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**THE EFFECT PROJECT READ HAS ON THE  
READING FLUENCY AND COMPREHENSION OF THIRD GRADE  
STUDENTS WITH SPECIAL NEEDS**

by  
Andrea Derringer

A Thesis

Submitted to the  
Department of Language, Literacy and Special Education  
College of Education  
In partial fulfillment of the requirement  
For the degree of  
Master of Arts in Learning Disabilities  
at  
Rowan University  
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Thesis Chair: S. Jay Kuder, Ed.D.

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## **Dedication**

*This thesis is dedicated to my husband, Regis, and my children, Brandon and Dominic, who enabled me to complete endless hours of research, writing, and academic studies to see this project complete. Also, I would like to dedicate this study to my third grade students who have enjoyed reading.*

## **Acknowledgments**

It is with immense gratitude that I acknowledge the support and guidance of my Professor, S. Jay Kuder. Also, I would like to thank my Aunt Bernie for her countless hours of proofreading each chapter. Furthermore, I would like to thank Patrick Ward for assisting me with technical difficulties I encountered. Most of all I thank the school district in which I work that allowed me to conduct my research and provide me with the opportunity to enrich the lives of students through a reading intervention program.

## Abstract

Andrea Derringer

THE EFFECT PROJECT READ HAS ON THE READING FLUENCY AND  
COMPREHENSION OF THIRD GRADE STUDENTS WITH SPECIAL NEEDS  
2012/13

S. Jay Kuder, Ed.D.

Master of Arts in Learning Disabilities

The purpose of this study was to examine the effect Project Read has on the reading fluency and comprehension of third grade students with special needs. This study implemented a two group, pretest-posttest design. The participants were six students with special needs from a third grade inclusion classroom who scored about two grade levels below grade three. A pretest, intervention mid-test, and intervention posttest were utilized to collect data. The independent variables were the use of the Project Read *Story Form Literature Connection* materials. The dependent variable was the measure of the participants reading fluency and comprehension using the Developmental Reading Assessment (DRA). Overall, the study results showed Project Read to be an effective intervention in increasing students' reading fluency and comprehension. Participants in this study made about a one year independent reading level gain. The mean scores from the pretest to the intervention posttest showed an increase in reading fluency and comprehension in both groups. These intervention strategies and methods have shown to increase test scores and increase students' confidence to read. The results suggest that Project Read can be an effective instructional tool for improving the reading fluency and comprehension of students with special needs. This comprehensive, language arts program provides explicit instruction to benefit students with special needs in a small group setting with similar below grade reading levels.

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## **Chapter 1**

### **Introduction**

Phonemic awareness, phonics, vocabulary, comprehension, and fluency are the five areas of comprehensive reading instruction deemed important by the National Reading Panel (NRP, 2002; Garrett T. & O'Connor, D. 2010). Of these elements, reading fluency may be the one that is least well understood. Reading fluency is not just reading with speed; instead, this component of reading involves accurate decoding, automaticity in word recognition, and prosody.

The purpose of reading is to assemble meaning from a text. Even though fluency has been a neglected factor in reading, it is an important contributor to comprehension skills. Also, word recognition can improve fluency. Fluency is an important domain of the reading process. The correlation between fluency and comprehension was clearly established by a large-scale data analysis from the National Assessment of Educational Progress in Reading (Pinnell et al., 1995; Pikulski & Chard, 2005). The students in the study who scored lower on measures of fluency also scored lower on measures of comprehension.

The reading process consists of two major components: word identification and comprehension. Non-fluent readers must concentrate on each word. When students have to use their cognitive resources to decode the text, limited cognitive resources are available for comprehension. The non-fluent reader cannot focus on two processes at the same time. Non-fluent readers are less likely to read more because they find reading too difficult. Without assistance, they can fall further behind their peers. On the other hand,

good readers are able to apply the reading process and monitor their understanding of the text. Fluent readers are likely to read more often; therefore, developing additional reading skills. Fluency is a fundamental component for reading success.

Fluency is influenced by students' phonological abilities. Phonemic awareness, a pre-requisite to reading, is the understanding that the sounds of spoken language work together to make words. It improves students' ability to read words. Also, it improves their reading comprehension. Instruction in this area supports reading comprehension through its effect on word reading. By being able to read words, students are more likely to focus their attention on the meaning of what they read. Vocabulary and world experience also contribute to reading comprehension.

A number of reading programs claim to improve reading skills. Among those is Project Read. Project Read, a research driven language arts curriculum, meets the National Reading Panel's five components of effective reading instruction: phonemic awareness, phonics, vocabulary, comprehension, and fluency. In 1973, this reading method was introduced by Dr. Mary Lee Enfield and Victoria Greene. The materials and teaching strategies assist diverse learning needs and provide lessons built on direct concept teaching, multisensory processing, systematic instruction and high level thinking skills. The program begins with letter-sounds to words, sentences, and stories. Project Read includes three separate components: phonics/linguistics, reading comprehension, and written expression. In this report, there will be a concentration on reading comprehension.

Before children read, they must be made aware of how the letters in words sound. To construct a solid foundation, Project Read curriculum begins with the alphabet. The curriculum includes manuscript and cursive letter formation. The ability to recognize and identify sounds in spoken words is phonemic awareness. Usually, the sounds are taught in isolation. In Project Read, sound/symbol recognition in isolation and phonemic awareness are intertwined to transfer to reading. Students benefit from feeling and hearing sound/symbol connections. (Snodgrass, D. 2002) VAKT (Visual, Auditory, Kinesthetic, Tactile) is a multisensory method that assists children to master symbol recognition. Some activities include sky writing, reciting letter strokes, practicing with the memory box, and tracing letter strokes on different tactile materials. Kinesthetic and auditory identity helps students master symbol recognition. This approach reinforces automatic recall of both the sound and symbol of each letter, and the combination of sounds and symbols to form words. Project Read is an individualized approach that uses diagnostic teaching and multisensory strategies to provide reading instruction in a diverse way.

Students with special needs who are unable to learn through the traditional reading methods need a different instructional approach to assist with their ability to read fluently and improve their comprehension. Victoria Greene, one of the founders of Project Read, states that this program exists to ensure that every child, no matter their circumstance or ability, has the opportunity to understand, embrace, and enjoy the many components of the written and spoken word. The strategies are based on a process that enables students to interact with the text to collect, classify, and systematize information for critical thinking. Too many times, students read fluently but have not been taught

ways to understand the text. Project Read incorporates a process to make meaning from the text while building upon word recognition and fluency. The purpose of this study is to examine the effect Project Read has on the reading fluency and comprehension of students with special needs in the third grade.

### Research Problem

The questions to be answered in this study include:

1. What effect will Project Read strategies have on increasing the students' reading fluency?

2. What effect will Project Read strategies have on increasing the students' reading comprehension?

A specific group of third grade students with special needs from an elementary school in a rural community in southern New Jersey will develop their reading fluency and comprehension using an alternative reading approach called Project Read. It is hypothesized that these students will increase their fluency rate along with reading comprehension through small group lessons built on direct concept teaching, multisensory strategies, and systematic instruction. If the fluency rate increases then it is expected that comprehension will also increase. The reading fluency and comprehension will be analyzed and compared together to the initial, middle, and final assessments. Fluency and comprehension will be measured through Project Read materials and DRA (Developmental Reading Assessment) exhibiting the fluency and comprehension increase of the participating students.

## Key Terms

*Fluency* - efficient, effective word-recognition skills that permit a reader to construct the meaning of a text (Pikulski, J. & Chard, D.J. 2005).

*Phonemes* - the smallest part of sound in a spoken word that makes a difference in the word's meaning (Armbruster, B. B. et al., 2006).

*Phonics* - is the understanding that there is a predictable relationship between phonemes and graphemes, the letters that represent those sounds in written language (Armbruster, B. B. et al., 2006).

*Phonemic awareness* - is the ability to auditorily discriminate and manipulate individual sounds (phonemes) in words (Wasik, 2001; Ming, K. & Dukes, C. 2010).

*Prosody* - the rhythm, stress, and intonation of speech.

## Implications

Educators encounter many students with reading disabilities that involve reading fluency or active text comprehension or both. (Therrien, W.J. et al., 2006) These students concentrate on each and every sound, syllable. So, that by the end of the sentence, they have little energy left to understand the meaning of the text. On the other hand, some students read fluently but are unable to comprehend the text. Finding alternative reading approaches to help students with reading fluency and reading comprehension is important to educators to help students build a solid foundation for learning. Early interventions can aid in producing effective outcomes for successful reading experiences. The ultimate

goal for students is to acquire a strategy to guide their active text comprehension outside of the intervention.

### Summary

Many students experience reading problems. These problems can deter further achievement in reading. This study will examine the effect Project Read has on the reading fluency and comprehension of students with special needs in the third grade. My hypothesis is that a specific group of students with special needs in the third grade will develop their reading fluency and comprehension using an alternative reading approach called Project Read. These students will increase their fluency rate along with reading comprehension through small group lessons built on direct concept teaching, multisensory strategies, and systematic instruction. If the fluency rate increases then comprehension will increase too. The reading fluency and comprehension will be analyzed and compared together to the pretest, intervention mid-test, and intervention posttest. Fluency and comprehension will be measured through Project Read materials and DRA (Developmental Reading Assessment) exhibiting the fluency and comprehension increase of the participating students. These results will help to inform educators of a different instructional approach that improves reading fluency and reading comprehension and will demonstrate the correlation between the two components.



## Chapter 2

### Review of Literature

In the educational system, the expectation is that by the end of the primary grades a child can read fluently with understanding. Reading abilities develop through an integration of multiple cognitive, affective, and social processes. (Daane, et al, 2005) Since reading is a process that encompasses many skills, Congress consulted with the Director of the National Institute of Child Health and Human Development (NICHD) and the Secretary of Education to assemble a panel to review research-based knowledge on methods to teach children to read. The National Reading Panel identified five components for the successful reading development. The components included phonemic awareness, phonics, fluency, vocabulary, and comprehension. Learning to read begins with phonological and phonemic awareness. When a student lacks phonological and phonemic awareness it hinders their progression of reading growth. The development of phonics is built on phonemic awareness skills. Without a solid foundation of the alphabetic principle (phonemic awareness and phonics) there is a disorder in oral reading fluency. When students have a lack of prereading skills, their following reading skills become affected. Non-fluent readers have difficulty identifying words while reading text.

