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Effects of a Tier 2 Intervention in Eighth Grade English Classes

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Walden University
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Abstract

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MEd, Regent University, 2011

BSBA, Longwood College, 1994

Project Study Submitted in Partial Fulfillment

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Abstract

Many school administrators in the United States continue to struggle with students not meeting the pass rate on statewide assessments. This study examined the effectiveness of a Tier 2 reading intervention, the Wilson Reading System (WRS) that was implemented at a local Virginia school for 1 semester to address the low pass rate on the statewide reading assessments. The framework for this study was based on the multi-tiered systems of support and the response to intervention model. A quasi-experimental pre-post research design was used to examine the differences on two reading assessments after completing the 16-week WRS program. A multivariate analysis of variance was used to examine the change between the 8th grade reading Student Growth Assessment (SGA) pretest and posttest scores, as well as the Lexile scores from the Scholastic Reading Inventory (SRI) of the 82 8^{th} grade students that received the WRS intervention. The results indicated a significant difference in the SGA ($p < .005$) and the SRI Lexile reading pretest and posttest scores ($p < .005$). These findings led to a recommendation to the school district leadership team to expand their reading intervention program at the middle school and to adequately train teachers on using the WRS. If students can maintain their respective reading grade level, students will be able to not only pass statewide reading assessments but also succeed in other school subjects, increasing the opportunity for students to graduate from high school and obtain successful careers.

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Dedication

This project is dedicated to my family, who has been a support system for me my entire life. My husband, my dad, and my mom have all supported me in tremendous ways. The drive in me is because they have inspired me to be my best and saw in me the ability to be my best.

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I would like to thank everyone who encouraged me and showed support through the years as I pursued this degree. First, I would like to thank my husband, who was supportive and called this into existence prior to me starting this path. His encouragement and love has been an inspiration. Even when I was not sure of how I was going to make it or felt overwhelmed, he always spoke a word to help push me to the next level. It was during those tired days that his words would come to mind and I felt inspired to complete the task at hand. He sacrificed just as much as I did and I am grateful for his love.

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Section 1: The Problem

The Local Problem

Many middle school students continue to struggle with reading and basic reading skills (Cantrell, Alsami, Carter, and Rintamaa, 2016) that they should have acquired while in elementary school. Calhoun and Petscher (2013) suggested that some struggling readers might not have been able to develop these skills because they did not receive sufficient or appropriate reading instruction. Struggling readers are considered to be 4 to 6 years below grade level and often show difficulties in oral reading fluency and comprehension (Cirino et al., 2013). Students need to receive effective reading instruction or they will continue to fall further behind others in their grade level (Moreau, 2014).

The site school for the project has failed to meet the state requirements for the last three years on the English 8 end of the year reading assessment (Table 1). The required pass rate to meet state required standards in English is 75 percent in the state of Virginia. In reviewing the reading levels, student growth assessment (SGA), and previous standards of learning (SOL) scores, it was determined that several students in the eighth grade were unable to comprehend material at an age appropriate reading level. The site school began to review supplemental programs that would help students who displayed reading difficulties in the classroom setting with reading. In order to determine which program would be most beneficial, they reviewed programs that focused on developing basic reading skills. The project will contribute to the knowledge about program processes and outcomes.

Table 1

Study Site Grade 8 Statewide Pass Rate Scores

Year	Virginia Department of Education State Avg. Pass Rate	Study Site Grade 8 Reading Statewide Pass Rate	Difference in Pass Rate Scores
2012-2013	70.9%	56.0%	14.9%
2013-2014	70.6%	52.0%	18.6%
2014-2015	75.1%	63.0%	12.1%
2015-2016	75.5%	64.0%	11.5%

Rationale

Evidence of the Problem at the Local Level

Over the last three years, the site school has seen a 9% increase in the pass rates on the Grade 8 Reading Statewide assessment. (Table 1). Although the differences in pass rates decreased from the 2013-2014 to the 2015-2016 school year, the local school continues to be below the state average pass rate. The state average pass rate is 75 percent, and a school is considered passing when that pass rate has been met. The site school incorporated several steps to towards improving English pass rates.

During the past three years, the school updated its reading curriculum to ensure alignment to the state's reading curriculum framework. The state's curricula are used as the blueprints for creating the statewide assessments. In addition, the school added a reading enhancement course to work with students who were close to passing the statewide assessment. Finally, a one-hour remediation and enrichment block was added at the end of the school day to provide reading interventions for the students. Students who scored below the passing score on the eighth-grade reading SGA pretest and received a

Lexile score under 849 on the Scholastic Reading Inventory (SRI) were placed in the remediation block.

Evidence of the Problem from the Professional Literature

Students who are not reading on grade level continue to be a concern for educators in the United States, especially adolescent students. Growth in reading achievement is normally highest during elementary school years (Ahmed et al., 2016). When a student enters middle school, he or she should have mastered the basic reading skills, and comprehension should be the main focus (Ahmed et al., 2016). Moreau (2014) indicated that students who continue to struggle with reading at the end of Grade 2 continue to have reading problems as they move into adulthood. The National Center for Education Statistics (NCES) provides a national report card that indicates how students across the United States continue to experience difficulties in reading in the higher grades.

The Nation's Report Card (2015) is published every two years for reading achievement. Students across the United States in the fourth and eighth grade are administered the paper and pencil test. It is used to measure what students comprehend at their respective grade levels. A student can receive four different ratings based on their scores, which can range from 0-500 (The Nation's Report Card, 2015). The scores include Below Basic (242 and lower), Basic (243-280), Proficient (281-322), and Advanced (323 and up) (The Nation's Report Card, 2015).

On the 2015 Nation's Report Card, only 32 percent of eighth graders scored in the proficient range (The Nation's Report Card, 2015). Twenty-five percent of the

United States' eighth graders who scored below basic on the national reading assessment are not equipped for the reading requirements of middle school (Hemphill et al., 2015). Since the students are not adequately equipped for reading, they continue to struggle with decoding words and the basic reading skills needed for successful readers (Cirino et al., 2013). Based on the data from the National Report Card, some middle school students continue to be at risk for academic failure due to insufficient reading abilities. Calhoun and Petscher (2013) identified these students as struggling readers because they have difficulty acquiring the reading skills necessary to be successful readers. This becomes an even greater concern when these readers are weak in one reading area and that weakness impacts other reading components. Cirino et al. (2013) indicated that over 70 percent of struggling readers will need remediation to help them improve their reading.

By the time students enter the middle school, they should be able to decode and comprehend what they read. These students should also possess the reading components identified by the National Report Card, which include phonetic skills, phonological awareness, fluency, vocabulary and reading comprehension (NCES, 2015). Each reading component should be evaluated for each student, but also in combination with each other (Cirino et al., 2013). Cirino et al. (2013) indicated that struggling readers often exhibit difficulties where the reading components overlap. Once the exact area of concern in reading and reading-related process is identified for the student, then the deficits can be addressed more specifically to help the reader improve his or her reading skills.

Direct instruction in reading will be necessary to help struggling readers in middle school. These students will need remediation in all aspects of the reading components, especially in decoding to help build their comprehension skills (Cirino et al., 2013). Berkeley et al. (2012) reported that approximately 10% of students entering middle and high school are unable to decode print, which affects their fluency and comprehension. Researchers have recommended that in order for these students to make increases in their reading level, they will need approximately two hours per day of direct, explicit, systematic instruction using age suitable reading material (Berkeley et al., 2012).

Schools like the one in this project continue to work towards finding ways to provide intervention to help students learn how to decode words and build comprehension skills, even at the middle school level (Fogarty, 2014; Hemphill et al., 2015; Marchessault & Larwin, 2013; Moreau, 2014). Stebbins, Stormont, Lembke, Wilson, & Clippard (2012) indicated that a delay in any reading area could decrease the student's success in reading. The local middle school continued to experience low scores on the English 8 reading statewide assessment, especially with students who scored below grade level on the SRI. The administrators at the school decided to implement a supplemental intervention instruction to address the concerns with the eighth-grade reading. Wilson Reading System (WRS) was chosen as the supplemental intervention program to use for the students selected to receive the Tier 2 instruction based on the criteria selected by the school. WRS provides explicit and structured instruction to help students develop foundational reading skills (Stebbins et al., 2012).

Definition of Terms

Multi-Tiered Systems of Support (MTSS): A three-tiered approach that focuses on prevention in the areas of academics and behaviors for all students in the classroom setting (Ross & Lignugaris-Kraft, 2015).

Response to Intervention (RTI): RTI is a multi-tiered system that integrates interventions to increase student achievement in academics (Bemboom & McMaster, 2013).

Scholastic Reading Inventory (SRI): Reading assessment taken on the computer to measure reading skills (Houghton Mifflin Harcourt, 2016).

Standard of Learning (SOL) Test scores: Score that must be achieved to meet the Commonwealth's expectations for achievement in English, mathematics, science and history with a passing score from 400-600 (Virginia Department of Education, 2015).

Student Growth Assessment (SGA): Assessments that are administered once in the fall and once in the spring to identify student strengths as well as gaps in student knowledge based on the SOLs (L'Anson, 2015).

Wilson Reading System (WRS): A comprehensive reading intervention with a systematic multisensory approach to reading instruction for struggling readers (Wilson Language Training, 2016).

Significance of the Study

The local school district administrators may find this study useful in focusing on how using the WRS with the identified Tier 2 students may affect the statewide assessment administered each school year. The results of this study may provide

information about the effectiveness of the WRS with middle school students who are not able to read on grade level or comprehend what they read. This study could be used to increase awareness of identifying the reading skills students need prior to entering middle school. The findings of the research could provide information on how reading interventions help students make progress in their reading abilities and comprehension of what they read.

Research Question(s) and Hypotheses

School leaders wanted to find out to what extent the WRS intervention would improve the eighth-grade SGA posttest scores for students who did not pass the pretest. The participating sample is comprised of students who did not pass the pretest and, therefore, participated in the WRS 16-week intervention.

- Research Question 1: To what extent, do students demonstrate a significant difference in the reading SGA posttest scores after receiving the WRS intervention for 16 weeks?

$H_0$1: There is no significant difference between pretest and posttest scores on the reading SGAs.

H_a1: Eighth-grade students who did not pass the SGA pretest demonstrate a significant difference in the reading SGA posttest scores after receiving the WRS intervention for 16 weeks.

- Research Question 2: Do eighth-grade students who scored a Lexile score two grades below grade level on the SRI demonstrate a significant difference on the SRI scores after receiving the WRS intervention for 16 weeks?

$H_0$2: There is no significant difference between pre-test and post-test scores of the SRI.

H_a2: Eighth-grade students who scored a Lexile score two grades below grade level on the SRI at the beginning of the year did demonstrate a significant difference on their end of the year SRI after receiving the WRS intervention for 16 weeks.

Findings from this study will be used to indicate if there is a significant difference in the SGA pretest and posttest scores of students who receive the WRS intervention for 16 weeks. These findings will also be used to determine if there were any changes in the student's reading level as measured by the student's SRI scores.

Review of the Literature

Theoretical Foundation

The framework for this study is based on the multitiered systems of support (MTSS) and the Response to intervention (RTI) model. Both models use a framework called multitier instruction (Spencer et al., 2014). MTSS is a three-tiered approach that focuses on behavior and academic support for students in the classroom setting (Ross & Lignugaris-Kraft, 2015). Ross and Lignugaris-Kraft (2015) indicated that MTSS is an intervention that involves universal screening of all students and then determining which students need additional intervention in all subject areas. MTSS focuses on working with all students in the district to help meet the students' needs (Morrison, Russell, Dyer, Metcalf, & Rahschulte, 2014).

The goal of MTSS from an instructional level is to provide highly qualified, evidenced based instruction in the classroom setting (Shogren, Wehmeyer, & Lane, 2016). MTSS is used to conduct universal screening to determine the academic and behavior needs of students (Norman, Nelson, & Klingbeil, 2016). Based on the data from the screening, interventions are put in place to help students improve academically and behaviorally. Students are monitored as interventions are implemented, and it is determined whether students need additional interventions or not after each intervention (Shogren et al., 2016). MTSS uses a tiered system, as a way to identify what interventions will be utilized (Norman et al., 2016).

The tiered system is designed to ensure that all students receive the interventions, if necessary, to help them succeed. A three-tiered system of support is utilized with the MTSS model (Shogren et al., 2016). Once all students have received the instruction, universal screening is conducted to determine if additional interventions need to be implemented. Using the data from the universal screening, students are then placed in Tier 1, Tier 2, or Tier 3.

Tier 1 involves all students receiving high quality instruction. Shogren et al. (2016) indicated that this type of instruction is provided to all students in the classroom. Tier 2 involves a smaller group of students who may not be successful with Tier 1 instruction and may need additional support in order to be successful in the classroom (Shogren et al., 2016). The final tier in MTSS is Tier 3. Tier 3 instructions are provided to students who need more intensive instruction than Tier 1 and Tier 2 instruction. These students are few in number and may require more specialized and individualized

instruction in order to meet the student's instructional needs (Shogren et al., 2016). After receiving the appropriate interventions, strategies are modified to help students succeed academically (Norman, Nelson, & Klingbeil, 2016).

The RTI model is also a multitiered system that integrates interventions to increase student achievement in academics (Mellard, McKnight, & Jordan, 2010). It measures the student's response to research-based interventions (Faggella-Luby & Ward, 2011). The RTI framework aims to be a problem solving and treatment mechanism to help students succeed. Sharp, Sanders, Noltemeyer, Hoffman, & Boone (2016) indicated different steps are necessary in the RTI process to determine the needs of the student. First, universal screening of all students in the school setting, as it relates to academics in all subjects and behavior is needed to decide the student's needs. Secondly, determine which students are experiencing difficulties by monitoring the student's progress. Next, the school determines and offers interventions to those students who are experiencing difficulties based on the specific needs. Finally, the school continues to monitor and offer interventions until the student is successful or not.

