Morgan, Ramp, Anderson, and Martin's 2007 study demonstrated that under appropriate instructional conditions, such as, use of a repeated reading intervention, corrective feedback, and error correction, students with emotional behavioral problems can show improvements in reading fluency and comprehension.

In addition, the use of strategies that considers the connection between academic and behavioral interventions for students with EBD show a promise for success. Staubitz, Cartledge, Yurick, and Lo's 2005 study showed gains in fluency and comprehension with the implementation of a peer-mediated repeated reading intervention, but concluded that due to the different rates of progression that were seen among student partners, the implementation of a peer-mediated repeated reading method would offer more practice for students in the classroom. Strong, Wehby, Falk, & Lane (2004) demonstrated that using a repeated reading intervention as a supplement to a district-wide reading curriculum can improve the reading fluency among students with EBD.

Summary of the Literature

The ultimate goal in literacy instruction is to provide the skills to students to help them further comprehend and gain meaning from the material that is being read. The connection between reading comprehension and fluency has been the topic of discussion in many research studies. In theory, improving reading fluency allows students to recognize words effortlessly, which allows students to devote more of their attention to understanding the meaning of the texts being read. The research reviewed in this study validated the National Reading Panel's 2000 report, which indicated that the use of repeated reading procedures had a moderate impact on the reading ability of beginning readers. The research emphasizes the interconnectedness between the increase in reading fluency and comprehension, and the impact a repeated reading intervention has on the improvement of fluency and comprehension for students with or without a disability.

While repeated reading interventions have shown increases in reading fluency and comprehension among students with or without a disability, the research reviewed indicated that when focusing on the reading fluency of students with EBD, certain modifications are necessary in order for the interventions to have an impact on this population of students. The use of behavioral supports helps create a positive environment during small group interventions. Students who read successfully will continue to read, students who often fail, will often give up and avoid reading tasks. Students with EBD have often experienced a lot of failure throughout their school careers (Scott & Shearer-Lingo, 2002). Because of this, it is important to create opportunities for success with instructional tasks each and every day to encourage students with EBD to continue to make progress and learn to like reading.

Overall, when working to increase the reading fluency and comprehension among students with EBD, the reviewed research on this population indicates that several components are needed in addition to a comprehensive literacy plan: (a) provide immediate reinforcements, feedback, and monitoring (graphs and charts) to encourage participation (Morris & Gaffney, 2011; Valleley & Shriver, 2003; Wexler, Vaughn, Roberts, & Denton, 2010; Scott & Shearer-Lingo, 2002; Alber-Morgan, Ramp, Anderson, & Martin, 2007); (b) include material that is within the students current reading level to avoid frustration (Roundy & Roundy, 2009; Valleley & Shriver, 2003; Staubitz, Cartledge, Yurick, & Lo, 2005); and lastly, (c) make sure that the intervention is structured enough to maintain the student's attention throughout the course of the intervention (Valleley & Shriver, 2003). Many of the classrooms for students with EBD observed throughout the research reviewed had minimal reading programs in place in the classroom. As previously mentioned students that exhibit severe behavioral problems are often placed in a self-contained classroom that focuses more on decreasing inappropriate behavior

rather than increasing academic skills. Further research is warranted to examine the effects a repeated reading intervention would have on the behavioral growth of high school students with EBD, where the disabilities and behavior problems have become more embedded overtime.

This next chapter outlines the procedures used throughout this case study, provides a description of the participant and intervention, and includes an overview of the data collection process taken place throughout the implementation of the intervention.

Chapter 3

Procedures

The purpose of this study was to determine (a) if an increase in reading fluency would lead to an increase in reading comprehension and (b) if an increase in reading comprehension would lead to an increase in on-task behavior for a student with disabilities in the general education classroom. The student that participated in the study is a struggling reader with a mild cognitive disability (CD) and emotional behavioral disorder (EBD) whose behavior often interferes with instruction in the general education classroom. I theorized that the participant would stay on-task more often in the classroom if she was able to comprehend the material that was being presented in class.

As a student progresses in grade level, the emphasis on teaching necessary skills switches to teaching content and students that struggle with reading fall even further behind their peers because they lack the reading skills needed to further comprehend the material that is being taught (Oakes, Mathur, & Lane, 2010). Due to a lack of reading skills, frustration levels among students that struggle with comprehending material increases, which leads to an increase in behavioral problems in the classroom. Kauffman (1987) determined that reading failure is frequently related with conduct disorder and externalizing behavior problems, such as aggression and defiance of authority. If a student is continuously acting out in class due to his or her inability to comprehend material, it will eventually lead to that student being removed from the class and/or suspended, which further widens the student's academic progress in the classroom from that of his or her peers.

This chapter begins with a description of the participant and then provides an outline of the intervention with a detailed description of the various steps taken throughout the intervention.

Next, the chapter discusses the data collection process used throughout the study, and concludes with a brief summary of the process.

Description of the Participant

The participant in the study, “Jane,” was an 18-year old African American female who was enrolled in the 12th grade at a small innovative high school with a total population of 152 students in the 11th and 12th grades. The high school is located in a large urban school district in the Midwest that allows any student who lives in the school district and has earned at least 10 credits needed for graduation, to enroll. The participant was evaluated in 2001 to determine if she was eligible to receive special education services.

According to her 2001 evaluation, Jane was found to be functioning at the “borderline range of retardation.” Testing indicated that there were delays in the areas of auditory memory, auditory association, and verbal and visual sequencing. She was also found to be easily distracted and needed frequent reminders to stay on task. In addition, it was noted that she often “bullied” other kids at school on the playground.

Students diagnosed with a cognitive disability (CD) have difficulties with working memory, generalization, metacognition, motivation, and language (Friend, 2008). Students with CD often forget what they are supposed to do, particularly if the task involves multiple steps. When taught a task or idea, they have difficulties applying that task or idea to other situations. Some students with CD experience problems with motivation and tend to give up too easily. Furthermore, due to delays in language development it may take longer for them to learn concepts.

In addition, students with an emotional behavioral disorder (EBD) internalize or externalize their behavior more often and with more intensity than other students. Some may experience anxiety from fear, while others may feel anger. Students that feel anger often externalize their behavior in the form of aggression by hitting, spitting, or fighting when asked to do something they don't want to do. In addition, students with EBD often have inadequate social skills, which cause difficulties in establishing and maintaining relationships with peers and adults. Students with EBD often experience academic difficulties, which would suggest they could have a cognitive disability, but no direct relationship between intelligence and emotional problems has been found. If a student's cognitive ability is below a certain level, he or she may be considered to have a cognitive disability and any problem behaviors that may occur may be caused by his or her primary disability (Friend, 2008). Though Jane had been diagnosed with a cognitive disability (CD), further evaluation performed in the fall of 2004 to determine if her behavior problems were a result of her primary disorder concluded that in addition to her CD, she also had an emotional behavioral problem (EBD).

Jane and her mother agreed that a re-evaluation was not needed in the fall of 2011, so Jane's most recent evaluation was in 2008. At that time, she was functioning well below grade level in all academic areas. Over the last two years, Jane has been receiving special education services in the regular education classroom, which consists of various accommodations and modifications specific to her needs. Many of her needs require more one-on-one instruction, which is much easier to provide based on the small size of the school she is currently attending and the block scheduling the school utilizes. Prior to attending her current school, Jane attended a large urban high school that offered her the opportunity to frequently wander the hallways. In addition, due to the larger population, it was difficult to provide her more one-on-one instruction,

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which may have led to an increase in behavior problems. When Jane is given any tests or quizzes, she is provided with one-on-one attention with her special education teacher or a paraprofessional in the resource room. Jane does very well on multiple choice tests or quizzes when the content, questions, and answers are read out loud, which indicates that she is functioning at grade level in listening comprehension skills.

Based on results from the Woodcock-Johnson III Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007) administered in the fall of 2011, Jane is currently reading at the third grade level. Since I have had the opportunity to work with Jane over the course of the last two years, I have noticed that she reads sentences very slowly and has a difficult time understanding what is being read due to her limited vocabulary. She is unable to sound out the various sounds that certain letter combinations make and if she doesn't automatically recognize a word, she will skip over it, which interferes with her ability to pay attention to what is being read. Jane's comprehension skills are at the third grade level. Jane has a difficult time activating prior knowledge and has little confidence when reading. When reading and answering comprehension questions, she usually looks for reassurance that she is reading unfamiliar words correctly and/or answering comprehension questions correctly.

Jane has excellent penmanship, but she has a problem with spelling due to her inability to connect letters to the sounds they make. Her writing skills are at the third grade level. When answering short questions, she does not include the subject in the sentence, which makes it incomplete; she also has a difficult time organizing her paragraphs and finding the right words to use when starting a new paragraph.

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Besides having deficits in reading and writing, Jane's behavior has steadily gotten worse over the last two years. Though the number of referrals has decreased since attending a smaller school, she is often seen arguing with staff members and removed from the classroom for being disruptive. Over the course of the last two years, I have observed Jane and have noticed that she is very vocal and her behavior typically worsens when she is in front of her fellow classmates. She swears a lot and when asked to do something she doesn't want to do, she becomes more confrontational with staff members when there is an audience. While working with Jane, I have noticed that she tends to give up too easily and is unwilling to try to do her work on her own. When she needs help, she is very impatient and expects staff members to stop what they are doing, even when they are helping another student.

Jane has a difficult time sitting in one place for too long. It seems like she is more interested in what's going on outside of the classroom rather than paying attention to the material that is being taught. For instance, she has gotten into several disagreements with other female classmates based on threats or rumors that have been spread throughout the school and neighborhood that have led to her being sent home or suspended. In addition, she has been arrested several times for accessory to shoplifting and as the tickets increase, so do the court dates. She has missed several required court dates, which has resulted in her having several warrants out for her arrest. Her attendance has greatly declined over the course of the second semester. Though Jane often arrived late to school, over the course of the first semester her attendance was at 98%. Over the course of the second semester her attendance declined to 85%. Jane claimed that the stress from having legal issues prevented her from her attending school on a regular basis. The only thing that seems to be motivating her to attend school now is her graduation and she is trying to avoid conflicts with other classmates until she has her diploma.

Though Jane and I have experienced some difficulties working with one another over the last two years, Jane is a survivor and has endured some traumatic experiences over her short life, which made me admire her perseverance. When working one-on-one with Jane the tenderness and compassion she has for her family and friends made it easier for me to work with her. I saw a lot of potential in her, which is one of the reasons I chose her to work with over the course of this study.

After further review of Jane's academic and social skills and based on my personal experiences of working with Jane, an appropriate method of intervention procedures was developed to best address Jane's deficits in reading fluency over a seven week period of time.

Description of the Intervention

In order to determine (a) if an increase in reading fluency would lead to an increase in reading comprehension and (b) if an increase in reading comprehension would lead to an increase in on-task behavior for a student with disabilities in the general education classroom an individualized reading intervention was created that included: (a) pre-and post-testing to determine Jane's current levels in fluency and comprehension and if any growth was made at the conclusion of the intervention; (b) the use of a repeated reading intervention to measure fluency gains; (c) vocabulary check; (d) partner reading of a narrative text chosen by Jane; (e) completion of comprehension questions to determine growth in comprehension; and (f) classroom observations to measure any on-task behavior gains in the general education classroom.

This section describes the procedures used during: (a) The repeated reading intervention, (b) vocabulary check, (c) partner reading, (d) completion of comprehension questions, and (e)

observations of behavior conducted in the general education classroom. A glossary of some of the terms used throughout this chapter is provided in Appendix A.

Having the opportunity to work with Jane over the last two school years, I personally invited Jane to participate in the study because I thought she could benefit the most from the intervention and among all of the students on my special education class load, Jane was referred to the lead teacher-in-charge the most for behavior problems in the classroom. Jane and her mother were provided with a detailed description of the case study and both Jane and her mother provided written permission for Jane to participate in the case study.

Jane received individualized instruction and tutoring in reading fluency and comprehension during an open block in her schedule that consisted of 2 one-hour and 40-minute sessions per week (Tuesdays and Thursdays), over the course of seven weeks, resulting in a total of 14 possible sessions. After accounting for school breaks and absences, a total of six sessions were completed. Due to excessive absences that occurred during the first couple of weeks of the intervention, a change in the student's class schedule was made to assist in increasing Jane's attendance on the days the intervention was being implemented.

Due to the small size of the high school and to avoid as many interruptions as possible during the session, we had planned to use an alternative location off campus to conduct the intervention. On the first day of the intervention, Jane refused to participate if she had to leave the school, so I agreed that we would conduct all sessions in my office. My office is a small room located off the main hallway of the school. Though the door to my office remains locked, it is easily accessible to students and even if the door is shut, students in need of assistance often knock on my door.

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Each session included a consistent reading fluency, vocabulary, and comprehension component that allowed any progress made in those areas of literacy instruction to be measured. In addition, the student's behavior was monitored using anecdotal notes and teacher observations throughout Jane's scheduled classes to determine if the amount of on-task behavior in the general education classroom increased as her fluency and comprehension increased throughout the intervention. Since there was an already established relationship with the parent and student, a discussion about the agenda and the goals for the intervention, along with student-parent-teacher questionnaires and pre-tests were discussed and implemented prior to the first day of the intervention.

Pre-testing consisted of administration of the Woodcock Johnson III Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007) to determine current reading levels. In addition, Jane's mother completed a Child Behavior Checklist for ages 6-18 (Achenbach, 2001) (see Appendix B) and the student completed an Interest/Attitude questionnaire created by the researcher to determine her reading interest and preferences in March of 2012 (see Appendix C). In addition, a behavior questionnaire created by the researcher was given to one of Jane's regular education teachers in order to provide additional information on some of the behavior problems that have occurred in the general education classroom (see appendix D).

