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Combining the Sonday System and the Developmental Reading Assessment to Improve Struggling Readers' Standardized Test Scores

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MA, Kean College of New Jersey, 1986

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Doctoral Study Submitted in Partial Fulfillment

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Abstract

Struggling students' poor reading and comprehension skills have continued to be a national problem. A New Jersey Department of Education report showed that of 311,628 middle school students tested in language arts, 26.2% scored at the partial proficiency level and 58.5% scored at the proficiency level. Further review of the middle schools in a local school district revealed that 57% of the students struggled to read and were unable to pass the Benchmark and New Jersey Assessment of Skills and Knowledge (NJASK) tests. The purpose of this study was to compare the NJASK test scores when the Developmental Reading Assessment (DRA)-alone was used and when the Sonday System reading program was added. Archival data from the 2010 and 2011 school years for 80 at-risk students were examined using a mixed-design (split-plot) ANOVA to evaluate whether addition of the Sonday System resulted in greater reading gains and improved students' NJASK scores. The study followed a quantitative, causal-comparative research design. Constructivist and behaviorist learning theories served as the framework. The results showed no significant improvement in the students' scores when the Sonday System was added to the DRA. There also was no evidence of greater year-to-year improvement in the NJASK standardized test scores when the DRA and the Sonday System were combined; however, by itself, the Sonday System was found effective in other schools. The findings suggest that it is not advisable to combine the DRA with the Sonday System. The professional development project generated from this study might lead to positive social change for administrators, teachers, educators, and stakeholders by increasing their awareness about the best ways to develop and implement reading programs that will have a positive impact on struggling readers.

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Dedication

This doctoral degree is dedicated to my awesome daughter, Noni, whose words of wisdom, encouragement, and help were priceless. To my husband, Francisco, thanks for your love and advice never to quit. To my late mother, Kathleen, and my late father, Septimus, whose last words were, “Remember to complete the doctoral degree for both of us.” Dad, your words kept flooding my thoughts when I wanted to quit. To my family, especially my beloved brothers, Leonard, Henry, and Digby; my sisters, Carmel and Edna; my nieces, Venetia, Erica, Cecile, Carlisa, Carla Lee, Judith, Evelyn, Donna, Jenila, Gisellea, Patsy, Latoya, and Yannique; and my nephews, Desmond, Douglas, Danny, Dennis, Barry, Kevin, Peter, Craig, Richard, Josh, Theodore, Tajae, Akeem, Trevor, Mikey, and Roger, for their encouragement in helping me to become the first doctor in the family. Thanks for all your love and encouragement, and for making my dreams come true. Thanks be to God for granting me the wisdom and courage to achieve this doctoral degree.

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Thanks to my committee members, Dr. Kathleen McCarville, my amazing first chair, who refused to leave me behind and went beyond the expectations of her role to advise and encourage me over the years. Thanks to my second chair, Dr. George Smeaton, for his expertise and help with the methodology of my study when I needed help the most, and to Dr. Nyaradzo Mvududu, whose kind words and scholarly help were highly appreciated. To my family, thanks for your love and support. Thanks to the school district and school for allowing me to complete the project. Thanks to Noni Tinglin-Jarrett; Rev. Geraldine Jenkins, my mother away from home; Rev. P. Mitchell; Ms. C. Waller; Mr. G. Cajuste; Ms. A. Casceus; Ms. Cheema; Dr. M. Tonuzi; Ms. N. Massop; Ms. L. James; Ms. B. Duncan; Ms. L. Ogwumike-Eke; Ms. A. Magliaro; Ms. N. Anyele; Mr. H. Tanis; Mr. E. Etim; Ms. T. Gray; Mr. B. Morris; Ms. M. Morgan; Dr. C. Willis; Ms. V. Lynch; Mr. Z. Martin; Mr. L. Reid; Ms. P. Longmore; Ms. C. Coke; Ms. L. Smith; Ms. P. Spurills; and Ms. R. Smith for encouraging me and helping me to reach my goal. Last, but not least, I want to thank my editor, Barb Elwert, for her assistance.

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Section 1: The Problem

Introduction to the Study

The impact of poor reading and comprehension skills on struggling students continues to be a national problem, despite millions of dollars and numerous hours of instructional time allotted in an effort to rectify the matter. According to Wackerle-Hollman, Schmitt, Bradfield, Rodriguez, and McConnell (2015), Learning to read is vital for students academic achievement and success. Over the past decade, however, adolescent literacy has emerged as a major problem for instruction and research (Cirino et al., 2013). Working to redress this issue, the federal government, with implementation of the No Child Left Behind Act (NCLB, 2002), has provided more than $4 billion in initiatives (Spencer, 2012). The NCLB Act is a national guideline that set standards mandating that all children in the United States be proficient in reading and mathematics by 2014. The act highlighted (a) stronger accountability for test results, (b) proven education methods, (c) more freedom for states and communities, and (d) more choices for parents (U.S. Department of Education [USDoE], 2011). In addition, the New Jersey Department of Education (NJDoE, 2012) stipulated that the failure of schools to make significant improvements could lead to funding cuts, staff shuffles, or closure.

Robelen (2012) asserted that even though thousands of school districts nationwide have begun to implement the Common Core State Standards (CCCS) in English/language arts (ELA), many also are facing new state reading policies for the early grades. Some states presently require the identification of struggling readers and the implementation of

effective interventions to help them. In some instances, it is mandatory to retain students in Grade 3 who lack adequate reading skills. Robelen emphasized that many states have recently adopted reading policies and have called for a workable measure for reading intervention and retention for students of all grades level who lack satisfactory reading skills. Despite state and national mandates to implement reading programs to help close the achievement gap between students who read and those who struggle to read proficiently, the problem continues to escalate.

Definition of the Problem

Poor reading and comprehension skills are a serious problem for struggling learners. Struggling readers are students who do not have the literacy skills necessary to read fluently or comprehend what they are reading at their grade level (McCormack & Pasquarelli, 2009). McLaughlin and Rasinski (2015) explained that struggling readers often have issues with decoding, struggle with fluency, have difficulty comprehending text, or face challenges in other aspects of literacy. They explained that readers who struggle for a variety of reasons typically have poor perceptions of themselves as readers and writers. The nature of struggling to read is as diverse as the students themselves, adding more burdens for them to learn and putting them in a position to perform below the proficiency level mandated by the NCLB (2002).

An earlier report on reading exams from the National Assessment of Educational Progress (NAEP, 2004) showed that “almost 60% of the U.S. school populations of basic readers scored below the proficiency level on the reading assessments” (p. 2). Students

who scored at or below the basic level on the achievement test are considered to have only partial mastery of the skills needed to be successful at grade level.

Biancarosa and Snow (2006) reported that in the United States, the number of struggling readers between Grade 4 and Grade 8 was approximately 8 million, with 70% of those students requiring some type of reading intervention. At the national level, 70% of incoming Grade 9 students and 60% of Grade 12 students were identified as reading below the basic level. In addition, 65% of Grade 4 students and 65% of Grade 8 students scored at the basic or the below basic level in overall reading skills (Lee, Grigg, & Donahue, 2007). The USDoE (2011) reported that approximately 6 million U.S. high school students read below grade level and at least 3,000 drop out of high school on a daily basis because of poor reading skills.

Fingon (2012) conveyed that almost two thirds of students in Grades 8 to 12 read below the proficiency level and lacked the skills necessary for future success. Similarly, the Children's Defense Fund (as cited in Spencer, 2012) elucidated that 68% of all U.S. schoolchildren were reading below grade level. The National Assessment Governing Board (2013) cited a report from the NAEP that 62% of students in Grade 12 scored below proficiency in reading. If policymakers and educators do not take immediate action to address the problem of struggling readers, it could become a national disaster (Wang, 2012).

Sturtevant et al. (2010) asserted the following:

> Literacy is widely acknowledged as a powerful influence in the lives of youth. Adolescents who have strong and flexible reading, writing, and communication

> abilities are equipped with important tools for achieving their goals. In contrast, those who struggle to acquire the literacy skills required by schools, communities, and workplaces may find their options limited in our fast-paced technological society. (p. 1)

The literacy problem has created unease because statistics have shown that the problem affects students nationally from the elementary grades through to the postsecondary level. Poor literacy skills have been a major reason for students dropping out of school (Perin, 2013). Lending support to this view, Groff (2014) added that the penalties for struggling students with poor or no reading skills include academic failure, lower self-efficacy, and a deficiency of motivation to participate in literacy activities.

Graves (2011) commented, "The foundation and fuel of American innovation and achievement is a quality education, which leads to opportunity, earning potential, healthier communities, and a stronger nation" (p. 12). Many students struggle because they do not have the literacy skills to understand the reading process and fail to meet the expectations of the NCLB (2002), which was enacted to ensure that all children acquire the highest quality education and to close the achievement gap between those who struggle and those who are proficient.

Rationale

The research presented in the preceding pages showed that the problem of struggling readers is one that educators have struggled to resolve. Nationally, many students have been struggling to read at the proficient level and require some form of

intervention. Addressing the need and performance of struggling students remains a concern. The NCLB (2002) mandated that all students be proficient in reading by 2014.

At the local level, data have shown that middle school students in New Jersey were not meeting the state mandates to pass the New Jersey Assessment of Skills and Knowledge (NJASK) test with at least 72% and required additional reading intervention. The research on reading for middle and high school students has been limited. This paucity of research on impacting struggling readers skills at the middle and high school levels resulted in Congress authorizing funding administered by the USDoE in 2006 and in 2009. This funding was an effort to strengthen the programs and implement scientific studies in this field of reading (Schiller et al., 2012).

My rationale for conducting this study was to examine archival data collected at the local level to determine whether a combination of two reading programs (i.e., Developmental Reading Assessment [DRA] and the Sonday System) was more effective than one reading program (DRA-alone) in helping to strengthen struggling students' reading skills. My intent was to use the data to identify suitable interventions that would equip struggling students with the skills necessary to read fluently and be successful on all tests.

Evidence of the Problem at the Local Level

The study took place in an urban public middle school in the northeastern United States. Two other middle schools in the district were identified only for the purpose of emphasizing the severity of the problem of struggling readers. At the time of the study, the three schools had a combined student population of approximately 1,400 students in

Grade 6 to Grade 8. The student population was 98% African American and Afro-Caribbean and 2% Latino American. Seventy percent of the student population qualified for the district's reduced-price or free lunch program.

According to data from the district's ELA benchmark tests and the NJASK tests (NJDoE, 2011a), approximately 57% of each school's student population was identified as struggling readers. These students had scored below the basic proficiency level on the NJASK and had failed to achieve the 72% New Jersey state standard for adequate yearly progress (AYP) for at least 3 consecutive years. In addition, at the time of data collection these middle schools were classified as schools in need of improvement (SINI). Schools that do not make the required benchmark for 2 or more consecutive years are categorized as SINI.

A report from the NJDoE (2012) based upon the NCLB (2002) admonished administrators to cooperate with the state to improve struggling students' performances in at least 70 low-performing priority schools. The list included the schools in this study. Against this backdrop, data were drawn from Middle School A (a pseudonym). This school had approximately 490 students, more than 70% of whom qualified for a free or reduced-price lunch. The student population was 98% African American/Black and Caribbean, 1% Latino American, and 1% European American. One distinguishing component of these students was that at least 57% of them did not pass the NJASK test. All of the students for whom data were collected had been struggling to read.

The NJDoE (2012) report noted that the failure of schools to make significant improvement could lead to funding cuts, staff shuffles, or closure. The severity of the

problem of struggling readers, along with the mandates of the NCLB (2002), prompted the school district to implement a guided reading program, the Sonday System. The school district was striving to achieve academic excellence, so it implemented reading programs and professional development (PD) workshops in an effort to improve the declining scores at SINIs and satisfy the state mandates. Finding a way to help students to move from a basic recall level to a level at which they can think critically and improve their reading, phonics, and comprehension skills was one of the goals of this study. Figure 1 shows the profiles of students in the district's middle schools. The literature presented next detailed the information presented in Figure 1.

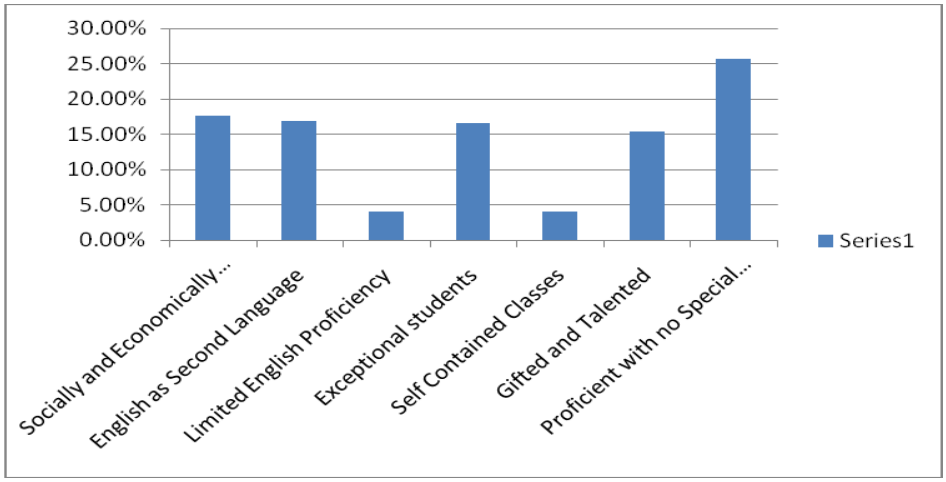


Figure 1. Public data of profiles of students in the school district under study.

Details of Information in Figure 1

Socially and economically disadvantaged. According to the California Department of Education (2010), socioeconomically disadvantaged students are students whose parents have received a high school diploma or a student who is eligible for free or reduced lunch program. Additionally, a student who is a member of the

socioeconomically disadvantaged, English language learners (ELL), and/or disability subgroup is also a member of one of the race and ethnicity subgroups.

English as a second language (ESL). The National Council of Teachers of English (NCTE, 2008) stated that ESL was **"**formerly used to designate ELL students; this term increasingly refers to a program of *instruction* designed to support the ELL. It is still used to refer to multilingual students in higher education" (p. 2).

Limited English proficiency (LEP). This term is

> Employed by the U.S. Department of Education to refer to ELLs who lack sufficient mastery of English to meet state standards and excel in an English-language classroom. Increasingly, [ELL] is used to describe this population, because it highlights learning, rather than suggesting that non-native-English-speaking students are deficient. (NCTE, 2008, p. 2)

Self-contained classes. According to Chen (2009), "Self-contained classrooms are typically smaller settings with fewer numbers of students. Furthermore, these classrooms were created to help foster enhanced support for students with special needs or special difficulties" (p. 1).

Gifted and talented students. According to Gagné (1985),

> Gifted individuals are those who demonstrate outstanding levels of aptitude (defined as an exceptional ability to reason and learn) or competence (documented performance or achievement in top 10% or rarer) in one or more domains. Domains include any structured area of activity with its own symbol

> system (e.g., mathematics, music, language) and/or set of sensorimotor skills (e.g., painting, dance, sports). (p. 103)

Students with special needs. Yates and Ortiz (1998) explained that students with special needs have special learning disabilities and require specialized instruction. With the exception of self-contained classes, students are enrolled in single-gender classes and are grouped by ability. Teachers at the local middle schools specific to this study had been using the DRA combined with the Sonday System to enhance struggling students' reading skills. The NJDoE (2011a) indicated that the NJASK language arts scores for three of the five middle schools in the district were 57%, below the 72% average that students must achieve to meet the state's standards. The NJDoE (2011a) again reported that none of the three middle schools met the criteria. A later NJDoE (2012) report showed that the three middle schools referred to in the study did not meet the state requirements.

The NJASK results for Middle School A showed that 42% of the Grade 8 students scored at the partial proficiency level and 38.5% scored at the proficiency level in 2009. Echoing these findings, a report from the NJDoE (2011a) showed that Middle School A still did not meet the state requirements in 2010 and 2011. Middle School A's failure to make AYP for 3 consecutive years resulted in SINI classification. Figures 2, 3, and 4 show the school's NJASK proficiency rating for the 2010 school year. The other two middle schools in the district were identified as Middle School B and Middle School C in this study. Middle School B did not make AYP for the 2010 and 2011 school years and is on the SINI list for the 9th consecutive year.

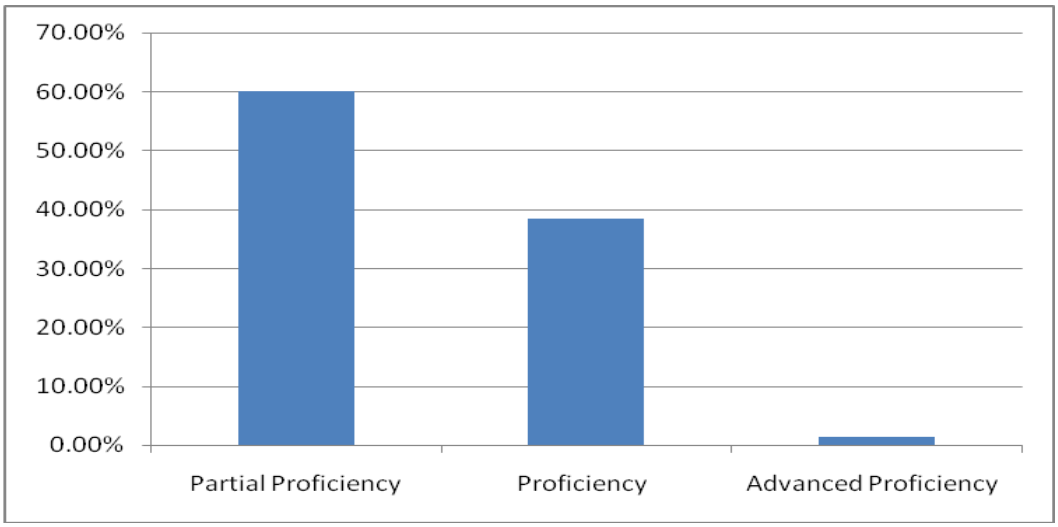


Figure 2. Public data on NJASK 2010 scores for Middle School A students.