Bemboom and McMaster (2013) stated that the RTI process involves students being placed in different tiers based on how they respond to instruction and interventions introduced in class. An RTI model consists of a three-tier concept of the framework, which involves Tier 1, Tier 2, and Tier 3. Kuo (2014) indicated that Tier 1 involves evidence-based instruction, and approximately 80% of students will make academic progress. Tier 2 interventions and instructions involve teachers working with at-risk students in small groups on a regular basis to provide more explicit instruction with ten

percent to fifteen percent of students requiring these interventions (Goss & Brown-Chidsey, 2012). Tier 2 interventions and instructions are meant to complement the Tier 1 instruction in the class (Kelley & Goldstein, 2015). Tier 2 instruction can be used to address students' reading fluency and comprehension in an English class (Bemboom & McMaster, 2013). Tier 3 involves more intensive and direct instruction that will involve 1-5% of the student population (Kuo, 2014).

Mitchell, Deshler, and Ben-Hanania Lenz (2012) indicated in their study that RTI can be used as a way to assist students to meet the state standards scores. RTI allows students to receive the interventions to help students improve in the core areas of academics: math, writing, and reading. Research suggested that there are gaps between the research on RTI that indicates increased student achievement and the actual practice of accurately implementing RTI in the classroom setting by the teacher (Hill, King, Lemons, & Partanen, 2012). According to Faggella-Luby and Ward (2011), there is still time for struggling readers in middle school to learn how to read because their study found that most middle school students have not reached their full comprehension abilities and gaps still exist. Therefore, the proposed projects seek to and help address the gaps in the literature.

Review of Broader Problem

A comprehensive review of the literature was completed in order to provide information about the study. Several online databases were used to obtain literature, including Walden Dissertations, ERIC, Institute of Education Sciences, and Walden online databases. The search terms included *struggling readers, Wilson Reading System,*

response to interventions, middle schools, types of reading programs, reading comprehension, effective reading skills, instructional interventions, Tier 2 Interventions, and *foundations of reading*.

The section begins with explaining the elements necessary for reading instruction to be effective. It discusses the necessary components to help students become successful readers. Information about fluency, decoding, and phonics are examined. The next section provides background information on reading comprehension and how the basic reading skills must be developed for students to comprehend information they read. In addition, information about how reading comprehension is necessary for students to pass assessments is mentioned. Different instructional interventions and programs are presented, including the WRS, to determine what interventions have been utilized in the middle school setting and found to be effective.

Foundational Reading Elements

Reading is an important component needed for children to become independent and successful learners. This issue was so important to the United States government that in the late 1990s, they worked with the National Institute of Child Health and Human Development (NICHD) to start an organization that would research ways that show the best ways for children to read (National Reading Panel, 2016). The National Reading Panel (2016) identified five essential elements needed for independent reading. They included phonemic awareness, phonics, fluency, vocabulary, and comprehension (Konza, 2014). Although the National Reading Panel has identified elements needed to be a successful reader, Christopher et al. (2016) indicated that a student's reading ability could

also be associated with the student's cognitive thinking and reasoning. A student's cognitive ability is composed of working memory, naming speed, inhibition, and processing speed (Christopher et al., 2016). The combination of using cognitive skills and the essential components of reading can lead to positive outcomes for a student to comprehend what they read (Melley-Lervag & Lervag, 2014). As students continue to develop the essential elements necessary to become independent readers, they increase the ability to build their comprehension skills.

Phonemic awareness. Phonemic awareness is the reader's ability to focus on how words sound (Konza, 2014). As students develop how words sound, they must understand how sounds and spoken language relate to each other (Konza, 2014). Konza (2014) indicated that if students struggle with phonemic awareness, then they would have difficulty reading. Phonemic awareness is known to be a predictor of reading skills (Park & Lombardino, 2013).

Phonics. Phonics is a method of teaching beginners to read and pronounce words by learning the phonetic value of letters, letter groups, and especially syllables (Phonics, 2016). Sitthitikul (2014) stated that teaching phonics involves students learning how to recognize sounds and symbols that go together and manipulate sounds that lead to spelling words correctly. Berkeley et al. (2012) stated that some middle and high school students continue to struggle with decoding. As adolescent students continue to struggle with decoding, it affects all the other components necessary to be successful in reading (Cirino et al., 2013).

Fluency. Fluency is when students can read words automatically with expression and be able to comprehend what they read (Rasinski, Rupley, Paige, & Nichols, 2016). Fluency allows a student to go from learning to read to reading to learn (Konza, 2014). When students are fluent in their reading, they are able to interpret information quickly. As students develop their fluency, their reading abilities will improve. Rasinski, Rupley, Paige, and Nichols (2016) indicated that three concepts are necessary for a student to be fluent in reading: accuracy, rate, and oral expression. Each component of fluency is necessary for students to become proficient readers. Accuracy is being able to decode and say words accurately (Rasinski et al., 2016). This includes quickly recognizing sight words. Rate is the second component of fluency. Rate refers to how quickly students read and understand text presented to them (Konza, 2014). The final component is oral expression, which involves how a student reads as it relates to pitch, rhythm, and phrasing (Konza, 2014). As the three components are combined, they allow students to become fluent readers with the opportunity to develop better comprehension skills.

Students need to have opportunities to practice if they are to develop fluency. This can be presented through independent reading or oral reading. As students practice, they will have the chance to build their vocabularies and increase comprehension. Different interventions can be used to improve fluency. Rasinski, Rupley, Paige, and Nichols (2016) suggested that repeated oral readings, modeling, and scaffolding are ways to promote fluency for students. Oral reading involves students rehearsing text over and over through songs, reading, scripts, and poetry ((Rasinski et al., 2016).). Kuhn, Rasinski, and Zimmerman (2014) indicated that modeling fluency allows students to hear others

say and express the words so that the student can develop an understanding of how to use the word. Finally, teachers can use scaffolding by breaking the reading into different sections or chunks and then adjusted as needed to help the student improve their fluency (Kuhn, Rasinski, &Zimmerman, 2014).

Vocabulary. Vocabulary is defined as a list or collection of words, or phrases and words usually alphabetically arranged and explained or defined (Vocabulary, 2016). Konza (2014) indicated that vocabulary is necessary for students to comprehend the information they read. It had been suggested that indirect instruction in vocabulary helps students learn and build comprehension (Konza, 2014). This type of instruction can occur by parents reading to students and students building vocabulary as they listen. Students who do not receive this indirect instruction from parents are not able to capitalize on the opportunity to build their vocabulary (Konza, 2014).

A recent study indicated that direct instruction is a component necessary to help students build vocabulary (Konza, 2014). When direct instruction is used to build vocabulary, then all students receive instruction in vocabulary regardless of their background and exposure to reading (Konza, 2014). As schools continue to work with students to increase reading, they must include vocabulary-building activities in the curriculum. The vocabulary component is essential to reading and reading comprehension.

Comprehension. The goal of all readers is to comprehend what they read. Comprehension is understanding what is read. Konza (2014) indicated that comprehension involves more than just word recognition. As students develop their

phonics, phonemic awareness, fluency, and vocabulary, the goal is to help students comprehend material at an age-appropriate reading level.

Reading comprehension requires that students use different cognitive process to help them understand the reading process (Tighe & Schatschneider, 2014). Students learn in different ways, and this is also true as they develop the reading skills needed to be successful readers. Good readers are purposeful, understand the purpose of text, and actively engage with the text (Konza, 2014). When students have difficulty with basic reading skills, it makes their attempt to develop comprehension skills challenging.

Instructional Interventions

Instructional interventions are effective measures to use to help struggling readers (Moreau, 2014). Some middle school students continue to struggle in the area of reading (Calhoon, Scarborough, & Miller, 2013; Fisher & Frey, 2014; Frijters, Lovett, Sevcik, & Morris, 2013; Pittman & Honchell, 2014). These students continue to benefit from systematic and explicit instruction, and preventions and remediation are offered to help students improve their reading abilities (Roberts, Vaughn, Fletcher, Stuebing, & Barth, 2013). When schools review different interventions, they must explore the different types of interventions and the fidelity of implementing an intervention in their school system.

Intervention is a key concept necessary to help students develop the skills to comprehend at their age appropriate reading level. Implementation of an intervention should be approached carefully and reviewed to determine the effectiveness of the intervention. Feldman, Feighan, Kirtcheva, and Heerin (2012) indicated that four key features are normally present in effective interventions. First, consideration should be

given to how the intervention is used (Feldman et al., 2012). Each student may require a different intervention for specific needs. Therefore, a review of how the intervention is used is imperative to ensure students are afforded the opportunity to succeed. Secondly, it is important to examine how the intervention is used with students. Educators may need to try different interventions with each student until one shows improvement for the individual student (Feldman et al., 2012). Next, the intervention needs to be evaluated to determine whether the intervention is effective or not (Feldman et al., 2012). Finally, reviewing the outcomes associated with the intervention is a key element (Feldman et al., 2012). If an intervention is going to be used, it should be one that has already produced positive outcomes in similar situations. The goal of the intervention is to help students who are not able to read age appropriate receive the direction instruction they need to read on grade level.

RTI is a tiered system of support used to identify which interventions are needed to help each student at his or her individual level. RTI is being used by school districts to determine the intensity of the intervention needed for struggling readers (Roberts et al., 2013). Students are placed into tiers based on their needs. Roberts (2013) indicted that the range is from Tier 1(less intense intervention) to Tier 3 (more intense intervention), which will include students who are having difficulty with decoding and comprehension. Roberts (2013) stated that the type of intervention and length of intervention is based on the student's location in the tiers. A plethora of interventions are suggested to help students build the skills needed to read age appropriate materials.

Although students can benefit from interventions, providing direct instruction is also necessary to see gains in reading for middle school students (Roberts et al., 2013). Moreau (2014) indicated that students who experience reading problems in middle school experience difficulties in the areas of decoding and comprehension. Therefore, interventions are necessary to help address these areas and guide improvement. Roberts et al. (2013) listed some middle school interventions to include summarization, question and answer, and monitoring. As more data is collected in this area, other interventions will be provided.

The literature review uncovered several studies related to improving students' reading abilities. Burdumy et al. (2012) conducted a study that reviewed different reading interventions at the middle school level. Four reading comprehension interventions were implemented over a two-year period at 10 school districts with more than 200 schools and over 10,000 intermediate school students (Burdumy et al., 2012). Each school was assigned a number, one to four, and was randomly selected to utilize one of the four interventions. Read for Real, Reading for Knowledge, Project Criss, and Read About Scholastic were the reading interventions selected to use for the study (Burdumy et al., 2012). Teachers received training on how to use the different programs, and students also received the necessary materials for the interventions. Control groups and experimental groups were used during the implementation of the interventions.

Read for Real was used before reading strategies, during reading strategies, and after reading strategies to help students with activating prior knowledge, making connections, and recalling (Burdumy et al., 2012). Reading for Knowledge focused on

four key comprehension strategies: clarifying, predicting, summarizing, and questioning (Burdumy et al., 2012). Project CRISS used five strategies to help students become strategic learners. These strategies included background knowledge, purpose, text structure, writing and discussion, and organization (graphic organizers) (Burdumy et al., 2012). Read About taught the students ten comprehension strategies and different reading strategies to use when summarizing the author's main ideas of a story (Burdumy et al., 2012). The different studies were reviewed to determine the effectiveness of each reading intervention utilized and whether or not the students improved their reading abilities.

The results from the interventions showed different outcomes. The Project CRISS and Read for Real interventions had no statistically significant effect (Burdumy et al., 2012). Read for Knowledge had a statistically significant negative result. The negative results indicated that after receiving the Read for Knowledge intervention, the students scored lower on the posttest than the pretest. (Burdumy et al., 2012). Read About was the only intervention that had a statistically significant positive effect. The student's scores were higher on the posttest after receiving the Read About intervention (Burdumy et al., 2012). Burdumy et al. (2012) indicated that it is believed the Read About had a more positive effect due to teachers implementing the program accurately to the students and because it was the only program where the students received immediate, extensive feedback from teachers to help them improve their reading.

These individual interventions are examples of why interventions are needed, how interventions can be implemented, and how outcomes of the interventions can help struggling readers. Many options are available when considering interventions; however,

focusing on the needs of the students is the main concern. When implementing an intervention, the type of intervention should be one that will address the reading skill or skills that are lacking.

Types of Reading Intervention Programs

Different RTI programs have been established to help increase literacy among students, specifically at the middle school level. Although these programs are limited in numbers, some programs have been identified and reviewed to determine their effectiveness. A few RTI programs are described below.

Reading Edge. Reading Edge is a program designed for middle schools. It is a literacy program that can be offered in whole group sessions; however, it does provide a stand-alone option. The program is currently delivered through 60-minute instructional settings and consists of eight levels of instructions with four learning domains (What Works Clearinghouse Intervention Report: Reading Edge, 2012). The four learning domains in the Reading Edge program are alphabetic, reading fluency, comprehension, and general literacy achievement. Students learn the basic decoding skills and reading fluency skills in Level 1 to Level 3 and Level 4 to Level 8 focus on comprehension. Level 3 and above provides instruction on comprehension strategies to help students improve their reading skills.

Reading Naturally. Reading Naturally was created in 1989 to help students achieve fluency and is still used today (Read Naturally, 2016). It utilizes a three-approach method to help struggling readers. The three-approach method involves teacher modeling, repeated reading, and progress monitoring (Read Naturally, 2016). Many

intervention programs have been created based on the Reading Naturally strategy intervention. The intervention continues to be available with the addition of online applications.

Reading Naturally can be used as a supplemental reading program for students who experience difficulty in reading. It uses books, audio and computer software to improve fluency, comprehension, and accuracy in reading (What Works Clearinghouse Intervention Report: Reading Naturally, 2013). Students work independently with the program and monitor their progress. The program uses modeling of story reading, repeated reading of text, and monitoring of the program as the main strategies.

