FINDING AN EFFECTIVE METHOD OF READING REMEDIATION FOR YOUNG READERS: A COMPARISON OF TWO METHODS.

by

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Abstract

The purpose of this study was to determine an effective remedial reading method for early elementary students by comparing the progress of two groups of students. By comparing Growth Scores, calculated using the WIAT III CDN, it was determined that individuals in the SRA Reading Mastery and Guided Reading research groups made gains in the reading subtests of Reading Comprehension, Word Reading, Early Reading, Pseudoword Decoding and Basic Reading. However, it was not possible to determine the efficacy of one remedial method over the other. Instead, the study provides significant information about the hit rate of PM Benchmarks, indicated gains for students in both SRA and Guided Reading groups and clarifies considerations in the choice and implementation of remedial reading methods.
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Chapter One

Background

Statement of Problem

Many children learn to read effortlessly; however, an estimated 10% of children have difficulty acquiring reading skills and need additional support or specialized instruction (Catts & Hogan, 2003). Conditions that place children at risk for reading difficulties include poverty, cultural and linguistic differences, neurologically-based problems, inadequate instruction, limited development-enhancing opportunities, or familial history of reading disabilities (McCoach, O’Connell, Reis, & Levitt, 2006; Neuman & Dickinson, 2001). The early identification of students who are at risk for future reading failure is the key to appropriately placing them into interventions. However, once these students are identified and placed in an intervention setting, it is important for educators to know if the selected method of remediation is improving students’ reading comprehension, fluency and overall reading ability. Towards that end, the general purpose of this research was to compare a commercial reading program, SRA Reading Mastery (McGraw-Hill, 2008) to Guided Reading, a reading method developed by Fountas and Pinnell (1996). The study examined the effectiveness of the programs in addressing the needs of struggling readers in early elementary classrooms.

Existing research examining a variety of remedial reading methods available to teachers tends to focus on the progress of students receiving remediation in reading in addition to classroom instruction, compared with peers receiving classroom instruction without additional support. However, few studies compare groups of students receiving different reading remediation methods in addition to classroom instruction. Consequently, this research may
provide insight and direction for teachers looking for a remedial reading program that may be offered in addition to regular classroom instruction.

The topic of remedial reading methods is of particular interest to me as a researcher as reading remediation is a topic dealt with daily in my educational practices. As a Special Education teacher, I offer remedial reading groups for elementary classrooms. I offer a commonly used program for most students needing remediation. However, as an educator, I did not have a solid rationale for offering this particular method of remediation. In comparing two remedial reading methods, I sought to determine the more effective method and in turn, use the method in my daily practice. My research findings may be used as a rationale for future recommendations to fellow educational professionals.

The schools participating in the study, like the vast majority of schools in the district, believe in the value of a program known as Guided Reading. Many schools in the School District selected for this study use Guided Reading as the primary method for meeting the reading skill acquisition and comprehension needs of primary students. It is used for both general and remedial instruction. In Guided Reading, students are divided into homogeneous groups based on reading ability. Lesson plans for Guided Reading involve a similar structure for delivery: introduce the text, walk through the text together, introduce unfamiliar words, read the text and answer comprehension questions; however, there is not a standardized method of delivery. The focus of Guided Reading is on the levelled book, a book which contains text at a specific grade level. Lessons generally do not include elements of phonics or phonemic awareness. Essentially, teachers believe that the most effective way to address the needs of at-risk readers is ability grouping, as employed in this specific intervention. Schools have invested a lot of time and resources in literacy in the early primary years. Most teachers believe in early
identification and remediation of students having difficulty with reading and remediation of struggling readers through Guided Reading. Consequently, they expect to see Guided Reading employed. In a Student Support classroom, students are withdrawn to from the regular classroom setting for additional support often using Guided Reading.

The purpose of this study is to determine an effective remedial reading method for early elementary students that will be offered by the student support teacher in the student support room. The research question asks: “Are the SRA Reading Mastery reading interventions more effective than Guided Reading in improving reading scores in reading comprehension, fluency and overall reading for second grade at-risk readers?” The goal is to try to ensure a recommendation for a remedial program is based on research evidence rather than assumptions.

Participants in this study were selected from Grade Two classrooms. Students were divided into two groups. One group received Guided Reading intervention, in addition to regular classroom instruction. The other group received intervention using the SRA Reading Mastery program, in addition to regular classroom instruction. All participants were seen as at-risk readers and had been identified as having difficulty acquiring reading skills. The study examined the effectiveness of Guided Reading when compared with SRA Reading Mastery interventions using a quantitative approach.
Chapter Two

Literature Review

The focus of this research is to compare students receiving intervention using Guided Reading with students receiving intervention using SRA Reading Mastery, in order to determine the more effective intervention method. This literature review examines: the structure of various theories of reading acquisition, elements of reading disability theory and finally, theories of reading remediation and the practical application of these remedial methods.