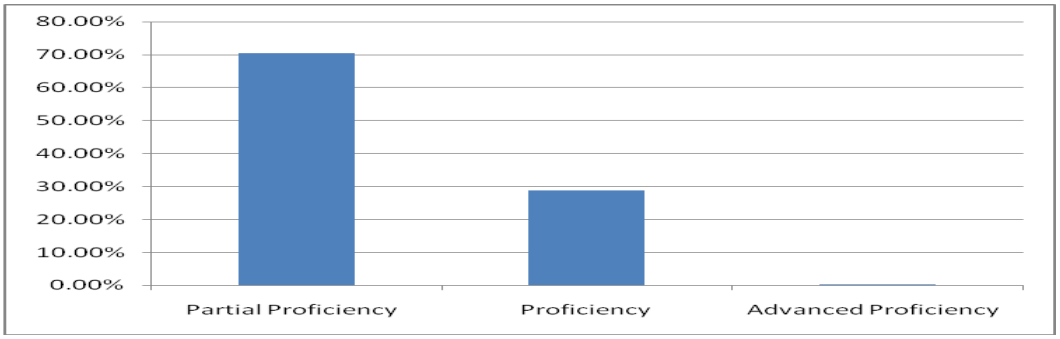


Figure 3. Public data on NJASK scores for Middle School B students.

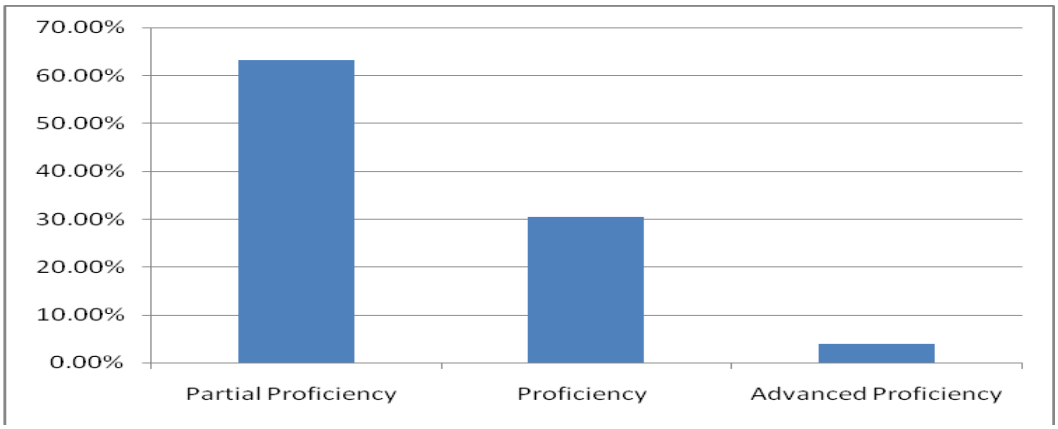


Figure 4. Public data on NJASK scores for Middle School C students.

Students who struggle to read have difficulty achieving proficiency levels on language arts assessments, as indicated by their low scores on the NJASK standardized and benchmark tests. The NJDoE (2011a) reported that as many as 651 of the 815 schools tested did not make AYP, as mandated by the NCLB (2002), and contended that of the 309,853 elementary students tested in language arts, 54.1% acquired proficiency and 37.5% scored at the partial proficiency level.

In the district's middle schools, of the 311,628 students tested in ELA, 26.2% scored at the partial proficiency level, and 58.5% scored at the proficiency level. According to the NJDoE (2011a), the state standard for AYP is an average proficiency score of at least 72%. The NJDoE further mandated that a school classified as SINI must offer school transfer options and supplemental services to these students (see Table 1).

Table 1

Consequences of Placement on the SINI List (Public Data)

Consequences	In need of improvement (year)				
	1	2	3	4	5
School transfer options	X	X	X	X	X
Supplemental services		X	X	X	X
Corrective action			X	X	X
Restructuring (planning)				X	X
Restructuring (implementation)					X

According to the NJDoE (2012), for the 2010 school year, 651 New Jersey schools were placed on the SINI list. The report stated that schools must make AYP for 3 consecutive years to be removed from the list. The NJDoE stated that in 2007, 106 schools in "Year 5 Restructuring" status failed to make AYP for 5 consecutive years. Eleven schools were on the "Year 6 Restructuring" list, and 38 failed to acquire AYP for 7 consecutive years and had to implement a restructuring plan approved by the NJDoE.

In New Jersey, schools are graded annually to ensure that they make AYP, all achieving students are continuing to do well, and students who are struggling receive extra practice and reinforcement skills. The NCLB (2002) specified that schools must implement reading assessments and reading programs based upon the five essential components of phonics; phonemic awareness; vocabulary development; reading fluency, including oral reading skills; and reading comprehension strategies to qualify for federal Reading First funding. The NJDoE (2011a) set the proficiency benchmarks for each grade, and schools must meet those benchmarks to achieve AYP. Furthermore, the total student population was supposed to achieve proficiency by the 2014 school year.

Although efforts have been made by the local school district to restructure the reading programs for struggling readers, a report from the NJDoE (2015) showed that Middle School A, the school that was the focus of this study, was continuing to struggle. The test scores declined immensely and revealed that for the New Jersey state test, the proficiency scores were 10% for ELA and 4% for mathematics for the 2015 school year. These scores placed the school on the lowest priority list that required the school to further restructure its reading program.

The data from the local level have shown that struggling students are becoming less proficient as they get to the middle school grade level. In April 2015, the Senate Health, Education, Labor and Pensions (HELP) Committee worked to address the shortcomings of the NCLB. They participated in a committee markup of legislation reauthorizing the Elementary and Secondary Education Act (ESEA), bipartisan legislation to replace the failed tenets of the NCLB.

Purpose of the Study

The purpose of the study was to address the persistently poor reading scores at the middle school level in the local district. The low scores propelled district officials to add a second reading program, the Sonday System, to the DRA. I investigated the efficacy of the DRA-alone and the DRA with the addition of the Sonday System reading program in helping struggling readers to improve their NJASK test scores. The objective was to compare archival NJASK data from the two reading programs, the DRA, a research-based instrument, and the Sonday System, an additional guided reading program instrument, to determine whether adding the second reading program (i.e., Sonday System) was more effective than using the DRA alone in improving students' reading scores and raising their NJASK test scores.

Findings of the study will be important to the school district, stakeholders, and educational leaders in systems with similar student populations because there has been a paucity of literature available on the efficacy of the DRA and the Sonday System and its impact on struggling readers. The study might help to bring clarity to the reading crisis and help struggling readers to strengthen their reading skills.

Hayes and Wilson (2016) commented that

> Literacy in the 21st century involves the use of reading, writing and oral communication to develop a wide range of abilities and competencies necessary for college and career readiness. No longer is the teaching of reading and writing the sole responsibility of elementary, middle and secondary English teachers; it is the job of all educators to facilitate literacy learning. (p. 8)

Au (1994); Mosenthal, Lipson, Sortino, Russ, and Mekkelsen (2002); and Paris (2002) postulated that effective implementation of the DRA and other classroom-based assessments will help schools to develop a common understanding of the various stages of children's reading development and use the information to frame their reading goals. The study might positively influence struggling students' acquisition of reading skills, increase graduation rates, alleviate parents' concerns, and improve school-wide performance on standardized test.

The DRA was selected for this study because according to Rathvon (2006), the DRA strives to identify students' reading strengths, plan instruction, monitor reading growth, prepare students to meet classroom and testing expectations, and provide information to stakeholders about reading achievement. The DRA "measures the students' knowledge of the concepts related to reading, their knowledge of decoding skills and word meanings, and their understanding of what they read" (MacGinitie, MacGinitie, Maria, & Dreyer, 2002, p. 6). Moreover, the DRA and the Sonday System conform to the NCLB's requirements for assessing, tracking, and reporting students' success (Beaver & Carter, 2006; Sonday, 2007). Beaver and Carter (2006) explained that the programs have the potential to help teachers to design and create lessons that meet students' needs.

Rattigan-Rohr (2016) argued that even though current efforts to educate struggling students have not been working for many schools, the schools have continued to use the same instructional strategies and follow the same practices. The low literacy skills and persistent reading problems of struggling students, poor students from various

linguistic and cultural groups, as well as those in need of special education services (International Reading Association [IRA], 2006) are an ongoing concern. This widespread reading problem will continue to have an impact on students throughout their lives. This study might positively influence struggling students' acquisition of reading skills, increase graduation rates, alleviate parents' concerns, and improve school-wide performance on standardized test scores.

Research Questions and Hypotheses

I conducted a causal-comparative study using archival data. Two research questions and sets of hypotheses guided the study:

1. What is the effect of the addition of the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK test scores?

H_{01}: There is no difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a1}: There is a difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

2. What is the effect of the addition of the Sonday reading program to the DRA on a year-to-year improvement in the students' NJASK test scores?

H_{02}: There is no difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a2}: There is a difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

Evidence of the Problem in the Professional Literature

The purpose of this quantitative study was to investigate the effect of adding the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK test scores. Various topics related to struggling readers were researched to provide insight and clarity to the problem of struggling readers. Some of the topics discussed were the extent of the literacy problem, reason students struggle to read, teaching methods, school systems' lacking willingness to succeed with struggling readers, low levels of reading and comprehension, low self-esteem, negative outcomes of poor literacy, and reading intervention strategies. Information published more than 5 years prior to this the study was included to establish a foundation of the problem. I searched for relevant literature from scholarly journals and online databases such as ERIC, EBSCOhost, and ProQuest. Some of the key search terms were *struggling readers*, *report card on struggling readers*, and the *effect of poor reading skills*.

Extent of the Literacy Problem

Many students struggle to read because they do not have adequate skills in and knowledge of verbal language, print-sound connection, and letter recognition (Gregory & Chapman, 2013; Jennings, Caldwell, & Lerner, 2010). In addition, students who come from low-socioeconomic status (SES) families and those who do not speak English and do not understand the information that they are presented with are at a high risk of

reading failure (Gregory & Chapman, 2013; Snow, Burns, & Griffin, 1998). When students fail to master grade-level work, the main reason is that they are struggling to read.

Gambrell (2015) contended that reading proficiency has been linked to better and more productive academic, social, and civic lives. Offering further insight, Cooper (2014) explained that 29% of the U.S. adult population could not read above a Grade 8 level and that 14% could not read above a Grade 5 level. Students failing to achieve proficiency will experience difficulties as they transition to the upper grades and beyond.

The National Center for Education Statistics (NCES, 2011) advocated that if students continue to struggle to read by the end of Grade 3, there is a strong possibility that they will drop out of school. To alleviate the problem, students must have a solid educational foundation that gives them the opportunity to improve their reading skills. Therefore, students who struggle to read should be identified early so that they can receive immediate intervention, remediation, accommodations, and whatever other modifications are needed for them to excel (Afflerbach, 2011; Fisher, Frey, & Lapp, 2012; Gunning, 2011).

The NCES (2013a) found that 30 million U.S. adults—that is, 14% of adults over the age of 16 years—were functionally illiterate and that another 63 million U.S. adults, or 29%, did not read well enough to understand a newspaper story written at the Grade 8 level. The NCES further contended that among the 200 million adults 25 years of age and older in the United States in 2010, approximately 15% had not yet earned a high school diploma or an equivalent degree. In addition, the National Endowment for the Arts

(2007) showed that decreases were apparent in the areas of reading, fundamental reading skills, and reading literacy. Miller (2014) asserted that as a nation, the United States fell well below other countries and that anyone working to build an equitable society would deem the country's illiteracy rates disturbing.

According to the Alliance for Excellent Education (AEE, 2006), "Every school day, approximately 7,000 students drop out of school because of poor reading skills which accounts for as many as 1.2 million students who dropout for the year" (p. 7). The AEE added that approximately 1.2 million students who enter high school each year do not graduate on time. Moreover, on a national average, only 70% of high school students qualify for graduation. The AEE further contended that among minority students, only 57.8% of Hispanic American, 53.4% of African American, and 49.3% of American Indian and Alaskan Native students in the United States graduate from high school. A comparison of these minority students with European American and Asian American students showed that 76.2% of the European American students and 80.2% of the Asian American students graduated on time from high school.

The AEE (2009) explained that struggling students can be identified by Grade 6 through an examination of their attendance, behavioral, and course failure records. The NCES (2005a) compared international test scores and concluded that reading achievements were moderately low at the secondary level. Evidence from national and international assessment results authenticated the observations made over several years that some high school graduates cannot grasp complex reading information. Similarly,

Biancarosa and Snow (2006) added that middle and high school students lack the reading skills to progress academically.

Allington and Gabriel (2012) remarked that helping struggling students to be proficient readers should be the goal of classroom instruction, educational research, and educational governmental reform. Nationally, millions of students encounter a wide range of challenges and continue to struggle as they move through the education system because they do not understand what they are reading. In many cases, they might not even know how to read.

Dropout Rate

Although the United States has aspired to provide equal educational opportunities for all students, the problem of struggling readers continues to impact students' dropout rates. Lybbert (2015) proposed that determining accurate data on dropout numbers has always been difficult because of the number of intervening factors, including student mobility, incentives for local schools to underreport dropouts, difficulty tracking transfer students, poor record keeping, classification discrepancies, and unmonitored home school participation.

The NCES (as cited in AEE, 2009) explained that "both high school graduates and dropouts are performing significantly worse in reading skills than those from the previous ten years" (p. 8). The AEE (2009) emphasized that 70% of all Grade 8 students in the United States read below the standard grade level, a problem that made them more likely to drop out of school. Biancarosa and Snow (2006) validated the poor reading performances of students in many middle schools by noting that 70% of incoming Grade

9 students and 60% of students in Grade 12 read below level. They asserted that the number has changed little in the last half a decade. They also contended that "failure for students to improve their level of reading will pose more struggling problems for them as they are faced with more increased complexity of the content curriculum" (p. 7). Joftus (2002) noted, "The secondary years seemed to be the last hope for many students to build sufficient reading skills so that they can succeed" (p. 8). The AEE suggested that there is cause for concern because approximately 40% of high school graduates lack the literacy skills required by employers.

Furthermore, statistics in the "Children Trends Database Report" in *Education Week* (as cited in Lybbert, 2015) indicated that

> More than 3,000,000 high school students drop out annually, for a national average of 8.1%. The number of Hispanic students quitting (17.6%) is more than three times that of whites [*sic*] (5.2%) and almost twice that of African-American students (9.6%). (p. 8)

Similarly, the NCES (2015) reported that the status dropout rate of high school students ages 16 to 24 years who were not enrolled in school and had not earned a high school diploma or equivalency certificate decreased from 12% in 1990 to 7% in 2013, with most of the decline occurring after 2000, when it was 11%. There was no measurable difference between the 2012 and the 2013 rates. The NCES also stated that from 1990 to 2013, the status dropout rate was lower for European American students than for African American students and that the rates for both groups were lower than the rate for Hispanic American students (Figure 5).

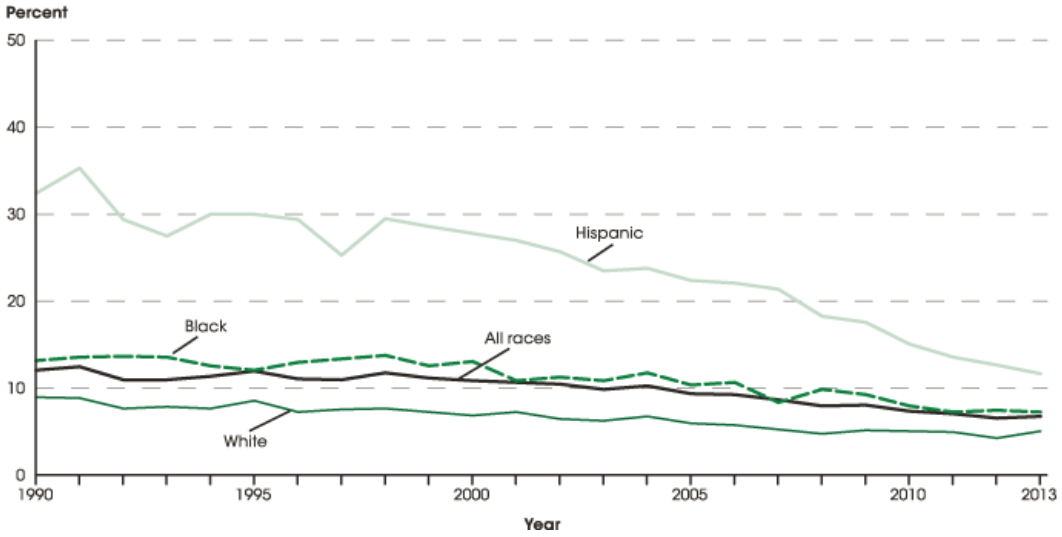


Figure 5. 2012 dropout rates by race and ethnicity of students ages 16 to 24 years.

According to an article in *USA Today* ("Blacks and Hispanics Continue to Struggle," 2015), there are a number of negative outcomes related to dropping out of high school. The article highlighted a report from the NCES indicating that the median income of persons ages 18 to 67 years who did not complete high school was approximately $25,000, versus $46,000 for those in that age group who completed high school or attained a GED.

Based on U.S. Census data, research-based service provider McRel (2012) found that students without a high school diploma had lower incomes and higher rates of unemployment. This problem worsened as these students aged. Echoing this view in the same article was an U.S. Department of Justice report (as cited in McRel, 2012), which concluded that high school dropouts were more likely to be incarcerated than individuals with a high school diploma or its equivalent, such as a GED.

A White House (2009) report indicated that "annually, a total of $319 billion is lost in potential earnings as a result of the school dropout crisis" (pp. 1-2). According to

the report, “Approximately 2,000 of America’s high schools produce half of the nation’s school dropouts” (p. 7). The review further showed that the high dropout rate could be the result of struggling students who lack the skills necessary to read and comprehend. Snow et al. (as cited in Greenwood et al., 2014) explained that the roots of early literacy development extend into early childhood, involving language development and preliteracy experiences.

Melekoğlu and Wilkerson (2013) noted:

> The lack of reading motivation impedes upper elementary and secondary school students’ willingness to improve critical reading skills and strategies to be successful in school. Struggling readers often show a negative attitude towards reading tasks and manifest low motivation to read. (p. 77)

Cirino et al. (2013) found that the most common problem among older struggling readers was that they were not able to comprehend what they read. Allington (2011) emphasized that “our goal for kids’ learning is not just factual recall, but thoughtful literacy, comprehension strategy instruction, and willingness to study the materials presented” (p. 1). This statement highlighted the fact that teachers need to provide students with strategies to motivate them and help them to develop their critical-thinking skills, not just assign reading. According to Wackerle-Hollman et al. (2015), the development of early literacy skills during the preschool years is associated with improved reading outcomes in later grades.