Odyssey Reading. According to What Works Clearinghouse (2012), Odyssey Reading was released or published between 1989 and 2011 to address phonics, context, decoding, and comprehension (What Works Clearinghouse Intervention Report: Odyssey, 2012). It is currently in use and published by Compass Learning as a web-based program for reading and language arts. Odyssey Reading was created to use as a stand-alone curriculum or has a supplementary reading intervention program. The focus of Odyssey Reading is to provide instruction in phonics, context, decoding, and comprehension (What Works Clearinghouse Intervention Report: Odyssey, 2012). The program uses differentiated instruction through a computer program to deliver the instruction.

Academy of Reading. In 2004, Academy of Reading was released in a web-based format utilizing short intensive sessions to help students in reading (What Works Clearinghouse Intervention Report: Academy of Reading, 2014). Academy of Reading currently uses a structured curriculum to help improve student's reading skills. The

program is administered during the classroom instructional time. It focuses on phonemic awareness, phonics, fluency, vocabulary, and comprehension (What Works Clearinghouse Intervention Report: Academy of Reading, 2014). The program breaks each focus area into smaller parts as it provides instruction to the student online and adjusts the instruction based on the student's responses.

Successmaker. Successmaker is a supplemental program used along with the regular language arts curriculum. The program is computer based and adjusts to the students' reading abilities, and new skills are introduced throughout the lesson. The program starts with a section called Foundation, which focuses on basic skills, and Exploreware contains opportunities for students to build their reading and writing skills (What Works Clearinghouse Intervention Report: Successmaker, 2015). The program indicates the areas of comprehension and reading fluency.

Wilson Reading System. WRS is a reading intervention program that teaches word structures to students. A multisensory approach is used to help students complete a 12-step process to develop the skills to learn phonics, decode words, and spell (Wilson Language Training, 2016). Students are taught a "sound tapping" process as they recognize different phonemes, as well as, use a pencil technique to separate syllables (Wilson Language Training, 2016). WRS is available for students in grades two through twelve and for adults who experience difficulties with recognizing sound and decoding (Wilson Language Training, 2016). The WRS is composed of the following components; (a) phonemic awareness, (b) decoding, (c) fluency, (d) vocabulary, and (e) comprehension (Wilson Language Training, 2016).

As noted earlier in this section, the NRP identified five pillars students need to succeed in reading, which include phonemic awareness, phonics, fluency, vocabulary, and comprehension (Cervetti & Hiebert, 2015). To address those areas, WRS provides explicit and direct instruction by utilizing a 10-part lesson plan through three blocks in a small group or individual setting (Wilson Language Training, 2016). Block 1 includes Lesson Plans 1-5 and focuses on word study, which includes phonemic awareness, decoding, vocabulary, fluency and comprehension (Wilson Language Training, 2016). Block 2 includes Lesson Plans 6-8 and provides instruction, which includes spelling, sight word instruction, vocabulary, and proofreading (Wilson Language Training, 2016). Block 3 includes Lesson Plans 9-10 and helps develop reading fluency and comprehension, visualization at the text-level (both literary and informational), and oral language skills.

Effective interventions are needed to help struggling readers acquire the skills necessary to be successful readers and lifelong learners (Scammacca, Roberts, Vaughn, & Stuebing, 2015). Each intervention listed above focuses on programs middle schools can utilize to improve the reading abilities of struggling readers. The primary emphasis of the different interventions involves students learning the basic reading skills and then how to implement those skills as they work towards becoming productive readers. Direct instruction and providing strategies to help students improve their reading are important components schools can use to determine interventions that would meet the needs of their students who have difficulty with reading (Cheung, Mak, Sit, & Soh, 2016; Ciullo et al., 2016).

Implications

The project will add to the body of knowledge on reading intervention strategies for middle school students, but caution should be taken not to extrapolate beyond the project student body. The school can help meet the needs of specific students by providing reading intervention models targeted directly at those student's needs. It may be necessary for school divisions to implement reading interventions earlier in the student's education to increase reading proficiency to ensure that students remain on their respective grade level. If the school leaders make changes to strengthen the reading intervention models, they may see an increase in the reading proficiencies at the middle school level. Improved reading scores may provide opportunities for the school to meet state accreditation and possibly receive additional funding to help each school within the district.

Summary

This section was a review of literature related to the project study, including the background on reading comprehension, instructional interventions, understanding Tier 2 interventions, and types of reading programs to help struggling readers. The literature review indicated that understanding the role of interventions, as it relates to students not reading age appropriate materials, is imperative to helping students succeed and be proficient readers in the school setting. The review confirms the purpose of the study, which was to determine the effect of a Tier 2 intervention for eighth-grade readers who were not able to read on grade level.

Section 2 is a description of the research design and approach, as well as a description of the research questions. Information discussing the instruments and variables of the study will also be discussed. This will include a description of the instruments used, data collection tools, and an analysis of the data. Additional sections of the study will consist of an evaluation of the curriculum plan, professional development, and policy recommendation. The study will conclude with the assumptions, limitations, scope, delimitations, and a reflection.

Section 2: The Methodology

Research Design and Approach

A quasi-experimental pretest/posttest design was used to measure the impact the WRS intervention has on the SGA posttest reading scores and SRI scores for eighth graders who received the intervention for 16 weeks. Lodico, Spaulding, and Voegtle (2010) indicated that if a study requires pretest/posttest scores, then the project is a quasi-experimental design. These assessment scores will be used to determine if there is a significant difference between the eighth grade reading SGA pretest and posttest scores, as well as, the students SRI scores. These assessments are administered online. A comparison group was not used because the school wanted to focus on the needs of those students who had not passed the SGA pretest, due to the low pass rate on the English statewide assessment scores.

The Lexile scores received on the SRI indicate the student's reading level. The first SRI was administered online to the students at the beginning of the school year and prior to the WRS intervention. The second SRI was administered at the end of the school year and after the WRS intervention. The teachers obtained the scores electronically from an Excel spreadsheet. Differences in the student's reading level were examined for significant differences.

Setting and Sample

The study site is a small rural middle school located in Virginia with an enrollment of approximately 450 students. The sample consisted of 82 eighth-grade students who scored below 75 percent on the eighth-grade reading SGA pretest and

received below an 849 Lexile score on the beginning of the year SRI test. For the 2015-2016 school year, the student racial/ethnic demographics of the school were 47 percent Blacks, 39 percent Whites, 8 percent two or more race, 5 percent Hispanic, 0.3 percent American Indian and 0.7 percent Asian (Virginia School Report Card, 2015). Within this student population, 16.6 percent were students with learning disabilities and 55 % of students received free and reduced lunch (Virginia School Report Card, 2015). The Virginia Department of Education indicated that the average percentage of students receiving special education in Virginia is 15 percent, with 35.9 percent of students receiving free and reduced lunch (Virginia Department of Education, 2015).

A convenience sample was used to identify participants for the study (Creswell, 2012). A data file from the site school provided individual information on each of the 82 participants. The gender, race, reading level, eighth-grade reading SGA pretest scores, and eighth-grade reading SGA posttest were included in the data file. As Table 2 presents, 57 percent (n=47) of the participants were males and contributed to over half of the study population. Based on the demographics, the majority (50%) of participants were Black (n=41). A summary of the demographic characteristics of the study's sample is shown in Table 2.

Table 2
Frequencies and Percentages for Sample Demographics

Demographics	*N*	%
Gender		
Male	47	57
Female	35	43
Ethnicity		
Hispanic	5	6
Asian	1	1
Black	41	50
White	34	41
American Indian	1	1

Note. Due to rounding error percentages may not sum to 100%.

A power analysis was conducted to determine if the sample size would be sufficient to test the null hypothesis. The power analysis was used to test the null hypothesis with an alpha set of .05 and a medium effect size of .50. Based on the power analysis, a minimum sample size of 79 participants would be needed to achieve the power of .95. In using the power analysis, 82 pretest/posttest scores were sufficient.

Instrumentation and Materials

I examined the extent to which the 16-week WRS intervention (independent variable) impacted the difference between the pretest/posttest eighth-grade reading SGA scores (dependent variable) and pretest/ posttest eighth-grade SRI scores (dependent variable) for students who received the WRS intervention.

Dependent Variable

The eighth-grade SGA pretest and SGA posttest assessments consist of questions in the areas of (a) word analysis, (b) comprehension of nonfiction, and (c) comprehension of fiction (Virginia Department of Education, 2015). The scores are calculated based on

the student's answers to these questions in each area. The SRI Lexile reading scores measure the students' reading level based on a computer-based assessment. Based on a preassessment, the computer determines the student's current reading level and provides additional text to determine their overall reading level (The Lexile Framework for Reading, 2016). The site school provides a data file with the scores of each assessment included. This study addresses the effect of the WRS intervention on the student scores. Other factors such as, motivation, readiness, and teacher's perception are not included in this study.

SGA Test Scores

The SGA is an assessment designed by Interactive Achievement used by the state of Virginia (Interactive Achievement, 2015). It was formally called Benchmarks and was changed to SGA to align with the Virginia Standard of Learning (SOLs). The Virginia Department of Education (2015) based the decision to use the SGA, as a growth assessment for the state, on reports from other states presented by Interactive Achievement. Based on the Virginia Department of Education (2015), other states found a positive correlation between the student growth assessment and probability of success on the statewide assessments.

Ohio, Tennessee, and North Carolina were states that reported positive correlation between the modeled student growth assessments used in their states, as compared to the scores the students received on the actual statewide assessment (Virginia Department of Education, 2015). Ohio found that the SGA was providing information that students were testing 3 years in advance of their actual grade level (Virginia Department of Education,

2015). For example, the eighth-grade math tests for the current fifth grade students were more closely correlated to students' actual performance than the math scores they received on their seventh grade test. Tennessee showed that students who scored at least 70% on the SGA received either proficient or advanced on the statewide assessment (Virginia Department of Education, 2015). The reports indicated the SGA are stable and reliable (Virginia Department of Education, 2015).

The SGA is presented in the same format as the end of the year statewide assessments (Interactive Achievement, 2016). This involves multiple-choice questions. The SGA will be used to determine the progress students make on the reading statewide assessment (Interactive Achievement, 2016). It is taken three times a year during the fall, midyear, and end of the year (Virginia Department of Education, 2015). In addition, the SGA is also used as a growth assessment to determine the areas where the student may continue to need targeted instruction to help them pass the statewide assessment (Interactive Achievement, 2016).

Students are administered the SGA online and answer approximately 50 multiple choice questions on word analysis and comprehension Interactive Achievement, 2016). The SGA assessments are measured on a score range of 0 to 100. When the students take the SGA during the various times of the school year, the objective is for the students to score at least 75 percent on the assessment. This score is considered a passing grade for the school district Interactive Achievement, 2016). The SGA also provides information about the student growth on the assessment. The school reviews the SGA scores from the fall to midyear (January) to the end of the school year and determines if the student made

in growth on the assessment from one-time period to the next time period Interactive Achievement, 2016).

SRI

The SRI is a research based, computer-adaptive assessment that measures a student's reading comprehension and reading ability (The Lexile Framework for Reading, 2016). The student's reading ability is measured by a scale called Lexile scores, which measures reading capability and text difficulty (The Lexile Framework for Reading, 2016). The Lexile scores are determined based on the text read by the student. The Lexile measures the text based on the difficulty of the words and complexity of the sentences in the text read by the student. As students read the text, the computer program adjusts the text based on the sentences and words read by the students. The Lexile score ranges from 200L to 1700L with the lower number indicating an easier to read texts to a more difficult text (The Lexile Framework for Reading, 2016). The SRI can be used to determine the appropriate text for a student and monitor that student's reading growth. The validity and reliability of the SRI program have been ensured (The Lexile Framework for Reading, 2016). The Lexile score can be used to help teachers determine the appropriate reading level for a student and determine instruction (Matching Readers with Texts, 2017). The Lexile score is a widely known measure and is assigned to different material, which is used by teachers to help determine reading materials for students (The Lexile Framework for Reading, 2016). The Lexile score falls within certain Lexile ranges and are equivalent to different grade levels. However, the student's Lexile

score has the potential to increase as the student's reading abilities improve (Matching Readers with Texts, 2017).

The site school used the SRI Lexile scores to determine the reading level of each participant in the study. In addition, the site school utilized the SRI Lexile scores to determine if the student could benefit from additional reading interventions to help them succeed. The site school provided WRS interventions for students who did not pass the eighth-grade reading SGA pretest and received a SRI Lexile score under 849, which falls within the sixth grade Lexile grade level. Based on the SRI Lexile scores, approximately 49% of the eighth-grade participants scored within the Lexile score grade levels of one through four (Table 3).

Table 3

Frequencies and Percentages for Eighth-Grade Lexile Scores

Grade Level Lexile Scores	*N*	%
100-299(Grade 1)	2	3
300-499(Grade 2)	15	18
500-599(Grade 3)	8	10
600-699(Grade 4)	15	18
700-799(Grade 5)	20	25
800-849(Grade 6)	22	25

Note. Due to rounding error percentages may not sum to 100%.

Independent Variable

The independent variable in the study is WRS intervention. The program was implemented for 16 weeks during the 2015-2016 school year. Since reading is the focus of the study, the components of the National Reading Panel (2016), along with the implementation of the WRS were addressed during this study. WRS follows a 10-part

lesson plan that addresses phonemic awareness, phonics and word study, encoding, high frequency/sight word instruction, fluency, vocabulary, and listening and reading comprehension in a sequential and method (Wilson Language Training, 2016). WRS (a) includes systematic and cumulative approach to teach total word structure for decoding and encoding, (b) makes all instruction multisensory and interactive, (c) uses a unique sound tapping system to help students segment and blend sounds, (c) teaches concepts through the manipulation of sound, syllable, and suffix cards, (d) contains collections of controlled and decodable text, and (e) vocabulary (Wilson Language Training, 2016).

