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The Effects of Individualized Literacy Interventions on Reading Motivation and Achievement for a Student with Cognitive Disabilities

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The Effects of Individualized Literacy Interventions

on Reading Motivation and Achievement for a Student with Cognitive Disabilities

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Cardinal Stritch University

In Partial Fulfillment

Of the Requirements for the Degree of

Masters of Urban Special Education

EFFECTS OF MOTIVATION ON ACHIEVEMENT

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

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(Advisor)

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(Date)

Abstract

This study was a case study which focused on improving reading achievement and reading motivation for a student attending a large mid-West urban school district. The student was in second grade at and is diagnosed with a mild cognitive disability. The intervention consisted of ten sessions, for 60 minutes. The sessions focused on research-based methods to increase reading motivation and achievement: content goals, student choice, and hands on activities. Pre and post data was collected on the students reading motivation, reading achievement, performance in the literacy sessions, and classroom behaviors. The results of the study indicated that the interventions had an effect on the students motivation as measured in a motivation survey, behavior in sessions and classroom behavior. In addition, the student's reading achievement increased through the study. At the end the student was able to move from a frustration level to an instruction level on primer text.

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CHAPTER 1

INTRODUCTION

Reading motivation is a student's intrinsic and extrinsic display of a desire to learn to read, and to read to learn. Students who are motivated to read have shown greater success in school, and are more likely to read on their own for pleasure (Guthrie & Wigfield, 1997). It is crucial to instill a love for reading early on and give children the experience of having a sense of accomplishment in reading. Unfortunately, children can lose motivation to read due to repeated failures in acquiring reading skills (Nurmi & Aunola, 2005).

This case study investigated the effectiveness of comprehensive literacy instruction, goal setting, and choice to increase reading level and motivation to read for a student with a cognitive disability. The following section will describe the student chosen for the case study, his demographics, academic performance, application of special education law, and relevant common core state standards that are addressed.

The student chosen, John[1], was a male, African-America student who qualified for free and reduced lunch. John was intentionally chosen because of his demographics. John is statistically shown to be the least likely demographic of student be successful in reading, and thus less likely to be motivated to read (National Center for Education Statistics, 2013). The data used to make this determination were from the results of National Assessment for Education Progress (NAEP) from 2013 for fourth grade students. The results indicated that males scored an average 219 while females scored an average 225. African American students averaged 206 and white averaged 232. A student with disabilities had an average score of 181 and a student without a disability had a score of 226. Students who qualified for free and reduced lunch

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1   Pseudonym used to maintain confidentiality.

averaged a 207 and students who do not qualify averaged 237. John was intentionally selected for this case study because of the statistical likelihood that he would be reading at a minimal reading level and be unmotivated to achieve. Given John's increased risk of reading below level, he was chosen to demonstrate potential benefits of a comprehensive literacy intervention paired with research-based practice to increase motivation.

John was 8 years and 6 months at the start of the study. He was in second grade and attended an urban elementary school in a large urban district in the Midwest. The student began attending his current school when he was in 5-year-old-kindergarten in November of 2011 at 6 years 4 months. His attendance was his first school experience. When he first arrived he was significantly behind his peers due to his lack of knowledge about school, and his limited academic knowledge. In reading, he could say the alphabet and recognize 10 letters. In addition, he could not recognize any sight words. In writing, John struggled to copy print and he could not spell his name. John also struggled with behavior. When he became frustrated he would scream and tantrum which resulted in him completing very little to none of his work. John would frequently leave his seat and bother other students. John's family has a history of cognitive disabilities, and his mother requested that he be evaluated for special education. He qualified for a cognitive disability due to an IQ score of 69 with a range of 64-77. The student began receiving special education services by having support in the classroom, and receiving resource hours for reading and math.

John made significant growth during his time at school. At the time of the study he could recognize all letters, identify 22 of 26 letter sounds, and read 16 pre-primer and primer sight words. In addition, his behavior had improved. Instead of yelling and leaving his seat during reading classes, John would put his head down or complete work slowly when he was frustrated.

This occurred about 4 times per day in the general education classroom and once per day in the special education classroom. In his general education classroom, John was in a room of 28 other students and one teacher for part of the day. During reading in the general education classroom, John received 30 minutes of support. In addition, he received specialized instruction in reading for 60 minutes per day and in math for 45 minutes per day in a small group of six other students in a special education classroom.

In the school district in which John attends school, there are units for students who are in need of Most Restrictive Placement (MRP) for students with severe autism, cognitive disabilities, and emotional behavioral disabilities. John's IEP team determined that he did not qualify for the cognitive disabilities MRP unit. The IEP team determined this because John had very little school experience prior to the diagnosis. The team felt it appropriate that they give John the opportunity to make progress in a general education environment before determining if an MRP placement was appropriate. The IEP team was acting in accordance with the Individuals with Disabilities Act (IDEA) (1975). Specially, they were following the requirements on least restrictive environment.

According to the IDEA (IDEA), Title 1.B.612.a.5, a student is required to be placed in a least restrictive environment, which is defined as:

The maximum extent appropriate, children with disabilities are educated with children who are not disabled, and the removal of children with disabilities from the general educational environment only occurs when the nature or severity of the disability of the children is such that education in a general classless with the use of supplementary aids and services cannot be achieved satisfactorily (Title 1.B.612.a.5).

John has benefited from spending time with his peers and being exposed to the general education curriculum. In addition, he has continued to make gains academically and behaviorally. Because of John's progress, the IEP team extended his placement in the general education environment with support and resource hours to address academic delays.

In January 2014, baseline data were collected on John's understanding of two Common Core State Standards (2012) that are a priority in this research. The standards are: Know and apply-grade level phonics and word analysis skills in decoding words (RF.2.3), and identify the main purpose of a text including what the author wants to answer, explain, or describe (RI.2.6). John was able to read 2 of 10 grade level words and identify main idea and supporting details with 40% accuracy. The literacy intervention utilized in this research addressed these two Common Core State Standards.

In the next chapter current and relevant literature on the topic of reading motivation has been reviewed. Multiple studies have been conducted that investigate the relationship between reading motivation and achievement, motivation and achievement in student with disabilities, methods for enhancing reading motivation, and goal setting and reading motivation. Chapter 2 will present literature on the importance of reading motivation and achievement in order to provide justification for the chosen intervention used for John in this case study.

CHAPTER 2

REVIEW OF LITERATURE

Reading motivation is an individual's tendency to read by choice and persist through difficult reading. Although several theories exist on how to define reading motivation and how to increase it, research has shown that the benefits of highly motivated readers are undeniable (Wigfield, 1997). It has been well established that those who read frequently, become more skilled readers (Guthrie, Schafer & Huang, 2001; Senechal & LeFevre, 2002; Stanovich, 1986). Therefore, it is important to encourage young readers to motivate themselves to become active and engaged readers. Guthrie and Wigfield (1997) found that children who are highly motivated to read are three times as likely to read outside of school compared to their less motivated peers. Therefore, it is important to continue to research and understand the multifaceted nature of reading motivation and way in which to increase reading motivation.

Reading motivation is generally broken down as two main characteristics: competency beliefs and goal orientations. Competency beliefs are, "estimates of how good one is at a given activity," (Wigfield et al. 1997, p. 451). Competency beliefs are related to a child's self-perception of his or her reading abilities. Goal orientation is "the purposes children have for achievement in different areas, so they deal directly with the 'whys' of behavior" (Wigfield, 1997, p. 61). The dynamic characteristics of competency beliefs and goal orientations combine to define the powerful force of reading motivation.

This literature review investigates the relationship between motivation and achievement; specifically, how reading motivation contributes to achievement in reading. The review continues to describe this phenomenon specifically with students who are struggling readers or

readers with disabilities. Next, the review examines research that aims at increasing the reading

motivation of students, which in turn increases reading achievement. Finally, this review details

the effects of goal setting on reading motivation. The information detailed in this review was

used as a guideline for development of the methodology to increase reading motivation and

achievement in a case study.

Relationship Between Motivation and Achievement

In the first section of this chapter, the relationship between reading motivation and

reading achievement will be analyzed through a review of the literature. Baker and Wigfield

(1999) studied different reading motivation profiles among low and high achieving students.

Bouffar et al. (2003) investigated self-perception of competence and intrinsic motivation and

how it changes through elementary school. Additionally, Poskiparta et al. (2003) studied

students' motivational emotional profiles before beginning school, changes in motivational-

emotional profiles during the school experience, and its impact on academics. All three studies

indicated that the relationship between reading motivation and reading is difficult to determine.

This is due to the multifaceted nature of reading motivation and thus the effect on reading

motivation is varied.

Baker and Wigfield (1999) studied the multifaceted nature of reading motivation by

surveying a large sample of students to characterize their reading motivation, and then determine

if motivation correlated with reading for pleasure and student reading achievement. The study

also aimed to determine if trends existed between student reading motivation and gender, grade,

ethnicity, and family income. The researchers were interested in identifying profiles of students

who could be defined as high or low motivation. However, it was hypothesized that strong

motivational profiles would not emerge based on the factors of reading amount, reading

achievement, or demographics due to the large number of motivation dimensions on the

Motivational Reading Questionnaire (MRQ) (Guthrie & Wigfield, 1997). The researchers felt

that reading motivation was a multidimensional construct that requires further research and it

would be difficult to determine correlations among profiles.

The subjects for the study were 270 fifth and sixth grade students attending six different

elementary schools in a large mid-Atlantic school district. The students in the study comprised of

52% girls and 48% boys. Ethnicity was split with about 46% of the students African American,

52% white. In addition, 54% of students received free or reduced price lunch and 46% paid in

full for their lunch.

All students were measured on motivation for reading, reading activity, Gate-MacGinitie

Reading test (MacGinitie & MacGinite, 1992), Comprehensive Test of Basic Skills (CTBS)

(Terra Nova, 1998), and performance assessment. The first measure of reading motivation was

measured using the Motivation for Reading Questionnaire, (MRQ) developed by Guthrie and

Wigfield (1997). The MRQ is a comprehensive, 54-item questionnaire for determining students'

reading profile. The MRQ addressed three categories of reading motivation: competency and

efficacy beliefs, goals for reading, and social purposes of reading. These categories are broken

down further into 11 different scales. The first category of competency and efficacy beliefs has

items on self-efficacy, challenge and work avoidance. The second category, goals for reading,

addressed the dimensions of curiosity, involvement, importance, recognition, grades, and

competition. The final category is social purposes of reading. This category addressed the social

reasons for reading, and compliance or expectations of the student in reading. The MRQ

addresses a wide variety of possible dimensions of reading motivational profiles and is thus a

comprehensive measure of student motivation.

Reading achievement was measured through the Gates-MacGinite Reading test and the Comprehensive Test of Basic Skills (CTBS), and reading performance measures. The Gate-MacGinite Reading Test, 3rd, is a standardized measure of reading achievement. The vocabulary subtest is a 45-item multiple choice test of children's reading vocabulary. The comprehension subtest contains 14 narrative and expository passages and 48 multiple-choice questions.

Next, the Comprehensive Test of Basic Skills (CTBS) was given to all students. The CTBS was administered by the city school system and the researchers had access to the students' scores in order to provide additional data. The skills tested in the CTBS were similar to that of the Gates-MacGinite. Students were given all of these measures in late September and early October during regularly scheduled class periods.

Finally, performance assessment was a measure of students' performance of the classroom curriculum reading goals. Two short stories were selected and the students had to answer two open-ended questions for each story. A rubric was developed for performance on the assessment to determine students' use of support from the text to answer the question.

The results of the study are divided into three main sections: confirmatory factor analyses of the MRQ, different dimensions of children's motivation for reading, and cluster analyses of students based on motivation scales. The first section of the results, analyses of the MRQ, indicated that students rarely could be categorized simply as having high or low motivation. Thirty-three percent of students were categorized as high levels of motivation on all dimensions while fifteen percent fell into low levels of motivation on all dimensions. The remaining fifty two percent of the students belonged to clusters in which they were close to average in a number

of scales, but their averages in a number of other motivational scales were either high or low. These findings indicated that educators can not think of students as having high or low motivation because they rarely fit into a category completely. Also, varying types of motivational profiles will respond differently to motivation enhancing techniques, and thus a variety should be used in the classroom.

Other significant findings of the study was that students who reported they chose to read for pleasure more frequently were more likely to be highly motivated, even if they did not perform well in terms of their achievement in reading. Girls expressed more positive views than boys toward reading, and it was shown that they believe themselves to be competent in reading more often than boys. The authors caution educators to think of reading motivation as multifaceted. Due to varying responses on the MRQ and the results of children's actual reading level, it was concluded that there are different dimensions of reading motivation and that students are motivated for many different reasons.

In the previous study, Baker and Wigfield (1999) studied reading motivational profiles. In this next study, Bouffar et al. (2003) investigated how children's self-perceptions of their competence and their intrinsic motivation change throughout their elementary school experience. Children's self-identified competence and intrinsic motivation are typically high in the beginning of school years. However, how they change and their relationship with academic achievement has yet to be well defined. The research aimed to answer the questions: How do children's self-identification of competence and motivation in reading and math change across the first 3 years of school? Do their self-identified competence and motivation differ across subjects? How do children perceive competence and motivation are related to academic achievement? The researchers hypothesized that there would be a strong correlation between high academic

achievement and a child's high self-perception and high motivation, and vice versa.

The study was comprised of 115 elementary schoolchildren (63 boys and 52 girls) enrolled in four public schools in the Montreal area. Schools were located in middle-income communities. Children respond to questionnaires about their self-identified competence in reading and in mathematics. The questionnaire was developed from adopting four questions from the Inventory of Reading Awareness (Paris & Oka, 1986), four questions from the Perceived Competence Scale (Harter, 1982), and two questions from the Control Beliefs subscale (Skinner, Chapman, & Baltes, 1988). In addition, intrinsic motivation was measured using 11 items in which eight were taken from the Young Children's Academic Intrinsic Motivation Inventory (Gottfied, 1990), and three were created by the researchers.

