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The Impact of the SRA Corrective Reading Program on Standardized Testing

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COLLEGE OF EDUCATION

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2015

Abstract

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MA, Cabrini College 2008

BS, Temple University, 2005

Doctoral Study Submitted in Partial Fulfillment

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Abstract

The implementation of effective reading programs for special education students is paramount for school success due to the No Child Left Behind Act of 2001 (NCLB) and the reauthorization of Individual with Disabilities Education Act. One local school implemented the Science Research Associates Corrective Reading Program (SRACRP) because their special education students did not meet the required proficient or advanced reading scores on the Pennsylvania System of School Assessment (PSSA). The purpose of this quantitative within-group study was to determine if special and regular education students demonstrated growth in reading comprehension after the implementation of the SRACRP. The theoretical foundation for this study was Piaget's stages of development, which is consistent with the SRACRP instructional design of assimilating words through repetition. The research question examined whether the SRACRP impacted the reading levels of 200 randomly selected 3rd to 8th grade special and regular education students as measured by archived PSSA scores. Archived PSSA scores were collected from the year before and the year after the program's implementation. Repeated-measures ANOVA indicated that special and regular education students' mean scores increased significantly after the implementation of the SRACRP. The results of this study may inform school principals and policy makers to critically evaluate reading intervention programs prior to implementation. The results may also lead policy makers to use the SRACRP as a method to increase students' reading comprehension scores and eventually meet the requirements of the NCLB.

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Dedication

I dedicate this dissertation to my family, especially… to my wife, Janice for her support, encouragement, and for constantly reminding me to stay focused; to my children, Jesse and Janna for their patience and understanding; to my father, Manuel, the most intelligent man I've ever known, our conversations changed my life. To all my friends and family that encouraged me through this wonderful journey.

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Table of Contents

List of Tables

Section 1: Introduction to the Study

School administrators and educators are facing a difficult challenge: how to assist students with reading deficiencies so that they are able to score proficient on standardized testing requirements at the state and federal level as well as to become contributing citizens. Since the mandate of No Child Left Behind 2002 (NCLB) and Individual with Disabilities Education Act (IDEA), schools have been implementing special initiatives to assist students in meeting and exceeding predetermined reading standards as schools and teachers are being held more accountable for academic achievement. As a result, many schools are purchasing curricula focused on building literacy skills, particularly because the NCLB 2002 mandates that all students be proficient (working at grade levels in reading and math) by 2015.

An elementary (K-8) public school in the southeastern part of Pennsylvania implemented a reading intervention program in 2010 that purports to assist their special and regular education students meet the state required reading levels. The school district's administration devised a plan to meet the needs of third to eighth grade students by addressing their reading comprehension levels by implementing the Science Research Associates Corrective Reading Program (SRACRP). In accordance with federal assessment standards, all special and regular education students must meet or exceed the standards of 100% proficient in math and reading by 2015 (NCLB, 2002). A problem arose when some special and regular education students read 2 or more years below their

grade level, making the desired goal of meeting the federal standards difficult even while using a sustainable curriculum provided by the district.

Problem Statement

In 2009, a public elementary school did not achieve adequate yearly progress (AYP) because its special education students did not meet the required 63% proficient or advanced reading scores on the Pennsylvania System of School Assessment (PSSA). That was a significant concern because the special education subgroup was identified as a target for the success or failure of AYP and might have identified the school as in need of improvement or intervention from the state. Therefore, the Science Research Associates Corrective Reading Program (SRACRP) intervention was introduced in the hopes of gaining positive change in reading scores. Acquiring empirical evidence on the effectiveness of this intervention program on special education students prompted this quantitative research study.

This quantitative related-samples study sought to determine if the SRACRP, implemented for the first time in 2010, on 200 randomly selected special and regular education students in Grades 3 through 8, impacted their reading levels as measured by their 2011 archival PSSA scores. Both special education and regular education student scores from the PSSA were acquired from archived data, which were collected during normal business hours through regular school processes at the research school site. The PSSA scores of 2009 were used as the pre intervention scores, and the scores of 2011 were used as the post intervention scores. The PSSA scores for the students in regular and

special education and the students in specific grade levels were the dependent variable, and the SRACRP was the independent variable.

Nature of Study

In this quantitative related-samples study, I employed an ANOVA test, which compared mean scores, and I determined if the implementation of the Science Research Associates Corrective Reading Program (SRACRP) affected the reading levels of special and regular education students in Grades 3 to 8 after the implementation of the SRACRP as measured by their Pennsylvania System of School Assessment (PSSA) reading mean scores over an academic year. The scores before the implementation of the SRACRP were compared to the scores after the implementation of the SRACRP. All student participants attended an elementary public school, which was managed by a large school district.

The Gates-MacGinitie Reading Test (GMRT) identified the current special and regular education students as those who were reading at least 2 or more years below their grade level. A quantitative research design was used to determine if an elementary school reading program assisted special and regular education students in increasing their reading comprehension levels as indicated by the archived PSSA scores. In the study, I examined the impact of the SRACRP for all special and regular education students in Grades 3 through 8. The independent variable for this study was the SRACRP scores, and the dependent variable was the scores the students earned on the PSSA after the SRACRP.

Research Questions

The primary research question for this study was the following: Were special and regular education students' reading scores on the PSSA significantly changed due to participation in the SRA Corrective Reading Program?

I explored the following research questions and hypotheses:

Research Question 1 (RQ1): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the special education students prior to and after the SRA Corrective Reading Program intervention?

RQ1 Null Hypothesis ($H1_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

RQ1 Alternative Hypothesis ($H1_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

Research Question 2 (RQ2): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the regular education students prior to and after the SRA Corrective Reading Program intervention?

RQ2 Null Hypothesis ($H2_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of regular education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ2 Alternative Hypothesis ($H2_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of regular education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 3 (RQ3): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the third grade prior to and after the SRA Corrective Reading Program intervention?

RQ3 Null Hypothesis ($H3_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the third grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of

regular education students after the implementation of the SRA Corrective Reading Program.

RQ3 Alternative Hypothesis ($H3_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the third grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 4 (RQ4): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the fourth grade prior to and after the SRA Corrective Reading Program intervention?

RQ4 Null Hypothesis ($H4_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fourth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ4 Alternative Hypothesis ($H4_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fourth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group

of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 5 (RQ5): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the fifth grade prior to and after the SRA Corrective Reading Program intervention?

RQ5 Null Hypothesis ($H5_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fifth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ5 Alternative Hypothesis ($H5_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fifth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 6 (RQ6): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the sixth grade prior to and after the SRA Corrective Reading Program intervention?

RQ6 Null Hypothesis ($H6_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the sixth grade

taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ6 Alternative Hypothesis ($H6_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the sixth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 7 (RQ7): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the seventh grade prior to and after the SRA Corrective Reading Program intervention?

RQ7 Null Hypothesis ($H7_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the seventh grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ7 Alternative Hypothesis ($H7_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the seventh grade taken prior to implementation of the SRA Corrective Reading Program intervention

and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 8 (RQ8): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the eighth grade prior to and after the SRA Corrective Reading Program intervention?

RQ8 Null Hypothesis ($H8_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the eighth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ8 Alternative Hypothesis ($H8_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the eighth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

More detailed discussions of the Nature of the Study, the Research Questions, and the Hypotheses are provided in Section 3.

Purpose of Study

The purpose of this quantitative related-samples study was to determine if a school-wide reading intervention program, specifically the Science Research Associates Corrective Reading Program improved the reading scores of special and regular education students in Grades 3 to 8. The results of the archived Pennsylvania System of School Assessment (PSSA) administered to special and regular education students in March 2011 were reviewed and compared to the archived PSSA scores of March 2010, as the new program was implemented in the 2010 school year.

Theoretical Framework

Educational researchers primarily focus their research on reading (Denton et al., 2006; Roskos, Risko, & Vukelich, 2008), which among developmental psychologists, has also become among the most researched area (Wong, Pugh, & Dewey Ideas Group 2001). Researchers, reflecting on Piaget's stages of development, have stated that a child's ability to learn to read is consistent with a child's developmental stage (Perry, 2012; Riley, 1989). Piaget (1972) divided child development into four stages: (a) sensory motor, which occurs between birth and 2 years of age; (b) pre operations, which occur between the ages of 3 and 7; (c) concrete operations, which occur between the ages of 8 and 11; and (d) formal operations, which occurs between the ages of 12 and 15. Age ranges are variable depending on maturity and whether the child is developing in a typical manner.

According to Piaget's theory of genetic epistemology (cognitive structures of child development), it is in the stage of concrete operations that the use of sensory motor

skills decreases and children without learning disabilities find success in reading. At that time, children with learning disabilities will begin to perform below their nondisabled peers (Taylor, Anthony, Aghara, Smith, & Landry, 2008). In contrast, Donaldson (2002), a researcher with the Edinburgh Cognition Project, noted in 1978 that children were more intelligent than previously estimated, implying the children tested did not do well with Piaget's developmental tasks, as the tasks were not presented in a way which made sense to them. Donaldson went on to infer that children were not limited cognitively by their age as much as by the presentation of the skill (Donaldson, 2002).

However, Taylor's 2008 study of the use of the Inventory of Piaget's Developmental Tasks (IPDT) supported Piaget's prior findings of the link between a child's level of academic success and his or her level of development. The use of cognitive structures, which allow for the process of adaptation through assimilation and accommodation based on environmental needs connects Piaget's theory of genetic epistemology (Duncan, Ludwig, & Magnuson, 2007) to the social development theory of Vygotsky (Gredler, 2012). Piaget's theory supports the SRA Corrective Reading instructional design of a process of assimilating words through repetition. Both Piaget and Vygotsky are constructivists, but Vygotsky believed that social interactions played the fundamental role in cognitive development, which occurs from birth to death and which contrasts from Piaget's stages of development (Gredler, 2012).

Vygotsky's (1978) theory of social development contained two major themes: (a) social interactions and (b) the zone of proximal development. Vygotsky agreed that social interactions are a necessary addition to Piaget's theory of development. Lawton and And

(1980) theorized that they shared "the view that knowledge first exists outside the organism (person) and is then internalized by certain psychological mechanisms" (p. 125). Whether in oral language, sustaining attention, making logical references into memory, or identifying concepts, one must effectively experience knowledge twice to grasp its purpose or contents (Gredler, 2012). Vygotsky's (1934) zone of proximal development refers to the level of development that occurs when children are actively engaged in social opportunities (as cited in Gredler, 2012). It is with the addition of the social aspect that Vygotsky supplements the theory of Piaget, supporting the constructivist theory as defined by Bruner, (1966).

Bruner's (1966) theoretical emphasis was on the concept of active learning and the use of one's prior knowledge in making meaning. This theory was often referred to in the teaching field as *scaffolding* or using background knowledge (Takaya, 2008). The cognitive theories of Piaget (1972) and Vygotsky (1978) support Bruner's idea of constructivism, which can have broad interpretations, and the concept of discovery learning, which holds that students explore and interact in their environment and create ideas, experimenting and making hypotheses (Conway & Stifter, 2012; Gredler, 2012). Bruner's theory of instruction includes four key concepts that need to be addressed prior to teaching. Educators must identify a student's (a) predisposition towards learning, (b) ways in which a body of knowledge can be structured so that it can be most readily grasped by the learner, (c) the most effective sequences in which to present material, and (d) the nature and pacing of rewards and punishments (Gredler, 2012).

Bruner supported the spiral effect of increasing academic knowledge and skills (as cited in Conway & Stifter, 2012). This form of increasing academic knowledge directly relates to the stages of development in children and the research of both Piaget (1972) and Vygotsky (1978). Skills are taught to build upon each other, and without the adequate background knowledge, a student is not developmentally ready to learn higher ordered skills (Warwick & Maloch, 2003). There was significant evidence that indicates special education students respond positively to reading intervention programs (Wanzek, Vaughn, Roberts, & Fletcher, 2011).

The literature reviewed for this study began with a comprehensive review of past and current research on corrective reading programs that are specifically created for special education students in Grades 3 through 8 (Hempenstall 2008; McDaniel, Duchaine, & Jolivette, 2010). The comprehensive review was advantageous; however, most of the research identified the concept of corrective reading in the same manner, as a comprehension program that targets students in grades K-12. The students who were identified were usually at least 1 or more years below in their reading comprehension level. Connor's 2011 study assessed corrective reading by exploring the training teachers receive on corrective reading and followed groups of students who worked with various teachers. Connor found that students who worked with teachers who were trained for 1 week showed no significant gain, while students who worked with teachers with 6 weeks of training gained one fourth of a year's progress in 1 academic year. Although scientific analysis drives corrective reading programs, this study provides support on the efficiency of the program. The study did not account for the unpredictability of instructional

conditions. The focus of Connor's 2011 study was on the decoding components, while the comprehension components lack adequate research. One of the major strengths of corrective reading is that the lessons are methodical and obvious. One of the major weaknesses, however, was that there are teachers who do not like the program's repetitive method of presentation (Vannest, Soares, Smith, & Williams, 2012).