Jiang and Grabe (2011) differentiated between reading skills and reading strategies. The authors viewed reading skills as the linguistic abilities that individuals

acquire gradually and reading strategies as the attempts that readers make to comprehend what they are reading. They also acknowledged the debate surrounding similarities and differences between both concepts. The complexity of the reading process can further be demonstrated by trying to identify the key component skills of reading that have been described over the years and that range from word recognition or vocabulary knowledge, to morphology, syntax, and discourse knowledge (Jiang & Grabe, 2011).

Reasons Students Struggle To Read

Many middle school students struggle to read because they lack the knowledge and fundamental skills necessary to understand what they are reading and are subsequently unable to master grade-level work.

Early Childhood

Although "reading is at the apex of the human thinking process about 20 to 30 percent of children and adults worldwide suffer from some problem, that prohibits them from reading" (Shaywitz & Knopf, 2005, p. 7). Greenwood et al. (2014) added that the national prevalence of readers who are struggling by Grade 3 has been estimated at 1 in 3 children. They claimed that the roots of this problem lie in early childhood and the opportunity to learn language and early literacy skills at home and in preschool.

Lesaux (2012) asserted that although most young children seem to master reading skills in the early grades of elementary school, many struggle with text as they move through the middle school and high school. Echoing this view, Moreau (2014) explained that it is common to encounter students in the middle school classroom who struggle with many aspects of reading. Ortlieb and Cheek (2013) stated that when students are given

the opportunity to learn thoughtful literacy instruction and methods, they are able to improve their reading proficiency skills. Berghoff, Blackwell, and Wisehart (2011) explained that "teachers realize that effective teaching is reliant upon addressing the range of cognitive abilities and emphasizing social and emotional factors" (p. 19).

Allington (2011); Blaustein and Lyons (2003); Duke, Pressley, and Hilden (2004); and Kelly and Campbell (2008) investigated why some children struggle to read and what can be done to increase their success. Blaustein and Lyons found that "when children get off to a poor start, they rarely catch up because they have trouble decoding words, retaining information, and dealing with reading complexities" (p. 1). Blaustein and Lyons further contended that when students lack the skills to read, the result can lead to "negative consequences, such as experiencing grade retention, being assigned to special education classrooms, and being forced to participate in long-term remedial services" (p. 1). According to the International Reading Association (2010), the goal of educators is to design and implement instruction carefully so that it is suited to meet the needs of all students.

Teaching Methods

Based upon the existing literature on struggling students, the overarching goal of helping students is for teachers to motivate students and provide them with strategies and techniques as well as a rich environment of reading materials (Paratore & McCormack, 2011). Gambrell, Morrow, and Pressley (2007) suggested that one step in helping struggling students is to provide them with literacy instruction to maximize learning.

Ediger (2015) purported that students are different from each other in such ways as reading achievement, abilities, and background knowledge. What learners bring to the reading curriculum is as relevant as what they receive. Teachers and supervisors should study each student carefully to develop sequential experiences as part of the curriculum.

Ediger (2015) further commented:

> Providing experiences which might well take care of deficiencies or encourage passions in ongoing lessons and units of study are important. Sequence is relevant when providing necessary information and skills directly related to an ensuing lesson. If information presented here is completely foreign or vague, it is unlikely that pupils will benefit much from the new subject matter to be acquired. Or, if poorly presented, pupils may be limited in applying ideas to the ensuing. Clarity is a salient concept to emphasize in the instructional arena. (pp. 145-146)

Queen (2009) stated that many teachers use the same traditional methods that they were taught as students. In addition, the curriculum often is based upon the traditional view of knowledge and learning: Subject matter is transmitted from teacher or textbook to the student rather than being based upon constructivist brain-based or multiple-intelligence theories of knowing.

Teachers sometimes have limited resources to help their students, some of whom consequently fall behind. DuFour, DuFour, Eaker, and Karhnek (2010) believed that "teachers must be equipped with materials that will impact the lives of students as they learn but it would be impossible for any system of intervention to counterbalance teachers' lack of skills to implement the program" (p. 6). Gander (2013) explained that

many elementary school reading programs require children to do a certain amount of reading every night and that these programs disappear in middle school. Additionally, as the curriculum becomes more demanding and students' involvement in extracurricular activities increases, students might no longer be reading for pleasure and by Grade 8, there is a 50% drop in reading for pleasure Gander (2013). The NCES (2013b) noted that trends in national averages in mathematics and reading assessments scores did not change significantly between 2009 and 2013. The literature review showed that the number of students struggling to read spanning the age from elementary grades through adulthood is enormous. One of the key factors in determining whether students have a reading problem is the discrepancy between actual reading ability and knowing how to read fluently. Sweet (1996) stated that "reading failure usually shows up after the fourth grade, when the comprehension of words needed to improve reading cannot be easily memorized and becomes more difficult across the curriculum" (p. 3).

Ediger (2015) explained:

> Teachers and supervisors of reading instruction need to stay abreast of trends and concerns when assisting pupils to achieve more optimally. Reading which meets high expectations is needed both in school and in society. Thus, professionals involved in teaching reading in different academic and curriculum areas need to utilize the best methods of instruction possible. Wholehearted involvement by each pupil is necessary for goal attainment as well as for personal enrichment in reading. (p. 145)

When struggling readers in middle school do not have the prerequisite reading skills to comprehend content reading, they will continue to struggle. The literature has shown that millions of students struggle with reading. There is urgency to help students to excel in reading. Teachers must find ways to do so by implementing effective and appropriate programs.

Low Level of Reading and Comprehension

Biddle (2011) stated that one of the underlying factors driving the nation's education crisis is low level reading and comprehension.

Ediger (2015) added:

> Comprehension is the ultimate goal of reading instruction. Phonics and syllabication are means to an end and that being comprehension. To reiterate, comprehension involves higher levels of cognition involving critical thinking and problem solving as well as creative thought, among others. To whet pupil appetites in literary content, the teacher needs to read aloud in an enthusiastic and meaningful manner, information as well as narrative accounts to learners during story hour. Pupils of all ability levels may benefit from listening to the content. This encourages pupils to read on their own during allotted time in class as well as in the home setting. Reading for sheer enjoyment aids pupils in achieving major skills and attitudes toward literature. (p. 145)

Guthrie and Wigfield (2000) explained that engaged readers comprehend what they are reading, enjoy learning, and believe in their reading abilities. These readers are mastery oriented, are intrinsically motivated, and have self-efficacy. Guthrie and

Wigfield also asserted that classroom contexts can promote reading comprehension. Teachers can create contexts for comprehension when they provide prominent knowledge goals; real-world connections to reading; meaningful choices about what, when, and how to read; and interesting texts that are familiar, vivid, and relevant to the students. Teachers can help students to develop their comprehension skills by teaching them effective reading strategies and provide them with diverse instructional strategies in phonics, fluency, and comprehension.

McLaughlin and Rasinski (2015) stated:

> Struggling readers may have issues with decoding, struggle with fluency, have difficulty comprehending text, or face challenges with other aspects of literacy. They explain that readers struggle for a variety of reasons typically have poor perceptions of themselves as readers and writers. Furthermore, the nature of struggling readers is as varied as the students themselves. (p. 36)

Collins (1996) noted that struggling readers rarely view reading as a language operation, so they try to avoid it. Collins explained that some students do not see letters and symbols on the page, making it impossible for them to read. Lee et al. (2007) stated, "It is critical to improve students' reading skills by first determining the problems then identifying and modifying the program for the best format that will help the students learn" (p. 496). Strickland, Ganske, and Monroe (2002) conducted a reading achievement study and found that 80% to 90% of the struggling students in the study were unable to write, spell, and achieve in other subject areas and would likely continue to struggle if early reading interventions were not implemented.

Struggling readers must develop their reading skills so that they can comprehend text. Students also need to acquire phonemic awareness, decoding skills, sight recognition, and comprehension skills by Grade 3, or it is highly likely that they will experience reading problems throughout their lives (Bambrick-Santoyo, Settles, & Worrell, 2013; Rattigan-Rohr, 2012). One way for struggling students to gain or improve reading skills is through ongoing intensive interventions and accommodations that extend beyond high school (Rattigan-Rohr, 2012; Snow et al., 1998).

Fountas and Pinnell (2012) as well as the National Reading Panel (NRP, 2000b) asserted that comprehension skills allow students to display awareness, use phonetic skills, and acquire vocabulary knowledge and employ reading fluency strategies to make connections during the reading process. I explored the efficacy of using the DRA only and the DRA combined with the Sonday System to determine how well the techniques in the reading programs helped students to master phonics, fluency, and comprehension skills. Identifying the strengths of the DRA alone and the DRA used in combination with the Sonday System can challenge students to use creative higher order thinking skills to improve their reading and comprehension skills.

Low Self-Esteem

McLaughlin and Rasinski (2015) posited that

> Readers struggle for a variety of reasons and typically have poor perceptions of themselves as readers and writers… . As struggling readers progress, we need to continue to nurture their willingness to trust, to keep open minds, and to believe in themselves. They need to know they can be successful, and they need to

> understand that knowledgeable teachers will partner with them to ensure they reach their goal. (p. 36)

According to Jensen (2005) and Stanovich (1986), struggling readers have low literacy skills and low self-esteem, so they will avoid reading activities because they do not experience success. Vacca and Vacca (2001) explained that because education focuses on skills and strategies in content-area text, struggling readers lack the skills to engage in independent reading. To increase struggling students' opportunities for reading success, school districts, schools, and administrators must ensure that reading programs are appropriate and tailored to the specific needs of these students. There also is a need to address the competency areas of phonics, fluency, vocabulary, and comprehension skills.

Negative Outcomes of Poor Literacy

Brozo (2011) summarized the severity of the reading problem by noting that "approximately 21 million young men and women, or 33% of all students, served by the U.S. public school system are functionally illiterate" (p. 4). Biddle (2011) reported that 64% of African American, 59% of Latino American, and 42% of European American students in Grade 4 who are not eligible for the national school lunch program read at a below basic level.

Brozo (2011) stressed that one of every five Grade 4 European American and Asian American boys who is not eligible for the federally subsidized school lunch program reads below the basic proficiency level and that 43% of their African American and 41% of their Latino American male counterparts, respectively, are functionally illiterate. Brozo further contended that 28% of Grade 4 students attending suburban

schools read below a basic proficiency level. Brozo, explained that the data accounted for one fifth of the children in middle-class homes reading at a level of functional illiteracy. Struggling students are unlikely to receive the remedial skills necessary to achieve academic excellence and remain in school. Lips (2008) stated that millions of students who struggle to read continue to leave the public school system without receiving an excellent education.

Reading Intervention Strategies

According to DuFour et al. (2010), when the focus is on implementing interventions without first identifying strategies that allow teachers to make improvements individually and collectively, the system could fail to influence student achievement in a positive way. As such, teachers and researchers need to develop strategies to help students to overcome difficulties associated with reading.

McLaughlin and Rasinski (2015) explained:

> Struggling readers, like all of us, have preferred ways of learning. These readers appear to benefit from instruction in which multiple modalities are infused. For example, some students may be more auditory than visual, others more visual than kinesthetic, and still others more tactile than auditory. Integrating multiple modalities into our teaching can accommodate these students' strengths.
>
> Struggling readers also favor particular instructional settings. For most, small-group and paired learning are often preferred to whole-group instruction. Spending quality time with their teachers, as well as with reading specialists and literacy coaches, is another essential component of learning. (pp. 36-37)

According to the National Center on Response to Intervention (NCRTI, 2010), Implementation of RTI includes a combination of high quality, culturally and linguistically responsive instruction, assessment, and evidence-based intervention. Furthermore, the NCRTI believes that comprehensive RTI implementation will contribute to more meaningful identification of learning and behavioral problems, improve instructional quality, provide all students with the best opportunities to succeed in school, and assist with the identification of learning disabilities and other disabilities. (p. 1)

Samuels (2011) purported that schools are making efforts to implement RTI or tiered systems of support literacy in an attempt to more effectively and efficiently meet the needs of students, especially those who show signs of early reading problems. Prewett et al. (2012) added that although RTI is promoted in elementary school as a system-wide, multitiered model of academic and behavioral interventions, many middle schools have begun adopting RTI models based on those in use at the elementary level in an effort to continue with the intervention in the middle grades.

Fielding and Pearson (1994) referred to effective reading intervention as a "comprehension revolution" (p. 1) that moves from a traditional view of reading based upon behaviorism to a vision of reading and readers based upon cognitive psychology. Endorsing this view were Au (1994); Mosenthal et al. (2002); Taylor and Critchley (2002); Taylor, Pressley, and Pearson (2000, 2002); and Taylor, Pearson, Clark, and Walpole (2000a, 2000b). All of these researchers reported that when teachers use reading strategies and assessments consistently, students demonstrate higher reading achievement

and are at less risk of reading failure. Their cumulative research indicated that effective reading programs can be helpful to struggling readers and that the earlier the programs are implemented, the more frequently they will be able to meet the needs of the learners.

According to the NRP (2000b) and Wackerle-Hollman et al. (2015), effective reading programs implemented to assist struggling students should include phonological and phonemic awareness, phonics, fluency, and comprehension. Wackerle-Hollman et al. explained that phonological awareness holds particular importance to educators because of its strong link and contribution to later reading success.

Suggate (2010) purported that despite impressive advances in the science of reading intervention, strategies on how to best help at-risk readers remain a point of debate. Similarly, Allington (2011) as well as Allington and Walmsley (1995) explained that over the last several decades, most remedial programs have not been effective in helping struggling readers. Suggate further stated that the optimal type or modality of reading intervention might vary with grade level. The NRP (2000b) recommended using reading programs that include multisensory approaches, phonics, and spelling to build struggling students' confidence as they become more proficient readers.

Grabe and Stoller (as cited in de Zarobe & Zenotz, 2014) supported the use of reading strategies before, during, or after reading to help students to become better strategic learners. These strategies include previewing, predicting, posing questions and finding answers, using background knowledge, making inferences, paying attention to the text structure, and guessing meaning from the context. These researchers also identified the need for a consistent use of strategic interventions, where modeling, scaffolding,

extensive practice, and gradual automaticity of the strategies become paramount. Morris (2015) explained that beginning reading instruction has been cyclical: Few would contest the point that, since 1980, beginning reading instruction in the United States has resembled the movement of a giant pendulum. Back-and-forth change every 10 years or so has been driven by competing theories, new research findings, and ongoing concern about early reading failure. Politicians and commercial publishers have also played a role, serving as instigators and beneficiaries of these cyclical changes. (p. 502)

Ortlieb and Cheek (2013) argued that school-based reading interventions often are prepackaged programs that are not developed with all students' needs in mind. The overall goal for struggling middle school readers is for them to receive early assessment, evaluation, and intervention programs that can help struggling students during their initial literacy learning. Lovett et al. (2000) proposed that "one way to increase reading skills in struggling middle school student is to provide them with reading programs that have clearly defined decoding skill" (p. 257). Askew et al. (2002) stated that "early interventions will prevent further problems from developing with struggling readers, and reduce the frequency of special education placement and long term remedial instructions" (p. 47).

Lyon and Chhabra (2004) as well as McTighe, Seif, and Wiggins (2004) commented that students who do not learn to read will have difficulty mastering academic content, succeeding in school, and fulfilling their life potential. McTighe et al. noted that teaching reading requires more than covering the content. Students also must learn to make meaning of what they are learning. According to Alderman (2013) and

Melekoğlu (2011), one issue mentioned in the literature regarding struggling readers was that educators must implement challenging reading programs that will motivate and engage struggling students as they continue their progress to become independent learners.

Although funding is spent yearly to address the issue of struggling readers, the problem continues to escalate and require more immediate attention. One of the key components to helping struggling students to read and master the curriculum content is for teacher to implement reading programs that are clearly defined and have effective strategies tailored to the needs of each student. Teachers need the knowledge and skills to identify each student's reading problem and use the best strategies to remedy the problem. Struggling readers need help, especially in the early years.

Reading Interventions: The DRA and the Sonday System

A review of the DRA and the Sonday System showed that they could provide strategies ideally suited to help struggling readers. These reading programs were designed to meet the needs of students who are reading below grade level and are having difficulty with phonics, fluency, and comprehension (Beaver & Carter, 2006; Sonday, 2007). Researchers (Barton & Smith, 2000; Coke, 2005; Jenkins, 2005; Tomlinson & Jarvis, 2006) also have reported that students sometimes need to learn a content area that can help them to become fluent readers. Hunter (2004) explained that "teaching is a constant stream of professional decisions made before, during and after interaction with the students" (p. 57). It is important for reading teachers to make every effort to broaden students' understanding of reading concepts by applying whatever reading strategies and

research-based strategies are necessary to help struggling readers. Queen (2009) stated, "Teachers have to refine their strategies to meet the varied needs of the many students they face each day" (p. 1).

The task of identifying why struggling middle school students have difficulty grasping conceptual, procedural, and abstract thinking skills in basic reading can be challenging, but it also can provide meaningful information to assist educators in best addressing the issues. Bottge, Rueda, Serlin, Hung, and Kwon (2007) suggested that programs designed around the needs of struggling students will help them to improve their reading skills.

According to Beaver and Carter (2006) as well as Sonday (2009b), the DRA and the Sonday System might provide teachers with the skills to track and analyze students' performance as they progress in their learning. These reading programs also might help teachers to adjust and customize instruction based upon students' abilities and academic needs. When reading teachers use the DRA and the Sonday System, students might become more motivated to read, which can result in improved test scores in content areas and on the NJASK. Being aware of struggling readers' problems can provide ways for them to improve their scores on class and state tests. Schools should strive to provide teachers with frequent and suitable PD opportunities so that they can acquire the strategies to help students improve their reading skills.

Definitions of Terms

Abbott districts: School districts in New Jersey that receive funds to ensure that students receive public education in accordance with New Jersey's state constitution,

which mandates that "children in the poorest cities receive the same high-quality education as children in more affluent suburbs" (Education Law Center, 2006, p. 1). Instituted in 1985, this ruling was the outcome of *Abbott v. Burke*, a case filed by the Education Law Center. One of the goals of *Abbott v. Burke* is to provide an adequate means by which New Jersey's urban school systems can make improvements.

Adequate yearly progress (AYP): A term used to explain the progress of students in different content areas (NCLB, 2002).