#### Reading Fluency

Fluency was chosen for further review and analysis by the NRP due to the lack of fluency achievement in reading. The purpose of the National Reading Panel (NRP) report was to identify factors that affect reading development. The NRP reviewed the effectiveness of two major instructional approaches to fluency development: guided

repeated oral reading and independent silent reading. The Panel (2000) found that guided repeated oral reading procedures had a positive effect on word recognition, fluency, and comprehension. The National Assessment of Educational Progress (NAEP) found 44 % of fourth grade students to be non-fluent in the 1992 study. In 2002, the NAEP completed a reading assessment with fourth, eighth, and twelfth grade students which measured reading comprehension. In addition, another study was conducted in 2002 with the same fourth grade students to measure their oral reading ability. Since these fourth grade students participated in both the oral reading study and the main NAEP reading comprehension study, it was possible to examine the relationship between oral reading ability and reading comprehension. This study found a close relationship between oral reading fluency and reading comprehension which validated the results of the 1992 study. Pikulski and Chard (2005) noted fluency without accompanying high levels of reading comprehension is of very limited value.

The NAEP defined fluency as the ease or "naturalness" of reading (NCES, 1995). Fluency is not only having the ability to pronounce words; instead, it is also having the ability to read with speed, accuracy, understanding word meanings, and expression (NICHD, 2000). Fluency denotes a level of expertise beyond accurately reading words. The National Reading Panel (2000) stated that fluency includes the ability to group words into meaningful grammatical units for comprehension. Fluency helps facilitate reading comprehension by freeing cognitive resources for interpretation (NRP-Executive Summary, 2000). Students who do not develop reading fluency will continue to read slowly and with great effort (NRP-Executive Summary, 2000). Therefore, concentrating on reading words will lessen comprehension. A reading fluency measure can indicate a

reading problem instead of establishing a source. The NAEP (2002) oral reading fluency scale identifies that non-fluent students read word-by-word or read two-word phrases with only some three-or four-word groupings. This grouping of words might seem unrelated to larger context of sentence or passage. Non-fluent students do not preserve meaningful syntax and cover less text while sacrificing accuracy. Students read slowly and with effort, therefore, reading becomes a struggle to process the information. Pinnell (1992) found fourth grade students were less fluent when they read 65 to 89 words per minute (Daane et al, 2005). Students who do not read fluently generally do not become good readers (Ming & Dukes, 2010; Chard, Ketterlin-Geller, Baker, Donabler, & Apichatabutra, 2009). Chard et al, 2009, focused on the effect of repeated reading for fluency improvement. Out of the six single-subject research studies evaluated, no studies qualified as high quality single-subject research. Therefore, the results stated repeated reading is not an evidence-based practice for students with and at risk for learning disabilities. Baker, Smolkowski, Katz, Fien, Seeley, Kame'enui, Beck (2008) conducted a study to examine the relationship between students' oral reading fluency and their performance on standardized tests. They found that oral reading fluency was associated to student performance on standardized tests with correlations between .60 and .80. Students avoid reading due to the fear of failure and negative attitudes (towards reading) from themselves and others. With less exposure to print, poor readers have fewer opportunities than their peers to practice reading fluency, encounter academic vocabulary, develop content-area knowledge, and interact with abstract ideas and complex writing structures (Kim, Capotosto, Hartry, Fitzgerald, 2011).

Further assessments are needed to determine reasons for a slow reading rate. The National Research Council report, *Preventing Reading Difficulties in Young Children*, recommended fluency and comprehension both need to be regularly assessed in the classroom in order to have consistent and effective intervention when difficulty is noticed.

### Reading Comprehension

The reading process is composed of two cognitive tasks: decoding and comprehension (Pikulski & Chard, 2005). Cognitive resources are required to recognize the printed words and construct meaning from the recognized words. If word recognition is difficult, the cognitive resources will be used for decoding rather than interpretation. Comprehension is understanding the information that words and sentences communicate to the reader (NICHD, 2000). Good readers monitor their comprehension while reading, poor readers do not. The NRP (2000) concluded that reading comprehension skills are influenced by three factors. First, reading comprehension is a complex cognitive process that combines vocabulary development and instruction in order to understand what has been read. Students must understand what most words mean to know what they are reading. Second, reading comprehension is an active process demanding thoughtful interaction between the reader and the text. Students need to have a purpose for reading. They may read to find out how something is done, to gather information, to read for a class, or to read for entertainment. Comprehension encompasses knowledge of the world using language and print to assist with meaning of the text, to form memory representations, and to communicate what was read. Third, teachers need to be prepared to teach comprehension strategies that develop students' comprehension abilities.

Reading to learn subject matter (comprehension) does not occur automatically once students have "learned to read" the basics (word recognition and fluency) (Armbruster, B. B. et al., 2006). *Put Reading First* (2006) is a publication developed by the Center for the Improvement of Early Reading Achievement that provides a framework for using the findings of the National Reading Panel in the classroom. This guide advocates teachers emphasize text comprehension from the beginning (ask questions after orally reading to students in early childhood classes), rather than waiting until students have mastered "the basics" of reading.

### Reading Disorders

Many children struggle with learning to read. Developing fluency with reading connected texts remains a challenge for students with or at risk for learning disabilities. A learning disability is more than a difference with learning - it's a neurological disorder that affects the brain's ability to receive, process, store, and respond to information (NCLD, 2012). Students are identified for special education services when they experience difficulties with early reading development, especially with decoding. One type of learning disability is reading disability.

There are two forms of reading disorder: decoding (dyslexia) and comprehension difficulties. Dyslexia affects 3-10% of children while comprehension impairment affect 10% of children (Duff & Clarke, 2010). Reading comprehension impairment students read aloud accurately and fluently but have difficulty understanding what they have read (Snowling & Hulme, 2011). Poor vocabulary knowledge, weak grammatical skills, listening comprehension, and narrative skills are difficulties in oral language comprehension that contribute to reading comprehension impairment; whereas, a

weakness in phonological (speech sounds) processing is a cause of dyslexia. Students with learning disabilities are more likely to be passive learners who do not engage in the active processing of information in the text they read. Decoding and comprehension can be seen as an indication of an underlying problem with language development. Reading disorders may arise when a language impairment is present.

### Reading Intervention Programs

A number of approaches to improving the reading performance of students with reading disabilities have been developed. For example, Duff and Clarke (2010) found that there is a strong evidence for the effectiveness of phonological-based reading interventions in supporting children with dyslexic (decoding) difficulties and reading comprehension impairment. Vocabulary training is important for reading comprehension impairment intervention. Many strategies are helpful to improve comprehension such as, comprehension monitoring, teaching meta-cognitive skills, providing relevant prior knowledge, using graphic organizers, question answering, generation and summarization, and the use of multiple strategies. There are different causes for children's reading difficulties. A correct assessment and diagnosis of children's reading difficulties require different forms of interventions to help them attain specific reading skills. Students with reading problems benefit from additional skills and strategies to enhance their reading fluency and comprehension provided by alternative reading programs. Multisensory instruction techniques use visual, auditory, kinesthetic, and tactile (VAKT) instruction. Some researchers say multisensory instruction provides maximum sensory input to the brain, while others state the sensory input compensates for weak visual or auditory input. The following reading programs are based on a multisensory approach to reading.

A number of remedial reading programs have been developed to help students with reading disorders. The Lindamood-Bell Learning Process is an instructional intervention that focuses on multisensory instruction for decoding, vocabulary, and comprehension. It compasses phonemic awareness, decoding, fluency, vocabulary, and comprehension. The comprehension segment is composed of the visualizing-verbalizing (VV) technique. These components are consistent with dual-coding theory. Dual coding theory is the instruction in mentally encoding information in both linguistic and imagistic forms (Sadoski & Willson, 2006). This theory believes cognition engages a verbal code for dealing with language and a nonverbal code for objects. Even though these systems might be separate they are able to work together and independently. There is a continuum between perception and memory which makes it multimodal. Verbal and nonverbal experiences can occur using all five senses forming mental images while vision, hearing, and touch produces language. Three different processes are included in dual coding theory. In the representational process, nonverbal and verbal information activates nonverbal or verbal memory. In the referential process, verbal information and nonverbal information can signal one another. In the associative process, the same verbal or nonverbal information is activated. In any activity, memory may require any one or all of the three processes.

Within this learning process, phonological awareness and phonemic awareness is taught through the Lindamood phoneme sequencing program (LiPS). Articulatory acts, such as tongue tappers and illustrations of the mouth pronouncing phonemes, provide sensory associations for the language concepts. Phonological and orthographic awareness (Seeing Stars Program) is taught through the mental visualization of letters, air

writing, and similar multisensory techniques. The visualizing-verbalizing (VV) technique directs students to create mental images. The mental images include pictures, words, sentences, and passages. Multisensory techniques that associate language with mental images as in the programs visualizing-verbalizing and Seeing Stars is a direct application of dual coding theory.

Sadoski and Willson (2006) studied the effects of the Lindamood-Bell Learning Processes (LBLP) on the reading achievement in grades third through fifth in the Pueblo School District 60 (PSD60) during the years 1998 to 2003. PSD60 primarily used one basal reader program supplemented by the Lindamood-Bell Learning Processes throughout the course of the school year. LBLP instructional practices, based on the dual coding theory of reading and the (VV) program, concentrated on the use of mental imagery and multisensory techniques to improve reading comprehension. They used the Colorado Student Assessment Program (CSAP) to compare the percentages of students in the four measures (unsatisfactory, partially proficient, proficient, and advanced). They compared the PSD60 to the Colorado comparison schools. The outcome of the implementation of the reading program produced gains in reading from unsatisfactory and partially proficient scores to proficient and advanced scores. Statistically significant and increasing gains favoring the Lindamood-Bell reading intervention were found (Sadoski&Willson, 2006). Sadoski and Willson (2006) concluded that the LBLP materials were a contributing factor for PSD60 showing improved performance on a state mandated reading comprehension test.

The Wilson Reading System, a research-based program, was developed in 1985 by Barbara and Edward Wilson. Barbara Wilson completed training in the Orton-



Gillingham approach at the Massachusetts General Hospital's Language Unit. Wilson Reading System branches into three different divisions: Foundations (kindergarten to third grade), Just Words (fourth grade to adult), and Fluency. Foundations was first published in 2002 then in 2012 and has been implemented as a prevention and an early intervention program. Just Words, published in 2009, was designed for older students who have a word level deficit and require extensive decoding and spelling instruction. To develop the application of skills with connected text, Wilson Fluency Basic program provides fluency instruction and reading practice. The fluency program coincides with the Wilson Reading System, Foundations, and Just Words giving practice with 200-250 passages with 90% controlled text that students need to develop rate-appropriate independent reading with ease and expression (Wilson Language, 2012).

The instruction includes a multisensory, interactive approach. This 12 step reading system focuses on phonological awareness and total word structure. Also, it encompasses decoding, encoding, oral reading fluency, and comprehension. It uses a sound tapping system to decode words. There are a series of skills students must obtain before progressing forward to the next step. Steps one and two (phonological awareness) emphasize letter/sound correspondence for closed syllables, the identification of sound units, phoneme segmentation, and blending. Steps three to six emphasizes sounds blended and arranged in a syllable. Step three also presents multisyllable words. Steps four to six teach vowel consonant "e", open, and consonant "le" syllables. Step six teaches suffix endings. Steps seven to twelve teach higher level word structure, as well as rules for spelling and suffixes.