Theories of Reading Acquisition

A child’s knowledge of phonological structure is the central condition enabling reading acquisition in an alphabetic system. Theories of reading acquisition differ in their belief that reading development is a top down versus a bottom up process. However, reading theories are generally framed with a similar belief that reading evolves through a series of stages beginning with a non-reading stage and passing through several stages of skill development. A wide variety of theories exist with slight variations on a theme of stage theories: Chall’s Model of Reading Development (1983), Gough’s Two-Stage Theory of Reading Acquisition (1991), Ehri’s Stages of Reading Development (1991) and Perfetti’s Framework (1991, 1992) are typical in describing the acquisition of word representations.

Chall's Model of Reading Development grew out of her research on the effectiveness of different beginning reading approaches (Chall, 1967). In her later book on the Stages of Reading Development (1983), Chall described six stages of development.

Stage 0, up to age 6, is a prereading stage that is characterized by the growth in knowledge and use of spoken language. Increasing vocabulary, use of words and syntax is
apparent. In addition, children acquire some beginning understandings of the sound structures of words. For example, they learn that some words sound the same at the beginning (alliteration) or the end (rhyme) and that spoken words can be broken into parts, and that the parts can be put together to create whole words. Most children also acquire some knowledge of print at this stage. They may, for example, learn the names of the letters of the alphabet and learn to print their own name and some letters not in their names. Although much of their reading may best be described as "pretend reading," most children do learn to hold the book right-side up and turn the pages. Some may learn to point at a word.

In Stage 1, Grade 1-2, children learn the letters of the alphabet and the correspondences between the letters and the sounds that they represent. By the end of this stage, they have acquired a general understanding of the spelling-sound system. Direct teaching of decoding accelerates development in Stage 1, particularly for those with limited readiness.

In Stage 2, Grades 2-3, children learn to apply the knowledge gained in Stage 1 to read words and stories. Children learn to recognize words composed of increasingly complex phonic elements and read stories composed of increasingly complex words. Oral reading fluency also improves in this stage. At this point, children are ready to make the important transition from "learning to read" to "reading to learn."

In Stage 3, Grades 4-8, children begin to learn new knowledge, information, thoughts, and experiences by reading. Growth in both vocabulary and background knowledge are primary goals in this stage. Children read selections from an increasingly broad range of sources about an increasingly broad range of topics. Most reading is for facts, concepts, or how to do things. By the end of Stage 3, children begin to analyze and criticize what they read.
In Stage 4, High School, students must deal with more than one point of view. Topics in textbooks are treated in greater depth by dealing with more than one set of facts, competing theories, and multiple interpretations.

In Stage 5, Post Secondary, readers select materials to serve their purposes. They analyze, synthesize, and make judgments about what they read. They balance their own comprehension of the words with their analysis of the content and their own ideas about the topic. At this stage, the reader constructs knowledge and understanding from reading the material of others.

In contrast to Chall’s six stages, Gough (1991) has described a two-stage theory of reading acquisition with an early visual stage and a second stage of decoding-based learning. The first stage involves selective association. In this stage, the child associates selected letters in a word with the whole word. As the child’s phonological awareness and ability to encode all letters in a word increases, she moves to the second or cipher stage of true reading. The movement from the first to the second stage is linked with reaching the limits of selective associations and the pressure to adopt a procedure based in alphabetic principle.

An alternate model of stage-based reading acquisition comes from Ehri (1991). In this model, there is no purely visual stage; children use the names of the sounds of the letters as cues to word identification from the beginning. The alphabetic principle or the letters and combinations of letters used to make sounds, is not the principal component of this stage. Learning the alphabet is the key that moves the child into the first stage of reading, which results in a stage Ehri calls “phonetic cue reading”. The acquisition process is the establishment of word representations that have phonologic and orthographic components.
At the same time, a third theory developed by Perfetti (1991, 1992) describes a framework without specific stages to explain the acquisition of word representations. According to the theory children begin to acquire written language first through phonemic awareness and then by increasingly sensitive context knowledge. Over time the phonological representations become redundant for the child, word recognition becomes automatic and reading becomes fluent.

These theories account for the progress of a typically developing reader. The child develops reading skills at an expected rate and eventually becomes a fluent reader. However, approximately 10% of children do not develop reading skills at a typical rate. When children fail to learn at a typical rate, they may be assessed in order to determine specific skill gaps.

**Theories of Reading Disability**

Reading disability is a term used to describe children who are not acquiring reading skills at the expected rate. Children identified as having a reading disability or deficit have gaps in one or more of four specific areas. These areas are phonological awareness, rapid automatic naming, the newly emerging “double deficit” hypothesis and visual-orthography.

