

**THE EFFECTS OF TEACHING READING EXPLICITLY TO STUDENTS WITH
A LEARNING DISABILITY IN READING**

by

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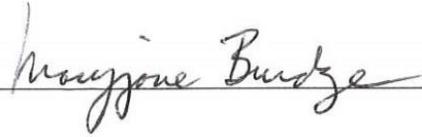
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Abstract

Students with a Specific Learning Disability (SLD) in reading are not closing the skill gap and substantially increasing their reading ability before leaving high school. This study will examine the effect of explicit instruction in fluency, comprehension, phonemic awareness, vocabulary, and phonics on high school students with a SLD in reading over the course of nine academic school weeks. Eight of ten invited students participated with parental consent. Weekly Data based on weekly reading assessments was gathered and interpreted to determine the effects of explicit reading instruction and if it produces growth. The findings of this study support that explicit reading instruction is beneficial for students with a SLD in reading, however prolonged instruction is the key to success.

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CHAPTER 1. INTRODUCTION

The purpose of this study is to examine what effect explicit reading instruction has on high school students identified with a Specific Learning Disability (SLD) in reading according to Wisconsin's special education criteria. The components of reading this instruction focuses on are comprehension, fluency, vocabulary, phonemic awareness, and phonics. Additionally, the state of Wisconsin adopted the Common Core State Standards (CCSS) which delineate what skills students should have as they progress through high school to become college and career ready. Students with a SLD in reading must show sufficient growth in the aforementioned areas of reading in order to meet these standards and demonstrate their knowledge of fiction and non-fiction reading skills according to the Common Core State Standards.

Problem Statement

Research shows that by the time students leave middle school, they lack essential skills necessary to comprehend and synthesize complex texts for the purposes of higher order thinking across various content subjects in secondary education settings (Joseph & Schisler, 2009). Students identified through Wisconsin State criteria as having a SLD in reading are not closing the skill gap and substantially increasing their reading ability before leaving high school. As a student moves through their high school career, the academic text complexity becomes more rigorous and challenging. Schumaker, Deshler, Woodruff, and Hock (2006) present that students should gain one year's worth of knowledge for every one year of instruction. If students keep this pace, according to Schumaker et al. (2006), they will be "able to successfully deal with the curriculum demands that are presented to them" and will "successfully access the curriculum" (p. 1). Therefore, it is crucial that students with a specific learning disability in reading are prepared

to withstand the rigor of both fiction and non-fiction texts at an upper high school and emerging college level.

Rationale for the Study

According to Spencer, Quinn, and Wagner (2014), students today have low reading comprehension ability, which is an “essential academic skill”, thus effecting their performance on academic work and standardized tests (Spencer et al., 2014, p. 3). Students with disabilities should make significant gains in their reading ability before entering upper level high school grades and they should be able to withstand the rigor and text complexity that these grades and subject matters entail. Therefore, students with a SLD in reading should close the skill gap before they advance to upper level high school grades as compared to their same age peers rather than grow further apart: “the older and further behind the student, the more ground he or she will have to cover, impacting the intensity and duration of a necessary intervention” (Roberts, Torgesen, Boardman, & Scammacca, 2008, p. 63). To close the reading achievement gap and access the curriculum, students with a SLD in reading should receive consistent and long term reading instruction that helps them make gains so they perform similarly to their same age peers in reading.

Research Question

The research question to be studied is as follows: what effect does prolonged, explicit instruction in fluency, comprehension, phonemic awareness, vocabulary, and phonics have on high school students with a specific learning disability in reading? The gap in reading knowledge for students with a SLD in reading grows further apart as text complexity becomes more

challenging and consequently, students with a disability in reading are struggling to use their skills to rise to the challenge.

Hypothesis

Students enrolled in a class that explicitly teaches fluency, comprehension, phonemic awareness, vocabulary, and phonics skills should make gains within nine academic weeks in their reading ability as measured by a weekly assessment centered on the reading skills aforementioned.

Null Hypothesis

Students enrolled in a class that explicitly teaches fluency, comprehension, phonemic awareness, vocabulary, and phonics skills will not make gains within a nine week school term regarding their reading ability as measured by a weekly assessment centered on the reading skills aforementioned.

Nature of the Study

The eight participants of this study will be ninth grade high school students identified as having a SLD in reading. Upon meeting criteria to enter the explicit reading program, the eight participants of this study were also assessed in comprehension and fluency to gather baseline data that directly corresponds to their skill level. Each subsequent week of the academic calendar, a reading assessment at the eighth grade reading level measuring comprehension, fluency, phonemic awareness and knowledge of vocabulary, is administered to the participants in a one to one student, teacher setting as part of their already established educational programming. This study will track the participants who agree and consent to contribute their

reading data to this study and measure their growth over a nine academic weeks of time and a comparison of their initial baseline score and final score specifically in the areas of comprehension and fluency. The data each student provides corresponds with their growth in the skills of reading described above. This data is entered by the special education teacher into a database that stores and reflects the growth over a period of time known as aimsweb; this is individualized per student enrolled in the class. This method of collecting data is noninvasive meaning the student will not contribute additional requirements outside of their normal class period each testing date.

Definition of Terms

aimsweb. aimsweb is defined as the leading assessment and RTI solution in school today—a complete web-based solution for universal screening, progress monitoring, and data management for grades K-12. aimsweb provides guidance to administrators and teachers based on accurate, continuous, and direct student assessment (aimsweb, 2014).

Learning Disability. A learning disability is defined as a condition in which a student has dysfunction in processing information typically found in language-based activities, resulting in interference with learning. Students with learning disabilities have average or above-average intelligence, but experience significant problems in learning how to read, write, and/or do math (Friend & Bursuck, 2012, p. 414). Wisconsin's special education criterion identifies a learning disability as a *Specific Learning Disability* (Wisconsin's Specific Learning Disability Rule). While LD and SLD are interchangeable, this study takes place in Wisconsin, and therefore will refer to it as SLD for the purposes of this research.

Reading Comprehension. Reading comprehension is defined as gaining an understanding of written text through a process of extracting and constructing meaning (Spencer et al., 2014, p. 3).

Vocabulary. Vocabulary is defined as the words we must know to communicate effectively (Armbruster & Osborn, 2001).

Phonics Instruction. Phonics instruction teaches children the relationships between the letters (graphemes) of written language and the individual sounds (phonemes) of spoken language. These relationships are referred to using a variety of labels: graphophonemic relationships, letter-sound associations, letter-sound correspondences, sound-symbol correspondences, and sound spellings (Armbruster & Osborn, 2001).

Phonemic Awareness. Phonemic awareness is defined as an insight about oral language and in particular about the segmentation of sounds that are used in speech communication (Cunningham, Cunningham, Hoffman, & Yopp, 1998, p. 3).

Literacy. Literacy is defined as a complex set of skills that comprise the interrelated processes of reading and writing required within varied socio-cultural contexts (Adolescent Literacy and Older Students with Learning Disabilities, 2008, p. 211).