Wilson and O'Connor (1995) identified that using the Wilson Reading System for pull-out instruction was successful for students in improving in decoding ability (average gain of 4.6 grade levels), passage comprehension (average gain of 1.6 grade levels), total reading (average gain of 1.9), and gains in spelling. The study included 92 students in grades third through fourth and 128 students in grades fifth through twelfth with a history of reading and spelling difficulties. The Woodcock Reading Mastery Test-Revised (Forms G and H), or the Woodcock Reading Mastery Test (Forms A and B) were the assessment. The Wilson Reading System Test was used to measure spelling growth. Teacher training and monthly seminars were provided for implementation of the program. After a year of intervention the results indicated that students with reading disabilities can increase their reading and spelling ability. Students' confidence and self-esteem increased when their basic reading skills improved. When fully implemented, the Wilson Reading System provides word-reading instruction, as well as vocabulary, fluency, and comprehension (Wilson & O'Connor 1995).

Another reading program that was designed to improve the reading of students with reading disorders is READ 180. READ 180, developed as a result of five years of intensive research and development, is designed for students in grades four to twelve reading two or more years below grade level. Dr. Ted Hasselbring developed this program with his team at Vanderbilt University. Scholastic Research (2011) claims READ 180 students consistently out-perform control group students, with achievement double or triple their control group counterparts. Scholastic states READ 180 is noted to raise achievement for students with reading disorders through the use of an adaptive computer program, literature, and direct reading instruction. READ 180 is comprised of

whole group teacher-directed lessons and three rotations: individualized computer-assisted reading instruction, independent and modeled reading practice with leveled text, and teacher-directed reading lessons tailored to the reading level of small groups (Kim et al., 2011).

READ 180's systematic multisensory instructional approach enhances struggling students, including those with special needs. Instruction enhances learning and retention by focusing on two principles of cognition: short term memory and repetition of new skills. The pacing of skills practice transitions students to fluency and automaticity. The text corresponds to students' reading levels in order for students to experience success and enjoyment. Small group, whole group, and independent activities are ways instruction is presented to the students. The following skills are developed using READ 180: phonemic awareness, phonics, fluency, text comprehension, academic vocabulary, spelling, and writing. Comprehension, independent reading, and model reading are addressed in READ 180 audiobooks, paperbacks, and eReads. The computer program adapts to each student's progress as it tracks information. The students build background knowledge for comprehension and master vocabulary as they interact with the computer program. Also, they develop, practice, and apply spelling, reading fluency, and comprehension skills and strategies (Scholastic Research, 2011).

Formal and informal assessments are important to track students' progress of development, use data to inform instruction, and assess the effectiveness of instruction. The assessment program enables students to monitor their own learning. The information is available to teachers and administrators to guide instructional decision making.

Kim et al., (2011) evaluated the effectiveness of READ 180 on measures of vocabulary, reading comprehension, spelling, and oral reading fluency. Three hundred twelve students in grades 4-6 were tested for proficiency on the Massachusetts Comprehensive Assessment System (MCAS) in English language arts, 95% of whom scored below proficiency. The study was conducted during the 2006-2007 school year with students that were involved in the district after-school program or READ 180. Kim et al (2011) looked at whether a structured literacy program can produce greater growth than a less structured program. The READ 180 group outperformed the district after-school program on vocabulary and reading comprehension, but not on spelling or oral reading fluency. Researchers found that READ 180 can improve student outcomes if (a) it targets moderate risk students scoring near the 40th to 45th percentile and (b) it implements both teacher-directed whole-group instruction and the three small group rotations (Kim et al., 2011).

Orton-Gillingham, another systematic multisensory approach to teach students basic reading, spelling, and writing, uses auditory, visual, and kinesthetic focus. The program builds upon mastered skills. The approach was conceived by Dr. Samuel Orton and developed into a curriculum by Anne Gillingham in the 1930s but they separated in the 1940s. Dr. Orton continued his original work, while Gillingham joined with Bessie Stillman to publish a similar approach. The two related approaches are based on the same philosophy that students with severe dyslexia need a multisensory approach. The National Reading Panel, National Research Council, and National Institutes for Health support the systematic instruction in phonological awareness and phonics that is inherent in Orton-Gillingham programs (Rose and Zirkel, 2007).

The traditional Orton-Gillingham program does not provide fluency and comprehension instruction, therefore reports recommend that educators supplement additional reading instruction. Gillingham and Stillman intended Orton-Gillingham to be implemented without supplemental reading instruction. The lessons increase in complexity beginning with phonemic awareness. They listen for individual phonemes in words. After students demonstrate phonemic awareness, they are shown how letters blend together to make simple words. Students learn the six types of syllables found in the English language and are introduced to sounds that have multiple spellings. They increase their spelling of new words, comprehension of text, and vocabulary through learning morphology, roots, and affixes. Before learning new concepts, students must master the basics and retain previous knowledge. Instruction is based on ongoing information and assessments to meet the needs of each student.

Ritchey and Goeke (2006) reviewed twelve studies (10 articles and two dissertations) that compared the effectiveness of Orton-Gillingham to other instructional reading approaches such as Project Read, Alphabetic Phonics, and Edmark Reading Program. The population of students was in an elementary school setting in the first, second, and third grade. They found positive results for Orton-Gillingham and Orton-Gillingham based instruction for word reading, word attack/decoding, spelling, and comprehension. The positive outcomes for Orton-Gillingham and Orton-Gillingham based instruction were given across settings and populations. Ritchey and Goeke used a liberal inclusion criterion to examine the majority of existing studies. Insufficient information concerning comparability procedures, fidelity of implementing instruction, technical characteristics of measures, and scope of instructor training made the validity of

the research unattainable and suggests "there is a lack of evidence to conclude that Orton-Gillingham and Orton-Gillingham based reading instruction meet the requirements of scientifically-based reading instruction" (Ritchey & Goeke, 2006). Research literature provides evidence to agree and disagree on the effectiveness of Orton-Gillingham based reading instruction. However, teachers find this program to be an effective alternative reading program.

Related reading programs have evolved from Orton-Gillingham methodology. Some of these programs include: Alphabetic Phonics, Wilson Reading System, Starting Over, and Project Read. The targeted age group, instructional setting, and materials differ yet underlying instructional principles are consistent with the original Orton-Gillingham methodology.

Project Read, designed in 1973 by Dr. Mary Lee Enfield and Victoria Greene, is a language arts program that provides systematic direct instruction in a structured reading curriculum. This program may be implemented in the regular classroom, special education classes, and Title 1 classes. It may also be used as an alternative reading program for first through sixth graders or with adolescents and adults who struggle with reading or language learning. Daily lessons can be in a whole or small group and require an extended amount of time. Concepts and skills are supported through a teaching approach that includes the use of body language, visual, auditory, kinesthetic, and tactile strategies (VAKT).

Instruction includes encoding/decoding, reading comprehension, and written expression. The encoding and decoding instruction consists of phonics that separates into different age levels: pre-kindergarten and kindergarten students, primary phonics for first

through third grade students, and linguistics for fourth through twelfth grade students. Reading comprehension offers instruction in three different ways: Story Form Literature Connection for first through fifth grade students, Report Form utilizing expository text for third through twelfth grade students, and Story Form emphasizing narrative text for sixth through twelfth grade students. The Written Expression component provides systematic and sequential instruction.

The five elements of reading instruction, phonemic awareness, phonics, fluency, vocabulary, and comprehension, are integrated into Project Read. Spelling, writing, oral language, and listening comprehension are found within every lesson. Each lesson begins with a review of prior skills, followed by teacher modeling of a new skill, guided and student practice, and monitoring the progress of the students to check for skill mastery.

Put Reading First (2006) states fluency is the ability to read a text accurately and quickly, while reading effortlessly and with expression. Word recognition and comprehension are linked through fluency. Teacher modeling of fluent reading is necessary to develop fluency. Solo and choral reading of words, sentences, and text, sentence dictation with repetition, and oral practice with controlled readers are ways fluency practice is presented in Project Read. Another strategy to develop fluency is through the use of readers' theatre that promotes cooperative reading interaction with peers. This can be accomplished to motivate struggling readers through the use of puppets, role-playing, dialoguing, and storytelling.

Story Form encompasses a systematic, explicit comprehension instruction. Project Read includes Put Reading First's six comprehension strategies. Students focus

on the setting, plot, characters, problem/conflict, rising action, climax, and falling action through the use of story puzzles, charts, and graphic organizers. First the program recognizes the text structure, the way the content has been organized, through the use of a story puzzle and story chart. Next, graphic/semantic organizers help students focus on text structure as they read. This is established through the use of a story puzzle, story chart, character shadow, collection sheet, timeline, word basket, story type wheel, and a fact sheet. Comprehension is monitored by students noting what they do and they do not understand. Strategies are presented to solve problems in comprehension. Story puzzle, storyboard, story wheel type, checking for understanding, guided practice, and VAKT activities are ways comprehension is monitored. Students are given a purpose to read through the use of questions. The questions focus the students' attention on what they are to learn, helps them to actively think, self-monitor, and review content information. Then students learn to ask their own questions. Last, students summarize the important ideas in the text to identify the story parts, connect the events, eliminate unnecessary information, and remember what they read. Guided practice and frequent comprehension skills checks are included in every lesson.

In 1969-1970 a pilot study of forty-five students in low reading groups were matched with forty-five students from a comparable school by gender, grade, reading placement, group intelligence test scores, and the Metropolitan Reading Readiness Test results. After the students were given an assessment, lessons were provided 30 minutes per day for three weeks in grades first through third. Following this introductory period, the classroom teacher in the treatment school continued the Project Read program until the completion of the school year. The control group remained in the district basal



reading program. Comparison of mean results indicated that Project Read students made more than a year's gain (1.2) compared with control students' .6 grade gain. (Florida Center for Reading Research) Based on these results Project Read was implemented in grades first, second, and third in the Bloomington Minnesota Public Schools. The school district selected 665 students below the 25% percentile on the Jastak Wide Range Achievement Reading and Spelling test to participate in a three-year study to monitor progress in decoding, comprehension, and spelling. Yearly student evaluations were performed using Jastak Wide Range Achievement Test-Reading and Spelling Sections, the Gates MacGinitie Reading Survey-Vocabulary and Comprehension, and the Iowa Test of Basic Skills. Standardized achievement test results for the first, second, and third grade students in the treatment group showed significant progress in reading and spelling skills. This study did not have a control group; therefore it is not possible to attribute the reading growth to Project Read alone.