Phonological Awareness (PA) is defined as the “ability to understand and use the sound system of our language” (Allor, 2002, p.47). PA is an oral language skill and requires the ability to orally segment syllables as well as small units of sounds known as phonemes. Phonological awareness is a precursor to understanding the relationship between sounds and symbols. In order to successfully read, students must be able to segment sounds as well as blend them together to make words. PA typically begins with teaching children to identify rhymes and separate syllables. Eventually, students are expected to segment and blend sounds as well as add and
delete sounds. All of these skills are necessary to effectively read. Phonological awareness has been considered the most influential factor in predicting reading difficulties in students (Badian, 2005). Therefore, the majority of the available research on reading disabilities has focused on alleviating phonological awareness deficits.

Rapid Automatic Naming (RAN) is another highly researched area in reading disabilities. Wolf and Bowers first presented research on RAN in 1993. RAN refers to the naming speed necessary in letter and word automaticity as well as retrieval speed. Until recently, RAN was considered a skill under the umbrella of phonological awareness (Savage & Frederickson, 2006). However, in their 1993 study, Wolf and Bowers used two separate longitudinal studies to demonstrate that “the two deficits have independent, additive effects” (Wolf and Bowers 1993, p.4). The authors maintained that even with excellent phonological awareness skills, slow naming and retrieval speed hinders the progress of effective readers.

Research conducted on RAN lead to defining another area of reading difficulty, double deficits. The double-deficit theory is not a theory based on a new deficit area but instead, a combination of two deficits. The double deficit theory, known as the Defining Reading Disabilities Theory, was developed and presented in 1993 by Bowers and Wolf. Their theory explains that students with phonological awareness deficits and RAN deficits are poorer readers than those students with only one deficit (Wolf, 1999). Bowers and Wolf (1993) discuss four subtypes of reading deficits. The first subtype is students who are effective at decoding non-words and demonstrate good fluency in regular word reading. They are defined as the “typically developing” students. The next two subtypes are seen as “single deficit” students. These students will either have a phonological awareness deficit or poor non-word decoding skills while demonstrating good fluency in regular word reading or be proficient at non-word decoding.
while experiencing a RAN deficit or poor fluency in regular word reading. Finally, the authors maintain that the students with double-deficits are students who demonstrate both poor non-word decoding skills as well as poor regular word reading. Bowers and Wolf maintain that these students with a double deficit show weaker reading skills when compared with single deficit readers.

The final area of deficit is actually one of the oldest deficits recognized in reading disabilities. Badian (2005) defines visual-orthographic skills as “the ability to recognize whether letters or numerals are correctly oriented.” Visual-orthographic deficits were defined as early as 1895-1896 in studies on dyslexia, a brain-based type of learning disability that impairs a person's ability to read (Badian, 2005). If a child is unable to determine the correct orientation of a letter, as is the case with some dyslexic children, they will not be able to accurately recognize words. It is not surprising that a child who struggles to visually discriminate letters, numerals and symbols, would have difficulty reading text. Historically, orthographic difficulties are often one of the most recognizable signs of dyslexia.

Badian (2005) illustrates in her research that tasks which include visual discrimination between letters and numbers or non-alphanumeric symbols as well as the ability to discriminate between letters within the alphabet, word recognition and subtle changes in letters affect not only the ability to read but also the ability to comprehend. However, Badian (2005) maintains that after Vellutino’s book on dyslexia was released in 1979, linguistic deficits became the focus as the cause of reading disorders.

**Studies of Reading Interventions**

Early intervention is critical for participants who are at risk for reading failure. (Cihon, Gardner, Morrison & Paul, 2008) Studies have examined the use of early intervention to
improve the reading ability of young readers at risk of reading failure. These interventions focussed on developing phonics skills, reading comprehension and reading fluency.

In one study, Cihon et al (2008) conducted a study using Kindergarten students at-risk of reading failure. Participants were selected by the classroom teacher to receive intervention. Participants received intervention using the See the Sound/Visual Phonics (STS/VP) method. The program involves learning a hand sign for each phoneme in the English language. Students were tested pre and post intervention using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) in order to determine the participant’s progress in acquiring phonetic sounds.

Cihon et al (2008) determined that without early intervention, these participants would probably continue to perform below their same age peers. Children not receiving intervention were more likely to develop behaviour problems and require placements in special education programs. The intervention involved a phonics based approach and was most effective for children falling behind the regular curriculum.

In a like manner, Ransford-Kaldon, Sutton-Flint and Ross (2011) studied the effectiveness of a program called Levelled Literacy Intervention (LLI). LLI is a short-term, small-group, supplemental literacy intervention system designed for students in grades K-2 who struggle with reading and writing. The study evaluated the use of LLI in two U.S. school districts. Ransford-Kaldon et al. (2011) used a mixed-method design to address two key research questions: (a) “What progress in literacy do students who receive LLI make compared to students who receive only regular classroom literacy instruction?” and (b) “Was LLI implemented with fidelity to the developers’ program model?”

Ransford-Kaldon et al. (2011) found that the LLI program in combination with regular classroom instruction had a positive impact on the literacy achievement for students struggling
with reading and writing in Kindergarten to Grade Two to a greater degree than those students receiving classroom instruction alone. Students receiving LLI support improved one and one half to five Levelled literacy benchmarks, equivalent to PM Benchmarks, in reading, while by comparison their peers receiving only classroom instruction improved one to three benchmarks.