Criteria of entry into the Science Research Associates Corrective Reading Program (SRACRP) were based on the following: reading level of at least 2 or more years below grade level, an evaluation and consultation from the SRACRP teacher team, and performance results from content area classes. Criteria of exit from the SRACRP were based on the following: reading within 1 year of grade level or total completion of the program, recommendations from the SRACRP teacher team, and performance results from content area classes (Stockard & Engelmann, 2010). Baseline Assessments consisted of SRACRP Comprehension Placement Tests while Monitoring Progress consisted of SRACRP Leveled Mastery Tests, remedial lessons if students fail one or more assessments, ongoing check of student work, and ongoing tests of individual students (Stockard & Engelmann, 2010).

Criteria for teachers must provide the lessons trained in the corrective reading program and must be administered as directed and accompanied by quarterly meetings with the teaching team to assess student progress (Stockard & Engelmann, 2010). The SRACRP must be administered on a period other than regular instructional time and assessment components must be administered on a constant basis. In this study, I used specific terms that are addressed in the next section.

Definition of Terms

The following definitions of key terms were used in this study:

Adequate Yearly Progress (AYP): The measure by which schools, districts, and states are held accountable for student performance under Title I of the No Child Left Behind Act of 2001 (NCLB), the current version of the Elementary and Secondary Education Act. AYP, however, is not a new concept; it was introduced into federal law in the ESEA's 1994 reauthorization (Editorial Projects in Education, 2011).

Comprehension program: A part of a corrective reading program for students who (a) have trouble identifying words, (b) have poor thinking skills, (c) do not follow directions well, and (d) lack the vocabulary and background knowledge necessary to understand what they read (Engelmann, Hanner, & Johnson, 2007).

Direct instruction (DI): "A model for teaching that emphasizes well-developed and carefully planned lessons designed around small learning increments and clearly defined and prescribed teaching tasks" (Engelman, Johnston, Engelman, & Silbert, p 23, 2010.)

Gates-MacGinitie Reading Test (GMRT): Riverside Publishing, a division of textbook publisher Houghton Mifflin Harcourt, offers the Gates-MacGinitie Reading Test to teachers and schools seeking to evaluate student-reading skills. The 10 tests cover preschool through adult learners. All tests can be taken in traditional pencil-and-paper form, though online versions begin as early as first grade (Anderson & Fuller, 2010).

*Inclusion***:** Refers to the practice of having students with learning disabilities attend general education classes, with the supports and services needed to achieve the

goals of the Individualized Education Plan IEP for each student. Under inclusion, students with learning disabilities actively participate in the classroom with nondisabled students (McCray & McHatton, 2011).

Individualized Education Plan (IEP): Personalized documents that provide guidance and instruction on the education of special education students. The IEP provides specific yearly goals and objectives and the description of any services that will be provided that will assist the student to reach their prescribed goals (Weishaar, 2010).

Intensive reading interventions: Interventions designed for students who are nonreaders or are able to read up to the third grade level. Instruction is provided in a block of at least 120 minutes per day. Instruction is explicit and focuses on decoding, fluency, vocabulary comprehension, and correlated writing using materials that are both age and reading level appropriate. Instruction is fast paced and uses guided practice, modeling, and frequent checks of understanding (Crowe, Connor, & Petscher, 2009).

*Learning disability***:** A learning disability is a disorder in at least one of the basic psychological processes involved in understanding and using written or spoken language, manifested in an impaired ability to listen, think, speak, read, write, spell, or calculate (U.S. Department of Education, 2004).

Least restrictive environment (LRE): The LRE refers to educating students with disabilities in general education classrooms while allowing separate class services in certain instances when such a placement was deemed more effective or better met the student's needs (McLeskey, Landers, Williamson, & Hoppey, 2010).

*Mainstreaming***:** The combination of special education with general education classes such that students with special needs are educated with their typically developing peers during specified time periods in the school day (Hwang & Evans, 2011).

Middle school: Defined as a school that enrolls students in sixth, seventh, and eighth grades (Anderson & Fuller, 2010).

No Child Left Behind Act of 2002 (NCLB): Refers to an act of Congress that was signed into law on January 8, 2002. The original bill was proposed by President George W. Bush on January 23, 2001 and was coauthored by Senators Ted Kennedy and Judd Gregg and Representatives John Boehner and George Miller. The purpose of the act was to promote standards-based education. In order to receive federal funding for schools, states were required to develop basic skills assessments at different grades throughout the school year. Importantly, NCLB did not propose the creation of national standards or national exams for students to pass. Instead, standards were to be created and assessed by each individual state (NCLB, 2002).

Pennsylvania system of school assessment (PSSA): A standards-based, criterion-referenced assessment used to measure a student's attainment of the academic standards while also determining the degree to which school programs enable students to attain proficiency of the standards. Every Pennsylvania student in Grades 3 through 8 and Grade 11 is assessed in reading and math. Every Pennsylvania student in Grades 5, 8 and 11 is assessed in writing. Every Pennsylvania student in Grades 4, 8 and 11 is assessed in science. Individual student scores, provided only to their respective schools, can be used to assist teachers in identifying students who may be in need of additional educational

opportunities, and school scores provide information to schools and districts for curriculum and instruction improvement discussions and planning (Commonwealth of Pennsylvania, 2011).

Proficient level: A level of performance at which students should be able to demonstrate an understanding of inferential and literal information as well as make inferences, draw conclusions, and make connections. Students also need to analyze the author's use of literary devices (Kanfush, 2010).

Special education: Specialized instruction tailor-made to fit the unique learning strengths and needs of students with disabilities with a major goal to teach the skills and knowledge the child needs to be as independent as possible (Hicks, Stevenson, Wood, Cooke, & Mims, 2011).

SRA Corrective Reading Program: A remedial direct-instruction reading program published by SRA McGraw-Hill Publishers. It was designed for students in Grades 3 through 12 who were having difficulty with decoding, comprehension, or both (Martella, Martella, & Bettis, 2004, p. 109).

Assumptions

Several assumptions were made during this study. First, the archived reading scores of each student were complete and accurate. Secondly, it was assumed that the SRA Corrective Reading Program was implemented with fidelity by the teaching staff. Thirdly, it was assumed that the teaching staff was properly trained in the implementation of the SRA Corrective Reading Program.

Limitations

Limitations to the study were as follows: Differences in teaching strategies vary from one teacher to another. In addition, possible differences in years of teaching experience may present a limitation to the study even though the SRA Corrective Program is a scripted program. The method in which the data were acquired and archived may also limit the study. The outcomes of the study cannot be generalized to a larger population due to the small size of the sample. The results cannot be generalized to nonpublic public schools because the study was derived from a public school.

Scope

The archived PSSA data (mean scores) of the students after the implementation of the SRA Corrective Reading Program were compared to the PSSA mean scores of the year prior to the implementation of the SRA Corrective Reading Program. In this study, I used archived PSSA data (mean scores) derived from an urban school in Philadelphia, PA which may limit its scope.

Delimitations

Delimitations to possibly narrow the scope of this study included a focus on specific aspects of the PSSA such as reading comprehension and fluency. Another possible delimitation was to focus on the implementation of the SRA Corrective Reading Program and specific modules of that program such as comprehension, fluency, and reading achievement.

Significance of Study

Students with reading abilities who have been identified to be in the bottom 25th percentile are at a much higher risk to drop out of high school than those who demonstrate much higher reading abilities (Sabatini, Shore, Holtzman, & Scarborough, 2011). Locally, the research city was experiencing over a 55% high school dropout rate (Commonwealth of Pennsylvania, 2011). The local economy was giving rise to fast moving professions that demand much higher literacy levels, while those declining professions show a below average literacy requirement (Slavin, 2008). According to a study conducted by Lovett et al. (2008), all occupations in the United States will require an increase of 14% of the average literacy level. Therefore, to be successful in the workforce, they must demonstrate strong literacy skills.

This study contributed to the body of knowledge by analyzing the effectiveness and the appropriateness of the newly implemented Corrective Reading Program in the research school. Positive social change was achieved by encouraging my educational community to reexamine current practices of reading intervention on special education students in an effort to meet the criterion for the federally mandated education initiative of the NCLB. Effective reading interventions may improve students' reading levels and provide an opportunity to be successful in school, graduate from high school, and continue on the journey to becoming positive members of society. This study provided information that could help other schools and school districts increase their students' reading levels, thus meeting the goals of NCLB.

Summary

The design of this study compared the mean reading scores of the PSSA prior to and after the implementation of the Corrective Reading Program and its impact on special and regular education students. In Section 1, I provided an introduction to the study and explored the study's problem, the nature of the study, and an overview of the research questions. I also included the purpose of the study, the theoretical framework, definition of terms, assumptions, limitations and delimitations, the significance of the study, and a conclusion. Section 2 is a compilation of literature that encompasses the historical reasoning supporting the study, along with the most current research pertaining to literacy acquisition intervention programs. In Section 3, I describe the research and design approach, setting and sample, the instruments and materials, data collection and analysis, measures taken for the protection of participants' rights, the role of the researcher, and a conclusion. In Section 4, I use various tables to describe the statistical analysis of the study. In Section 5, I provide an interpretation of the results, implications for social change, recommendations for action, and future study as well as the researcher's reflection.

Section 2: Literature Review

In this literature review, I explored research through an extensive review of the current literature by gathering information from textbooks, periodicals, corrective reading workbooks, textbooks, Internet searches, and peer-reviewed journals addressing the effectiveness and purpose of corrective reading programs targeting special education students, and I discussed the most effective teaching and assessment strategies and methods on a global scale. The review focused on the philosophy and theory of literacy acquisition, specifically the SRA Corrective Reading Program. Several phrases and key words were used to identify important and relevant research using Walden University's Research Database, Google, and ProQuest, such as *reading, comprehension, intervention strategies, corrective reading, learning disabilities, professional development, flexible strategies, silent reading, self-monitoring, oral reading,* and *progress monitoring*. The ultimate goal of this review was to identify current literacy philosophies, methodologies, and programs that may assist special education students whose reading levels are 2 or more years behind their current grade level.

Current research in education has focused primarily on reading acquisition (Wanzek et al., 2011). Piaget's research on the stages of development, which states that a child's development stage is consistent with a child's ability to read, was referenced heavily in many of the articles in this review (Coleman, 2008; Gredler, 2012). Though most research explicit to reading interventions has focused on the early primary grades, Denton et al. (2010) showed that struggling students in the primary grades continue to struggle throughout school. The purpose of this literature review was to assess existing

research regarding reading interventions. The theoretical and historical ideas driving the research were addressed along with other programs and methods of teaching reading in an effort to identify how teachers can successfully bridge the gap between special education students who have learning disabilities in the area of reading and their nondisabled peers.

A study conducted by Hempenstall (2008) focused on seventh and eighth grade students using a Level B program for decoding and comprehension. Level B was designed for struggling readers who do not read fluently or who confuse similar words (What Works Clearinghouse, 2010). In 1 year, Hempenstall determined that reading and comprehension strategies were able to elevate the students back to their proper grade level.

Teaching reading to middle school special education students focusing on comprehension, vocabulary development, and word attack skills was addressed by England (2006). The researcher discussed the sequential and phonetic approach to correctly pronounce words. England also discussed the importance of conducting classroom discussions, the various parts of a novel, and vocabulary development. Moreover, the researcher identified the need for middle school students to discuss their views on their rapid growth in emotional, social, and physical skills. Ardoin, Williams, Klubnik, and McCall (2009) established that students made significantly fewer errors when some form of corrective reading strategy was provided at every error the student made while reading.