Twenty-five studies on Project Read for students with learning disabilities were reviewed by What Works Clearinghouse (WWC). WWC evidence standards were not met on twenty-three of the twenty-five studies. What Works Clearinghouse (2010) commented on one study by Bussjaeger (1993) which met the WWC evidence standards, however the outcome data was not sufficient for WWC to assess the effectiveness of Project Read. Bussjaeger reported no significant effect of Project Read for students with learning disabilities who participated in the study. The study included fourteen learning disabled students in grades fourth through fifth in a southern California elementary school. The two groups were matched in pairs on gender, grade level, and pretest reading achievement scores. Of the two groups of students, one group was assigned to

intervention (Project Read) and one to the control (literature-based) group. Before the study was initiated, participating students received one month of instruction of Project Read and one year of literature-based instruction. Students received Project Read instruction for 20 minutes per day, four days a week, for six weeks, along with the regular daily basal reading program. The control group used literature-based instruction in place of Project Read, and also participated in the regular daily basal reading program. Woodcock-Johnson Psycho-Educational Battery-Revised (WJ-R) and the Reading subtest from the Wide Range Achievement Test-Revised (WRAT-R) were used as a pretest and posttest to assess the effectiveness of Project Read. Passage comprehension subtest of the WJ-R was administered to evaluate reading comprehension.

What Works Clearinghouse mentioned one study (Acalin, 1995) that met the WWC evidence standards with reservations. This study presented sufficient outcome data for the WWC to determine the effectiveness of Project Read which it considers to be small for general reading achievement. Five southern California school districts, including 66 students in grades kindergarten through fourth, participated in the Acalin (1995) study (What Works Clearinghouse, 2010). Thirty-three students with learning disabilities were placed in Project Read and thirty-three students with learning disabilities were placed in Reading Recovery. Students were matched on gender, grade level, ethnicity, and pretest scores. Students had no significant differences shown on pretest scores. One group of participating students received Project Read instruction for 30 minutes daily for one school year in a small group setting. The comparison group participated in Reading Recovery for 30 minutes daily receiving one-on-one instruction using the Rigby Series reading books for one school year. Acalin (1995) used the Broad

Reading cluster from the WJ-R to assess the effectiveness of Project Read on students with learning disabilities in the general reading achievement domain (What Works Clearinghouse, 2010). His analysis showed, and the WWC confirmed, no statistically significant effect of Project Read on the general reading achievement for students with learning disabilities (What Works Clearinghouse, 2010).

Bruce, Snodgrass, and Salzman (2002) conducted a study of eleven first grade students identified as "at-risk" for learning to read during the 1998-1999 school year. These students were in the same first grade inclusive classroom. Students were administered the *Clay Observational Survey of Literacy Achievement* (1993) in September. The students' results, from the assessment, placed them below the fourth stanine on most of the seven tests of literacy skills: print orientation, letter identification, letter-sound correspondence, writing vocabulary, word identification, sentence dictation, and text level. Bruce, Snodgrass, and Salzman (2002) decided only to study word identification, writing vocabulary, sentence dictation, and text level comprehension. The students were sub-grouped into three reading groups based on their reading needs depending on the results from the observational survey. The reading specialist conducted guided reading sessions for twenty minutes each. Then the students were grouped into one of two Project Read groups to address the students' reading needs. New lessons were not introduced until students mastered previous lessons and concepts. In the spring of 1999 the students' performance for all four of the tests studied showed a significant positive difference ( $P=.001$ ) between the pretest and posttest. Bruce et al (2002) concluded that the combination between Project Read and Guided Reading was an effective intervention due to the increase in performance. However, without a control

group it was difficult to determine if the result was the outcome of the Project Read curriculum. As a follow-up to this study in 2002, Bruce et al (2002) found that four students continued in the Title 1 Support Program; however, ten of the eleven students were reading at or above grade level in the third grade and are thought to comprehend what they read. The researchers concluded the number of Title 1 students would be higher if the students had not participated in the Project Read/Guided Reading intensive program.

### Summary

Following a review of existing research, The Florida Center for Reading Research concluded that Project Read is a promising program and the instructional strategies are supported with current research. The Center concluded that future studies with sound experimental design including control groups and random assignment may contribute more definitive information about the efficacy of Project Read (Florida Center for Reading Research).

Without intensive intervention, children with reading difficulties are at risk for falling increasingly behind their more reading proficient peers in the upper elementary and middle grades (Kim et al., 2011). An important step in the development of literate students is to engage students with learning disabilities to take an active and sustained role in reading experiences. Previous research has shown fluency to be a critical part of the reading process and should be embedded in reading instruction for all students. Improvement in fluency has been shown to positively impact reading comprehension, the ultimate goal of reading (Garrett & O'Connor, 2010). Successful interventions build on research-based practices for reading instruction. Teachers must receive training in order

to provide targeted interventions that are responsive to changes in learning for students who struggle. Additional research can verify the efficacy of Project Read's methods and strategies for increasing reading fluency and comprehension.

The purpose of this study is to examine the effect Project Read has on the reading fluency and comprehension of students with special needs in the third grade. The students with special needs who are unable to learn through the traditional reading methods need a different instructional approach to assist with their ability to read fluently and improve their reading comprehension. By implementing Project Read, students will be engaged in the multisensory approach to reading. Project Read believes in the visual, kinesthetic, auditory, and tactile strategies (VAKT) to improve students' reading achievement. This study will show the effect Project Read strategies have on the students' reading fluency and reading comprehension. By comparing students' Developmental Reading Assessment (DRA) pretest with the intervention posttest, the results will show if improvement was made. This research will contribute to a better understanding of Project Read by answering the following questions:

- Is teacher training adequate in delivering the Project Read content to the students?
- How are Project Read strategies used in a small pull-out group setting?
- How do the participating students react to the lessons?
- Do students' fluency and comprehension show improvement through the use of Project Read strategies?

## **Chapter 3**

### **Methodology**

#### Setting and Participants

This study examined the effect Project Read strategies had on students' reading fluency and comprehension.

The study took place in a small, rural public elementary school located in Western Atlantic County of Southern New Jersey. The District Factor Group (DFG) for this school district is letters CD, A being the lowest socioeconomic status to J representing the highest socioeconomic status. District Factor Group CD is at the lower end of the scale. The school houses grades prekindergarten through eighth grade. This district school became a Choice School in 2001. Currently, 52% of the total student population of 419 is Choice students. This New Jersey Interdistrict School Choice program provides the opportunity for non-resident students to attend this school at no cost to their parents. This program also includes transportation options for School Choice students. The School Choice program covers grades kindergarten through eighth grade.

This school offers a comprehensive education which includes all fine and practical arts, as well as, an extensive after school activity programs and sports. This year the school is incorporating the Full S.T.E.A.M. (Science, Technology, Engineering, Arts, Mathematics) Ahead Program which includes a full engineering program K-8, E-3 enrichment program, ceramics for middle school, financial literacy, and career readiness. The Let Me Learn Program is embedded throughout the school. There are eight Let Me Learn trained accelerated staff members who assist in the professional development and

implementation. At this school, integrated into the learning process is a foundation of having fun. Throughout the year, ongoing activities including Positive Behavior Support in Schools (PBSIS) make coming to this school an enjoyable experience.

The third grade class consists of two classrooms with a total of forty-five students. The third grade in-class resource setting classroom includes a full-time general education teacher and a full-time special education teacher. This class includes fifteen general education students and seven students with special needs, the six students who scored about two years below grade level on the Developmental Reading Assessment (DRA) participated in the Project Read study.

This year the school began to implement Project Read, a curriculum-based, research-driven language arts curriculum in line with the National Reading Panel's five essential components of effective reading instruction. Project Read materials honor diverse learning profiles and provide curricula with lessons built on direct concept teaching, multisensory strategies, systematic instruction, and higher-level thinking skills.

The participants in this study were chosen based on the following criteria; (a). students with special needs in the third grade; (b). scored about two grade levels below grade three in reading using the DRA.

### Subjects

Subject one is an 8 year 4 month old third grade student who was born on September 24, 2004. She is a Caucasian female resident student who was classified in preschool as Other Health Impaired with Attention Deficit Hyperactivity Disorder on

December 16, 2009. Her IQ of 84 is in the low average range. Her socioeconomic status is in the lower range.

Subject two is an 8 year 4 month old third grade student who was born on September 21, 2004. She is an African American Choice student who was classified in first grade as Communication Impaired on April 20, 2011. Her IQ of 85 is in the low average range. Her socioeconomic status is in the low to middle range.

Subject three is a 9 year old third grade student who was born on January 16, 2004. He is a Caucasian male resident student who was classified as Other Health Impaired with Attention Deficit Hyperactivity Disorder on July 18, 2007 from a prior district. He attended the preschool disabled class due to having a delay in social skills, impulsive, aggressive, and an elevated activity level. His IQ of 87 is in the low average range. His socioeconomic status is in the lower range.

Subject four is an 8 year 9 month old third grade student who was born on April 28, 2004. He is a Caucasian male resident student who was classified in kindergarten as Communication Impaired on June 18, 2010. His IQ of 88 is in the low average range. His socioeconomic status is in the low to middle range.

Subject five is an 8 year 8 month old third grade student who was born on May 21, 2004. He is a Caucasian male Choice student who was classified in second grade as Specific Learning Disabilities (basic reading and written expression) on October 19, 2011. His IQ of 87 is in the low average range. His socioeconomic status is in the middle range.



Subject six is a 9 year 7 month old third grade student who was born on June 14, 2003. He entered this district on September, 2012 and was retained in third grade upon parent request. He is a Caucasian male resident student who was classified in first grade as Specific Learning Disabilities (reading, listening comprehension, and oral expression) on April 27, 2009 from a prior district. His IQ of 93 is in the average range. His socioeconomic status is in the middle to upper range.

### Method

The students with special needs in the third grade were assessed using the Developmental Reading Assessment (DRA) in October, 2012. The pretest was administered individually in a one-to-one setting. Project Read curriculum began on November 26, 2012 after groups were assigned. The students were grouped based on their similar DRA scores. The three students whose DRA scores fell between level 8 to level 12 comprised one group. Three students whose DRA scores fell between level 14 to level 16 comprised another group. Students received small group instruction two times a week for forty-five minutes each session from 1:35 p.m. to 2:20 p.m. One group is seen on Monday and Wednesday. The other group is seen on Tuesday and Friday. The Project Read curriculum was taught following the step-by-step lessons using the *Story Form Literature Connection Guide* and materials. The lessons were conducted in a separate classroom with the teacher and the three grouped students present.

While implementing Project Read some circumstances could not be controlled. For instance, when Project Read instruction was implemented in a separate classroom, other small group instruction also took place. This could have affected student learning.