By contrast, Targeted Reading Intervention (TRI) is a specific strategy studied by Vernon-Feagans, Kainz, Hedrick, Ginsberg and Amendum (2010). TRI involves assessment of a child, one-on-one intervention and daily plotting of progress. If the child makes rapid progress, the child can be moved to a group setting where participants are asked to re-read for fluency, complete word work and participate in guided oral reading. Participants were assessed before and after the intervention using Peabody Picture Vocabulary Test (PPVT) and the Woodcock Johnson Tests of Achievement (WJ-III) subtests, including Word Attack, Letter-Word Identification, Passage Comprehension, and Spelling of Sounds.

Vernon-Feagans et al. (2011) discovered that TRI can significantly improve the basic word reading and comprehension skills of struggling readers in Kindergarten and First Grade. They also found that TRI can actually help struggling readers catch up to the progress of their peers.

Similarly, Denton et al. (2010) researched supplemental reading intervention using the Response to Intervention (RTI) system. RTI is a method of academic intervention used to provide early, systematic assistance to children who are having difficulty learning. Their research focussed on the following two questions: (a) “Are there significant differences in phonemic awareness, word identification, phonemic decoding, spelling, reading comprehension, and oral reading fluency for first grade students at risk for reading difficulties who receive the research intervention and those who receive the reading instruction and intervention typically
provided in their schools?” and (b) “What percentage of students in each group demonstrates adequate RTI?” Progress was measured using the Texas Primary Reading Inventory and the Woodcock-Johnson III Letter-Word identification subtest. Denton et al. (2010) found that students receiving supplemental reading intervention using the RTI system had significantly higher outcomes than peers receiving typical school instruction on multiple measures of reading.

By the same token, Bufalino and Wang (2010) showed the value of Reading Recovery interventions for at-risk learners in First Grade. Reading Recovery is a school-based, short-term intervention designed for children aged five or six, who are the lowest literacy achievers after their first year of school. These children are often not able to read simple books or even write their own name before the intervention. The intervention involves intensive one-to-one lessons with a trained reading recovery literacy teacher for 30 minutes a day, for an average of 20 weeks (Clay, 1993). In Bufalino and Wang’s (2010) study, progress in literacy was measured using Clay’s Text Reading Level (TRL), a subtask of An Observation Survey of Early Literacy Achievement.

Bufalino and Wang (2010) found that the vast majority of students enrolled in the program became more efficient and effective readers after a full series of Reading Recovery lessons. Most of the students labelled as at-risk at the beginning of the study went on to have high levels of literacy achievement by the end of the academic year.

By contrast, Dahlin (2010) studied the relationship between working memory and reading comprehension. Prior to intervention, the treatment group completed a set of assessments in nonverbal reasoning, working memory, and reading. The treatment group then completed working memory training for 5 weeks. Reading-related skills in the control group were measured within the same time interval as the treatment group. All the children completed three
sessions of assessments within the same time intervals pre-test, post-test, 5–6 weeks later, and 6–7 months later. Thus, assessments were conducted within the same periods for the treatment group as for the control group.

Dahlin (2010) found that working memory training helped improve children’s reading comprehension. The study indicated that training of working memory may be useful for children with reading comprehension problems, special-education needs, and attention problems. Thus, the study showed the link between working memory and academic achievement.

Cooke, Kretlow and Helf’s (2010) study assessed students at two schools using the Dynamic Indicators of Basic Early Literacy Skills (DIBELS) at the beginning of the school year. Students identified as needing strategic or intensive support received additional instruction. All students received core instruction while readers identified as being at risk for reading failure also received small group instruction.

Cooke et al.’s (2010) data analysis indicated that kindergarteners who received supplementary reading instruction throughout the school year outperformed those who received just one semester of supplementary instruction in measures of phonemic awareness and early decoding skills. Their findings suggested there may be an advantage to starting reading intervention from the beginning of the kindergarten school year as a way of ensuring strong performance in key early literacy skills before first grade. In addition, they found that a number of readiness skills could be addressed within the context of the supplementary lessons; suggesting that waiting for students to be “ready” for supplementary reading instruction may disadvantage students when it comes to academic progress.

Bruce (2010) conducted a quantitative study to determine if there was a significant difference in reading comprehension and reading attitudes of fourth-grade at-risk students before
and after participating in Guided Reading instruction. The teacher modelled and reading and comprehension strategies to the students to implement when reading text. The students practiced these strategies during each Guided Reading lesson and were encouraged to practice on their own. Reading levels were determined using STAR Reading, a computerized assessment of reading levels.

Bruce (2010) found that there was no significant difference in reading comprehension ability after the intervention. Bruce concluded that Guided Reading methods were not effective in improving reading comprehension.