Each session began with a casual conversation about how things were going at home and at school. Jane was provided with a session outline that she could follow along with to help keep her on track and focused, which included the following five steps: (a) repeated reading of fluency passages, (b) completion of "What's the Word" vocabulary worksheet, (c) Partner reading out loud between student and researcher, (d) completion of story map based on the chapter that was just read, (e) answering of comprehension questions related to chapter just read. In addition,

Jane was observed in two regular class periods each week to determine if the amount of on-task behavior improved over the course of the intervention.

Repeated Reading

Step 1 of the intervention consisted of a repeated reading intervention to help increase Jane's reading fluency. According to the National Reading Panel (2000) the most commonly recommended procedure for improving reading fluency of students with reading disabilities is the use of a repeated reading intervention. The goal of a repeated reading intervention is to help a non-fluent reader build word recognition skills. Repeated reading consists of a student orally reading a passage several times out loud; the student is instructed to proceed to the next passage or section of the text when the desired level of fluency is achieved (Roundy & Roundy, 2009). At the beginning of the intervention, Jane was asked to read two separate passages from the Reading A-Z series (readinga-z.com) starting at the 2nd grade level, which was one grade level below her current reading level in order to establish a baseline. Based on the criteria set forth in Valleley and Shriver's 2003 study on the effect a repeated reading intervention had on an increase in reading fluency, in order for Jane to move up a level or onto the next passage, she needed to increase the number of words read per minute-correct (WRPM-C) three consecutive times. She became very frustrated when she heard she had to read so much. After a further evaluation of the recommendations provided by Valleley and Shriver's 2003 study indicated that the students that participated in the study also became frustrated with having to read the same paragraph over and over again until they demonstrated an increase in fluency three consecutive times, therefore, Jane only needed to read each passage twice, regardless of whether or not there was an increase in reading fluency in order to make her more willing to participate. During the first session, I read the first passage out loud to her to demonstrate what I needed her to do

during the first step of the intervention, but after that, all remaining sessions began with Jane skimming through the passage and she started to read when she was ready. Due to lack of resources and funding, I was unable to print all of the fluency passages available on readinga-z.com; therefore, I had to use two fifth grade passages from treasures.macmillanmh.com.

Vocabulary

Based on Jane's pre-test scores from the Woodcock-Johnson III Form C/Brief Battery, Jane's vocabulary skills are at the third grade level, which might contribute to her low fluency levels. According to Homan, Kelsius, and Hite (1993), the use of a repeated reading intervention limits the students' exposure to vocabulary, thus a vocabulary component should be added when implementing a repeated reading intervention. Therefore, Step 2 of the intervention consisted of a vocabulary check of some of the words that I thought she might have difficulties with while reading a chapter of the book we chose to read during step 3. Prior to reading the chapter, I highlighted several words that I thought she would have difficulties pronouncing and understanding based on the length of the word (i.e., "metropolis" [chapter 1 vocabulary word] and "melancholy" (chapter 3 vocabulary word]). During the first session, I highlighted eight words, which frustrated Jane, so we agreed that I would only include six vocabulary words per chapter. For each vocabulary word highlighted, Jane completed a "What's the Word" worksheet created by researcher (see Appendix E) where she had to write down the word, define the word, use the word in a sentence, and find a synonym using an on-line thesaurus. During our second to last session, Jane asked if we would complete the "What's the Word" worksheet while we read rather than before, so I decided to merge the vocabulary component (step 2) with the reading out loud of the chapter (step 3). This made sense considering that a typical reader would not skim

through the book looking for vocabulary words they didn't know prior to reading the book; instead, they would look up the words as they read.

Partner Reading

Prior to the start of the intervention, an interview with Jane was conducted to determine her interests, so I could find a book that was not only at her functional level, but also contained content that would retain her attention throughout the course of the intervention. Morris and Gaffney (2011) recommended that researchers consider the interests of their participants. By providing participants with something of interest to them, they are more willing to participate and students are able to concentrate more because they are focusing on something that they like. Prior to the implementation of the intervention, I found online a list of low level, high interest books for high school students at schoolonwheels.org. I provided Jane with a synopsis of each book that was listed at the third-grade reading level from which she then chose the book *Truth* by Tanya Lloyd Kyi. *Truth* is about a girl in high school who was at an unsupervised party at a classmate's house where a man was murdered. She works on the school's in-house news program and takes on the assignment of trying to find the killer.

Scott and Shearer-Lingo (2002) recommended that direct teacher-student instruction should be included in an intervention in order for it to be successful. Therefore, a partner reading (step 4) component was included that consisted of Jane and me reading one chapter per intervention period from the book *Truth*. During the first session, Jane and I took turns reading; she would read a page and then I would read a page. This pattern continued until the entire chapter was read. Each chapter consisted of about 12-15 pages. Around the third session, Jane

took it upon herself to start reading the entire chapter out loud to me and on occasion she would ask me to read a couple pages when she became tired.

Comprehension

After reading a chapter, Jane and I completed a graphic organizer found on (lessonplansource.com) that consisted of us answering the “5 W’s:” What happened? Who was there? Why did it happen? When did it happen? and Where did it happen? (see Appendix F) Based on her inability to recall information that was read and her unwillingness to look back in the book to find the answer, after the second session, I decided to stop Jane while she was reading, so she could complete the graphic organizer while she read. I was hoping to teach her how to complete a graphic organizer, so when she reads on her own, she would be better prepared and be able to answer comprehension questions more effectively. It seemed like Jane focused more on how to pronounce the words she read rather than on what the words meant, so the use of the graphic organizer would allow her to better recall the information that was being read throughout the intervention along with future reading assignments.

Step 5 of the intervention consisted of the completion of 10 comprehension questions that corresponded with the most recent chapter read. I created the comprehension questions, which consisted of five literal questions and five inferential questions (for an example see Appendix G). Jane does particularly well at answering multiple choice questions, but struggles with answering short answer questions that require more details. I allowed her to use the graphic organizer that she completed while reading, but she often forgot that she was able to use it or she second guessed her answers. She often looked to me for confirmation on whether the answer was correct. Since I have worked with Jane before, I was well aware of this tactic, so while she was

completing the questions and looking to me for confirmation, I never told her the answer was wrong even when it was, so I could get an accurate reading of whether or not her comprehension skills increased as her reading fluency increased. This next section discusses how data was collected prior to the implementation of the intervention and during the course of the intervention.

Data Collection

To collect data for this case study, I used: (a) the most recent test results from the Woodcock-Johnson III Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007) that was administered in the fall of 2011, (b) a Child Behavior Checklist for Ages 6-18 completed by the student's mother in March of 2012 to determine if Jane displayed the same behavior problems outside of the classroom or if the behavior only occurred while in a classroom setting (Achenbach, 2001)(see Appendix B), (c) weekly classroom observations conducted by researcher (see Appendix H) and (d) behavior questionnaires completed by the student's classroom teacher over the course of the intervention (see Appendices D and I).

During the repeated reading section of the intervention, I measured the number of words read correctly per minute (WRPM-C) to determine Jane's reading fluency. While Jane read the passages provided to her, I timed her using a stopwatch and highlighted any words that were mispronounced. I then subtracted the number of mispronounced words by the total number of words and divided the number of words correctly read by the total time it took Jane to read the passage. To further evaluate if whether or not an increase in reading fluency would lead to an increase in reading comprehension, the student completed a graphic organizer (see Appendix F), and answered five literal and five inferential questions each session related to the chapter of the

book that was read (for an example see appendix G). In addition, anecdotal notes of each lesson were taken to document any irregularities or changes that were made to the intervention (see Appendix J). In addition to the various steps outlined above, classroom observations were conducted over the course of the intervention to see if whether her on-task behavior would improve as her reading fluency levels increased.

Classroom observations

Classroom observations were collected by the researcher during two regular education class periods each week for 20-minutes. The researcher sat in the back of the room with a data sheet to help keep track of: the type of off-task behavior being displayed, frequency of the behavior, and duration of the behavior (see appendix H). For the purpose of this study, off-task behavior is defined as behavior by the student that impeded her ability to pay attention to the teacher or task assigned in class (e.g., talking to fellow classmates during instructional time, texting on phone, leaving the classroom without permission). In addition, a behavior questionnaire created by the researcher was completed each week over the course of the intervention by Jane's classroom teacher as a follow-up to the observations being conducted (see Appendix I).

Conclusion

This case study consisted of an eight week, one-hour and forty minute, bi-weekly intervention with an 18 year old, African American female with a mild cognitive and emotional behavioral disorder whose reading ability was assessed at the 3rd grade level. This study investigated the effect an increase in reading fluency would have on reading comprehension skills and on-task behavior in the general education classroom. The intervention was conducted

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over 6 sessions, which included the following five steps: (a) repeated reading of fluency passages, (b) completion of “What’s the Word” vocabulary worksheet, (c) partner reading out loud between student and researcher, (d) completion of story map based on the chapter that was just read, (e) answering of comprehension questions related to chapter just read.

The primary goal of this study was to determine the effect an increase in reading fluency would have on comprehension and on the amount of on-task behavior in the general education classroom. According to Coleman and Vaughn (as cited in Strong, Wehby, Falk, & Lane, 2004) found only eight published studies that provided the results of reading interventions for students with EBD. Because of the limited amount of research, I wanted to learn more about how to work with children with disabilities, particularly students who demonstrate challenging behaviors. The foundation of this study was developed based on the information that was gathered throughout the review of literature and was designed to determine if whether or not there is a relationship between low reading levels and behavior problems in the classroom. Therefore, my thought is that a student who has difficulties reading fluently is unable to fully comprehend the material that is being presented in class, which causes the student to act out more in the classroom to mask his or her inability to complete the assigned work. While this chapter described the procedures and data collection process over the course of the intervention, the following chapter provides a presentation and analysis of the data collected over the course of the intervention.

Chapter 4

Results

The goal of this study was to determine if an increase in reading fluency would have an effect on comprehension and on-task behavior in the general education classroom for a student diagnosed with cognitive disability (CD) an emotional behavior disorder (EBD). Throughout this case study, a variety of data were collected and analyzed, including district-wide assessments, pre- and post-tests, and formative data gathered throughout the course of the intervention. In addition, various parent and teacher questionnaires were completed, along with observations of the student's behavior in the general education classroom. This chapter is a summary and analysis of the data.

Reading Fluency

O'Connor, White, and Swanson (2007) provided evidence to support the verbal efficiency theory of reading development, which states that "large gains in reading fluency-over 20 wpm- were associated with gains in comprehension" (p. 44). To further investigate the validity of this theory, a summary and analysis of the data collected throughout the intervention in regards to reading fluency, comprehension, and the amount of on-task behavior in the classroom is included in the following sections. To assess Jane's performance in reading fluency, two measures were used: (a) pre- and post-tests (b) recording of data regarding reading rate and accuracy during intervention sessions.

Reading Fluency Pre-Test

On September 19, 2011, I administered the Woodcock-Johnson III Form C/Brief Battery to determine Jane's reading fluency level. According to pre-test results, Jane's reading rate was

at the third grade level. While taking the test, she took her time reading the sentences and was able to read 33 out of a possible 128 statements correctly within the three minute time period allotted.

Repeated Reading Intervention

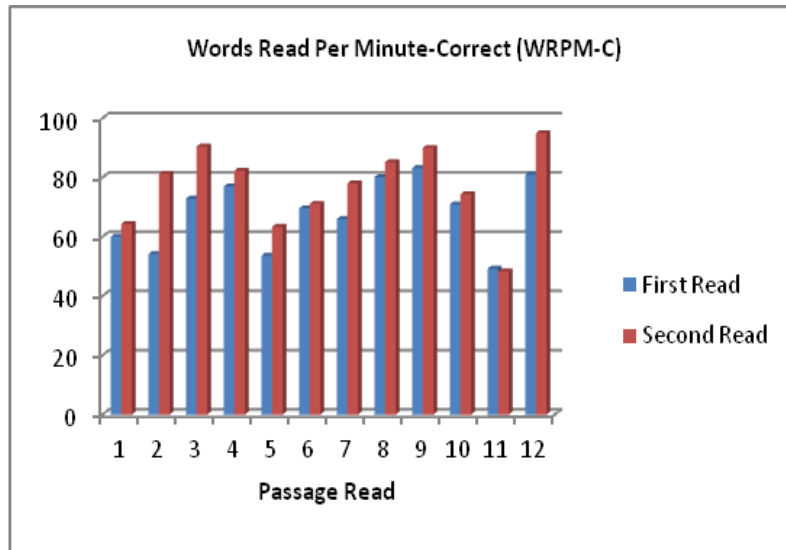
To assess reading fluency while the student participated in a repeated reading intervention, I collected data on the number of words read per minute correct (WRPM-C). I used fluency passages obtained from Readinga-z.com starting at the second grade level, which was one grade level below the student's measured functional level. I was unable to print all of the fluency passages available on Readinga-z.com because access to the free material expired and was unable to pay for the required membership; therefore, on the last day of the intervention I had to use two fifth grade passages from treasures.macmillianmh.com, in order to complete the intervention. During each session, the student read two separate passages. After the student read both passages once, she was asked to re-read the two passages in the same order they were read the first time to determine if there was an increase in the number of words read per minute correct (WRPM-C). Overall, the student read a total of 12 passages.