Fluency. Fluency is defined as the rate at which a student preforms an academic task such as calculating math problems or reading (Friend & Bursuck, 2012, p. 412).

MAZE Assessment. A MAZE reading assessment is defined as an assessment that measures how well students understand text they read silently (CORE Reading Maze Comprehension Test, 2008, p. 150).

Probe. A probe is defined as a quick and easy measure of student performance measuring accuracy and fluency in the basic-skill areas of reading, math, and written expression consisted of times samples of academic behavior (Friend & Bursuck, 2012, p. 415).

Reading Curriculum-Based Measurement (R-CBM). R-CBM is a brief, individually administered, standardized test of oral reading for grades. R-CBM is designed to be used in the universal screening of all students at the beginning, middle, and end of the school year. The probes also are to be used for frequent progress monitoring of students identified as at risk and for survey-level (off-level) assessment (aimsweb, 2012, p. 1).

Assumptions and Limitations

It is assumed that the participants of this study will complete their weekly reading assessment with academic honesty and answer truthfully to gauge the growth of their reading skills in a reliable manner. It may be assumed that the instructor will administer the same MAZE and RCBM assessment to each student, each week. It may also be assumed that the participants of this study will be tested on the same school day each week throughout the time frame of this study.

A limitation of this study includes the capability of a student on the day of their assessment regarding their physical or emotional state. For example, a student may not be properly hydrated/nourished and may have received less sleep than recommended for their age range. Delimitations of this study include the specific school district where this study took place and the instructor who taught this explicit reading class. It is not feasible to test this hypothesis outside of the current district of study at this time. Furthermore, despite multiple instructors who

teach the explicit reading course in the Superior School District, probes are consistent and validated by aimsweb.

Summary

Ninth grade students identified with a SLD in reading that are explicitly taught reading skills in the areas of comprehension, fluency, phonemic awareness, phonics, and vocabulary should make significant gains in their reading ability within nine academic weeks to demonstrate significant growth over time in order to close their achievement gap as they transition from high school to post-secondary education. Furthermore, students who are performing significantly below their same age peers in reading require this explicit instruction in a consistent and long term time frame in order to meet the demands of the Common Core State Standards in reading. If the participants of this study demonstrate adequate growth while in ninth grade over nine academic weeks, there is reason enough to continue with accredited, explicitly taught reading programs for years to come. Furthermore, the comparison of initial baseline reading data to a participant's final reading score will support prolonged reading instruction. The continuation of explicit reading programs will further close the participants' skill gap by the time they become seniors in high school.

CHAPTER 2. REVIEW OF THE LITERATURE

There is a concern among researchers and educators today regarding the number of students entering secondary education with below average and inadequate reading skills which demonstrates their abilities are “significantly below grade level” (Schumaker et al., 2008). The purpose of this literature review is to examine what issues manifest when students with a SLD do not close the achievement gap in reading before they leave high school to pursue higher education. Many students at the secondary level still require explicit reading instruction regarding the five components of reading: comprehension, phonemic awareness, phonics, vocabulary, and fluency. Additionally, there are many current strategies and programs being used to address the reading epidemic among high school students. Some commonly known intensive reading interventions include Read 180, DI Reading, MULTILIT, Great Leaps, PALS, and Xtreme Reading Course. The nature of an individualized, intensive reading program differs greatly from content-area reading instruction, so students who do not adequately read at their grade level must receive explicit reading instruction from a teacher who is well versed in the subject matter and program of choice. If secondary educational settings adopt explicit reading instructional methods, students with a SLD may access the curriculum on par with their peers and be truly college and career ready.

The Educational Achievement Gap

Expert research suggests that general reading progress has not significantly risen throughout a substantial amount of time. According to a ten year study conducted by The National Assessment of Education Progress (NAEP) between the years of 1992 and 2002 which involved 343,000 fourth and eighth grade reading students, significant reading gains were not

made (Edmonds, Vaugh, Wexler, & Reutebuch, 2009). This data provided by Edmonds et al. (2009) describes that over a ten year span of data collection, the general educational setting is not appropriately preparing students to read adequately. The educational achievement gap is not growing smaller like educators anticipated; in fact, it is growing larger due to students' inadequate reading abilities. For example, Roberts et al. (2008) describes why students with a SLD fall further behind their non- SLD peers as they progress through secondary education. Students without a SLD have the ability to identify text at an automatic level which allows them to focus on higher order reading skills such as comprehension, inferences, and interpreting a text (Roberts et al., 2008). Contrastingly, students with a SLD tend to read slower and focus more intently on the specific phonemes that they do not recognize or have difficulty interpreting (Roberts et al., 2008). This takes away the ability to use the higher order thinking skills necessary to access and progress through the texts outlaid by the Common Core State Standards. If students with a SLD cannot decode and comprehend text throughout their secondary years, they will continue to widen the educational achievement gap.

Also, students with a SLD in reading who are to close the education achievement gap need to do so in a quick manner. Research regarding explicit reading instruction demonstrates that “in order to close the performance gap with regard to their reading skills...intensive intervention measures are needed so that they can succeed in their required secondary courses” (Schumaker et al., 2006, p. 67). Students with a SLD do not have sufficient time to gain required reading knowledge in their core content area classes and re-learn the basics without the aid of specialized and individualized reading interventions. According to Lyon, Fletcher, Torgesen, Shaywitz & Chhabra (2004), research confirms that students who participate in intensive reading instruction that is “multi-tiered...and in combination with targeted small group interventions”

can substantially increase their reading skills which will ensure reading success among students with an SLD (p. 87). This research was taken from schools based on the increase in opportunities from the National Institute of Child Health and Human Development to implement more research in the area of reading (Lyon et al., 2004). Research demonstrates the effects students with a SLD in reading endure after high school, so these students need explicit reading instruction to enhance the outcome of their future.

The implications for a wide educational achievement gap are harsh for students with a SLD. A study from the National Center for Public Policy and Higher Education (2004), written by Fisher (2008), delineates that for every 100 ninth grade students, 68 will graduate according to their four year high school plan; 40 of those 68 students will then move on to pursue post-secondary education. After one year of post-secondary schooling, 13 of the 40 students will drop out due to “behaviors correlated to reading habits” (p. 36). This dropout rate and the rate of students who forgo post-secondary education due to reading deficits can improve if the educational achievement gap narrows instead of widens. A more distant implication for students with severe reading deficits in upper high school grades is the job market and consequently pay rate at which they are eligible based on reading ability. According to the article “Adolescent Literacy and Older Students with Learning Disabilities,” literacy is a necessary skill to further a student’s success after they leave high school (Anonymous, 2008). Students identified with having a SLD are not prepared to the extent they should to access the curriculum in upper level secondary classes and therefore have a higher dropout rate when compared to students without an SLD (Anonymous, 2008). According to the U.S. Department of Education, as written in the aforementioned article, 31.6% represents the amount of students with an SLD that dropout from high school as compared to the 9.4% that represent students without a reading disability.