Researching and analyzing the various reading instruction methods was an educator's tool in encouraging their students to learn at their highest potential. Strict mandates from NCLB 2001 and the Individuals with Disabilities Education Act of 1975 and 2004 forced a need for programs based on research to assist educators in closing the reading gaps as well as providing successful intervention programs for every child. Not unexpectedly, many reading programs have been developed with an increased focus on literacy and reading. The corrective reading program was an example of one of the programs that arose from the increased focus. This program's effectiveness has been evaluated for its ability to increase the reading levels for students in grades K-12. The studies' goals have been to define the effectiveness of a direct instruction approach to teach reading over the past several decades (Przychodzin-Havis et al., 2005). Special education students have been the focus of many of these studies. Other studies were conducted analyzing the corrective reading program in a general education setting with teachers directing the program, in alternative education settings with teachers directing the program, and in both general and special education settings with peer instructors and paraprofessionals administered the program (Przychodzin-Havis et al., 2005).

Intervention Strategies

Over the last 3 decades, there have been numerous studies conducted in the area of reading ability in hopes of finding successful intervention strategies in an attempt to close the reading gap. One such study was conducted by Torgesen et al. (2007) where they describe, through a detailed report in the National Assessment of Title 1 Final Report, a randomized trial of reading intervention strategies for reading. The corrective

reading program was one of the intervention strategies. The following were investigated as researchers looked at the needs of this type of program:

1. Relative to the instruction provided by their schools, to what extent can the instruction provided in the study close the reading gap and bring students within the normal range?
2. In reference to students with various baseline characteristics, do the impacts of intervention vary?

According to Torgesen et al. (2007), the study included two groups: a control group, made up of students receiving reading instruction as they would have normally received it, and a treatment group, consisting of three randomly selected students assigned to intervention groups. The study was conducted in 1 year. The corrective reading program's goal was to improve student achievement in reading through a scripted direct instruction approach. The instruction was delivered 5 days a week for a total of 90 hours of instruction. Each group was comprised of three students, with exceptions for make-up sessions, and absences were noted (Torgesen et al., 2007). Due to the method of randomly selected groups, the researchers expected that the groups would have a high probability of being similar and equal. The differences in the results, as identified by the researchers, were due to the interventions, and the increase in scores was directly related to the control group. However, the researchers also determined that there were no increases in the standardized assessment scores for the Pennsylvania system although some reading gaps were narrowed and younger students had an increase in reading performance (Torgesen et al., 2007). The significance of this study, relative to the current

research questions, was that it did not link the reading intervention to standardized test scores.

Benner (2005) compared the effectiveness of the corrective reading program using two preexisting groups and a nonequivalent control group. Two groups who were similar in grade, gender, and school attended were used in this study. One group included high-occurring disabilities and the other did not. To compare growth in reading areas, the researchers employed standardized achievement tests such as Dynamic Indicators of Basic Early Literacy Skills (DIBELS), Child Behavior checklist, and the Woodcock-Johnson Achievement Tests. The results indicated significant gains from the preexisting groups on all measures as opposed to the comparison group, with students who were in the corrective reading group.

Another study by Flores, Alberto, and Crowe (2004) focused on the corrective reading program's decoding section. Six students ranging in ages from 7 to 13 made up the study. These students were self-contained with peers and were classified with moderate intellectual disabilities with an IQ range from 38 to 52. The researchers' focus was to distinguish between specific sounds, words, and blends. Results showed that only two of the students were able to decode unfamiliar words, and five of the six students became proficient at decoding, blending, and letter-sound identification. The study explored the significance that decoding has on reading. The SRA corrective reading program has a decoding section that may directly impact the results of this current study and may provide insight on its effectiveness in reference to the PSSA.

Students With Learning Disabilities

Students with learning disabilities usually exhibit a wide range of reading problems. A distinctive characteristic of a poor reader was the inability to fluently read a text. According to Ardoin, Christ, Morena, Cormier, and Klingbeil, (2013), fluency, in regards to improving a student's reading ability, was a critical part. Baker et al. (2008) stressed that poor readers should be trained with both decoding and fluency training. Reading was affected in many different ways. For example, increasing accuracy and speed increases the levels of comprehension. Students have trouble remembering what they have read when they expend a lot of energy and effort trying to decode individual words. Consequently, it is necessary to increase the level of fluency in order to help comprehension.

Numerous teachers have students who are weak readers and do not want to read. According to McCullough, Weber, Derby, and McLaughlin (2008), for students with disabilities, reading ability was the primary reason for their difficulties. In general, many students with disabilities are continually falling behind their classmates in reading ability. Coughlin (2011) reported that only 33% of Grade 8 students have the ability to demonstrate reading proficiency. In other words, two-thirds of Grade 8 students need some type of reading intervention.

For lifelong learners, the ability to read is vital. Reading ability deficits are associated with adverse outcomes as grade retention, below grade level performance, and possible failure to graduate. Behavioral problems can stem from underachievement just as grade retention can give rise to negative attitudes toward school. Students who are not

able to graduate from high school severely decrease their chances of ever attending college (Coughlin, 2011). The educational community, parents, and educators have always focused on reading. IDEA's description of research-based approaches emphasizes the significance of using peer-reviewed research (U.S. Department of Education, 2004). Another important aspect to mention is that the criteria for identifying a disability has extended to allow alternative evaluation models. One of the best examples of research-based models is direct instruction. This type of instruction requires a complete curriculum design. It is comprised of overt and sequenced instruction that allows students to learn through various lessons. Corrective Reading is a decoding and comprehension program that is based on direct instruction (Engelmann et al., 2007). Strategy instructions and sequenced lessons comprise this type of reading program. It provides teaching scripts, practice exercises, and appropriate examples along with a system made up of reading materials, management tools, guidebooks, and tests. However, the curriculum at times does not motivate students. Some students find it difficult to meet on a daily basis. To practice at home, students need to be motivated. Debates on this type of program should focus on methods or activities that enable practice outside of the classroom.

Reading instruction is essential for all subjects for middle school special education students. This can be a challenging task for some content area teachers. The following strategies may assist teachers in becoming successful when working with these students:

- Sufficient instructional time.

- Professional development on reading instruction, content instruction, and content.
- Monitoring the progress to determine if the students are learning.
- Programs in the classroom that emphasize a respectful, safe learning environment.
- Administrative leadership that enables professional development.

Economically disadvantaged populations of students have shown measureable improvements after completing a corrective reading program (Coughlin, 2011). These results have been constant among various languages and ethnic backgrounds (Stockard, 2010). In another study, Shippen, Reilly, and Dunn (2008) demonstrated that the corrective reading program group did not perform better than the group allocated to the existing reading program. Nevertheless, all other reviews demonstrated that students in the corrective reading program outperformed comparison groups (Stockard, 2010). Focus must remain on strategies that improve reading rates and comprehension for students with disabilities. The disheartening results that are linked with this specific population demand the need for instruction that provides these students with successful experiences in reading in the school environment. A reading intervention, specifically, SRA Corrective Reading Program, may provide intervals of success that may bridge the gap for struggling readers.

Assessments/Strategies

Some researchers have suggested that successful readers have a higher possibility of being successful in school and beyond (Buyuktaskapu, 2012, Coughlin, 2011,

Engelmann et al., 2007). New content should not be introduced prior to completing an assessment of the previous material. Chang (2012) supported giving a predetermined amount of time to read. In addition, writing a comment for each paragraph will greatly benefit students. This technique provides an opportunity to ask and write questions about the reading.

Successful readers in science and other content areas can use a pre reading strategy. This strategy is comprised of three parts, reflecting on responses, brainstorming facts, and clarifying knowledge (Benner, Nelson, Stage, and Ralston, 2011). These three strategies provide an opportunity to elaborate, rehearse, and organize information in reference to a specific topic.

Vitale and Joseph (2008) reported that numerous dollars are spent on research that addresses reading and literacy. Nonetheless, the efforts tend to bypass middle level learners. In order to refocus on middle school students, researchers should assess middle school audiences more frequently in order to maximize the knowledge of effective teaching strategies and teachers. According to 2009 study by Hattie, teachers who have been successful at this level have been sought out by researchers and asked what techniques they have used to assist middle level learners improve their literacy and reading ability, especially if they worked under adverse conditions.

Teachers who teach core subjects have been expected to play a larger role in supporting the student's reading ability. According to Clark, Kirschner, and Sweller, (2012) and Crawford, Engelmann, and Engelmann, (2008), the best reading teachers act as coaches. These teachers use techniques such as guiding, explaining, demonstrating and

quizzing more often. A successful plan starts with a teacher's ability to conduct reading comprehension in course-related reading (Ehren, Ehren, & Proly, 2009; Kanfush, 2012; National Center on Response to Intervention. 2010).

Improving reading performance can be accomplished by assisting students in processing what they have read (Christ, Zopluoglu, Monaghen, & Van Norman, 2013). Using a response log was an example of this. Response logs can be open-ended or structured. The positive impact is that these logs assist the teacher in identifying points of interest, confusion, and mastery. Listening to audiotapes is another technique used to help students process what they are reading. This can be accomplished by allowing student volunteers to make the tapes as well as providing a reading buddy and graphic organizers (Benner, 2005).

Throughout the country, the consensus is that the necessary components for successful reading are being reached. This can be attributed to the quality of instruction the students are receiving. Slocum and Magnusson (2013) stated that specific qualities make reading teachers excellent educators. These qualities are as follows:

- Reading teachers relate reading instruction to previous experiences and continually assess individual students' progress.
- Reading teachers tailor instruction using flexible strategies.
- Reading teachers implement different ways to teach reading using various materials and text.

Reading teachers are not just teachers but reading coaches. Fien et al, (2008) conducted a study on average middle level readers. Throughout the research, the students'

comprehension employing a think aloud strategy was monitored by a master teacher. The researchers determined that the students scored higher on comprehension tests when exposed to think aloud strategies for identifying comprehension. The authors supported the following instructional design of direct instruction, teacher modeling, and individual practice, which are an integral part of the SRA Corrective Reading Program.

Reforms at the Middle Level

Many countries, other than the United States, have discussed educating middle level learners such as Australia, Singapore, United Kingdom, and New Zealand. According to Schiller, et al, and Society for Research on Educational Effectiveness, (2012), middle aged students should be actively engaged in real world connections, be stimulated intellectually, and be exposed to diversity while identifying differences.

Information that can guide us in understanding the concerns of middle school learner's reading ability has been released by the Alliance of Excellent Education. According to Biancarosa and Snow (2006), Reading Next – A Vision for Action Research in Middle and High School Literacy, may help improve reading ability. These researchers determined that the major problem was reading comprehension. More directly, students "lack the techniques and strategies to help them comprehend what they are reading" (p. 8).

A lot of attention has been given to reading achievement in secondary schools over the past five years. Many initiatives for reading programs have given rise to supplemental interventions with the release of deteriorating reading scores on national assessments (Roberts, et al, and Society for Research on Educational Effectiveness, 2012). Methods

for improving the reading instruction of content areas in the secondary education environment have also experienced a push in new developments and techniques. The focus was on training teachers to utilize reading classroom practices that implement and teach reading strategies. For example, the teacher can familiarize the student with the strategies that will be used prior to assigning a particular section to read. The teacher can also teach the student by modeling how to break down the text into specific components by spending a few days on each strategy. It is recommended that the teacher teach the strategies in the first unit after the first chapter. Detailed strategies can be writing opinions, drawing illustrations, making connections, questioning, and pre-teaching vocabulary.

The Chronicle of Higher Education released data from research conducted on March 10, 2006, that explored the disparity in perception between secondary teachers and college professors on college preparedness of students (Duff, et al, 2008). In reading comprehension, the data showed that 41% of college instructors as compared to 15% of secondary teachers felt that students were not prepared enough for the demands of college.

Conflicts may arise in a classroom depending on how secondary students achieve and how secondary teachers build the identity of the reader. Filippini, Gerber, and Leafstedt, (2012) discusses the differences in the expectation of the student and the instructor on reading as the student brings to the classroom an impression of reading that was “escapist, solitary, and pleasurable” while the instructor expects “demonstration and interrogation” (p. 22). Nevertheless, today’s secondary and collegiate teachers have

removed the discussion of the nature of reading from their classrooms. The ways that we read and engaging reading activities are not identified. Because of this, constructive discussions on reading and reader never occur and remain a mystery.

On later-language development, Apedaile, and Whitelaw (2012), noted that readers can become frustrated and discouraged from continuing the reading task if they are unable to "interpret figurative language" or break down text (p. 133). This promotes the theory that further development on figurative language comprehension needs to occur in order to have reading success (McIntosh et al., 2011).