Results of the repeated reading intervention on reading fluency indicated that there was an increase in the WRPM-C on the second reading of each passage, except on passage 11. Passage 11 was particularly difficult for Jane to read because the content read and sounded more like an expository text rather than a narrative text. The results also indicated that Jane's fluency not only increased on the second reading of each passage, but also increased on the first reading of the second passage read during each session, except on passages two and 10. Jane's fluency levels were assessed at the third grade level prior to the intervention. Results showed that the

first readings at the fourth and fifth grade levels were higher than the first readings at the third grade level, indicating some gains in reading fluency (see appendix K for a detailed explanation of the passages read in Figure 1).

Figure 1

Words Read Per Minute Correct (WRPM-C)

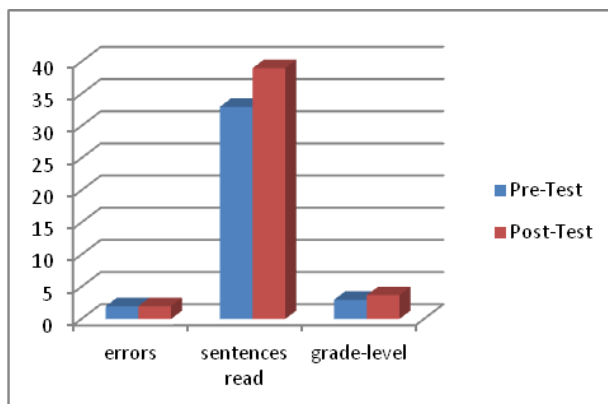


Post-Test Results

After the last session was completed, Jane was given a post-test using the Woodcock-Johnson III Form C/Brief Battery to determine if there was any growth in her reading fluency. According to post-test results, Jane increased her reading fluency from the 3.0 grade level to a 3.7 grade level. When comparing the pretest to posttest results, Jane was able to increase the number of sentences read by six, but still had two errors.

Figure 2

Woodcock-Johnson III Form C/Brief Battery Pre- and Post-test Results



Comprehension

To assess Jane’s comprehension skills, two measures were used: (a) analysis of district-wide assessments administered pre-intervention, during the intervention, and post-intervention and (b) recording of the number of literal and inferential questions answered correctly after reading a chapter in the book *Truth* by Tanya Lloyd Kyi.

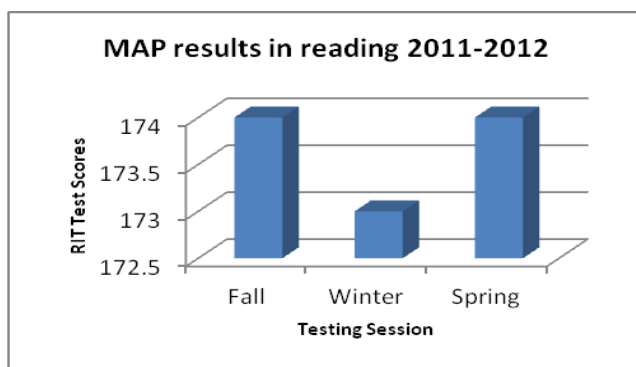
District-Wide Assessments

Jane participated in three separate district-wide assessments throughout the course of the school year to determine proficiency levels in reading called MAPs (Measure of Academic Proficiency) (Northwest Evaluation Association, 2012). According to Rasch Unit (RIT) scale scores used on the MAPS, Jane earned a score of 174 on the fall reading test, which indicated that her reading skills were between the basic and proficient levels for a third grader. Winter test scores indicated that her reading score dropped one point to a 173, but according to the table provided by the Northwest Evaluation Association (NWEA) (see appendix L), her RIT reading level improved slightly and she was reading at the basic level for a fourth grader. The Spring MAPs test was taken after the implementation of the intervention and showed that there was an

increase in her RIT score from the winter, but according to table she dropped back down between the basic and proficient level in reading at the third grade level. According to the results of the district-wide MAPs testing, Jane’s performance levels remained consistent throughout the school year and there was no increase in her reading performance after the implementation of the repeated reading intervention.

Figure 3

Measure of Academic Proficiency Results in Reading during the 2011-2012 School Year



Comprehension Questions

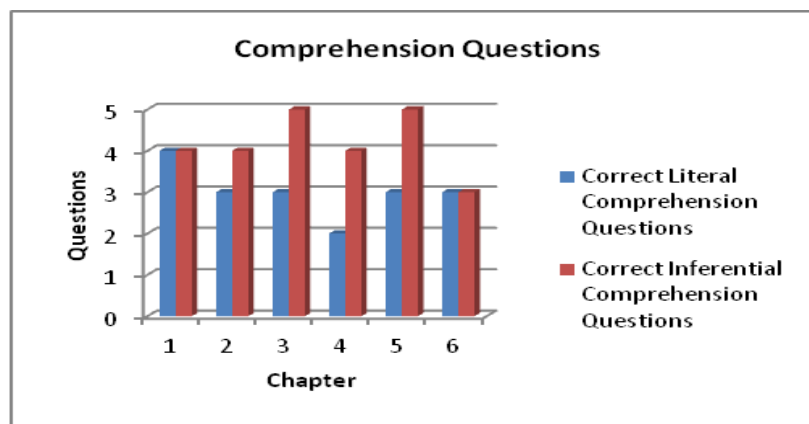
Comprehension data was collected after reading a chapter from the book *Truth* by Tanya Lloyd Kyi. The book was chosen based on the information attained from a student interest/attitude interview conducted prior to the intervention and was on a list of high-interest, low level reading material for high school students found at schoolonwheels.org. Prior to reading the chapter, I highlighted six vocabulary words that I thought the student would have difficulties pronouncing and/or knowing the definition. During the first couple of sessions, we completed the vocabulary before we read and then later decided to complete the vocabulary while we read. It made sense to make that change because a person doesn’t typically skim

through a book before they read to look up words they might be unfamiliar with; instead they usually look up the meaning of a word as they come across it while they are reading. The vocabulary component was included to further assist in the comprehension of the material being read.

I created the comprehension questions, which included 5 literal and 5 inferential questions that the student had to answer (for an example see Appendix G). Prior to completing the comprehension questions, the student finished a graphic organizer (see Appendix F) to assist in the answering of the questions. Jane often had difficulties recalling some of the information read and often looked to me to assist in completing the graphic organizer. Jane averaged 3 correct when answering literal questions and 4.17 correct when answering inferential questions.

Figure 4

The Number of Literal and Inferential Comprehension Questions Answered Correctly



Behavior

To assess growth in Jane’s on-task behavior in the general education classroom, several measures were used: (a) pre-intervention behavior questionnaires were completed by Jane’s

parent and one of her regular education teachers, (b) weekly behavior checklists completed by Jane's regular education teacher, and (c) weekly classroom observations conducted by researcher over the course of the intervention period.

Parent-Teacher Behavior Questionnaires

In March of 2012, prior to the start of the intervention, Jane's mother completed a Child Behavior Checklist for Ages 6-18 (Achenbach, 2001) (see Appendix B) to determine if whether or not her daughter displayed the same behavior problems outside of the classroom or if the behavior only occurred while in a classroom setting. Jane's mother was asked to rate a variety of items that described her child now or within the past six months using a scale from 0 = not true (as far as you know), 1 = somewhat or sometimes true, or 2 = Very true or often true. I paid particular attention to the responses that received a 2 rating (very often or often true), which indicated that Jane often liked to argue, demanded a lot of attention, got in many fights, is impulsive or acts without thinking, swears a lot, talks too much, is unusually loud, and likes to show off. Based on this information, one can conclude that the student's behavior problems are not just limited to the general education classroom.

Results from a behavior questionnaire I created and completed by one of the student's regular education teachers on March 6, 2012, the first day of the intervention, further validated the behavior that is seen by Jane's mother outside of the classroom. On average, the regular education teacher believed that the student was off-task about 80% of the class period and often needed to be re-directed every 5-10 minutes. Some of the off-task behavior consisted of excessive talking and playing on her phone; her behavior often changed depending on who else

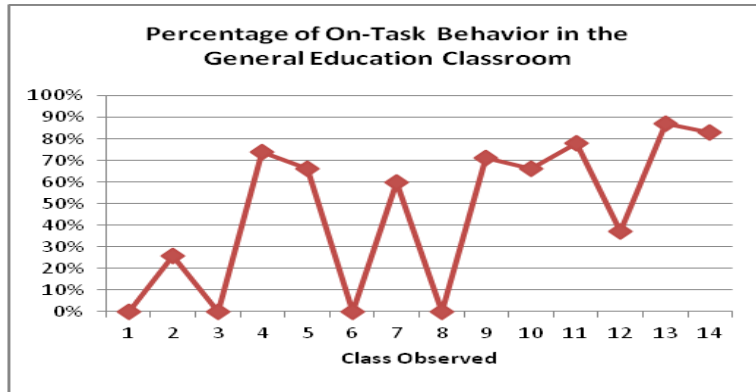
might be in the room. That is, she appeared to be more disruptive in class and less willing to accept re-direction from staff if any of her friends were in her class.

Behavioral Observations

In order to demonstrate a relationship between an increase in reading fluency to the amount of on-task behavior in the general education classroom, weekly classroom observations (see Appendix H) were conducted along with a weekly behavior checklist that was completed by Jane's regular education teacher (see Appendix I). I observed Jane 20-minutes during 14 different class periods over the course of the intervention. Most of the off-task behavior observed consisted of talking to classmates, playing on her cell phone, leaving the classroom, and looking at different websites rather than being on the E2020 website she was supposed to be on. E2020 is an on-line educational website that offers students the opportunity to take on-line courses that aligned with district and common core state standards that are not offered at our school. Though there were several class periods where there was no observed on-task behavior, some progress was made towards the latter end of the intervention when the amount of on-task behavior increased to almost 85% of the time when observed.

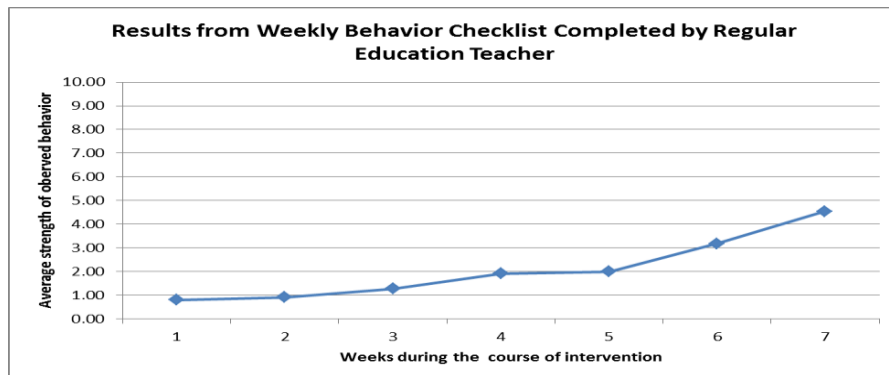
Figure 5

Percentage of On-Task Behavior in the General Education Classroom



Jane’s regular education teacher was asked to rate the strength of various tasks related to on-task behavior in the regular education classroom (see appendix M). Using a scale of 1-10, with 1 being the weakest and 10 being the strongest, Figure 6 shows that the average strength of on-task behavior in the classroom slightly increased throughout the course of the intervention, but also indicates further development is needed. In addition, based on the comments that were written by Jane’s regular education teacher on the weekly behavior checklists, Jane seemed less frustrated when encountering school work that gave her trouble in the past, such as, reading History handouts and completing class projects on her own. When in the need of assistance, Jane would politely ask for help and then patiently wait for assistance if no one was available to help her right at that moment.

Figure 6
Results from Weekly Behavior Checklist Completed by Regular Education Teacher



Conclusion

The goal of this study was to determine if an increase in reading fluency would have an effect on comprehension and the amount of on-task behavior in the general education classroom for a student diagnosed with CD and EBD. This case study intended to provide an evidence-based literacy intervention including specific and explicit instruction in reading fluency, vocabulary, and comprehension. In addition, classroom observations conducted by the researcher and behavior checklists completed by the student's mother and general education teacher were included to determine if there was a relationship between an increase in on-task behavior in the general education classroom and reading fluency and comprehension. For this case study, district-wide assessments and pre- and post-tests were collected and analyzed for comparison against formative data obtained throughout the course of the intervention. District-wide assessments and pre-test results showed that Jane was functioning at the third grade level in reading and reading fluency.

Though the use of a repeated reading intervention showed gains in the WRPM-C the second time each passage was read, the data showed that there were no gains on measures of reading comprehension. In addition, though the amount of time the student stayed on-task in the general education classroom increased towards the latter part of the intervention, it is difficult to determine if an increase in reading fluency was the only contributing factor to the increase in the on-task behavior observed in the general education classroom. This next section provides a discussion of the connection to research, explanation of these results, strengths and limitations of this study, and recommendations Jane and for future research.

Chapter 5

Discussion

The purpose of this study was to examine the effects an increase in reading fluency had on (a) comprehension, and (b) on-task behavior in the general education classroom on a student with a cognitive disability (CD) and emotional behavioral disorder (EBD). Though the results of this study found little evidence that an increase in reading fluency led to an increase in comprehension and on-task behavior in the classroom, post-test results indicate that a repeated reading intervention can have an effect on the increase in reading fluency for a student with CD and EBD at the secondary level.

In this chapter, a further explanation of the results of this study with a connection to existing research from Chapter 2 is provided. By doing so, any similarities and differences between the current study and previous research can provide insight into interventions that are designed to increase reading fluency and comprehension for students with a cognitive disability and an emotional behavioral disorder. In addition, strengths and limitations of this study, a connection of this study to the Common Core Standards, and recommendations for future research and for Jane are presented.