Furthermore, 11% of students with a SLD go on to pursue post-secondary education as compared to the 53% of students in the general education population who attended a post-secondary institution within two years of leaving high school (Anonymous, 2008, p. 213). These numbers represent the educational achievement gap and the implications and long term outcomes for students with a SLD in reading. They cannot find success in society regarding employment and post-secondary education with their reading level five or more grade levels below what it should be (Anonymous, 2008). Perhaps with higher level reading skills, students with an SLD can progress through the curriculum at a pace similar to their same age peers so that they may have the same opportunities to succeed in their future.

Explicit Reading Instruction

In order for the educational achievement gap to close, explicit reading instruction needs to be implemented in secondary schools. Edmonds et al. (2009) conducted a study based on previous research regarding explicit reading instruction. The study consisted of eleven journal articles with very specific criteria for data collection: participants must have been struggling readers in grades 6-12, reading interventions discussed in the study must include word study, fluency, vocabulary, comprehension, or a combination, and the language of instruction must have been English. Upon analysis of data derived from the journal study, the results suggest that struggling readers can improve components of reading through receiving explicit reading instruction. This is the common thread among researchers studying the effects of explicit reading instruction. Roberts et al. (2008) discusses that the goal of reading within core, general education classes is simply general reading of text. Roberts et al. discusses a fluency study (2008) which was conducted by Meyer and Felton (1999); they write that if students read aloud the same passage multiple times, their rate of fluency was not significantly increased. Roberts et al. (2008)

also claims that “students identified as having LD, wide reading or repeated reading by itself should never substitute for systematic, explicit instruction in word study and comprehension strategy use” (p.65). This demonstrates that a struggling reader simply reading text passages repeatedly will not make significant gains as compared to learning reading strategies taught explicitly in a specialized setting.

Additionally, students with a SLD are capable of performing adequately in the secondary educational setting with the appropriate strategies that explicit reading instruction can teach: “strategies can be taught in combination or individually if students are provided with adequate support and practice opportunities...students with LD will need instruction and support to self-regulate their use of strategies” (Roberts et al., 2008, p. 67). Along with teaching explicit reading strategies, differentiation of the content based on individual needs of a student is necessary. Content area, general educators cannot provide the level of differentiation necessary to each struggling reader in conjunction with explicitly teaching reading comprehension strategies. According to the article “Adolescent Literacy and Older Students with Learning Disabilities,” the most effective method to teach students with a SLD is through “sustained and intensive combinations of classroom instruction, remediation, and accommodations that are individualized, explicit, systematic, and relevant” (Anonymous, 2008, p. 218). According to Douglas Fisher (2008), differentiation is key because it provides the necessary supports to struggling readers so that they may continue to progress in their curriculum (Fisher, 2008). While the general education setting can provide students with text and background knowledge regarding core subjects, it cannot teach students the explicit strategies to comprehend, synthesize, and summarize pertinent information found within the content area text. Explicit reading instruction

with opportunities for support and practice is the appropriate environment for students with a SLD to learn the components of reading.

Explicit reading instructional settings are the most appropriate settings for struggling readers, for studies have shown that “whole-school literacy programs and afterschool programs have been shown to effectively target the needs of all readers, including those who struggle” (Jacobs, 2008, p. 11). These programs are successful because according to the International Reading Association’s Adolescent Literacy Commission students find more success when they have “specialists available to help those students who are significantly delayed” (Joseph & Schisler, 2009, p. 131). The components of reading involve basic and higher order thinking skills, and specialists need to be available in a highly structured environment to teach these explicit reading skills. The nature of teaching reading explicitly requires intensive training and knowledge on the part of the instructor. Jacobs (2008) discusses the highly structured nature of explicit reading programs and how teaching them can be a “daunting task” on the part of the general education instructor (p. 11). Content area teachers would need to implement these programs in their general education, content classes in order for students to receive the reading instruction they require, however this is not a feasible or practical approach. In fact, this approach may provide a disservice to classrooms because not all students require explicit reading instruction. Furthermore, the class would lose focus on the content, and students with a SLD who do require explicit instruction would not have the amount of time and differentiation available to make the program successful.

Components of Reading

The following sections describe the main components of reading that are discussed throughout the literature reviewed. While phonics, vocabulary, and phonemic awareness are incorporated into explicit reading instruction, comprehension is the main skill students with a SLD need to master while enrolled in explicit reading instruction interventions. In fact, Roberts et al. (2008) describes that “comprehension-monitoring strategies enable students to track understanding as they read and to implement repair strategies when understanding breaks down” (p. 67). Comprehension is a vital portion of reading because it is the building block to repair reading deficiencies in the event of a “breakdown” as Roberts et al. (2009) states. Research written by Spencer et al. (2014) also discusses the importance of comprehension when students read for meaning. Due to decoding issues, some students may find reading difficult, however 10-15% of students who struggle with comprehension “maintain normal levels of reading accuracy and fluency” (Spencer et al., 2014, p. 3). This demonstrates that decoding and comprehension are partners in the process of reading, despite a small population of students who have “normal” fluency rates but poor comprehension.

While comprehension is vital to reading success, there are many executive functions controlling comprehension that are not visually obvious based on comprehension assessment scores. There are many processes that students must use in order to comprehend a text: “to understand a sentence, one must visually process the individual words, identify and access their phonological, orthographic, and semantic representations, and connect these representations to form an understanding of the underlying meaning of the sentence” (Kendeou, Broek, Helde, & Karlsson, 2014, p. 10). Additionally, comprehension falls into two rough categories: lower and higher level processes. Lower level processes translate written text into meaning and higher level

processes combine the meaning into mental representations (Kendeou et al., 2014). The combination of these skills includes decoding, fluency, vocabulary knowledge, inference making, and attention-allocation abilities (Kendeou et al., 2014). The lower level functions need to be automatic in order for the higher level processes to activate (Kendeou et al., 2014). If students cannot perform the lower level comprehension processes, how can they achieve the higher orders of thinking to make meaning out of text? Kendeou et al., (2014) explains that “failure to recall the main points of a story, failure to answer literal and/or inferential questions, failure to complete the actual reading of a text... may be due to deficits in lower level processes that involve translating the written code into meaningful language units” (p. 11). While comprehension is one component of reading, the other components: phonemic awareness, vocabulary, phonics, and fluency fall under the comprehension umbrella. These components of reading need to be taught explicitly through the use of research based reading programs.

Research Based Reading Programs Currently Used

There are many explicit reading programs available for schools to purchase and implement to meet the needs of struggling readers and adhere to the alarming number of struggling secondary readers. Additionally, the following reading programs adhere to Response to Intervention (RtI) state mandates. RtI is a required implementation for schools in the United States so that at-risk learners can receive appropriate interventions to combat their learning disability and continue to narrow the educational achievement gap. In fact, federal regulations provide little guidance in what research-based models to implement and how to collect data; states are allowed to decide on their own behalf (Boynton-Hauerwas, Brown, & Scott, 2013). The following programs are proven to be instrumental in closing the educational achievement gap through explicit reading instruction.