The atmosphere was controlled by fewer students present, lower noise level, and a smaller student-teacher ratio (3-1 instead of 22-2 in the general education classroom). Students received Project Read instruction in addition to the third grade reading curriculum, which included guided reading instruction and novel based instruction. This extraneous variable may have affected the students' Project Read performance. When the teacher attended a workshop or if the school day was shortened due to an in-service, Project Read instruction did not take place. This variable, when it occurred, could not be controlled. Learning ability could have been hindered if students were absent or present but not feeling well. This was somewhat controlled by taking different groups on different days for instruction not to be missed. Holiday school closing was another variable that could not be controlled. When students were away from instruction, some previous knowledge needed to be reinforced, this could have delayed progress. Project Read instruction took place in the afternoon during seventh period. This could have affected the students' performance since it was near the end of the day or they were anxious to attend a special last period. This could not be controlled due to scheduling purposes.

### Materials and Instruments

Project Read reading comprehension curriculum is the *Story Form Literature Connection Instructional kit* whose main component is the *Story Form Literature Connection Guide* that uses analysis, synthesis, and evaluative thinking strategies to teach students a process of story interaction creating active, thoughtful, purposeful readers and student potential. The *Guide* is directly connected to literature books and introduces eight different story genres. The lessons teach literary skills by making abstract elements

of a story concrete and meaningful. The *Guide* contains reproducible student practice sheets, graphic/semantic organizers, which include short charts, character shadow sheets, family trees, book evaluations, etc. The CD-ROM includes a printable PDF for Level 1 (grades K-2) and Level 2 (grades 3-5) that contain student practice sheets from the *Story Form Literature Connection Guide*. The materials provided in this guide are based on six strategies from *Put Reading First* research, which include recognizing text structure, graphic/semantic organizers, monitoring comprehension, answering questions, generating questions, and summarizing to support comprehension skills. Fluency skills are developed through strategies based on *Put Reading First* research. These strategies are utilized through story reading, story telling, choral reading, role-playing, and dialoguing.

The *Primary Story Puzzle* (Figure 1) represents the elements of the story plot that fit together to symbolize the underlying structure of narrative text. The puzzle serves as a visual aid for story telling with trade books as well as with the students' controlled readers. The puzzle includes a color transparency and an 11 x 17 foam board to display multi-colored interlocking puzzle pieces. The story telling is a strategy for developing fluency and comprehension.

The *Primary Story Boards* (Figure 2) are a manipulative with *Story Puzzle* icons printed on Post-its®. The Post-its® enable students to analyze story parts by placing the icons directly onto trade books and basal texts. The *Story Board* monitors comprehension by students being aware of what they do and do not understand.

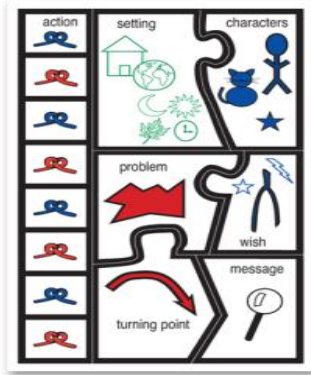


Figure 1. Primary Story Puzzle

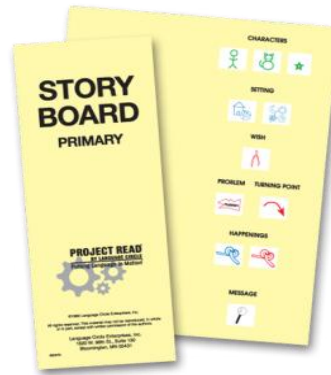


Figure 2. Story Board

The *Story Type Genre Wheel* poster set (Figure 3) is a full-color, laminated, interactive poster with cutout pieces to present the story genre definitions. The poster set corresponds with the genres in each unit that are helpful for classroom discussions.

*Questions to Ask about the Story* poster (Figure 4) includes questions that assist students with story part comprehension.



Figure 3. Story Type Genre Wheel poster set



Figure 4. Questions to Ask About the Story

The *Story Chart* (Figure 5) is designed to help students collect information as they read and process text. Information on the chart is used for oral discussion, reports and

story summary. This chart facilitates higher-level thinking by allowing students to classify and summarize for story analysis.

The image shows a 'STORY CHART' form. At the top, it has fields for 'Title', 'Author', and 'Type'. Below these are 'Setting' and 'Turning Point' sections, each with a small icon and a line for writing. The central part of the chart features a story arc diagram with a rising line labeled 'Problem', a peak labeled 'Climax', and a falling line labeled 'Resolution'. Below the diagram are 'Characters' and 'Message' sections, each with a small icon and a line for writing. The entire form is surrounded by horizontal lines for additional notes.

Figure 5. Story Chart

The dependent variables were fluency and comprehension. These variables were measured in the pretest, intervention mid-test, and intervention posttest using the Developmental Reading Assessment (DRA). Story elements assessment and comprehension assessment were also given with each lesson. Story elements assessments were teacher-made based on the lesson handout sheets found in the *Story Form Literature Connection Guide*. This measure included eight story parts (characters, wish, problem, action/plot, turning point, setting, main character/hero, and the blocking force/bad guy) where students matched the eight story parts to their definition then read a story and underlined and labeled the parts of a story. The comprehension assessments were taken from the *Story Form Literature Connection Guide*. This measure included comprehension questions with multiple-choice answers.

### Procedure

The school district decided to implement a research-based intervention program for students with special needs to increase fluency and comprehension scores. The

school's administration approved three special education teachers and one basic skills teacher to attend a two-day intensive training course - Project Read: Reading Comprehension presented by the founder, Victoria Greene at the Twenty-Seventh Annual Fall Conference in October, 2012. After the training, materials were ordered, and student groups were formed.

All the students were administered the Developmental Reading Assessment (DRA), individually, before beginning the Project Read program and curriculum to evaluate the subjects' prior fluency rate and comprehension level. The pretest included all seven students with special needs in the third grade. Of the seven participants, six were chosen who scored about two levels below grade three. The responses were digitally recorded to assess accurate results. The DRA will be administered on a three month interval (pretest, intervention mid-test, intervention posttest) as a monitoring tool to evaluate development in comprehension and fluency while using Project Read materials. This study followed a two group, pretest – posttest design.

The three students who scored between level 8 and level 12 on the DRA comprised one group. The three students who scored a level 14 and a level 16 comprised another group. The intervention proceeded two times a week for each group during seventh period from 1:35 p.m. to 2:20 p.m. in a separate classroom. Both groups followed the same instruction but on different days.

The intervention found in the *Story Form Literature Connection* guide is comprised of eight units with individual lessons, which incorporate specific goals. Each unit addresses a particular comprehension and fluency skill. The goal for unit one is to

be able to recognize, label, define, and identify the parts of a story. Unit one is divided into five lessons that incorporate three literature books: The Little Mouse, the Red Ripe Strawberry, and the Big Hungry Bear, The Bear Under the Stairs, and The Keeping Quilt and two stories: *Mike's Story* and *Rags at School*. Using the *Story Puzzle* the students become active participants by understanding the parts of a story through drawing, hearing the purpose, labeling, and seeing the seven story parts. This lesson uses visual and auditory active participation. Red and blue yarn is used for kinesthetic/tactile active participation for students to be able to feel the actions in the story. The blue knots sequence the main characters actions. The red knots are the actions against the main character. Practice sheets, activity sheets, graphic organizer, and question sheets go along with the unit goal to reinforce the lesson's skill. The *Word Basket* incorporates vocabulary skills from each lesson. Body language and spoken language assist with the meaning of each story part. For instance, the "setting" is the "place" and "time" of the story. First the teacher models the behavior by tracing the puzzle piece (includes pictures that show "time" and "place") with her finger while reciting the word "setting". The body language is used by pointing to the wrist (as if you have a watch on) while saying "time of the story". The "place" is shown by touching the pointer and middle fingers from both hands together waist high in front of you and then spread your hands apart.

The goal for unit two is to gain knowledge and understanding of Human Interest, Fantasy, and Realistic Animal story types. Unit two, divided into four lessons, encompasses six literature books: Mr. Lincoln's Way, Amelia's Road, Flop-Ear, Big Moon Tortilla, Click, Clack, Cows that Type, and The Kissing Hand and three stories: *Tarred Feathers*, *Zapus*, and *The Ant and the Caterpillar*. The *Story Puzzle* and the *Word*

*Basket* are used again but with unit two stories. The lessons use visual, auditory, kinesthetic, and tactile (body language). *Story Type Strips* provide the students with a visual picture for memory skills, as well as Heart Cards that are held up to indicate when a story exhibits Human Interest. Active participation and follow-up activities accompany each lesson. Guided practice takes place by orally reading a story together. The *Story Type Wheel* guides students to understanding the different types of stories through listing the story "ingredients" (i.e., Human Interest - interest in the feelings of others, touches the heart, and heart symbol). Body Language is used for human interest by the teacher pointing to herself and students while saying, "We are human." Then teacher points to her skull while saying the word "interest." Then teacher pounds heart with palm of right hand while saying "in the feelings of others." Human Interest stories are about people who show interest in the feelings of others. The unit continues with similar activities to act out fantasy and realistic animal story types. Also, in unit two students put on a puppet play to help with summarizing and remembering story sequence. Pictures are drawn to elicit the story parts: setting, problem, and turning point in a story.

The goal for unit three is to gain knowledge and understanding of the *Story Chart*. Unit three includes only one lesson that concentrates on the skills of sequencing and summarizing in a *Story Chart* using one literature book: Chicken Sunday and a story: *Rambunctious Raccoon*. Previous strategies which include *Word Basket*, *Story Puzzle*, *Story Board*, *Post-its*, *Action Strips*, and the red and blue yarn knots are incorporated into the lesson. The lesson includes active participation, guided practice, and checking for understanding. Guided practice takes place by teacher reading a story while the students fill in the missing rising and falling actions. The *Story Chart* is used to orally summarize



the story. Students create drawings depicting the characters, events, problem, and what touched their heart. To check for understanding the students identify the *Story Parts* while independently reading a story using the *Story Board Post-its* and pasting *Action Strips* from the story in sequential order.

The goal for unit four is to gain knowledge and understanding of dialogue. Unit four is composed of two lessons, understanding story parts and dialogue. Each lesson includes a story from a literature book: Stranger in the Woods and Hey, Little Ant. *Story Puzzle*, *Story Chart*, and *Word Basket* are used again but with unit four stories. Lesson one introduces visual imaging. As the teacher reads sentences the students must see it in their minds. The meaning of a story problem is reviewed and found in the story. The teacher models reading dialogue in character and uses body language to show the use of quotation marks by holding up the first two fingers on each hand curving them like quotation marks when reading the direct quote. The students chorally read while using body language and voice quality of the character. Students answer questions to check for understanding after the story has been read and the skills have been implemented. Lesson two introduces dialogue, prediction, and the message about life. Dialogue bubbles, finger puppets, *Story Puzzle*, and *Word Basket* are materials used in this lesson. Voice inflection is reinforced, as is dialogue.