Explanation of Results

According to the results from the pre- and post-tests of the Woodcock-Johnson Form C/Brief Battery (Woodcock, Schrank, Mather, & McGrew, 2007), Jane's reading fluency increased from 3.0 grade level (pretest results) to a 3.7 grade level (posttest results), indicating a slight gain in reading fluency after the completion of the intervention. In addition, data analysis of the repeated reading component of the intervention showed that the WRPM-C increased after the second reading of each passage read, except for passage 11. According to Jane, passage 11

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was a much more difficult read because the content sounded more like an instructional text rather than a narrative text. In addition, Jane began the intervention reading a second grade passage at a rate of 60 WRPM-C. On the last day of the intervention, Jane was able to read a fifth-grade passage at a rate of 81 WRPM-C on the first reading, which was two grade levels higher than what she was tested at prior to the start of the intervention and showed a gain of 21 more WRPM-C. Though the gains were minimal, results indicate that an increase in reading fluency can be achieved with a high school student with a mild cognitive disability and emotional behavioral disorder using a repeated reading intervention.

While Jane was able to increase her reading fluency over the course of the intervention, evidence indicated that Jane's ability to answer literal and inferential comprehension questions remained constant. Even with the aid of a graphic organizer to assist in answering the comprehension questions, Jane averaged 3 correct when answering literal questions and 4.17 correct when answering inferential questions. In addition, Jane's scores from the district-wide MAPs testing pre- and post-intervention remained constant at 173 (basic and proficient levels at the third grade), thus indicating that a relationship between reading fluency and comprehension did not develop over the course of this intervention.

One goal for this study was that an increase in reading fluency would improve Jane's behavior in the general education classroom. One hypothesis was that Jane was acting out in the classroom to avoid having to do the work that was above her reading level. Based on an analysis of the classroom observations, weekly teacher questionnaires, and anecdotal notes taken throughout the course of the intervention, towards the end of the intervention, the amount of time on-task in the classroom slightly improved. Prior to the implementation of the intervention, according to information retrieved from a behavior questionnaire completed by Jane's regular

education teacher, Jane was on-task for only 20% of the class period. Based on the results from the weekly observations conducted by the researcher, Jane's on-task behavior towards the end of the intervention increased to 80-90%. Furthermore, results from the weekly behavior checklist completed by her regular education teacher, demonstrated that the average strength of on-task behavior in the classroom slightly increased from 1 (the weakest) to 4.55 on a scale from 1-10 (the strongest). Though results showed a small gain in on-task behavior throughout the intervention, they also indicated that the strength of Jane's on-task behavior was around 50%, thus indicating that there was still room for further improvements. In addition, her regular education teacher stated that Jane was more willing to participate in class and less confrontational when being re-directed when she was off-task. Though there seemed to be a slight change in the student's behavior, it is difficult to determine if the sole cause in the change in the behavior was based on the intervention itself, if it was caused by the change in the student's class schedule that took place during the middle of the intervention to increase attendance on intervention days, or if it was caused by other factors.

Connections to Existing Research

The foundation of this intervention is supported by recent research that indicates a relationship between fluency and comprehension. Rather than having to concentrate on decoding words, improving speed and accuracy of reading allows students to devote their attention to the meaning of the text (O'Connor, White, & Swanson, 2007; Roundy & Roundy, 2009; Valleley & Shriver, 2003; Wexler, Vaughn, Roberts, Denton, 2010). The research supports that for secondary students with fluency deficits, it is beneficial to first build fluency skills before concentrating on comprehension (Valleley & Shriver, 2003).

Based on the personal observations made throughout out the years working with Jane and the results of the Woodcock-Johnson Form C/Brief Battery (Mather, Schrank & Woodcock, 2007), Jane was functioning at the third grade level in both reading fluency and comprehension. Based on the relationship between reading fluency and comprehension, I wanted to focus my attention on increasing Jane's reading fluency to further develop her comprehension skills. According to the National Reading Panel (2000) the most commonly recommended procedure for improving reading fluency of students with reading disabilities is the use of a repeated reading intervention.

Fluency and the Use of Repeated Reading Interventions

The research studied, prior to the implementation of the intervention, paid particular attention to strategies used to help increase reading fluency for students with disabilities who had difficulties in reading. Morris and Gaffney (2011) implemented a year-long study utilizing a one hour intervention to help increase fluency for an eighth-grade who was reading at the speed of a second grader. The intervention included: (a) tape-recorded reading assignments, (b) guided reading, and (c) a repeated reading component. Results indicated that the student's reading rate increased by 33%. Similar to Morris and Gaffney (2011), Roundy and Roundy (2009) used the Timed Reading Plus series (Glencoe/McGraw Hill, 1989) and required participants to individually read, rehearse, and re-read each story at their grade level during one-minute intervals until they reached a score of 120 wpm. Evidence showed that as fluency improved, so did the students' ability to comprehend the text better, which validated the verbal efficiency theory of reading development supported by evidence found in O'Connor, White, and Swanson's 2007 study, which states "large gains in reading fluency- over 20 wpm- were associated with gains in comprehension" (p. 44). Based on a statistical analysis of the results found in

O'Connor, et. al. (2007), students increased their reading rate by 20 wpm and there were greater improvements in fluency, comprehension, and word identification among those that participated. Similar to O'Connor, et.al. (2007), results from Homan, Kelsius, and Hite's 1993 study indicated gains in reading rate and comprehension for students participating in a repeated reading intervention. In addition, Wexler, Vaughn, Roberts, and Denton (2010) examined the effects a repeated reading intervention had among high school students with severe reading difficulties. Results indicated minimal increases in fluency, comprehension, and word recognition.

Though increases in reading fluency and comprehension were seen throughout the above mentioned studies, results from Valleley and Shriver's 2003 study indicated that participants demonstrated an increase of 15 words per minute at the fourth grade level and a decrease in the number of errors committed, but none of the participants experienced gains in comprehension. Similar comprehension procedures were used during Valleley and Shriver's 2003 study when compared to studies that showed gains in comprehension, but Valleley and Shriver concluded that the cloze passages completed throughout the study may have been too advanced.

In the current study, similar results from the repeated reading intervention were found. Jane was able to increase the number of words read per minute correct by 21 words and she was able to increase her reading fluency from the 3.0 grade level to the 3.7 grade level. In addition, similar to the results found from Valleley and Shriver's 2003 study, Jane did not demonstrate an increase in comprehension. Though a cloze procedure was not used to measure Jane's comprehension, the studies that demonstrated gains in comprehension also had participants answer comprehension questions using various formats associated with passages that ranged from 200-400 words. The comprehension questions that Jane completed were associated with a chapter that was read during the partner reading, which averaged 12 pages per chapter, which

may have had an effect on Jane's ability to retain the information that was read, thus affecting the results of her comprehension.

Because Jane was also diagnosed with having an emotional behavioral disorder, I thought it would be important to evaluate studies that conducted literacy interventions using participants that were diagnosed with EBD to determine if similar gains in reading fluency and comprehension would be demonstrated among this population. In addition, I wanted to incorporate studies that measured the effects a literacy intervention would have on on-task behavior.

Literacy Interventions for Students with Emotional Behavioral Disorders

Socially, students with EBD are often provided instruction outside of the general education environment due to behaviors such as non-compliance, aggression, disruption, self-injury, property destruction and anti-social responses (Scott & Shearer-Lingo, 2002). Strong, Wehby, Falk and Lane (2004) conducted a study in a self-contained classroom for students with EBD that implemented the use of a repeated reading intervention using The Great Leaps Reading Program (Campbell, 1999) and a Corrective Reading curriculum (CR; Engelman, Meyer, Carnine, Becker, Eisele, & Johnson, 1999). Results indicated that with the implementation of the repeated reading intervention used in the Great Leaps Reading program, increases in reading fluency occurred at both their functional reading level and in age/grade leveled texts. In addition, students increased their accuracy in regards to answering the comprehension questions that were asked during the repeated reading intervention.

Staubitz, Cartledge, Yurick, and Lo (2005) expanded on the use of a repeated reading intervention by utilizing a peer- and trainer-mediated instruction with students with

EBD. The intervention consisted of three separate conditions: (a) sustained silent reading (SSR) as the baseline, (b) peer-mediated repeated reading (RR), and (c) three separate generalization conditions. Posttest results indicated an increase of five WPM at each grade-level during the peer-mediated RR and the number of comprehension questions answered correctly increased during the peer-mediated RR. Similar to the results found from Strong, Wehby, Falk and Lane's 2004 study, students were able to answer more comprehension questions correctly a demonstrated a growth in comprehension skills by eight months. In addition, the results from Oakes, Mathur, and Lane's 2010 study showed increasing trends in reading fluency and all students experienced increases in the mean levels of performance of more than 10 words when a fluency component was introduced. Based on survey that were administered before and after the intervention, expectations of the intervention were not only met for the parents, but also for the students that participated in the intervention.

Based on the recommendations from Oakes, Mathur, and Lane (2010), when addressing interventions for students with EBD, it is also important to examine behavioral growth as a dependent variable. Alber-Morgan, Ramp, Anderson, and Martin (2007) studied the effect a repeated reading intervention would have on reading fluency and comprehension of middle school students with EBD and measured the impact it would have on on-task behavior. Three separate experimental conditions were implemented throughout their study: baseline, repeated reading, and a predictions component. Results from pre- and post-intervention data indicated that repeated reading had a significant effect on the increase in reading fluency and reading errors decreased as fluency gains were made. Similar to Strong, Wehby, Falk and Lane (2004), then use of a repeated reading intervention had an immediate impact on the participant's abilities to answer literal questions more consistently, but showed a delay in the number of inferential

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comprehension questions answered. In addition, students rarely exhibited disruptive behaviors during data collection sessions. Scott and Shearer-Lingo (2002) also indicated significant gains and increasing trends in reading fluency with the implementation of the Great Leaps Reading program, along with the highest gains in on-task behavior. Students were able to stay on-task for 90% of the time while participating in the Great Leaps Reading program.

Wehby, Falk, Barton-Arwood, Lane, and Cooley (2003) investigated the effectiveness a structured reading program with the addition of a supplemental reading program would have on the reading achievement and behavior of students with EBD. Participants of the study were receiving instruction in a self-contained classroom due to the severity of their behavior problems. Researchers implemented an Open Court Reading program combined with a modified Peer-Assisted Learning Strategies (PALS) to address the specific learning needs of the students. In addition, students were observed every day, for 20 minutes to measure the percentage of time a student attended and the frequency of inappropriate behavior (i.e. talking out, aggression, and disruptions). Results showed moderate improvement in sound naming, blending, and nonsense words, but no improvements in the rate of inappropriate behavior displayed by the students over the course of the intervention.

The results from these studies indicated that students diagnosed with an emotional behavioral disorder are able to make gains in reading fluency. The results from the current study not only demonstrated growth in reading fluency by an increase of 21 WRPM-C, but also demonstrated gains in on-task behavior similar to Alber-Morgan, et. al. (2007) and Scott and Shearer-Lingo (2002), that included behavioral growth as a dependent variable. Even though the observations of on-task behavior conducted in previous studies were conducted in self-contained classrooms, Jane's on-task behavior in the general education classroom increased by 60%

towards the end of the intervention and the average strength of observed on-task behavior increased from 1 to 4.55. Though results from Strong, Wehby, Falk and Lane's (2004) and Staubitz,, Cartledge, Yurick, and Lo's (2005) studies showed an increase in reading comprehension occurred with the implementation of a repeated reading intervention, Jane's comprehension skills remained consistent throughout the current study. Unlike the results from Strong, Wehby, Falk and Lane (2004), where the participant's abilities to answer literal question increased, but showed a delay in the number of inferential comprehension questions answered, Jane did just the opposite. Jane averaged 3 correct when answering literal questions and 4.17 correct when answering inferential questions. Again, this disparity in results may have been due to the length of the passages used to measure comprehension. The previous studies used passages that consisted of 200-400 words, where Jane was asked to answer comprehension questions related to a chapter that was approximately 12 pages in length. The length of the chapters may have had an effect on Jane's ability to retain the information that was read, thus affecting the results of her comprehension.

Connections to Common Core State Standards

The Common Core State Standards help educators design a curriculum that enables students to meet the standards that are associated with success in all areas of academic study. In regards to the Common Core State Standards for English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects (Common Core State Standards Initiative, 2010), Jane was able to further develop her skills over the course of the intervention allowing her to come closer to reaching the goals set forth in the Reading Standards for Literature for 11-12 grade students.

By providing various modifications and accommodations outlined in Jane's IEP throughout the intervention sessions, Jane was able to practice skills related to standards two, three, and four: While reading the book *Truth* by Tanya Lloyd Kyi, which was at the student's functional level, Jane was able to identify the central idea of the text and analyze the development of the story from one chapter to the next. After having various discussions about the events that took place throughout the text, Jane was able to provide a summary of the text, which provided assistance in determining the outcome of the story prior to its completion (Common Core State Standard 2). With the assistance of the comprehension graphic organizer used throughout the intervention, Jane made progress towards understanding the sequencing of events, and the development of the characters throughout the text (Common Core State Standard 3).

Prior to reading a chapter of the book that was chosen for this intervention, Jane completed a "What's the Word?" worksheet that highlighted six vocabulary words she would encounter in the chapter she was about to read. In addition to determining the meaning of the words, she was asked to use the word in a complete sentence, which helped analyze the impact a specific word choice can have on meaning and tone (Common Core State Standard 4).