By contrast, quantitative research conducted by Green (2010) compared the efficacy of SRA Reading Mastery Intervention, to Guided Reading for struggling readers. Second Grade students from two schools were selected to participate. Participants were selected using the Measures of Academic progress (MAP) scores in Reading. The MAP test included reading tests, which examined phonological awareness skills, phonics, concepts of print and vocabulary, word structure and comprehension. The MAP test also provided an overall reading level. The students participating in the study had a score that was below grade level.

Green (2010) concluded that student achievement gains in reading were significantly greater over time for students in the Guided Reading treatment group when compared with students in the SRA research group. The findings of this study suggested that over time, a meaning-based instructional approach significantly affected the reading achievement scores of struggling readers more than a skills-based instructional approach.

On the whole, the review of literature shows a variety of theoretical ideas in the areas of reading acquisition and remediation. However, most of the research around remedial methods involved examining the effectiveness of a single method of remediation instead of the efficacy of
one method over another. Guided Reading seems to be the most popular method for remedial reading instruction. However, there is conflicting research as to the efficacy of Guided Reading as a remedial method. Therefore, there is a need for further comparison of Guided Reading to a second program, such as the comparison that will be made in the outlined research design. A comparison may allow educators to evaluate two methods and make an informed decision when selecting an intervention program for at-risk readers.
Chapter Three

Methods

In this study of reading practice, the progress of two groups of second grade students needing and receiving reading remediation was examined. The purpose of the study was to examine the effectiveness of the reading interventions in improving reading comprehension, fluency and basic reading scores. As the literature called into question the validity and effectiveness of Guided Reading as a method of remediation and intervention (Bruce, 2010), the study hypothesized that SRA Reading Mastery reading interventions would be more effective in improving scores in reading comprehension, fluency and basic reading for second grade students currently reading below grade level when compared to students receiving Guided Reading interventions.

The study was conducted by selecting a convenience sample of two groups of second grade students at a similar level of achievement in reading. One group had four participants and the second group had five. Both groups were identified as reading and comprehending at a level below their current grade level using PM Benchmark (Nelley & Smith, 2000). The Wechsler Individual Achievement Test, Third Edition Canadian (WIAT–III(CDN)) (Weschler, 2010) was administered before and after the intervention, Guided Reading or SRA Reading Mastery, to determine the reading progress of the students.

Instrumentation

PM Benchmark Kits are assessment kits are used to determine student reading levels. The kit contains unseen levelled texts, running record and assessment texts. The PM Benchmark helps to determine a student’s reading level. The variance within the levelled readers is due to each text’s level, structure, type and topic. Thus, variability in running records scores exists
At the schools involved in the study, PM Benchmark is used as both a benchmark and progress monitoring tool to allow for the collection of multiple data points on student’s progress in literacy development. The PM Benchmark level was used as a starting point in determining the need for intervention.

Benchmark levels are numerical levels. These numerical levels represent increments of reading progress in academic grades. By the end of Grade One, students should be reading at a PM Benchmark level of 18. Students with a Benchmark level of less than 18 at the beginning of Grade Two are considered below grade level in reading. The levels of the students participating in the study were below the expected level for the beginning of second grade.

The WIAT-III\textsuperscript{CDN} is an accurate measure of reading skill. The WIAT-III\textsuperscript{CDN} provides an efficient and objective measure of growth in reading and an aid in the diagnosis of reading difficulties. The test is administered individually. Scores give information on a student’s reading skills in terms of fluency, comprehension, phonemic awareness and overall reading ability. The study focused on five subtests of the WIAT-III\textsuperscript{CDN} being: Early Reading, Comprehension, Word Reading, Pseudoword Decoding and Oral Reading Fluency. The Early Reading Subtest asks students to name letters of the alphabet, identify rhyming words, identify words that begin and end with the same sound and match written words to pictures. In the Reading Comprehension subtest, the student reads passages out loud or silently; then, the student answers open ended questions about the passage. This subtest is not timed. The Word Reading subtest has students read from a word list, which increases in difficulty. The Pseudoword Decoding subtest has students read an increasingly difficult set of nonsense words. This list is designed to identify strengths and weaknesses in phonetic skills. Finally, in the Oral Reading Fluency subtest students read passages aloud and answer oral comprehension questions.
A test’s reliability coefficient reflects the consistency of results when conditions are consistent. The age-based reliability coefficients based on a six-year old test subject for the subtests used in this study are: Early Reading 0.81, Comprehension 0.91, Word Reading 0.97, Pseudoword Decoding 0.96 and Oral Reading Fluency 0.92 (Breaux, 2009). The age-based reliability coefficients of the subtests based on a seven-year old test subject are: Early Reading 0.90, Comprehension 0.93, Word Reading 0.98, Pseudoword Decoding 0.97 and Oral Reading Fluency 0.92 (Breaux, 2009). Test reliability allows the researcher to trust the test results.