The goal for unit five is to gain knowledge and understanding of characterization. Unit five is composed of one lesson that includes three literature books: Mr. Lincoln's Way, Thank You Mr. Falker, and Lilly's Purple Plastic Purse. There are three methods of characterization: (a) author describes the character's physical traits and personality, (b) the character reveals self by what the character says, (c) the character reveals self by how

the character behaves. *Character Shadow Sheets* help the students get to know the character by what the character does, what the character says, and what the author tells the reader by the student writing down the facts pertaining to each prompt. *Character Strips*, *Word Basket*, and *Story Puzzle* are incorporated in the three stories. The teacher models characterization with the *Character Sheets*. Four activities are divided among the lesson. The first activity: students complete a sentence showing they understand the character from what the author tells the reader. The second activity: students write a paragraph describing a character from the story. The third activity: students fill in the *Character Shadow Sheet* about their favorite character from the story. The fourth activity: each student chooses a different character to write a character sketch using the *Character Shadow Sheets*. After sharing orally, students compare the characters.

The goal for unit six is to gain knowledge and understanding of mystery and legend story types. Unit six is composed of two lessons. Lesson one introduces mystery stories that include two literature books: Nate the Great Goes Under Cover and The Web Files. *Story Type Wheel*, *Word Basket*, *Story Chart* and *Story Puzzle* are materials used in this unit. The teacher models a mystery scenario that the students need to solve. Students are told there are five ingredients to a mystery story: a problem situation, detectives, clues, wrong doers, and solution. The students write the five ingredients on the *Story Type Wheel* under the heading mystery. Puns are introduced (humorous use of a word or words). Lesson two introduces legend story types that include one story: *Ning-Ning and the White Bears*. Students are told there are two ingredients to a legend story: made up stories to explain the world around us and usually handed down from earlier

times. The students write down the two ingredients on the *Story Type Wheel* under the heading legend. The students fill in the *Story Chart* to check for understanding.

The goal for unit seven is to gain knowledge and understanding of Historical Fiction story type. Unit seven is composed of one lesson that concentrates on sorting fact from fiction, characterization, and similes. *Word Basket*, *Story Type Wheel*, *Character Shadow Sheet*, and *Story Chart* are used again but with unit seven stories. *Timelines*, *USA Map*, *Character Fact Sheet*, and *Event Collection Sheet* are new materials introduced in this unit. There are four literature books: Polar, the Titanic Bear, Snowflake Bentley, Amelia and Eleanor Go for a Ride, and The Wagon and a story: *The Great Chicago Fire*. Students are told the ingredient to a Historical Fiction story: stories that retell correctly the people or events of the past. Fantasy is reviewed to make the Historical Fiction. The students write the definition on the *Story Type Wheel*. Then the teacher reads the story and discusses which parts are fact and which parts are fiction. A timeline is used to understand the setting of the story. The students fill out the *Character Fact Sheet* and fill in the missing words from the paragraph after the teacher reads a different story. The third Historical Fiction story reinforces *Story Parts* by filling in the *Story Chart*. This story reviews characterization using *Character Strips*. Students answer questions based on the story to check for understanding. The last story introduces similes; the words *as* or *like* are used to connect the things being compared. Students listen to similes as they make a mental picture to understand the story. The story is read to the students and vocabulary is discussed. Students answer questions, fill out a *Story Chart* and fill in a timeline from 2000 to present to check for understanding.

The goal for unit eight is to gain knowledge and understanding of biography and adventure story types. Unit eight is composed of two lessons. Lesson one introduces biography story types that include two literature books and one story. *Word Basket*, *Story Type Wheel*, and *Story Chart* are used again but with unit eight stories. *Biography Sheet* is a new material that is introduced in this unit. The teacher informs the students a biography is a story about a person and is always written by someone other than the person it is about. The students are guided through using the *Biography Collection Sheet* and the *Story Chart* as they read the story *The Mystery Lives On*. The teacher reads the literature book *If a Bus Could Talk*. Then the teacher checks for understanding as the students fill out the *Story Chart* and *Biography Sheet* for this literature book. The teacher reads *Aunt Claire's Yellow Beehive Hair* (a family biography). As independent practice students assemble a family biography/album together. Lesson two introduces adventure story types that include one literature book, *The Butterfly*. The teacher informs the students an adventure story has exciting daring experiences. The students fill out the *Story Type Wheel* under Adventure. As the teacher reads the story, the students are to listen for fast action, suspense, and risk. They fill in the *Adventure Flavor Sheet*. The teacher checks for understanding by the students answering comprehension questions about the story.

The goal for each unit was broken down into daily objectives. As each objective was met the next objective was introduced. Each objective built upon the previous objective. The *Story Form Literature Connection Guide* provided the handouts to meet the objectives. Extra recommended lesson materials (i.e., yarn, story books, story part puzzles, etc.) were provided by the teacher. To verify students were meeting objectives,

activities within each lesson were presented, such as completing graphic organizers, comprehension questions, etc. Discussion and student participation were also observed to check for understanding of the objective. The *Story Form Literature Connection Guide* provided step-by-step directions, as well as teacher input that is highlighted in bold. The teacher followed the guide's explicit and direct process to implement the lessons within the unit. The length of the lesson varied for each unit. Depending on the lesson's content, the lessons have taken up to five days (about two weeks since the students are seen twice a week).

## Chapter 4

### Results

#### Summary

In this two group, pretest-posttest design, the results of using the Project Read curriculum with six students with special needs from a third grade classroom who scored about two grade levels below grade three were examined. The research questions to be answered were:

What effect will Project Read strategies have on increasing the students' reading fluency?

What effect will Project Read strategies have on increasing the students' reading comprehension?

The students were assessed individually on these reading skills prior to the intervention using the Developmental Reading Assessment (DRA) in October 2012. The students' reading fluency and comprehension level were evaluated. Then the students were given an intervention mid-test in January 2013 and intervention posttest in March 2013 using the Developmental Reading Assessment (DRA) on their increased reading level. During the intervention sessions, students participated in the Project Read reading comprehension curriculum.

Each student's pretest, intervention mid-test, and intervention posttest results were recorded and grouped based on the pretest reading level. Reading levels 8, 10, 12 (Early Independent Reader) comprised Group A. Reading levels 14, 14, 16 (beginner

Transitional Independent Reader) comprised Group B. A mean score was computed for fluency and comprehension per group and per test. The fluency score measured expression, phrasing, rate, and accuracy. The comprehension score measured prediction, retelling: sequence of event, retelling: character and details, retelling: vocabulary, retelling: teacher support, interpretation, and reflection. The Developmental Reading Assessment (DRA) indicated the highest level of performance through reading (fluency) and responding (comprehension) at the independent level. The students continued reading text at the independent level until either section (fluency or comprehension) decreased to developing/instructional level. Because reading levels increased, fluency and comprehension rates results were not as significant. The fluency and comprehension rates would have been greater if students did not score on their new higher independent reading level. If the fluency or comprehension score fell below the independent level (emerging or developing) the student must be reassessed at a lower reading level. The results for the pretest, mid-test and posttest for both fluency and comprehension fell in the independent reading levels for each student.

### Group Results

Table 1 shows the degree of fluency and comprehension results for each of the six subjects, as well as the mean score for Group A and Group B.

Table 1. Pretest, Intervention Mid-test, Intervention Posttest Developmental Reading Assessment Results

Subject	Group	October 2012			January 2013			March 2013			Pretest & Posttest Difference	
		Pretest			Intervention Mid-test			Intervention Posttest			Fluency	Comprehension
		Fluency	Comprehension	Reading Level	Fluency	Comprehension	Reading Level	Fluency	Comprehension	Reading Level		
Subject 1	A	88	71	12	94	79	16	94	75	18	6	4
Subject 2	A	69	75	10	88	82	12	81	79	18	12	4
Subject 3	A	100	75	8	88	79	12	94	79	16	-6	4
<b>Group A Mean</b>		<b>85.6</b>	<b>73.6</b>	<b>---</b>	<b>90</b>	<b>80</b>	<b>---</b>	<b>89.6</b>	<b>77.6</b>	<b>---</b>	<b>4</b>	<b>4</b>
Subject 4	B	69	82	14	81	82	16	75	82	20	6	0
Subject 5	B	69	68	14	75	86	18	75	86	20	6	18
Subject 6	B	63	79	16	69	82	18	81	82	24	18	3
<b>Group B Mean</b>		<b>67</b>	<b>76.3</b>	<b>---</b>	<b>75</b>	<b>83.3</b>	<b>---</b>	<b>77</b>	<b>83.3</b>	<b>---</b>	<b>10</b>	<b>7</b>



Subject 1, Subject 2, and Subject 3 comprised Group A. This group was considered Early Independent Readers due to scoring reading level 12, 10, 8 on the Developmental Reading Assessment (DRA) pretest in October 2012. At that time the fluency mean score was 85.6%. The fluency mean score increased to 90% on the intervention mid-test in January 2013. The fluency slightly decreased by 0.4 on the March 2013 intervention posttest to an 89.6%. From the pretest to the posttest the mean difference was an increase of four percentage points. The October 2012 pretest comprehension mean score for Group A was 73.6%. The comprehension mean score increased to 80% on the intervention mid-test in January 2013 with a decrease to 77.6% on the March 2013 intervention posttest. From the pretest to the posttest the mean difference was an increase of four percentage points. For Group A, both fluency and comprehension increased by four percentage points. The subjects' reading levels increased from Early Independent Readers to Transitional Independent Readers. The subjects increased their reading ability by three to four levels (reading level increments are 8, 10, 12, 14, 16, 18).

Subject 4, Subject 5, and Subject 6 comprised Group B. This group was considered a beginner Transitional Independent Reader due to scoring reading level 14, 14, 16 on the Developmental Reading Assessment (DRA) pretest in October 2012. At that time the fluency mean score was 67%. The fluency mean score increased to 75% on the intervention mid-test in January 2013. The fluency increased on the intervention posttest to a 77%. From the pretest to the posttest the mean difference was an increase of 10 percentage points. The October 2012 pretest comprehension mean score for Group B was 76.3%. The comprehension mean score increased to 83.3% on the intervention mid-

test in January 2013 and remained at 83.3% on the March 2013 intervention posttest. From the pretest to the posttest the mean difference was an increase of seven percentage points. For Group B, both fluency and comprehension increased, with a greater increase in fluency. The subjects' reading levels increased from a beginner Transitional Independent Reader to a higher level Transitional Independent Reader. Each of the subjects increased their reading ability by three levels (reading level increments are 14, 16, 18, 20, 24).