Strengths and Limitations

Similar to other research that has been conducted in the past, there are several strengths and limitations that may have had an effect on the results found from the intervention implemented throughout this study. One strength of this study is that it was created based on the success of past interventions that were discussed throughout Chapter 2. The current study implemented an intervention designed specifically to determine the impact reading fluency could

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have on reading comprehension and on-task behavior in the classroom. According to Roundy and Roundy (2009), it is important to be aware of the student's strengths and weaknesses, so you can address the problem or else the student will continue to struggle. This study was designed specifically to address Jane's ongoing needs and to help develop her literary skills, specifically in reading fluency and comprehension.

Another strength of this study was the already established relationship I had with the student. Because of the pre-established relationship, I had prior knowledge about Jane's reading and comprehension levels. In addition, I was also aware about how she communicated and behaved in the classroom, which made it easier for me to design an intervention that was specific to her levels and needs. In addition, she was more willing to work with me and provide personal information about her family and the circumstances that were preventing her from attending classes and the intervention on a regular basis. In addition to the already established relationship with the student, I had access to archival data that demonstrated a pattern of behavior and consistency in the student's functional performance levels and up-to-date district-wide test results.

A further strength of this study was that due to the one-on-one attention received throughout the course of the study, Jane was provided with immediate feedback and praise after completing the repeated reading intervention. I always made sure to encourage her prior to the start of the intervention and acknowledge the growth that had been made, so she wouldn't give up. In addition, the results of the words read per minute-correct (WPM-C) for each passage read was graphed, which further validated the praise that was given to her and was a visual representation of the progress she was making throughout the course of the intervention.

Previous research suggested that immediate feedback and reinforcers should be included as a

part of the intervention when working with regular and special education students. According to Scott and Shearer-Lingo (2002) reading is a comprehensive life skill and for students with emotional behavioral problems, “reading success sets the occasion for life success” (p. 172), therefore, it is important to create the opportunities for success with instructional tasks as much as possible. In addition, Morris and Gaffney (2011) concluded that students often question or doubt teacher praise, but it is difficult to question a graph or chart.

A final strength of this study was the ability to not only make small changes to the intervention over the course of implementation, but also to make changes to the student’s class schedule to accommodate for Jane’s absences. For example, instead of completing the vocabulary check before partner reading a chapter of *Truth* by Tanya Lloyd Kyi, we looked up the chosen vocabulary words while reading the chapter. In addition, instead of completing the graphic organizer after we read, we completed it while we read. Since I was willing to make those changes based on Jane’s recommendations, she was willing to continue to work hard throughout the intervention sessions. Even though we were only able to complete six out of the 14 sessions, I was able to make a change in her class schedule, which made it easier for her to attend those six intervention sessions. This enabled us to make gains in her reading fluency and on-task behavior in the regular education classroom.

One limitation of this study was the length of each intervention session. Since the intervention took place during school, each intervention session was conducted on Tuesdays and Thursday during Jane’s second block, which lasted one hour and forty minutes. Though all the session time was needed in order to complete all of the elements of the intervention, it was very difficult to keep Jane motivated throughout the entire intervention session.

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A further limitation was the student's attendance. Because the length of the intervention period was limited to seven weeks, it was important for Jane to attend the intervention sessions on a regular basis. Prior to the beginning of the second semester, Jane attended school over 95% of the time period. Over the course of the second semester, her attendance dropped to 80%. Due to the increase in Jane's absences, we were only able to complete six out of the possible 14 intervention sessions. Though gains in reading fluency and on-task behavior were evident after only implementing six sessions, comprehension skills may need more time to develop. That is, limited intervention sessions may have impacted the effectiveness an increase in reading fluency had on Jane's comprehension.

Another limitation was the amount of time devoted to the observations made in the general education classroom to determine if whether or not there was an increase in on-task behavior during the course of the intervention. Since each class period was an hour and forty minutes in length, it's difficult to determine if twenty minutes was an adequate amount of time to establish if there was a relationship between an increase in reading fluency and an increase in on-task behavior in the classroom.

An additional limitation to the classroom observations was that there was no mention of the type of instructional activity that was taking place during the observed class periods. Even though it was noted what class periods were being observed, the instructional activity taking place in the regular education classroom could have a direct effect on Jane's behavior at that given time.

A further limitation to this study was the limited resources available to conduct the intervention. I was unable to print all of the fluency passages available on Readinga-z.com

because access to the free material expired and was unable to pay for the required membership; therefore, on the last day of the intervention I had to use two fifth grade passages from treasures.macmillianmh.com, in order to complete the intervention. Thus, the last couple of passages that Jane read had a different layout than what she was familiar with reading.

A final limitation to this study was the comprehension questions used to measure if whether or not an increase in reading comprehension occurred throughout the intervention. Previous research mentioned throughout chapter 2 that showed gains in reading comprehension used a cloze procedure or had students answer comprehension questions that were associated with passages consisting of 200-400 words. The comprehension questions that Jane completed were connected to a chapter that was read during the partner reading, which averaged 12 pages per chapter, which may have had an effect on Jane's ability to retain the information that was read, thus effecting the results of her comprehension.

Though there were several strengths to this intervention, this next section provides recommendations for future research on the use of a repeated reading intervention to help increase reading fluency for a student with a cognitive disability and emotional behavioral disorder. Next, further recommendations are provided for Jane to help further develop her literacy skills.

Recommendations for Future Research

Coleman and Vaughn (as cited in Strong, Wehby, Falk, & Lane, 2004) found only eight published studies that provided the results of reading interventions for students with EBD. The following recommendations are suggested to further assist in the development of additional research in this area.

When working with secondary students who are seniors looking to graduate at the end of the school year, one should consider providing an intervention at the start of the school year. By providing an intervention at the beginning of the school year, the number of absences that take place might be fewer and the student might be more motivated to participate. Some seniors who are passing at the beginning of the 4th quarter might be more prone to taking a break from their studies and miss more intervention periods than they might during the first semester. Similar to the recommendations suggested by Oakes, Mathur, and Lane (2010), additional behavioral supports should be considered along with possible reinforcements to keep students with emotional behavioral problems motivated to participate.

Consider the length and the duration of the intervention prior to implementation. Instead of meeting only a couple of days for a longer period of time, one should consider providing a reading intervention that consists of meeting on a daily basis for a limited amount of time in order to maintain motivation and attendance.

When evaluating the effect an intervention might have on on-task behavior in the classroom, consider documenting the instructional task that is taking place in the classroom to determine if there is a behavior pattern associated with certain assignments. One should also document the type of off-task behavior that takes place, so a behavioral plan can be set in place to help decrease the amount of off-task behavior in the classroom. In order to provide more conclusive evidence on whether or not a student's behavior is associated with his or her functional level of performance, more time should be devoted to observing the student's behavior in the classroom.

Students diagnosed with cognitive disabilities often have difficulties with working memory, generalizations, metacognition, motivation, and language (Friend, 2008). Because Jane was diagnosed with CD and EBD, the results of this study may have been impacted by delays in Jane's processing skills and ability to learn new concepts. Therefore, when implementing an intervention to determine the effects reading fluency has on behavior in the classroom, one should consider including participants that are not diagnosed with dual disabilities.

In order to provide a more consistent intervention, consider the use of evidence-based instructional material purchased from a reputable educational company. Though it might cost more, all the necessary materials needed to assist in increasing your student's level of performance in reading will be in a consistent form.

Lastly, listen to your student. It is important to use material that the student is interested in to help maintain motivation. According to Morris and Gaffney (2011) concentration is best fostered by material that is of personal interest to the reader. If your student's interests are not considered, they may be more reluctant to participate in the intervention.

Recommendations for Jane

Though Jane is planning to take a year off before furthering her education after high school, it is my hope that she will continue to work on increasing her reading skills, so she can be successful in and outside of the classroom. Some of the recommendations for Jane include: (a) the use of supplementary aids and services, (b) behavioral supports, (a) and further development of literacy skills.

According to Friend (2008) one concept vital to special education is providing supplementary aids and services to students with a disability outlined in section 1412 (a)(5) of

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the Individuals with Disabilities Education Improvement Act of 2004 (IDEA). Providing supplementary aids and services to students with disabilities means that “aids, services, and other supports are provided in regular education classes or other education-related settings to enable children with disabilities to be educated with nondisabled children to the maximum extent appropriate” (20 U.S.C §1401 [29]).

Though Jane has graduated from high school, the concept of providing supplementary aids and services is essential to meeting her unique needs in the classroom. Because Jane’s current functional level of performance is significantly lower than her peers, providing supplementary aids and services at her functional level of performance will allow her to learn the classroom material that is aligned with the requirements needed to earn a college degree. According to Section 504 of the Rehabilitation Act of 1973 “no otherwise qualified person due to a disability may be denied the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance” (29 U.S.C §794 (a)). Furthermore, Title II of the Americans with Disabilities Act of 1990 (ADA) “prohibits public entities from denying qualified persons with disabilities the right to participate in or benefit from the services, programs, or activities that they provide, and from subjecting such individuals to discrimination if the exclusion or discrimination is due to the person having a disability” (42 U.S.C. § 12132). The Office of Civil Rights (OCR) is responsible for much of the enforcement of Section 504 and Title II of the ADA. Colleges have a responsibility to provide alternative accommodations that allow students that have a disability to participate in the institution’s program on a nondiscriminatory basis. Therefore, as Jane continues to further her education after high school, Section 504 and the Title II of the ADA will enable Jane to receive

the necessary accommodations and support needed to be successful throughout her college career.

In 1997 several additions to IDEA were made when the law was again reauthorized. The U.S. Department of Education (2007) stated that “in the case of a child whose behavior impedes the child’s learning or that of others, consider the use of positive behavioral interventions and supports, and other strategies to address behavior (300/D/300.324/a/2/i),” in the past, behaviors were often addressed using negative consequences. By providing positive behavioral supports, professionals establish school wide and classroom expectations for behavior. If a problem occurs, they look at the student’s behavior in the context of the situation in which it occurred, which allows them to define what is happening in order to design ways to reduce the negative behavior and increase desired behavior.

One of the biggest reasons why I chose to investigate if whether or not there was a connection between reading fluency and on-task behavior in the classroom was to offer a positive behavioral support for Jane in the classroom. If her behavior was associated with her inability to perform adequately in the classroom due to her functional level of performance, then we can include a reading intervention that would help increase her levels as a positive behavioral support. Based on the results of this study, as Jane continues to work on her reading skills, her frustration level will decrease and she will have better control of her behavior.

After the conclusion of this study, Jane graduated high school and plans to take a year off before furthering her education. In order to maintain or further develop Jane’s literacy skills, Jane should take advantage of adult literacy centers or other community resources. I hope that her participation in this study will motivate her to further develop her reading and social skills,

which will allow her to have more confidence in her reading abilities and be better prepared for college and/or career.

Conclusion

Since I teach at a small high school with a limited amount of instructional space and because we provide special education services in an all-inclusive environment, it is difficult to deliver an individual reading intervention for students that having reading difficulties. The review of literature and results of this study provide further insight on the importance of continuing to develop reading skills for students that have been diagnosed with an emotional behavioral disorder at the secondary level. Though space is limited at our school, the implementation of a peer-mediated repeated reading intervention should be conducted during advisory time. Any positive results could have a profound impact on the reading fluency and behavior for students on my caseload.

In addition, the recommendations provided in the review of literature on using material based on the interests of the students should be considered when developing the curriculum for core classes aligned with the Common Core State Standards. Students may be more willing to participate in class, thus having a direct impact on being able to recall the information necessary to be successful on earning credits towards graduation.

It is an educator's job to continue to investigate new ways to further develop our students' skills and prepare them to be successful, not only in the classroom, but as productive members of society. After the completion of this study, I have concluded that everyone deserves the chance to further develop their skills and with a little encouragement and support, students with a disability have all the potential in the world to be successful in and out of the classroom.

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Appendix A

Glossary

Cognitive Disability (CD): A person is diagnosed with having a cognitive disability if they are found to be functioning at a significantly sub-average intellectual level existing concurrently with deficits in adaptive behavior. Sub-average intellectual levels are defined as an IQ standard score of approximately 70 or below, based on assessment that includes one or more individually administered general intelligence tests developed for the purpose of assessing intellectual functioning. Evidence of adaptive behavior deficits are necessary because intellectual functioning alone is insufficient for a child to have an impairment of cognitive disabilities. The impact on functioning of these deficits must be sufficiently comprehensive to encompass at least two adaptive behavior areas, which include communication, self-care, and/or home living skills, thus showing a generalized deficit and reducing the probability of measurement error (Wisconsin Department of Public Instruction, 2010)

Comprehension: Intentional thinking during which meaning is constructed through interactions between text and reader (US Department of Education, 2007).

Duration of Observed Behavior: monitors the percent of time that a behavior occurs during the observation period, or it can be used to calculate the average time of display for the number of times that the student showed the behavior. To calculate the percentage, the sum of the times (duration) that the behavior occurred is divided by the total observation time (For example, if the behavior was displayed for a total of 10 minutes during your 30 minute observation of the student, the behavior was happening 33% of the time). This type of recording is used for behaviors that last for more than a few seconds and/or for varying lengths of time (e.g., paying attention, tapping a pencil, in-seat behavior) (McIntyre).