Reliability of the WIAT-III is high; all average internal consistency reliabilities are .90 or above (Breaux, 2009). Validity of the WIAT-III is extensive and the test can be used with confidence to measure changes in oral reading over time (Breaux, 2009).

Method

A quasi-experimental research study was conducted. Quasi-experimental research, a particular type of study in which one has little or no control over the allocation of the treatments or other factors being studied, is conducted when randomization of the research population is not possible (Gribbons & Herman, 1997). The study does not have a control group and there is no matched sample. In this instance, initial group placements were determined using a PM Benchmark assessment. However, the intervention did not begin until a baseline of student reading ability was determined, student reading had been observed and students had been divided into reading groups. The teacher-researcher delivered the interventions to both groups.

Two distinct methods of instruction were used as interventions. Each of the reading groups received three half hour sessions of remedial instruction per week for twelve weeks for both of the research groups for a total of 36 sessions. The first research group received Guided
Reading instruction. Guided Reading sessions involved a teacher and a small group of up to six students. The session had a set of objectives to be taught through the course of a roughly twenty minute session (Fountas & Pinnell 1996). The structure of the Guided Reading lesson was as follows: the group was introduced to a levelled text; the group reviewed the text with guidance from the teacher; the group reviewed challenging words, illustrations and the type of book; students then took turns reading the book out loud individually; the group then answered oral questions about the text; and the group occasionally completed a short written task which also looked for comprehension. The lesson focused on building reading fluency and comprehension.

The second research group participated in the SRA Reading Mastery (McGraw-Hill, 2008) intervention program. SRA Reading Mastery is a direct instruction program designed to provide explicit, systematic instruction in English language reading. The program began by teaching phonemic awareness and sound-letter correspondence and moved into word and passage reading, vocabulary development, comprehension, and building oral reading fluency. Lessons were designed to be fast-paced and interactive. Students were placed according to their PM Benchmark reading level.

The structure of delivery of the SRA Reading Mastery program is as follows: students were introduced to a reading selection by the teacher; students read the selection, which can be fiction or non-fiction in nature, students completed written vocabulary, phonics and sequencing tasks and answered a recall question. Unlike Guided Reading, all SRA lessons included a phonics based task.

Study Context

The study took place in two urban schools in British Columbia. The school district includes thirty-one elementary schools, ranging from Kindergarten to Seventh Grade. It also
includes seven secondary schools and two secondary alternate schools, ranging from Grades Eight through Twelve. The study was conducted in two moderate income elementary schools. The school population of the first school is approximately three-hundred twenty with the majority of students being Caucasian, also with some students of First Nations ancestry and other visible minorities. The school population of the second school is also approximately three-hundred twenty with the majority of students being Caucasian, also with some students of First Nations ancestry and other visible minorities.

Data Analysis

Quantitative data was analyzed by examining Standard and Growth Scores in five key reading domains: Early Reading Skills, Reading Comprehension, Word Reading, Pseudoword Decoding, and Oral Reading Fluency. The Standard Scores of all students were first examined to determine student standing in comparison to the progress of age equivalent peers. Initial Standard Scores were also examined in order to determine if students participating in the study were reading at or below grade level in all or any of the key reading areas. If the Standard Scores (mean = 100, standard deviation = 15) were found to be in the below average range, a Standard Score of less than 85, in any reading area, Growth Scores were considered.

Growth Scores from the fall and spring were compared in order to determine progress in any deficit areas for both the Guided Reading and SRA Reading Mastery Groups. Growth Score differences of 20 and more were considered significant.
Chapter Four

Results

The objective of this study was to determine an effective reading intervention for struggling young readers. The students participating in this study received intervention using either Guided Reading or SRA Reading Mastery. There were nine second grade students involved in the study.

Initial assessment using the PM Benchmark indicated that both the Guided Reading and SRA Reading Mastery research groups were reading at a beginning to mid-grade one level. However, initial assessment of students using the WIAT-III\textsuperscript{CDN} found that most students in the Guided Reading group scored in the below average or low average range when compared to similar aged students in the reading subtests while students in the SRA Reading Mastery group had reading subtest scores in the low to mid average range. Only two students in the Guided Reading group were identified by the WIAT-III\textsuperscript{CDN} Basic Reading scores, a composite measure of reading, as being in the below average range and at serious risk of reading failure. Table 1 records students’ PM Benchmark scores in relationship to their performance on the WIAT-III\textsuperscript{CDN}. A PM Benchmark score of 18 or less at the beginning of grade 2 is purportedly indicative of being below grade level in reading. WIAT-III\textsuperscript{CDN} Basic Reading scores between 85 and 115 are considered average. The initial average Basic Reading Standard Score for the SRA research group was higher than the Guided Reading group.
In analysing the Standard Scores for the Guided Reading research group, students’ Basic Reading scores ranged from below average to average. Individual’s WIAT-III\textsuperscript{CDN} reading subtest scores were only indicative of weaknesses for two students. They scored in below to well below average range in all the reading areas.