At-risk students: A term often is used to describe students or groups of students who are considered to have a high likelihood of failing academically or dropping out of school. The definition often encompasses numerous factors associated with school failure or increased dropout rate (Williams, Ernst, & Kaui, 2015).

Comprehension revolution: The movement from traditional views of reading based upon behaviorism to a view of reading and readers based upon cognitive psychology (Fielding & Pearson, 1994).

Developmental Reading Assessment (DRA): A research-based reading battery modeled after an informal reading inventory with instructionally relevant measures of fluency, phonic, vocabulary, phonetic awareness, and comprehension. The DRA was designed as a classroom-based reading assessment used in conjunction with DRA K-3. The main objectives of the DRA are (a) to monitor how well students make progress in applying various skills and strategies; (b) to help teachers to diagnose the needs of students and how to better plan instruction and prepare students to meet the challenges of

reading expectations and testing; and (c) to inform schools, districts, and stakeholders of students' achievement and how to help them (Beaver & Carter, 2003, 2006).

Guided reading: The goal of guided reading is to develop a self-extending system of reading that enables the reader to discover more about the process of reading while reading. As children develop these understandings, they self-monitor, search for cues, discover new meanings about the text, check one source of information against another, confirm their reading, self-correct, and solve new words using multiple sources of information (Iaquinta, 2006).

New Jersey Assessment of Skills and Knowledge (NJASK) test: Standardized annual test administered by the NJDoE (2011a) for Grades 3 to 8 to assess student performance.

No Child Left Behind (NCLB, 2002): A national guideline that set standards mandating that all children in the United States be proficient in reading and mathematics by 2014. The NCLB highlighted (a) stronger accountability for test results, (b) proven education methods, (c) more freedom for states and communities, (d) more choices for parents (USDoE, 2011).

Reading engagement: "A merger of motivation and thoughtfulness to engaged readers strive to understand, enjoy learning and believe in their reading abilities" (Guthrie & Wigfield, 2000, p. 403).

Sonday System: A guided reading intervention program that focuses on multisensory and structured phonics lessons and is used as an indicator to measure

students' skills. Sonday (2007) asserted that the goal of the Sonday System is to gain fluency and speed, and to encourage more fluent reading practices.

Struggling readers: Students who do not have the necessary skills to read fluently or comprehend what they are reading (McCormack & Pasquarelli, 2009).

Title 1 program: Ensures that all children obtain a high-quality education and achieve, at a minimum, proficiency on Common Core State Standards, as measured by state assessments. In addition, The Title One Office ensures that districts and schools implement all requirements under Title I of ESEA of 1965. To this end, staff provide guidance, PD, and technical assistance (NJDoE, 2011a).

Significance of the Study

This study might prove invaluable in further illuminating the nature and characteristics of struggling readers. These struggling students have difficulty with decoding, fluency, comprehension of text, and challenges with other aspects of literacy (Fountas & Pinnell, 2012; McLaughlin & Rasinski, 2015) that preclude their reaching proficiency on the NJASK test.

Given the paucity of literature available on the DRA and the Sonday System, the findings might provide the school district with information on ways to improve students' reading skills. According to Shackman (2009), reading, phonics, and comprehension skills are important to students' success across the curriculum. Shackman stated, "One way to determine whether students are obtaining the required comprehension skills that will help them succeed, is to measure the impact of their reading skills" (p. 2).

A comparison of the NJASK/DRA and the NJASK/ DRA/Sonday System augments the research currently available on the impact of the DRA and the Sonday System on the reading ability of struggling students. The results of this study might be especially valuable to teachers in helping them to modify instructional practices, implement new strategies, and enhance their reading programs to help students learn how to read critically. The findings also might be significant to educational leaders in similar contexts who will be able to share a similar framework with struggling students, understand and evaluate the strategies, and use the strategies to improve educational programs in schools and across districts.

At the national level, the findings could help to decrease the number of struggling students who drop out of school. O'Sullivan, Canning, Siegel, and Oliveri (2009) contended that one way to decrease the high dropout rate is to raise the reading scores of struggling readers. Walczyk and Griffith-Ross (2007) added that competent readers are the strongest predictors of successful schools. Therefore, it is essential that schools equip struggling students with the skills that they need to be successful. Lastly, the findings can serve as a reference point for future studies by raising awareness of the problem of students who are struggling to read and how to best serve them.

Theoretical Framework

The theoretical framework of the study was drawn from the constructivist and behaviorist learning theories. According to the educational philosophy of constructivist education, children are respected and become autonomous by solving problems and learning to negotiate with others (Sugarman, 2013). Arif et al. (2014) added that the

philosophical and epistemological assumptions of this theory involve building new schemata through various activities or experiences that fit new information together with what learners already know and correlate it with the old schemata.

Reyhner (2003) posited that the constructivist approach helps students to link new knowledge to previous learning. According to constructivists Dewey (1899/1967), Kolb (1984), and Vygotsky (1978), learners must be able to discover, understand, and transform information if they are to make sense of it. Hatch (2002) and Slavin (2006) added that students must be able to construct a natural understanding of what they are learning. Bruner (1966a) explained that learning is the process of adjusting mental skills to accommodate new knowledge. Struggling students need to develop skills that will help them to learn new materials.

Scaffolding is another strategy supported by constructivists that encourages teachers to activate students' prior knowledge before presenting new lessons. According to Coke (2005), scaffolding also can be used to provide support and guidance to students while they are performing tasks. Struggling students' prior knowledge must be activated and reviewed (Lopez & Schroeder, 2008) if they are to make progress.

Although the constructivist theories of Bandura (1977), Bruner (1966b), Gardner (1983), Piaget (1962), and Vygotsky (1978) provided early insight into ways to help students with reading and comprehension skills, Vygotsky's zone of proximal development (ZPD) showed that social interaction can influence students' cognitive development and biological and cultural interactions. When students work cooperatively on difficult tasks, they experience a sense of accomplishment. When developing their

reading skills, Vygotsky argued that students should play a role in creating their own goals while receiving the guidance and support of others. Vygotsky's ZPD originated in the belief that when learning coincides with children's developmental levels, they can experience success.

Earlier research was illuminating. Kolb (1984) viewed learning as a process that "evolved when social knowledge and personal knowledge intertwine to create new learning skills" (p. 4). The theory contends that when teachers use students' strengths to incorporate new skills and knowledge, students can experience academic success. When teachers continue to scaffold and encourage struggling students with guided instruction, the students can develop a sense of worth and improve their reading and comprehension skills. Clay (2003) and Fountas and Pinnell (2012) added that although students and teachers who work together often bring success, students must show that they want to learn the skills.

Also undergirding this study was the behaviorist theory. According to Goodman (1993), behaviorism is best suited for reading programs that emphasize phonics. The behaviorist framework focuses on the learning theories of Pavlov (1966), Skinner (1930), and Watson (1913). This theory holds that children can change their behavioral patterns as they develop new ideas. According to Mullen and Tallent-Runnels, behaviorism underlies the notion of feedback for confidence building and increased motivation in learning when learners are conferred with positive approval and support (as cited in Arif et al., 2014).

In the current study, behaviorism was related to phonics because it is "highly structured and focuses on a pattern of behavior to learn phonetic elements before applying them to the skills of reading" (p. 2). Ormrod (1999) noted that one of the basic assumptions of the behaviorist theory is that "learning takes place when one is conditioned by events occurring in the environment the event further cause a change in one's behavior" (p. 11). For example, teachers can use behaviorism when they want their students to focus on memorizing facts by completing patterns of learning by repetition. The framework can provide a better understanding of learning theories and their use in fostering the academic achievement of struggling students.

The DRA

The DRA was developed to identify the independent reading levels of students and to instruct and assess students' reading performances in Kindergarten to Grade 3 and Grades 4 to 8. It can be used to provide struggling students with the knowledge and skills to recognize their academic strengths to improve self-esteem and academic performance (Beaver & Carter, 2006; Rathvon, 2006; Pearson (2007) explained that the DRA involves the use of a four-step plan to develop one-on-one interactions between students and teachers. The four steps are reading engagement, one-on-one reading conferences, comprehension, and teacher analysis. Following are descriptions of the four steps.

Reading Engagement

At this level, students are instructed to complete a reading survey about such information as the titles of books and other reading materials that they have read at school and home over 2 months. The students are instructed to use their logbooks to

recall the information. In this section, the teacher documents the students' reading habits within a specific time frame to establish their level of engagement. This stage also provides the teacher with information about the students' strengths and how they plan to remain engaged as readers. The instructor can administer the assessment individually, in small groups, or with the whole class. A time limit of 15 minutes often is allotted to students. Beaver and Carter (2006) commented that "some students learn to gain control over different aspects of their reading programs at various rates" (p. 6). The researchers also contended that although some students demonstrated the abilities to "read selected DRA text with an accuracy rate of at least 97 percent, their overall level of performance in reading engagement and/or comprehension skills and strategies may range from Intervention (level 1) to advanced level 4" (p. 6).

The use of descriptors on the continuum will give teachers a clearer understanding of the students' levels of performance and an indication of improvements that can be made. A descriptor at the intervention level (Level 1) indicates that students need effective instruction and support to bring clarity to the program and help the students to learn effective skills to proceed to the next level. A descriptor at the instructional level (Level 2) indicates that students need a demonstration of what is expected and opportunities to model the skills and function at a higher level. A descriptor at the independent level (Level 3) indicates that students need support to extend their thinking and improve their responses. A descriptor at the advanced level (Level 4) means that students will benefit from opportunities to read more challenging texts and will have a better relationship with other to develop their critical-thinking skills.

One-on-One Student Reading Conference

Preceding the assessment, teachers select the DRA level of text that will be the most appropriate for the students' oral reading, fluency, and comprehension skills. Throughout each conference, students select texts from the DRA level and read designated sections aloud while the teachers record the oral reading on the Focus for Instruction Class Profile sheet (Beaver & Carter, 2006). The individual reading conferences usually take 6 to 10 minutes (Beaver & Carter, 2006).

Student Comprehension

According to Beaver and Carter (2006), this phase involves having students read the entire text that they selected and respond independently to the questions and prompts in the accompanying student booklets. Students are asked to compose summaries of the most important events and characters, and/or facts and ideas, as well as respond to literal, interpretive, reflective, and metacognitive questions. This segment of the assessment evaluates students' abilities to read independently, comprehend, and demonstrate in writing their understanding of a complete text. Although this level usually takes 35 to 45 minutes to complete, it can sometimes take more or less time, depending on the students' reading rate and time needed to formulate and record the responses (Beaver & Carter, 2006, 2009).

Teachers' Analysis of Student Performance

After the assessment, teachers will follow the observation guide to "analyze the students' oral reading behavior and written responses, to be able to select descriptors on the continuum, and to determine students' scores and stage, as well as to focus on ways to

improve upcoming instructions" (Pearson, 2007, p. 8). The rationale of this phase is to support teachers' thinking as they determine the level of each student's responses, identify the strength of the reader, and decide how to help the student make progress. This portion of the assessment takes about 10 to 12 minutes if teachers are familiar with the process.

The students' assessment folders contain forms that document the students' levels of achievements. They hold pertinent information and reflect level of performance as well as progress over time. In addition, the DRA reporting forms or the DRA Online Management System are used to report students' DRA performance level to administrators. The assessment information is then shared with students to communicate expectations and provide them with language to discuss and evaluate their own progress as readers. A review of the plan revealed that it can help teachers and administrators to assess students' highest independent reading levels, identify their strengths and needs, and recommend instructional strategies that can help them to make progress.

Similarly, Beaver and Carter (2006) explained that the DRA enables teachers to observe, record, and evaluate students' progress over time, as well as plan, implement, and modify programs to best suit the needs of struggling students. The DRA can provide teachers with ongoing instructions to make pedagogically sound decisions to help students to become independent learners. According to Pearson (2007), teachers who administer the reading programs are trained to identify improvements and understand how they can use the skills learned to increase the levels of difficulty in text slowly as the students make progress. Pearson further recommended that the teachers of students in

Grades 4 to 8 be trained to assess what students have read and recorded over prior months.

During the training phase, the DRA can be administered individually or in small groups, and teachers record responses and behaviors that can further help to evaluate students' oral reading based upon accuracy, fluency, expression, and rate. After evaluating the oral reading phase, teachers can then proceed to assess students' comprehension skills. During the final phase, teachers can use the observation guide as a framework to evaluate and score students' overall reading performance Finally, teachers use the checklist to target students' needs so that they can develop instructional strategies to promote students' learning.

Efficacy of the DRA

The major components of the DRA are phonemic awareness; knowledge of the alphabetic principle, phonics, accuracy/fluency, and vocabulary; comprehension; motivation; word analysis; and reading engagement (Beaver & Carter, 2006). One major focus of this study was to determine the efficacy of the DRA in helping students to strengthen their skills in phonics, fluency, and comprehension (Beaver & Carter, 2006; Fountas & Pinnell, 2012; Kauerz, 2002) and to reach the proficiency necessary to pass the NJASK test. Offering further insight, MacGinitie et al. (2002) explained that the DRA can be used to "measure the students' knowledge of the concepts related to reading, their knowledge of decoding skills and word meanings, higher order thinking skills, vowels/consonant and their understanding of what they read" (p. 64). Identifying the

effectiveness of the DRA might help struggling students to develop higher order critical-thinking skills that will help them to become fluent readers.

Most importantly, as proposed by Beaver and Carter (2006), the DRA might provide students with the skills necessary to identify their strengths and areas in which they need improvement. According to Beaver and Carter, "When struggling students are given the opportunity to set personal reading goals, they can develop a feeling of worth, a sense of control, establish a purpose for their work, and have a more positive attitude toward learning to read" (p. 6).

Components of the Sonday System

Components of the Sonday System, a guided reading program, are based upon Orton-Gillingham multisensory, reading, structured, phonics, reading comprehension, fluency, writing and spelling and vocabulary skills (Neafus, 2004; Sonday, 2009b).

This study also explored ways in which the Sonday System could be used to help students to strengthen their phonics, fluency, and comprehension skills to reach the proficiency necessary to pass the NJASK test. Recommendations from the NRP (2000b) have helped to "guide the Sonday System program's design with the utilization of a highly effective combination of research essentials, effective interventions, and best practices and is used for struggling readers as well as advanced reading instruction" (p. 1).

Sedita, Friedman, and Friedman (2010) asserted that when struggling students fail to master the underlying skills to decode and read familiar and unfamiliar words accurately, it becomes necessary to apply a systematic phonics intervention. Sedita et al.

contended that although some students have the underlying decoding skills to read, they need more practice and formal reading intervention to gain fluency in reading. They believed that full intervention programs such as Wilson Reading, the Sonday System, Project Read and Linguistics Strands, and SRA Corrective Reading can help to close the gap in students' phonics knowledge. They added that the use of these intervention programs will make instruction easier because the reading and support materials are provided in the programs.

Fountas and Pinnell (2012) asserted that efforts have been made to include guided reading as an essential element of high-quality literacy education in schools. They also commented:

> Readers are actively engaged in the lesson as they learn how to take words apart, flexibly and efficiently, while attending to the meaning of a text. Readers begin thinking about the text before reading, attend to the meaning while reading, and are invited to share their thinking after reading. They deepen their understanding of a variety of texts through thoughtful conversation. (p. 268)

Fountas and Pinnell (2012) maintained that guided reading can help students to become good readers. During guided reading, teachers support small groups of readers as the students learn to use various reading strategies, such as context clues, letter and sound relationships, and word structure. Guided reading is an element of the Sonday System that can provide the framework to ensure that students are able to apply strategies to make meaning from text. Antonnacci (2000) claimed that during guided reading, "students are provided with assistance in the development of a system of strategies" (p.

18). Cabral-Márquez (2015) said, “It is only through sustained, active engagement with text that students will encounter natural, genuine opportunities to integrate all the skills and strategies that comprise the reading process and lead to growth in reading” (p. 464). Once students can reinforce the literacy skills that they have learned and integrate them across the curriculum, they will be motivated to become better readers.

Davenport and Prusak (2000) asserted that “an effective reading model will capture the most important information and present it in sharable forms designed to enhance positive participation and remove negative barriers” (p. 4). Chhabra (2006) postulated that the steps to students’ success must involve “assessing, planning an intervention, implementing the intervention and monitoring the programs for effectiveness” (p. 40). Fawson and Reutezel (2000) proposed that guided reading strategies can help students to improve their own reading strategies, and they further explained that during guided reading, “children can be matched with books that provide a level of challenge and familiarity that appropriately support the development of each child’s self-extending reading strategies” (p. 84). Students who receive instruction that focuses on their use of specific reading strategies such as phonics and comprehension can learn to apply these reading skills to other content areas.

Appeal of the Sonday System

One of the goals of the Sonday System is to identify struggling students’ reading levels, present clear and precise instructions, and then follow and compare the progress of the students. Sonday (2009b) indicated that each video segment can guide use of the program with simple procedures, demonstrations, instructional tips, and explanations.

Teachers view the segments that correspond with the levels being taught so that they can fully understand the material.

According to Sonday (2009b), during the assessment of students, instructors will check for knowledge by going through a prereading level. The prereading material is used to assess students' strengths and weaknesses in phonics. The instructors allow adequate time only to establish whether the phonetic skill has been mastered or additional instruction is needed. Students are allotted 3 to 5 minutes for each activity, or a total of 30 to 45 minutes for the session. Teachers record and chart the information.

If students do not show mastery of the skills, they begin at Level 1. If they show mastery in some of the skills being evaluated, the teachers will briefly review those skills at the end of the session while progressively introducing new activities. Sonday (2009b) added that when administering the test, the teachers will spend approximately 2 to 5 minutes on each activity before alternating the prereading activities.

When working with students in a group setting, the teachers will ensure that the students understand the material presented before advancing to the next activity. Students are required to have at least 90% accuracy on the mastery check for reading and 85% accuracy on the phonics activities before moving to a higher level (Sonday, 2009b). In addition, pre- and posttests are administered to all students to gauge student growth. (Sonday, 2009b).