Reading Programs Other Than the SRA Corrective Reading Program

There is a deficiency of research on effective reading programs (Duff, et al, 2008). However, researching programs other than the SRA Corrective Reading Program, I uncovered the Accelerated Reader (AR). The Accelerated Reader (AR, published by Renaissance Learning, Inc.) was a popular reading program in American schools that combines computerized testing with independent reading of leveled trade books. This program was often implemented in classrooms as supplementary to regular classroom instruction. Though the program was widely used in the United States, peer reviewed research on its impact was difficult to locate, again emphasizing the general lack of research on corrective reading programs.

Topping and Paul (2009) collected data provided by AR tests encompassing 659,000 students from over 13,000 American schools, to look for patterns between reading frequency and scores. National Assessment of Educational Progress (NAEP) scores were analyzed and compared to data by state to find a correlation between

frequency of reading, as determined by the number of tests taken, and state ranking in NAEP scores. Researchers found that students in states with higher NAEP rankings showed more instances of AR testing. From this, Topping and Paul (2009) concluded that the increased NAEP scores for the state overall stemmed from students reading more.

Continued research uncovered the Reading Edge Reading Program. This program can be effectively used in Title 1 middle schools as it used to identify research on cooperative learning and meta-cognitive reading strategies, (Chamberlain, 2007). The study by Chamberlain (2007), described how students were divided into two groups; some were randomly assigned to the Reading Edge Reading Program while others remained in their current reading program. Statistical data revealed modest levels of improvement compared to the current reading program just after one year as compared to the control group. The Reading Edge Reading Program is still used modestly throughout the United States.

Another reading intervention program identified during the research was the Rewards and Rewards Plus (published by Sopris West). Rewards was a program that targets students in grades 4-12 to help in the decoding of multi-syllabic words often found in older texts. Once the basic process for the structural analysis of words has been mastered, the students move on to Rewards Plus, which applies the skills learned through the Rewards component to science or social studies or passages. Rewards Plus also incorporates fluency, reading strategies, vocabulary, and comprehension, as they apply to the content area examined (Deshler, Palinscar, Biancarosa, and Nair, 2007). Analysis of research on the Rewards and Rewards Plus programs was conducted by the Florida

Center for Reading Research. They determined that, while research on both may support the methods of instruction used for improving student ability to decode multisyllabic words, the study was conducted with elementary-age students. The focus of the analysis was on experimental or quasi-experimental methods, with easily identifiable skills outcomes. Research on the affective aspects of Rewards or Rewards Plus, or even the transferability of the skills learned in the content areas on which Rewards Plus focus was not available.

A local, popular reading intervention program was Scholastic's Read 180. Scholastic's Read 180 program was a scripted, pre-packaged, program targeting middle and high school students. Its origin however, can be traced directly to research by Dr. Hasselbring which led to the creation of the software prototype for READ 180 (What Works Clearinghouse, 2009). It was worth noting that What Works Clearinghouse (WWC) stated that no studies of READ 180 met the WWC evidence standards however, seven studies met their standards with reservations. The program's website advertises that results have been proven for over 10 years however, peer-reviewed research supporting Read 180 was only published in 2004. The Read 180 program has a significant, phonics-based component combining timed word recognition, phonemic drill, and spelling with comprehension measured through assessment of student-read short onscreen passages connected to video clips. The program was jointly implemented with small-group instruction and independent reading opportunities in the Orange County Public Schools system in Orange County, Florida (Haslam, White, and Klinge, 2006).

Results from the Stanford Diagnostic Reading Test determined that students who were in the intervention program had greater gains in tested skills areas than students who were not in the intervention program. Specifically, the findings indicated that use of the PLL component directly corresponded to an increase in student test scores. However, according to Allington (2006), this report did not isolate the computerized instruction from the other intervention strategies used in treatment, strategies, like independent reading opportunities and small-group instruction, which have already proven to be effective for struggling readers both of which are parts of the SRA Corrective Reading Program.

Crisis at the Middle Level

Many authors and researchers in the United States believe there was a reading crisis in middle schools (Moje, 2008). Decoding has been the emphasis of primary schools; however there was no guarantee that students will comprehend what they read. According to Berg, and Lyke (2012), many students that read fluently are still unable to comprehend well. Though excessive, some middle school teachers assist students by reading text aloud while other teachers expect students to read without any support. Since teachers are unaware what they need to do to assist students in developing the necessary reading skills to improve comprehension, both scenarios occur (Cohen, 2011).

Evidence has confirmed that increasing decoding skills has a constructive impact on the reading abilities of elementary school students; nevertheless, there are still students with a deficit in their ability to read that enter middle school (Kusdemir and Karabay, 2012). During the course of their educational experience, some are identified as

students with special needs. According to U.S. Department of Education (2008), 2,887,217 students have been identified as learning disabled and most of them have significant deficits in their reading ability (Watson, Fore, and Boon, 2009). They are deficit in the areas of automatic word identification; comprehension skills, decoding, and fluency. Teachers know that providing instruction to these students can be very challenging. They also share concerns that many of these students have surpassed the age where there can be no further gains in reading skills and remediation may not be as effective however, this belief stems from a small population (Cummings, Dewey, Latimer, and Good, 2011).

Some strategies are questioned as to their effectiveness in helping students meet the requirements such as oral reading, silent reading, and independent reading. According to Amin, Amin, and Aly (2011), comprehension does improve when reading strategies such as using graphic organizers, self-monitoring, imagining, using positive road signs, and connecting prior knowledge are combined. Olvera and Walkup, (2010) stressed the value of predicting, questioning, interpreting, and seeking strategies. Reading complex text was a daunting task for middle school students. This supports the need to deliver strategies that increase comprehension levels. Educators must not overlook literacy and reading ability. Students learn from the world around them as they are engaged as producers and consumers of reading text (Burton and Education Partnerships, 2010).

Resistant readers were asked why they didn't want to read, many of them responded that they were only able to read under certain circumstances (Jeon, 2012). Many students stated that reading was not the source of their resistance but being poor

readers was. Students can bypass the assigned literature by utilizing study aids and watching version in film (Naughton, 2008). Burgess, Sargent, Smith, Hill, and Morrison (2011), summed up the responses of 131 secondary teachers and stated that "middle and secondary students are increasingly perceiving reading as not meaningful, and therefore do not place any value on the act or the process of reading thus feel apathetic about reading" (p. 91).

Some secondary students will remain novice readers. Educators must continually look for effective strategies that will assist students however; strategies are not effective in and of themselves. According to Klahr, Zimmerman, and Jirout, (2011), cognitive strategy plays an important role. Students must read and comprehend the information in the text both in school and in everyday life.

The challenge facing most secondary schools has been to meet adequate yearly progress (AYP). Recently released data from the National Assessment of Educational Progress indicates that over two-thirds of secondary students including learning disabled students do not have the necessary reading skills necessary to succeed in school and the workforce (Shaw and Disney, 2012). Educators, using this data, are forced to look for evidence-based strategies in order to shrink the performance gap. General education environments are experiencing many secondary learning disabled students (NCLB, 2002). Increased focuses by English Language Arts teachers are being asked to focus on providing instruction on comprehension. In order for teachers to be successful under these challenging times, they need to deliver clear comprehension instruction using evidence-based strategies. This involves a two-fold approach; instruction that meets the

needs of high achieving students while providing skill development for learning disabled students. Content area teachers for example, can receive help from special education teachers in identifying strategies with nonfiction text. Lessons can be advantageous if there focus remains on one strategy at a time in various classes. In order to move students past reading comprehension and towards questioning, evaluating, and reconsidering the text, strategies are critical. Creating a reading team can be tremendously beneficial toward the learning process (NCLB, 2002).

Transitioning elementary students to middle level are some of the challenges that face middle school teachers. Some of the bigger challenges rest on reading achievement and reading ability. The total academic success was reduced by low levels and low reading skills (Klahr, Zimmerman, and Jirout, 2011). One major variation between low achieving and high achieving readers was that when fluent readers have difficulty with the text, they utilize strategies that allow them to perform at mastery (Faust and Kandelshine-Waldman, 2011). Explicit reading strategies need to be taught to low achieving readers in order to help them understand the text. It was imperative to recall that it was cognitive activity brought up by the specific strategy that matters when implementing reading strategies (Klahr, Zimmerman, and Jirout, 2011). There are many reading strategies however, some can be more effective with the instructive nonfiction texts used in classrooms. Classrooms that include strategies that middle school students can use before, during, and after reading represent a good model to use in reading instruction (Conner and Farr, 2009).

To improve students' reading comprehension, all reading strategies are critical. Cognition was not the only ingredient for true reading comprehension. It involves maintaining balance between critical detachment and obsession, entering textual worlds, and forming responses that address different scenarios in text (Boardman, et al, 2008). The nation's decline in students' reading comprehension has created an alarm in the United States. Statements released by the RAND Corporation stated "Effective teachers of comprehension enact practices that reflect the orchestration of knowledge about readers, texts, purposeful activity, and contexts for the purpose of advancing students' thoughtful, competent, and motivated reading" (p. 29-30), (RAND Reading Study Group, 2002). Good readers utilize a variety of reading strategies to assist them in comprehending what they read. Poor readers either do not know about reading strategies or use them ineffectively. Middle school teachers must assist struggling middle school students. They need to be taught how to be comfortable and strategic readers. Faust and Kandelshine-Waldman, (2011), suggest that middle school teachers can use an inference as a reading strategy which allows the students to fill in reading gaps enabling them to predict forthcoming information. Bursuck and Blanks (2010) believe that students will know very little of what they have read when reading strategies lack the connection to the students' everyday lives; consequently, the students that "complete their assignments get little out of the material because they are unable to utilize it in their lives" (p. 14).

Traditionally, instruction in middle school focuses on the assimilation and proficiency of subject matter. Carnine, Silbert, Kameíenui, and Tarver (2009) explain that students are not expected to learn to read but read to learn. Teachers in middle schools

have the responsibility to teach the subject matter in a specific time period (Klahr, Zimmerman, and Jirout, 2011). Teachers rely on the ability of students to read for meaning. They also rely on a common tool for instruction when reading skills are below grade level. As a way to assist students to master the content and address low reading abilities teachers can use an anticipation guide. These guides are liked by students, are easy to implement, and can be used across the curriculum (Feifer, 2008). An anticipation guide is comprised of statements which students are assigned to respond (Gersten, et al, 2008). They also draw upon prior knowledge about a specific topic (Hoover and Patton, 2008).

Purpose for Reading

The basis for teaching reading may be, knowing how to learn from text. In order to gain information from the text, the reader must establish a purpose for reading. As students' progress through grade levels, they must utilize their reading comprehension levels as they learn from the text (Costley, 2012). Learning-disabled students are unable to apply their comprehension skills because they are not fully developed. The usefulness and impact of reading strategies for disabled students has been well recorded (Martinez, Aricak, and Jewell, 2008). Lessons of targeted strategies on comprehension should have explicit, clear and detailed instructions. Modeling and specific feedback should be part of the lesson structure (Martinez et al., 2008). Moreover, positive changes occur in the area of improved reading ability when teachers collaborate on matters of instruction (Mucherah and Yoder, 2008). The distinguishing factor between successful readers and deficient readers was the ability to read words with accuracy (Podell and Tournaki,

2007). Yore, Hand, and Florence, (2004) described reading strategies with science text in the following manner:

> "The teacher should model the selected strategy and the students should practice under the direction of the teacher. The instruction should be implanted in the assigned text and should be indicative of the interactive and constructive characteristics of making sense of the text. The students should use the strategy in student-controlled situations and be transferable to other reading assignments and texts by students." (p. 88)

The Accelerated Reader Program has been implemented by many school districts. This program measures the accuracy and frequency that the students are reading through a computer assisted structure, which includes reading assessments that determine reading levels (Stichter, et al, 2009). This program's prerequisite includes a mandatory student assessment called the Standardized Test for Assessment of Reading, which defines the reading level of students. Scoring a 60% or better provides a certain amount of points allowing the student to move to another book when they achieve a certain level of proficiency (Theriot and Tice, 2008).

Allington (2006) describes that reading instruction should be grounded on meaningful assessments. Teachers must have the skills to access appropriate information from the completed assessments. Langer's (2001) study of "Beating the Odds" recommended that "deeper understanding of the literacy skills, strategies, and knowledge needed for students to achieve proficient levels of literacy performance must involve

relevant teachers and administrators in an organized analysis and deconstruction of the test items" (p. 853).