MULTILIT. Making Up Lost Time in Literacy known as MULTILIT is a reading program created by Wheldall and Beaman in 2000. This program teaches phonics skills, sight words, comprehension, language lessons, and small group reading. MULTILIT was used in a study by Joseph and Schisler (2009). The participants tested using MULTILIT were students who performed low on academic reading tasks and students with dyslexia. According to Joseph and Schisler (2009), this MULTILIT program revealed through the study that it is beneficial to struggling readers as it was proven to be “effective for helping adolescents achieve a multitude of basic reading skills” (p.144).

DI Reading. Direct Instruction Reading is the program used for this particular study. Direct Instruction Reading “is a highly structured approach to instruction designed to accelerate the learning of at-risk students” (Direct Instruction, 2005, p. 2). This program is highly structured; teachers of the course must be trained and the must follow the “presentation books” which dictate the lessons taught in Direct Instruction courses (Direct Instruction, 2005, p. 6). According to Direct Instruction, this program is “promising” after the results of many studies have been conducted and interpreted (p.7). Students benefited the most from Direct Instruction when it came to taking standardized tests and the graduation rate (Direct Instruction, 2005, p. 9).

PALS. Peer-assisted learning strategies is created by D. Fuchs in 1995. Originally, PALS was intended for elementary students, but in 1999 it was tested by secondary students. This program consists of partner reading and paragraph shrinking. According to Joseph and Schisler (2009), PALS utilizes “prompting and error correction provided by the tutor throughout this process” and “a reinforcement system is incorporated through a scripted lesson” (p. 140). The teacher explicitly monitors the peer interaction to guide the reading strategies students should glean from this program. Joseph and Schisler (2009) discuss the effectiveness of PALS. When compared to

conventional groups of students who were taught reading, “high school students who received PALS outperformed their peers in contrast groups on reading comprehension” (p. 143). PALS is most effective when coupled with explicit, individualized instruction supplemented in the area they are most deficient.

Great Leaps. Great Leaps reading program was created in 1995 by Kenneth Campbell. This particular program involves lessons that last for five to six minutes that address phonics, sight phrases, and oral reading of text. There is also a twelve minute section of Great Leaps that explicitly focuses on letter-sound correspondences; this instruction involved heavy modeling from the instructor and then students practice the skill. Students can “leap” onto the next section upon satisfactory completion of the prior. Students are able to be progress monitored as part of this program which the teacher shares with the students based on their growth and/or declination. This program is geared towards elementary and middle school students and is shown to be effective for struggling readers. When studied, Great Leaps had the most beneficial impact on elementary students’ phonological awareness skills (Joseph & Schisler, 2009).

Read 180. Read 180 was created by Dr. Ted Hasselbring of Vanderbilt University in conjunction with Dr. Janet Allen from the University of Central Florida. Scholastic eventually joined in the collaboration and Read 180 was officially introduced to the market in 1999. This program was specifically designed with special education students at the forefront. The most unique aspect of Read 180 is that “Read 180 allows for class structure and individual flexibility (Shawgo, 2005, p. 1). Research conducted by Scholastic regarding this program’s effectiveness is abundant and consistent among studies. For example, a study conducted in Los Angeles, California in the Unified School District of English Language Learner found that students using Read 180 for a length of time made three Normal Curve Equivalent’s (NCE’s) than students not using Read 180

(Shawgo, 2005). Similarly, in New Mexico at Shiprock High School, Native American students using Read 180 made gains in the area of lexile scores. On average, students in the 2002-2003 school year improved their lexile scores from 688 to 887. There are multiple studies similar to the research listed above that delineate positive and similar results (Shawgo, 2005).

Xtreme Reading Course. This course was designed as a result of a reading study conducted with students entering ninth grade who had two or more grade levels of deficiencies in reading comprehension. This course has positive effects on the grades of students with reading deficiencies. For a full school semester, this group of ninth grade students took this course for one hour per day. Twenty seven students in a comparison school were matched to mirror the ethnicity, gender, and reading comprehension scores of the group of struggling ninth graders. At the beginning of the school year, after being administered The Gates-MacGinitie Reading Test, the experimental students earned a 5.8 grade level in reading comprehension. When administered the post-test, this group of struggling ninth grade students earned a 6.8 in reading comprehension; they grew a full year in one semester while the comparison students actually lost skills from the pre-test score of 6.3 to the post-test score of 5.8 (Schumaker et al., 2006). This demonstrates the effectiveness of explicit reading instruction regarding students with reading deficiencies.

There is sufficient data to support each individual explicit reading instruction program, and the data above suggests that students with a SLD need individualized, explicit instruction in reading. They will benefit from various programs in which they receive the adequate attention they need from a trained professional knowledgeable with the program. Joseph and Schisler (2009) support this notion when they wrote that

Middle and high school special as well as general educators may consider implementing explicit, semantic, basic reading skill instruction methods or programs to teach a multitude of basic reading skills, such as phonics, sight words, oral reading fluency, and comprehension, when they encounter adolescents who have limited basic reading skills. (p. 145).

Summary of the Literature Review

Secondary education students today are not sufficiently demonstrating their reading ability to the level appropriate for their age. Reading skills are low enough today to prevent students from exceeding the expectations set forth by the Common Core State Standards; students are not able to access the rigor of curriculums. Additionally, content area, general educators do not have the ability to teach intensive reading remediation in a differentiated setting. Through explicit reading instruction, students in secondary educational settings will have the opportunity to close the educational achievement gap and learn the necessary reading skills that will guide them through post-secondary education. Not only will students require these reading skills to graduate from high school and post-secondary educational settings, but they will need them to obtain sufficient and fulfilling employment. Students may close the educational achievement gap and find success in their future education and careers through the utilization of specialized reading interventions like Read 180, Direct Instruction Reading, and Great Leaps. Next, educators need to evaluate the effect of explicit reading instruction through the use of specialized reading programs, and therefore the remainder of this study will focus on data provided by high school students who are currently receiving explicit reading instruction.

CHAPTER 3. METHADODOLOGY

Due to an alarming deficit among secondary students in reading, the purpose of this study is to examine the effects of explicit reading instruction among high school students identified with a Specific Learning Disability (SLD) in reading. In order to evaluate the effectiveness of a reading intervention program, this study will focus on the growth students with a SLD who are exclusively taught comprehension, vocabulary, phonics, phonemic awareness, and fluency strategies in a differentiated, individualized setting make. This explicit reading instruction is a necessary component of secondary education for students who perform below their same age peers in reading so that they may close the educational achievement gap and access the rigor of the curriculum designated by the Common Core State Standards. Furthermore, if students with reading deficits do not receive intensive reading interventions, the long term effects may hinder a student's post-secondary education performance and in turn, the outcome of their job placement in our economic society.