Emotional Behavioral Disorder (EBD): In order for a student to be identified as EBD there are 4 key concepts to be addressed: (1) the student exhibits social, emotional or behavioral functioning that so departs from generally accepted, age appropriate ethnic or cultural norms that it adversely affects a child's academic progress, social relationships, personal adjustment, classroom adjustment, self-care or vocational skills; (2) the behaviors are severe, chronic, and frequent, occur at school and at least 1 other setting, and the student exhibits at least 1 of 8 characteristics or patterns of behavior indicative of EBD; (3) the IEP team used a variety of sources of information including observations and has reviewed prior, documented interventions; and, (4) the IEP team did not identify or refuse to identify a student as EBD solely on the basis of another disability, social maladjustment, adjudicated delinquency, dropout, chemically dependency, cultural deprivation, familial instability, suspected child abuse, socio-economic circumstances, or medical or psychiatric diagnostic statements (Wisconsin Department of Public Instruction, 2011).

Frequency of Observed Behavior: is a simple counting of how many times a behavior occurs during a designated period of time. Those designated periods might be a minute, an hour, a day, or a week. It is most useful with behaviors that are discrete and short in duration (e.g., number of curse words, number of short talk-outs without raising hand), or are things that the student has created (e.g., number of correct math problems) (McIntyre).

Individualized Education Plan (IEP): A written statement for each child with a disability that is developed, reviewed, and revised in a meeting in accordance with ss. 300.321-300.324 (Wisconsin Department of Public Instruction, 2011).

Inferential Comprehension Questions: The answers to inferential questions can be found in the text too, but they are implied, not directly stated. We often say the information is in between the lines or under the surface. Examples: Why did the main character laugh? What do you think will happen next? (Litart.com)

Literal Comprehension Questions: The answers to literal questions can be found in the text. They are directly stated. We sometimes say this information is on the surface. Examples: What is the main character's name? What happened in the story on that page? (Litart.com)

Northwest Evaluation Association (NWEA): A non-profit organization working alongside member school districts to create a culture that values and uses data to improve instruction and student learning (Northwest Evaluation Association, 2012).

On-Task Behavior: in terms of this study, on-task behavior can be defined as the amount of time the student was actively engaged in the lesson being observed by completing assigned work or listening to the teacher's lecture.

Rasch Unit Scale (RIT): is a curriculum scale that uses individual item difficulty values to estimate student achievement. An advantage of the RIT scale is that it can relate the numbers on the scale directly to the difficulty of items on the tests. In addition, the RIT scale is an equal interval scale. Equal interval means that the difference between scores is the same regardless of whether a student is at the top, bottom, or middle of the RIT scale, and it has the same meaning regardless of grade level (Northwest Evaluation Association, 2012).

Reading Fluency: as defined by the National Reading Panel (NRP) is the ability to read orally with speed, accuracy, and proper expression (National Reading Panel, 2004).

Appendix B

Achenbach Child Behavior Checklist

ASEBA Please print **CHILD BEHAVIOR CHECKLIST FOR AGES 6-18** For office use only ID #

CHILD'S FULL NAME _____

CHILD'S GENDER Boy Girl CHILD'S AGE 14 CHILD'S ETHNIC GROUP OR RACE AFRICAN-AMER.

FATHER'S TYPE OF WORK Don't Know MOTHER'S TYPE OF WORK Disabled

TODAY'S DATE Mo. 3 Date 4 Yr. 2012 CHILD'S BIRTHDATE Mo. 2 Date 19 Yr. 1994 THIS FORM FILLED OUT BY: (print your full name) _____

GRADE IN SCHOOL 12 Please fill out this form to reflect your view of the child's behavior even if other people might not agree. Feel free to print additional comments beside each item and in the space provided on page 2. **Be sure to answer all items.**

NOT ATTENDING SCHOOL

Your gender: Male Female
Your relation to the child:
 Biological Parent Step Parent Grandparent
 Adoptive Parent Foster Parent Other (specify) _____

I. Please list the sports your child most likes to take part in. For example: swimming, baseball, skating, skate boarding, bike riding, fishing, etc.

	Compared to others of the same age, about how much time does he/she spend in each?				Compared to others of the same age, how well does he/she do each one?			
	Less Than Average	Average	More Than Average	Don't Know	Below Average	Average	Above Average	Don't Know
a. <u>skating</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. <u>Swimming</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

II. Please list your child's favorite hobbies, activities, and games, other than sports. For example: stamps, dolls, books, piano, crafts, cars, computers, singing, etc. (Do not include listening to radio or TV.)

	Compared to others of the same age, about how much time does he/she spend in each?				Compared to others of the same age, how well does he/she do each one?			
	Less Than Average	Average	More Than Average	Don't Know	Below Average	Average	Above Average	Don't Know
a. <u>Dancing</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III. Please list any organizations, clubs, teams, or groups your child belongs to.

	Compared to others of the same age, how active is he/she in each?			
	Less Active	Average	More Active	Don't Know
a. <input checked="" type="checkbox"/> None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. Please list any jobs or chores your child has. For example: paper route, babysitting, making bed, working in store, etc. (Include both paid and unpaid jobs and chores.)

	Compared to others of the same age, how well does he/she carry them out?			
	Below Average	Average	Above Average	Don't Know
a. <u>washing Dishes</u>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Be sure you answered all items. Then see other side.

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30% PAGE 1

Please print. Be sure to answer all items.

V. 1. About how many close friends does your child have? (Do not include brothers & sisters)
 None 1 2 or 3 4 or more

2. About how many times a week does your child do things with any friends outside of regular school hours?
 (Do not include brothers & sisters) Less than 1 1 or 2 3 or more

VI. Compared to others of his/her age, how well does your child:

	Worse	Average	Better	
a. Get along with his/her brothers & sisters?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Has no brothers or sisters
b. Get along with other kids?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
c. Behave with his/her parents?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
d. Play and work alone?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

VII. 1. Performance in academic subjects. Does not attend school because _____

<i>Check a box for each subject that child takes</i>		Failing	Below Average	Average	Above Average
a. Reading, English, or Language Arts		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. History or Social Studies		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Arithmetic or Math		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Science		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. <u>gym</u>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. _____		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other academic subjects—for example: computer courses, foreign language, business. Do not include gym, shop, driver's ed., or other nonacademic subjects.

2. Does your child receive special education or remedial services or attend a special class or special school?
 No Yes—kind of services, class, or school: _____

3. Has your child repeated any grades? No Yes—grades and reasons: _____

4. Has your child had any academic or other problems in school? No Yes—please describe: Behavior problem

When did these problems start? Before

Have these problems ended? No Yes—when? _____

Does your child have any illness or disability (either physical or mental)? No Yes—please describe:
L.D. Learning Disability

What concerns you most about your child?
Behavior And Eng -

Please describe the best things about your child. Very LOVABLE

PAGE 2

Be sure you answered all items.

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Please print. Be sure to answer all items.

Below is a list of items that describe children and youths. For each item that describes your child **now or within the past 6 months**, please circle the **2** if the item is **very true or often true** of your child. Circle the **1** if the item is **somewhat or sometimes true** of your child. If the item is **not true** of your child, circle the **0**. Please answer all items as well as you can, even if some do not seem to apply to your child.

0 = Not True (as far as you know)	1 = Somewhat or Sometimes True	2 = Very True or Often True	
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	1. Acts too young for his/her age	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	32. Feels he/she has to be perfect
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	2. Drinks alcohol without parents' approval (describe): _____	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	33. Feels or complains that no one loves him/her
<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	3. Argues a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	34. Feels others are out to get him/her
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	4. Fails to finish things he/she starts	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	35. Feels worthless or inferior
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	5. There is very little he/she enjoys	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	36. Gets hurt a lot, accident-prone
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	6. Bowel movements outside toilet	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	37. Gets in many fights
<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2	7. Bragging, boasting	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	38. Gets teased a lot
<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2	8. Can't concentrate, can't pay attention for long	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	39. Hangs around with others who get in trouble
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	9. Can't get his/her mind off certain thoughts; obsessions (describe): _____	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	40. Hears sounds or voices that aren't there (describe): _____
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	10. Can't sit still, restless, or hyperactive	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	41. Impulsive or acts without thinking
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	11. Clings to adults or too dependent	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	42. Would rather be alone than with others
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	12. Complains of loneliness	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	43. Lying or cheating
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	13. Confused or seems to be in a fog	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	44. Bites fingernails
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	14. Cries a lot	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	45. Nervous, highstrung, or tense
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	15. Cruel to animals	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	46. Nervous movements or twitching (describe): _____
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	16. Cruelty, bullying, or meanness to others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	47. Nightmares
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	17. Daydreams or gets lost in his/her thoughts	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	48. Not liked by other kids
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	18. Deliberately harms self or attempts suicide	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	49. Constipated, doesn't move bowels
<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	19. Demands a lot of attention	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	50. Too fearful or anxious
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	20. Destroys his/her own things	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	51. Feels dizzy or lightheaded
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	21. Destroys things belonging to his/her family or others	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	52. Feels too guilty
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	22. Disobedient at home	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	53. Overeating
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	23. Disobedient at school	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	54. Overtired without good reason
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	24. Doesn't eat well	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	55. Overweight
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	25. Doesn't get along with other kids		56. Physical problems without known medical cause:
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	26. Doesn't seem to feel guilty after misbehaving	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	a. Aches or pains (not stomach or headaches)
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	27. Easily jealous	<input type="radio"/> 0 <input checked="" type="radio"/> 1 <input type="radio"/> 2	b. Headaches
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	28. Breaks rules at home, school, or elsewhere	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	c. Nausea, feels sick
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	29. Fears certain animals, situations, or places, other than school (describe): _____	<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	d. Problems with eyes (not if corrected by glasses) (describe): _____
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	30. Fears going to school	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	e. Rashes or other skin problems
<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	31. Fears he/she might think or do something bad	<input type="radio"/> 0 <input type="radio"/> 1 <input checked="" type="radio"/> 2	f. Stomachaches
		<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	g. Vomiting, throwing up
		<input type="radio"/> 0 <input type="radio"/> 1 <input type="radio"/> 2	h. Other (describe): _____

PAGE 3 **Be sure you answered all items. Then see other side.**

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Please print. Be sure to answer all items.

0 = Not True (as far as you know)			1 = Somewhat or Sometimes True			2 = Very True or Often True		
0	1	2	57. Physically attacks people	0	1	2	84. Strange behavior (describe): _____	
0	1	2	58. Picks nose, skin, or other parts of body (describe): _____	0	1	2	85. Strange ideas (describe): _____	
0	1	2	59. Plays with own sex parts in public	0	1	2	86. Stubborn, sullen, or irritable	
0	1	2	60. Plays with own sex parts too much	0	1	2	87. Sudden changes in mood or feelings	
0	1	2	61. Poor school work	0	1	2	88. Sulks a lot	
0	1	2	62. Poorly coordinated or clumsy	0	1	2	89. Suspicious	
0	1	2	63. Prefers being with older kids	0	1	2	90. Swearing or obscene language	
0	1	2	64. Prefers being with younger kids	0	1	2	91. Talks about killing self	
0	1	2	65. Refuses to talk	0	1	2	92. Talks or walks in sleep (describe): _____	
0	1	2	66. Repeats certain acts over and over; compulsions (describe): _____	0	1	2	93. Talks too much	
0	1	2	67. Runs away from home	0	1	2	94. Teases a lot	
0	1	2	68. Screams a lot	0	1	2	95. Temper tantrums or hot temper	
0	1	2	69. Secretive, keeps things to self	0	1	2	96. Thinks about sex too much	
0	1	2	70. Sees things that aren't there (describe): _____	0	1	2	97. Threatens people	
0	1	2	71. Self-conscious or easily embarrassed	0	1	2	98. Thumb-sucking	
0	1	2	72. Sets fires	0	1	2	99. Smokes, chews, or sniffs tobacco	
0	1	2	73. Sexual problems (describe): _____	0	1	2	100. Trouble sleeping (describe): _____	
0	1	2	74. Showing off or clowning	0	1	2	101. Truancy, skips school	
0	1	2	75. Too shy or timid	0	1	2	102. Underactive, slow moving, or lacks energy	
0	1	2	76. Sleeps less than most kids	0	1	2	103. Unhappy, sad, or depressed	
0	1	2	77. Sleeps more than most kids during day and/or night (describe): _____	0	1	2	104. Unusually loud	
0	1	2	78. Inattentive or easily distracted	0	1	2	105. Uses drugs for nonmedical purposes (<i>don't</i> include alcohol or tobacco) (describe): _____	
0	1	2	79. Speech problem (describe): _____	0	1	2	106. Vandalism	
0	1	2	80. Stares blankly	0	1	2	107. Wets self during the day	
0	1	2	81. Steals at home	0	1	2	108. Wets the bed	
0	1	2	82. Steals outside the home	0	1	2	109. Whining	
0	1	2	83. Stores up too many things he/she doesn't need (describe): _____	0	1	2	110. Wishes to be of opposite sex	
				0	1	2	111. Withdrawn, doesn't get involved with others	
				0	1	2	112. Worries	
				0	1	2	113. Please write in any problems your child has that were not listed above:	
				0	1	2	Spoil	
				0	1	2	Act like A baby	
				0	1	2	MAMA'S baby	

Appendix C

Interest/Attitude Interview for Adolescent

Interest/Attitude Interview for Adolescent

Student Name _____ Age 18 Grade 12

Person Conducting Interview _____ Date of Interview 3/5/12

Home Life

How many people are in your family? 5

Names	Relationship to You
<u>American</u>	<u>Mother</u>
<u>Ronica</u>	<u>22</u>
<u>Haley</u>	<u>24</u>
<u>Carla</u>	<u>21</u>

Do you have your own room, or do you share a room? yes

Do your guardian(s) work? _____

What kinds of jobs do they have? in disability

Do you have jobs around the house? What are they? dishes

What do you usually do after school? hang out w/ friends

Do you have a TV in your room? yes

How much time would you say you spend watching TV a day? don't really watch TV
usually watch TV in the morning

Do you have a certain time to go to bed during the week? What time do you usually go to bed on a school night? After 11am; weekends late (anytime) no curfew

Do you belong to any clubs at school or outside school? What are they? NO

1

What are some things you like to do with your family? hang out;

School Environment

Do you like school? yes

What are your favorite class(es)? math (used to be)

What classes don't you like? US History; Phy Ed; Egozo

How much homework do you usually have on a school night? None

What kinds of homework do you usually have? None

Do you have a special place to study at home? No

Does anyone help you with your homework? Who? Nobody

What kind of reader do you consider yourself? (Good, not so good)

If good: What do you think has helped you most to become a good reader? _____

If not so good: What do you think causes someone to not be a good reader? Not very good; but can read; vocabulary

Is there anything you can think of that would help you get better at reading? _____

Anything - didn't really learn anything @ last high school.