Many articles and books on improving student achievement have been read by secondary teachers seeking instructional support (Vadasy, Sanders, and Abbott, 2008). However, applying comprehension strategies to support learning has had its struggles. Teachers and researchers have often asked how they can assist students to become actively engaged in reading and understand their role in the world (Capizzi, 2008). Vocabulary has been an area of major focus. According to Flanagan, Ortiz, and Alfonso (2008), struggling readers in the middle school have a limited vocabulary. In content areas where vocabulary was content specific, a limited vocabulary can be very detrimental. Research has demonstrated that a students' interest was high when they choose their own vocabulary words which leads to enhanced comprehension levels (Krashen, 2009). Summarization was another helpful reading strategy for middle school special education students. It provides three positive attributes; it increases the students' ability to acquire information, use the information, and increases the comprehension content level for specific concepts. Students performed better on applying information to discussions, projects, and lab reports when vocabulary strategies were combined with summarization, paired reading and word scavenger hunts. Another benefit to the reading process was the prereading strategy. Teachers create and write questions on the board ranging from knowledge level to high level. Discussions follow when the students write their responses on sticky notes and place them in their text.

Struggling students in the area of reading are typically frustrated (McDuffie and Scruggs, 2008; Mellard and Johnson, 2008). At that point, middle school students are reading to learn and not learning to read (Mercado and Turner, 2010). Frustrated student may exhibit inappropriate behavior while others may shut down or seek way to exit the classroom causing the achievement gap to widen, (Rune and Braten, 2010). Research supports that when students are given a large range of reading strategies that encourage reading, middle school students experience greater academic success (Ryder, Tunmer, and Greaney, 2008).

According to some research, targeted instruction improves the reading ability of students' (Scammacca, et al, 2007). On the other hand, Scharlach (2008) believes that a focus on repeated reading may be perceived as punishment. The theory that students are more likely to do well in school and in life when they read was still supported by researchers (Shapiro, 2008). In order to assist students in achieving reading success, teachers are required to have pedagogical and content knowledge skills. Reading strategies can be applied before, during and after an instruction or activity.

SRA Corrective Reading Program

In difficult reading situations the SRA Corrective Reading Program is useful in providing progressive practice to students. Students complete lessons within their abilities and are placed so that they will not be overwhelmed with tasks that may be too difficult. Similar parts and procedures of the program permit repetition while words are presented in isolation. Students maintain an error logbook, which allows the students to

visually see their progression and reflect on where improvements are needed. Lessons are created to pinpoint deficiencies in skills in a positive manner (Engelmann et al., 2007).

Specific attributes include the following:

- Lessons taught through direct instruction.
- A core program with all necessary materials.
- Instruction focuses on only the necessary skills.
- Cumulative skill development in the program's priority
- Lessons are 45 minutes, following a traditional secondary education class period.
- All lessons are scripted.
- The program has an effective management system.
- Placement tests are administered on an individual basis.
- Relevant skills are measured with the placement tests.

The SRA Corrective Reading Program is a comprehensive reading program created for students who have demonstrated a deficiency in reading comprehension and recognition in the upper elementary through high school (Engelmann et al., 2007). Thomas, et al, (2010) inform us that corrective reading, through consistency, provides an instructional format that helps all teachers provide instruction. Corrective reading programs have proven to increase the reading abilities of secondary students for learning and reading disabilities (Wang and Algozzine, 2008).

The U.S. Department of Education Institute of Education Sciences (IES) conducted an analysis on the available research on Corrective Reading, (CR, published

by SRA/McGraw-Hill) published on its What Works Clearinghouse website in 2007. The 2007 IES report found only one study out of 25 that examined Corrective Reading that met IES evaluation criteria. They also determined that it was conducted with third-grade students. Furthermore, the IES, based on that single study, determined evidence for Corrective Reading in alphabetic, fluency and comprehension was small, and there was no research to support its influence in reading achievement, in general.

Strong, Webby, Falk, and Lane (2004) analyzed one study that was not addressed in the 2007 IES Corrective Reading analysis (neither as accepted nor rejected for inclusion in their study). The study looked at the use of the Corrective Reading curriculum on middle school students with emotional and behavioral disorders. A research assistant timed students and the number of words that the students correctly read was graphed to monitor progress. Results of study measurements of fluency and accuracy were mixed as three of the students seemed to have improved on tested measures while both students in a single pairing increased reading speed, but dropped in reading level, and the sixth student decreased rates of fluency and accuracy as the study progressed. Researchers attributed some of these findings to poor attendance. The study was not followed up beyond termination to determine if effects were lasting, and students were not invited to comment on the impact of the treatment.

Another research on Corrective Reading was conducted by Bradford, Shippen, Alberto, Houchins, and Flores (2006). This study involved three male students over a six-month period using a prepost test design delivered by a trained Corrective Reading instructor. Though the lack of control group and low number of participants would have

excluded Bradford et al. from meta-analysis by the IES and The Florida Center for Reading Research, the study looked at students identified with moderate intellectual disabilities.

The researchers found that the students involved improved their fluency rates and ability to decode unfamiliar words even after a nine-week lapse between instruction and the final posttest. It was not clear if the improvement was specifically related to Corrective Reading or to the added time and intensity of explicit instruction because the students had not had prior instruction in letter-sound correspondence, one of the main skills the program focuses on.

The researchers expressed a concern that the students' fluency rates, while greatly improved from pretest to posttest, were still below program expectations. As the program progresses from smaller to longer passages, the researchers said that the fluency lag may have become an issue, however the research project concluded before many of the longer passages were attempted. As with the earlier studies on Corrective Reading, student attitudes and perceptions of the course and reading were not included in the research findings.

Benner (2005) used a non-comparable control group with two preexisting groups to compare corrective reading's effectiveness with other programs. One group demonstrated no learning disabilities while the other group showed a high incidence of learning disabled students. Standardized assessments such as DIBELS, the Woodcock-Johnson Achievement Tests, along with Child Behavior checklist were analyzed using statistical methods in order to compare growth in reading ability. Results proved that

students that were given direct instruction from corrective reading demonstrated significant gains in reading ability. Flores, Alberto, and Crowe. (2004) conducted a study on corrective reading's effectiveness on decoding. Six confidential students ranging in age from seven to thirteen were studied. A statistical analysis of the collected data from the corrective reading assessments showed that five of the six students demonstrated mastery in blending, decoding, and letter-sound identification. The effectiveness of corrective reading on middle level learners was also studied by Ysseldyke, Burns, Scholin, and Parker (2010). In this study, a think aloud strategy was used to monitor reading comprehension. Analysis of the data determined that students scored much higher on comprehension test when exposed to think aloud strategies. Quantitative research paradigm emphasizes the importance of generalizability and reliability (Delice 2010). Subsequently, a quantitative approach was chosen to examine the impact the SRA Corrective Reading Program had on all special education students in Grades 3 through 8 for the academic years 2010-2011. In a true experiment design, the study participants are assigned randomly to different groups, a treatment and a control group. Though the strongest research design in terms of drawing cause-and-effect conclusions (internal validity), this design approach was not utilized because the participants in the current study were not separated into two distinct groups as part of the study parameters.

Gates McGinitie Reading Test

Reading tests such as the standardized Gates-McGinitie Reading Test (GMRT) are designed to rank order individuals by assessing their proficiency in reading comprehension. According to Ozuru, Rowe, O'Reilly and McNamara (2007), the GMRT

was suited for assessing a "broad range of abilities involved in reading comprehension from a variety of text materials in a broad stroke." (p. 27). The students in Grade 3 and beyond only get 55 minutes for their test, which examines five language and reading abilities, including, letter recognition, literary concepts, letter-sound relationships and oral language concepts. Readers between first and twelfth grade receive scores judging their comprehension and vocabulary to determine if they need remedial help are at grade level or could proceed with advanced instruction.

Literature Related to Method

In a quantitative study on corrective reading conducted by Torgesen et al. (2007), two groups were used. A treatment group, made up of three randomly assigned students to intervention groups and the treatment group, which is comprised of students that receive the same instruction in reading they normally receive. Students received instruction five days a week for a total of 90 hours of direct instruction. The researcher compared the scores and determined that the use of corrective reading significantly decreased the reading gaps. In another quantitative study, Allor, Mathes, Champlin, and Cheatham, (2009), conducted a study on students that exhibited delays in reading ability in the junior high school. These students displayed behavioral and emotional disorders. Several standardized measures and pretest assessments were used to assess reading social behavior to determine if corrective reading helped improve the students' reading comprehension. The collection of data for this study was collected in two different settings: self-contained male students in the seventh grade and in pairs in a different location. In this study, the corrective reading program demonstrated significant growth in

oral reading. Both of the studies utilized a quantitative approach however, the authors explained that they considered a qualitative and a mixed method design but dismissed them because those methods did not match their study objectives and population samples.

McCray and McHatton (2011) conducted an analysis of an evaluation report during the 2010-2011 academic years. The direct instruction approach was used to reach the program's goal; to provide an opportunity to reach grade level in reading in nine middle and high schools in Boston, Massachusetts. In the qualitative study, data was collected every five weeks by the school district in order to assess each student who demonstrated mastery while utilizing the corrective reading lessons. Many teachers believed that this program would greatly benefit their students. Data analysis revealed that the corrective reading program did in fact improve the reading levels of students in the six grades (Cantrell, Almasi, Carter, Rintamaa, and Madden 2010). According to interviews conducted by McCray (2011), students spoke about their reading abilities and of the type of assistance they received to increase their reading levels. Though many students expressed a reluctant attitude toward reading, they mentioned the importance for consistency and structure in order to increase their reading levels. Every student mentioned that their hope was to have their teachers help them reach their goals of having the ability to read. Some students, for example, became very irritated because of their actual reading levels and may have had shown a strong reluctance to reading and to school.

In another qualitative study conducted by Weishaar, (2010), the implementation of a class wide corrective reading curriculum was evaluated. The study focused on the

impact of the corrective reading curriculum had on the reading comprehension and fluency of adolescents with emotional disorders. The study demonstrated that students in a third grade cohort showed more improvement than students in a fifth grade cohort. Strong et al. (2004) state that students with behavioral or emotional disorders in middle school exhibit reading skill delays. The focus of their study used repeated reading strategies along with the corrective reading program to enhance reading fluency. In their study, male students with emotional disorders in seventh grade were self-contained. These students participated in numerous standardized measures along with a pretest assessment to accurately assess their reading ability. The students were observed over a five-week period prior to the introduction of the corrective reading program in order to properly establish a baseline measure. The teacher received five hours corrective training and upon completion, implemented a corrective reading curriculum for 30-40 minutes four days a week. Determining the additional effects of the repeated reading intervention was the study's next step. Students were taken to a quiet room for the second stage of the study following a seven-week implementation of the corrective reading program. Rather than whole-class instruction, this stage was conducted in pairs. Two students would be taken to the quiet room for the repeated reading portion, they would continue this four times a week. According to the results, oral reading during the corrective reading program showed moderate growth. The use of repeated reading strategies increased the functional level and age/grade level text of four out of six students. The study also stated that the oral reading rates of students were still below those of same aged students without disabilities. Fuchs and Fuchs, (2006) mentioned various limitations of the study.

For example, students had an absenteeism rate ranging from three to 28 days. The study however, was exclusive in that it utilized two intervention methods. The researchers determined the students' progress with the corrective reading program prior to conducting an evaluation of the effects of the repeated reading program.

Researchers can utilize qualitative, quantitative, and mixed method designs when conducting research (Briggs and Coleman, 2007). When conducting educational studies, all three options can be used. Qualitative studies, through the lens of a black-white world, are most likely exploratory, naturalistic, subjective, inductive, ideographic, and descriptive/interpretive while quantitative studies are most likely confirmatory, controlled, objective, deductive, nomothetic, and predictive/explanatory (Chenail, 2011). Mixed method studies are products of the pragmatist paradigm and combine the qualitative and quantitative approaches within different phases of the research process (Tashakkori and Teddlie, 2008, p.22).