The Standard Scores for the SRA research group were average in Basic Reading in the initial fall assessment. One student had below average scores in Early Reading Skills. Two students had below average scores in Word Reading and one student had below average scores in Oral Reading Fluency. Three of four students were in the low to mid average range in overall reading as measured by Basic Reading. One student had scores in the above average range in Early Reading and Pseudoword Decoding.

Standard Scores for reading have been grouped for both Guided Reading (Table 2) and SRA Reading Mastery (Table 3). Each table shows the individual’s subtest Standard Scores and the overall composite reading score. Where subtest Standard Scores fall below average,
Growth Scores been provided. Significant differences between pre-intervention and post-intervention Growth Scores have been indicated with a star.

Table 2

*Guided Reading—Standard and Growth Scores*

<table>
<thead>
<tr>
<th>Guided Reading Scores</th>
<th>Early Reading</th>
<th>Reading Comp.</th>
<th>Word Reading</th>
<th>Pseudoword Decoding</th>
<th>Oral Reading Fluency</th>
<th>Basic Reading</th>
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*A change in Growth Scores of 20 or greater is considered significant*
Table 3

SRA Reading Mastery-Standard and Growth Scores

<table>
<thead>
<tr>
<th>SRA Scores</th>
<th></th>
<th>Early Reading</th>
<th>Reading Comp.</th>
<th>Word Reading</th>
<th>Pseudoword Decoding</th>
<th>Oral Reading Fluency</th>
<th>Basic Reading</th>
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</table>

*A change in Growth Scores of 20 or greater is considered significant.

The research hypothesis was that SRA Reading Mastery reading interventions will be more effective in improving scores in reading comprehension, fluency and basic reading for second grade students reading below grade level when compared to students receiving Guided Reading interventions. Given the misidentification of below grade level reading groups based on PM Benchmarks, determining the effectiveness of one reading intervention over another is not possible. Instead, attention is turned to student’s growth in areas of weakness when using either Guided Reading or SRA Reading Mastery.
In the Guided Reading group, three students had significant growth in Early Reading. One of these three also demonstrated significant growth in Pseudoword Decoding and Comprehension. In the SRA Reading Mastery group, one student had significant growth in Early Reading and Word Reading while another student had significant growth in Word Reading only.
Chapter Five  
Discussion and Conclusions

The purpose of this study was to determine an effective remedial reading method for early elementary students. This information would in turn be used to make a recommendation to classroom teachers by the Student Support teacher in the Student Support room. It is important to make recommendations based on empirical evidence of student progress and effective remedial practice. Comparing the reading progress of students using two remedial reading methods in order to determine the effectiveness of these remedial practices is an essential part of making a valid recommendation to the classroom teacher. However, it should be noted that a number of the students in the SRA research group were falsely identified as needing remediation and both groups made gains in most areas of relative weakness. Still, the results show the importance of remedial reading practice in improving student reading skills.

Students in the Guided Reading group who had deficits in the areas of Early Reading, Reading Comprehension and Pseudoword Decoding showed significant growth. Students in the SRA Reading Mastery group who had deficits in the areas of Early Reading and Word Reading also showed significant growth.

Research by Cihon et. al. (2008) found that phonics instruction was necessary for improved performance for readers requiring intervention. This research also suggests that phonics instruction can significantly improve Pseudoword Decoding scores. Three of four students in the SRA Reading Mastery group had significant gains in Pseudoword Decoding. However, these three students had average scores in Pseudoword Decoding in the initial assessment. At the same time, Guided Reading students also showed some growth but not
significant growth in Pseudoword Decoding. It is impossible to determine if this slower growth for the students in the Guided Reading group was because they did not receive direct phonics instruction as part of the remediation or if the students had phonological processing deficits.

Denton et al. (2010) found that their approach of providing early systematic intervention in phonemic awareness, word identification, phonemic decoding, spelling, reading comprehension, and oral, improved reading fluency among first graders. This research study did not find a significant improvement when measured by the Oral Reading Fluency subtest for any of the students participating in the study.

Bruce (2010) found that Guided Reading methods were not effective in improving reading comprehension scores. One student in the Guided Reading Group did show significant improvement in the area of reading comprehension. However, this student’s reading profile indicated weaknesses in a number of areas. Whether his reading improvement is related to Guided Reading specifically, or to having received a consistent intervention generally, cannot be determined.

Although this study cannot conclude about the effectiveness of one reading intervention over another, it does provide some evidence on the efficacy of two distinct reading methods. Since both methods are used in the classroom for remedial reading and regular reading instruction, the finding may prove relevant.

**Limitations**

Given the findings of the research project and the nature of the study, it will only be possible to make assumptions about the individual students participating in the study. The
research design of the study required selecting two groups at similar reading levels. Initial group selection was made primarily using the PM Benchmark assessment. However, Growth Scores from the initial assessment using the WIAT III$^{CDN}$ indicated that students in the SRA group were performing at a higher level in all areas when compared with their peers in the Guided Reading group. In addition, WIAT III$^{CDN}$ reading scores indicated that not all students selected for the study had reading deficits. The study is limited by the students needing remedial support and their levels of reading ability. At the same time, group composition based on presumed similar reading scores ignored considerations of scores of intelligence or language competency.