The students were given the questionnaire in regards to motivation in reading and mathematics in April during their first grade year and in the next two consecutive years. In addition, student's year-end grades in these subjects were used to determine students' actual competence. Students were given the questionnaire at the beginning of a school year and grades were assessed at the end.

The results indicated that, for girls in particular, reading and mathematics relation of self-perceptions of competence and intrinsic motivation was high in the beginning of school experience and declined through the following two school years. For boys, self-perception and competence in grade one started at a correlation of $r = 0.56$ and declined to $r = 0.48$. Comparatively, intrinsic motivation started at $r = 0.40$ and increased to $r = 0.45$ ($p < 0.05$). However, for girls, self-perception and competence began and $r = 0.63$ in first grade and dropped dramatically to $r = 0.28$. Intrinsic motivation began at $r = 0.62$ and dropped to $r = 0.30$

($p < 0.05$). Girls tended to start with higher self-perception and motivation and experienced greater drops as school progressed. In addition, this study aimed to answer how children's self-perception and motivation are related to achievement in reading and mathematics. In first grade, academic achievement could not be explained by a student's self-perception and motivation. Previous academic achievement was the best predictor for current academic achievement. A statistically significant correlation could not be made between reading self-perception and motivation and achievement. These findings are consistent with Baker and Wigfield (1997), in that self-perception and intrinsic motivation is difficult to generalize and that great variability exists among profiles.

This next study is similar to the previous study by Bouffar et al. (2003). However, Poskiparta et al. (2003) studied how students' motivations change from before beginning school and into early elementary years. Specifically, the investigation looks at motivational-emotional profiles before they began elementary school and in the early years in order to determine the impact of academics on children. The relationship between motivation and delayed academics has not been extensively studied to included students in the first years of school and earlier. The study hypothesized that children's motivational-emotional profiles change as a result of the school experience.

The study included of a total of 127 children who were from Finnish schools. The children were followed longitudinally from preschool up to second grade. Beginning in preschool the mean age of the participants was 6 years and 8 months. Children were tested on a variety of measures including motivational tendencies in task performance and reading skills in preschool, first, and second grade. From the results, comparisons were made between groups of children according to their reading and spelling level in second grade.

In order to determine academic achievement, the children were assessed in preschool and in elementary school. In preschool, children were assessed based on their phonological awareness, which consisted of four subscales each having 10 items. In first and second grade children were assessed based on their level of decoding, spelling and reading comprehension skills. In word reading, children read aloud 36 computer presented short words, accuracy and speed were both recorded. In story reading, children were given a 95-word story to read. Children were rated based in speed and accuracy. In spelling, children had to spell 10 sentences in first grade and 12 sentences in second grade. The sentences were 2 to 6 words long, and they were read aloud by the researcher. Reading comprehension was also measured in second grade. An expository text of 135 words describing parachute jumping was used. The children read the text at their own pace, and after they had to record answers to questions based on recall of main ideas.

In order to measure motivation-emotional vulnerability, the researchers used classroom observations, teacher rating scales, and an experimental play session. Researchers at preschool age and classroom teachers in first and second grade rated children's task orientation (ex: Child performs a task from beginning to end), ego-defensive (ex: Child avoids the task or is doing something else), and social dependence orientation (ex: Child easily, without thinking, asks for help with the task). The ratings were based on a 5-point Likert scale.

The groups were classified by the researchers as: poor readers, good decoder, and good readers. The results indicated that in preschool, the motivational-emotional profiles were similar among the three groups of readers. However, as students continued through school, the motivational-emotional profiles among the groups of readers begin to diverge. In preschool, poor readers were rated as (M=2.73, sd= 0.46) in task orientation and as (M=2.36, sd = 0.64) in 2nd

grade. Good decoders were rated as (M=2.95, sd= 0.065) in preschool and increased to (M=3.07, sd= 0.66) in second grade. Also, good readers were (M=3.23, sd= 0.82) in preschool, and dropped slightly to (M=3.07, sd= 0.77) in second grade. Students whose skills were not well developed experienced a decrease in task orientation, while higher skilled students' experienced an increase or a slight decline.

Comparable results were found in the ego-defensive categories. In these categories, it is more desirable to have a lower score. Poor readers slightly increased in ego-defensive scale (M=2.11, sd=0.69) in preschool, and (M=2.42, sd=1.08) in second grade. However, the higher skill categories slightly increased: good decoders (M=2.00, sd=0.66) in preschool, and (M=1.88, sd=0.95) in second grade; and good readers (M=2.00, sd=0.54) in preschool, and (M=1.71, sd=0.78) in second grade. These results indicate that as poor readers go through their school experience, they become more defensive and avoid doing tasks more readily, while high skilled students increase their task readiness.

In the social-dependency category, similar results were found as in the ego-defensive category. Poor readers started pre-school as (M=2.27, sd=0.67) and increased to (M=2.58, sd=0.88). The opposite was observed for high skilled students: good decoders (M=2.34, sd=0.65) in preschool, and (M=2.16, sd=0.75) in second grade; and good readers (M=2.31, sd=0.50) in preschool, and (M=1.85, sd=0.74) in second grade.

The results of this study indicate that when children begin their school career, regardless of their reading and decoding abilities, they are rated similarly in the areas of task orientation, ego-defensiveness, and social dependency. However, as the school experience continues, students who are under skilled reduce their task orientation and increase their ego-defensiveness

and social dependency. However, high skilled students increase task orientation and reduce their ego-defensive and social dependency. This occurs during the first three years of school. These results suggest that even early on, students who are low skilled are declining in their motivation to read and increase their skills. Therefore, the results of this study indicated that early problems reading and spelling are related to motivational-emotional vulnerability.

This section of aimed to address the relationship between reading motivation and reading achievement. In the studies that were examined (Baker & Wigfield, 1999; Bouffar et al. 2003; Poskiparta et al., 2003) it was determined that the predictive value of motivational profiles on a student's academic achievement is low and therefore should be considered a multifaceted construct that varies greatly among students. However, the studies did indicate that students' motivation and self-perception tends to decline over time with repeated failures (Bouffar et al., 2003, Poskiparta, 2003). This is an important finding that requires further research in order to determine that the cause of student decrease in self-competence and motivation.

Reading Motivation and Achievement in Struggling Students and Students with Disabilities

In the previous section of this chapter, the link between reading motivation and reading achievement was demonstrated (Baker & Wigfield, 1997, Bouffard et. al, should be et al., 2003, Poskiparta, et al, should be et al., 2003). The next section of this chapter focuses on the impact that reading motivation can have on the reading achievement of lower performing students and students with disabilities. Morgan et al. (2008) studied the relationship between early reading failure and a decrease in student reading motivation; Melekoglu (2000) investigated student reading motivation on struggling students and students with disabilities; Sideridis (2006) studied the effects of motivation, emotion, and psychopathology on students' reading comprehension.

Morgan et al. (2008) studied the link between early reading failure, and a decrease in student reading motivation. Specifically, this study aimed to answer the research questions: How does early reading motivation affect students' reading achievement? Would differences in reading motivation in students be maintained over time? Would inclusion of poor readers in effective tutoring lead to changes in their reading motivation? The researchers hypothesized that students' early reading failures will negatively affect students' motivation to read.

The study took place as part of a four-year investigation in 15 schools in a large metropolitan school district in the U.S. Southeast. Eight of the schools were Title 1 funded. From the schools, 30 classroom teachers were recruited to participate. The sample was comprised of 75 first grade students. The students were identified as 30 high skilled (HS) and 45 low skilled (LS). The students were identified through a sight word list task and teacher recommendation. From the 45 LS students, the students were randomly assigned to be placed in a LS group consisting of 30 students, and a low skilled tutor group (LS-T), consisting of 15 students. The groups did not differ in terms of race, age, or gender.

Students were tested in emergent reading skills, reading motivation, and in reading practice. The emergent reading skills tested were rapid letter naming, sight word list, blending words, word attack, and word identification. Reading motivation was tested based on three categories (competency beliefs, task orientation and intrinsic motivation) from the questionnaire *Reading Self-Concept Scale* (Turnmer & Chapman, 2002). Also, teachers completed an adapted version of the *Teacher Questionnaire of Student Motivation* (Sweet, Guthrie & Ng, 1998) and the *Behavioral Strategy Rating Scale II* to assess students' classroom task orientation (Onatsu-Arivlommi & Nurmi, 2000). Finally, students were tested on their reading practice though adaptations of a *Reading Frequency Questionnaire* (Bast & Reitsma. 1998) in which students

were asked about the extent of their reading practice outside of school MISSING PERIOD.

The study used a pretest-posttest control group design with random assignment. Students who were provided tutoring received 25 to 30 hours (M = 27 hours) of small group (1:2, 1:3, or 1:4) tutoring instruction. The tutoring was supplemented to the students' general classroom instruction in reading from the Scott Foresman Reading curriculum (Afflerbach et al., 2000). The tutoring addressed decoding, phonics, fluency building, and reading controlled texts.

The study did indicate that children's reading skill level and their reading motivation have a high correlation. Low readers reported lower reading self-concepts than high skilled readers. Students who were low skilled first graders believed that reading was difficult $F(1, 58) = 27.30$, $p = 0.000$. They viewed themselves as less competent readers $F(1, 58) = 20.13$, $p = 0.000$, and they had negative views toward reading $F(1,58) = 9.94$, p = 0.320, compared to their high skilled peers. Results suggested that tutoring improved the low skilled students who received tutoring compared to the low skilled students who did not receive tutoring. However, the increase in reading level did not lead to an increase in student motivation. In the discussion the authors hypothesized that the tutoring program may not have been sufficiently powerful enough to cause changes in poor readers' motivation. The results of this research are consistent with earlier research cited (Poskiparta et al., 2003)in that students who experience repeated failure tend to have lower reading motivation even very young students.

This next study is similar to the previous research by Morgan et al. (2008). However, students with learning disabilities and struggling students were participants in the research. Melekoglu (2000) was interested in answering the question: Will a struggling student or a student with a learning disability increase their reading motivation if their reading achievement

increases? It was hypothesized that students' motivation would correlate with increase in reading gains for struggling readers with and without learning disabilities. In order to answer this question, motivation was surveyed before and after the treatment of a research-based reading curriculum to enhance reading performance.

The study took place in a Midwestern state and students were recruited from two middle schools and one high school in two rural cities. All students were chosen based on their pretest reading achievement and not their IQ, no psychometric information was collected. A total of 13 struggling readers with LD and 25 without LD between the ages of 9 and 17 were participants in the study.

Students were tested for their baseline motivation and reading performance. Motivation was measured using the *Adolescent Motivation to Read Survey* (AMRS) (Pitcher et al., 2007). Reading performance was measured with the Scholastic Reading Inventory (SRI) (Scholastic Office of Education Assistance, 2003), a standardized test of reading achievement. The test is a computer-based assessment. To complete this assessment students read a passage and answered questions related to the text. The test provides a Lexile score for the student. The teachers implemented the READ 180 program (Taylor, 2006). All teachers were female, white, and had their master's degree in Special Education. The teachers had an average of 18.3 years of teacher experience (range=11-29 years). The READ 180 program is a research-based program designed to meet the needs of struggling readers between 4th and 12th grade. The program includes whole group instruction for 20 minutes, 60 minutes small group (20 minutes with teacher, 20 minutes with instruction software, and 20 minutes of independent reading), and 10 minute whole group wrap up. The study was a quasi-experimental design without a control group. The study took place over 18 weeks of instruction.

Students with learning disability experienced significant increases in reading achievement from the pre to posttest. The results of the study indicated that students with LD had an average gain of 169.9 Lexile scores (SD= 111.01; range=65 to 473). Even though all students with LD had reading gains over the study, only one participant with LD was reading at the proficient level at the post-test while the others were reading below grade level. The students who had the lowest reading achievement scores made the most reading gains throughout the study. However, even though students with LD made significant improvements in reading, the motivation to read was unaffected. The full reading survey (r = -0.59, SE = 0.14) indicated that there was no significant change in motivation to read of youth with LD. The results showed that self-concept scores of students with LD slightly increased (M= 0.46, sd = 13.61; range = -27 to 25). The increase was not statistically significant. However, the value of reading scores and full survey scores declined.

Students without LD increased their Lexile gains (M=78.20, sd=101.79; range= -93 to 323). Students without disabilities did not demonstrate significant changes in reading motivation from the full survey throughout the study (r = -0.44, SE = 0.13). However, in self-concept subtest the scores increased (M=4.24, sd = 8.82, range = -13 to 22). This was statistically significant (CI .95 = 0.51, 7.82, SE =1.72). This indicates that as students without disabilities improved their reading, their self-concept in reading increased.

The results of the reading motivation survey changed from pre to post treatment. Of the categories on the reading motivation survey, self-competence scores changed the most. As the students developed reading skills, this area slightly increased for reading with LD (non-significant) and without LD (significant). This study indicates that improving reading skills can have some effect on reading motivation, specifically self-concept. More research is required in

order to have a greater impact on both reading motivation and achievement. The research was also conducted with older students, which suggests that it is difficult to have a high impact on students' reading motivation when the student is an adolescent, at least with the use of a short-term intervention.

This next study differs from the previous studies in this section (Melekoglu, 2000; Morgan, 2008) because it investigations additional measures of emotions and psychopathology. Sideridis (2006) studied the effects of motivation, emotions, and psychopathology on a student's reading comprehension skills. The specific research questions were: Are motivation, emotions, and psychopathology significant predictors of reading comprehension? How do motivation, emotions and psychopathology interact with cognitive variables to form clusters of student profiles, and how are students with reading comprehension difficulties allocated into those profiles? Sideridis hypothesized that motivation, emotions, and psychopathology have been largely underestimated in their impact on the learning of students with learning disabilities, and that further research would show correlation between the characteristics.