Research Design

This study required a specific research design by the name of Simple Time-Series Experiment. According to Leedy and Ormrod (2013) this design's purpose is "to show that, for a single group, change occurs during a lengthy period only after the treatment has been administered" (p. 247). For the participants in this study, the treatment administered would be a reading pre-test in terms of fluency and comprehension. Leedy and Ormrod (2013) also refer to the observations made prior to the treatment as collecting "baseline data" (p. 238). The baseline data in this study was derivative of each participant's reading pre-test score which was administered upon entrance to the explicit reading program.

A strength that the Simple Time-Series experiment presented to this study was that a researcher could use the initial set of nine week data to then conduct a second research study. The subsequent study may enhance the validity of explicit reading instruction to elicit justification of further use: “if a substantial change is observed in the second series of observations in comparison to the first series, we might reasonably conclude that the cause of the change was the factor introduced into the system” (p. 238). For the purposes of this study, the explicit reading program would be the factor that was introduced to a group of struggling ninth grade readers identified as having a SLD.

In comparison, one weakness to this type of study, according to Leedy and Ormrod (2013), would entail “some other, unrecognized event in the laboratory or outside world may occur at approximately the same time that the experimental treatment does” (p. 238). These outside factors could include tragedies that befall a student hindering their ability to complete a weekly assessment or a student’s physical or emotional state. For example, a student may not be properly hydrated/nourished and may have received less sleep than recommended for their age range. The study itself focused on the change that occurred in each participant’s reading scores on a week to week basis over the lengthy period of nine academic school weeks. In some cases in the data tables an “n/a” represents a day a student was absent due to an outside hindrance and therefore, data could not be gathered.

Participants

Initially, all ninth grade students with a SLD participating in this reading intervention course which houses multiple sections taught by two core instructors were invited to participate in this study. Ultimately, upon receiving proper consent, the participants of this study were eight, ninth grade, high school students identified as having a SLD in reading. The two explicit reading

course instructors tested the participants weekly; they were both aware and in support of this study. The data came from one-to-one teacher/student testing in which the data was collected by the daily classroom instructors once per week and uploaded electronically to the data base aimsweb. Each of the eight participants is currently reading below their same age peers according to their Individualized Education Plan (IEP).

Instrumentation

The instruments of this study are exclusive to the explicit reading instructional program that the participants adhered to. The most poignant instruments utilized were the reading probes that were initially administered to each student upon entering the explicit reading program and additionally the probes administered on a weekly basis throughout the duration of research: nine academic weeks. These probes were called the Reading Curriculum-Based Measurement (R-CBM) and MAZE Assessment. According to the explicit reading course instructor, they specifically measure the comprehension and fluency growth a student makes week to week between explicit reading lessons taught by a trained, certified special education staff member. The R-CBM and MAZE reading assessments are based on eighth grade reading abilities and the content in each assessment differs each week. This ensures that students will not have the opportunity to memorize each assessment's content week to week (G. Dopp, personal communication, March 11, 2014).

In addition to the explicit reading course instructor administering the R-CBM and MAZE assessment each week and scoring the assessment after each student completes them, aimsweb was utilized. Aimsweb is an online database that allows each reading instructor to enter in the data collected from each weekly assessment for each student in the explicit reading program and upload it to reflect growth/declination of individual student skills regarding reading ability.

Procedure

Pre-data, which consisted of initial R-CBM and MAZE assessments, were gathered from the eight participants prior to entering this explicit reading program. Each student was given three MAZE assessments (all differing in content) and three R-CBM assessments (all differing in content). The reading instructor took the mean score of each assessment which determined the baseline score that each student will start the program with; this initial score allows the explicit reading instructor to gather and track accurate data through the length of time a student participates in the reading program. Each participant's initial baseline fluency and comprehension score is advantageous to note for this study as it will demonstrate, when compared to final reading score gathered in week nine, any growth that occurred over a prolonged period of time.

At the end of each academic school week, each student in the explicit reading program is tested in a one to one teacher/student setting. The R-CBM and MAZE assessment was administered to each of the participants. Students were allowed three minutes to complete the MAZE comprehension assessment and one minute for the R-CBM fluency assessment. The instructor scored the assessment the same day the assessment was administered and uploaded the scores to aimsweb. Aimsweb helps teachers determine if this explicit reading instructional program is beneficial to each student because it provides a comprehensive graph to delineate the growth as student is making in addition to a table that also provides this information. Furthermore, students who participated in this explicit reading program are on an Individualized Education Plan (IEP). This plan has specific benchmarks that students must meet according to their R-CBM and MAZE data; aimsweb allows case managers to assess whether students with a

SLD in reading are meeting their annual reading goals and how to proceed in the event a declination or increase in reading growth is made.

As for the assessments themselves, the R-CBM is shown to be a valid and credible form of assessment as many educators rely on it to provide accurate scores regarding the performance of struggling readers. Graney and Shinn (2005) support this statement when they said that the “R-CBM has substantial empirical support for its validity as an overall indicator of general reading competence including comprehension” (p. 184). In conjunction, the MAZE Curriculum Based Measurement used weekly in this study to test a student’s comprehension abilities is also shown to be a reliable and valid form of measurement. Wiley and Deno (2005) discuss that because the MAZE assessment is timed for each student during each assessment, the “scores are less negatively skewed and likely to increase validity coefficients” (p. 208). Each weekly score for each participant was monitored on aimsweb and recorded in a table to be presented for the purposes of this study. The table describes trends in reading ability among the participants with a SLD in reading over the course of a nine week, academic quarter.

Analysis

The data in this study was collected and analyzed in a highly private and sensitive manner. None of the participants receiving special education services were identified to their general education peers. This study did not require any additional time or work on the part of the participant or the explicit reading instructor as the data is derived from weekly reading assessments that are exclusive to each participant’s IEP. The data sets were presented in tables and figures that delineate each participant’s score throughout the nine week, academic quarter in which they were tested based on their fluency and comprehension scores. There are also figures that represent the total growth each participant made in fluency and comprehension over a

prolonged period of time. These scores were meticulously tracked using the database, aimsweb. In conjunction with the aforementioned studies in the Review of the Literature, the table describing the data found will support the notion that students with a SLD in reading benefit from explicit reading instruction in ninth grade; this instruction will allow students to gain the reading strategies and skills necessary to access a rigorous curriculum later in secondary and post-secondary educational settings.

Summary

Students identified with a SLD in reading are expected to make gains in the areas of vocabulary, phonics, phonemic awareness, fluency, and comprehension after receiving explicit reading instruction in ninth grade for an extended period of time. The use of credible and valid measurements, the R-CBM and MAZE, will further validate the necessity to use intensive and individualized methods of instruction when teaching struggling readers the components of reading. This study will describe the results found when students with a SLD in reading received explicit reading instruction while in the ninth grade.