WRS is divided into three blocks that use a sequential system in 12 steps (Wilson Language Training, 2016). Steps 1-6 teach word knowledge and are taught according to six syllable types (Wilson Language Training, 2016). Steps 7-12 teach more complex concepts and advanced language structure (Wilson Language Training, 2016). According to (2016), the blocks are comprised of elements that provide reading and spelling components to help students learn to read.

- **Block 1:** Parts 1-5 of the lesson plan are introduced and the emphasis is on word study.
    1. Quick Drill: Students accurately provide letter name-keyword-sounds at each session.
    2. Teach/Review Concepts for Reading: Finger tapping is used to help teach the students segmentation and blending. Teacher makes words with sound or syllable cards and discusses word structure. Students read words and demonstrate knowledge of word structure.

3. Word Cards: Using flashcards, students read card packets that include targeted vocabulary words and high frequency.
4. Wordlist Reading: Students read wordlist.
5. Sentence Reading: Students read sentences with proper phrasing to the teacher and challenging vocabulary is addressed.

- **Block 2** includes Parts 6-8 and emphasizes spelling.
  6. Quick Drill in Reverse: Students match letters to sounds produced by the teacher.
  7. Teach/Review Concepts for Spelling: Students make words with letter tiles or syllable cards, as teachers ask them questions about those words.
  8. Written Work Dictation: Students write five sounds, five words, nonsense words, sight words, and two-three sentences with teacher asking questions.
- **Block 3** includes the last section of the 10-part lesson plan, which contains Parts 9 and 10 of the lesson plans and emphasizes fluency and comprehension
  9. Controlled Passage Reading: Using pencil-tapping technique, students read text passages and retell what they read.
  10. Listening Comprehension/Applied Skills: The teacher reads a story to the student and student retells the story to the teacher.

The program suggests that the WRS is administered in 45-60 minute increments three to five times per week. Students at the site school will receive the WRS by an English teacher. The sessions were 45 minutes a day, two to three times a week, for 16 weeks.

Data Collection and Analysis

Data Collection

I started collected the data from the school once the IRB was approved (IRB approval number 06-12-17-0430012). The data collection consisted of the eighth-grade reading SGA pre- and posttest scores for each participant. In addition, the SRI Lexile scores were obtained for each student participating in the study to determine the reading abilities. The eighth-grade English teachers administered the eighth-grade reading SGA pretest to the students midyear of the school year (January) and prior to the implementation of WRS. The SRI was administered at the beginning of the school year. The English teachers administered the eighth-grade reading SGA posttest 1 week after the 16-week intervention of the WRS. The SRI was administered the second time after completing the intervention.

The eighth-grade reading SGA pretest and posttest were administered online and the scores were automatically recorded electronically in the Interactive Achievement database. The SRI Lexile scores were obtained electronically by the teacher and entered into an Excel sheet created by the site school. I retrieved the eighth-grade reading SGA pretest and posttest scores from a secured data file from the site school. The SRI Lexile excel sheet was provided online by the school through a secured document. Any identifying information of the student was replaced with an individual Student ID that I assigned.

Data Analysis

In order to analyze the before and after treatment on a single subject, I used a

repeated measure and nonparametric design. Lodico, Spaulding, and Voegtle (2010) indicated that nonparametric tests use nominal or ordinal data and does not require the data to be normally distributed. A nonparametric method does not make any presumptions and ignores data characteristics (Anjum, Kanwal, Altaf & Shaukat, 2016). The nonparametric design utilized for this study was the Wilson Signed Ranks Test. This test examines the differences on performance tests that involve small amounts of data (Neuhauser, 2015).

The Wilson Signed Ranks Test analyzed the effect the Tier 2 intervention had on eighth-grade English students who received the WRS intervention. The study objective was to compare the means for a sample of 82 participants, without using a comparison group, specifically reviewing the scores before and after the treatment. Neuhauser (2015) indicated that in practical applications distribution of scores generally deviate from a normal distribution. This makes the nonparametric test appropriate for analysis.

The test scores and reading level information was uploaded into the Statistical Package for Social Sciences (SPSS). The test scores include the eighth-grade reading SGA pretest and posttest scores, as well as, the reading level. The descriptive analysis used to examine the scores was calculated using SPSS and included the mean, variance, minimum, maximum, and *p*-values (Creswell, 2012). The Wilcoxon Signed Ranks Test was the nonparametric assessment used to analyze the data in the study to determine if a significant difference existed as it relates to each research question.

Assumptions, Limitations, Scope and Delimitations

The scope of this study focused on the implementation of a Tier 2 intervention.

The intent was to determine if implementing a Tier 2 reading intervention for students who are not reading on grade level would help the students improve their posttest eighth-grade reading SGA scores. One assumption is that the teacher will present the intervention in the order recommended by the WRS manual. The WRS must be implemented as presented in the manual. It will be assumed that the teachers will record the data correctly. An assumption will also be made that students took their time to answer the questions on the SRI assessment to obtain an appropriate reading level. A related assumption is that the students will put forth their best effort on all assessments. Finally, an assumption will be made that students participated in all intervention sessions.

Delimitations

The purpose of the study was to determine the effectiveness of a Tier 2 reading intervention in a school division. The study does not cover the effect of teacher training on how to effectively implement an intervention. Furthermore, the study did not intend to gather the perceptions of how teachers and students feel about reading interventions. This study will be limited due to the fact the site school is a small school and may not generalize to a larger school setting. Finally, the study will focus on the site school participants and may not generalize to other school settings.

Limitations

One limitation to the study will be the 16-week time frame for the intervention because additional time may be necessary to see progress in the students' reading abilities. Some studies suggest that students with severe reading programs need intensive interventions and instruction to make progress (Moreau, 2014 & Roberts, Vaughn,

Fletcher, Stuebing, & Barth, 2013). The teachers may not implement the WRS in the correct format or utilize the materials accurately as recommended in the manual is a possible limitation. The teachers may not record the student reading scores accurately. The students could have improved their reading during the 16 weeks; regardless of the intervention is a limitation to the study. The midyear (January) eighth-grade SGA will be used as the pretest score and the end of the school year SGA scores will be used as the posttest is a limitation. Another limitation involves the researcher's current position as Director of Special Education and Student Services. The researcher obtained this position after the research had started.

Protection of Participants' Rights

All human subject requirements will be followed in agreement with Walden University IRB procedures and the school district protocols. Any permission necessary to obtain archival data will be obtained from the appropriate individual. Student privacy will be maintained throughout the data collection process and analysis of the data. The study will be conducted in accordance with all human subject requirements of the Virginia Public School System protocols.

Data Results

Descriptive Analysis

Demographics of the Study Sample

Information was gathered to identify the demographics of the students participating in the study. There were more males (47, or 57%) than females (35, or 43%). The study sample consisted of more Blacks (41, or 50%) than Whites (34, or

41%). The remaining students were Hispanic (5, or 6%), Asian (1, or 1%), and American Indian (1 or 1%). All participants in the sample received free or reduced lunch (71, or 100%). The information is shown in Table 2.

Descriptive Analysis of the Student Growth Assessment

The SGA measures along a scale of 0 to 100. The SGA eighth-grade English pretest scores ranged from 7 to 78 with M=42.98 and SD=19.60. The range for the SGA eighth-grade English posttest scores were 16 to 86 with M=52.65 and SD=19.18. There were mean gains of 9.67 from the SGA pretest and posttest scores, suggesting that the eighth-grade English SGA posttest scores were higher than the eighth grade English SGA pretest scores. Table 4 shows the means and standard deviation for the SGA scores.

Descriptive Analysis of the Student Reading Inventory

The SRI measures Lexile reading scores using a scale of 0 to 1220 with a minimum score of 820 and a maximum score of 1140 for eighth graders. The pretest SRI Lexile reading scores for the eighth grade English students ranged from 288 to 849 with M=656 and SD=170. The posttest SRI reading scores for the eighth grade English students ranged from 302 to 854 with M=674 and SD=165. There were mean gains 18 between the SRI pretest and posttest scores. Means and standard deviations for the SRI are presented in Table 4.

Table 4
Mean and Standard Deviations for Variables

Scales	Min	Max	M	SD
SGA Pretest	7	78	42.98	19.60
SGA Posttest	16	86	52.65	19.18
Pre SRI Scores	288	849	656	170
Post SRI Scores	302	854	674	165

Multivariable Analysis

The Multivariate Analysis of Variance (MANOVA) was used to answer each research question. In conforming to the procedures used for the MANOVA, the student's SGA reading scores were measured and assessed with the SGA pretest/posttest scores (Research Question 1). This research question was answered to determine the extent of which the student's eighth grade end of the year reading SGA scores differ after reading receiving the intervention program. Next, the student's SRI Lexile pretest and posttest scores were determined (Research Question 2). The MANOVA analysis was used to examine any changes in the student's reading level as measured by the student's post-SRI scores. The MANOVA procedures were used to address each research question accordingly.

Research Question 1: To what extent, do students demonstrate a significant difference in the reading SGA posttest scores after receiving the WRS intervention for 16 weeks?

$H1_0$: There is no significant difference between pre-test and post-test scores on the reading SGAs.

$H1_a$: Eighth-grade students who did not pass the SGA pretest demonstrate a significant difference in the reading SGA posttest scores after receiving the WRS intervention for 16 weeks.

In accordance with MANOVA procedures, differences in SGA scores were examined in the first research question with the eighth-grade reading SGA pretest/post-test. The results of this analysis are presented in Table 5. The Wilcoxon Signed Ranks Test was used to determine if there was a significant difference in the SGA scores following participation in the 16-week WRS intervention. The MANOVA indicated that there was a significant difference in the eighth-grade reading SGA scores after completion of the 16-week WRS reading intervention program between the pretest/posttest, $F(2,80) = 307.15$, $p < .005$). The median score of the SGA increased from (MD=42) to (MD=52) as shown in Table 5. The effect size indicated that WRS had a large effect on student test scores ($\eta^2 = .885$). The null hypothesis for research question one can be rejected in favor of the alternative. There was sufficient evidence to suggest that eighth-grade reading SGA scores were significantly differed after the completion of WRS.

Table 5
Multivariate Analysis of Variance for SGA Pretest/Posttest Scores

Source	Pretest		Posttest		F (2, 80)	p	η^2
	M	*SD*	*M*	*SD*			
SGA Scores	42.98	19.60	52.65	19.18	307.15	.005	.885

Research Question 2: Do eighth-grade students who scored a Lexile score two grades below grade level on the SRI demonstrate a significant difference on the SRI scores after receiving the WRS intervention for 16 weeks?

$H1_0$: There is no significant difference between pre-test and post-test scores of the SRI.

$H1_a$: Eighth-grade students who scored a Lexile score two grades below grade level on the SRI at the beginning of the year did demonstrate a significant difference on their end of the year SRI after receiving the WRS intervention for 16 weeks?

The MANOVA procedures were also used to test the difference in the SRI Lexile pretest/posttest scores. The results of this analysis are presented in Table 6. Results of the SRI Lexile pretest/posttest scores indicated a significant difference between the pretest and posttest scores, F (2, 80) = 698.38, P=. 005). The Wilcoxon Signed Ranks Test was used and indicated a gain in the student's reading scores on the SRI Lexile reading assessment after receiving the WRS intervention for 16-weeks. The effect sized indicated that WRS had a large effect on the student's reading scores (η^2= .946). The median reading SRI Lexile reading scores improved from (MD=656) to (MD=674) as presented in Table 6. The null hypothesis for research question two can be rejected and the alternative hypothesis is accepted. The MANOVA indicated that the null hypothesis for research question one and research question two were rejected. The alternative hypothesis for both research questions are accepted due to the gains made by the students on the SGA and SRI assessments after receiving 16-weeks of the WRS intervention.

Table 6
Multivariate Analysis of Variance for SRI Lexile Pretest/Posttest Scores

Source	Pretest		Posttest		F (2, 80)	p	η^2
	M	*SD*	*M*	*SD*			
SGA Scores	656	170	675	166	698	.005	.946

Conclusion

Findings from this study indicated that there was a significant difference in the SGA and the SRI Lexile reading pretest and posttest scores. This was based on a large effect size for the SGA scores and SRI Lexile reading scores. The data showed that students, who received the intervention, increased their scores on the SGA and SRI assessments. When reviewing the actual scores, the students received on the SGAs, some students scored higher on the SGA posttest, but still did not meet the SGA pass rate of 70 percent. The data also showed an increase for students on the SRI, but some students still did not obtain a Lexile reading score equivalent to the eight grade level (Table 8).

For those students who did not meet the criteria score 70 percent or reach the eighth grade reading level on the SRI, additional reading intervention may be required to help them continue to improve their reading abilities and improve their comprehension skills. Wilson Reading Systems (2010) suggest that instruction take place for 90 minutes per class and recommend that the small group instruction occurs three classes per week for two years. The occurrence of the WRS intervention for shorter intervals than recommended by the WRS program may have been inadequate for some students to reach the pass rate on the SGA and reading grade level on the SRI. The suggested

timeframe of using a reading intervention program has been explored to determine its effect on student success.

The research study was conducted to determine if students receiving an intervention for a shorter period of time than recommended were effective. Thornblad and Christ (2014) conducted a study with forty second-graders. The students completed a curriculum-based measurement reading assessment (CBM-R) for six weeks. Passages were administered daily to students in the morning for six weeks. The pretest and posttest sessions were administered the first three days and the last three days of data collection. The study reviewed the reliability, validity, and precision between the pretest and posttest based on the assessment results during the six weeks.

Based on the results, six weeks was not enough time to determine appropriate instructional decisions and productive results. (Thornblad & Christ, 2014). Van Norman (2016) indicated that reliable decisions could be made after 14-20 weeks of data collection (as cited in Christ, Zopluoglu, Monaghen, & Van Norman, 2013). The reliability and validity in the CBM-R study found that the results from the data collection were not justified after six weeks. In addition, Ross and Begeny (2015) found that longer interventions lead to higher reading gains. Section 3 includes a further discussion of the project. This section includes the goals, rationale, literature review, project description, project evaluation and implications for social change.