Conclusion

An extensive review of the current literature identified many areas of commonality in successful reading programs. However, most of the research categorizes corrective reading programs in the same way as comprehension programs that serve K-12 students. Usually, the students that are identified are one or more years below grade level in reading ability. In many cases, random assignments to instructional conditions have not been taken into account. Most of the research focused on decoding leaving the comprehension component lacking extensive research. Explicit and systematic lessons are corrective reading's strengths however; one weakness, which was not explored in this

study but can provide an avenue for future research, rests on the teachers' resistance to corrective reading's repetitive method of presenting the lessons. In a study by Hempenstall (2008), which focused on seventh and eighth grade students using a level B program for decoding and comprehension determined that reading and comprehension strategies allowed them to reach their goal and elevate the students back to their proper grade level. In 2007, Torgesen's study included two groups: a control group, made up of students receiving reading instruction as they would have normally received it, and a treatment group, consisting of three randomly selected students assigned to intervention groups. Torgesen reported the increase in scores was directly related to the control group and some reading gaps were narrowed while younger students had an increase in reading performance. These studies are similar as they are all focused on the impact that a reading intervention has on a student's reading comprehension however the goal of this research will extend those studies as the researcher attempts to determine the impact a reading intervention, specifically, the SRA Corrective Reading Program has on the achieved PSSA scores. Section 3 describes the research and design approach, setting and sample, the instruments and materials, data collection and analysis, measures taken for the protection of participants' rights, the role of the researcher and a conclusion.

Section 3: Research Method

Introduction

The purpose of this quantitative related-samples study was to determine if the SRA Corrective Reading Program demonstrated growth in reading comprehension for students in Grades 3 to 8. I used data from archived 2009 PSSA scores and compared them to the archived 2011 PSSA scores. A quantitative design was used because it allowed me to use principles of reliability and validity, employ numerical statistics, and observe and measure information (Creswell, 2009). The reading levels of students were measured using the GMRT that identified the special and regular education students who were at least 2 or more years below their grade level in the 2009-2010 academic years. The pre- and post-intervention data were used to address the research questions.

This section addresses the research design and methodological approach for this research study, which was derived from the research questions. In this section, I provide a description and justification of the design, which surrounded the purpose of the study. I also include the setting in which the study was conducted by describing the population, their characteristics, how they were chosen, the sample size, and a brief description defending the sampling method. In this section, I describe the materials used in the study as well as data collection and analysis sections describing an explanation of the descriptive and/or inferential analyses used in the study along with a description of the analytical tools used. Section 3 includes measures taken for the protection of participants' rights, the role of the researcher, and a conclusion.

Research Design and Approach

To obtain the desired data, the experimental design method was the preferred approach for establishing cause-and-effect relationship between variables in quantitative research (Kowalski, 2009). According to Creswell (2009), a quantitative approach is used to test objective theories by examining the relationship among variables. Controls for alternative explanations and the ability to generalize and replicate the findings are indicative of quantitative research.

A qualitative design was considered for providing a means to explore and understand a social or human problem building from particulars to a general theme. This type of study looks at individual meaning through collaboration, open ended questions, interviews and observations data, themes, patterns, and interpretations, and employs a flexible structure. Though effective, a qualitative approach was dismissed due to the study's objective and the use of a pre- and post-test analysis as a variable.

A mixed method design was also considered for providing insight on the findings of one method with another method. This may start up with an exploratory qualitative interview followed by a large quantitative survey, allowing the researcher to generalize results to a population. This method was also dismissed because the objective of this study did not include a generalization of a population.

This study was designed as an independent research study employing a norm-referenced, standardized measurement of reading ability using a pretest-posttest group design. The intent of this research was to determine the effectiveness of a scripted

reading intervention program by examining reading achievement scores in association to the variables presented for data analysis.

Setting and Sample

The study population was comprised of special and regular education students in Grades 3 to 8 identified as being at least 2 years below their reading grade levels as determined by the GMRT. The administrative team consisted of a principal and a dean of students. For the academic year 2010-2011, the total student enrollment in Grades 3 to 8 was 225, with 40 instructional and non-instructional staff. The scores of 50 randomly selected students in Grades 3 to 8 were analyzed in this study. The sample was extrapolated from a random number generated from the special and regular education student population. The GMRT was used to assess reading comprehension levels and as a reporting tool for annual reviews. If the student's reading level was measured as being 2 or more years below grade level, the student was placed into the SRA Corrective Reading Program. The purpose of the reading intervention was to teach these identified children using the SRA Corrective Reading Program. One lesson was completed daily within a 40-minute time frame from September, 2010 through March, 2011. The school consisted of 30% or 67 special education students and 70% or 158 regular education students in Grades 3 to 8. The total number was extrapolated from the annual review process, which took place in April, 2011. All students from Grades 3 to 8, including special education and regular education students, who tested in need of intervention, received daily lessons as part of the reading intervention.

SRA Corrective Reading Program Implementation

The implementation of the SRA Corrective Reading Program for 225 special and regular education students in Grades 3 to 8 was the treatment for this study. The instruction occurred in small groups of four to five students for intervention. In addition, the program was implemented exactly as the teacher's manual calls for it to be implemented. Professional development for the teaching staff was provided during the 2 weeks prior to the beginning of the 2010-2011 academic years.

In order to incorporate the SRA Corrective Reading strategies and interventions into their instruction, continuous professional development, by way of monthly review and student free curriculum days, was provided. Schedules were adjusted to provide longer literacy blocks of time to accommodate the additional time for the reading intervention. Grade group meetings were held weekly to ensure consistency and included a review of the SRA Corrective Reading Program, a review of the IEP, and teacher recommendations for each student.

Instrumentation and Materials

The GMRT was used to serve as an independent test to efficiently measure the reading comprehension levels of students (Lee, 2010). It was a unified standards-based framework for student assessment and leveling. The GMRT was designed to rank order individuals by assessing their proficiency in reading comprehension from K through 12. Teachers administered the GMRT during the beginning of the academic year as part of the diagnostic system for the reading intervention; therefore, separate permission to use the GMRT was not necessary.

The GMRT provided baseline data in reading comprehension at the beginning of the study and established a baseline proficiency level for each student. The baseline level was the highest level at which a student can demonstrate proficiency without teacher help. This was the level at which a teacher can expect the student to perform at proficiency on high stakes testing. The GMRT helped show students where they are, where they should be, and what skills and behaviors lie in between. Through regular conferences, the GMRT helped to outline and track a course of correction, acceleration, or maintenance, for each student.

Reliability of Gates-MacGinitie Reading Test

The Gates Silent Reading Test and the Gates Primary Reading Tests were published by Arthur Gates in 1926. They are the most widely used tests, and over the years have been revised and improved to reflect new concepts in reading and to institute new national norms. The Gates-MacGinitie Reading Tests have been used at national level in the United States by school districts, classroom teachers, doctoral students, researchers, reading specialists, and in national studies sponsored by U.S. Department of Education (Dreyer & Nel, 2002). In the review of the Fourth Edition, Johnson and McCabe (2003) affirmed strong evidence for test validity. The researchers stated that the content validity of the GMRT is reinforced through a widespread test development process, and scores correlated well with the scores of comparable measures such as the Standard Achievement Test.

Gates-MacGinitie Reading Tests were correlated with the verbal or English sections in the Preliminary Scholastic Assessment Test, Scholastic Assessment Tests,

American College Testing Program, and grade point average (GPAs; Lipson & Lang, 1991). In 2008, the GMRT was examined by Rowe, Ozuru, O'Reilly, and McNamara. They determined the difficulty in various standardized reading tests currently used in the United States. They cross-examined the Level 7/9 and Level 10/12 of the GMRT and concluded that the GMRT contains a variety of passages with changing ranges of difficulty, differing in a number of dimensions. The researchers also determined that the tests contain questions of several different types; most of them cannot be answered by merely eliminating distractors. The test extensively measures numerous different subcomponents inherent in the reading comprehension of the text in the context of various reading conditions.

Data Collection

Eight research questions were addressed as part of this study.

Research Question 1 (RQ1): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the special education students prior to and after the SRA Corrective Reading Program intervention?

RQ1 Null Hypothesis ($H1_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

RQ1 Alternative Hypothesis ($H1_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

Research Question 2 (RQ2): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the regular education students prior to and after the SRA Corrective Reading Program intervention?

RQ2 Null Hypothesis ($H2_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of regular education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ2 Alternative Hypothesis ($H2_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of regular education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 3 (RQ3): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the third grade prior to and after the SRA Corrective Reading Program intervention?

RQ3 Null Hypothesis ($H3_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the third grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ3 Alternative Hypothesis ($H3_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the third grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 4 (RQ4): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the fourth grade prior to and after the SRA Corrective Reading Program intervention?

RQ4 Null Hypothesis ($H4_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fourth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of

regular education students after the implementation of the SRA Corrective Reading Program.

RQ4 Alternative Hypothesis ($H4_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fourth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 5 (RQ5): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the fifth grade prior to and after the SRA Corrective Reading Program intervention?

RQ5 Null Hypothesis ($H5_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fifth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ5 Alternative Hypothesis ($H5_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the fifth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group

of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 6 (RQ6): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the sixth grade prior to and after the SRA Corrective Reading Program intervention?

RQ6 Null Hypothesis ($H6_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the sixth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ6 Alternative Hypothesis ($H6_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the sixth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 7 (RQ7): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the seventh grade prior to and after the SRA Corrective Reading Program intervention?

RQ7 Null Hypothesis ($H7_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the seventh grade

taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ7 Alternative Hypothesis ($H7_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the seventh grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 8 (RQ8): Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the eighth grade prior to and after the SRA Corrective Reading Program intervention?

RQ8 Null Hypothesis ($H8_0$): There is no significant difference between the mean scores calculated from the archived PSSA reading scores of students in the eighth grade taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

RQ8 Alternative Hypothesis ($H8_A$): There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in the eighth grade taken prior to implementation of the SRA Corrective Reading Program intervention

and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Each of the eight questions had a null hypothesis, and each hypothesis was tested at the .05 significance level. The study questions that were investigated were related to the reading archival scores that participants demonstrated when participating in the SRA Corrective Reading Intervention Program. The independent variable for this study was the SRA Corrective Reading Intervention Program, and the dependent variable was the scores the students earned on the PSSA after the SRA Corrective Reading Intervention Program. The research questions were stated. The null hypothesis and alternative hypothesis were also stated for each research question.

The data assessed consisted of two mean scores comparing eight groups' archival scores before the introduction of the reading intervention (archived 2009 PSSA scores) and the archival scores after the intervention (archived 2011 PSSA scores) per student; therefore, a related-samples ANOVA test was employed to analyze the effects that the independent variable, the SRA Corrective Reading Program, had on the dependent variable, the scores the students earned on the PSSA after the SRA Corrective Reading Intervention Program. The pre and posttest mean scores for the participants in Grades 3 to 8 were entered into a statistical program and were compared utilizing a related-sample ANOVA test. The related-sample ANOVA test was chosen because the study was made up of the mean scores from all of the individual student scores in each group identified by

the hypothesis and research questions; one sample and two scores per student (Graney, Martínez, Missall, & Aricak, 2010).

The probability value produced by the statistical software indicated if the null hypothesis is rejected, if the value does not exceed the significance level of 0.05 or if there is a failure to reject if the value exceeds the significance level. The statistical significance level was set at 0.05. This study used a quantitative related-samples design. The archival PSSA scores provided baseline data in reading comprehension and reading fluency at the onset of the study and were compared to PSSA scores after the implementation of the reading intervention to determine changes in reading scores. This study used the archival PSSA scores to analyze the reading comprehension scores in order to determine the effects of the SRA Corrective Reading Program. This study used a quantitative approach because it investigated the relationship between and among the variables in order to answer the research questions. This quantitative method was selected because the archival PSSA scores provide numerical data. According to Creswell (2009), a quantitative design looks for relationship among variables.

Measures of Ethical Protection

The school principal and the special education liaison monitored the fidelity of the implementation of the SRA Corrective Reading Program by observing classrooms throughout the academic year. If there was a discrepancy in the delivery of instruction, the principal and the liaison were able to conduct professional development to ensure the program was delivered with fidelity. The SRA Corrective Reading Program was part of School District's Promise Academy initiative. All special and regular education teachers

were instructed in the SRA Corrective Reading Program. The archival students' PSSA scores for the 2009 school year were used to initially assess and determine the students' specific needs and the areas of growth were identified during the team's monthly review meeting. The participating teachers were allotted one professional development day per month to properly review the program, plan for the next month, and create curriculum maps. For accountability purposes, monthly attendance and lesson completion data was required by the principal and was part of the study to ensure the program was implemented with fidelity. Every phase of this study was conducted in an ethical and professional manner after obtaining Walden University Institutional Review Board (IRB) approval # 05-08-14-0143832. The standards have been set by Walden University Review Board as described by the three ethical principles: justice, beneficence, and respect for persons and by School District of Philadelphia's mission: to provide a high-quality education that prepares, ensures, and empowers all students to achieve their full intellectual and social potential in order to become lifelong learners and productive members of society. The data collection was part of the normal procedures as the school district keeps and maintains all test data and welcomes research that can guide their administrators to make cost effective decisions. Direct parental consent was not necessary, as the names of the students at the school district were not used. Specific strategies and delivery of instruction are regular parts of the curriculum and processes that have been set up in this school and monitored by the administration staff. The principal of the research school had no objection to the proposed study as the study

provided the school district with information necessary for the students to become better readers. The principal provided explicit permission to conduct this study.