CHAPTER 4. RESULTS

The purpose of this study was to answer this research question: what effect does prolonged, explicit instruction in fluency, comprehension, phonemic awareness, vocabulary, and phonics have on high school students with a specific learning disability in reading? This chapter depicts and discusses the results of this study and the data that derived from ninth grade students identified with a SLD in reading receiving explicit reading instruction. There are three types of data in this chapter: data that represents raw fluency and comprehension scores, data that represents fluency and comprehension scores the participants earned in nine academic school weeks, and data that represents fluency and comprehension growth over a prolonged period of time. Specifically, Tables 1 and 2 depict raw data in terms of participants' reading scores over the nine week period that were tracked using aimsweb. Figures 1 and 2 directly correspond to participants week one and week nine RCBM and MAZE score for the purposes of this study; these scores reflect reading growth in fluency and comprehension over nine academic school weeks. Figures 3 and 4 depict RCBM and MAZE scores in terms of the participants' baseline score when starting the reading program these scores reflect overall growth in reading fluency and comprehension. Figures 1 and 2 compared to Figures 3 and 4 delineate an interesting, yet supported finding according to the data compiled.

Findings

Tables 1 and 2 depict the raw scores that all eight participants earned over nine academic school weeks in the areas of fluency and comprehension when reading text at the eighth grade level. This raw data was used to compare participants' scores over a period of time to provide evidence of growth. The raw data was used to compare week to week data during the nine week

time sample and each participant's baseline data on their initial RCBM and MAZE assessment.

The results of the data depicted below provide more insight on the effects of explicit reading instruction and offer information that can be used for future studies as well as future recommendations for explicit reading instruction.

Table 1. RCBM-Weekly Fluency Scores for Text at the 8th Grade Level

Student	3/28/14	4/4/14	4/11/14	4/18/14	4/25/14	5/2/14	5/9/14	5/16/14	5/23/14
Student 1	132	99	126	144	n/a	115	139	140	157
Student 2	108	94	101	96	118	98	124	103	117
Student 3	90	102	96	91	n/a	100	123	103	111
Student 4	146	n/a	n/a	n/a	157	147	134	152	156
Student 5	204	195	199	189	200	179	202	208	211
Student 6	148	157	162	172	139	148	175	150	161
Student 7	37	56	47	n/a	42	48	66	40	40
Student 8	n/a	21	35	30	27	22	44	21	23

Table 2. MAZE-Weekly Comprehension Scores for Text at the 8th Grade Level

Student	3/28/14	4/4/14	4/11/14	4/18/14	4/25/14	5/2/14	5/9/14	5/16/14	5/23/14
Student 1	38	36	28	46	n/a	45	41	35	34
Student 2	18	15	13	15	18	13	19	13	16
Student 3	36	23	22	35	n/a	24	25	28	22
Student 4	32	n/a	n/a	n/a	28	28	34	23	25
Student 5	43	28	27	44	30	32	22	26	30
Student 6	31	29	30	35	22	33	23	30	28
Student 7	37	14	16	n/a	15	11	10	15	15
Student 8	N/a	14	16	N/A	8	5	4	5	9

Figure 1. RCBM Week 1 (3/28/14) Compared to Week 9 (5/23/14)

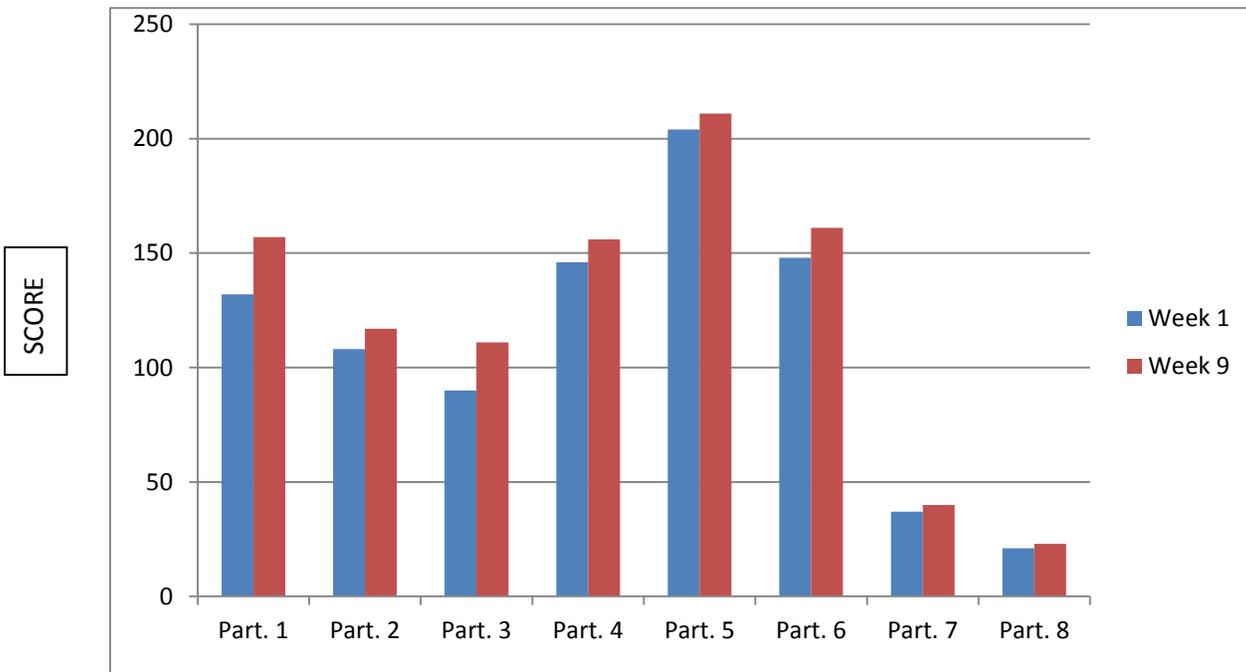


Figure 2. MAZE Week 1 (3/28/14) Compared to Week 9 (5/23/14)