The students for this study were selected based on their performance with reading comprehension skills. Reading comprehension was chosen as the measure because it encompasses all reading skills. Participants were 587 students (403 girls and 283 boys) in 2nd (n=209), 3rd (n=192) and 4th (n=186) from 17 Greek elementary schools in Crete, Attica, and the Ionian islands. There were 87 students who scored more than 1.3 SD below the mean on a standardized reading comprehension battery from a sample of 500 students in grades 2 through 4. All participants were tested in two 40-minute sessions over three weeks. Students were tested on word and pseudoword reading accuracy, pseudoword and sight word efficiency, text comprehension with the Woodcock Johnson (Woodcock & Johnson, 1989); Receptive

Vocabulary with the Peabody Picture Vocabulary Test-Revised (Dunn & Dunn, 1981); Reading Efficiency (Torgesen, Wagner & Rashotte, 1999); expressive vocabulary with the Wechsler Intelligence Scales for Children (Georgas, Paraskevopolus, Bezevegis & Giannitsas, 2001); reading motivation (MRQ) (Guthrie & Wigfield, 1997); anxiety with the Revised Children's Manifest Anxiety Scale (Reynolds & Richmond, 1985); depression with the Children's Depression Inventory (Kovacs, 1985), and affect with the Positive and Negative Affect Schedule (Watson & Clark, 1992).

The results indicated that through cluster analysis, students with significant deficits in reading comprehension were part of a low skill and low motivation group (learned helplessness) or low skill and high motivation group (motivated low achievers). Low achievers were split among the clusters with 50% in each group. From these findings, it was concluded that motivation, emotions, and psychology play a significant role in explaining achievement tendencies of students with reading comprehension difficulties. The author determined that two main groups of low skilled reading profiles exist: students who are low skilled and have low motivation, and those who are low skilled with high motivation.

These results slightly contradict the results of previous research (Poskiparta, 2003; Morgan, 2008) in that there were high numbers of low skilled students who were highly motivated. However, these results are consistent with research cited (Baker & Wigfield, 1997, Melekoglu, 2000) in which reading motivation categories did not indicate that reading motivation and achievement are directly correlated and that the results are often more complicated. The studies in which younger students were the participants, clearer relationships between achievement and motivation exist. The results from these studies suggest that when students are younger, it is more likely that their reading motivation can be influenced and affect

reading achievement.

In these studies on strugglING students and those with learning disabilities, it was found that low skilled readers tend to view reading as difficult, see themselves as less competent, and have a more negative view toward reading (Morgan, 2008). In addition, even increases in reading achievement had little effect on students' motivation and self-concept of reading if they were older and had history of significant difficulties with reading (Melekoglu, 2000). Sideridis (2006) determined that two distinctly different profiles of struggling students emerged: low skill and high motivation and low skill and low motivation. The results of the studies examined in this section were consistent with previous studies that examined students who were not significantly low readers or readers with disabilities. The previously examined research asserted that reading motivation is multifaceted and can affect achievement in a variety of ways (Baker & Wigfield, 1999; Bouffar et al., 2003; Poskiparta et al., 2003).

Enhancing Reading Motivation

The previous sections of this chapter studied the link between reading motivation and achievement and among other factors (disability, age, gender, income, and emotional profile). The next two sections of the chapter focus on methods for increasing reading motivation though reading engagement strategies, technology, choice, peer collaboration, and goal setting. Guthrie and Wigfield (2004) created a novel instructional practice-- Concept-Oriented Reading Instruction and determined its effects on reading motivation. Cuevas, Russell AND Irving (2012) studied the effect of technology on reading comprehension and motivation. Heilman, et al. (2010) investigated the use intelligent tutoring systems to increase student interest and reading achievement. The results of these studies provide further insight into the importance of reading motivation, and methods for increasing reading motivation.

Guthrie and Wigfield (2004) created a novel instructional practice of Concept-Oriented Reading Instruction (CORI). The model was designed to increase reading motivation in elementary students. The impact of CORI was tested through controlled experimentation to examine the role in reading engagement interventions on reading achievement. The research questions this study aimed to answer were: (a) To what extend is the construct of engaged reading associated with reading comprehension in a classroom-based study? (b) To what extend do engagement practices used by CORI teachers increase students' reading engagement and reading comprehension in compared to teachers using traditional instruction? (c) To what extend are instructional effects of the treatment groups on reading comprehension mediated by a student's level of reading engagement?

It was hypothesized that through the implementation of Concept-Oriented Reading Instruction (CORI), elementary students would increase their reading comprehension, motivation, and engagement in reading. The model suggests that when readers are fully engaged in reading, they comprehend the material better, use strategies they have been taught, and they are more motivated to read. The researchers designed CORI in order to increase motivation and engagement through five practices: (1) content goals, (2) student choice, (3) engaging hands-on activities, (4) use of interesting texts for instruction, (5) and collaborative learning practices among peers.

In order to determine the impact of CORI on reading achievement and motivation an experiment was designed in which schools were randomly assigned to one of three variable groups: CORI, strategy instruction (SI), and traditional instruction (TI). The CORI group received training on the five practices of CORI and received materials in order to implement the curriculum. In the SI group, the teacher received some training on research-based methods;

however, they were not provided with any materials. The TI was the control group, and the instructors did not receive training or materials.

The students who were recruited for this study were 315 fourth grade students in a small, mid-Atlantic city. There were two schools that were CORI, two SI, and one TI. The treatment groups of students were equivalent at pretest on the reading variables: comprehension, multiple text comprehension, and reading comprehension strategies, as well as reading motivation. The study followed a pretest-posttest design to measure reading motivation with the MRQ and reading comprehension with the Gates-MacGinitie (MacGinitie& MacGinitie, 1992), and a measure of text comprehension.

At the time of the pre-test, CORI, SI and TI did not significantly differ on their performance on the Gates-MacGinitie test. The results of the study indicated that the CORI students scored higher on passage comprehension ($M = 0.46$) than the SI ($M = 0.38$) which was not statistically significant; and scored higher than the TI ($M = 0.35$) which was statistically significant. In addition, students in the CORI group self-reported higher motivation (M = 13.40) compared to the SI students ($M = 11.11$). Teachers who delivered the CORI curriculum rated their students as more motivated to read ($M = 4.36$) compared to the SI group (M = 3.67). In terms of motivation, TI and SI did not differ significantly.

Correlations among the variables in this study confirmed the hypothesis that engaged reading correlated with reading comprehension. Overall, this study indicated that a curriculum which includes practice to increase reading motivation has a greater impact on student overall reading performance and reading motivation. Students responded to the practice of goal setting, having choice in the curriculum, participating in hands on activities, reading interesting test, and

collaborating with peers.

The next study also applied a curriculum model to measure its effects on student motivation. In a recent study by Cuevas, Russell, and Irving (2012), the effects of technology on reading comprehension and motivation in a diverse population of secondary students of low socioeconomic backgrounds was investigated. The researchers indicated that there is limited knowledge on the effects of reading motivation for students in the secondary level. The hypothesis of this study was that independent silent reading combined with the scaffolding capabilities of technology would have a greater impact on students' reading ability and motivation to read compared to traditional independent silent reading methods.

The study included 145 high school students in 10th grade. The students were recruited from a large urban public high school near Atlanta, Georgia. The vast majority of students were of lower to middle income socioeconomic backgrounds, and 60% of schools students qualified for free and reduced lunch. The schools demographics were 73% African American, 19% Caucasian, and 8% other minorities. No special education students were included in the study.

The students were divided into three groups: the control group Sustained Silent Reading (SSR), textbook Independent Student Reading (ISR) and module Independent Student Reading (module ISR). There were 70 were in the control group, 45 in the first treatment group, and 30 in the second treatment group. Students participated in a pre and posttest to measure students' reading performance and reading motivation to determine impact of the ISR and module ISR treatments. Reading performance was measured with the Gate-MacGinitie test (MacGinitie & MacGinitie, 1992) and reading motivation was measured using the MRQ (Guthrie & Wigfield, 1997).

The teachers in the SSR control group gave students silent reading time with no assessment to hold students accountable. In addition, teachers practiced a variety of methods including student and teacher read-alouds, short readings and teacher-led discussion, small group readings, and reading circles. The treatment groups, or the ISR groups, included accountability measures each week in which students answered open-ended questions to verify student reading. Students were given silent and independent reading time with little teacher interaction. The textbook ISR students accessed their readings from a textbook. The last group was module ISR, which incorporated technology. The technology component combined a scaffolding component allowed students to focus on areas in which they lacked specific skills and could therefore improve overall performance. The computer based program focused on (1) improving vocabulary, (2) activating students' prior knowledge, (3) use of inferences and predictions, and (4) cognitive and metacognitive strategies.

The results were analyzed using an ANOVA analysis. When the scores of the Gate-MacGinitie tests were analyzed between the control group compared to the combined IRS condition (textbook and module ISR), the difference was significant, $F(1, 104) = 9.104$, $p = 0.003$. However, the difference between the textbook ISR and the module ISR were not statistically significant. Overall, students from both ISR groups made greater gains than the control group. In addition, when all three groups were compared in terms of performance on assignments throughout the study, the outcome was significant $F(2, 103) = 5.587$, p $= 0.005$. There was a high significance between the control and the module ISR groups, $p = 0.002$. Therefore the module ISR group outperformed the textbook ISR in specific assignments performance throughout the study.

In terms of reading motivation, the control group was compared with the ISR groups. The

results were statistically significant $F(1, 114) = 6.20$, $p = 0.014$, $d = 0.62$. This suggests that students in the ISR group increased their overall reading motivation significantly more than those in the control group. The results of this study are consistent with the previous study (Wigfield & Guthrie, 2004) in that more engaging reading motivation instruction has a greater impact on student achievement and motivation.

This next study applied similar methods as the Cuevas, Russell and Irving (2012) study in that it also investigated the impact of technology to increase student motivation. Heilman et al. (2010) aimed to increase reading motivation in students by increasing student interest through the use of intelligent tutoring systems. Intelligent tutoring system can be used to meet students where they are at in their individual skill level, knowledge, and personal interest. This study had two main research questions: (1) Will materials that are of interest to the student increase student learning? (2) Is it possible to automate the selection of personal interest through an intelligent tutoring system? The authors admitted that there is research on both sides to suggest that selecting material that is of interest to students can be beneficial, but it can also be detrimental and distracting from true academic content.

The participants of this study were forty-four students who were English Language Learners at the University of Pittsburgh. The students were mostly college-aged, and a variety of nationalities were represented. The students were randomly assigned to a control ($n=22$) or treatment ($n=22$). Before the treatment began, students first began interacting with REAP (Brown and Eskenazi, 2004) an intelligent tutoring system, by taking a pre-test. The pre-test presented a list of vocabulary words and students would have to answer "yes" or "no," to knowing the word. Then, students took an interest survey to inform REAP the topics in which interested them. After the initial session, there were nine more sessions, once a week, for forty

minutes. When the sessions were complete, the student took a posttest which assed the amount of student learning.

The nine treatment sessions involved the students from the treatment group interacting with REAP. The computer program would generate a reading based on the interest of the student. The reading would have 1 to 10 vocabulary words embed throughout the text. The words would be highlighted to draw student attention to vocabulary word. The student could also click on the word to read its definition. After each reading, REAP presented practice exercises such as fill in the blank or a multiple-choice question about the vocabulary words covered in the reading. After the session, students rated their interest and difficulty level in the readings that were provided. REAP would adjust based on the new information.

The results of the study indicated that the students in the treatment group outperformed the control group in the post-test. The treatment group proportion of correct questions was ($M = 0.49$, $SD = 0.20$) and for the control group ($M = 0.34$, $SD = 0.18$). In addition, the treatment group outperformed the control group in the practice exercises that took place after the readings, ($r = 0.421$, $p < 0.05$). This suggests that potentially, due to increased student interest, the passage was read more carefully and thus improved performance.

In the previous section, the researchers were successful in applying a variety of strategies to increase reading motivation. Wigfield and Guthrie (2004) created a novel curriculum that embedded such as specific goals, choice, engaging text, and collaborative learning. In Cuevas, Russell and Irving (2012), independent silent reading time and the use of computer module was used to increase motivation. Finally, Heilman, et al. (2010) made use of an intelligent tutoring system to increase student interest, which was very successful. These studies

DEMONSTRATED success in increasing reading motivation and, thus, impacting their reading performance. Each of these methods used to increase motivation and reading achievement were individualized to students' needs and interest, which likely contributed to their success.

Goal Setting and Reading Motivation

The impact of setting goals on a student's motivation and achievement has been extensively researched (Miller & Meece, 1997; Murayama & Elliot, 2009; Sideridis, 2002). These researchers studied goals and goal setting impact on student motivation in a variety of ways. Sideridis (2002) studied students who were at risk of reading and spelling difficulties and the effects of setting goals on their achievement. Murayama and Elliot (2009) researched the impact of classrooms that incorporated goals into the instruction. Miller and Meece (1997) applied an innovative writing curriculum that involved collaboration in order to increase a student's goal orientation. These studies demonstrate the importance and impact of goal setting on student motivation and performance.

Sideridis (2002) studied the link between the motivation of students who are at risk of having language difficulties (in reading and spelling) to those with high language skills in order to determine differences between students with low and high language skills in terms of motivation. In addition, another variable studied was students' self-perception of goal importance. The research question this study aimed to answer was: Is there is a difference between language skills and goal importance, and how do these factors affect academic achievement? Sideridis hypothesized those students who perceived performance goals as important would be higher achievers in language skills and score higher in language measures.

The study consisted of 202 elementary students (101 boys and 101 girls) in grade 3

through grade 6. The students were selected from 30 schools in northern Greece. Students were placed into groups according to their scores in reading and spelling on the *Test of Reading Performance* (Padeliadu & Sideridis, 2000). Students who scored in the lower 25th percentile were placed in the "at risk of language difficulties" group. Students who scored in the upper 75th percentile were placed in the "high language performance" group. There were 22 students in the group of students who were risk for language difficulties and 180 students in the high language performance groups. Once in groups, students were measured based on achievement, motivation, and goal importance.