The original research did not account for differences in instructional methods and curriculum delivery by each group’s classroom teacher. In other words, control groups were lacking. Without a control group, it is unclear if the remedial reading programs solely contributed to the improvement in reading scores.

**Recommendations**

According to research, stand alone phonemic instruction is enough to produce significant gains in reading (Lundberg, Frost and Peterson, 1988). Programs that directly emphasize the importance of phonemic instruction to simple reading instruction and spelling activities consistently produce the greatest gains in reading (Blachman, Ball, Black & Tangel, 1994). It should be noted that SRA Reading Mastery provides an integrated and balanced approach to phonemic awareness, as part of the instructional structure of the program. Guided Reading does not include phonics instruction. According to the program design of Fountas and Pinnell (1996) incorporating the key element of phonemic instruction in Guided Reading would better align the intervention with Balanced Literacy.
As described by Fountas and Pinnell (1996), Balanced Literacy is a curriculum delivery method that integrates various forms of literacy instruction. Assessment-based planning is at the core of this model. The balanced literacy approach is characterized by explicit skill instruction and the use of authentic texts. The teacher implements a variety of methods in order to achieve a well-planned comprehensive literacy program. The program is designed to include a gradual release of control and responsibility is gradually shifted from the teacher to the students.

Gough and Hinninger’s (1980) simple view of reading clarifies that word reading and comprehension may exert their influences jointly, rather than as independent variables, as a function of the profile in which they are embedded. In other words, according to Gough’s simple view of reading (Gough and Tunmer, 1986), decoding, or phonics skills, and comprehension have equal influences in reading.

Most schools do not detect problems with comprehension, or even reading fluency, until the third grade (McCardle et. al., 2001) because reading skill development is heavily focussed on phonemic skill development until the fourth grade. It was surprising to note that students made such limited gains in reading fluency in either of the research groups. Balanced Literacy, as described by Fountas and Pinnell, (1996), includes phonemic skill development noted previously as well as, fluency and comprehension. Balanced literacy would allow classroom teachers the opportunity to identify students at risk of reading failure in the early primary years, rather than waiting until much later to identify these students at risk.

The most significant implication from the research related to the number of students found requiring remedial instruction using PM Benchmarks. A number of false positives were generated. Most of the students in the SRA reading research group were at a similar PM
Benchmark level when compared with students in the Guided Reading study group and both groups were identified as reading at a mid grade one level. However, WIAT III\textsuperscript{CDN} results indicated that only one student in the SRA research group had reading skills below average in the reading subtests. By comparison, the majority of students in the Guided Reading research group had WIAT-III\textsuperscript{CDN} scores in the below average range in most of the reading subtests. The use of PM Benchmarks as a sole screening tool for at risk readers should be re-evaluated.

Future research investigating the efficacy of one reading intervention over another should consider sample size. Statistical testing requires a larger sample size in order to produce valid test results. Directions for future research in the area of measuring the effectiveness of remedial reading programs should also include a randomized controlled study in which students are randomly assigned to the remedial reading groups or a control group. However, ethical issues related to withholding reading remediation and intervention to students in need may make such a design difficult to implement. Encompassing more students who need remediation would allow for statistical analysis of changes. Though one particular method for reading remediation cannot be recommended, this study does indicate that some form of reading remediation can help students at risk of reading failure make gains in a wide range of reading skills. Finally, future research should seek to measure other outcomes, such as self-esteem, as it is likely that remedial reading programs not only increase academic functioning but improve emotional development as well.

Conclusions

Developing effective readers is the major emphasis of early primary classroom instruction. When students fail to develop effective reading strategies, classroom teachers seek
effective interventions to improve a student’s ability to read. Research conducted by Bufalino and Wang (2010) suggests that effective remedial instruction occurs in a homogeneous small-group or in a one-on-one setting. The key to effective reading instruction, remedial or otherwise, is a balanced approach which includes an emphasis on developing reading fluency, comprehension and phonemic awareness.

To say that one instructional method provides a perfect fit for students requiring remedial instruction would be deceptive, as individuals in the SRA Reading Mastery and Guided Reading research groups made gains in reading. In a perfect world, no child would require remedial reading instruction. However, as educators we need to consider those students who require additional support and instruction in learning the skills necessary to read. For those vulnerable children, classroom teachers need to continue to provide balanced and comprehensive reading instruction and with the additional support of Student Support Teachers ensure successful outcomes for all young readers.
References


Bruce, L. T. (2010). The Effects of Guided Reading Instruction on the Reading Comprehension and Reading Attitudes of Fourth-Grade At-Risk Students. *Walden University*.