Section 3: The Project

Introduction

In Section 3, I discuss the findings of the study through a position paper. The goal of the position paper is to include a summary of the study and provide recommendations to school leaders as it related to using the intervention program. I will review the purpose of a position paper, discuss the literature regarding the advantages of a position paper, and explain how a position paper can be useful to the school district. This section includes the goals of the project, rationale, review of the literature, project description and evaluation plan, and project implications for social change.

Goals

The purpose of the position paper is to provide the school district leaders with information about the extent to which the WRS achieved the projected goal of improving the scores on the eighth-grade English statewide assessment using the SGA scores as a marker to determine student success on the statewide assessment. The site school had tried different interventions before utilizing the WRS, as a means to improve the statewide assessment scores on the eighth-grade English assessment. In addition, the position paper will be a source of information the school district can use as they begin to develop a policy on reading interventions. This position paper's recommendation aligns with the school district's goal to improve the eighth-grade reading achievement on the statewide reading assessment by offering an effective Tier 2 intervention.

Rationale

The position paper genre was selected as the project for this study because it is an effective way to share the findings from the study using language that educators and stakeholders can understand. This position paper describes the problem of eighth-grade students not passing the end of the year statewide English assessment, provides an analysis of the reading levels and SGA scores, as well as recommendations for program improvements. The position paper includes a summary of the study and suggestions for school leaders (Appendix A). A description of the pre- and posttest reading SGA scores is provided. Data analyses of the students' posttest scores are described, along with recommendations to the school leaders. Since the school district is considering implementing the use of the WRS in their school system, the position paper will provide the school district leaders with information about the effectiveness of the WRS intervention as they make their decision about their reading intervention policy. Research results and recommendations were shared with the school district's leadership team.

Different options were suggested to present the findings from the study. An evaluation report, curriculum plan, professional development, and a policy recommendation through a position paper were the four options provided to present the findings. The study findings were not an evaluation of the program, so this genre was not selected. A curriculum plan involved using the findings to create a curriculum that would provide lessons that would describe a lesson in details to include lesson plans, activities, and assessments. The plan would also

include nine weeks of a curriculum plan. The curriculum plan genre was not selected because the findings from the study involved using a specific program for a certain time by following the program's lesson plans. Based on the data and the overall purpose of the study, a professional development program did not seem the most appropriate way to present the findings to the school district. A position paper was the most appropriate genre because the findings from the study and the recommendations were shared with the school leadership team.

Review of Literature

The review of literature included an investigation of position papers and how educational policies can be developed based on the position papers. A position paper was the genre selected to communicate the study findings and recommendations to the school district leaders about the WRS as a Tier 2 intervention. As a part of the review, the meaning and purpose of a position paper will be discussed along with how they are organized. Also, the advantages of using a position paper and how position papers can support the recommendations for policy development will be discussed.

Various online databases were explored to discover literature for this literature review, including Walden Dissertations, ProQuest, ERIC, EBSCO, and online publications. The following key search terms were used*: position paper, purpose of position paper, policy development, reading interventions, policy recommendations, intervention resources, policy analysis, white papers*, and *reading implication challenges*. The goal of the search was to locate information and studies about how position papers have been useful in developing and implementing policy change. The Walden online

research provided 89 articles on various topics. Through the online databases, 30 articles provided insight relating to position paper, policymaking, and education. A final search on position papers, reading interventions, and policy yield no results.

Purpose of a Position Paper

Position and white papers are written to appeal to a specific audience, involve the audience, advise the audience, inspire the reader, and write in a language recognizable to the anticipated audience. The Merriam-Webster dictionary (2017) defined a position paper as a detailed report that recommends a course of action on a particular case. Creswell (2012) stated that research studies are typically presented to the educational community by summarizing the study, presenting the findings, and providing recommendations on the findings. A position paper includes persuasive evidence to frame justification for a particular action (Wilson, 2012). Position papers are read by knowledgeable professionals and should reflect the author's understanding and informational skills related to research (Powell, 2012).

Powell (2012) suggested applying Grunig's situational theory to position papers. Grunig (2011) maintained that people would take the time to listen and read the position someone suggests only when they feel that what they read will be appropriate to their individual or group cause (Kim & Grunig, 2011). Kim and Grunig (2011) maintained the view that writers should communicate to their particular audience rather than try to satisfy as many people as possible. Kim and Grunig (2011) indicated that trying to please the majority will lead to failure.

History of Position Papers

Position papers began in government as a tool to disseminate and circulate policy information. Position papers are used in the areas of education, government, healthcare, and policy to report findings from the research and make recommendations based on the results of the research (Frasier, 2014). They are similar to research papers, but are designed to support an idea founded in a research study (Powell, 2012). The content of the paper may vary depending on its intended purpose and audience (Willerton, 2013). Recently, these types of papers have been used to introduce education improvement and development ideas.

Structure of Position Papers and White Papers

A position paper presents the argument, along with solutions. It is composed of an introduction, body, and conclusion, (Xavier University Library, n.d.). This corresponds to the design of a white paper and provides information in a logical format so that readers can understand what they are reading. A white paper is typically 6 to 8 pages long (Graham, 2017). The majority of white papers incorporate a standard structure that includes an introduction, a definition of the problem, recommendations for solutions, and a conclusion (Graham, 2017). The introduction section includes a review of the topic, the purpose, and a summary of the conclusion. Next, the problem is stated using language recognizable to the audience, solutions to the problems are provided along with recommendations and supportive data. Charts, diagrams, and graphs are applicable in this section. White papers can include graphics, change in color, and different fonts, as a way to give a greater effect and are more persuasive and appealing for the reader than those

that do not include visual aids (Purdue, 2017b). Finally, the key points are recapped in the conclusion (Graham, 2017).

Advantages of a Position Paper

Since position papers are a form of white papers, the advantages of using a position paper parallels to those of the white paper. White papers are persuasive, relevant documents that identify precise problems and recommend potential solutions (Purdue, 2017a). Neuwirth (2014) supported this and indicated the best white papers inform, prompt innovative thinking, and use sounded data and result findings to get the point across. Further, Evans (2014) suggested the white paper provides a chance to "deliver insight and thought leadership" in such a creative way it becomes "a marriage of white papers and design" (p.1). Thus, the white paper is a vehicle through which leaders will obtain the findings of the research in a shorter period, while still having the ability to review the research in detail, if necessary.

Position Papers and Policy Recommendations

Position papers can be used to help school districts make policy decisions based on study findings. A policy brief is a type of professional position paper that is used to communicate the need for change on important matters in education and provides recommended research-based actions for improvement in the school system (National Education Policy Center, 2015). A policy recommendation with details is defined as "a short document intended to state an organization's philosophy, position, or policy about a subject or to pose a problem" (Young Adult Library Services Association, 2013, para. 1).

DeFilippis (2015) indicated schools use research studies to help make policy decisions and using student performance is a part of making those policies.

The use of quantitative and qualitative data in the policy recommendation provides stronger empirical evidence (Frasier, 2014). The availability of this information can provide documented support for school districts to utilize when implementing new policies in the school system. The process of policy analysis involves defining the problem, setting goals, examining arguments, and analyzing the implementation of a policy (American University, n.d.). Scotten (2011) stated that writers should use policy papers to persuade policy makers to make a change in existing policy practices. Educational policy recommendations require theoretical framework supported by scholarly literature (Gonçalves, Gomes, Alves, & Azevedo, 2012).

Position Paper-Education Centered

Many white papers or position papers focus on educational topics. In addition to the education field, the government and businesses may use these forms of papers. The purpose of the white paper or position paper is to inform others about products, services, or help develop polices. However, individuals also frequently use white papers as a way to market educational products or services. A few of the current, education-related white papers or position papers on a range of topics are discussed. A few of the current, education-related white papers or position papers on a range of topics are discussed.

Albert Shanker Institute (2016) presented a position paper on whether or not money matters in education. The position paper was in response to several political statements that indicated money did not matter in education or effects student outcome.

In the position paper, the writer reviewed several research papers to provide evidence as to whether there was a relationship between school resource funding and student outcomes. The research papers reviewed empirical data to provide the findings. Highlights from the study and findings presented in the position paper offered the following conclusions: per pupil spending is positively associated to student outcomes, class size and teacher's salary is positively associated with student outcomes, and sustained funding to local schools show improvements in student outcomes. This type of position paper is used as a discussion on an important educational topic that is shared with others.

Contemporary Issues in Early Childhood published another education-focused position paper in 2015. The research was about how to develop a transition program document located in Australia for early childhood students. The authors discussed how the different agencies involved with early childhood could work together to develop policies and procedures to ensure the transition program is implemented successfully. It also discussed the importance of using social media to help develop the documentation necessary to ensure that the youth experience a positive start to school. The study provided research-based documentation on how a successful start in school impacts positive social and educational outcomes for children. Wallis and Dockett (2015) provided recommendations to the stakeholders as they frame the research, policy and practice to work together to create a successful informational transition program online. These recommendations included addressing how to add additional social media connections to an existing transition network, distribute electronic noticeboards, or

developing greater links between informal networks and professional associations. This position paper serves to report findings from the research to assist in making recommendations as policies are formed (Frasier, 2014).

Some of the education-related position papers retrieved from the search involved marketing materials produced by educational companies. For example, the educational program, Dragon Architect was including in this particular position paper to provide information about how the math program works. The position paper discussed the effect of how teaching computational thinking strategies through an educational game effects students, as well as serve as a way for the developers of the program to evaluate their program based on the usage of the program (Bauer, Butler, & Popovic, 2015). The position paper included a description of the game and the recommended thinking strategy and potential outcomes they feel will be addressed by playing the game. The paper also talked about the impact educational games may have on student success in math. While the paper was research-based, it was, nevertheless, a marketing tool for the Dragon Architect program. This is an example of how a position paper can be used as a persuasive tool for an educational program. Wilson (2012) indicated that position papers can be used to cause a particular action based on persuasive evidence.

Project Description

My project study involves presenting a position paper. Many searches were completed online and on Walden's website inquiring about how to write a position paper. The school district leaders will be presented the position paper at a team meeting. The intended audience members for this project are stakeholders responsible for passing

reading policies in the district. The prospective policy makers are school board members, school board office administrators, school administrators, and possibly teachers. I intend to use the research findings to apprise policy makers about topics surrounding reading interventions.

The individuals will receive a hard copy and an electronic copy. Resources necessary to present the position paper are flash drives, a computer, email addresses, the Internet, and a projector to display during the presentation. To distribute hard copies, the following items are needed: a copy machine, copy paper, stapler, folders, and staples are needed. The supplies necessary to make the presentation and provide the hard copies are readily available. The school district leaders have agreed to distribute the position papers to the appropriate staff. A meeting date for the presentation will be determined upon the approval of the study completion.

The position paper will be presented to the school district leaders and school administration after the approval of the study. The position paper will be presented at one of the monthly school leadership team meetings, which consist of the school district leaders and each school principal. The meetings occur from 10:00 am to 12:30 pm. This presentation date will be selected once the final study is approved. The meeting will include a review of the study, the findings, and recommendation as it relates to the implementation of the WRS. Each member of the school leadership team will receive a hard copy of the position paper, and key points will be discussed at the meeting. The members of the school leadership team will receive a copy of the presentation and hard copy before the meeting. The recommendation will be reviewed and discussed at the

team meeting. The team members will be allowed to ask questions at that time. My role was to create and present the position paper to the school district leaders. The researcher will also be available to assist the school district with the implementation of the intervention and recommendation.

Project Evaluation Plan

The findings of the impact of the WRS intervention on the eighth-grade SGA and SRI Lexile scores will be presented in the position paper. The goal of the position paper is to provide the school district leaders with information to support the use of a Tier 2 intervention, such as the WRS. An outcome-based evaluation will be used to determine if implementing the project led the school district leaders to make decisions regarding the utilization of the WRS. The program will be deemed valid if the school leadership team decides to prolong the 16-week timeframe for the use of the WRS intervention.

A questionnaire will be used to assess if the project met the anticipated goal. Using a questionnaire is useful in determining whether the goals of a program are met. Lodico et al., 2010 indicated that questionnaires are beneficial to collect opinions about problem presented in a study. The questionnaires will be gathered from the school leadership team after the presentation of the position paper. I will decide if the project met its anticipated goal, once the data from the questionnaire is collected and analyzed. The questionnaire will include five questions related to the project's goal. The school district leaders and the school principals are the key stakeholders and will make the final decision about the reading intervention at the middle school.

Project Implications

The study finding and recommendations to the school's reading intervention model will be conveyed in the position paper. For the last three years, the school received low pass rates on the eighth-grade statewide reading assessment and have not met the state's passing score of 75%. If the school district leaders modify the reading intervention model in the school district, they may see passing scores by eighth graders on the statewide reading assessment. Mitchell, Deshler and Ben-Hanania Lenz (2012) indicated that RTI is a useful way to assist students in meeting the state standards scores.

The school system can better equip students to be successful in reading and on statewide assessments by providing specific reading interventions. As the school district improves the reading intervention model, they may be able to focus on the specific needs of the students. Improving the reading scores could lead to the school meeting the state pass rate on the statewide assessments, becoming a fully accredited school in the state, and improving the reading abilities of students. Also, the school will be able to model their implementation and successes to other schools in similar situations. As the school shares the information, it may lead to increased pass rates for students and full accreditation for other schools throughout the state.

The community will benefit as the reading deficits of the eighth-grade students are addressed. As the eighth-grade students become skilled in their reading abilities, it could lead to improvements in other academic areas. These students' chances of graduating from high school and furthering their education increase. Graduating may allow them to become productive citizens in their communities, which leads to social

change. The position paper may result in social change as it provides an evaluation of a program and how the program can be effective in meeting the needs of students to ensure they contribute positively to their communities. Finally, the position paper may lead the school district to more closely evaluate existing, and future programs as they select future reading interventions and possible discontinue the use of existing programs.