Motivation was measured based on the theory of planned behavior (Doll & Ajzen, 1992). The students were given a questionnaire that measured components of planned behavior theory: behavioral intention (ex: "I intend to study hard in order to achieve a high performance in academics"), belief strength (ex: "If I don't put a lot of effort in studying I will not achieve a high performance in academics"), outcome evaluation (ex: "I think that achieving a high performance in academics is important"), normative beliefs (ex: "I should study hard to achieve a high performance in academics because my parents think so"), motivation to comply (ex: Generally speaking, I often do what my parents think I should do", and perceived behavior control (ex: "For me, to study hard in order to achieve a high performance in academics is very easy"), and goal importance in academics (ex: "For me, to study hard in order to achieve a high performance in academics is extremely crucial"). The items were rated on a one to four scales ranging from strongly disagree to agree.

The results indicated two groups differed significantly in the measure of motivation. Of the components of the planned behavior theory, the measure that differed the most was goal importance. The at-risk students exhibited lower perception of goal importance LLS (*M*= 3.00,

sd= 0.72), HLS (*M*= 3.48 , *sd*=0.50). In addition, the indictors of the planned behavior theory were significantly different among groups. The data were analyzed through a series of one way ANOVAs and those in the at risk group had lower perceptions of goal importance $F(1,185)=14.77$, $p< .001$, $ES = 0.79$. The results demonstrated that the amount of variance in student achievement in language could be explained using the planned behavior model and goal importance indictors. Goal importance in students is a significant predictor of their achievement. This finding suggested that it is important to teach students the importance of goal setting in order to enhance their achievement.

The next study investigated types of goals and their impacts on student achievement and motivation. Murayma and Elliot's (2009) study aimed to investigate the impact of different types of goals on achievement and motivation in mathematics courses. The goal types were personal goals set by students or classroom structure goals implemented by the educator. The impacts of goal setting on students' achievement, academic self-concepts, and motivations were measured. The researchers hypothesized that those students who set their own mastery goals would have high motivation and potentially high academic self-concept.

The sample of students included Japanese junior and high school students from diverse economic and achievement levels. There were a total of 1,578 students (738 male and 834 female, 6 unspecified). Students were in 7th through 12th grade at the time of the study: 6.2% were 7th-grade students, 23.8% were 8th-grade students, 13.6% were 9th-grade students, 36.2% were 10th-grade students, 9.9% were 11th-grade students, and 10.1% were 12th-grade students.

Students were assigned to one of two groups. One group, which consisted of 788 students, completed a questionnaire assessing personal goals and academic achievement. The

other group consisted of 790 students, and their questionnaire contained classroom goal structure items. The groups were assessed with a questionnaire using a 5 points Likert scale from one (not at all true) to five (very true).

The students in the personal achievement group were provided with multiple questionnaires to measure student development of personal achievement goals, their intrinsic motivation, and academic self-concept. The students were given a 16-item questionnaire to assess students' use of personal achievement goals in their math class. The types of questions included addressed: mastery of goals (ex: It is important for me to understand the content of this course as thoroughly as possible), performance goal items (ex: It is important to me to do well compared to others in this class), and performance-avoidance (ex: I just want to avoid doing poorly in this class). Mastery goals focused on developing competency of skills through task mastery. Performance based goals were goals set in relation to other students and focused on competition. Performance-avoidance was referred to as an aversion to failure.

The students in the classroom goal structures group participated in the Patterns of Adaptive Learning Survey (Midgley et al., 2000). The students were asked to rate the extent to which their math classes emphasized learning and developing competence in six items. Four of the items assessed performance-approach goal structure in which their class emphasized performance and demonstrating ability. Two of the items assed performance-avoidance in which students were asked to rate the extent that their class emphasized not performing poorly in relation to others. Intrinsic motivation of the students was measured in a translated version of the Elliot and Church's (1997) intrinsic motivation scale. The scale consists of 6 measures and included questions such as, "I am enjoying this class very much." Academic self-concept was measured with the Japanese version of Ichihara and Arai's (2004) scale. Items included questions

such as, "I get good marks in mathematics."

The finding of this study indicated that high classroom mastery goal structures had a direct positive effect on intrinsic motivation and academic self-concept. Personal performance goals were also positive predictors of intrinsic motivation and academic self-concept. Personal performance-avoidance goals were negative predictors of both motivation and academic self-concept. The results of this study demonstrated that goal setting can have a positive impact on student motivation and academic self-concept regardless if the goal is a personal student set goal or a classroom goal structure.

The next study created an intervention designed to improve elementary students' writing and increase their goal orientation. Miller and Meece (1997) implemented an intervention in an elementary school classroom to enhancing elementary students' motivation to read a write. The research question the study addressed was how different reading and language arts assignments influenced 3rd grade students motivation to read. It was hypothesized that through the implementation of (a) writing multiple paragraphs, (b) to collaborating with peers, and (c) monitoring their progress over extended periods of time, students would increase their motivation in terms of goal-orientation, cognitive strategy use, and achievement affect.

The study consisted of 187 third grade students from a suburban school from 8 different teachers. To assess how the interventions were influencing students' motivations, surveys were given to measure motivational goal orientations, cognitive engagement, and achievement affect. Teachers planned the lesson themselves and they focused on increasing the number of opportunities students had to (a) write multiple paragraphs, (b) to collaborate with peers, and (c) monitor their progress over extended periods of time. Teachers met with researchers in order to

receive feedback and suggestions on lessons plans. Implementation fidelity varied among the teachers. This was controlled by placing teachers in either a high or a low implementation group.

The results of the study indicated that by implementing these curriculum changes, students rated themselves as less concerned about competition among peers and evaluations. Students also demonstrated low task-avoidance scores, which indicated that their motivation to learn was high. Students' change in goal orientation also varied across groups and was dependent on the teachers' fidelity of implementation. The students in the high implementation groups were less likely to state that their goals were to outperform others. This was likely due to the high degree of collaboration among peers. Instead, students often stated their goal was to learn something new and increase level of understanding or competence.

The research discussed in the final section of this chapter investigated the impact of goal setting on student achievement and motivation. The first study by Sideridis (2002) concluded that students who were at academic risk placed lower value on personal goals. In addition, students who demonstrated characteristic of planned behavior placed higher importance on goals and were more likely to be high achievers. Murayma and Elliot's (2009) study demonstrated that goal setting can have a positive impact on student motivation and academic self-concept regardless of if the goal is a personal goal or a classroom set goal. Finally, Miller and Meece (1997) were able to determine a link between a curriculum with high collaboration among peers and students setting goals that focused on their own personal growth instead of competing with others. Each of these studies demonstrated the powerful impact of goal setting on student motivation and student achievement.

Conclusion

From a review of the literature it can be concluded that reading motivation is a multifaceted characteristic that consists of competency beliefs and goal orientation. Research suggests that an increase in reading motivation can have a positive effect on ones reading achievement (Baker & Wigfield, 1999; Bouffar et.al IT'S et al., , 2003; Poskiparta et al., 2003). Also there are many methods in which to increase reading motivation such as goal setting (Murayma & Elliot, 2009), technology (Cuevas, Russell & Irving, 2012), student choice and hands on activities (Wigfield & Guthrie, 2004). The conclusions from the research studies were used to create an individualized literacy intervention for a student with disability. The adoption of goal setting, technology, student choice, and hands on activities were applied to the methodology in order to attempt to replicate increased reading motivation and reading achievement.

CHAPTER 3

PROCEDURES

The purpose of this study was to create a comprehensive literacy intervention for a student with a cognitive disability in order to increase the student's reading motivation and achievement. The intervention was based on research-based methods to increase reading motivation in order to potentially accelerate and increase the longevity of the student's progress. Recent research suggests that there is a relationship between reading achievement and reading motivation (Bouffar et al., 2003; Poskiparta, 2003; Baker & Wigfield, 1999).

This chapter consists of information on the participation, the procedures used, and the process for data collection. The chapter is organized into three sections. The first section provides detail of the participant including relevant academic background information. The second section describes the procedures used including pre and posttests, a description of the literacy intervention, and goals setting procedures used. The third section describes the formal and informal assessments used throughout the intervention.

Participant

The case study was conducted at an urban elementary school in a large urban city in the Midwest. The participant for the study, John, was 8 years and 6 months at the start of the study. He was in second grade and attended an urban elementary school. The student began attending the current school when he was in 5-year-old-kindergarten in November of 2011 at 6 years 4 months. This school was his first school experience. John was evaluated for special education due to a parent request. His teacher at the time agreed because of John's low performance in the general education classroom compared to his peers. When John entered kindergarten he was

significantly delayed in all academic areas and struggled to make gains compared to his peers. In addition, John had significant behavior concerns. He struggled to focus in small and large group settings and he would scream, leave his seat, touch or talk to other students, and generally refuse to do academic work. The school psychologists administered the Differential Abilities Scale 2nd edition (DAS-2) (Elliot, 2007), which indicated John had an IQ of 69 with a range of 64-77. After a review of John's classroom performance, his behavior, and his intellectual functioning, the IEP team decision was that John would qualify for special education under the disability cognitive disability.

John has made progress in school in all areas since he began school in kindergarten. In first grade, the researcher was John's special education teacher. At the beginning of the year he was behind his peers significantly in all areas. Throughout the school year, phonemic awareness was the main focus of his special education instruction. During that time he made growth as indicated on his Measure of Academic Progress test (MAP) (NWEA, 2013). In December 2012, John scored a 132 on the reading MAP test and a 145 on the math MAP test. These scores indicated that in the middle of first grade, John was at a mid K4 level in reading and in math. In December 2013, John scored a 145 on the reading MAP test and a 157 on the math MAP test. These scores indicate that John was at an early-kindergarten level in reading and a late-kindergarten level in math. As of December 2013, John was two and a half years behind where he should be in reading and about a year and a half behind in math.

Even though John has made progress throughout his time at school, he is still significantly behind his peers as evident from the MAP data. John is aware that his peers are more advanced than he is in all subjects. This causes John to become frustrated with reading and unwilling to participate. When he becomes frustrated he puts his head down and yells things such

as, "I can't do this," "I'm too stupid," and "I don't know how to read." These behaviors occur at least once per day and up to 10 times per day during reading class. His mother reports similar behaviors at home when she wants to read with him. In the beginning of the year, John would refuse to do assignments all together. However, that behavior has been diminished because he would miss out on recess when he did not complete his work. This has caused him to complete work; however, he frequently rushed through it in order to finish in time for recess.

Although John struggles in academic work, he is generally a happy and high-energy child. He loves his friends and his teachers and he is very kind towards them. John loves playing outside and playing with toys, specifically action figures. John's favorite TV show is Transformers and he talks about his Transformer toys frequently with his friends at school. John also loves to draw. His favorite things to draw are dinosaurs and volcanoes. John is very creative and he likes to make up stories about his drawings.

From my personal experience teaching John, reviewing his cumulative file, conducting research on reading motivation, goal setting, and achievement, an intervention was created to increase John's motivation and reading achievement. The next section will detail and provide explanation for procedures used for the intervention.

Description of Procedures

The intervention that was designed to increase reading motivation and reading achievement for John is outlined in this section. During the intervention the researcher used a variety of materials designed to increase reading fluency, comprehension, phonics, and word work skills. The intervention was designed with the knowledge that reading motivation and reading achievement have a bidirectional relationship and both components were equally

considered in the design of the intervention (Morgan & Fuchs, 2008).

John participated in ten, sixty-minute sessions of literacy intervention. An additional four sessions were used for pre and post-testing purposes. The sessions occurred after the school day ended, and they took place in John's special education classroom. During the first two and the last two literacy intervention session, The Quantitative Reading Inventory Edition 5 (QRI-5) (Leslie & Caldwell, 2010) and the Motivational Reading Questionnaire (MRQ) (Guthrie & Wigfield, 1997) were administered. These will be discussed in the data collection section. After the QRI-5 was administered, there were goals created based on John's based on performance on the reading word lists, in oral reading and comprehension. The goals set were that the student would improve his score by 50% on the QRI-5 in terms of his reading word list abilities. John also had goals of improving his reading and comprehension scores. The QRI-5 determines a students' fluency and rates IT as at a frustration level, instructional level, or independent level. If John scored a frustration level, it was a goal to reach instructional level. If John scored instructional, it was a goal to read at an independent level. These goals were ambitious but not so far out of reach that it would not be unachievable.

The ten sessions between the pre and post data collection followed a reading intervention schedule. Each reading intervention session began with a five-minute discussion of the goals set in the beginning of the intervention and a reminder of what he was working to achieve. The researcher would ask why John thought reading was important, and things that he wanted to learn from reading. Next came the 50-minute reading intervention. The literacy intervention ended with a five-minute discussion of what we learned during the invention time and what his favorite and least favorite parts of the intervention were. The intervention for the next week would be adjusted as needed based on student preferences.

The fifty-minute literacy intervention between the pre and post discussion followed the same format throughout the intervention. The intervention intentionally built in a variety of choices for the student due to evidence from existing research that choice in reading materials and activities results in increased reading motivation (Ames, 1988; Wigfield & Guthrie, 2004).

John was able to make choices about which activities he wanted to do and in which order. During every intervention session, John was required to complete one reading fluency and comprehension activity and one phonics and and word work activity. John was given three books to choose from for the reading fluency and comprehension category, and three phonics and word work games. He needed to complete one activity from both categories.

In the reading fluency and comprehension category, John was required to read a leveled Journeys reader (Houghton Mifflin, 2011). The readers in the books chosen for the reading fluency category would be either below, at, or above his reading level. Books that are level aa-C are Kindergarten level books; Books level D-J are 1st grade level; Books leveled K-P are 2nd grade level. At the start of the study, John could read an A level text with no errors, and a B level text with few errors.

John was told which books were the easiest, medium, and hardest books. John would read the book independently to the best of his ability. If he was stuck on a word, we would stop and he would use an Elkonin box to sound out the word. Elkonin boxes have been shown to develop phonemic awareness (Griffith & Olson, 1992). After reading the book, we would discuss the comprehension skill the book addressed. Due to time constraints, the skills would be discussed verbally, and the researcher would record responses. For example, if the book addressed compare and contrast between characters, the researchers would draw a Venn diagram and ask John what he would put in each area.