Do you like to write? No

What kinds of writing do you like to do? _____

Do you do much writing at school? No

What kinds of writing do you do at school? as little as possible

What kinds of writing assignments do you like? None

What kinds do you dislike? all writing assignments

If you went to a new school, what is one thing you would like the teachers to know about you?

that I am outspoken

If you were helping someone learn to read, what would be the most important thing you could do to help that person?

help w/ words that I know & they don't know

How does knowing how to read help people? helps you a lot.

Social Life

What do you like to do after school and on weekends? anything that's fun; hate

Who are your best friends? A lot of them ... ^{being bored} Bizo-Buz (Azuley)

Does your best friend go to your school? yes

What do you like to do with your friends? hang-out; shop; party; dance

Do you like music? yes

What kinds? R&B, Hip-Hop

Who are your favorite performers? Future & Rich Kid

What are your favorite TV shows? Everybody Hates Chris; Lifetime Movie Network

Who are your favorite TV stars? Bereni Mac; Martin Lawrence

Do you like movies or videos? yes

What kinds of movies do you like? Scary

Who are your favorite stars? I don't know (don't remember names)

Do you like sports? No

What kinds of sports do you play? None

What kinds of sports do you like to watch? Football

What is your favorite team? Packers; used to like Cowboys

Who are your favorite athletes? _____

If you could read a book about anything, what would you choose? Baby Book about kids

What is the best book you've ever read? 3 Little Pigs

Do you have any favorite magazines? No

Do you ever read the newspaper? No

What parts do you usually read? No

*What would you like to do after graduation?

lay back for a while; party; work
go to college a couple years later.

Appendix D

Behavior Questionnaire about Jane Completed By Regular Education Teacher

Date: _____

Teacher's name: _____

Time of class: _____

Subject: _____

Number of years working with student: _____

1. Throughout a given class period, how often is the student off-task in the classroom?

2. Estimate the number of times you have to redirect student to get back on task

3. Describe the type of inappropriate behavior that the student will display in your classroom

4. Do you notice if the student becomes more disruptive at certain parts of the instructional period (i.e. during independent reading, testing comprehension skills, etc.)

5. Do you have established rules posted in your classroom or do students have a copy of the rules for in your classroom?

Appendix E

Vocabulary Graphic Organizer

What's the Word?

Vocabulary word:

Definition:

Word used in a sentence:

Synonym:

Vocabulary word:

Definition:

Word used in a sentence:

Synonym:

Vocabulary word:

Definition:

Word used in a sentence:

Synonym:

Appendix F

Comprehension Graphic Organizer

Name _____ Date _____

Five W's Chart

Fill in each row with details that answer the question.

What happened?
Who was there?
Why did it happen?
When did it happen?
Where did it happen?

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Appendix G

Example of Chapter Comprehension Questions

COMPREHENSION QUESTIONS: CHAPTER 2

- 1. Why was Ted Granville at the party?**
- 2. What excuse did Ross give his grandmother after he ran from the cops?**
- 3. What did Ms. Chan do before she became a teacher?**
- 4. What is the name of the TV show that is produced at school?**
- 5. How old was Georgia's mother when she was pregnant last year?**
- 6. What do investigators do at the crime scene?**
- 7. What does "mellow" music mean to you?**
- 8. If you were at a party and you witnessed someone getting hurt, would you tell the police? Why or Why not?**
- 9. What does it mean when someone says "hypothetically speaking?"**
- 10. Do you think the second officer at the crime scene was trying to scare Jen and Scott or do you think they found some evidence linking Jen to the crime?**

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Appendix H

Classroom Observations Monitoring Jane’s Behavior in the General Education Classroom

DATE	CLASS	BEHAVIOR	FREQUENCY	DURATION	OBSERVED ON-TASK TIME
3/5	E2020	talking to classmates	1	20	0
3/7	character	talking to classmates	1	4:13	
		playing on cell phone	1	10:37	5:10
3/12	E2020	logged onto a different website	1	20	0
3/14	character	playing on cell phone	1	5:09	14:51
3/19	E2020	talking to classmates	1	6:47	13:13
3/21	character	playing on cell phone	1	3:27	
		left the room	1	7:33	
		talking to classmates	1	10:32	0
3/26	E2020	playing on cell phone	1	2:12	
		logged onto different website	1	5:49	11:51
3/28	character	talking to classmates	1	15:12	
		playing on cell phone	1	2:25	
		left the room	1	did not return	0
4/2	E2020	talking to classmates	1	5:16	
		playing on cell phone	1	1:36	14:08
4/4	character	talking to classmates	1	2:19	
		playing on cell phone	1	5:33	13:08
4/16	E2020	talking with classmates	1	2:52	
		logged onto different website	1	1:37	15:31
4/18	character	talking with classmates	1	7:28	
		playing on cell phone	1	4:10	7:22
4/23	E2020	talking with classmates	1	2:31	17:29
4/25	character	playing with cell phone	1	3:24	16:36

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Appendix J

Anecdotal Notes

Instructional Plan	Specific Observations from Lesson	Concerns/Changes Warranted
<p>3/6/12</p> <ul style="list-style-type: none"> • Explanation of study • Reading of Fluency Passages • Vocabulary • Read Chapter 1 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She arrived to school around 8:45am, an hour and 15 minutes late. She turned in her permission slip and refused to go to her first block US History class. When I asked her why she was in a bad mood already this morning, she replied "it's way too early, I hate waking up for school." She sat quietly in the E2020 lab even though she was supposed to be in US History.</p> <p>She is supposed to be in the E2020 lab now, but she likes to go into the Science room because her friends are in there and she gets help from Ms. Johnson. The teacher has expressed his concerns about her hanging out in his classroom because she can be very loud and obnoxious, so I told him not to let her in the room and to come find me, so I can work with her. The biggest problem about allowing her to work in the science room is because she has been having problems with a certain girl at our school and they are constantly "mugging" one another and making threats and the other girl is in the science class. Today, the wrong looks were given and the girl that she doesn't get along with started to make threats out loud and it was very hard to control and contain her. My student decided to leave after the incident and did not return. We were unable to start the intervention today.</p>	
<p>3/8/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 1 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She was out all day today because she had court. I was told by her cousin that she would be back, but tomorrow we have a scheduled day off, so this gives her a four day weekend.</p>	
<p>3/13/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 1 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She is out again today. Her attendance has been great all year. I believe that due to the nice weather, her attendance will decline as the semester continues. She will be graduating at the end of the year, so senioritis might be setting in.</p>	
<p>3/15/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 1 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She wasn't at school again yesterday, so I called her mother to see if everything was okay. Her mother was under the impression that she was coming to school. She showed up later today upset that I called her mother. She was unwilling to work with me because she was upset that I called her mother.</p>	<ul style="list-style-type: none"> • I have decided to pull her out of class when she is at school to work on the research, that way if she plans to leave early, I will still be able to get some time with her throughout the day.
<p>3/20/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 1 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She showed up late to school, but I was able to convince her to start working on the research with me in my office. Before we started any reading, I explained to her step by step what we were going to do and why we were doing it.</p> <p>Step 1: repeat reading using the Reading A-Z passage "Malcolm the Salamander" 2nd grade level (which is one grade level below what she was tested at). I read the entire passage first. During her first trial she had 12 errors and read at a rate of 60 words per minute correct (WPM-C). We then read the second passage "The Old Jungle Gym," which she told me I didn't have to read it out loud first. Her first trial she had 16 errors and read at a rate of 54.2 (WPM-C). We then began to read the</p>	<ul style="list-style-type: none"> • She refuses to leave the school to work on the intervention, so I decided that we wouldn't leave the school and that we would work on my office over the course of the intervention period. • She refused to read the passages more than twice, so I changes the amount of times she needed to read the passages to two times rather than having her increase her reading fluency three times before moving to the next

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	<p>first passage again and she became frustrated with the fact that she had to read the passage again. I explained to her that in order to move up a grade level, she needed to show an increase of WPM-C three consecutive times. She refused to do that, so I told her that she would be able to move on, if she showed any increase in the number of WPM-C she read. The second trial reading of "Malcolm the Salamander," she decreased the number of errors from 12 to 9 and she read at a rate of 64.3 WPM-C. During the second trial reading of "The Old Jungle Gym," she again decreased the number of errors from 16 to 12 and she read at a rate of 81.3 WPM-C.</p> <p>Step 2: Prior to reading the first chapter of the book "Truth" by Tanya Lloyd Kyi, I highlighted any words that she might have difficulties with while reading. She and I completed a "What's the Word" worksheet highlighting the vocabulary words, the definition of the word, how it's used in a sentence, and if there were any synonyms to the word. I was near a computer, so we looked the definitions up on-line and if she was still confused on what the word meant after she wrote the definition down, I pulled a picture of the object up on the computer, so she could see the image of the word. Once she saw the picture, she knew exactly what we were talking about.</p> <p>She started reading the first page and we alternated reading each page out loud. I noticed that she often did not pause at periods or commas and continued reading fluently with no transitions. If she had troubles with a word, I waited for a few seconds to see if she could sound out the word, and if she was unable to, I would assist her with the pronunciation. Every time I helped her, she would respond with "yeah, that's right," and she would repeat the word and read on.</p> <p>Step 4: She was able to answer a majority of the literal questions correctly on her own, but she had difficulties answering the inferential questions. She has very little confidence in herself, so she is constantly second guessing and looking for validation and approval from me when answering questions. She got 4 out of 5 of the literal questions correct. She refused to look back into the book to find the answer for one of the questions; otherwise, there may have been a good chance she would have gotten all of 5 if the literal questions correct. She got 4 out of 5 inferential questions correct. I allowed her to use the story map we completed in step 3 to help answer some of the questions.</p>	<p>passage.</p> <ul style="list-style-type: none"> • I decided to combine step 3 with Step 4. While reading the first chapter, we completed the 5 W's story chart to aid in comprehension and to help keep track of the characters and the events that occurred while she read. • We had a total of 8 words for the first chapter and she started to get frustrated with the process, so I told her that I would limit the number of vocabulary words to 6 per chapter.
<p>3/20/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 2 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>Once again, she isn't at school.</p>	
<p>3/27/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 2 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She arrived late to school and it was extremely difficult to get her to work with me today. Step 1: repeat reading using the Reading A-Z passage "The Switch" 3rd grade level (current level). During her first trial she had 12 errors and read at a rate of 77 words per minute correct (WPM-C). We then read the second passage "The Haunted House." Her first trial she had 8 errors and read at a rate of 72.9 (WPM-C). The second trial reading of "The Switch," she decreased the number of errors from 12 to 8 and she read at a rate of 82.3 WPM-C. During the second trial reading of "The Haunted House," she again decreased the number of errors from 8 to 5 and she read at a rate of 90.5 WPM-C. She is doing a lot of self-correcting and she understands that to move onto the next passage, she needs to increase the number of words she reads, so you can tell that she tries harder the second time reading the passage.</p> <p>Step 2: Together we completed 6 vocabulary words using the "What's the Word" worksheet. She showed more enthusiasm this time around. She was able to make a connection to the vocabulary words with things that happen in her own life. I</p>	<ul style="list-style-type: none"> • I decided to revise her class schedule to include the days she needs to work with me on the schedule. She is worried about not being able to complete the assignments that she has missed due to her being absent, so we created a study hall to work on missing work and provide her time to work on the study with me.