Research on Effective Training in the Sonday System

The Sonday System comprises five prereading levels and 30 reading levels. Each reading level has the same guided lesson format: structured, sequential, explicit, and

multisensory. To help students master the required skills, the Sonday System makes use of materials such as flash cards, songs, listening activities, and games. These materials, along with teacher training, are carefully incorporated into the program to address the essential components of reading and phonics. Even during the training process, the Sonday System training consultants ensure that teachers understand the strategies in the instructional materials. The training process further ascertains that teachers foster and help students to develop "phonological listening skills, recognize onset sounds and rhymes, segment and combine sounds and words, and separate sentences into words and words into syllables and sounds" (Sonday, 2009b, p. 9). Naeimi and Foo (2015) explained that vocabulary learning has long been considered one of the essential components of reading. They posited that students are required to not only memorize definitions but also integrate vocabulary meaning into their present knowledge.

The Sonday System prepares teachers to use a variety of comprehension strategies through explanation, demonstration, and role-play. The strategies are covered during the beginning stage of training and progress throughout the coaching sessions. The NRP (2000b) found the Sonday System's reading strategies to be in compliance with its recommendations. Formal training of teachers to use the DRA and the Sonday System usually is conducted in late August or early September. Teachers receive further in-service training by the school district in the implementation, administration, and interpretation of the scores as they apply to the programs.

According to Sonday (2009b), consultants help teachers to use their curriculum-based measurement tools effectively to ensure that data are accurate and can help to drive

instruction. The trainers also inform administrators and literacy coaches on ways to best plan for the assessment process, that is, from determining the most appropriate assessment model to summarizing reports. The Sonday System provides training that can help instructors to analyze screening data, group students by skill level, and design instructional plans to meet students' needs.

Similarities Between the DRA and the Sonday System

The DRA and the Sonday System share some similarities in phonics, fluency, vocabulary, comprehension, and reading (Beaver & Carter, 2006; Sonday, 2007). When combined, these similarities might give struggling students the skills that they need to improve their proficiency scores on the NJASK test.

Phonics

According to the NRP (2000b), phonics is the relationship between phonemes (i.e., individual sounds of letters) and graphemes (i.e., spellings). Effective teaching strategies in phonics can help struggling students to identify words by connecting phonemes and letters and by showing them how the spelling of words is related to the sounds of the letters (Snow et al., 1998). Dahl, Shearer, Lawson, and Grogan (2000), along with Fountas and Pinnell (2012), noted that when instruction in phonics occurs on a daily basis, students acquire the skills necessary to improve their reading and writing. However, Au (2002) cautioned that when working with students from diverse backgrounds who are developing early literacy skills, teachers should not focus only on phonics. Fountas and Pinnell contended that instruction in phonics gives students the opportunity to hear, identify, and manipulate individual sounds, or phonemes.

The NRP (2000b) stated, “Systematic, synthetic phonics instruction can help to make significant impact on struggling readers’ growth” (p. 2). Phonics can help students to manipulate the phonemes used in rhyming, segmenting, and blending words, a skill crucial for reading comprehension to occur (Naeimi & Foo, 2015). Students can learn phonics through such activities as listening games, rhyming games, and sentence segmentation. Phonics instruction is appropriate for middle school students and can motivate them to engage in activities focusing on verbal language, help to build the foundation for mapping sounds to letters, and apply these skills to print words (Fernandez-Fein & Baker, 1997; Fountas & Pinnell, 2012).

Teachers are trained to incorporate fluency into their instructional strategies by using rapid naming, single-word reading, sentence reading, and repeated oral reading of text. Sonday (2009a) added that “students learn best when they understand that words and syllables are made up of speech sounds which are represented by alphabetic symbols or letters” (p. 1).

Baker, Simmons, and Kame’enui (1998), as well as Fountas and Pinnell (2012), remarked that the goal of phonics instruction is to expose students directly or indirectly to a variety of contexts and words used by teachers and others so that they can learn, understand, and use the words to acquire and convey meanings as they read. Phonics is best learned onsite with follow-up coaching, when students make an effort to learn the words presented and when they receive instruction in the correct context of the words (NRP, 2000a).

Reading Fluency

Fountas and Pinnell (2012) commented that reading fluency should allow students to read and comprehend literacy tasks with various texts and give them the "acquired reading skills" to link word recognition and comprehension. Rasinski and Hoffman (2003) asserted that one of the best ways to help students to develop reading fluency is to observe them while they are reading orally. Reading fluency improves when students are involved in teacher-facilitated lessons (Stahl & Kuhn, 2002).

Fountas and Pinnell (2012) and McTighe et al. (2004) agreed that guided reading can help students to become good readers. During guided reading, teachers support small groups of readers as the students learn to use various reading strategies, such as context clues, letter-sound relationships, and word structure. This learning will help them to strengthen their reading skills.

DuFour et al. (2010) commented that struggling students can develop the required reading skills that can close the achievement gap by "creating effective intervention and enrichment systems that must be part of a larger cultural transformation of schools" (p. 6). Against this backdrop, the NCLB (2002) called for schools to raise the academic reading achievement of at-risk students by forming new strategies. In 1997, Congress established a panel to conduct a thorough investigation into how best to impact the achievement of struggling readers. As a result, Kauerz (2002), the NRP (2000a), and Shaywitz and Knopf (2005) recommended using effective reading programs that include multisensory strategies, phonological and phonemic awareness, phonics, fluency, and comprehension to build students' confidence as they work toward reading proficiency.

Reliability and Validity of the DRA and the Sonday System

According to Rathvon (2006), some aspects of proctoring the test for the DRA can compromise its reliability and validity:

> (a) Teacher selection of the text that will be used and if the teacher used his or her judgment rather than an objective, standardized routine task; (b) lack of theoretical rationale or empirical data to provide support for the procedure when administering the test; (c) vagueness of the guideline for the words supplied during the oral reading section; (d) although the record or oral reading guideline included in the teacher guide indicates that a "word called by the student" may be an error, there is no information stating how much time is to be given to the students to decode the word before the teacher supplies a word to the struggling reader. (p. 8)

Rathvon (2006) mentioned that because "differences in word supply procedures can have a significant effect on students' reading rate and comprehension skills, the proctor should ensure that guidelines are made clear at all times" (p. 6). Nickerson (1984) as well as Rathvon asserted that the DRA teachers' guide should include tables with suggested text for readers on, at, and above grade level, as well as a list of comparable trade books relative to the DRA level; however, this process is highly subjective and vulnerable to bias. Invernizzi, Landrum, Howell, and Warley (2005) asserted that "teachers who believe students are reading on a particular guided reading level may assess the students' only with DRA text corresponding to that level rather than selecting from a broader range of text difficulty" (p. 610).

Some researchers of the DRA and the Sonday System have explained that the programs have strong reliability and validity because they help to increase struggling students' reading skills and assist teachers in understanding how students learn (Beaver & Carter, 2006; Pearson, 2007; Rathvon, 2006; Sonday, 2009b). The goal of any reading program is to increase students' reading proficiency as well as their comprehension and fluency skills. Perhaps the strongest evidence of the reliability and validity of the DRA and the Sonday System is that they can help struggling students to strengthen their skills in phonics, fluency, and comprehension. The DRA and the Sonday System can allow teachers to select specific text tailored to the needs of individual students rather than use a generalized text for all students in their classes. The DRA and the Sonday System reading programs provide insights that should be considered to ensure validity and reliability, including teachers being objective rather than judgmental, using clear guidelines on students' levels, and considering each student's cognitive development when implementing the text.

Summary

The literature review provided evidence of the problem of struggling readers at the local and national levels. Researchers in the review have identified many reasons for the struggle with reading, and many of them have provided insight into interventions to alleviate the problem. The most current research that I reviewed indicated that there has been little or no improvement in helping struggling students to reach proficiency on tests such as the NJASK.

Prensky (2001) explained that literacy in the elementary classroom is evolving and changing to reflect the knowledge of digital natives. Although many students have access to the most advanced technology in the classroom setting that was intended to motivate them and foster their reading skills, many struggling readers do not have the skills to take advantage of these technological advances.

Lending support to the existence of the reading problem, Ediger (2015) asserted that reading programs of superior quality should be made available to all students. Ediger also believed that teachers and supervisors must ensure that recommended teaching and learning instructions are implemented correctly and continue to be upgraded. The reading problem requires all educators to identify the problem and implement reading programs that are effective in allowing struggling readers to enhance their skills and decrease the dropout rates.

Based upon reports that students are performing at the basic level or below the basic level in reading, the school district that was the focus of this study is striving to find ways to advance struggling students' reading and comprehension skills. This research might be valuable to the local school board and perhaps other school boards across the county because of the scantiness of literature about use of the DRA alone and the DRA in combination with the Sonday System in helping struggling readers. Included in Section 2 is a description of the methodology that I used to conduct this study.

Section 2: The Methodology

Research Design

Undergirding this study was a quantitative ex post facto or causal-comparative research design to examine differences obtained in archival NJASK test score data for 2010 and 2011 for middle school students in Grades 7 and 8. This causal-comparative research design was fitting for the study because, according to Gay, Mills, and Airasian (2012), causal-comparative research attempts to determine the cause or reason for differences in the behavior or status of individuals or groups of individual.

I selected a quantitative design to interpret archival data to determine the effectiveness of the DRA alone and the DRA combined with the Sonday System in helping struggling readers to reach proficiency on the NJASK test. The analysis involved examining archival data for the 2010 and 2011 school years from 80 at-risk students, with 40 students in each group to determine whether any differences existed in the reading scores of struggling students.

Gay et al. (2012) added that "quantitative research is the collection and analysis of numerical data used to describe, explain, predict, or control phenomena of interest" (p. 7). One of the overall structures for selecting a quantitative design is based on the scientific method, which uses deductive reasoning and allows researchers to form hypotheses and collect and analyze data when investigating conditions or problems (Gay et al., 2012). I analyzed the data to identify any possible relationship between the variables and to answer the research questions and hypotheses.

Convenience Sampling

I selected a convenience sample of student data for 2 school years (2010 and 2011) from NJASK test results. Price (2013) wrote that "a convenience sampling, also called a non-probability or opportunity sample, is a sample drawn without any underlying probability-based selection method" (p. 2). Gay et al. (2012) added that convenience sampling allows researchers to include any individuals who happen to be available at the time the sample is drawn.

Dillman (2000) identified three lenses through which to obtain a deeper understanding of convenience sampling:

- The main advantage of convenience sampling is that it often requires much less time and effort, and thus usually less costly to generate.
- Convenience sampling can be useful to [a] researcher early in the proposal because it might be useful in developing research hypotheses.
- Responses from convenience samples might also be useful for identifying issues, defining ranges of alternatives, or collecting other sorts of non-inferential data. (p. 9)

At the onset of the project, I selected to use systematic sampling, but once the data were stripped and presented to me, I discovered that some samples were missing 1- or 2-year scores and had to be eliminated. Therefore, convenience sampling was more appropriate. The data were stripped of the students' names by an administrator designated to do so and were then presented to me. Although the data were limited, convenience sampling allowed me to analyze them to gain an immediate understanding of certain

trends and compensated for some of the lack of available data. The sample size of this study was "intuitively reasonable" (Gravetter & Wallnau, 2008, p. 159) and was sufficient to satisfy the requirements of Walden University's Institutional Review Board (IRB).

Mixed Two-Factor Design

In my search for the most suitable data analysis procedure, I examined repeated-measures ANOVA, *t* test, and mixed two-factor design ANOVA, three different ways of arriving at similar conclusions. In many cases, researchers can use repeated-measures ANOVA and *t* tests on their data to test hypotheses about population means (Gravetter & Wallnau, 2008). A mixed-design (split-plot) ANOVA was my preference because the study involved a factorial variable and a repeated-measure variable. According to Chartier and Cousineau (2011), the mixed, within-between subjects ANOVA, also called a split-plot or randomized blocks factorial ANOVA, is a technique that compares the means obtained by manipulating two factors, one being a repeated-measure factor and other the general linear model approach.

I evaluated the data using a mixed two-factor design. According to Keppel (2004), this type of design is used when all the participants are exposed to all levels of one factor, in this case, the 2 successive years from which data were collected (2010 and 2011). This procedure tested the significance of the main effects of condition and year as well as the conditions of the 2010 and 2011 interaction. I identified the mean scores, standard deviations, and variance on the NJASK test when the Sonday System was added to the DRA in 2010 and 2011. I compared the mean score for the NJASK/DRA-alone to the

mean scores for the NJASK/DRA/Sonday System to address the first research question: What is the effect of the addition of the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK test scores? The mean scores from the NJASK/DRA-alone and the NJASK/Sonday System were computed and analyzed using a mixed-design (split-plot) ANOVA to determine whether there was a significant difference in NJASK scores when the Sonday System was added to the DRA.

The independent variable (IV) was the reading program in which the students participated (i.e., NJASK/DRA-alone or NJASK/Sonday System). The dependent variable (DV) comprised differences in the NJASK scores from 2010 to 2011. For each variable, I used the mean scores from 2010 and 2011 as the DV. Although the IV was identified, it was not manipulated; instead, it was examined for potential cause-and-effect relationships among the variables. Given that the NJASK/DRA-alone and NJASK/Sonday System data already existed, I compared them to verify whether the addition of the Sonday System impacted the NJASK scores. Table 2 shows how I collected the data.

Table 2

Data Collection for NJASK/DRA-Alone and NJASK/Sonday System

Years	Group
2010 and 2011	NJASK/DRA alone
2010 and 2011	NJASK/DRA/Sonday System

I obtained data for the NJASK/DRA-alone students using convenience sampling. The NJASK data that I examined were for the students in the DRA-alone and the DRA/Sonday System group. I evaluated the NJASK data for the students in the DRA-

alone group in 2010 and 2011 and the NJASK data for students in the DRA/Sonday System group for the same 2 school years. I used a mixed-design (split plot) ANOVA because I compared the mean differences between the scores for the NJASK/DRA and the NJASK/DRA/Sonday System for 2 years. The means for the NJASK/DRA and the NJASK/DRA/Sonday System groups obtained for the 2 years was compared to determine (a) whether there was a significant difference between the programs; (b) whether there was an overall improvement in student reading ability across the 2 years that were studied; and (c) whether the change, if any, made between 2010 and 2011 was different across the groups.

According to MacGinitie et al. (2002), "The DRA program strives to measure the students' knowledge of the concepts related to reading, their knowledge of decoding skills and word meanings, higher order thinking skills, vowels/consonants and their understanding of what they read" (p. 64). Because the components of the Sonday System share many similarities with those of the DRA, when they are combined, they might have even more influence on struggling readers' progress.

Research Setting and Sample

The setting for this study was a public Abbott School District in northeastern New Jersey. *Abbott districts* are school districts in New Jersey that receive funds to ensure that students receive public education in accordance with New Jersey's state constitution. The U.S. Constitution mandated that "children in the poorest cities receive the same high-quality education as children in more affluent suburbs" (Education Law Center, 2006, p. 1). This ruling was instituted in 1985 as the result of the first ruling of *Abbott v. Burke,* a

case filed by the Education Law Center. Abbott's core principle is to provide an adequate means by which New Jersey's urban school can make improvement in the educational system.

Middle School A qualified for and received Title 1 federal funds because many students were from low-income families. The proportion of low-income families is commonly measured by the percentage of students eligible to receive a free or reduced-price lunch. Title I funds are to be used for programs designed to improve the academic achievement of children from low-income homes (NCLB, 2002).

The study involved the collection of archival data for approximately 80 students from Middle School A, with at least 40 students in each reading program. I collected the scores using convenience sampling. I selected Middle School A because of report card data obtained from the NJDoE (2011a) identifying the average test scores for students in language arts as follows:

- 2010 - NJASK test scores for students in Grade 6: 36%
- 2010 - NJASK test scores for students in Grade 7: 32%
- 2010 - NJASK test scores for students in Grade 8: 64%
- 2011 - NJASK test scores for students in Grade 8: 57%

Although the school showed slight improvement in the NJASK test scores for 2010, the results indicated that the students did not meet the state standard of 72% required to meet AYP. The school was subsequently classified as SINI.

Instrumentation

The instrument that I used to collect the data was NJASK test scores. According to Creswell (2012), instruments used in quantitative or qualitative research must have been widely used to ensure their validity and reliability. In compliance with the requirements of the New Jersey State Core Curriculum Content Standards (NJCCCS), the NJASK test has been widely used across the state.

According to a report from the NJDoE (2011b), New Jersey's constitution required and authorized "a thorough and efficient system of free public schools" (p. 10). By 1975, the state deemed it necessary to pass legislation that would provide all children, regardless of SES or geographic location, with an education that would allow them to function socially, politically, and economically in a democratic society (NJDoE, 2011b). By 1976, an amendment to the legislation was ratified, subsequently providing the legal basis for the test to be used as a requirement for graduation from high school. The NCLB mandated that every state institute annual standardized tests in reading and mathematics for students in Grades 3 to 8. In compliance with the NCLB, New Jersey established additional statewide assessments. The NJASK was aligned with the NJCCCS and was designed to measure students' knowledge and critical-thinking skills in the major content areas of mathematics and language arts/literacy. The latter component consists of reading passages, multiple-choice items, constructed-response items, and writing tasks. Students in Grades 3, 4, 5, 6, 7, and 8 take the math and language arts/literacy tests; students in Grades 4 and 8 also take the NJASK science test (NJDoE, 2011d). In 2008, new tests in language arts/literacy and mathematics were introduced as part of the NJASK for

students in Grades 5 to 7. The NJASK test also replaced the former Grade Eight Proficiency Assessment for students.

The NJASK Language Arts/Literacy section of the test is integrated to include project-oriented items on a statewide level (NJDoE, 2011d). The components include a wide variety of texts, illustrations, and activities intended to engage students and keep their interest in the content assessment (NJDoE, 2011d). The format of the language arts test is divided into several categories of questions that assess students' skills in four content clusters: writing, reading, interpreting text, and analyzing and critiquing text. These writing clusters are integrated to provide a sequence of various written visual materials and activities. The students are required to complete the assessment over a 2-day period (NJDoE, 2011b, 2011d). Table 3 shows the NJASK assessment cluster.

Table 3

Assessment Cluster, Task, and Time

Assessment cluster	Task	Time
1. Writing: speculate (picture prompt)	Story	25 minutes
2. Reading: narrative	Multiple-choice questions Open-ended questions	50 minutes
3. Reading: poem Writing: explain (poem-linked prompt)	Composition	25 minutes
4. Reading: everyday text	Multiple-choice questions Open-ended questions	25 minutes

Note. NJDoE (2011b) public data.