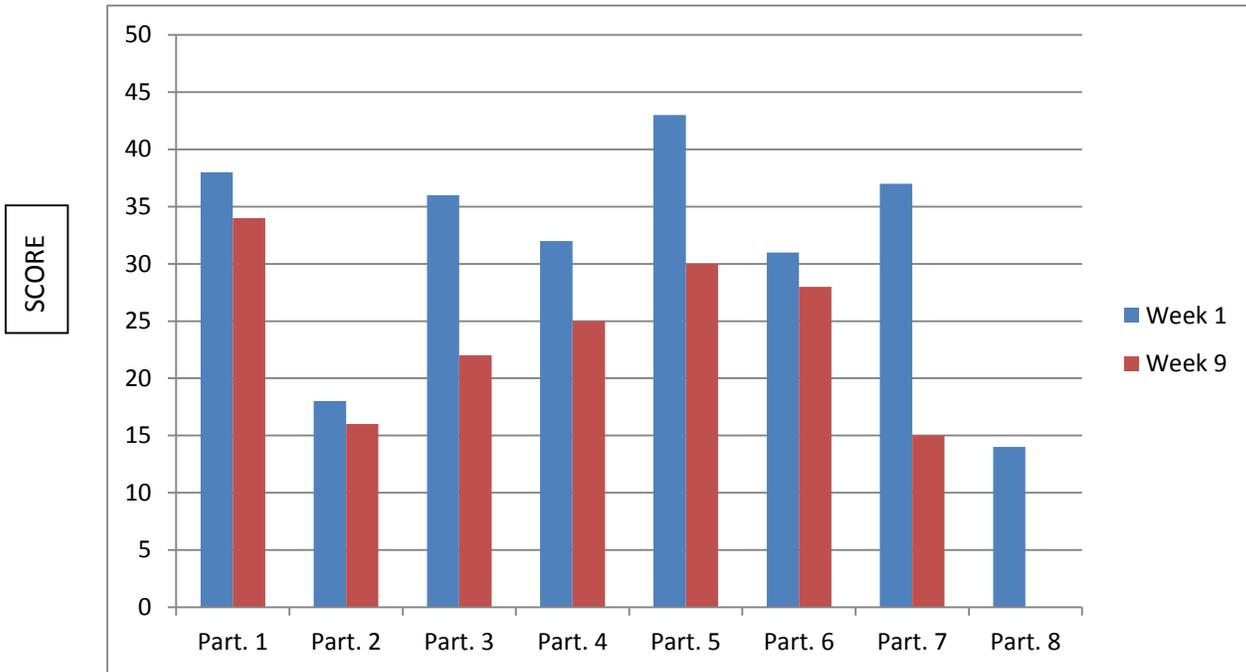


Figure 3. RCBM Initial Baseline Data Compared to Final Score

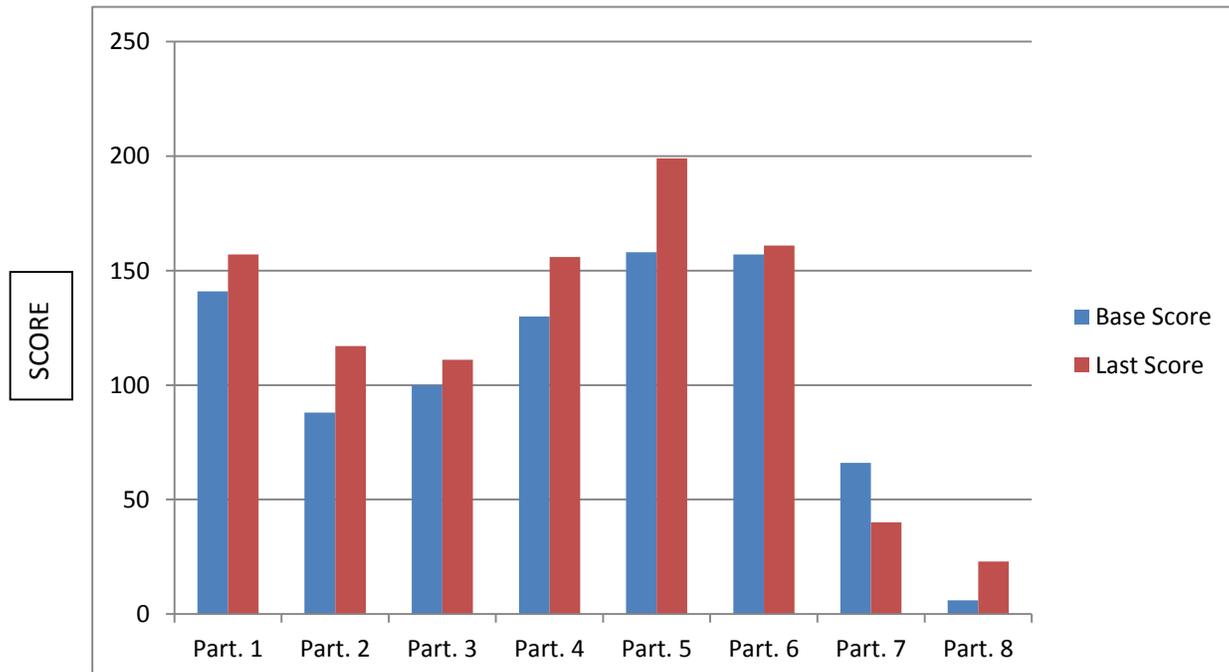
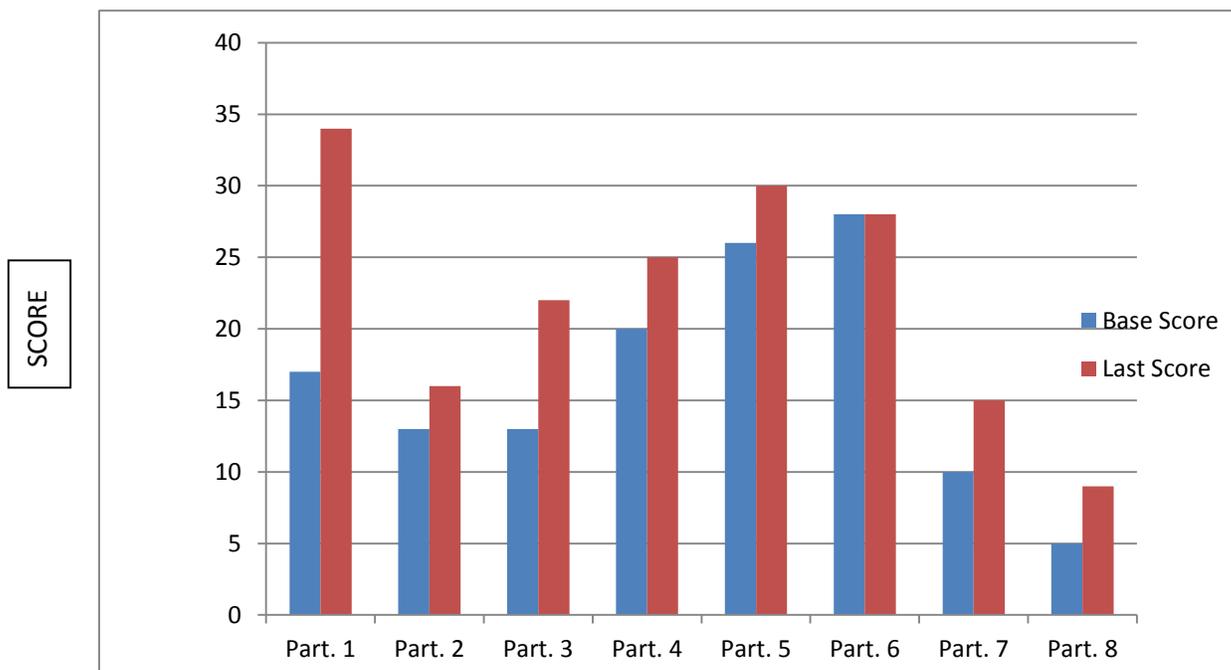


Figure 4. MAZE Initial Baseline Data Compared to Final Score



Analysis of Data

After collecting nine weeks of data, 100% of participants ended with a higher RCBM fluency score than when the data was initially collected for the purpose of this study in week one (Figure 1). This indicates that overall, students who are explicitly taught reading fluency, performed better over the course of nine weeks. Interestingly, after collecting nine weeks of data, 0% of participants ended with a higher MAZE comprehension score than when the data was initially collected in week one for the purpose of this study (Figure 2). This may indicate that overall, in a short period of time (nine academic school weeks) students are not learning the metacognitive skills to comprehend text, but are consistently and fluently reading text.