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	<p>She started reading the first page and I read the second page. She is aware that we would alternate reading pages, but she started to take control and read 8 pages in a row before she asked me to read again. She made fewer mistakes and when she got to the vocabulary words we went over prior to reading the chapter, she showed excitement in being able to read the word by herself and understanding what it meant. She had fewer mistakes this time reading, but she still struggles with pausing between periods and commas. Overall, she is more willing to read and I think her confidence has increased a bit. We completed the story map after we were done reading and she wasn't very happy about having to complete it, but she was able to remember some of the characters and some of the events that took place while reading Chapter 2.</p> <p>Step 4: She had some difficulties answering some of the literal questions. She told me that it was difficult for her to remember what she read because she is so focused on the words she is reading. Even with the help of the story map, there were some questions she needed to look back over in her reading and she is unwilling to do that. The inferential questions are getting a little easier for her to answer, but she still looks to me for reassurance before she writes anything down. She answered 3 out of 5 literal questions correctly and 4 out of 5 inferential questions correctly.</p>	
<p>3/29/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 3 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>Once again she did not attend school. Yesterday I sat down and had a long talk with her about the importance of participating in the study. I spoke with my lead teacher and he agree to give her .25 credits in English/Language arts (which she needs) if she is completes at least 8 full days with me (completion of all 4 steps in one study period). She agreed to the terms and I even outlined the days she needed to come, but once again, she did not come to school.</p>	
<p>4/3/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 3 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She showed up 40 minutes late to our session, but at least she came. It is extremely difficult to complete all 4 steps with her when she shows up almost an hour late. Her and I sat and talked quite a bit about what was going on with her personal life. She is opening up to me more, which I think is just as important as completing the steps in the study. After listening to her for about another 10 minutes, I asked her if she was ready to read. It took her awhile and when I handed her the passage she needed to read, she skimmed it over for a good couple of minutes before she began reading. Every time she completes a reading passage, I praise her for how well she has been doing and reaffirm the importance of what we are trying to accomplish.</p> <p>Step 1: repeat reading using the Reading A-Z passage "The Shopping Cart Mystery" 4th grade level. During her first trial she had 11 errors and read at a rate of 53.6 words per minute correct (WPM-C). We then read the second passage "Surfing." Her first trial she had 18 errors and read at a rate of 69.6 WPM-C. The second trial reading of "The Shopping Cart Mystery," she decreased the number of errors from 11 to 9 and she read at a rate of 63.4 WPM-C. During the second trial reading of "Surfing," she again decreased the number of errors from 18 to 11 and she read at a rate of 71.1 WPM-C. Even though it took a few seconds more to complete the second passage, the number of errors made decreased, therefore, making the number of words read correctly in one minute increase.</p> <p>Step 2: She was unfamiliar with the vocabulary words at first but when I said the word in a sentence, she was able to create her own definition rather than having to look the word up in the dictionary.</p> <p>Step 3: Before we started reading Chapter 3, we had a little re-cap on the events that have occurred so far in the book. She was a little shy at first to read, so I read the first page of the chapter. The further we got in the chapter, she got more into the story and instead of taking turns reading a page, she continued to read out loud the entire chapter to me. She did very well at correcting herself, but she continues to look to me for confirmation that she has read a word correct. What was unique about this time was when she got to a word that she</p>	

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	<p>mispronounced or had difficulties reading, she was able to pronounce it correctly and if she didn't get it right away, she told me not to tell me and she would stop and think real hard and then she would recall and pronounce the word correctly. It was great to see her excited about reading. We are still having difficulties with reading with emotion and taking cues from punctuation to stop or pause. After we got done reading I asked her questions about whether she was able to relate to some of the harassment the main character is receiving from the cops? She said she was thinking about that very thing and went into details about how her story is similar to some of the things she has experienced.</p> <p>Step 4: We completed the story Map together and it was great to hear that she remembered a majority of the characters in the book. I allowed her to use the story map to answer her questions, but we are still having difficulties answering literal questions. She refuses to look back in the reading to find the answers. She had no problems answering the inferential questions and this time she didn't look to me for reassurance that her answers were right. She answered 3 out of 5 literal questions correctly without my assistance and answered all 5 inferential questions correctly by herself.</p>	
<p>4/5/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 4 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She actually came to school today on time, but as soon as she found out that the cops were here yesterday looking for her, it was impossible to get her to focus and work on the study. Apparently, a subpoena has been issued for her to testify at her boyfriend's trial. She was so upset that they tried to find her at school, that she says she will not testify at the trial and that she doesn't care if they issue a warrant for her arrest. She has had a lot of legal troubles this past semester and last week she thought that everything was taken care of, so when this happened it pushed her over the edge.</p>	
<p>SPRING BREAK</p>		
<p>4/17/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 4 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She wasn't at school again.</p>	
<p>4/19/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 5 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She arrived to our meeting on-time. I have found that she cannot jump right into the intervention. It has to be on her time and when she is ready, so during the first 20-minutes of our session, she and I talked about personal things. I had the reading passages we needed to read in front of her and she knew that once she was ready to begin all she needed to do was pickup the papers. She was a little worried at first that she wouldn't be able to read the passage that well because the first couple of words she didn't know what they were. I explained to her that each time she has read a passage, she has increased her fluency and the number of words read correctly. In addition, I told her that each session, as she increases the number of words read correctly (WPM-C), we were increasing the grade level of the passage and that we were currently on a passage that was 2 grade levels higher than what her functional level is. She has zero confidence in her reading and you can tell when her confidence increases because she is more willing to read and she tries much harder.</p> <p>Step 1: repeat reading using the Reading A-Z passage "Three-Point Shot" 5th grade level. During her first trial she had 15 errors and read at a rate of 66 words per minute correct (WPM-C). We then read the second passage "Popcorn and Cotton Candy." Her first trial she had 8 errors and read at a rate of 80.2 WPM-C. The second trial reading of "Three-Point Shot," she decreased the number of errors from 15 to 9 and she read at a rate of 78 WPM-C. During the second trial reading of "Popcorn and Cotton Candy," she again decreased the number of errors from 8 to 6 and she read at a rate of 85.2 WPM-C. Even though it took a few seconds more to complete the second passage, the</p>	<ul style="list-style-type: none"> • She asked if we could go over the vocabulary words highlighted while we read rather than before, which made sense. So I combined step 2 with steps 3 and 4.

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	<p>number of errors made decreased, therefore, making the number of words read correctly in one minute increase. It sometimes seems like the more praise I give her, the harder she tries and the better she does.</p> <p>Step 2: Instead of going through the vocabulary words prior to reading the chapter, she asked if we could discuss the vocabulary words when she got to them in the reading. I had no problem with the change considering that it was more likely that if and when she was reading on her own, she would look up any vocabulary words while she was reading if she didn't understand rather than go through the book and highlighting every word she might now know and look up before reading.</p> <p>Step 3: Normally we alternate reading each page, but she took control of the reading and read the entire chapter out loud to me. We stopped at vocabulary words and I would give her an example of the vocabulary words in a different sentence and she was then able to figure out on her own what the word meant. She did great. She no longer needed help with pronouncing the names of the characters and she was very enthusiastic about reading as much as we have and she is excited to continue on to find out who the murderer is.</p> <p>Step 4: She is getting better at remembering some of the main events that occur in the reading. When I ask her leading questions to help fill out the story map, she is able to answer most of the questions. She is still having a difficult time with answering literal questions, but has no problems answering the inferential questions that are asked. She was able to answer 2 out of the literal question correctly and 4 out of 5 inferential questions correctly.</p>	
<p>4/27/12</p> <ul style="list-style-type: none"> • Reading of Fluency Passages • Vocabulary • Read Chapter 6 • Complete Comprehension graphic organizer • Answer comprehension questions 	<p>She arrived forty minutes late to our session and it took about 10 minutes for us to get the small talk out of the way.</p> <p>Step 1: The first passage she read was more technical and resembled something you would read in a Science class. The title of the passage was called, "Too Much Water" and it was at the 5th grade level. During her first trial she had 17 errors and read at a rate of 49.2 words per minute correct (WPM-C). That was the lowest number of WPM-C read throughout the entire intervention. We then read the second passage "A New Game." Her first trial she had 6 errors and read at a rate of 81 WPM-C. The second trial reading of "Too Much Water," she went from 17 errors to only having 9 errors and she read at a rate of 48.3 WPM-C. Though she had less errors, compared to all of the second readings of the passage, her second reading WPM-C were lower than the first reading. She had stated that she didn't like the passage because it was too technical and there were a lot of difficult words. I think she took her time even more because she made so many mistakes the first time around that she wanted to be cautious. During the second trial reading of "A New Game," she decreased the number of errors from 6 to 2 and she read at a rate of 95 WPM-C, which was her fastest reading compared to all of the other passages, even the second time around.</p> <p>Step 2 and 3: It was extremely difficult to get her motivated to complete the 6 vocabulary words associated with the reading. She didn't feel like completing the story map while we read, so I decided to skip that step to see if it made a difference on the number of comprehension questions she could answer correctly. She was interested to see who the killer was, so we decided to read the rest of the book together after she completed the comprehension questions associated with the chapter we read for our last session.</p> <p>Step 4: Since she decided not to complete the story map to aid on comprehension, she had to rely solely on recalling the information that was read. She was able to answer 3 out of the 5 literal questions correctly and 3 out of 5 inferential questions correctly.</p>	<ul style="list-style-type: none"> • She read all of the A-Z reading passages available on-line, so I printed off a couple of reading passages from MacMillan/McGraw Hills.

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Appendix K

Fluency Chart

DATE	TRIAL #	PASSAGE GRADE LEVEL	TITLE OF PASSAGE BEING READ	PASSAGE LENGTH (TOTAL # OF WORDS)	# OF ERRORS MADE	WORDS READ CORRECT PER MINUTE (WPM)
3/20/12	1	2	Malcolm the Salamander (1)	135	12	60
	2	2		135	9	64.3
	1	2	The Old Jungle Gym (2)	138	16	54.2
	2	2		138	12	81.3
3/27/12	1	2	The Haunted House (3)	148	8	72.9
	2	2		148	5	90.5
	1	3	The Switch (4)	166	12	77
	2	3		166	8	82.3
4/3/12	1	3	The Shopping Cart Mystery (5)	172	11	53.6
	2	3		172	9	63.4
	1	3	Surfing (6)	176	18	69.6
	2	3		176	11	71.1
4/19/12	1	3	Three-Point Shot (7)	190	15	66
	2	3		190	9	78
	1	4	Popcorn and Cotton Candy (8)	219	8	80.2
	2	4		219	6	85.2
4/24/12	1	4	Emma's Tree (9)	247	4	83.2
	2	4		247	4	90
	1	4	Letitia and the Best Bike (10)	252	11	70.9
	2	4		252	5	74.4
4/27/12	1	5	Too Much Water (11)	177	17	49.2
	2	5		177	9	48.3
	1	5	A New Game (12)	176	6	81
	2	5		176	2	95

Appendix L

Rasch Unit Scores (RIT) on MAP testing

Interpreting MAP Results in Reading: Proficiency vs. National Averages

Reading scores on the MAP are returned as RIT (Rasch Unit) scale scores. Based on Wisconsin alignment studies conducted by NWEA researchers, cut scores have been established for each of the proficiency levels (minimum, basic, proficient, and advanced) and can be used to predict performance on the state test. These are criterion-referenced cut scores because they are based on grade-level expectations linked to state standards.

Table 1: MAP to WKCE Proficiency Levels—Reading

Reading	Fall				Winter				Spring			
	Minimal:	Basic:	Proficient:	Advanced:	Minimal:	Basic:	Proficient:	Advanced:	Minimal:	Basic:	Proficient:	Advanced:
Grade	RIT	RIT	RIT	RIT	RIT	RIT	RIT	RIT	RIT	RIT	RIT	RIT
K	<138	138	141	147	<139	139	144	152	<140	140	146	156
1	<143	143	149	161	<147	147	155	166	<151	151	161	174
2	<156	156	165	180	<158	158	170	186	<160	160	175	191
3	<161	161	177	193	<165	165	181	197	<169	169	185	201
4	<167	167	185	203	<172	172	190	207	<177	177	194	210
5	<178	178	195	211	<183	183	199	213	<188	188	200	214
6	<188	188	200	215	<189	189	200	217	<189	189	200	218
7	<189	189	201	219	<190	190	203	221	<191	191	205	223
8	<193	193	207	224	<193	193	206	224	<193	193	206	224
9	<194	194	207	224	<194	194	208	225	<194	194	209	226
10	<196	196	210	228	<196	196	211	229	<196	196	212	229
11	<197	197	211	229	<197	197	212	229	<197	197	212	229
12	<198	198	211	229	<197	197	212	229	<197	197	212	229

The table below presents the average beginning, middle, and end of year RIT scores from the national norm group. This allows you to contrast your students' performance with that of kids in like grades nationally to provide a different perspective on performance. These norm-referenced data can be interpreted along with the criterion-referenced data like this: On average across the nation, students in grade 3 achieved a RIT score of 190.2 in Reading at the beginning of the year. This equates to a level of "proficient" in Wisconsin.

Table 2: MAP National Norms—Reading

Grade	Reading Norms (RIT VALUES)		
	Beginning of Year	Middle of Year	End of Year
K	142.5	150.6	155.1
1	160.0	170.1	176.1
2	175.9	183.4	189.2
3	190.2	194.8	199.2
4	199.6	203.0	206.3
5	207.1	209.9	212.4
6	212.5	214.2	216.2
7	216.6	218.2	219.6
8	219.5	221.4	222.6
9	221.8	222.2	222.9
10	222.9	223.3	223.9

Reading Fluency and Its Effect on Comprehension and Behavior in the General Education Classroom

Appendix M

Results for Weekly Behavior Checklist Completed by Regular Education Teacher

Task	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Attends regularly	0	0	0	1	2	3	5
Arrives with needed materials and books	0	0	0	0	0	2	5
Asks relevant questions	0	0	0	2	1	2	2
Takes notes when required	0	0	0	0	0	1	1
Completes assignments on time	1	1	2	2	2	4	5
Understands oral directions	3	3	4	4	4	6	8
Understands written directions	0	0	0	1	1	2	3
Understands demonstrated directions	4	4	5	5	5	6	8
Works well independently	0	0	1	1	2	2	3
Stays on task	0	0	0	2	2	1	1
Asks for assistance when needed	0	2	2	3	3	6	9

Average strength of on-task behavior	0.80	0.91	1.27	1.91	2.00	3.18	4.55
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Note. Scale of 1-10 (1 being the weakest, 10 being the strongest) was used to show evidence of task being completed. A zero indicates that the teacher did not observe the task.