In the phonics and word work category, John was given a choice between two activities or playing a phonic-based computer game. From an informal checklist, John was asked to identify letter names (26/26), letter sounds (19/26), digraphs (2/6), pre-primer sight words (16/20), primer sight words (9/20), counting syllables (4/5), rhyme awareness (5/5), beginning (5/5), middle (3/5), and ending sounds (4/5) words, words with silent 'e', (7/10), words with vowel blends (2/10). From this checklist, games were chosen or created in order to address John's needs specifically. The activities were made by Lakeshore and they came from a Listen & Learn Phonics Awareness Activity Program, Search and Find Phonics Language Boards, Search and Find Sight-Words Language Boards, or from the Phonemic Awareness Folder Games (Lakeshore, 2011). All of the activities align with the Common Core State Standard, R.F. 2.3, Know and apply grade-level phonics and word analysis skills in decoding words (Common Core State Standards, 2012).

Listen & Learn. The Listen & Learn activities involved a write-and-wipe board which was paired with a CD. Each write-and-wipe board and CD addressed a specific phonics skill. The lower level phonics skills ask the student to spell out words in Elkonin boxes (Griffith & Olson, 1992) with a specific sound. The higher-level phonics skills included a paragraph that had several words with the phonics skill. The student would follow along while the CD read the paragraph aloud, then he would have to find the words with the phonics skill and write them on the board. During the research, the CD would generally be followed; however, it was stopped frequently so that John had time to do his writing before the CD gave the answer, or allowing John to do some of the reading independently.

Search and Find. The search and find games were a word search on a write and wipe board with words that addressed a specific phonics skills or sight words. If the search and find

game was chosen, we would do a mini lesson on the specific phonics skill using Elkonin boxes

(Griffith & Olson, 1992). Then John would be allowed to search for the words independently and

write them on the board. After he completed the search he would read the words aloud

independently. If this was a struggle, John would re-write the word in an Elkonin box and try to

read it again.

File Folder. The file folder games addressed a variety of skills. Most of the games

involved matching words with their beginning, middle, ending sound, number of syllables, or

rhyming matching. These games were chosen to strengthen John's skills in phonics in identifying

sounds, syllables, and rhymes. Of John's weak skills, the skills addressed in the file folder games

were the strongest. Therefore these games were given to John less frequently as a choice.

However, research has shown it was important to included activities that John could complete

independently in order to strengthen his competency beliefs in his own skills in order to avoid

feelings of repeated failures as this has been shown to be detrimental to reading motivation

(Nurmi & Aunola, 2005).

Smarty Ants. In addition to the listen & learn, search & find, and the file folder games,

John could chose to play Smarty Ants (Calfee &Pearson, 2013). Smarty Ants is a phonic-based

computer game that was purchased by the urban Midwestern school district used to address

students identified as in need of literacy intervention. Smarty Ants Reading World was

developed by reading researchers, Dr. Robert Calfee of Stanford University Graduate School of

Education and Dr. David Pearson of the University of California, Berkeley Graduate School of

Education (2013). Preliminary research has been done on Smarty Ants Reading World, and

research has shown statically significant improvement in letter sounds and blending skills in

kindergarten (Calfee & Pearson, 2013). Research has not been done in other grade levels at this

time.

John started playing the game in the beginning of the year and it starts with letter identification and builds up from there. At the beginning of the research John was working on mastering CVC words with short vowels. This level of the game addressed Common Core State Standards for K5 and 1st grade. John would get to the higher levels that addressed 2nd grade standards once he demonstrated mastery of the lower level. John also plays the computer game for 15 minutes per day during the school day.

Table 3.1

Overview of Procedures

Session Number	Reading Fluency and Comprehension	Phonics and Word Work
1	Granny Level A Sharing Level C Flying Level H	File Folder: Middle Sound Match Listen & Learn: Diagraph ch, sh Smarty Ants
2	At the Park Level A Ben the Cat Level D Giraffe's Neck Level E	Search & Find: Long a Listen & Learn: Diagraph wh Smarty Ants
3	Dress Up Level B Apples Level D Bear Swims Level E	File Folder: Middle Sound Match Listen & Learn: Diagraph th Smarty Ants
4	In the Sea Level B Animal Homes Level E The Treasure Map Level F	Listen & Learn: Diagraph ck File Folder: Ending sounds Smarty Ants
5	Dogs Level B Nana's House Level D Jim Henson Level E	Search & Find: Long e File Folder: Rhyming Match Smarty Ants
6	The Pigs Level B Amy's Airplane Level E Bear's Tail Level H	File Folder: Sound Count Listen & Learn: oa vowel blend Smarty Ants
7	Grandpa and Me Level C Molly's Team Level F	Search & Find: Long i Listen & Learn: ea vowel blend

	Polar Bear Pete Level H	Smarty Ants
8	Winter Level C	Search & Find: Long o
	A Chunk of Cheese Level F	Listen & Learn: Smarty Ants
	The Treasure Map Level I	
9	Izzy's Move Level D	Search and Find: Sight Words
	The Missing Glove Level F	File Folder: Ending Sounds
	Fall Changes Level I	Smarty Ants
10	Putting Frosting on the Cake Level D	Search & Find: Long u
	Food for You Level H	Listen & Learn: R-controlled vowel
	Len's Tomato's Level I	Smarty Ants

Data Collection

Data collection occurred before the interventions began, after the interventions were complete, and throughout each of the ten literacy intervention sessions. The pre and post data consisted of the QRI-5 to measure reading ability and the MRQ to measure reading motivation. Throughout the literacy intervention sessions, John choices, fluency comprehension, frustration, and enjoyment were recorded. In addition, data on John's participation in his general education class WERE recorded twelve times throughout the study.

Pre and Post Test. Before and after the literacy intervention sessions, John participated in the QRI-5 (Leslie & Caldwell, 2010) in order to determine his current reading level and the MRQ (Guthrie & Wigfield, 1997) in order to determine his reading motivation.

The QRI-5 (Leslie & Caldwell, 2010) has various sub-tests to determine a student's ability to read a list of words, reading fluency, and comprehension of the material from the story. From the student's performance on the test, his or her instructional level would be defined as frustration, instructional, or independent. Based on John's MAP data and from personal experience working with him, he was assigned the Primer Level 1 test in order to determine

baseline data. This was chosen in order to prevent frustration and to encourage him to complete the test. Also, his MAP scores indicated that John was at a late kindergarten level in terms of his reading, which would make the Primer Level test an appropriate level.

The MRQ was developed by Guthrie and Wigfield (1997) and it has been used in a variety of studies since it was created (Baker & Wigfield, 1999, Guthrie & Wigfield, 2004; Unrau & Schlackman, 2006). The Motivations for Reading Questionnaire is a student-rated assessment of the extent to which each student is motivated to read. The MRQ was designed to measure 3rd graders' motivation to read. The MRQ contains 53-items that reflect 11 constructs of reading motivation theory including: Reading Efficacy (3 items), Reading Challenge (5 items), Reading Curiosity (6 items), Reading Involvement (6 items), Importance of Reading (2 items), Reading Work Avoidance (4 items), Competition in Reading (6 items), Recognition for Reading (5 items), Reading for Grades (4 items), Social Reasons for Reading (7 items), Compliance (5 items). An example statement is, "I like being the best at reading," and the student gives a numerical answer from 1 "very different from me," to 4 "a lot like me." When the questionnaire is complete, the research has quality data on a variety of questions related to motivation and a student's motivation or lack thereof can be identified along the lines of the 11 constructs outlined.

Literacy Intervention Data. Every literacy intervention session, John had three choices from two different categories. The categories were: fluency and comprehension and phonics and word work. John made his choices for both categories in the beginning of the session. An example of the literacy intervention data collection is included in appendix A. The data collection included recording the activity selected, fluency, comprehension, frustration, and enjoyment. Choice of book was recorded during each session. If John chose the easy text it was

listed as a one, a medium as a two, and hard as a three. All other measures were recorded using a scale of one to four. A scale of one to four was chosen in order to reflect the choices that John made during the MRQ.

Fluency were recorded on a one to four scale WITH 1 meaning "Inability to complete activity without maximum support," two meaning "Inability to complete activity without moderate support," three meaning, "Ability to complete activity with minimum support," and 4 meaning, "Ability to complete activity with minimum to no support."

Comprehension was also rated on a scale of one to four, WITH one meaning low comprehension, four meaning high comprehension. John's comprehension level was determined by comparing his answers to the answers provided by the Journey's curriculum. If John could provide the example answers, exactly or with one error, he would earn a four. If he made two to three errors, he would earn a three. If he made four to five errors, he would earn a two. If he made 6 or more errors, he would earn a one.

In addition, data were collected on John's level of frustration. John frustration level was recorded on a one to four scale, WITH one meaning "No frustrating behaviors displayed," two meaning "1-2 frustrated behaviors displayed, three meaning "3-4 frustrating behaviors displayed, and four meaning "5 or more frustrated behaviors displayed. Frustrated behaviors were defined as putting head down, refusing to do work, or making comments such as "This is too hard," "I can't read," or "I don't want to do this."

Finally, John's enjoyment was recorded at the end of the session. When the session was complete he was asked to rate the activity and the book on a scale of one to four. A one meant, "I did not enjoy this activity, a two meant "This activity was ok," a three meant, "I liked this

activity," and four meant, "I really enjoyed this activity.

Classroom Participation Data. John received support during reading in a general education classroom for 30 minutes per day. During the first semester of the school year, (September 2013-December 2013), John raised his hand to participate with the class an estimated five times during the four month period. During the intervention, frequency of participation and frustration were recorded using event recoding. This was recorded eight times since the intervention lasted over a span of eight weeks. A tally was recorded under participation every time John raised his hand in class. Every time John displayed a frustrated behavior, a tally was recorded under frequency of frustration. Frustrated behaviors were defined as putting head down, refusing to do work, or making negative comments such as "This is too hard," "I can't read," or "I don't want to do this." John would sit next to the researcher during this 30-minute service;, therefore, all of his behaviors would be observed during the reading class.

Conclusions

This chapter detailed the procedures for this case study. The chapter began with a description of the student chosen for the case study, which included relevant history such as school experience, special education qualification, current level of achievement, and classroom observed behaviors of frustration.

Then the procedures for the study were described including the pre and post data from the QRI-5 and the MRQ and the content of the literacy intervention sessions. The literacy interventions sessions involved the student choosing from 3 different activities in two categories: fluency and comprehension, and phonics and word work. The books for the fluency and comprehensions were from the Journey's curriculum and were at, on, or above the student level.

The phonics activities were Lakeshore Games that covered a variety of topics, or a phonics based computer game.

Data were collected throughout the study during the literacy interventions and the classroom observations. During the literacy interventions data were collected on the choices the student made, his level of competence, his level of frustration, and his reported level of enjoyment for each of the two categories. Additional anecdotal notes were taken as needed. In addition, participation and frustration were recorded in the classroom to provide insight into the student motivation behaviors during the school day. Participation was measured based on the number of times he raised his hand, and frustration was measured based on verbal and non-verbal behaviors that indicated frustration.

CHAPTER 4

RESULTS

Throughout this study, there many types of data collected in order to determine change in reading motivation and change in reading ability. Before and after the literacy intervention, John participated in the Motivational Reading Questionnaire (MRQ) (Guthrie & Wigfield, 1997), and the Quantitative Reading Inventory- 5 (QRI-5) (Leslie & Caldwell, 2010) to determine pre and post reading motivation and reading competence. In addition, data were collected throughout the literacy intervention on fluency and comprehension category and the phonics and word work category. In fluency and comprehension, the choices that John made, level of frustration, fluency, comprehension, and enjoyment were recorded. In the phonics and word work category, John's choice, frustration, competence, and enjoyment was recorded. Finally, John's frequency of participation and his level of frustration in his general education classes were recorded.

Motivational Reading Questionnaire Results

John was assessed on his reading motivation using the Motivational Reading Questionnaire in the beginning of the study and at the end of the study. The Questionnaire consists of fifty-three items that cover eleven constructs. Students report "1" if the statement is very different from them, "2" if it is a little different, "3" if it is a little like them, or "4" if it is a lot like them. John's responses to each question on the MRQ are listed in Appendix B and a summary of the results is in Table 4.1. The averages from the questions within each construct are listed below in the pre-test and the post-test. In addition, the differences between the averages from the test are also listed. The results of the pre-test were ($M = 1.69$, $sd = 0.64$). This score indicates John has low motivation overall. The post-test results were ($M = 2.2$, $sd = 0.67$). This

score indicates that after the study, his motivation was still rated low, but it slightly improved. The difference between the two tests showed an average improvement of ($M = 0.51$). A dependent, t-test was conducted with the pre and post data, which result in t(10)=0.058, p < 0.10, therefore the results are statistically significant. John's self-assessment of his motivation improved a significant level from the pretest to the post-test.

Table 4.1

Motivational Reading Questionnaire Results

Constructs	Pre-Test		Post-Test		Difference (Post-Pre)
	M	*sd*	*M*	*sd*	*M*
Reading Efficacy	1.33	0.58	2.66	1.15	1.33
Reading Challenge	1.20	0.45	2.80	1.30	1.60
Reading Curiosity	2.16	0.41	3.33	0.82	1.17
Reading Involvement	2.16	0.98	1.66	0.82	-0.49
Importance of Reading	2.00	0	2.00	0	0.00
Reading Work Avoidance	1.00	0	1.50	1	0.50
Competition in Reading	1.00	0	2.33	1.37	1.33
Recognition for Reading	2.80	0.58	3.20	0	0.40
Reading for Grades	1.50	0.96	1.50	0.96	0.00
Social Reasons for Reading	1.28	0.49	1.85	0.90	0.57
Compliance	2.20	0.84	1.40	0.54	-0.80
Total	1.69	0.64	2.2	0.67	0.51

Qualitative Reading Inventory-5 Results

John participated in the QRI-5 Word List, Oral and Comprehension Test. In the Word List category, John read Primer I and Primer II-III list. In Oral and Comprehension Test, John

read the Primer I and Primer II stories and answered concept questions, retelling questions, and comprehension questions. The pre-test took place on January 16th, 2014 and the posttest was on March 18th, 2014.