Furthermore, the participants were initially tested using a baseline assessment upon entrance to this explicit reading program. Since admission to the reading program nine months

ago, 87.5% of the participants made overall gains or maintained their reading fluency (RCBM) when comparing their baseline probe to their last reading probe of the academic school year (Figure 3) and 100% of the participants made overall gains in reading comprehension (MAZE) when comparing their baseline probe to their last reading probe of the academic school year (Figure 4). These results indicate and support that prolonged reading instruction over longer periods of time is effective and should not terminate after a short period of time like nine weeks for the purpose of this study.

Summary

This study set out to find evidence that explicit reading instruction in the areas of phonics, vocabulary, comprehension, fluency, and phonemic awareness would aid students with an SLD in reading make gains in their skill abilities. Over a short time sample, nine academic weeks, 100% of participants ended with a higher RCBM fluency score than when they began (Figure 1). This implies that fluency instruction is beneficial in a short amount of time and students need continued, rote reading in order to maintain skills. Contrastingly, over a short time sample, nine academic weeks, 0% of participants ended with a higher MAZE comprehension score than when they began (Figure 2). This implies that comprehension skills can regress in a short amount of time, so this is a skill that needs to remain at the forefront of reading instruction. While the participants' fluency and comprehension scores were not similarly deduced, 87.5% of students made overall gains over the course of a school year in fluency and 100% of participants made overall gains over the course of a school year in comprehension (Figures 3 and 4). This finding supports and suggests that explicit reading instruction is beneficial to accelerate reading skills for students with a SLD in reading.

CHAPTER 5. DISCUSSION

This study was designed to examine the effects of explicit reading instruction for students identified by Wisconsin state criteria as having a SLD in reading. The participants of this study were ninth grade students and the components of reading that this instruction focused on were comprehension, fluency, vocabulary, phonemic awareness, and phonics. Specifically, to study the effects, data was collected regarding the progress the participants made in the areas of reading fluency and comprehension (Figures 3 and 4). Fluency was measured by the RCBM and comprehension was measured by the MAZE; both were administered weekly over the course of nine academic weeks and the data resulting was entered into aimsweb.

Discussion

When evaluating the results of this study, the data gathered supported the hypothesis in regards to gains in reading fluency made over nine weeks. When analyzing the comprehension scores, the participants' ability did not increase significantly (Figure 2). In fact 0% of participants received a higher end score on the MAZE, which measures reading comprehension, than when this study began nine weeks prior. It is clear that explicit reading instruction is beneficial to students with a SLD in reading over prolonged periods of time. Each participant made overall gains from when they entered the reading program nine months ago in two areas: fluency and comprehension (Figures 3 and 4). As the school year ends however, students begin to regress in their ability to perform on weekly comprehension assessments as demonstrated by Figures 1 and 2.

Implications for Effective Schools

For this study, DI Reading was used to teach explicit reading in the area of phonics, vocabulary, fluency, comprehension, and phonemic awareness. Each participant was enrolled in this program for the entirety of the school year with the exception of Student 5 (Table 1 and 2) who was dismissed based on meeting his/her goal. According to the results of this study, DI Reading is an effective teaching tool because it produced results indicating that students made overall gains in fluency and comprehension. Research also shows that DI Reading “is a highly structured approach to instruction designed to accelerate the learning of at-risk students” (Direct Instruction, 2005, p. 2). The data collected from this study was indicative of this point because DI Reading dictates that students are tested weekly in comprehension and fluency to ensure accuracy and validity over a prolonged period of time. Students in DI Reading encountered a highly structured educational environment that was differentiated to meet their needs which produced growth in overall reading ability.

Recommendations

As a result of this study, conclusions can be drawn about how to proceed with explicit reading instruction for students with a SLD in reading. Students who are enrolled in an explicit reading program should not be dismissed after one year of completion despite growth being made. Regression in students’ ability to comprehend text can occur in a short amount of time according to the data provided, so struggling readers should continue explicitly learning beyond one school year to maintain and compensate for any skill loss. If another study examines this reading data, the researcher should analyze data over a longer period of time or during a central point of a school year. A study that examines the effects of multiple years of explicit reading

instruction and growth made over years would also provide evidence that students are college and career ready based on the gains they have made.

Another recommendation is to sample data at various points of the school year to determine if more focus should lie on reading comprehension or fluency. For example, this research demonstrates students are performing well in fluency, but still struggle with comprehension. This information can aid a teacher in shifting their focus of instruction to help students learn reading skills in the deficit area.

Summary

Roberts et al. (2008) discussed how students with a SLD learn to read and how regular, systematic reading activities do not produce the same growth effects as teaching explicit reading strategies. The findings of this study support the fact that prolonged, explicit reading instruction is beneficial for students with an SLD in reading to make gains in their ability to use explicit reading skills. An unexpected finding is that as the school year ends, students who received explicit reading instruction regressed in their skill ability (Figure 4). While this finding is unexpected, it is indicative of the fact that students must remain in explicit reading programs for more than one academic school year to account for the regression that occurs. If students can regress in reading comprehension over nine weeks of instruction after proving they are making growth over the course of an academic school year, imagine the repercussions that occur in the summer months in terms of regression.

Furthermore, if students with an SLD in reading are to be college and career ready according to the Common Core State Standards, the reading deficit must be corrected among secondary education students. Text complexity and rigor only increases as students prepare to

leave high school, and because reading comprehension is an “essential academic skill”, students need to learn explicitly how to read and use metacognitive skills to perform well on academic work and standardized tests (Spencer et al., 2014, p. 3). As Roberts et. al. (2008) discussed students who do not close the reading skill gap at a quick pace, will only fall further behind and require more interventions. Therefore, long term reading instruction, as mentioned earlier, is enough rationale to deduce that students should remain in reading interventions through high school if they require explicit instruction. In addition, students with low reading ability while in high school may face economic repercussion later in life if they are not college and career ready. These factors support and indicate that explicit reading instruction in fluency, comprehension, phonics, vocabulary, and phonemic awareness is imperative at the secondary level in order for students with a SLD in reading to close the skill gap.

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