Overall, for Group A, the mean fluency score increased from a 85.6% to an 89.6%. The mean score for comprehension increased from a 73.6% to a 77.6%. On the pretest each subject scored as an Early Independent Reader and increased their reading ability to a Transitional Independent Reader on the posttest.

Overall, for Group B, the mean fluency score increased from a 67% to a 77%. The mean score for comprehension increased from a 76.3% to an 83.3%. On the pretest each subject scored as a beginner Transitional Independent Reader and increased their reading ability to a higher level Transitional Independent Reader on the posttest.

### Individual Results

Figure 6 illustrates the results for Subject 1 on the Developmental Reading Assessment in fluency, comprehension, and the reading level. As the fluency increased from the pretest (88%) to the mid-test (94%), the score remained the same for the posttest (94%). As the comprehension score increased from the pretest (71%) to the mid-test (79%), the score slightly decreased on the posttest (75%). From the mid-test to posttest the reading level increased from a level 16 to a level 18. The reading level increased

from the pretest to the posttest. Subject 1 was considered an Early Reader (reading level 12) on the pretest and increased to a Transitional Reader (reading level 18) on the posttest.

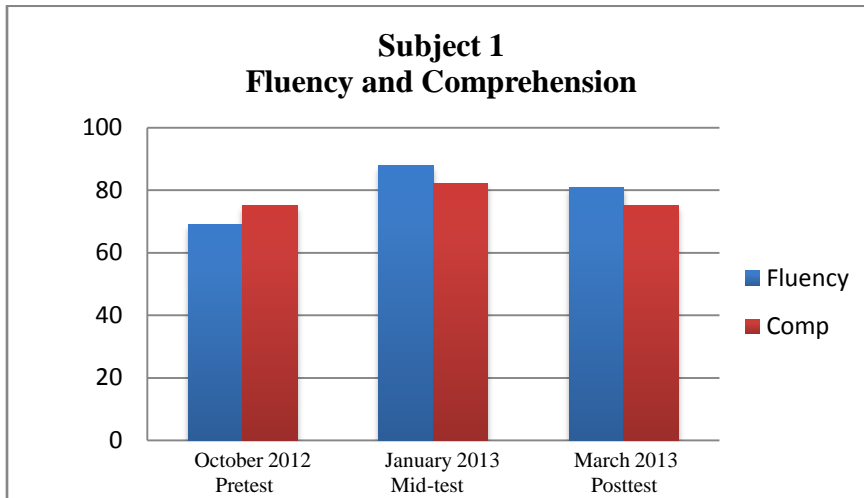


Figure 6. Subject1 Fluency, Comprehension, and Reading Level Results

The results for Subject 2 on the Developmental Reading Assessment in fluency, comprehension, and the reading level can be viewed in Figure 7. As the fluency increased from the pretest (69%) to the mid-test (88%), the score slightly decreased on the posttest (81%). As the comprehension score increased from the pretest (75%) to the mid-test (82%), the score slightly decreased on the posttest (79%). From the mid-test to posttest the reading level increased from a level 12 to a level 18. The reading level increased from the pretest to the posttest. Subject 2 was considered an Early Reader (reading level 10) on the pretest and increased to a Transitional Reader (reading level 18) on the posttest.

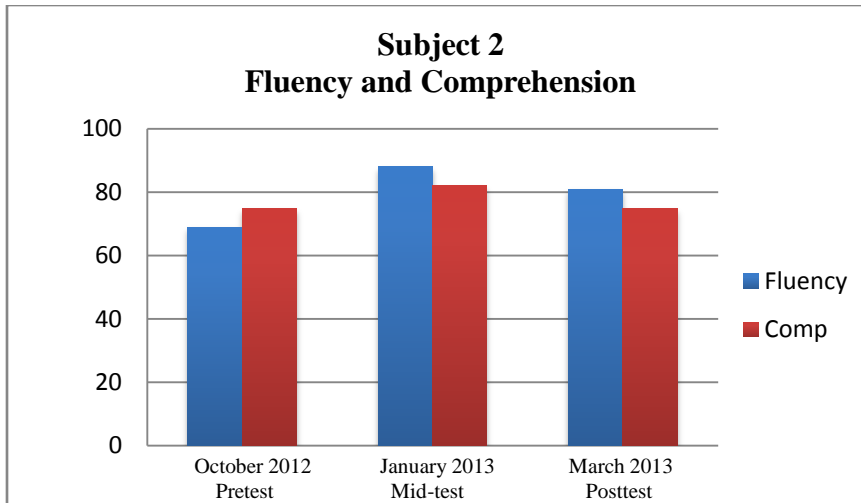


Figure 7. Subject2 Fluency, Comprehension, and Reading Level Results

Figure 8 illustrates the results for Subject on the Developmental Reading Assessment in fluency, comprehension, and the reading level. The fluency decreased from the pretest (100%) to the mid-test (88%), the score increased on the posttest (94%). As the comprehension score increased from the pretest (75%) to the mid-test (79%), the score remained the same on the posttest (79%). From the pretest to the mid-test the reading level increased from a level 10 to a level 12. From the mid-test to posttest the reading level increased from a level 12 to a level 16. The reading level increased from the pretest to the posttest. Subject 3 was considered an Early Reader (reading level 8) on the pretest and increased to a Transitional Reader (reading level 16) on the posttest.

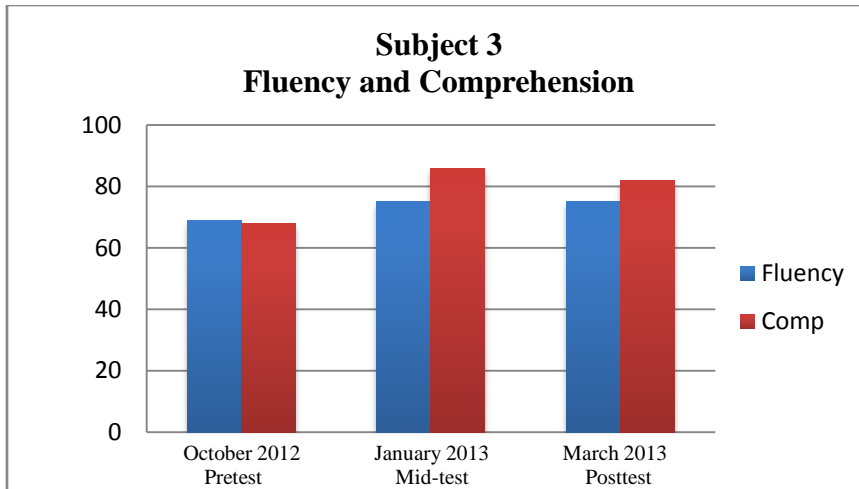
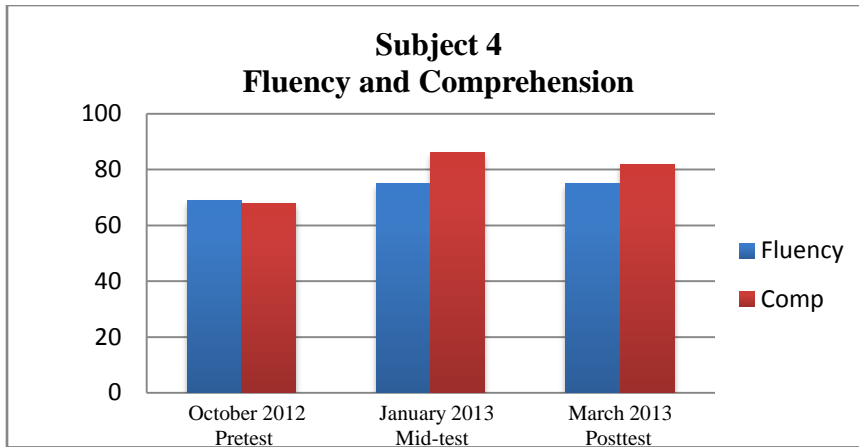


Figure 8. Subject 3 Fluency, Comprehension, and Reading Level Results

Figure 9 shows the results for Subject 4 on Developmental Reading Assessment in fluency, comprehension, and the reading level. As the fluency increased from the pretest (69%) to the mid-test (81%), the score decreased on the posttest (75%). The comprehension score remained the same on the pretest (82%), the mid-test (82%), and the posttest (82%). From the mid-test to posttest the reading level increased from a level 16 to a level 20. The reading level increased from the pretest to the posttest. Subject 4 was considered a beginner Transitional Reader (reading level 14) on the pretest and increased to a higher level Transitional Reader (reading level 20) on the posttest.



*Figure 9.* Subject 4 Fluency, Comprehension, and Reading Level Results

Figure 10 shows the results for Subject 5 on the Developmental Reading Assessment in fluency, comprehension, and the reading level. As the fluency increased from the pretest (69%) to the mid-test (75%), the score remained the same on the posttest (75%). The comprehension score increased from the pretest (68%) to the mid-test (86%) and the score remained the same on the posttest (86%). From the mid-test to posttest the reading level increased from a level 18 to a level 20. The reading level increased from the pretest to the posttest. Subject 5 was considered a beginner Transitional Reader (reading level 14) on the pretest and increased to a higher level Transitional Reader (reading level 20) on the posttest.

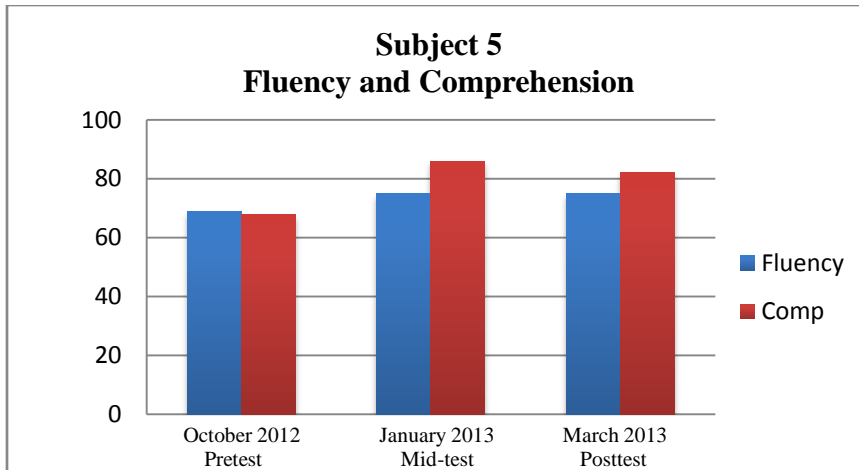


Figure 10. Subject 5 Fluency, Comprehension, and Reading Level Results

Figure 11 illustrates Subject 6's results from the Developmental Reading Assessment in fluency, comprehension, and the reading level. As the fluency increased from the pretest (63%) to the mid-test (69%), the score continued to increase on the posttest (81%). The comprehension score increased from the pretest (79%) to the mid-test (82%) and the score remained the same on the posttest (82%). From the mid-test to posttest the reading level increased from a level 18 to a level 24. The reading level increased from the pretest to the posttest. Subject 6 was considered a beginner Transitional Reader (reading level 16) on the pretest and increased to the end of level Transitional Reader (reading level 24) on the posttest.