In the reading word list section of the QRI-5, John was presented with the Pre-Primer I, and Pre-Primer II, word list to read. The results are listed in Appendix C, and the results are analyzed in Table 4.2. In January, John read thirteen of the seventeen Pre-Primer I words, or 76%. In March, John read sixteen of the seventeen words, or 94%. On the Pre-Primer II-II word list, John read three of the twenty words in January, or 15% of the words. In March John read twelve of the twenty words, or 60%. Overall, in January, John read 43% of the words, which put him at a Pre-Primer frustration level, according to the QRI-5 ratings. In March, John read 76% of the Pre-Primer words, which put him at a Pre-Primer instructional Level. John's goal was to read 50% more words from on his post-test, which would be reading twenty-four of thirty-seven words. On the pre-rest John read twenty-eight of the thirty-seven words, beating his goal. He also moved from a level of frustration to instructional, which was another goal.

Table 4.2

Pre and Post-test Results of Pre-Primer Word Lists

	Pre Test	Percentage Correct	Post-test	Percentage Correct
Pre-Primer I (17 words)	13	76%	16	94%
Pre-Primer II-III (20 words)	3	15%	12	60%
Actual Total (37 words)	16	43%	28	76%

In the oral reading and comprehension section of the QRI-5, John read the Pre-Primer Level One book and the Pre-Primer Level Two book during the pre-test in January and the post-test in March. The complete results from the pre and posttests are listed in Appendix D and

analyses of the results are presented in Table 4.3. John improved in all areas from the pretest to the post-test.

In Reading Rate, John improved his reading from 30 Words per Minute (WPM) and 27 Correct Words per Minute (CWPM) in the pretest to 53 WPM and 51 CWPM in the post-test. This moved John from an instructional level to an independent level, meeting his goal. In Primer II, John improved his reading from his pretest of 26 WPM and 18 CWPM to his posttest of 35 WPM and 30 CWPM. John met his goal of moving from frustration to Instructional in Primer II.

In the retelling section, John had to recall ideas from the text. In the pre-test of Primer I, John recalled 50% of the text, and in the post-test he recalled 83% of the text. In retelling section Primer II, John moved from a 26% on the pretest to a 58% on the pretest. In comprehension, John did very well in each test. In Primer I, his pre-test was 80% and his posttest was 100%. In Primer II, his pre and posttest were both 100%.

Table 4.3

Pre and Post-test Results of Primer I and Primer II Oral Reading and Comprehension

	Primer I Pre Test	Primer I Post-test	Primer II Pre Test	Primer II Post-test
Concept Questions				
Percentage Correct	41%	50%	88%	100%
Reading Rate				
Misuse	4	1	15	5
Rate WPM	30 WPM	53 WPM	26 WPM	35 WPM
Correct WPM	27 CWPM	51 CWPM	18 CWPM	30 CWPM
Level	Instructional	Independent	Frustration	Instructional
Retelling				

Percentage Correct	50%	83%	26%	58%
Comprehension				
Percentage Correct	80%	100%	100%	100%
Level	Instructional	Independent	Independent	Independent

Literacy Session Data

During every literacy intervention session, data were collected in the fluency and comprehension category and the phonics and word work category including the activity selected, fluency, comprehension, frustration, and enjoyment. Each measure was recorded using a scale of one to four. John's fluency, comprehension, and behavior changed in a positive direction throughout the sessions. The individual session results for John's performance in fluency and comprehension are listed in Appendix E. Difficultly of books John chose are presented in Table 4.4. A Pearson's r test was run between difficultly and all other measures which are presented in Table 4.5. Further analysis of all measure in fluency and comprehension are presented in Table 4.6. The results of John's performance in phonics and word work are listed in Appendix F and the means and standard deviations are in Table 4.7.

Fluency and Comprehension Category. Difficulty of text chosen is an important finding to consider due to John's history of avoiding difficult work. As the literacy sessions progressed, John's preferences changed in terms of difficultly of text he chose as presented in Table 4.3. In the beginning of the literacy sessions, John would choose an easy book 50% of the time, a medium book 50% of the time, and he would not choose a hard book. In the middle of the sessions, John would choose an easy book 66% of the time, and a medium book 33% of the time, and he would not choose a hard book. However, by the end John did not choose any easy books, he chose medium 33% of the time and hard 66% of the time. In order to determine if John's

frustration, competence, and enjoyment were affected by the difficultly of the book that he chose, correlation test were run. The difficultly of book was rated as a 1 for easy, 2 for medium, and 3 for difficult.

Table 4.4

Percentage of Easy, Medium, and Hard Books Chosen

	Percent Chosen Session 1-4	Percent Chosen Session 5-7	Percent Chosen Session 8-10	Frequency Chosen
Easy	0.5	0.66	0	4
Medium	0.5	0.33	0.33	4
Hard	0	0	0.66	2

Table 4.5

Correlation Between Difficultly of Text and All Other Measures in Fluency and Comprehension

	Frustration	Fluency	Comprehension	Enjoyment
Sessions 1-4	0.90	-0.90	-0.58	0.57
Sessions 5-7	0.0	-0.5	-0.86	0.5
Sessions 8- 10	0.5	-1.0	-1.0	0.5
Total	0.44	-0.81	-0.77	0.49

Table 4.6

Means and Standard Deviation of Fluency and Comprehension Category

	Difficulty		Frustration		Fluency		Comprehension		Enjoyment	
	M	sd	M	sd	M	sd	M	sd	M	sd
Sessions 1-4	1.5	0.58	1.75	0.96	3.25	0.95	3.75	0.5	2.75	0.5
Sessions	1.66	1.0	2.67	1.15	3.0	1.00	3.33	0.58	2.0	1.0

Sessions 8-10	2.66	0.82	2.33	0.57	1.33	0.58	3.33	0.58	3.33	0.58
Total	1.9	0.82	2.2	1.17	2.66	1.17	3.5	0.52	2.7	0.82

John's fluency in reading the text presented during the literacy intervention sessions varied as the sessions progressed. In the beginning sessions 1-4, John chose easy books (M = 1.50, sd = 0.58) and his fluency was high (M = 3.25, sd = 0.95). A Pearson's r test showed that there was a high correlation (r = -0.90) between difficultly and competence. John chose the easy books in the beginning and he had a high level of fluency in reading the easy text. In the middle sessions, John chose slightly harder books (M = 1.66, sd = 1.0) and his fluency levels went down only slightly (M= 3.0, sd = 1.0). The Pearson's r showed that there was no association with a value of (r = -0.5). In the last sessions, John chose harder books (M = 2.66, sd = 0.82) and his fluency was (M = 1.33, sd = 0.58). A Pearson's r indicates that (r = 1.00) which indicates that as the level of books increase, John's ability to read the books fluently decreased.

John's level of comprehension changed very little throughout the intervention sessions. In the beginning the difficulty of John's CHOICE FOR books was easy (M = 1.50, sd = 0.58) and his comprehension was high (M = 3.75, sd = 0.5). The Pearson's r showed (r = -0.58) which indicated that there was a slightly correlation between easy books and high comprehension. In the middle, John's books were slightly harder (M = 1.66, sd = 1.0) and his comprehension level went down slightly (M = 3.33, sd = 0.58). The Pearson's r test showed (r = - 0.86) showed that there was a strong, negative correlation between the difficult of books and the level of comprehension. Finally, in the last sessions, John chose harder books (M = 2.66, sd = 0.82) and his comprehension was the same as the previous sessions (M = 3.33, sd = 0.58). The Pearson's r was (r = -1.0), which showed that there is a strong, negative correlation between the level of

books and level of comprehension.

John experienced frustration throughout the literacy intervention sessions in varying degrees depending on the difficultly of the book he choose, and depending on which literacy session it was in the intervention. In the beginning, John frequently chose easy books ($M = 1.50$, $sd = 0.58$) and he had low levels of frustration ($M=1.75$, $sd = 0.95$). A Pearson's r test was run, and ($r = 0.90$). This shows that there is a strong correlation between choosing easy books and having a low level of frustration. In the middle of the literacy sessions, John chose slightly harder books, ($M = 1.66$, $sd = 1.0$) and this affected his frustration level ($M = 2.67$, $sd = 1.15$). A Pearson's r test was run ($r = 0.00$), which shows that the results are inconclusive during these sessions. Finally, in sessions 8-10, John chose harder books, ($M = 2.66$, $sd = 0.82$) and experienced slightly lower levels of frustration than during the middle sessions ($M = 2.33$, $sd = 0.58$). The Pearson's r test resulted in ($r = 0.5$), which indicates that no relationship exists.

John's level of enjoyment varied throughout the literacy sessions. In the beginning sessions, John's enjoyment was ($M = 2.75$, $sd = 0.5$), in the middle his enjoyment was ($M = 2.0$, $sd = 1.0$), and in the end, his enjoyment was ($M = 3.33$, $sd = 0.58$). John's enjoyment increased when comparing the beginning sessions and the end sessions. When comparing John's level of enjoyment with the difficultly of text, PeArson's r tests were run. In the beginning sessions, when John chose easy books, ($M = 1.50$, $sd = 0.58$) and the correlation was ($r = 0.57$). There was a slight positive correlation between choosing an easy text and John's level of enjoyment. In the middle sessions the difficulty chosen was ($M = 1.66$, $sd = 1.0$), and in the end it was ($M = 2.66$, $sd = 0.82$). For both sessions, a Pearson's r was run and the r value was the same, ($r = 0.5$), which showed there is no relationship between choosing harder books and level of enjoyment.

Phonics and Word Work Session Data. During each literacy intervention session, John chose a phonics and word work activity. For each session, John's frustration, fluency, and enjoyment were recorded. For this set of data, difficultly is not taken into consideration because it was challenging to categorize the activities accurately as easy, medium, and hard because John needed practice in all of the skills. In addition, Smarty Ants instruction is customized to John's level so that it should be challenging but manageable for him to complete on his own. The data from the sessions of the phonics and word work sessions are listed in Appendix C and means and standard deviation are listed in Table 4.7. The results of the phonics and word work sessions, differs from the fluency and comprehension data in that John had lower levels of frustration overall. In fluency and comprehension, John's frustration was ($M = 2.2$, $sd = 1.17$) and in phonics and word work it was ($M = 3.5$, $sd = 0.71$). In addition, John's enjoyment was higher in the phonics and word work category ($M = 3.5$, $sd = 0.71$) compared to Fluency and comprehension ($M = 2.7$, $sd = 8.2$). Finally, John's competence was higher in the phonics and word work category ($M = 3.3$, $sd = 0.82$) compared to his fluency in the Fluency and comprehension category ($M = 2.66$, $sd = 1.17$).

Table 4.7

Means and Standard Deviations of Phonics and Word Work Measures

	Frustration		Fluency		Enjoyment	
	M	*sd*	*M*	*sd*	*M*	*sd*
Sessions 1-4	3.5	0.57	3.25	0.5	3.25	0.95
Sessions 5-7	3.0	1.0	2.66	1.15	3.33	0.58
Sessions 8-10	4.0	0	4.0	0	4	0
Total	3.5	0.71	3.33	0.82	3.5	0.71

Classroom Participation

Finally, John's frequency of participation and frequency of frustration in his general education class were recorded over a 30 minute period. Frequency of participation was determined based on how many times John raised his hand in class and frequency of frustration was defined as number of frustrating behaviors (putting head down, refusing to work, or negative comments) were recorded. In the beginning weeks, John displayed low levels of participation, ($M = 0.33$, $sd= 0.58$) and high levels of frustration ($M = 4.33$, $sd= 0.58$). In the middle weeks, participation increased ($M = 2.33$, $sd= 2.51$) and decreased frustration ($M = 2.33$, $sd= 1.52$) and both were displayed equally. In the last week, participation ($M = 3.5$, $sd= 0.71$) surpassed frustration ($M = 1.33$, $sd= 1.41$). These results indicate that as the literacy interventions progressed, John's participation increased while frustration was decreasing. Overall, John had higher levels of frustration ($M=3.0$, $sd= 1.85$) compared to participation ($M=1.87$, $sd= 1.64$).

Graph 4.1

Event Recording of Participation and Frustration
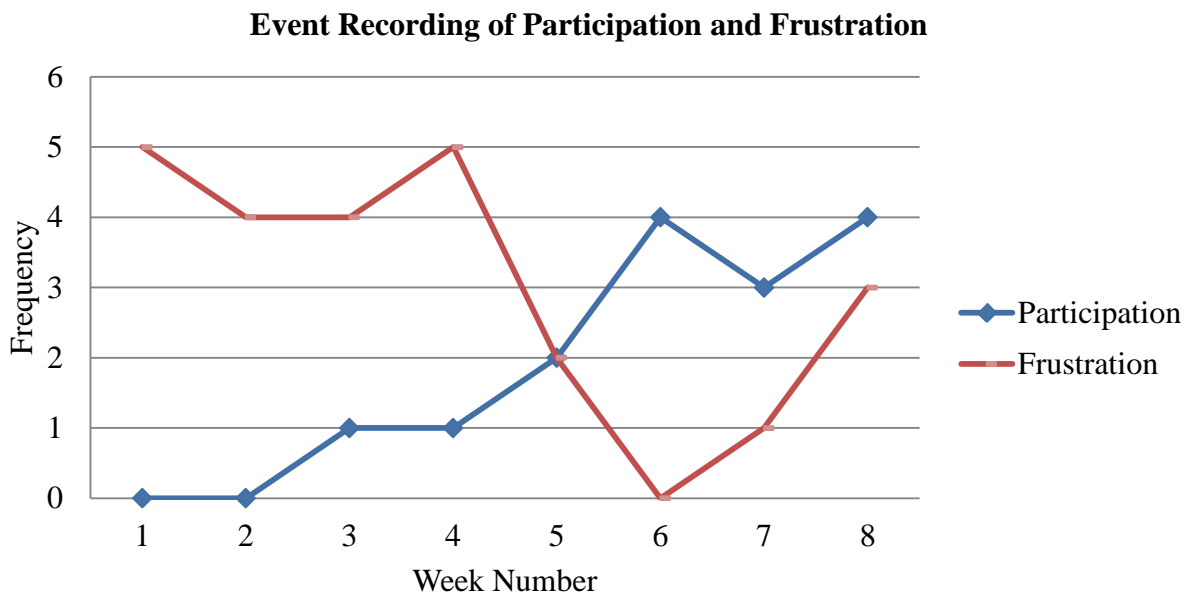
Table 4.7

Classroom Participation and Frustration Means and Standard Deviations

	Participation		Frustration	
	M	*sd*	*M*	*sd*
Sessions 1-3	0.33	0.58	4.33	0.58
Sessions 4-6	2.33	1.52	2.33	2.51
Sessions 7-8	3.5	0.71	1.33	1.41
Total	1.87	1.64	3	1.85

Conclusions

In order to determine the effects of the literacy intervention session on reading motivation and reading competence, pre and post data were collected using the MRQ and the QRI-5. In the MRQ, John's self-reported levels of motivation increased (*M*=0.51) from pre to posttest. A dependent, t-test was conducted with the pre and post data, which result in t(10)=0.058, $p < 0.10$, therefore the results are statistically significant. In the QRI-5, John met the majority of his goals. The most significant was improvement on the reading word list from reading 43% of the words before the intervention, and 76% of the words after intervention.