The assessment cluster presented in Table 3 was designed to help students to think critically and demonstrate mastery of the task required of them (NJDoE, 2011d). The assessment required students to complete performance-based tasks for writing, as well as multiple-choice and open-ended items for reading. Most open-ended reading items asked students to write a paragraph or more to complete the responses. The test was

administered in the spring over 2 days for times ranging from 25 to 50 minutes for each task, excluding the time to distribute and collect the material, read the instructions, and breaks given to students at the end of each session.

The NJASK test is scored using raw and scale scores, but the results of the assessments are equated and reported in scale scores. According to the NJDoE (2011b), the raw score represents the total number of points that a student can achieve on the test. According to the NJDoE (2011b), a scale score is obtained by translating the raw scores using a mathematical algorithm to ensure that there is accurate documentation of the data so that they can be compared across content areas and grade level and can be used over time.

The combination of the total correct number of points achieved for the multiple-choice items, constructed-response items, and the writing task signifies the scale score for the Language Arts/Literacy component of the test. The total scores for language arts and mathematics vary from 100 to 300 points. A score of 100 to 199 is considered partially proficient, a score of 200 to 249 is considered proficient, and a score of 250 to 300 is considered advanced proficient. Students who scored at the partial proficient level are considered below the state level for proficiency and might require additional help and interventions (NJDoE, 2011b).

The open-ended questions are scored using a 4, 3, 2, 1, and 0 scale of points. To achieve 4 points, students must exhibit an understanding of the skills, complete all of the requirements and answer the questions by providing clear and precise explanations or extend the answer to the questions presented. Three points mean that students exhibit an

understanding of the assignment, address the requirements of the questions, and can link ideas from the text as supporting arguments. A score of 2 points means that students have a partial understanding of the task, but cannot provide clear and precise explanations to the questions. A score of 1 point indicates that students have limited knowledge of the questions and fail to address the task effectively. A score of 0 means that students lack the skills required to address the questions and other task given (NJDoE, 2011b). The mean scores and standard deviations for the raw scores were reported for language arts/literacy across grade content levels. The report showed that the scale scores varied across grade levels and content areas. The level of difficulty determined that the scale scores were not equivalent across grade levels (NJDoE, 2011b).

According to the NJDoE (2011b),

> The NJASK 3-8 was designed to provide information about each student's achievement in the areas required by New Jersey's Core Curriculum Content Standards, furthermore, the test serves as an indicator, that can be used to ensure that local instructional programs are aligned to the content standards and that students are mastering the knowledge and skills required by the end of each grade. (p. 12)

In addition, NJASK test scores are used to interpret and compare different content areas, to calculate AYP, measure students' strengths and weaknesses, and identify those who struggle to learn and need specific interventions. The NJDoE (2011b) expressed that the test indicated students' mastery of skills stipulated by the NJCCCS. For the purposes of this study, the NJASK test results served as the students' overall scores.

Reliability

According to the NJDoE (2011b),

> Reliability of assessment is the degree to which assessment results measure particular knowledge and skills. A reliable test is one that produces scores that are expected to be relatively stable if the test is administered repeatedly under similar conditions for the general testing population and across subgroups. The state of New Jersey regulation specify that all students including those with disabilities and limited English proficiency should be included in the state wide assessment so that they would be counted in the state accountability system. (pp. 25-26)

The NJASK instrument has performed similarly across subgroups based upon reliability values for subgroups that were compared to those of the total population (NJDoE. 2011b). The test reliabilities measured by Cronbach's alpha for the 2010 NJASK tests showed that the alphas for overall student responses ranged from 0.81 to 0.90 for language arts, 0.90 to 0.92 for math, and 0.82 to 0.90 for science. However, the reliability test for Spanish students only was lower than the general population, ranging from 0.73 to 0.81 for language arts, 0.83 to 0.89 for math, and 0.69 to 0.70 for science.

In addition, the test reliabilities measured by Cronbach's alpha for the 2011 NJASK tests showed that the alphas for the students' overall responses ranged from 0.82 to 0.91 for ELA, 0.90 to 0.92 for math, and 0.84 to 0.90 for science. The reliability test for Spanish students only was lower than the general population, ranging from 0.73 to 0.85 for ELA, 0.81 to 0.89 for math, and 0.71 to 0.78 for science. The results showed that the NJASK tests were highly reliable for the 2010 and 2011 school years.

Validity

Validity refers to the degree to which an assessment measures what it was intended to measure and the extent to which interpretations made by researchers about the assessment outcomes are precise and applicable (NJDoE, 2011b). The number of correct responses given by the students on the NJASK test highlighted their strengths and weaknesses in specific content areas. The means, standard deviations, percentages, and statistics reported on the NJASK test scores provided information on how to evaluate classroom instructional strengths and weaknesses.

According to Lodico, Spaulding, and Voegtle (2010), one way of establishing the validity of a test is to identify its goals and objectives clearly. The NJDoE (2011c) noted that "validity evidence is based on the internal structure of NJASK as provided through a correlational analysis of NJASK content clusters with each other" (p. 139). One of the goals outlined in the NJDoE report was to help administrators to interpret and use the results of the NJASK test to identify and help students who were struggling to read.

The validity of the NJASK test scores was evident in the consistency of scores regardless of the test version taken. The test was given to students with limited English proficiency (LEP) and minor disabilities (NJDoE, 2011b, 2011d). The items on the NJASK test were developed to ensure that they were aligned with and measured the NJ core curriculum standards. This was done so that all students had the opportunity to improve their learning and demonstrate the skills and knowledge needed to acquire LEP and the language necessary for achievement in all academic content areas (NJDoE, 2011b). The NJASK test further allowed administrators, teachers, and parents to monitor

students' progress over time. The results from the NJASK test scores provided evidence of validity and reliability.

To ascertain that there were no biases toward the students' scores and to ensure reliability and validity, a technology administrator was assigned to strip the students' names from the scores before they were given to me. To further eliminate systematic bias, a mixed-design (split plot) ANOVA was performed to determine whether there were differences in the scores when the Sonday System was added to the DRA. A between-group, as opposed to a repeated-measure, ANOVA was used because I compared each student's change of score over the 2 years. The findings are analyzed, compared, and discussed in the Results section.

Data Collection and Analysis

I collected archival quantitative data for 80 at-risk students, with 40 students in the NJASK/DRA program and 40 students in the NJASK/DRA/Sonday System program for the 2010 and 2011 school years. Data collection consisted of procuring scores from the NJASK test. I collected the data from the same group of students for the 2 years. All of the students were struggling readers who read below grade level for the required standard.

The data were evaluated using a mixed-design (split-plot) ANOVA because of its flexibility to test a hypothesis and interpret results (Gravetter & Wallnau, 2008). I entered the data into SPSS v.22.00 to support the data analysis. SPSS was used to conduct a mixed-design (split-plot) ANOVA based on two levels of a between-group IV (DRA alone and DRA/Sonday) and two points of data collection (2010 and 2011). This allowed

me to compare changes across the 2 years of reading ability obtained using the DRA-alone or the DRA/Sonday. For this study, the DRA-alone program was still being used in the school when the Sonday System was added.

Two research questions and hypotheses guided the study.

1. What is the effect of the addition of the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK test scores?

H_{01}: There is no difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a1}: There is a difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

If the *F* value obtained from the main effect of the reading program conditions was significant with an alpha level of .05, this null hypothesis was rejected.

2. What is the effect of the addition of the Sonday reading program to the DRA on a year-to-year improvement in the students' NJASK test scores?

H_{02}: There is no difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a2}: There is a difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

This hypothesis was tested using the interaction between reading program and year of data collection. An *F* value for the interaction that was significant at an alpha level of .05 allowed rejection of the null hypothesis. I obtained the archival data from the school district office after acquiring permission from Walden University's IRB (IRB approval #11-19-14-0027613) to conduct the study.

Assumptions

I assumed that the archival data would be readily available from the school when needed. I also assumed that record keeping of the data was appropriate and would make the data readily available. Finally, I assumed that the NJASK/DRA-Alone and the NJASK/DRA/Sonday System scores reflected the abilities of struggling students.

Limitations

One possible limitation was that the students might not have given true or their best answers to the questions posed. Another limitation was the transferability of findings, given that the school followed a single-gender classroom format in an urban context. Excessive absenteeism of the participants also might have affected the statistical testing portion of the data and could have skewed the results. Furthermore, factors other than those of the NJASK/DRA and the NJASK/DRA/Sonday System might have caused the struggling students' reading achievement scores to change. Lastly, because the components of the Sonday System shared many similarities with those of the DRA, when they were combined, they might have exerted even more influence on struggling readers' progress.

Delimitations

All of the students were struggling readers who performed at least two grade levels below their required reading level, so the results of this study could not be generalizable to the general population. The study also was limited because archival data for the participants were collected from Middle School A only. Another delimitation was that the study was designed to measure only the effectiveness of the NJASK/DRA-alone and the NJASK/DRA/Sonday System for struggling readers.

Researcher's Role

At the time of the study, I was a teacher at the participating middle school and had worked with struggling students for more than 12 years. During the period necessary to conduct this study, I was not actively involved in any instructional activities. Instead, I examined and analyzed archival data from the school's site.

Ethical Considerations

As mentioned earlier, I obtained IRB approval from Walden University to conduct the study. I acquired the archival data from the school's site while maintaining the anonymity of the students' names. No names were used, discussed, or publicly displayed; instead, I used pseudonyms and data coding. I will keep all of the confidential archival data on a password-protected computer for 5 years, after which time I will destroy all of the data. In addition, the permission form clarified the purpose of the study, the data collection procedures, and the benefits of participating in the study; explained that only archival data were examined; and outlined the criteria to ensure the privacy and

confidentiality of the data. The form also explained that I worked alone to conduct and complete the study.

Data Analysis and Results

I conducted the data analysis using SPSS v.22.00. I used descriptive statistics to analyze the data. The goal was to help to answer the two research questions and test the hypotheses that guided the study:

1. What is the effect of the addition of the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK test scores?

H_{01}: There is no difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a1}: There is a difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

2. What is the effect of the addition of the Sonday reading program to the DRA on a year-to-year improvement in the students' NJASK test scores?

H_{02}: There is no difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

H_{a2}: There is a difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program.

NJASK Test Scores for DRA-Alone

Preanalysis data screen. I collected a total of 40 archival NJASK scores for students who participated in the DRA-alone reading program. Prior to conducting inferential analyses, I examined outliers via standardized values, or *z* scores, where values outside of the range ± 3.29 are considered outliers (Tabachnick & Fidell, 2012). Two outliers were present in the data set, one in 2010 and another in 2011. As a result, data for 38 students were used in the final analyses for the DRA-alone group.

Frequencies and percentages for NJASK test scores with DRA-alone. The archival data indicated that 42% of the scores ranged between 200 and 224 on the NJASK test for the 2010 DRA-alone group (*n* = 16). The archival data further specified that 50% of the scores ranged between 200 and 224 on the NJASK test for the 2011 DRA-alone group (*n* = 19). Frequencies and percentages for NJASK test scores for the DRA-alone group are presented in Table 4. Histograms of the frequencies of NJASK test scores for the DRA-alone group are presented in Figures 6 and 7.

Table 4

Frequencies and Percentages for NJASK Test Scores for DRA-Alone Group

Demographic	*n*	%
NJASK test scores for 2010 DRA-alone		
150 – 174	6	16
175 – 199	13	34
200 – 224	16	42
225 – 249	1	3
250 – 274	1	3
NJASK test scores for 2011 DRA-alone		
175 – 199	10	26
200 – 224	19	50
225 – 249	9	24

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

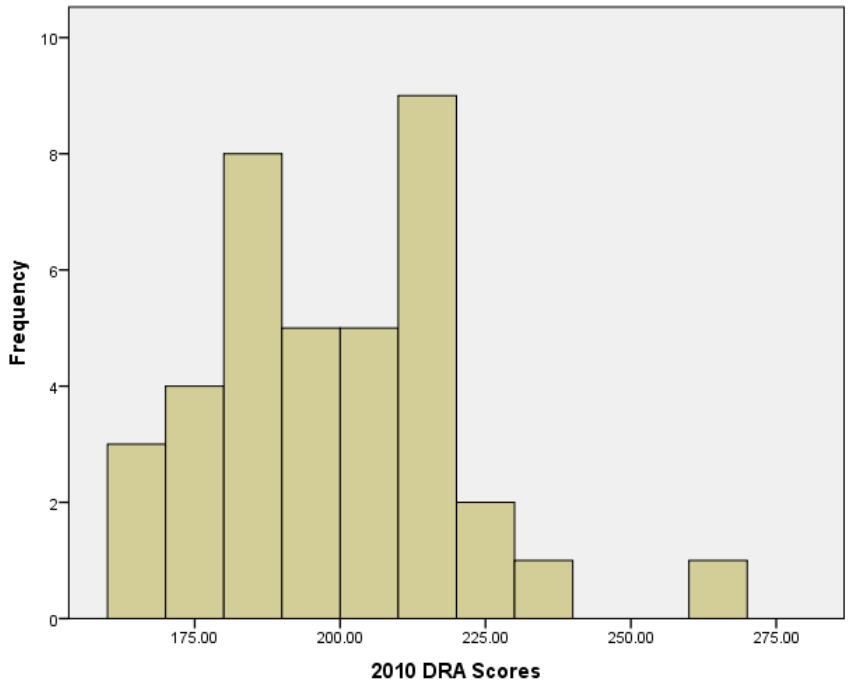


Figure 6. Histogram of NJASK test scores for 2010 DRA-alone group.

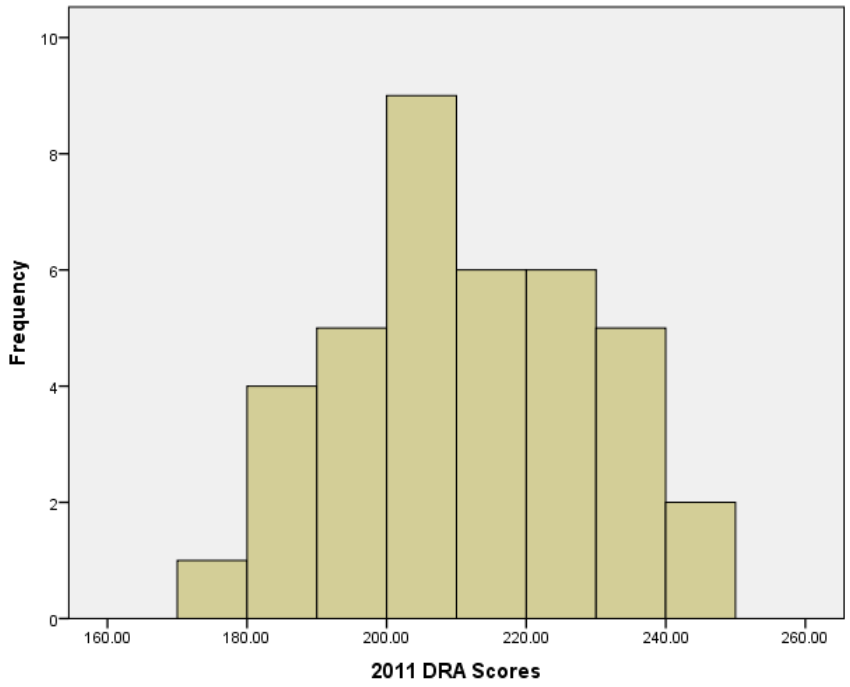


Figure 7. Histogram of NJASK test scores for 2011 DRA-alone group.

NJASK Test Scores for DRA/Sonday System

Preanalysis data screen. I collected a total of 40 archival NJASK scores for students who participated in the DRA/Sonday System reading program. Prior to conducting inferential analyses, I examined outliers via standardized values, or *z*-scores, where values outside of the range $\pm$ 3.29 are considered outliers (Tabachnick & Fidell, 2012). No outliers were present in the data set.

Frequencies and percentages of NJASK test scores for DRA/Sonday System. The archival data indicated that 38% of the scores ranged between 175 and 199 on the NJASK test for the 2010 DRA/Sonday System group (n = 15). The archival data further specified that 38% of the scores ranged between 175 and 199 on the NJASK test for the 2011 DRA/Sonday System group (n = 15). Frequencies and percentages of NJASK test scores for the DRA/Sonday System are presented in Table 5. Histograms of the frequencies and percentages of NJASK test scores with the DRA/Sonday System are presented in Figures 8 and 9. I chose to use histograms because the collected data were continuous rather than categorical. The histograms helped me to evaluate the normalcy of the data.

Table 5

Frequencies and Percentages of NJASK Test Scores for DRA/Sonday System

NJASK test scores of 2010 DRA/Sonday System	*n*	%
100-124	5	13
125-149	5	13
150-174	9	23
175-199	15	38
200-224	6	15
NJASK test scores of 2011 DRA/Sonday System		
100-124	1	3
125-149	7	18
150-174	11	28
175-199	15	38
200-224	6	15

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

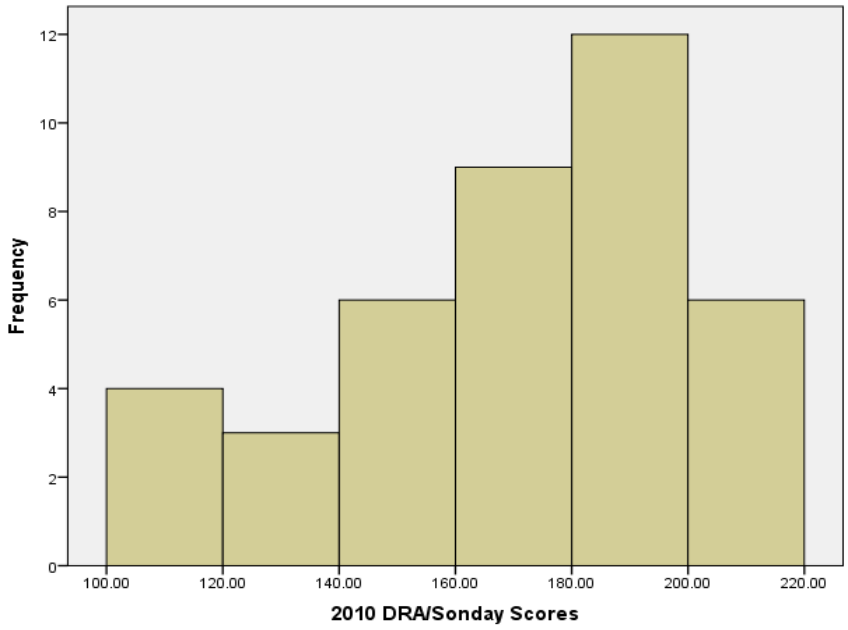


Figure 8. Histogram of NJASK test scores for 2010 DRA/Sonday System.