Section 4: Reflections and Conclusions

Introduction

Section 4 includes my reflections and conclusions for this study that examined the effectiveness of a Tier 2 reading intervention, the WRS that was implemented on the eighth-grade SGA and SRI scores. The school leaders at the site school were concerned that for the past 3 years, the eighth-grade students had failed the eighth-grade reading statewide assessment. Due to the concern, this study was relevant to the school district. This section will include a discussion of the project's strengths and limitations. It will also include what was learned from the project, a reflective analysis of my role as a scholar, practitioner, and developer. Finally, the section will end with my reflection and the direction for future research.

Project Strengths and Limitations

The strength of the position paper project is that it provides school leaders with essential information regarding the study. Lyons and Luginsland (2014) indicated a position paper can provide valuable insight for determining if the recommendation is viable. The paper is an account of the problem of the low pass rate on eighth-grade reading assessment at the local site school and provides recommendations to enhance reading interventions. By utilizing this method, I am supplying the school district with information to enhance their reading intervention programs and to meet the school district's goal of achieving the state pass rate on the eighth-grade reading assessment.

Although a scholarly approach was used, the project contained a few limitations. The first limitation is that the position paper only addresses the reading deficiencies for

one school district. However, the position paper did provide recommendations to the site school and these recommendations may also be useful to other school districts who decide to implement the WRS. The second limitation from the position paper is that the school district may not have enough time or resources to fully implement the intervention to all schools in one school year. Although this is a limitation, the school district may be able to develop an implementation calendar to ensure that all schools are provided the opportunity to use the WRS.

Recommendations for Alternative Approaches

A case study could have been an alternative approach to this study. Instead of using quantitative data, a case study would provide more thorough insight into the Tier 2 concept and the WRS. Observations and interviews through a case study would have provided more in-depth information from a student and teacher perspective. Also, a case study on the effectiveness of teacher training on how to utilize a Tier 2 intervention could have added a different viewpoint.

Project Development

As it relates to the study's findings, I have developed four recommendations that the school leaders may find useful in enhancing their reading intervention programs. The first recommendation is for the school to continue using the WRS for those eighth-grade students who continue to struggle with their reading. The second recommendation is to increase the WRS instruction from 30 minutes 3 days a week to at least 90 minutes 3 days a week. The third recommendation is to offer the intervention for the recommended time suggested by the WRS program. In the study, the intervention was only for 16

weeks, but WRS indicated that the intervention could take up to 2 years to successful implementation. Ross and Begeny (2015) found that longer interventions lead to higher reading gains. The fourth recommendation is that the school should continue the study with a control group and determine if other outside factors would have affected the study.

After reviewing the eighth-grade reading assessment scores for the last 3 years, developing and evaluating this project was fulfilling since it addressed how to respond to the reading deficiencies of the students in the middle school. I have always felt that if students' reading levels increased, then there would be an overall improvement in every academic area. Upon completing this study, there is now data and research available to show school district leaders the relevance to offering Tier 2 interventions that are useful and productive.

Leadership and Change

I believe that leaders are always looking for ways to ensure that those around them are successful, including providing successful programs to help see growth and progress. Some leaders may only use those programs that are familiar to them, but I also believe that leaders are willing to embark on different concepts when they have received information that is proven to be successful. As leaders, it is important to explore and review different programs to see what may or may not work. Change can occur when leaders, teachers, and staff initiate and use those programs in a positive manner put the effort forth.

Analysis of Self as Scholar

As I reviewed the literature on reading intervention for middle school students,

my eyes were more open to the reading struggles that some students go through while in school. I began to think about the frustration I remember seeing on the faces of some of the students who struggled with reading. It gave me a desire to want to know more about this topic and what research was available to help schools improve the interventions offered to students. Through this research, I can use different concepts and theories to present my findings and possible recommendations to the school system.

This study provided information about the need for more reading interventions even at the middle school level. In reviewing different national reading reports, it became even more apparent that eighth-grade students in the United States continue to experience difficulty in reading. Without some intervention, these students will continue to struggle. My study has allowed me to become a supporter of using tier models to determine the needs of the students and then providing those interventions as early as possible. I have begun to look for grants and other programs that could benefit middle school students, but also ensuring that early interventions are in place and utilized to their effectiveness.

Analysis of Self as Practitioner

I am a Director of Special Education, and as I have pursued my doctoral degree I have found my leadership style towards my staff changed. My leadership as always has been a collaborative style, but I find myself moving towards a transformational leader as well. I believe to see growth with students in any district, attention must be giving towards listening to the staff and providing interventions that will transform the entire school district and not just meet the needs of one or two. The school district needs to invest in more training in the area of reading at all three levels of the school (elementary,

middle, and high). The training needs to be more hands on and provide the opportunity for the trainers to work directly in the classroom. As the school district began to focus more on literacy, I feel better prepared to over research and suggestions.

Analysis of Self as Project Developer

As a new researcher in the field, I had little experience in developing a project and determine what type of project would be best to present my findings. As I thought about my audience and the stakeholders that would be impacted by this study, I decided to choose a position paper as the most appropriate method to deliver my findings. Using a position paper would allow me to present the findings to the school leaders at one of their monthly meetings. Due to everyone's busy schedule, the presentation would fit into the school leader's schedule. I now feel more confident in presenting findings from a study by using a position paper.

Reflection on the Importance of the Work

The position paper for this study will provide valuable information concerning the effect of WRS with a group of eighth-grade students who did not pass the end of the year reading statewide assessment and was not reading on grade level based on the SRI Lexile reading scores. It is essential that eighth-grade readers be equipped to read by middle school. As the school district enhance their reading interventions offered in the district, the school district provides an opportunity for students to succeed in all academic areas and improve the pass rate on statewide assessments. The goal is to develop a reading intervention program that can be addressed at the elementary school level, so by the time the students enter middle school they are already reading at proficiency. Also, the goal is

to provide interventions that will be beneficial for students who may continue to struggle in middle school. Therefore, this position paper has the possibility to bring about social change that will be instrumental in the district and other school districts. Finally, the position paper will provide recommendations to the school leaders to ensure that students and teachers are equipped with resources necessary for success in school and society.

Implications, Applications, and Directions for Future Research

The findings from the study add to the current research about reading intervention programs. The study increases the body of knowledge about the WRS program and how it affects middle school students. The study did provide evidence that eighth-grade students who received the WRS demonstrated significant differences on the SGA and SRI. Additional research of offering the WRS program for a longer period may provide further data to help make decisions about continually using the WRS program. There are implications for the project for the site school in the study. The school district leaders could use the findings from the study to help improve their reading intervention programs and how to evaluate programs when selecting reading intervention programs.

Since there is a lack of research on the WRS program, this study will add to the current body of knowledge on this topic. Little research has been conducted that address the correlation between the WRS program and the impact on reading achievement. The findings from this study will provide the school district leaders and administration with useful information to make decisions to enhance the interventions used by the school. Based on this information, the project study has implications.

Conclusion

My reflections and conclusions are included in Section 4 of this experimental study. The study was to examine the effect of the WRS on the eighth-grade end of the year reading statewide assessment. Section 4 included my reflections on the strengths and limitation of the study. Also, I discussed recommended alternative approaches and what I learned during the whole process of the research. I reflected on my role as a scholar, practitioner, and project developer. I also discussed implications of the study, its impact on social change, and the directions for future research.

The data from the study provided valuable information that school district leaders may use to help eighth-grade and middle school students improve their reading abilities. The school district leaders may also use this information to determine if increasing the duration of the intervention is beneficial. The results of this study may encourage leaders to evaluate their intervention programs more closely. Also, it may cause the leaders to reflect on using the evaluation process as they consider new or additional intervention options.

This study is the outcome of observing the school using various interventions that did not lead to improved results. Different interventions have been employed by the school district. Although the interventions were put in place, they appeared to be ineffective since the school continued to miss the target pass rate set by the state on the eighth-grade end of the year reading assessment. The hope is that the school district will evaluate their current intervention programs and consider evaluating new interventions programs before implementing them in the school district. I believe my study has allowed

me to initiate social change within the school district.

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Appendix A: Reading Intervention Position Paper

Introduction

The objective of this position paper is to present the school district leaders with the findings of a study focused on the Wilson Reading System (WRS) program as a Tier 2 intervention. The purpose of the research was to determine the extent to which WRS achieved its targeted goal of increasing the eighth-grade end of the year statewide reading scores. Prior to the intervention, student scores from the beginning of the year Student Growth Assessment (SGA) scores were below the school's targeted pass rate. The SGA is used by the school to determine the success of a student on the end of the year statewide reading assessment. In addition, the Student Reading Inventory (SRI) Lexile scores indicated that several students were at least two or more grade levels below the eighth grade reading level. In reaction to the poor scores and low reading levels, school district leaders implemented WRS; however, no processes had been established to measure the program's effectiveness. Data were gathered from the sample to determine if participating students experienced a significant difference on the SGA and SRI after participating for 16 weeks in WRS. Findings indicate that WRS did achieve its intended goal of increasing student scores on the eighth-grade end of the year statewide reading scores.

The position paper starts with a review of reading concerns with students in the United States, especially middle school students. The WRS program is describe, along the framework used for the study. Information is provided about the research findings from the study. A review of literature, goals, and recommendations of the project are presented in the

report. This report may provide useful information to educational leaders and stakeholders at they look for ways to improve reading proficiency for K-12 students.

Background

Many middle school students continue to struggle with reading and basic reading skills (Cantrell, Alsami, Carter, and Rintamaa, 2016) that should they should have acquired while in elementary school. Calhoun and Petscher (2013) suggested that some struggling readers may not have been able to develop these skills because they did not receive sufficient or appropriate reading instruction. Struggling readers are considered to be 4 to 6 years below grade level and often show difficulties in oral reading fluency and comprehension (Cirino et al., 2013). Students need to receive effective reading instruction or they will continue to fall further behind others in their grade level (Moreau, 2014).

Growth in reading achievement is normally highest during elementary school years (Ahmed et al., 2016). When a student enters middle school, he or she should have mastered the basic reading skills, and subject matter comprehension should be the focus. Direct instruction in reading will be necessary to help struggling readers in middle school. These students will need remediation in all aspects of the reading components, especially in decoding to help build their comprehension skills.

Stebbins, Stormont, Lembke, Wilson, & Clippard (2012) indicated that a delay in any reading area could decrease the student's success in reading. Cirino et al. (2013) indicated that over 70% of struggling readers will need remediation to help them improve their reading. Researchers have recommended that in order for these students to make

increases in their reading level, they will need approximately two hours per day of direct, explicit, systematic instruction using age suitable reading material (Berkeley et al., 2012). Once the areas of concerns in reading and reading related process are identified for the student, then the deficits can be addressed more specifically to help the reader improve his or her reading skills.

The National Center for Education Statistics (NCES) provides a national report card that indicates how students across the United States continue to experience difficulties in reading in the higher grades. The national report card measures what students comprehend at their respective grade levels. A student can receive four different ratings based on their scores, which can range from 0-500. The scores include Below Basic (242 and lower), Basic (243-280), Proficient (281-322), and Advanced (323 and up). The Nation's Report Card is published every two years for reading achievement. Based on the data from the National Report Card, some middle school students continue to be at risk for academic failure due to insufficient reading abilities. Calhoun and Petscher (2013) identified these students as struggling readers because they have difficulty acquiring the reading skills necessary to be successful readers.

By the time students enter the middle school, they should possess the reading components identified by the National Report Card. The reading components shown in Figure 1 include phonetic skills, phonological awareness, fluency, vocabulary and reading comprehension (National Center for Education Statistics, 2015). Each reading component can be evaluated separately, but also in conjunction with each other in order. Cirino et al. (2013) indicated that struggling readers often exhibit difficulties where the reading

components overlap. Once the exact area of concerns in reading and reading related process are identified for the student, then the deficits can be addressed more specifically to help the reader improve his or her reading skills. A variety of interventions are available to school districts to help students improve their reading (e.g., Reading Edge, Reading Naturally, Odyssey Reading, Academy of Reading, Successmaker, etc.). Some of these interventions were found to be effective (What Works Clearinghouse Intervention Report: Reading Edge, 2012; What Works Clearinghouse Intervention Report: Reading Naturally, 2013; What Works Clearinghouse Intervention Report: Odyssey, 2012; What Works Clearinghouse Intervention Report: Academy of Reading, 2014; and What Works Clearinghouse Intervention Report: Successmaker, 2015).

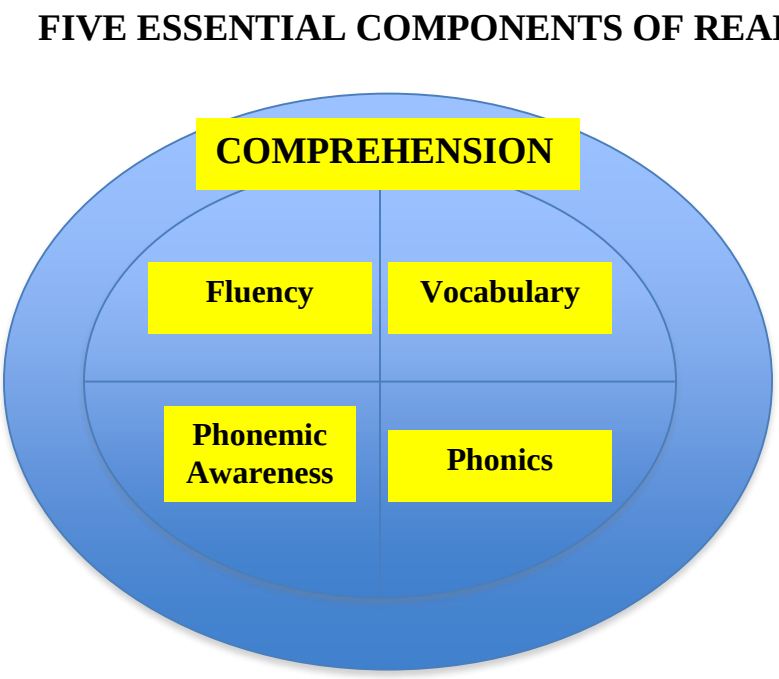

Figure 1. *Reading Components*

Multi-tiered Frameworks

Multi-Tiered Systems of Support (MTSS) and the Response to Intervention (RTI) model are the two frameworks used to assess the student's need and determine the most appropriate intervention. Both models use a framework called multitier instruction (Spencer et al., 2014). Students are monitored, as interventions are implemented, and it is determined whether students need additional interventions or not after each intervention. The tiered system is designed to ensure that all students receive the interventions, if necessary, to help them succeed.