In addition, data were collected through the interventions sessions in the fluency and compression category: difficultly of text, frustration, fluency, comprehension, and enjoyment; and in the phonics and word work category: frustration, fluency, and enjoyment. As the literacy sessions progressed, John chose increasingly difficult texts, which indicates low levels of task avoidance. In addition, his fluency decreased throughout the sessions due to the difficult text. However, a decrease in fluency did not result in increased frustration or decreased enjoyment. In phonics and word work, John rated higher levels of enjoyment and he displayed few frustrated behaviors. He also demonstrated high levels of fluency in this category. Finally, classroom

participation and frustration were recorded during general education classrooms. John improved his participation and decreased his frustration overall as the intervention progressed. This suggests that John has improved his motivation across settings.

From the data recorded throughout the intervention and the pre and posttest, John made progress as evident in his changing behavior and motivation, and his reading fluency and comprehension skills.

CHAPTER 5

Conclusions

Throughout the ten literacy intervention sessions, John experienced growth in his reading motivation as measured by the MRQ and his changes in behavior during the literacy session. In addition, John's reading competence improved as evident in his results of the QRI-5 and in his increased fluency of difficult texts.

Explanation of Results

There were several indicators of John's change in motivation and reading achievement throughout the study. Indicators of change in reading motivation were measured as the results of the pre and post MRQ, the change in the texts that John would select, and John's increased participation and reduction of frustrating behaviors in the general education classroom setting. Changes in reading achievement were measured using the QRI-5 and the changes in fluency and comprehension during the literacy intervention sessions.

Results Related to Motivation. In the MRQ, John's self-rating went up overall from a ($M = 1.69$, $sd = 0.64$) to a ($M = 2.2$, $sd = 0.67$). The MRQ was on a four point scale in which one was low motivation and four was high motivation. In the constructs, John went up in nine of the constructs and went down in two. The only constructs he went down in were Reading Involvement, (difference of $M = -0.49$) and in Compliance (difference of $M = -0.80$) The most significant increases in John's self-rating were in Reading Efficacy (difference of $M = 1.33$) and in Reading Challenge (difference of $M = 1.60$) The increase in the Reading Challenge construct was also evident in John's choices or reading material throughout the literacy intervention. In the beginning John would never choose a hard book, he would only chose an easy book 50% of the

time and a medium book 50% of the time. However, as John progressed though the sessions, his attitude changed and he began to want to choose books for himself to challenge himself. By the end John would choose a hard book for himself 66% of the time. This is significant because John's perception of his ability to read has improved in addition to his willingness to choose more difficult text for himself. It is likely that these results were achieved because of the increased time John was able to read one on one. He was able to increase his ability to decode unfamiliar words fluently with this additional practice, knowledge of phonics, and use of Elkonin boxes. John realized that the harder books had more difficult words, but he was able to cope with them by using his decoding skills. John increased his confidence and BEGAN to challenge himself.

The results of the classroom participation data were also a significant change. In the beginning there was a large gap between frustrating behavior and participation behaviors. In the first week, John did not participate at all, and he displayed frustrating behaviors five times. He displayed five times more frustrating behaviors than participation behaviors. During week five, John displayed two participating behaviors and two frustrating behaviors. In the last week, John displayed participation behaviors four times and frustration behaviors three times. John's general education teacher also commented on John's change, she reported that:

John would never raise his hand in class before. Now he raises his hand all the time. Are his answers correct? Usually, no. However, I call on him all the time and tell him to keep trying. John has noticeably changed his attitude. (Personal Interview, April 1, 2014).

John's increased participation in his general education classroom was one of the most significant outcomes of this study. It is likely that he was able to transfer the motivation and the

confidence that he experienced during the tutoring sessions and apply them to his classroom behavior. This was a significant finding because it suggests that individualized literacy tutoring paired with research-based methods to improvement motivation can have an impact on a student's participation in a general education classroom.

Through the multiple sources of data on John's change in reading motivation, John's motivation has improved throughout the case study. These results suggest that John has increased his self-perception reading efficacy, willingness to choose more difficult text, and participation in the classroom. From the results of previous research, the increase in reading motivation will likely have a positive effect on John's reading motivation. (Wigfield & Guthrie, 2004).

Results Related to Reading Performance. In the QRI-5, John's score increased overall in all areas. The most significant gain was in the reading word list. During a short intervention time, John was able to improve his score from a frustration level to an instructional level. This is a significant improvement. A frustration level is a level in which the student is completely unable to read the text with "adequate word identification or comprehension" (Caldwell & Leslie, p. 23, 2011). An instructional level is a text that a "student can read with assistance from a teacher" (Caldwell & Leslie, p. 23, 2011). It is significant that John was first at a level of frustration and he moved to an instructional level in two months' time.

John has made improvements in his decoding skills as evident from his score. In the oral reading and comprehension, John improved his score in every category from the pre-test to the post-test. One of the most drastic improvements from John was his ability to read the Pre-Primer II book. The first time he read it he made 15 mistakes; HE read the book at 26 WPM and 18 CWPM. The second time he made 5 mistakes, and read the book at 35 WPM, and 30 CWPM. He

improved from frustration level to instructional level.

In addition to the results of the QRI-5, the data collected throughout the literacy intervention sessions also suggest that John made improvements in reading achievement. Even though John chose increasingly difficult texts throughout the literacy interventions sessions, his level of comprehension remained relatively consistent throughout. Comprehension was rated using a 1 to 4 Likert scale, which was determined based on John's answers compared to the answers provided by the Journey's curriculum. In sessions 1-4, John's comprehension was ($M =$ 3.75, $sd = 0.5$), and in sessions 5-10, his comprehension was ($M = 3.33$, $sd = 0.58$). This suggests that John comprehension skills were increasing because even as he chose more difficult text, he was able to complete the comprehension skills with few errors. This suggests that John's comprehension skills are higher than his fluency skills. This conclusion is highlighted most evidently in comparing fluency and comprehension in sessions 8-10. This is because John's fluency was rated as ($M = 1.33$, $sd = 0.58$), and comprehension was rated as ($M = 3.33$, $sd = 0.58$). Even though John has difficultly reading higher-level texts he is able to comprehend text that he may not be able to read independently.

It is likely that John's comprehension is higher than his fluency because in his general education classroom and in the special education classroom he is exposed to second grade level texts daily. John participates in comprehension questions paired with second grade level texts with minimal modifications. However, John requires maximum support to read these texts, often he follows allow with an audio book. In this study, John was given text at his instructional level, which involved books at kindergarten and first grade level. With these books John was able to read with fluency compared to second grade level books. When John was asked comprehension questions about this text, this task was easy in comparison to the comprehension questions he is

asked during the school day.

In relation to the Common Core State Standards, this study aimed to address the skills of: Know and apply-grade level phonics and word analysis skills in decoding words (RF.2.3) and Identify the main purpose of a text including what the author wants to answer, explain, or describe (RI.2.6). Although John is still below grade level, his progress in the literacy interventions continued to close the gap between current skills and where he needed to be. John has increased his phonics skills and he is on his way toward decoding more second grade level words. The results of John's QRI-5, specifically John's improvement in the reading word list in which he improved from reading at a frustration level to an instructional suggests that John is greatly improving his ability to decode. The results of John's rating in the comprehension category suggest progress in (RI. 2.6). In the beginning of the sessions, John was comprehending kindergarten level books ($M = 3.75$, $sd = 0.5$), and by the end John was comprehending 1st grade level books ($M = 3.33$, $sd = 0.58$).

Connection to Existing Research

The results from this case study are related to many of the studies reviewed in chapter two (Bouffar et al., 2003; Poskiparta et al. 2003; Melekoglu, 2000; Wigfield & Guthrie, 2004). The research in these studies contributed to the procedures that were used in this case study. In addition, the results of these studies reflect results from this case study.

John's experience reflects the results of Poskiparta et al. (2003), in which the research measured ego-defensiveness, task orientation, and social dependency of low and high skill students. According to Poskiparta et al. (2003), students who were low skilled decreased in task orientation and increased ego-defensiveness and social dependency throughout their school

experience. Although there are no data on John's level of motivation when he first started school compared to his current levels of motivation, John's initial IEP suggested that John's academics and motivation was low compared to his peers. When John was presented with academic work, he displayed frustrated behaviors such as refusing to do work, yelling, and aggression. In this case study, John's experienced failures in reading early on, and his behavior reflected the behaviors of struggling readers in the Poskiparta et al. (2003) study. However, as John experienced success throughout the intervention, the negative behaviors diminished and his motivation increased. This suggests that the correlation illustrated in Poskiparta et al. (2003), can be reversed with repeated success. As John experienced success in reading, he increased task orientation his decreased ego-defensiveness and social dependency.

The research conducted by Bouffar et al. (2003) and Poskiparta et al. (2003) suggested that reading motivation can be highly predictive of reading achievement for younger students. Poskiparta et al. also stress, that "early problems with reading and writing pose serious risk for academic performance" (2003, p. 203). These studies speculate that motivation and self-perception toward academics are highly malleable when students enter school due to their limited experience with academic tasks. Therefore, in order to have the greatest impact on student's motivation and achievement, students require intervention in the early years of school. The results of this case study reflect these findings. The interventions focused on research-based practices to increase reading motivation and achievement on a young student. The interventions implemented had a noticeable impact on John's reading motivation and achievement. This suggests that during the first years of school it is crucial that students experience success within academics, they are motivation to complete task, and that they believe they are able to complete tasks.

In the research study by Melekoglu (2000), middle school and high school students with learning disabilities were provided with reading interventions and their motivation and reading achievement were measured before and after. Overall, the participants grew in their reading and the motivation did not improve significantly. For students with learning disabilities, the motivation construct which improved was self-competence. The other constructs that were measured decreased. Melekoglu (2000) theorized that the intervention did not produce significant gains in motivation scores because the students with disabilities have experienced years of significant struggles throughout their school experience. Therefore, it is unlikely that older students with low motivation and low skill would improve their reading and motivation from a short intervention.

In this case study, the student was in second grade so he did not have the same experience as the middle and high school students in Melekoglu's (2000) study. During a short intervention, John was able to improve reading scores and motivation. This finding supports Melekoglu's theory that older students who have faced significant challenges would have a harder time increasing their scores motivation scores from a short intervention. Another similarity between the studies is that both produced an increase of self-efficacy ratings. John's self-rating of reading efficacy had the second highest positive change (difference of $M = 1.33$), after reading difficultly (difference of $M = 1.60$). In this case study and in Melekoglu (2000), students experienced significant growth in their reading ability, and self-efficacy increased. This finding suggests that reading efficacy is likely impacted by an increase in student skill, or an increase in students experiencing success. As students improve their skills, they experience success. This can impact students' self-perception of their ability to complete a task. It is likely that this phenomenon occurred in this case study and in the Melekoglu (2000) study.

In the study by Guthrie and Wigfield (2004), a novel curriculum, Concept-Oriented Reading Instruction (CORI), was created AND intended to increase student motivation which included (1) content goals, (2) student choice, (3) hands-on activities, (4) interesting texts for instruction, (5) collaborative learning practices. The literacy intervention designed for this study closely reflected the practices used in CORI, except for collaborative learning practices. This case study and Guthrie and Wigfield (2004) used goals as one of its research-based practices. CORI used content based goals in order to provide student with mastery criteria in relation to their content. Guthrie and Wigfiled (2004) argue that providing goals for students increases interest and motivation. In the case study, John had goals that he was working toward as well in order to keep him motivated.

Student choice was also used in CORI and in this case study. Guthrie and Wigfield (2004) discuss that there are benefits to allowing a student to choose a book as opposed to assigning a book. Students are more likely to think about what they know about a topic and synthesize new and old information. This will result in a student understanding a topic more deeply than he or she did before. Similar arguments are made with providing students with interesting text to choose from. Guthrie and Wigfield (2004) report, "When students are interested in what they read, they process the material more deeply, gain richer conceptual understandings, and engage more fully with the text" (p. 416). In this case study, John was able to choose a text from pre-selected books that were chosen based on John's interest and reading level. John was more invested in a book he chose for himself, and he tended to choose books that were about animals and nature. This suggests that John was able to engage deeply with the text because it was his choice and it was interesting to him. It is likely that allowing John to choose books contributed to the success of the intervention.

This case study also adopted hands-on activities in order to increase reading motivation and achievement. The hands-on activities were presented to John during the phonics and word work activities of the literacy intervention. Guthrie and Wigfield (2004) suggest that hands-on activities provide students with opportunities for active learning which suggests, "Increased cognitive processing in the form of attention, questioning, and hypothesizing" (p. 416). The results of the Guthrie and Wigfield (2004) methodology increased the participants' level of reading motivation and reading comprehension skills due to the use of content goals, student choice, hands-on activities, and interesting texts.. Similar results were found in this case study with the adaption of the CORI practices.