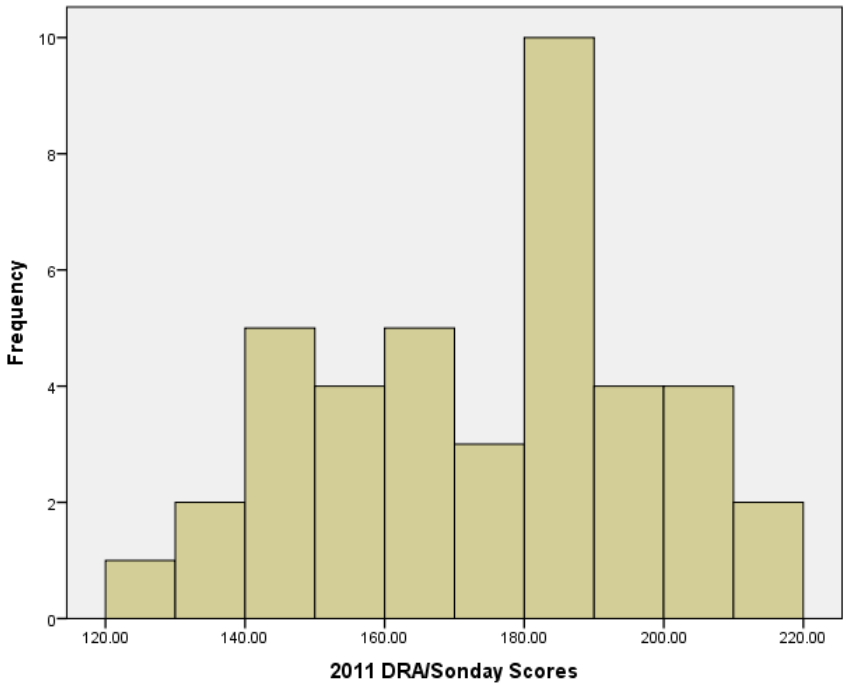


Figure 9. Histogram of NJASK test scores for 2011 DRA/Sonday System.

Descriptive Statistics

The mean for the 2010 NJASK test score was 169.55, and the standard deviation was 30.42 for the DRA/Sonday System. The mean for the 2010 NJASK test score was 198.29, and the standard deviation was 21.28 for the DRA-alone group. The mean for the 2011 NJASK test score was 172.88, and the standard deviation was 22.84 for the DRA/Sonday System. The mean for the 2011 NJASK test score was 210.68, and the standard deviation was 17.48 for the DRA-alone group. Table 6 presents the descriptive statistics for the continuous variables.

Table 6

Means and Standard Deviations for NJASK Test Scores by Reading Program

Scales	Min	Max	*M*	*SD*
DRA- only				
2010 NJASK test scores	160.00	261.00	198.29	21.28
2011 NJASK test scores	178.00	245.00	210.68	17.48
DRA/Sonday System				
2010 NJASK test scores	100.00	219.00	169.55	30.42
2011 NJASK test scores	123.00	213.00	172.88	22.84

Inferential Statistics

Research Question 1. What is the effect of the additions of the Sonday System reading program to the DRA in helping struggling readers to improve their NJASK scores?

Research Question 2. What is the effect of the addition of the Sonday System reading program to the DRA on a year-to-year improvement in the students' NJASK test scores?

As already noted, I conducted a mixed-design ANOVA for 2 years of data (2010 and 2011) collected from students' scores. I assessed the assumption of normality with two Kolmogorov Smirnov (KS) tests. The results of the KS tests indicated significance for 2010 scores (p = .023); thus, the assumption of normality was not met. Although the assumption of normality was not met for the 2010 scores, parametric techniques are typically robust for violations of this assumption with a sample size larger than 30 (Pallant, 2010). The results of the KS tests did not indicate significance for 2011 scores (p = .200); thus, the assumption of normality was met.

The assumption of homogeneity of variance was assessed with the Levene's test. The results of the Levene's test indicated significance for 2010 scores (p = .023); thus,

the assumption was not met for that year. The results of the Levene's test did not indicate significance for 2011 scores ($p = .065$) thus, the assumption was met for that year. Consequently, the alpha level for establishing statistical significance for both the main effect of reading program and the reading program 2010 year interaction was cut in half in order to make it more stringent to establish significance, $\alpha = .025$ (.05/2; Tabachnick & Fidell, 2012).

To address Research Question 1, I examined the main effect of reading condition. The F value of 33.72 (2,75) was significant ($p < .001$). I conducted further examination to determine whether there were significant differences in the NJASK test scores between the DRA-alone and the DRA/Sonday System combination by year. An F (1,75) value of 23.15 ($p < .001$) was obtained for 2010, and an F (1,75) of 66.90 ($p < .001$) was obtained for 2011. Consequently, the null hypothesis for Research Question 1 (There is no difference between the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program) was rejected. However, as summarized in Table 7, lower reading scores were obtained for the DRA/Sonday group during the 2010 and 2011 years, suggesting that adding the Sonday program to the DRA was counterproductive.

Table 7

Between-Subject Effects of NJASK Test Scores for DRA Alone and DRA/Sonday System

Variable	DRA alone			DRA/Sonday System				
	n	*M*	*SD*	*n*	*M*	*SD*	*F*	*p*
NJASK test scores							33.72	< .001
2010 NJASK test scores	38	198.29	21.80	40	169.55	30.42	23.15	<.001
2011 NJASK test scores	38	210.68	17.48	40	172.88	22.84	66.90	<.001

To address Research Question 2, I assessed the reading condition X year interaction. An *F* value of 2.59 (1,76) with a *p* of .11 was obtained for this interaction. As a result, it was not possible to reject the null hypothesis (There is no difference between the change over time in the NJASK test scores of struggling readers using the DRA-alone and those for whom the DRA was combined with the Sonday System reading program) for Research Question 2.

Summary

Contrary to prior studies that were supportive of the Sonday System the findings of the present study for (2010-2011) indicated that its addition to the DRA was counterproductive. Students obtained significantly lower scores when the Sonday System was used in conjunction with the DRA than they did when the DRA was used alone. There was no evidence of greater year-to-year improvement in NJASK scores when the Sonday System was added to the DRA. Thus, the findings suggest that it is not advisable to combine the DRA with the Sonday System.

Section 3: The Project

Introduction

The results of the data analysis were unexpected because they were not consistent with the literature reviewed in Section 1. The combination of the DRA and the Sonday System did not show improvements on the NJASK test scores of struggling students for the 2010 and 2011 school years, even though the literature provided evidence that the Sonday System demonstrated patterns of success for schools in the district and outside the district. This finding indicated that it might be possible for the local middle school in this study to experience similar success if the Sonday System program were to be implemented.

There could have been several possible reasons for the DRA/Sonday System combination not increasing students' scores at the middle school level. One possible reason could have been the lack of adequate PD in-service for more teachers to enhance their strategies and accurately implement the Sonday System program successfully. Proper implementation of any intervention program is an essential component of PD (Burkman, 2012; Noell et al., 2005; Renaissance Learning, 2012). According to research, accuracy and performance monitoring are important to identify levels of progress (Algozzine, Wang, & Boukhtiarov, 2011; Balajthy, 2007; Fuchs & Fuchs, 2008). Likewise, educators might want to consider using the results from reading intervention programs to better understand how to use the improvements to enhance students' reading skills (Fuchs, Fuchs, & Compton, 2012). Teachers implementing the Sonday System are expected to understand the program and monitor students' progress over time.

Another possible explanation could have been that in the training for the original Sonday System, some teachers had little in-service or were absent during the in-service but were still required to implement the program. In addition, the method by which information about the Sonday System was delivered to the students also could have been a factor in the ineffective results. According to Ness (2009), some teachers did not feel qualified to provide explicit reading instruction or to be responsible for increasing students' reading comprehension skills. Ness further commented that the teachers expressed feeling compelled to prepare for state-standardized tests as one of the main reasons that they lacked the time to prepare and implement reading instruction in content-area classes. The lack of adequate training time could have accounted for struggling readers not receiving the skills necessary to increase their test scores. Lenski (2011) argued that teachers need to discard traditional curriculum goals and embrace new educational standards to give students the literacy skills necessary to be critical thinkers in all content areas.

Klug, Krause, Schober, Finsterwald, and Spiel (2014) remarked that teachers need to be lifelong learners because lifelong learning is the cornerstone of education. Based upon the results of this study, I selected to develop a PD project that will provide in-service teachers with training on how best to implement the Sonday System across the curriculum so that they can identify and address the needs of struggling readers and continue to strengthen their own instructional skills.

In this project, the PD will involve all content-area teachers, unlike the few language arts teachers who received the original Sonday System in-service training. The

PD will provide adequate training and more assistance to all content-area teachers to enhance their strategies in helping struggling students to improve their reading skills and scores on standardized tests. The PD will further assist teachers to improve their skills, build their confidence, and make informed instructional decisions. PD will give the teachers the opportunity to provide struggling readers with quality instruction based upon their needs while they continue to receive training (Sonday, 2009a).

The proposed PD project might give teachers a better understanding of why middle school students struggle to read and give them greater awareness of struggling students' reading problems. This PD also might provide school districts and other stakeholders with insight so that they can design and implement more effective instructional and assessment methods to foster higher levels of reading and academic achievement for all students. The PD will present step-by-step instruction using a PowerPoint presentation that will extend the initial training period.

Rationale

A careful review of the project genres (program evaluation, curriculum plan, PD, and policy recommendation) showed that PD would best satisfy the objectives of this project. Ross (2010) stated, "A program evaluation is used when the project has a precise time period and has a series of inter-related tasks of various complexity" (p. 481). An evaluation of the genres for curriculum plan showed that it "analyzes a curriculum with units" (Hall & Mengel, 2002, p. 2). Although my project fits elements of the curriculum plan, the project is not meant to analyze units of a curriculum, but to determine whether

combination of two reading programs is more effective than one in helping struggling readers.

Naidu (2011) stated, “Policy recommendations involve written suggestions to administration or some other authority that has the power to make changes to a policy in a school or district” (p. 1). This project does not require any governing bodies with the authority to create any new policies or make decisions based upon such policies. Instead, the goal of the project is to implement a policy already in place. Therefore, PD is the best choice because it involves a training plan.

PD on the implementation of the Sonday System will be a cost-effective and immediate endeavor that will decrease the amount of time necessary for teachers to attend workshops outside of school. The PD might be cost effective because the training will be included in the teachers’ scheduled team meetings. Team meetings or small learning community meetings are times allotted to teachers who teach the same students in all subject areas. These meetings are held every day during the same time period, making it easy to implement the PD. It also might be effective because teachers will receive immediate feedback and support from other teachers. The PD will be implemented with the specific needs of struggling students in mind. It will be presented in an environment where teachers can collaborate; learn appropriate strategies, methodologies, and modifications; and learn how to make accommodations suited to the needs of their students (Peluso, Hafler, Sipsma, & Cherlin, 2014).

Mather and Welding (2012) explained that the Winsor Learning provides extensive training, coaching, and consulting services to support the use of the Sonday

System. With ongoing and sustained PD that includes initial training and follow-up coaching, teachers learn through explanation, demonstration, and role-play. The strategies are consistent with those recommended by the NRP (2000b).

The PD will be for all content-area teachers. The sessions will be presented using a PowerPoint with step-by-step instructions to implement the Sonday System. The PowerPoint presentation will allow teachers to learn the skills, ask questions, share ideas, and clarify information on ways to implement the Sonday System. The PD will be conducted after receiving permission from the principal and will be held for 60 minutes per session for 5 days a week during team meetings.

In Section 1 of the study, I cited literature regarding the issue of struggling readers at the national and local levels. The problem is that many students struggle to read and continue to fail the NJASK test at the local level. In the next section, I discuss literature on effective PD and how it can be used to foster teachers' creativity and strategies to help students to improve their reading skills.

Review of the Literature

Review of the Effectiveness of the Sonday System

A report by School Matters (2010) for the East Orange School District showed that the Sonday System was implemented in elementary schools using a three-tiered model. The district interventionists and district coaches received training. The coaching consisted of in-class and small-group sessions conducted between the district and the implementation specialists. According to the report, the goal of the study was to build students' basic skills in reading and increase their proficiency in the classroom and on the

NJASK test. The overall results showed that the Sonday System reading program was effective in helping struggling students to make progress at the elementary level (School Matters, 2010).

In an evaluation of the Sonday System, Severson (2015) found that the program was effective in that it enabled teachers to use multisensory, structured phonics quickly and successfully because the designs were easy to comprehend. The Sonday System can help struggling students to excel in reading skills. The NRP (2000b) conducted a meta-analysis of more than 2,500 reading studies over the past 40 years and identified five elements of instruction (phonological, awareness, phonics instructions, fluency, vocabulary, and comprehension) necessary for a reading program to be effective in helping struggling readers. The report showed that educational experts in organizations such as the National Center for Learning Disabled, the International Dyslexia Association, and Reading First offices in several states have evaluated the effectiveness of the Sonday System and have found that the program has the required elements identified by the NRP. In addition, the NRP recognized the Sonday System as an effective methodology that addresses the needs of struggling readers.

Huber (2013) found that the Sonday System strongly aligned with the Core Curriculum Content Standards outlined by the NRP (2000b), the U.S. Department of Health and Human Services (2000), and the NCLB (2002). Huber stated, “The Sonday System can be effective in helping struggling readers because it is systematic, explicit, sequential, cumulative and is multisensory, which makes it even more successful” (p. 1).

Review of the Effectiveness of PD to Address the Project

The PD plan designed for this project focuses on ways to help teachers to acquire current knowledge and skills that they can use to help struggling students to improve their reading skills. According to Shaha, Glassett, Copas, & Huddleston, 2016, PD is a long-term approach that provides teachers with the values and skills necessary to foster students' creativity. Additionally, Shaha et al. (2016) proposed that PD approaches have generally progressed into group seminars and personal online participation. These two approaches will allow all content-area teachers to learn at their own pace and constantly refresh their skills. The PD proposed in this project study will be conducted during teachers' team meetings and in-services.

Kaufman and Ring (2011) endorsed the use of PD and specified that "pathways to leaderships are stimulated by [PD] that is content-based and designed to be relevant to teachers and the students they teach" (p. 59). According to Darling-Hammond, McLaughlin, and Milbery (2012), "Effective [PD] involves teachers both as learners and as teachers, and allows them to struggle with the uncertainties that accompany each role" (p. 82).

Darling-Hammond et al. (2012) identified six characteristics of effective PD:

- It must engage teachers in concrete tasks of teaching, assessment, observation and reflection that illuminate the processes of learning and development.
- It must be grounded in inquiry, reflection, and experimentation that are participant-driven.

- It must be collaborative, involving a sharing of knowledge among educators and a focus on teacher. It must comprise communities of practice rather than on individual teachers.
- It must be connected to and derived from teachers' work with their students.
- It must be sustained, ongoing, intensive, and supported by modeling, coaching, and collective solving of specific problems of practice.
- It must be connected to other aspects of school change. (pp. 1-7)

Darling-Hammond (2012) and Lieberman and Pointer Mace (2008) explained that effective PD integrates teachers' input regarding what and how they will learn. In addition, when teachers receive PD that addresses the specific learning needs of their students, they will be intrinsically motivated and more inclined to work collaboratively and stay focused on learning and their learners.

According to Hunzicker (2010), PD helps teachers to acquire new instructional strategies more quickly so that they can better understand their students' needs and give them immediate help across content areas. PD is one way to improve teachers' skills. Desimore (2011) explained that PD is key to improving the quality of U.S. schools.

Lacina (2014) proposed that when teachers obtain constant and meaningful PD they can be effective in challenging students, especially those who struggle with poor reading skills. Furthermore, Lacina (2014) explained that:

> Educational policymakers have not resolved the performance gap between students attending poor, large, urban schools and their peers attending schools in higher socioeconomic areas. Poverty affects educational possibilities for every

> child living in poverty. When children are not provided with the basic resource, academic standards are slower at being me. (p 28)

The American Federation of Teachers (2008) explained that "PD should provide strong foundation in the pedagogy of particular discipline" (p. 3). Teachers need instructional strategies that will help all students, and not just a selected group (Islas, 2010). PD should be conducted collaboratively to give teachers a platform to learn new strategies and understand the best instructional practices. It also should help teachers to develop consistency and shared responsibility to enhance students' reading skills (Islas, 2010; Trust, 2012). Shagrir (2012) emphasized that PD is the most effective and the most successful when teachers collaborate. Easton (2012) added that PD is successful when teachers feel that they can communicate freely while participating in them. When PD sessions are conducted in positive learning environments or team meetings, the participating teachers feel confident sharing ideas, constructing knowledge, and engaging in reflective thinking in a safe atmosphere (Herrell, Jordan, & Eby, 2013; Johnson, Lucas, & Lucas, 2014). Engagement in PD gives teachers the opportunity to collaborate and develop consistency within their teaching to enhance and strengthen the reading skills of struggling students (Ardenne et al., 2013). When teachers are not given the PD opportunity to collaborate and share their ideas, they feel professionally isolated (Donnelly & Boniface, 2013).

Urquhart and Frazee (2012) suggested that although many teachers are given hours of training in reading, they still do not have the skills to use reading instruction to address the needs of struggling readers. According to Swerling and Cheesman (2012), PD

that includes information to teach reading more effectively can contribute to teachers' effectiveness as key influences on students' reading success. Zakariya and Daud (2009) asserted that providing effective PD that improves teachers' skills and knowledge is one of the best investments in terms of money and time that the local school district can make. To improve students' achievement in reading, teachers need PD that offers them best practices and instructional strategies to gain confidence in using new approaches. Offering the teachers effective PD will give them the support to provide students with meaningful reading lessons to improve their skills.

The NCLB's (2002) mandate to increase struggling students' reading skills and infuse reading into all content areas of the curriculum have highlighted the need to provide PD much more quickly. PD for in-service teachers plays a vital role in changing their instructional methods (Egodawatte, McDougall, & Stoilescu, 2011; Prytuia, 2012).

The NCES (2010) reported a rapid increase in the number of teachers obtaining certification through alternative routes between 1998 and 2009. The National Science Teachers Association (2006) reported that teachers who enter the profession through nontraditional ways usually require more training and effective PD, especially in math and science that are part of the reading curriculum.