Both systems use a tiered system approach to offer instruction and interventions. The tiered system approach places students into different tiers based on the interventions needed to help the student succeed and uses a three tiered approach (Figure 2). Kuo (2014) indicated that Tier 1 involves evidence-based instruction, and approximately 80% of students will make academic progress. Tier 2 interventions and instructions involve teachers working with at-risk students in small groups on a regular basis to provide more explicit instruction with ten percent to fifteen percent of students requiring these interventions (Goss & Brown-Chidsey, 2012). Tier 2 interventions and instructions are meant to complement the Tier 1 instruction in the class (Kelley & Goldstein, 2015). Tier 2 instruction can be used to address students' reading fluency and comprehension in an English class (Bemboom and McMaster, 2013). Tier 3 involves more intensive and direct instruction that will involve 1-5% of the student population (Kuo, 2014). Faggella-Luby and Ward (2011) stated that there is still time for struggling readers in the middle school to learn how to read because their study found that most middle school students have not reached their full comprehension

abilities and gaps still exist. By providing the appropriate interventions, students have the opportunity to improve their reading abilities.

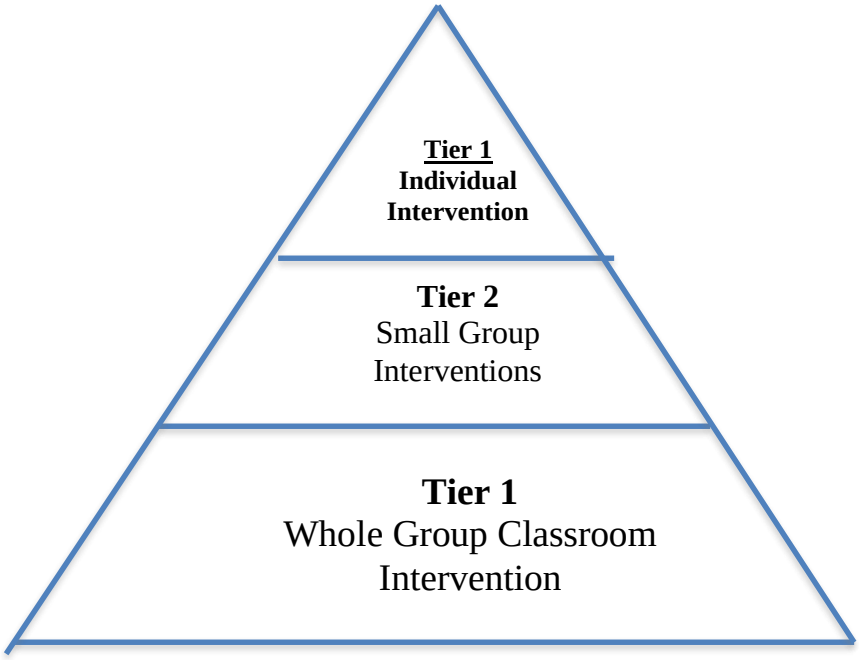

Figure 2. *Tiered System*

MTSS uses a tiered system as a way to identify what interventions will be utilized (Norman, Nelson, & Klingbeil, 2016). The goal of MTSS from an instructional level is to provide highly qualified, evidenced based instruction in the classroom setting (Shogren, Wehmeyer, & Lane, 2016). Once all students have received the instruction, universal screening is conducted to determine if additional interventions need to be implemented (Norman, Nelson, & Klingbeil, 2016). Using the data from the universal screening, students are then placed in Tier 1, Tier 2, or Tier 3. Students are monitored, as interventions are

implemented, and it is determined whether students need additional interventions or not after each intervention.

Tier 1 involves all students receiving high quality instruction. Shogren, et al. (2016) indicated that this type of instruction is provided to all students in the classroom. Tier 2 involves a smaller group of students who may not be successful with Tier 1 instruction and may need additional support in order to be successful in the classroom (Shogren, et al., 2016). The final tier in MTSS is Tier 3. Tier 3 instructions are provided to students who need more intensive instruction than Tier 1 and Tier 2 instruction and there are normally a small number of students who receive this tier. After receiving the appropriate interventions, strategies are altered and modified to help students succeed academically (Norman, Nelson, & Klingbeil, 2016).

The RTI framework aims to be a problem solving and treatment mechanism to help students succeed. The Response to Intervention (RTI) model is a multi-tiered system that integrates interventions to increase student achievement in academics (Mellard, McKnight, & Jordan, 2010). RTI allows students to receive the interventions to help students improve in the core areas of academics: math, writing, and reading. Mitchell, Deshler and Ben-Hanania Lenz (2012) indicated in their study that RTI could be used to assist students to meet the state standards scores.

Bemboom and McMaster (2013) stated that the RTI process involves students being placed in different tiers based on how they respond to instruction and interventions introduced in class. An RTI model consists of a three-tier concept of the framework, which involves Tier 1, Tier 2, and Tier 3 (Figure 2). RTI measures the student's response to

research based interventions (Faggella-Luby and Ward, 2011). Sharp, et al. (2016) indicated different steps are necessary in the RTI process to determine the needs of the student.

1. Conduct universal screening of all students in the school setting, as it relates to academics in all subjects and behavior is needed to decide the student's needs.
2. Determine which students are experiencing difficulties by monitoring the student's progress.
3. Offer interventions to the students experiencing difficulties based on the specific needs.
4. Continue to monitor and offer interventions until the student is successful or not.

Reading Components

Reading is an important component needed for children to become independent and successful learners. The National Institute of Child Health and Human Development (NICHD) created an organization that would research ways that show the best ways for children to read (National Reading Panel, 2016). The National Reading Panel (2016) identified five essential elements needed for independent reading. They included phonemic awareness, phonics, fluency, vocabulary, and comprehension (Konza, 2014).

Phonemic awareness

Phonemic awareness is the reader's ability to focus on how words sound. As students develop how words sound, they must understand how sounds and spoken language relate to each other (Konza, 2014). Konza (2014) indicated that if students struggle with phonemic awareness, then they would have difficulty reading. Phonemic awareness is known to be a predictor of reading skills (Park & Lombardino, 2013).

Phonics

Phonics is a method of teaching beginners to read and pronounce words by learning the phonetic value of letters, letter groups, and especially syllables. Sitthitikul (2014) stated that teaching phonics involves students learning how to recognize sounds and symbols that go together and manipulate sounds that lead to spelling words correctly. Berkeley et al. (2012) stated that some middle and high school students continue to struggle with decoding. As adolescent students continue to struggle with decoding, it affects all the other components necessary to be successful in reading (Cirino et al., 2013).

Fluency

Fluency is when students can read words automatically with expression and be able to comprehend what they read (Rasinski, Rupley, Paige & Nichols, 2016). Fluency allows a student to go from learning to read to reading to learning (Konza, 2014). When students are fluent in their reading, they are able to interpret information quickly. As students develop their fluency, their reading abilities will improve. Rasinski, Rupley, Paige and Nichols (2016) indicated that three concepts are necessary for a student to be fluent in reading; accuracy, rate, and oral expression.

Each component of fluency is necessary for students to become proficient readers. Accuracy is being able to decode and say words accurately (Rasinski et al., 2016). This includes quickly recognizing sight words. Rate is the second component of fluency. Rate refers to how quickly students read and understand text presented to them. (Konza, 2014). The final component is oral expression, which involves how a student reads as it relates to pitch, rhythm, and phrasing (Konza, 2014). As the three components are combined, they

allow students to become fluent readers with the opportunity to develop better comprehension skills.

Vocabulary

Vocabulary is defined as a list or collection of words, or phrases and words usually alphabetically arranged and explained or defined (Vocabulary, 2016). Konza (2014) indicated that vocabulary is necessary for students to comprehend the information they read. It had been suggested that indirect instruction in vocabulary helps students learn and build comprehension (Konza, 2014). This type of instruction can occur by parents reading to students and students building vocabulary as they listen. Students who do not receive this indirect instruction from parents are not able to capitalize on the opportunity to build their vocabulary.

When direct instruction is used to build vocabulary, then all students receive instruction in vocabulary regardless of their background and exposure to reading (Konza, 2014). As schools continue to work with students to increase reading, they must include vocabulary-building activities in the curriculum. The vocabulary component is essential to reading and reading comprehension.

Comprehension

The goal of all readers is to comprehend what they read. Comprehension is understanding what is read. Konza (2014) indicated that comprehension involves more than just word recognition. As students develop their phonics, phonemic awareness, fluency and vocabulary, the goal is to help students comprehend material at an age-appropriate reading level.

Reading comprehension requires that students use different cognitive process to help them understand the reading process (Tighe & Schatschneider, 2014). Students learn in different ways, and this is also true as they develop the reading skills needed to be successful readers. Good readers are purposeful, understand the purpose of text, and actively engage with the text (Konza, 2014). When students have difficulty with basic reading skills, it makes their attempt to develop comprehension skills challenging.

Types of Reading Intervention Programs

Different RTI programs have been established to help increase literacy among students, specifically at the middle school level (Ciullo et al., 2016). A list of a few RTI Programs is described below.

Reading Edge

Reading Edge is a program designed for middle schools. It is a literacy program that can be offered in whole group sessions; however, it does provide a stand-alone option. The program is currently delivered through 60-minute instructional settings and consists of eight levels of instructions with four learning domains (What Works Clearinghouse Intervention Report: Reading Edge, 2012). The four learning domains in the Reading Edge program are alphabetic, reading fluency, comprehension, and general literacy achievement. Students learn the basic decoding skills and reading fluency skills in Level 1 to Level 3, and then Level 4 to Level 8 focus on comprehension. Level 3 and above provides instruction on comprehension strategies to help students improve their reading skills.

Reading Naturally

Reading Naturally was created in 1989 to help students achieve fluency and is still used today (Read Naturally, 2016). It utilizes a three-approach method to help struggling readers. The three-approach method involves teacher modeling, repeated reading, and progress monitoring (Read Naturally, 2016). Reading Naturally can be used as a supplemental reading program for students who experience difficulty in reading. It uses books, audio and computer software to improve fluency, comprehension, and accuracy in reading (What Works Clearinghouse Intervention Report: Reading Naturally, 2013). Students work independently with the program and monitor their progress. The program uses modeling of story reading, repeated reading of text, and monitoring of the program as the main strategies.

Odyssey Reading

According to What Works Clearinghouse (2012), Odyssey Reading was released or published between 1989 and 2011 to address phonics, context, decoding, and comprehension (What Works Clearinghouse Intervention Report: Odyssey, 2012). It is currently in use and published by Compass Learning as a web-based program for reading and language arts. Odyssey Reading was created to use as a stand-alone curriculum or has a supplementary reading intervention program. The focus of Odyssey Reading is to provide instruction in phonics, context, decoding, and comprehension (What Works Clearinghouse Intervention Report: Odyssey, 2012). The program uses differentiated instruction through a computer program to deliver the instruction.

Academy of Reading

In 2004, Academy of Reading was released in a web-based format utilizing short intensive sessions to help students in reading (What Works Clearinghouse Intervention Report: Academy of Reading, 2014). Academy of Reading currently uses a structured curriculum to help improve student's reading skills. The program is administered during the classroom instructional time. It focuses on phonemic awareness, phonics, fluency, vocabulary, and comprehension (What Works Clearinghouse Intervention Report: Academy of Reading, 2014). The program breaks each focus area into smaller parts as it provides instruction to the student online and adjusts the instruction based on the student's responses.

Successmaker

Successmaker is a supplemental program used along with the regular language arts curriculum. The program is computer based and adjusts to the students' reading abilities, and new skills are introduced throughout the lesson. The program starts with a section called Foundation, which focuses on basic skills, and Exploreware contains opportunities for students to build their reading and writing skills (What Works Clearinghouse Intervention Report: Successmaker, 2015). The program indicates the areas of comprehension and reading fluency.

Wilson Reading System

WRS is a reading intervention program that teaches word structures to students. A multisensory approach is used to help students complete a 12-step process to develop the skills to learn phonics, decode words, and spell (Wilson Language Training, 2016). Students are taught a "sound tapping" process as they recognize different phonemes, as well as, use a

pencil technique to separate syllables (Wilson Language Training, 2016). WRS is available for students in grades two through twelve and for adults who experience difficulties with recognizing sound and decoding (Wilson Language Training, 2016). The WRS is composed of the following components: (a) phonemic awareness, (b) decoding, (c) fluency, (d) vocabulary, and (e) comprehension (Wilson Language Training, 2016).

Wilson Reading System Components

WRS provides explicit and direct instruction by utilizing a 10-part lesson plan through three blocks in a small group or individual setting (Wilson Language Training, 2016). WRS is divided into three blocks that use a sequential system in 12 steps (Wilson Language Training, 2016). Steps 1-6 teach word knowledge and are taught according to six syllable types. Steps 7-12 teach more complex concepts and advanced language structure. According to Wilson Language Training (2016), the blocks are comprised of elements that provide reading and spelling components to help students learn to read (Figure 3).