Conclusion

To improve proficiency in reading, assessment scores need to improve and reading strategies need to be provided. Many special and regular education students require continuous intensive instruction in reading due to their current reading levels. Traditional reading programs fail certain students despite teachers' best efforts. By middle school level, many of these students have become resistant readers as they have developed techniques to avoid reading. It was the responsibility of school leaders to provide all students with an opportunity to learn. Effective leadership encompasses the ability to empower others to lead and keep the focus on the mission. The objective of this study was to determine if the SRA Corrective Reading Program helped develop the reading comprehension of special and regular education students in grades three to eight. That data was supported with the final results of the archival PSSA mean scores that provided statistical evidence of SRA's impact on reading comprehension.

Section 4: Results

Introduction

The purpose of this study was to determine if the SRA Corrective Reading Program implemented for the first time in 2010 on 200 special and regular education students in Grades 3through 8 impacted their reading levels as measured by their 2011 archival PSSA scores. The study identified the participants by using the GMRT for special and regular education students as those who were reading at least 2 or more years below their grade level. Employing pre– and post-test archived data from the PSSA, I focused on addressing the following eight questions:

1. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of the special education students prior to and after the SRA Corrective Reading Program intervention?
2. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of the regular education students prior to and after the SRA Corrective Reading Program intervention?
3. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 3 prior to and after the SRA Corrective Reading Program intervention?
4. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 4 prior to and after the SRA Corrective Reading Program intervention?

5. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 5 prior to and after the SRA Corrective Reading Program intervention?
6. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 6 prior to and after the SRA Corrective Reading Program intervention?
7. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 7 prior to and after the SRA Corrective Reading Program intervention?
8. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in Grade 8 prior to and after the SRA Corrective Reading Program intervention?

In this section, I provide an overview of the study, sample description, statistical analysis, and results.

Sample Description

The total student enrollment in Grades 3 to 8 was 225, consisting of 30%, or 67 special education students, and 70%, or 158 regular education students. The study was conducted in an urban K-8 public school. The scores of 200 randomly selected students in Grades 3 to 8 were analyzed for this study.

Statistical Analysis

A related-sampled ANOVA test with a significance level of .05 was used to determine if a significant difference existed between the mean scores calculated from

groups of student PSSA individual scores. The scores were archived PSSA scores before the implementation of the reading intervention (SRA Corrective Reading Program) and posttest archived PSSA scores after the implementation of the reading intervention. The means of each pretest and posttest sample in relation to the research questions were calculated. The means from the pretest data were compared to the means of the posttest data. The comparison of the means yielded a *p*-value, which was used to assess the validity of the null hypothesis. It stated that there was no significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

Results

The results for the mean scores and standard deviation of all pre-test regular education, special education and grades three through eight students are presented in Table1.

Pretest Data

	All regular education	All special education	Grade 3 all students	Grade 4 all students	Grade 5 all students	Grade 6 all students	Grade 7 all students	Grade 8 all students
Mean	22.19	14.33	16.60	18.60	17.36	21.07	24.21	25.76
Std. Dev.	8.15	6.41	6.58	7.55	7.66	6.30	7.13	11.00

As indicated in Table 1, special education students had the lowest mean scores of any other tested group. Regular education students had a mean score of 8 points higher than special education. Eighth grade students had the highest mean scores of any other tested grade with 11 points higher than special education students and 3 points higher than regular education students' mean scores. Third grade students had the lowest mean score of any other tested grade with 6 points lower than regular education students; however, they had 2 points higher than special education participants. Fourth grade students' mean scores were 4 points lower than regular education students and 4 points higher than special education students. Fifth grade students' mean scores were 5 points lower than regular education students and 3 points higher than special education students. Sixth grade participants' means scores were 1 point lower than regular education students and 7 points higher than special education students. Seventh grade students mean scores were 2 points higher than regular education students and 10 points higher than special education students' mean scores as determined by the ANOVA test with a .05 significance level.

Table 1 defined the mean scores of pretest data of all students in relation to each other. The results of the mean scores of all posttest regular education, special education, and Grades 3 to 8 students are evident in Table 2 and show the results of the mean scores after the implementation of the reading intervention.

Table 2

Posttest Data

	All regular education	All special education	Grade 3 all students	Grade 4 all students	Grade 5 all students	Grade 6 all students	Grade 7 all students	Grade 8 all students
Mean	28.62	25.67	27.66	28.90	32.64	28.30	25.31	22.58
P value	1.31E-12	4.15E-21	3.88E-11	2.14E-10	9.88E-17	1.88E-8	.025	.841

As indicated in Table 2, eighth grade students had the lowest mean scores of any other tested group with 6 points below regular education students and 3 points below special education students. Fifth grade students had the highest mean score of any other tested group with 4 points higher than regular education students and 7 points higher than special education students. Third grade students' mean scores were 1 point lower than regular education and 2 points higher than special education students. Fourth and sixth grade students' mean scores were equal with regular education students and 3 points higher than special education students. Seventh grade students' mean scores were 3 points lower than regular education students' mean scores and equal to the special education students' mean scores. Pre- and post-test mean scores were compared using an ANOVA test which yielded a *p* value that was used to determine the statistical change of the PSSA reading scores after the implementation of the SRA Corrective Reading Program and are also presented in Table 2. As indicated in Table 2, the analysis of the data rejected the null hypothesis as the ANOVA test revealed results less than .05 significance level (shows statistical significance), as seen in all students except Grade 8. However, the data for Grade 8 failed to reject the null hypothesis as the ANOVA test

revealed results greater than .05 significance level (shows no statistical significance). Pre- and post-test PSSA mean scores for all groups are presented in Table 3.

Table 3

Pre- and Post-Test Comparison

	All regular education	All special education	Grade 3 all students	Grade 4 all students	Grade 5 all students	Grade 6 all students	Grade 7 all students	Grade 8 all students
Pretest mean	22.19	14.33	16.60	18.60	17.36	21.07	24.21	25.76
Post-test mean	28.62	25.67	27.66	28.90	32.64	28.30	25.31	22.58

As indicated in Table 3, all tested groups showed an increase in mean scores after the reading intervention except for Grade 8 students. Specific results for each tested group were provided for each of the research questions.

Research Question 1: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the special education students prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of the special education students revealed that there is a statistical significant difference (11 points increase) that was determined by using an ANOVA test with a .05 significance level as identified in Table 3. Therefore, ($H1_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of special education students taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading

scores of the same group of special education students after the implementation of the SRA Corrective Reading Program.

Research Question 2: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of the regular education students prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of the regular education students revealed that there was a statistical significant difference (6-point increase), that was determined by using an ANOVA test with a significance level of .05 as expressed in Table 3. Therefore, ($H2_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of regular education students taken prior to the implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 3: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 3 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 3 students revealed that there was a statistical significant difference (11-point increase) that was determined by using an ANOVA test with a .05 significance level as expressed in Table 3. Therefore, ($H3_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in Grade 3 taken

prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 4: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 4 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 4 students revealed that there was a statistical significant difference (10-point increase) that was determined by using an ANOVA test with a .05 significance level as expressed in Table 3. Therefore, ($H4_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in Grade 4 taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 5: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 5 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 5 students revealed that there was a statistical significant difference (15-point increase) as determined by using an ANOVA test with a .05 significance level as expressed in Table

3. Therefore, ($H5_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in Grade 5 taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 6: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 6 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 6 students revealed that there is a statistical significant difference, (7-point increase) using an ANOVA test with a .05 significance level as expressed in Table 3. Therefore, ($H6_0$) was rejected. There is a significant difference between the mean scores calculated from the archived PSSA reading scores of students in Grade 6 taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research Question 7: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 7 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 7 students revealed that there was a statistical significant difference, (1 point increase) using an

ANOVA test with a .05 significance level as expressed in Table 3. Therefore, ($H7_0$) was rejected. There was a significant difference between the mean scores calculated from the archived PSSA reading scores of students in Grade 7 taken prior to implementation of the SRA Corrective Reading Program intervention and the mean scores calculated from the archived PSSA reading scores of the same group of regular education students after the implementation of the SRA Corrective Reading Program.

Research question 8: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in Grade 8 prior to and after the SRA Corrective Reading Program intervention?

A comparison of the PSSA pre- and post-test mean scores of Grade 8 students revealed that there was a statistical significant difference, (3 points decrease) using an ANOVA test with a .05 significance level as expressed in Table 3. Therefore, ($H8_0$) was not rejected. This directed us to reject our hypothesis which states: Is there a significant difference between the reading mean scores that were calculated from the archived PSSA reading scores of students in the eighth grade prior to and after the SRA Corrective Reading Program intervention?

Summary

The results of this research indicated that there were statistical significant differences for all tested groups on PSSA scores before and after the implementation of the SRA Corrective Reading Program except for Grade 8. Specifically, special education students' mean scores demonstrated a significant increase (11 points) and regular

education students had an increase of (6 points) after the implementation of the reading intervention.

Third grade students demonstrated an 11 point increase in mean scores after the implementation of the reading intervention. Fourth graders also demonstrated an increase in their mean scores by generating a 10 points increase after the implementation of the reading intervention. Fifth graders confirmed their place as having the highest increase in mean scores in any tested group after the implementation of a reading intervention. They demonstrated the highest 15 points mean score increase. Fifth grade scores reflected more than double the regular education students' average mean scores and 4 points higher than special education students' mean scores. Sixth grade students demonstrated an increase of 7 points in mean scores and one point over the average regular education scores however, 4 points below the special education average 11 points increase.

Seventh grade students demonstrated an increase (1 point) in mean scores after the implementation of the reading intervention. This was 5 points below the regular education students' average and 10 points below the special education students' average. These scores reflect the lowest gain of all students. On the other hand, eighth grade students did not show any gain after the implementation of the reading intervention. In fact, eighth graders' mean scores dropped by more than 3 points. Overall, the SRA Corrective Reading Program yielded significant increases in the students' mean scores on the PSSA.

An overview of the study followed by an interpretation of findings is discussed in Section 5, along with implications for social change, recommendations for action, recommendations for future study, and a conclusion.

Section 5: Discussion, Conclusions, and Recommendations

Overview

The purpose of this study was to determine if students demonstrated a change in reading comprehension in Grades 3 to 8 using archived PSSA scores before and after the implementation of the SRA Corrective Reading Program. Students were given one scripted lesson daily within a 40-minute time frame from September, 2010 through March, 2011. Pre- and post-test data were reviewed to determine if there were any statistical significant differences in their PSSA scores.

Interpretation of Findings

The study focused on addressing the following eight questions:

1. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of the special education students prior to and after the SRA Corrective Reading Program intervention?

Special education students in all grades showed the greatest improvement from all other tested groups. The mean scores of special education students increased from 14 to 25 as seen in Chapter 4, Table 3. This reflected an average increase of 11 points on their mean reading scores. This was an extraordinary increase as they occupy their own category in the AYP grade assigned to each school (U.S. Department of Education, 2009) as reported in Chapter 2, Literature Review. Specifically, the school that was part of this study will no longer be plagued by special education students' inability to demonstrate growth. This significant increase in scores reinforce SRA's claim that their reading intervention program was intended for and more effective for special education students

(Wang & Algozzine, 2008). Therefore, the results of this study suggest that corrective reading significantly impacts reading comprehension skills in special education students. Parents can view the results as a positive increase in instruction. Teachers may also view the results as affirmation for their continuous efforts (Young, Austin, & Growe, 2013).

2. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of the regular education students prior to and after the SRA Corrective Reading Program intervention?

Regular education students in all grades showed significant improvement in their PSSA reading scores as their mean scores went from 22.19 to 28.62 as seen in Chapter 4, Table 3. This reflected an average increase of 6 points in their mean reading scores. The average mean score of regular education students pale in comparison to special education students' mean scores that were 5 points higher. The results of this study confirms the Thomas et al. (2010) study mentioned in Chapter 2, Literature Review, that corrective reading also impacted reading comprehension skills in regular education students.

3. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the third grade prior to and after the SRA Corrective Reading Program intervention?