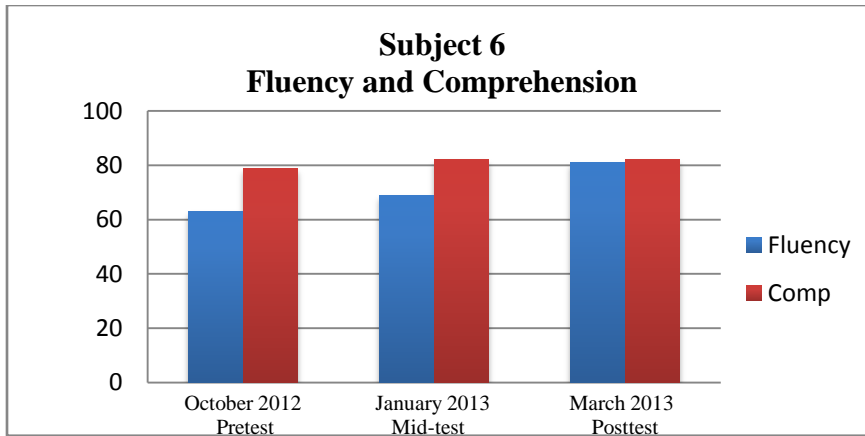


Figure 11. Subject 6 Fluency, Comprehension, and Reading Level Results



## **Chapter 5**

### **Discussion**

#### Review

This study examined the effect Project Read has on the reading fluency and comprehension of students with special needs in the third grade at an elementary school in a rural community in southern New Jersey. The participants in this study were six students with special needs in the third grade who scored about two grade levels below grade three in reading using the Developmental Reading Assessment (DRA). This study utilized a two group design. The students' reading achievement was assessed using the Developmental Reading Assessment (DRA) in a pretest, intervention mid-test, and intervention posttest.

Project Read proved to be an effective method of intervention for increasing the students' reading fluency and comprehension. Five of the six participants increased their fluency and five of the six participants increased their comprehension. The results verified the efficacy of Project Read's methods and strategies on increasing reading fluency and comprehension. Specifically, the mean scores from the pretest to the intervention posttest showed an increase in reading fluency and comprehension in both groups.

It was hypothesized that students would increase their fluency rate along with their reading comprehension through small group lessons built on direct concept teaching, multisensory strategies, and systematic instruction. If the fluency rate increases then it is expected that comprehension will increase too. Group A (Early Independent

Readers - 1st grade reading level) slightly increased their fluency from the pretest (85.6%) to the intervention posttest (89.6%). This group also increased their comprehension from the pretest (73.6 %) to the intervention posttest (77.6%). Group B (beginner Transitional Independent Readers - 1st grade reading level) increased their fluency to a greater degree from the pretest (67%) to the intervention posttest (77%). Group B showed similar improvements in comprehension from the pretest (76.3%) to the intervention posttest (83.3%). Reading levels improved for all participants as the fluency and comprehension increased. Group A began the study at a lower reading level (level 8, 10, 12) as indicated from the results on the Developmental Reading Assessment (DRA) pretest. Their results did not show as great of a gain as Group B who began the study at a higher reading level (level 14, 14, 16). Group A continued to show similar results throughout the testing for reading fluency and comprehension. However, Group A demonstrated more fluent reading on the intervention posttest (89.6%) compared to Group B (77%). On the other hand, Group B greatly increased their fluency from the pretest to the posttest. Group A scored higher in fluency than comprehension on the posttest, whereas Group B scored higher in comprehension than in fluency. Therefore, greater gains from the pretest to the posttest were made with the students (Group B) who were on a higher reading level. As a result, Project Read strategies and methods had a greater effect on participants whose fluency score was less than their comprehension score. Project Read intervention with students whose fluency and comprehension are similar showed an increase but not as significant as students whose fluency was lower than their comprehension.

The National Reading Panel identified phonemic awareness, phonics, fluency, vocabulary, and comprehension as the five components for successful reading development. Two of the five components (fluency and comprehension) were assessed. Fluency is the ability to read with speed, accuracy, understanding word meanings, and expression. Comprehension combines vocabulary development, active process demanding thoughtful interaction between the reader and the text to form memory representations, and to communicate what was read. Project Read integrates the five critical components of reading instruction into the curriculum. The Developmental Reading Assessment (DRA) used to assess the subjects in this study included the fluency and comprehension components.

In the 1969-1970 pilot study, the mean results indicated that Project Read forty-five first through third grade students from low reading groups made more than a year's gain in reading compared to the control group. A study of eleven first grade, inclusion, at-risk students (Bruce, Snodgrass, and Salzman, 2002) found that Project Read and guided reading made a significant difference in the reading achievement of these students. The combination of Project Read and guided reading was an effective intervention. The students first attended guided reading sessions for 20 minutes then they were placed into a Project Read group according to their reading needs. In this case there was no control group to verify if the outcome was due to the Project Read curriculum alone or the combination of Project Read and guided reading.

In opposition of the above studies, the Bussjaeger (1993) study of fourteen learning disabled students in grades four through five reported there was no significant effect of Project Read for students who participated (What Works Clearinghouse, 2010).

Acalin (1995) studied 66 students in kindergarten through fourth grade who were placed into two separate programs, Project Read and Reading Recovery. (What Works Clearinghouse, 2010) This study showed no statistically significant effect for Project Read on the students' general reading achievement. Like the Bussjaeger study, Acalin, also matched students on gender, grade level and pretest scores. Project Read students received instruction for 30 minutes daily for one school year in a small group setting. The Reading Recovery group of students received 30 minutes daily one-on-one instruction using the Rigby Series reading books for one year.

In comparison and contrast to the previous research stated, the result of this study of six special needs students from the inclusion third grade class showed reading improvement for fluency and comprehension, as well as an increase in reading level. In addition to the Project Read intervention, the subjects in this study were included in the general education reading classroom, which consisted of guided reading and a novel based curriculum. The subjects in this study were grouped according to their reading needs based on the results of the Developmental Reading Assessment (DRA) pretest.

### Limitations

Project Read was first introduced and implemented for the 2012-2013 school year. A two-day workshop in October initiated the program for reading intervention. When a new program is introduced, it is helpful to have ongoing workshops and collaboration. As a new program it could be a limitation to its effectiveness. This study included only six students. The small number of participants provided only a limited amount of data to interpret whether Project Read was an effective measure to increase

reading fluency and comprehension. Increasing the number of participants and across other grade levels could have been helpful in collecting more representative results. Even though Project Read has continued after the posttest, data was only collected in a 6 month time period. Increasing the duration of the intervention could have been helpful in collecting more comprehensive results. Students received additional reading instruction in an inclusion setting in the general education classroom, which could have attributed to reading growth. Another limitation of this study was the absence of a control group therefore it is not possible to attribute the reading growth to Project Read alone. In addition, this study contained only third grade special education students who were about two years below grade level in reading.

Even though there were only six subjects in this study, their backgrounds varied. Their backgrounds could have had an effect on the outcome and learning ability. Out of the six subjects who participated in this study, one student was African American. The groups' social economic backgrounds were diverse, from lower range to the middle-upper range. The subjects ranged in age from eight years to nine years. Their classifications included two students with Other Health Impaired with Attention Deficit Hyperactivity Disorder, two students with Communication Impaired, and two students with Specific Learning Disabilities. Their classifications were not a factor for grouping; however the participants were a similar representative of the special education population in this school.

## Practical Implications

The students that have participated in this study received reading intervention through Project Read. The results showed that this type of reading intervention has a positive effect on reading achievement for students with learning disabilities. Reading interest increased as the program continued. This was observed and discussed by classroom teachers, curriculum supervisor, and parents. Students were able to make connections from the strategies implemented using the Project Read materials to reading instruction in the general education classroom. Students displayed active participation in both the Project Read lessons and in the general education classroom. The students' results on the Developmental Reading Assessment (DRA) were scored at their independent reading level. Their independent reading level was below the third grade level, whereas the classroom reading instruction was taught on the third grade level with accommodations (i.e., scaffolding, reading in small group, reading strategies, listen to books on CD). Even though improvement was shown on the DRA, the students were still below grade level in reading. However, the increase in reading level assisted with their reading ability in the classroom. The students displayed more confidence in wanting to read, expressed their thoughts about what was read, and interacted more with the text. Teachers and specialists could use Project Read strategies in conjunction with the regular reading curriculum. Early intervention using the Project Read curriculum could be beneficial to reading achievement. Implementing Project Read for intervention has challenges that could be lessened by on-going training, workshops, teacher collaboration, and to support reading intervention for struggling students. Monitoring the progress of

students in Project Read is crucial to verify student success for program continuation or to change the method of intervention.

### Future Studies

Continued research should also study the effectiveness in the type of assessment used to monitor the progress of students in Project Read. Prior studies have used different measurements to assess student progress in Project Read. Assessments should be consistent to verify similar results. Future studies should include a larger number of students in a variety of grade levels. Continuation of the program and continually tracking student growth can provide feedback about program success. Studies with sound experimental designs including control groups and random assignments may contribute more definitive information about the efficacy of Project Read. Future studies need to determine if Project Read interventions are effective for all students with reading disabilities or for which children Project Read is most effective. Also, in what specific conditions (small group, individually, general classroom) is Project Read most effective?

### Conclusion

In this study, two questions were to be answered. First, what effect will Project Read strategies have on increasing the students' reading fluency? After reviewing the student data, reading fluency increased for five of the six participants. Even though Subject 3's percentage decreased in fluency, the comprehension and the reading level increased. Second, what effect will Project Read strategies have on increasing the students' reading comprehension? The student data showed five of the six participants increased in comprehension. Reading levels also increased for all students. For this

group of students Project Read was an effective intervention. Before beginning Project Read, their Developmental Reading Assessment (DRA) results in October were on the first grade reading level. After Project Read intervention reading strategies and methods were implemented, students gained about a one year growth in reading. The final (March) data resulted in reading independently at or about the second grade level. The children in this study seem to enjoy reading now and continue to receive more practice to develop their reading fluency and comprehension. Based on the outcome of these six students with special needs, Project Read appears to be an important factor for increasing reading achievement. These intervention strategies and methods have shown not only to increase test scores but also to increase students' confidence to read. This program can be of assistance to students with reading disabilities who are reading below grade level. This comprehensive language arts program that provides explicit instruction in a structured reading curriculum proved beneficial when used in a small group setting for students with special needs of similar reading levels.



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