Block 1 Parts one to five of the lesson plan are introduced and the emphasis is on word study	
1.	Quick Drill: Students accurately provide letter name-keyword-sounds at each session.
2.	Quick Drill: Students accurately provide letter name-keyword-sounds at each session.
3.	Quick Drill: Students accurately provide letter name-keyword-sounds at each session.
4.	Teach/Review Concepts for Reading: Finger tapping is used to help teach the students segmentation and blending. Teacher makes words with sound or syllable cards and discusses word structure. Studen read words and demonstrate knowledge of word structure.
5.	Word Cards: Using flashcards, students read card packets that include targeted vocabulary words and high frequency.
Block 2 Parts six through eight and emphasizes spelling.	
6.	Wordlist Reading: Students read wordlist.
7.	Sentence Reading: Students read sentences with proper phrasing to the teacher and challenging vocabulary is addressed.
8.	Quick Drill in Reverse: Students match letters to sounds produced by the teacher.
Block 3 Includes the last section of the 10-part lesson plan, which contains part nine to ten of the lesson plans and emphasizes fluency and comprehension.	
9.	Teach/Review Concepts for Spelling: Students make words with letter tiles or syllable cards, as teachers ask them questions about those words.
10.	Written Work Dictation: Students write five sounds, five words, nonsense words, sight words, and two three sentences with teacher asking questions.
11.	Controlled Passage Reading: Using pencil-tapping technique, students read text passages and retell what they read.
12.	Listening Comprehension/Applied Skills: The teacher reads a story to the student and student retells th story to the teacher.

Figure 3. *WRS Lesson Plan*

The program's instructions suggest that the WRS is administered in 45-60 minute increments three to five times per week. Students at the site school received the WRS by an English teacher. The sessions lasted 45 minutes a day, two to three times a week, for 16 weeks during the second semester of school. Six teachers offered the instruction with six to eight students in their group every other day.

Effective interventions are needed to help struggling readers acquire the skills necessary to be successful readers and lifelong learners (Scammacca, Roberts, Vaughn, & Stuebing, 2015). Each intervention listed above focuses on programs middle schools can

utilize to improve the reading abilities of struggling readers. The primary emphasis of the different interventions involves students learning the basic reading skills and then how to implement those skills as they work towards becoming productive readers. Direct instruction and providing strategies to help students improve their reading are important components schools can use to determine interventions that would meet the needs of their students who have difficulty with reading (Cheung, Mak, Sit, & Soh, 2016; Ciullo et al., 2016).

WRS Intervention Research

In recent years, WRS program has been utilized by more school systems to improve the reading skills of their students. Duff, Stebbins, Stormont, Lembke, and Wilson (2015) evaluated the extent to which the WRS impacted the reading abilities of students with disabilities using a curriculum-based measurement. Participants included 51 students (27 males, 24 females) from six schools including five elementary schools and one middle school in a Midwestern city. Of the participants, 64% of the students were enrolled in elementary school (grades 2 through 5), and 34% were enrolled in middle school (grades 6 and 7). The participants of the study were identified with an educational disability and had an individual education plan (IEP), The IEP included one or more reading goals for basic reading skills. Sixteen certified teachers implemented the WRS. The intervention was implemented for one year with lesson being taught for 45 min per day, 5 days per week.

Two measures were assessed during the implementation time, including oral reading fluency and reading comprehension. The students were benchmarked three times

during the year, which included the fall, winter, and spring (Duff et al., 2015). In addition, the teachers received intervention training in order to offer the intervention (Duff et al., 2015). Data meetings were held three times per year to discuss the benchmark data and every 6 weeks to review progress monitoring, and discuss possible changes to meet the student's needs (Duff et al., 2015). Duff et al. noted that the study findings showed that after receiving the WRS, the students that students who received WRS demonstrated statistically significant improvements in oral reading and reading comprehension, as measured by the curriculum based measurements.

Stebbins et al also conducted a study to evaluate the effectiveness of the WRS program. The 20 students were selected based on their academic achievement levels as measured by the Scholastic Reading Inventory (SRI) and the Woodcock-Johnson III Tests of Achievement (WJ-111). Data was collected from before and after the WRS intervention using five different data points, including SRI, WJ-III Word Attack, WJ-III Reading Fluency, WJ-III Basic Reading Skills, and WJ-III Letter-Word Identification The intervention groups varied with 20% of students served in small groups (1 to 3 students), 60% served in medium groups (3 to 6 students), and 20% in large groups (more than 6 students). Each teacher in this study underwent an in-depth, three-day training prior to implementation. A certified Wilson trainer conducted the training. The WRS intervention was implemented over a two-year period.

At the study's conclusion, Stebbins et al noted that students who receive the WRS experienced significant differences in all areas, except for one area. The results revealed a statistically significant difference among the four mean Lexile SRI scores, the three mean

Word Attack subtest scores, the three mean Reading Fluency subtest scores, and the three mean Basic Reading Skills composite scores with no statistically significant difference among the three mean Letter-Word Identification subtest scores.

Both studies indicated that the WRS intervention had a positive impact on the student's reading abilities. The interventions were offered over a longer duration time with consistent instruction on a regular basis. Extending the amount of time interventions are provided could lead to academic gains for students (Ross and Begeny, 2015). In addition, teachers monitored the student progress on a regular basis to ensure the student's needs were met. The studies

The Current Study

The local middle school continued to experience low scores on the English 8 Reading statewide assessment, especially with students who scored below grade level on the SRI and did not pass the SGA. Over the last three years, the site school has seen a nine percent increase in the pass rates on the eighth grade Reading Statewide assessment (Table 1). Although the differences in pass rates decreased from the 2013-2014 to the 2015-2016 school year, the local school continues to be below the state average pass rate. The state average pass rate is 75 percent, and a school is considered passing when that pass rate has been met.

Table 1

Study Site Grade 8 Statewide Pass Rate Scores

Year	Virginia Department of Education State Avg. Pass Rate	Study Site Grade 8 Reading Statewide Pass Rate	Difference in Pass Rate Scores
2012-2013	70.9%	56.0%	14.9%
2013-2014	70.6%	52.0%	18.6%
2014-2015	75.1%	63.0%	12.1%
2015-2016	75.5%	64.0%	11.5%

On the 2015 Nation's Report Card, only 32 percent of eighth graders scored in the proficient range in reading (National Center for Education Statistics, 2015). Twenty-five percent of the United States' eighth graders, who scored below basic on the national reading assessment, are not equipped for the reading requirements of middle school (Hemphill et al., 2015). In order to address the concerns with the eighth-grade reading, the administrators at the school decided to implement a supplemental intervention instruction. Wilson Reading System (WRS) was chosen as the supplemental intervention program to use for the students selected to receive the Tier 2 instruction based on the criteria implemented by the school. WRS provides explicit and structured instruction to help students develop foundational reading skills Stebbins et al. (2012).

The data collection consisted of the eighth-grade reading SGA pre- and post-test scores for each participant. In addition, the SRI Lexile scores were obtained for each student participating in the study to determine the reading abilities. The eighth-grade English teachers administered the eighth-grade reading SGA pretest to the student's mid-year of the school year (January) and prior to the implementation of WRS. The SRI was administered at the beginning of the school year. The English teachers administered the eighth-grade

reading SGA posttest one week after the 16-week intervention of the WRS. The SRI was administered the second time after completing the intervention.

The site school provided WRS interventions for students who did not pass the eighth-grade reading SGA pretest with at least a 75 percent and received a SRI Lexile score under 849, which falls within the sixth grade Lexile grade level. After using the selection criteria, 82 participants were selected to participate in the WRS intervention (Table 2 for participant demographics). The program was implemented for 16 weeks during the second semester. Each section lasted for 45 minutes a day, two to three times a week depending on the student's schedule.

Table 2
Frequencies and Percentages for Sample Demographics

Demographics	*N*	%
Gender		
Male	47	57
Female	35	43
Ethnicity		
Hispanic	5	6
Asian	1	1
Black	41	50
White	34	41
American Indian	1	1

Note. Due to rounding error percentages may not sum to 100%.

Data analysis was conducting using the SGA pretest/posttest scores. In addition, the SRI Lexile reading pretest/posttest scores were also reviewed. A descriptive analysis was used to examine the differences on the both assessments, as well as the MANOVA. The different statistical procedures were conducted after the students participated in 16 weeks of WRS.

Results

Findings from this study indicated that there was a significant difference in the SGA and the SRI Lexile reading pretest and posttest scores. This was based on a large effect size for the SGA scores and SRI Lexile reading scores. The data showed that students, who received the intervention, increased their scores on the SGA and SRI assessments. When reviewing the actual scores, the students received on the SGAs, some students scored higher on the SGA posttest, but still did not meet the SGA pass rate of 70 percent. The data also showed an increase for students on the SRI and but some students still did not obtain a Lexile reading score equivalent to the eight grade level. For those students who did not meet the criteria score 70 percent or reach the eighth grade reading level on the SRI, additional reading intervention may be required to help them continue to improve their reading abilities and improve their comprehension skills. Ross and Begeny (2015) indicated that extending the amount of time interventions are provided could lead to academic gains for students.

Recommendations

In reviewing the study findings, four recommendations are suggested that the school leaders may find useful in enhancing their reading intervention programs.

1. The school should continue using the WRS for those eighth-grade students who continue to struggle with their reading.
2. The second recommendation is to increase the WRS instruction from 30 minutes three days a week to at least 90 minutes three days a week.
3. The third recommendation is to offer the intervention for the recommended time

suggested by the WRS program. In the study, the intervention was only for 16 weeks, but WRS indicated that the intervention could take up to two years to successful implementation. Ross and Begeny (2015) found that longer interventions lead to higher reading gains.

4. The fourth recommendation is that the school should continue the study with a control group and determine if other outside factors would have affected the study.

More research is still needed for the WRS; however, the findings from this study do support the WRS as a method to help increase the eighth-grade statewide reading assessment.

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Appendix: 2015-2016 Eighth-Grade Reading SGA and SRI Pretest and Posttest Scores

Student	Gender	Race	SGA Pre-Test Score in %	SGA Post-Test Score in %	SRI Pre-test Standard Score	SRI Post-test Standard Score
Student 1	M	Black	38	36	674	750
Student 2	M	Black	36	33	676	700
Student 3	M	White	27	38	676	720
Student 4	F	Black	27	49	682	665
Student 5	F	White	38	58	682	732
Student 6	M	Black	40	42	685	689
Student 7	M	Black	27	42	685	703
Student 8	F	Black	53	78	693	745
Student 9	F	White	49	60	693	705
Student 10	F	White	44	58	700	702
Student 11	M	Hispanic	42	73	700	748
Student 12	F	Black	42	51	715	760
Student 13	F	White	56	47	715	702
Student 14	F	Black	40	64	717	732
Student 15	M	Black	51	71	717	776
Student 16	F	Amer. Ind.	47	60	734	787
Student 17	M	White	49	60	734	756
Student 18	F	Black	60	47	735	710
Student 19	M	Black	47	82	735	800
Student 20	F	Asian	47	56	737	743
Student 21	M	Black	56	67	737	741
Student 22	M	Black	51	44	738	745
Student 23	M	Black	58	71	738	749
Student 24	F	Black	42	64	749	772
Student 25	F	Black	40	47	749	738
Student 26	F	White	69	80	758	762
Student 27	M	Hispanic	51	69	758	772
Student 28	M	Black	69	51	784	782
Student 29	F	White	71	76	784	778
Student 30	M	White	67	65	800	815
Student 31	F	Black	75	84	816	832
Student 32	M	Black	62	78	816	841
Student 33	M	White	71	78	818	825
Student 34	M	White	62	49	824	838
Student 35	F	White	60	49	825	842
Student 36	F	White	60	80	826	840
Student 37	M	White	74	77	827	837
Student 38	F	Black	69	78	827	825
Student 39	M	White	62	67	834	826
Student 40	M	Black	75	64	835	842
Student 41	M	White	62	82	835	815

(table continues)

Student	Gender	Race	SGA Pre-Test Score in %	SGA Post-Test Score in %	SRI Pre-test Standard Score	SRI Post-test Standard Score
Student 42	M	Black	74	69	836	850
Student 43	M	Black	49	58	837	841
Student 44	M	White	60	69	838	843
Student 45	M	White	71	86	842	850
Student 46	F	Hispanic	49	58	843	842
Student 47	M	Black	60	67	843	840
Student 48	M	White	74	80	845	852
Student 49	M	White	47	60	847	842
Student 50	M	Black	73	81	848	854
Student 51	F	Black	78	85	849	850
Student 52	F	Hispanic	9	16	285	315
Student 53	M	White	7	32	295	302
Student 54	F	Black	11	24	300	325
Student 55	M	Black	11	29	304	399
Student 56	F	White	13	27	310	307
Student 57	M	Black	18	22	315	310
Student 58	F	Black	16	31	326	371
Student 59	F	Black	18	36	345	337
Student 60	M	Black	18	36	350	347
Student 61	M	Black	18	22	367	386
Student 62	M	White	20	33	412	424
Student 63	F	White	20	31	425	478
Student 64	M	White	20	38	445	532
Student 65	F	White	20	42	454	525
Student 66	F	Black	22	51	467	545
Student 67	M	Black	31	45	475	527
Student 68	M	White	22	20	482	475
Student 69	M	White	24	20	518	510
Student 70	F	White	33	58	545	600
Student 71	M	Black	22	29	556	602
Student 72	F	Black	27	29	565	630
Student 73	M	White	24	56	565	600
Student 74	F	White	33	22	578	588
Student 75	M	Hispanic	27	34	584	590
Student 76	M	Black	36	40	595	524
Student 77	M	White	33	45	600	624
Student 78	F	White	36	38	624	615
Student 79	M	White	33	36	624	600
Student 80	F	Black	36	42	625	640
Student 81	F	Black	38	53	632	700
Student 82	M	Black	27	42	650	645