Students in Grade 3 showed significant improvement in their PSSA reading scores as their mean scores increased from 16.60 to 27.66 as seen in Chapter 4, Table 3. This reflected an average increase of 11 points in their raw reading scores. This was a remarkable increase considering that this was the first time third grade students were taking the standardized PSSA. The study revealed that corrective reading impacted

reading comprehension skills for third graders. According to a study by Ryder et al. (2008), teachers should be especially critical of the results as it may reveal effective strategies that can be shared among other teachers. Parents should use the score as a baseline for future scores and hold their child to that standard for future assessments.

4. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the fourth grade prior to and after the SRA Corrective Reading Program intervention?

Students in Grade 4 also showed significant improvement in their PSSA reading scores, with a 10-point increase in their mean scores from 18.60 to 28.90 as seen in Chapter 4, Table 3. The study revealed that reading comprehension scores increased for fourth graders; therefore, corrective reading had an impact on PSSA scores. A 10-point increase substantiates the teacher's efforts and their collaboration with the parents in educating their child. In a 2008 study, Mellard and Johnson stated that sharing of strategies and methodology should be part of teachers' professional development prior to the start of the next academic year.

5. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the fifth grade prior to and after the SRA Corrective Reading Program intervention?

Students in Grade 5 showed the greatest improvement of all tested grades with an overall mean increase of over 15 points (17.36 to 32.64) as seen in Chapter 4, Table 3. This was an extraordinary achievement. The study revealed that corrective reading impacted reading comprehension skills for fifth graders. Educators were able to identify

the grade(s) that carry the school to AYP. The study's results are aligned with Stockard's 2010 study describing students in the corrective reading program who outperformed students not in the program. Grade 5 participants are without a doubt the carriers of this school as they performed better than the regular and special education students. There might be other circumstances that allowed such an impressive increase, which was discussed in this chapter under Future Research; however, the credit should go to the teachers as they implemented the reading intervention and continued their efforts in the classroom. Their strategies should be shared among other teachers in professional development throughout the year (Kanfush, 2012).

6. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the sixth grade prior to and after the SRA Corrective Reading Program intervention?

Grade 6 students experienced an increase of mean scores from 21.07 to 28.30. This reflects an overall increase over 7 points. Though the increase was not as grand as in Grade 5, it was more than the regular education average (6 points) as seen in Chapter 4, Table 3. The increase revealed that corrective reading impacted reading comprehension skills for sixth graders. The results aligned with a study from What Works Clearinghouse in 2010 that describes students who experience the SRA Corrective Reading Program were able to elevate back to their proper grade level.

7. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the seventh grade prior to and after the SRA Corrective Reading Program intervention?

Students in Grade 7 experienced an increase of only 1 point in their mean scores from 24.21 to 25.31 as seen in Chapter 4, Table 3. Grade 7 students experienced the smallest increase from any other tested grade. There was a significant statistical increase thus revealing that corrective reading had an impact on reading comprehension skills.

8. Is there a significant difference between the reading mean scores calculated from the archived PSSA reading scores of students in the eighth grade prior to and after the SRA Corrective Reading Program intervention?

Eighth grade students had a decrease in their overall mean scores from 25.76 to 22.58 as seen in Chapter 4, Table 3. This was a loss, on average, of 3 points. The results of this study revealed that corrective reading did not have an impact on reading comprehension scores of eighth graders. Many questions arise from these results. As an educator, this was disturbing. I expected eighth grade students to have the most gain other than special education students due to their experience in taking standardized tests; obviously this was not the case. I thought about the high pretest mean score (highest of all groups) as a measure of success; however, these students received the same instructional time as the other participants yet did not show an increase as described by Hwang and Evans's 2011 study. Other circumstances may have contributed to these scores, which will be discussed in this section under Recommendations for Future Study.

Implications for Social Change

According to a study by Sabatini et al. (2011), students with low reading abilities are at a much higher risk to drop out of high school than those who demonstrate much higher reading abilities. In particular, Philadelphia was experiencing a high school

dropout rate of over 55% (Commonwealth of Pennsylvania, 2011). Fast moving professions that demand much higher literacy levels are a product of the local economy and are experiencing a rise while those declining professions show a below average literacy requirement (Slavin, 2008). According to a study conducted by Lovett et al. (2011), a successful workforce must have an average literacy level increase of 14% since all occupations in the United States will require strong literacy skills.

The current study was designed to determine the effectiveness of the SRA Corrective Reading Program. Administrators may be easily persuaded, from reviewing the results of this study, to implement a reading intervention program in their schools in an attempt to decrease the high school dropout rate. This implication for social change may lead to discussions among administrators and educators concerning best practices, preparation for college, and achieving a proficient understanding of academic standards. This study's results could encourage local administrators to evaluate the effectiveness of a reading intervention program that can be utilized to assist students that are having difficulty or are falling behind in reading comprehension which adversely affects the school's AYP status.

Corrective reading can be used as a supplemental lesson in an afterschool tutoring program or as part of the daily curriculum. The program has built in measures to monitor progress that can drive instruction. The initial intent of the program's design was to assist special education learners with reading comprehension; however, evidence from this study suggests that regular education learners can benefit as well. The educational community is always seeking innovative ways to close the achievement gap that impedes

the success of students (Hattie, 2009). Reading has been considered the epicenter of weakness that many students experience at a young age, resulting in future increases in high school dropout rates. This will negatively impact the amount of skilled and educated workers who are currently needed throughout the United States, as a successful workforce must have an average literacy level increase of 14% since all occupations in the United States will require strong literacy skills (Lovett et al., 2011).

Recommendations for Action

Many educational stakeholders consider reading comprehension as the cornerstone of student success. Increasing the reading comprehension levels of all students, including those students with learning disabilities, will bring about important social change (Fordham, 2006). The results of this study can be used to encourage the educational community to reexamine current practices of reading intervention on special education students in an effort to meet the federally mandated initiative of the NCLB. An estimated 75% of poor reading students in third grade continue to be lower achieving readers in ninth grade (Lembke, Garman, Deno, & Stecker, 2010). Effective reading interventions may improve students' reading comprehension skills and increase high school graduate rates. This study may also provide information that could help other schools and school districts increase their students' reading levels by implementing the Corrective Reading Program as an early intervention for students who are struggling with reading comprehension. It was recommended that schools and school districts employ research based strategies that have a positive impact on student achievement. Due to SRA's Corrective Reading Program's impact on reading comprehension, it was

recommended that the school continue to use the program and, if possible, increase the intervention's regularity. Schools should also consider taking a closer look at special education students as they may be inappropriately placed due to their inability to read. It was also recommended that Title I schools use funds to purchase and maintain a reading intervention program in the lower grades in an effort to decrease high school dropout rates. In addition, it was suggested that other school districts explore this type of research-based program. A further examination of this type of reading program was warranted.

Recommendations for Future Study

Expanding corrective reading programs into an integral part of the literacy curriculum will allow more focus and time for students to receive the intervention on a daily basis. This quantitative study focused on the positive impact that corrective reading had on PSSA scores for students in Grades 3 to 8. Corrective reading was one form that was used to support struggling readers. Conversely, there are other areas for further study such as READ 180, Touch Phonics, and Read Well. Future research may benefit from examining the effectiveness of certain parts of the program as some parts may be more effective than others. Additionally, this study did not have a control group. A large control group would be more beneficial for research and may provide another avenue of future research. Investigations to determine if students maintained their gains may be another course of future research. Examining other forms of literacy intervention, especially in the students' early years, warrants future research. Further research can be designed to determine if there are academic advantages to have students continue daily

lessons during the summer months, thus completing multiple modules using the built in assessments. According to Scott, Jolivette, Ennis, and Hirn, (2012), future research should take into consideration the type of classroom setting and the time of day as those factors can influence the student's performance, thus providing different results.

To further assist more struggling readers, a national approach should be implemented. Though PSSA scores and corrective reading levels are dependable assessments that have been used to measure students' reading comprehension, alternative methods such as performance based assessments (that utilize portfolios and projects) may be the focus of future research through a qualitative or mixed study (Larbi-Apau & Moseley, 2009). Continued research will permit the educational community to effectively evaluate reading difficulties and make knowledgeable decisions that impact student achievement in reading comprehension in order to prevent future high school drop-out issues.

Researcher's Reflection

The results of this study support previous research studies and support the initial theories referenced in Chapter 1, Theoretical Framework, of student learning by Piaget (1972), Vygotsky (1978), and most significantly those of Bruner (1966). Students demonstrate their ability to learn when the educators identify their predisposition to learn, their particular learning style, and their response to positive and negative feedback. Moreover, increased academic rigor in an escalating format allows the students to show their mastery of content while increasing academic skills. As the concept of merit pay gains momentum in the public arena and teacher accountability is proportionally

increasing, teachers are looking for effective ways to instruct their students in all of the necessary social and academic skills to be successful in life. This study supports previous research and theories that express the use of systematic and explicit instruction (Ehren et al., 2009), from trained teachers who provide small group instruction with increased frequency and length (Berg & Lyke, 2012). This type of instruction promotes the intensity and value of instruction teachers provide to students.

Students who have not mastered basic reading skills are more likely to struggle and drop out of high school. This action adversely affects their ability to acquire employment or obtain further training in a vocational field. High school dropout rates have been linked to middle school disengagement and are attributed to class failures, poor attendance, and misbehaviors. By providing specific reading instruction, it is possible to decrease the likelihood that at risk students becomes disengaged (Education Commission, 2011).

Conclusion

The results of this study are substantial as they demonstrate that structured, intensive reading interventions can be effective in a middle school environment and provides an effective strategy for the educational community to utilize. Moreover, the results can prove favorable in securing the crucial funding for staff and curriculum needs at the middle school level. Direct impact on schools may be felt as the passing rates of students on standardized tests regularly relate to the percentage of students who make AYP and graduate on time, both of which affect individual schools and entire districts monitored by the federal government for the race to make AYP.

The outcomes of this study are noteworthy due to an increased number of intervention programs that are marketed as the magic bullet of standardized high stakes testing (Akers, Resch, Berk & National Center for Education Evaluation and Regional Assistance, 2014). In our current economic climate, research based reading intervention programs need to be effective and provide a clear, formative evaluation of proven instructional strategies. The increased pressure to meet federal mandates of NCLB has driven school districts to be more cautious and scrutinize the marketed intervention programs that boast increased test scores. Hasty purchases of intervention programs that make such claims as high test scores without supporting research based evidence may leave students with an undeserving reading deficiency. Obtaining data that is research based and applicable to the SRA program will provide educational stakeholders with a clear quantifiable analysis that may be used to evaluate the implementation of the SRA program for students that are two or more years behind in reading skills. It was the hope of this researcher that districts considering purchasing a reading intervention program for their students consider this current study as part of their analysis prior to making a purchase.

School administrators have a daunting task to ensure that students meet or exceed reading standards. They also have the responsibility to assist faculty and staff in scrutinizing instructional practices that will meet the needs of all students with a proven record of success. In selecting an intervention program, the school leader should identify specific criteria such as: (a) Was it affordable? (b) Will it meet the needs of your targeted student population? (c) Has the program demonstrated prior success? (d) Was it research

based? Interventions are not created equal thus observations are not enough. Research based data along with analysis over a large educational community will ensure school leaders are getting their money's worth.

In 1997, IDEA underwent changes that aligned special education standards with standards in general education. These new provisions mandated learning-disabled students to take school district and state assessments (with necessary accommodations) and report the results as part of their evaluation. These changes added to the pressure on disabled students and school leaders in Pennsylvania because if the special education sub-group does not show annual improvement, the school may be identified as a school needing improvement. As a result, the School District of Philadelphia implemented the SRA reading program. Subsequently, of the six schools that focused on implementing the reading program, one school demonstrated significant gains in reading comprehension according to their mean PSSA scores and was successful in achieving AYP. This school was the research site and the data source of this study.

The results of this quantitative study revealed that there was significant difference in achievement on the PSSA reading scores of students that were provided instruction using the SRA Corrective Reading Program. The intensive reading program utilized reading level and age appropriate content with explicit instruction in decoding, reading strategies, fluency and comprehension. A common theme in this research was that students that undergo intensive, explicit, research based instruction in their area of need are able to make annual gains beyond that of their developing peers. It was my opinion that the SRA Corrective Reading Program was highly effective for special education

students, as was its intent, and equally as effective to regular education students as demonstrated by this study's results. The educational professional community, along with parents and stakeholders, may wish to review the results of this study as a catalyst for change or at the minimum, promote dialogue focusing on reading intervention for struggling readers.

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