The results of this study were consistent with previous research. John was able to experience growth in his reading motivation and reading achievement because of an individualized literacy intervention program applying research-based practices. As a result of John's improved skills he was able to reduce his ego-defensiveness, social dependency, and increase task orientation reflecting the results of the study by Poskiparta et al. (2003). It is likely that this intervention had the impact that it did because John was a young student and an early intervention can have a greater impact on student growth (Bouffar et al., 2003). In addition, John did not have multiple years of struggling with reading like the middle school and high school students with learning disabilities in the study by Melekoglu (2000). This study and the case study were similar in that both were able to improve self-efficacy scores as a result of the students experiencing success. Finally, it is likely that these results would not have been possible without the adaptation of the practices outlined by Guthrie and Wigfiled (2008) of goals, student choice, and hands on activities. These research-based practices have been shown to increase student engagement, motivation, and comprehension of texts.

Strengths and Limitations

This case study had strengths and limitations that need to be considered when examining the results. The strengths of the study include the familiarity of the researcher with the participant, the family's willingness to participate, and the individualized attention along with student choice incorporated into the intervention. The limitations of this study include a lack of time and data, use of the MRQ, and lack of meaningful goals.

One of the greatest strengths of this study was the familiarity the researcher had with John. This was beneficial for John because he was very comfortable throughout the study, he was familiar with the environment, and he already had a good relationship with the researcher. In addition, the researcher has known John's family for a year and a half. His family was very excited about him participating in additional reading instruction and they also inquired about what they could do at home. John's family would ask him about his experience and John seemed to enjoy talking to them about it. This likely contributed to John's excitement about the literacy intervention.

Additional strengths include the individualized attention John received and the built in aspect of choice. It is likely that John's success can be attributed partially to flexibility of a one on one intervention. The intervention used Elkonin boxes frequently, which John already knew how to use from his special education classroom. Therefore, John already felt confident using a tool that he was familiar with instead of learning new strategies for blending and phonemic awareness. Also, John was able to read at his own pace without the pressure of peers listening to him read. He appeared more relaxed in the literacy invention sessions, compared to his behavior in the classroom. However, much like John's increase in classroom participation during the

intervention, John also appeared more confident when reading in small groups in his special education classroom. Also, because the sessions were all one on one, choice was built into every aspect of the intervention, which impacts motivation and achievement (Wigfield & Guthrie, 2004). John was able to choose which category he wanted to do first and which activity within each category. This gave John a sense of ownership over the activity as opposed to the general classroom work where choice is not often an option.

The greatest limitation of this case study was the lack of data due to the short duration of the intervention. The intervention was conducted over a short period of time and it did not have enough data necessary to determine a strong correlation. Due to the lack of data, there were instances that resulted in unusual numbers. For example, during sessions 5-7, results indicated that there was correlation ($r = 0.0$) between difficultly of text and level of frustration. This suggests John's behavior during these sessions was very inconsistent. In one of these sessions he chose a medium book, but displayed high frustration. This could be a researcher's error in that the book was too difficult or John could have had a difficult day. If the literacy intervention was conducted over a longer period of time, it is likely that these unusual results would not have occurred due to more data. In addition, John would likely have experienced greater growth in his motivation and reading achievement if the study was able to continue for a longer period of time.

Another limitation was the use of the MRQ because it was originally designed for third, fourth, and fifth graders. As a second grader with cognitive disabilities, John seemed confused about many of the questions in the MRQ and the researcher had to repeat the statements several times in some cases. In reflection, a simpler measure of motivation should have been used. However, the MRQ was chosen because it has been used often in other research. The MRQ could be used but a simpler measure may have provided a more accurate description of John's

motivation and change in motivation.

The last limitation of this study was the goal setting procedure. Even though the researcher discussed the goal with John every session, he did not seem to quite understand his goal or the purpose of the goal. It was not a meaningful measure because it was based on the QRI-5, which meant very little to John. Instead of basing the goal on the QRI-5, the researcher should have collaborated more with John about what areas he wanted to improve in and a goal should have been created together. This would have resulted in a goal that meant more to John, which would likely increase his motivation to achieve it. In addition, a visual would have beneficial in order to illustrate to John his progression toward his goal.

Recommendations for Student

John has made progress in terms of his reading motivation and reading achievement throughout this study. In the future, John should continue to receive as much individualized attention as possible at home and at school to continue to improve his reading. John has moved from a student who had low skills and low will, to a student with low skills and high will. This increase in will, or motivation, will serve John well as he continues to progress in his reading and work toward closing the gap between his reading achievement and the reading achievement as his peers. In order to continue John's progress, he must continue to practice the skills addressed in the literacy intervention in his general education classroom, special education classroom, and at home. Specific methods that work well for John are providing John with choices, selecting activities and books that are appropriate, working in a low pressure environment, and use of familiar procedures such as Elkonin boxes. John needs to continue to practice reading books that are below his frustration level to increase his fluency and above his independent level to increase

his decoding skills. In addition, comprehension should be addressed with every book he reads.

During the remainder of this school year, the researcher continued to work with John after school, despite the termination of this case study. Twice a week John continued to practice one on one reading. Now that the study is over, the researcher focused more on the skills in the fluency and comprehension category. Every session, John read one book that is above his level first, and then a book that is below his level. Before the implementation of the individualized literacy sessions, John would not have willingly participated in this work, and now he is excited to do so. It would be beneficial for John to continue to grow in confidence and skill if similar procedures used in this study continued through his educational career.

Conclusion

This chapter discussed the results of the case study in terms of changes in reading motivation and changes in reading achievement. In addition, John's increased competences in the targeted Common Core State Standards were addressed. The results of this study were reflected of previous research that is likely contributed to the adoption of the researcher's previous methodology in the design of the literacy intervention. The strengths of the study include the one on one design, incorporation of choice, and familiarity with the student. Limits of the study include the lack of time and data, use of the MRQ instead of a simpler measure, and the lack of meaningful goals. Overall, the case study was successful, and the student John has increased his reading motivation and achievement and it is the hope of the researcher that these effects will have longevity on John's future academic career.

APPENDIX A

Example of Literacy Intervention Data Collection Page

Fluency and Comprehension	Phonics and Word Work

Fluency and Comprehension

Difficulty of Book
1   2   3
Easy   Medium   Hard

Frustration Level:
1   2   3   4
Low Frustration   High Frustration

Fluency Level:
1   2   3   4
Low Fluency   High Fluency

Comprehension Level:
1   2   3   4
Low Comprehension   High Comprehension

Level of Enjoyment
1   2   3   4
Low Enjoyment   High Enjoyment

Phonics and Word Work

Activity Chosen:

Frustration Level:
1   2   3   4
Low Frustration   High Frustration

Competence Level:
1   2   3   4
Low Fluency   High Fluency

Level of Enjoyment
1   2   3   4
Low Enjoyment   High Enjoyment

APPENDIX B

Response on the MRQ

Constructs	Pre Test	Post-test
Reading Efficacy (3 items)		
I don't know that I will do well in reading next year	1	2
I am a good reader	1	4
I learn more from reading than most students in the class	2	2
Reading Challenge (5 items)		
I like hard, challenging books	1	4
If the project is interesting, I can read difficult material	1	3
I like it when the questions in books make me think	2	2
I usually learn difficult things by reading	1	1
If a book is interesting I don't care how hard it is to read	1	4
Reading Curiosity (6 items)		
If the teacher discusses something interesting I might read more about it	2	4
I have favorite subjects that I like to read about	3	3
I read to learn new information about topics that interest me	2	3
I read about my hobbies to learn more about them	2	2
I like to read about new things	2	4
I enjoy reading books about living things	2	4
Reading Involvement (6 items)		
I read stories about fantasy and make believe	3	2
I like mysteries	3	2
I make pictures in my mind when I read	3	3
I feel like I make friends with people in good books	2	1
I read a lot of adventure stories	1	1
I enjoy a long, involved story or fiction book	1	1
Importance of Reading (2 items)		
It is very important to me to be a good reader	2	2
In comparison to other activities I do, it is very important to me to be a good reader	2	2
Reading Work Avoidance (4 items)		
I don't like vocabulary questions	4	4
Complicated stories are no fun to read	4	4
I don't like reading something when the words are too difficult	4	2
I don't like it when there are too many people in the story	4	4
Competition in Reading (6 items)		
I try to get more answers right than my friends	1	2
I like being the best at reading	1	2
I like to finish my reading before other students	1	1
I like being the only one who knows an answer in something we read	1	1
It is important for me to see my name on a list of good readers	1	4
I am willing to work hard to read better than my friends	1	4

Recognition for Reading (5 items)

I like having the teacher say I read well	4	4
My friends sometimes tell me I am a good reader I like to get compliments for my reading	3	4
I am happy when someone recognizes my reading	4	4
My parents often tell me what a good job I am doing in reading	3	4

Reading for Grades (4 items)

Grades are a good way to see how well you are doing in reading	1	1
I look forward to finding out my reading grades	1	2
I read to improve my grades	3	3
My parents ask me about my reading grade	2	1

Social Reasons for Reading (7 items)

I visit the library often with my family	2	2
I often read to my brother or my sister	2	2
My friends and I like to trade things to read	1	1
I sometimes read to my parents	1	3
I talk to my friends about what I am reading	1	1
I like to help my friends with their schoolwork in reading	1	1
I like to tell my family about what I am reading	1	3

Compliance (5 items)

I do as little schoolwork as possible in reading	3	2
I read because I have to	2	1
I always do my reading work exactly as the teacher wants it	2	1
Finishing every reading assignment is very important to me	1	1
I always try to finish my reading on time	3	2

Appendix C

Pre and Post-test Results of Pre-Primer Word Lists

Pre-Primer I	January 22nd	March 18th
can	+	+
I	+	+
of		+
me	+	+
the	+	+
in	+	+
at	+	+
with		+
a	+	+
he	+	+
go	+	+
to	+	+
see	+	+
do	+	+
on	+	+
was		
she		+
Total	13	15

Pre-Primer II-III	January 22nd	March 18th
make		+
same		+
like		+
doing		
were		
my		+
work		
write		+
play	+	+
just		+
some	+	+
they		
people		
look		+
too	+	+
other		+
place		+
where		
under		
help		
Total	3	12

APPENDIX D

Pre and Post-test of Pre-Primer I Oral and Comprehension

Oral Reading and Comprehension	January 16	March 18
Concept Questions		
What does it mean to jump?	In the air 2/3	Super high 2/3
What does it mean to hop?	Hop like a rabbit 2/3	Hop like a bunny 2/3
What does it mean to sleep?	Like a bear 1/3	Like a bear 1/3
What does it mean to dream?	I don't know 0/3	Like a dog 1/3
Score of 12	5	6
Percentage	41%	50%

Reading Rate		
Score	4 misuses (see, see, see, lunch)	1 misuse (lunch)
Time	74 seconds	42 seconds
Rate	30 WPM	53 WPM
Correct WPM	26.76 CWPM	51.42 CWPM
Level	Instructional	Independent

Retelling		
Ideas Recalled of 12	6	10
Percentage	50%	83%

Comprehension Questions		
What can the girl do at the beginning of the story?	She could jump	She could jump
What can another girl do in the story?	She can eat	She can eat
What can the group of children do?	Tag	Run
What can the boy in the library do?	Read	Sleep
While the boy is sleeping what can he do?	Dream	Dream
Score	4/5	5/5
Level	Instructional	Independent

EFFECTS OF MOTIVATION ON ACHIEVEMENT

Pre and Post-test of Pre-Primer II Oral and Comprehension

Oral Reading and Comprehension	January 16	March 18
Concept Questions		
Where do people work?	In a building, at a station 2/3	In buildings, at fire station, police station, zoo, museum, school 3/3
Why do people work?	To get a car, a job, a house 3/3	To get money, a car, and a house 3/3
What are different kinds of job?	Police, conductor, pilot, zoo, army, navy 3/3	Museum, pilot, conductor, zoo keeper, president 3/3
Score of 9	8	9
Percentage	88%	100%
Reading Rate		
Score	15 misuses (some, home, other, why, make money, many, some, write, other, read, things, other, together)	5 misuses (other, things, other, things, together)
Time	112 seconds	87 seconds
Rate	26.25 WPM	35 WPM
Correct WPM	18.21 CWPM	30.34 CWPM
Level	Frustration	Instructional
Retelling		
Ideas Recalled of 17	4	10
Percentage	26%	58%
Comprehension Questions		
Where do people work?	At a building	At home, at a building, at a library, at a museum
What is one thing that people do at work?	Read	Sell things
What is another thing that people do at work?	Write	Read
What is another thing that people do at work?	Talk on phone	Work at home
What is another thing that people do at work?	Talk	Work together
Score	5	5
Level	Independent	Independent

APPENDIX E

Fluency and Comprehension Session Ratings

Session	Difficulty Level	Frustration	Fluency	Comprehension	Enjoyment
1	1	1	4	4	2
2	1	1	4	4	3
3	2	2	3	4	3
4	2	3	2	3	3
5	1	2	4	4	1
6	2	4	2	3	3
7	3	2	3	3	2
8	2	2	2	4	3
9	3	3	1	3	4
10	3	2	1	3	3

APPENDIX F

Phonics and Word Work Session Ratings

Session	Choice	Frustration	Competence	Enjoyment
1	File Folder: Middle Sound Match	4	3	4
2	Search & Find: Long a	3	3	2
3	Listen & Learn: Diagraph th	3	4	3
4	File Folder: Ending Sounds	4	3	4
5	Smarty Ants	4	4	4
6	Listen & Learn: oa vowel blend	2	2	3
7	Listen & Learn: ea vowel blend	3	2	3
8	Smarty Ants	4	4	4
9	Smarty Ants	4	4	4
10	Smarty Ants	4	4	4

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