Greenwell and Zygouris-Coe (2012) asserted that many teachers need effective PD to meet the literacy demands of students so that they can learn. In the school where the project will be implemented, some teachers have certification in other content areas, so they need PD on how to implement the Sonday System effectively.

Rissman, Miller, and Torgesen (2009) as well as Urquhart and Frazee (2012) asserted that teachers should improve their instructional skills and their comprehension of the reading problem so that they can teach students to be more strategic readers. Ongoing PD will help teachers to procure the skills and strategies they need if it includes theory, demonstration, practice, feedback, and side-by side coaching (Spelman & Rohlwing, 2013). The proposed PD will focus on ways to help teachers to strengthen their skills and to implement the Sonday System effectively so that they can help struggling students to improve their reading skills and increase their overall achievement scores across the curriculum and on state tests.

Literature Review Saturation

The literature review began with a search for peer-reviewed articles published between 2009 and 2016 in Walden University's online library databases and on the Google Scholarworks website. I entered the search term *effective professional development* in the Google Scholar search field and found several studies. I searched full-text articles as a criterion for this literature review. A search for peer-reviewed literature on implementation of the Sonday System in middle school was conducted in Education Research Complete and EBSCOhost databases through the Walden Online Library. This search yielded numerous research-based evidence of struggling middle school students' needs for specialized reading interventions but very little information on implementation of the Sonday System.

Much of the research highlighted in the project concerned the crisis of struggling readers at the national and local levels and implementation of effective PD to help them.

The literature review produced valuable resources on the effectiveness of PD and how to present it to in-service teachers. The information gathered from the PD resources can be used by content teachers to strengthen and improve students' reading and achievement skills.

Goals and Description of the Project

This PD was created to address the results of the quantitative data analysis. I concluded that the DRA/Sonday System combination did not provide sufficient evidence to show that the program was effective in raising the NJASK scores of struggling readers at Middle School A, which was the focus of this study. However, the literature review showed that the Sonday System yielded patterns of positive effects in some schools in the districts as well as other participating schools in other districts, suggesting that if the Sonday System is implemented carefully at the middle school level, it might show similar success as that found in elementary schools. The ultimate goal of the PD is to ensure that all content-area teachers acquire the strategies that will build their confidence so that they can implement the Sonday effectively. The strategies will provide differentiated instruction that will challenge teachers to help struggling readers to improve their skills and increase their test scores.

The proposed PD project will increase the training time for teachers who instruct *struggling readers.* I selected this PD project because the problem of struggling readers is long term and PD can be an ongoing process. One possible reason highlighted for the ineffective results of the DRA/Sonday System combination was the lack of sufficient teacher training to implement the Sonday System. One solution is to train more content-

area teachers to implement the program, as well as expedite and expand the process, so that they can help more struggling students to read more proficiently in a shorter time. The PD project might give teachers a better understanding of the reasons middle school students struggle to read. This PD also might give school districts and other stakeholders insight so that they can design and implement more effective instructional and assessment methods to foster higher levels of reading and academic achievement for all students. A complete description of the PD project, including the timetable and details about each session, is presented in Appendix A. The PowerPoint presentation is available in Appendix B. The teacher survey is in Appendix C. In addition, I obtained letters of permission from the school district superintendent's office, the school administrator, Sonday System, and Pearson Inc. (DRA; see Appendix D).

Roles and Responsibilities of the Researcher, Administrator, and Teachers

The effectiveness of this PD project will be contingent on the approval of the administrator, the presentation, and the willingness of content-area teachers to work cohesively. As the facilitator, my goal was to design the PD using information from the Sonday System to aid in the implementation of the program. As the facilitator, I intend to present the material in a clear and concise manner. I will circulate among the different groups to ensure that the implementation is successful and that teachers use the correct strategies. The last 10 to 15 minutes of each phase of the PD will be used to check for teachers' understanding and to provide any assistance. The role of the teachers is to build confidence and use the strategies effectively in their implementation of the Sonday

System. McCoss-Yergain and Krepps (2010) noted that the effectiveness of the PD will be dependent on teachers' overall attitudes toward the in-service sessions.

Evaluation of the Project

The goal of this PD project is to help more teachers to learn strategies to implement the Sonday System so that more students can gain the skills that they need to read better and be successful in all content areas. The teachers will complete an online or a paper survey to rate the effectiveness of the PD in implementing the Sonday System and its effect on their instructional practices. The survey will be distributed during Phase 5 of the PD for teachers who prefer not to complete it online. A box will be provided for collection of the surveys.

According to Ross (2010), summative evaluations are conducted to measure products or outcomes. The data obtained from the teachers' evaluations will be important to teachers, administrators, and stakeholder as they make decisions in the future. Lodico et al. (2010) added that the evaluation feedback will allow stakeholders to use the accumulated data and recommendations to effect changes and decisions to program delivery. The feedback from the teachers might assist future facilitators and administrators in determining the effectiveness of the PD. The main goal of this proposed PD is to encourage educators to use the information to make informed decisions about effective implementation of the Sonday System across all content areas.

Implications for Social Change

The goal of this PD is to train more content-area teachers on implementation of the Sonday System and expedite the learning of struggling readers. This project study

strives to promote social change in the school under study, the school district, and the stakeholders. The study used archival data to find a solution to the problem that the students did not have the necessary skills to successfully meet the standards and pass the NJASK test.

Even after the DRA was combined with the Sonday System, it was ineffective in raising students' scores on the NJASK test. The literature review showed that the Sonday System has been effective in other school within and outside the district. One reason for its ineffectiveness might be that only language arts teachers administered the Sonday System. With all content-area teachers learning the strategies, a larger percentage of students will benefit. Analysis of the archival data and careful evaluation of the genres showed that effective PD was best suited for this study. Effective implementation of the Sonday System Program through the use of PD also could provide information on a larger scale such as teacher training programs at the college level.

Implications for the Local School

The results could have positive implications for the teachers and administrators of Middle School A and the local school district. Teachers and administrators will learn instructional strategies to meet the primary needs of students who struggle to read. Effective PD will provide the training that teachers need to close the gap between what they know about best practices in reading and what they will learn to help students to fulfill the requirements for success on standardized tests and learning in general. It is urgent that the school district and administrators provide effective PD so that more teachers can learn and then share what they learn with others.

Implications Beyond the Local Scope

The last decade has witnessed urgency for reading improvements at all levels of the curriculum. The AEE (2010) stated that "poor reading and writing skills not only threaten the well-being of individual Americans, but the country as a whole" (p. 1). The problem is that many students struggle to read and fail to make AYP on standardized tests at the local and national levels. The effectiveness of this PD could be crucial in helping teachers in all content areas to make changes to their instructional strategies and be better prepared to help students to strengthen their skills and increase their scores across the curriculum. To attain this goal, it is essential to have the support of educational leaders who are willing to implement programs for students who struggle.

Summary

On a national level, reading researchers have hypothesized that the ability to read will permit students to be successful across the curriculum and that this ability prepares them for civic responsibilities. The literature review showed that the dropout rate is alarming for typical learners in the United States. The magnitude of the dropout rate mostly affects struggling readers, so schools and stakeholders are looking for ways to alleviate the problem.

DuFour et al. (2010) commented that struggling students must develop the required reading skills that can close the achievement gap by "creating effective intervention and enrichment system, and must be part of a larger cultural transformation of schools" (p. 6). When effective implementation of reading programs is supported by educational systems, struggling readers in middle schools receive the skills they need and

can use these skills beyond high school. The effective use of this PD could be an agent for change in the local schools' stakeholder as well as helping struggling students on the national level.

Conclusions

In Section 1 of this project study, I presented the problem of struggling readers at the local and national levels. At the local level, many students have failed to make AYP for 3 consecutive years, so Middle School A has been designated SINI. Section 1 explained some literature review to support the severity of the struggling readers' problem. Section 2 provided information on the research design, data analysis, results of the data that led to the selection and creation of a PD on how to implement the Sonday System reading program. It also included the rationale for the project, literature review, project description, implementation, and evaluation plan. Section 3 described the project. Section 4 provided reflection and conclusions about the project's strengths and limitations in addressing the problem, an analysis of scholarship, the project development, leadership, and social change implications.

Section 4: Reflections and Conclusions

Introduction

The goal of this project was to advance student literacy and foster social change by conducting PD on the implementation of the Sonday System reading program. Participants were content-area teachers from Middle School A, which was the focus of this study. By participating in the PD, teachers will be better able to meet the diverse needs of students by providing them with reading materials that meet their ability levels.

The study began with a review of struggling students who for 3 years or more failed to pass the NJASK standardized test with a score of 72% or better. In an attempt to rectify the problem and strengthen students' skills, the Sonday System was added to the DRA. Although the Sonday System has been used successfully in many elementary schools in the district, the state, and other states, it was ineffective in raising the scores of the middle school students in this study. A careful review showed that only language arts teachers available at the time of the training could administer the test. A review of the findings showed that one way to get all content-area teachers involved was to conduct a PD.

The literature review provided evidence from literacy scholars on the breadth and depth of the problem of struggling readers. It also highlighted the call from the NCLB (2002) and other organizations for schools to make improvements so that students can acquire the basic skills in reading before they advance. The data presented in this study showed that the reading problem extended into the middle schools and beyond. At the turn of the 21st century, reading to learn, which placed an emphasis on learning content

instead of acquiring basic reading skills, remained the focus of middle school reading initiatives (USDoE, 2011).

In Sections 1 to 3, I identified the reading problem at the local and national levels. I presented my project study and showed how it could provide alternative strategies to address the problem. Section 4 reflects the strengths and limitations of the project study. I present what I learned from conducting the project and how it can be used effectively to help students. I provide my overall reflection of myself as a researcher and what I learned as I conducted the study. I conclude by summarizing key points of my work and discussing directions for future research.

Project Strengths

A significant amount of research has called for more attention to the key role of effective instruction in helping students develop the skills necessary to read and comprehend complex information text (Fisher, 2008; Heller & Greenleaf, 2007). Some of the strengths of a PD plan are that (a) it can deliver immediate in-service to content-area teachers locally at the school and across the state and district; (b) teachers can get immediate feedback from the presenter and their peers; and (c) it can inform administrators, teachers, and stakeholders about the challenges that struggling students encounter and how to address the issues before they escalate.

Desimore (2011) argued that PD is one of the keys to improving the quality of U.S. schools. According to Hunzicker (2010), “PD has become a necessary expectation in today’s school and understanding the characteristics of adult learners is an important starting point” (p. 3). Effective PD could be one of the elements to improving teachers’

skills by helping all content teachers build their confidence and learn possible solutions to resolve the reading crisis. The PD on how best to implement the Sonday System will focus on strategies, explanations, peer collaboration, immediate feedback, and ways to differentiate students learning styles. The PD can be presented for a few hours or during the entire school year at times that are convenient to all teachers. Hunzicker asserted that when effective PD is both relevant and authentic, teachers will accept it because it directly addresses their specific needs.

Project Limitations

Effective PD on the implementation of the Sonday System reading program is focused on both subject content and how to teach it. The PD project outlined in this study will provide training on how content-area teachers can deliver strategies to help struggling readers acquire more skills. The effectiveness of the program depends on the support given to it by teachers, so one limitation could be teachers not willing to practice the strategies because they are not within their content area. Another limitation might be how the program is delivered. The ultimate goal of the project is to train teachers to help students who struggle to read, but if teachers do not support the PD and become reluctant to learn new skills, then the program will not be a success. It is critical that all those involved in the PD be aware that the Sonday System has been used successfully in other schools and could be used to inform decision making. One way that limitations of project implementation can be reduced is for teachers to promote positive social change that can contribute to improving students' skills.

Recommendations for Alternative Approaches

The following recommendations for further research are based upon the findings drawn from this study.

- This study was limited to students from one middle school, so increasing the sample size to include other middle schools would be beneficial. In addition, increasing the sample size could provide findings that can be generalized to the broader population.
- A study that works to solicit and analyze data from the elementary school level might prove to be interesting. Then, a comparison of these two groups regarding the impact of the DRA/Sonday System might be further revealing.
- Although this study offered some statistically significant findings, future research could be designed to solicit even more in-depth information.
- Extending the implementation period for the reading program could prove to be beneficial.
- Monitoring and evaluating teachers on their effectiveness in implementing the reading programs would be useful. In this way, working toward uniformity of program implementation would be realized.

According to Hunzicker (2010), "Effective PD for teachers is instructionally-focused because it emphasizes subject content and pedagogy as well as student learning outcome" (p. 5). The literature review showed that the primary goal of the PD project is to find ways to increase students' achievement. If teachers are reluctant to implement the program successfully, an alternative might be to designate reading specialists to

implement reading programs. Another approach might be to ensure that the teachers get the support their need. Teacher collaboration is essential in showing teachers that their ideas and concerns are valued.

Scholarship

In my first essay for acceptance into the doctoral program, I wrote that I believed that I had the potential to conduct rigorous research, but I was not aware that it would be such a lengthy and complex process. Along the way, I was able to use some of the research to improve best teaching practices. The literature research provided me with information, questions, and insights. I was able to compare and contrast research findings, some of which I was able to use in this project study. The information that I gathered about scholarship extended beyond the classroom. This doctoral program changed my way of thinking. When I plan my lessons, I am careful to use more effective strategies that involve and motivate students and enhance my struggling students' reading skills. As a scholar, some of my most rewarding moments are those when struggling students ask me for help and I can use what I learned to motivate them to acquire the skills that they need to learn and be successful. I am also thrilled when my team teachers meet as a group and I am able to share some of my empowering literature findings and possible ways to help students.

Project Development, Leadership, and Change

The time and scheduling element necessary to complete this study was daunting. Decisions about the topic and what kind of study to conduct were crucial in setting the tone for the work. After conferring with committee advisors and reflection, I decided that

a quantitative study would be best suited for the topic. Next, the actual research involved finding and evaluating the archival data. This process expanded my knowledge as an educator dealing with struggling readers.

Overall, the process of research is one of significance. It requires seriousness of purpose in satisfying the criteria necessary to produce a noteworthy project study. The completed study reflected the dedication, commitment, and determination necessary to see the process through to fruition. Commitment from dissertation committee members along with personnel from the district and school spurred the success of this final project study.

Northouse (2012) wrote, “Leadership is a process whereby an individual influences a group of individuals to achieve a common goal” (p. 3). I am constantly reminded that to be an excellent leader, I must effect change. I will incorporate and demonstrate my knowledge and skills into my current teacher leader role so that I can help more content-area teachers to increase their strategies on how best to implement a reading program. My overarching goal is to use the PD project to increase reading achievement for all students, especially those who struggle to read.

Reflections on the Importance of the Work

The topic resonated strongly with me, given my role as an educator in an urban middle school. Students’ performance on the NJASK tests has been poor, indicating that students are not reading at grade level. To address these identified shortcomings, programs such as the DRA/Sonday System have been embraced. Unfortunately, in this

study, the combination of the Sonday System and the DRA did not yield positive results at the middle school level.

Implications, Applications, and Directions for Future Research

Schools find themselves with large numbers of struggling learners who have not yet acquired the necessary foundational skills that are required in order for them to achieve mastery of the curriculum (Wright, 2006). As such, identifying reading intervention programs that are supportive of the achievement of struggling readers could prove helpful in spurring this population segment forward. This PD project might hold the key to content-area teachers acquiring the skills necessary to help struggling readers. I will inform the school and district of the results and help to bring greater awareness to the problem that might prompt further exploration of PD and how it can provide teachers with avenues to help students to learn.

Further, research from the Wallace Foundation (2010) revealed that without successful interventions, the number of schools in need of restructuring could grow substantially. The use of the PD to effect positive social change will extend beyond the focus school. The urgency of the need for greater accountability to students shows that educators must become knowledgeable about research approaches, participate in discussions to synthesize results, and facilitate change in their educational environment (Danielson, 2007).

Bennett, Rhine, and Flickinger (2000) added that “literacy impact remains an important topic and should draw political scientists’ attention” (p. 168). They contended

that reading is tied to political interest and knowledge, stating, “Reading facilitates interest, knowledge, participation, and tolerance…reading precedes these habits” (p. 168). Bennett et al. further explained that “one of the most important facets of democratic citizenship is psychological involvement in public affairs, a.k.a. political interest. The politically attentive individual is a different political actor than the apathetic one” (p. 173). Lastly, the researchers remarked that the future measure of basic literacy might be much more demanding than today’s measure. With so much at stake and the sobering evidence of the reading problem, future researchers might wish to model the connection between reading and democratic citizenship. Future researchers also might wish to expand on the implementation of PD in-service sessions and their impact on state testing and core content subjects.

Conclusion

Research has identified a national literacy crisis in the United States. Learning to read is critical to students’ success. According to Allor, Mathes, Roberts, Cheatham, and Otaiba (2014), students’ success or failure in life can be influenced by their reading skills. Students who struggle to read and do not receive quality remediation and help will experience difficulties throughout their lives. Blachman et al. (2014) and Ornelles (2007) noted that some the outcomes of failing to help struggling readers are students’ learned helplessness; decreased motivation; lower levels of engagement; and negative attitudes toward literary, reading, and school in general. A lack of successful interventions will result in a deterioration in the quality of the labor force and the erosion of U.S. influence in global markets. Offering further insight into struggling readers’ problem, Lewis-

Lancaster and Reisener (2013) explained that one of the most significant problems facing struggling student is the inability to read at grade level. In today's society, it is imperative that children achieve a solid foundation in reading. Failure for students to achieve the reading skills they need could lead to future reading difficulties in school and throughout their lives.

The focus of this project was to stress the importance of PD. Although educators try to meet the academic needs of all students, an important part of instruction for struggling readers is to use the most appropriate and effective interventions at the right time. A wealth of information on intervention programs that address the five components of literacy (i.e., phonemic awareness, phonics, fluency, comprehension, and vocabulary) is available, and these intervention programs are capable of producing positive academic effects if they are implemented correctly. Effective implementation could lead to self-motivation, higher student performance, lower dropout rates, higher postsecondary enrollment, and better employment prospects. This project study highlights the need to address the academic success of struggling readers.

Achilles (1999) wrote,

> If you want to know what society will be like in the near future, don't look at older people, or at people currently making policy for young children. Look at the children. They are the future. One way to bring the future into present focus is to study today's children who are the demographic harbingers of tomorrow. (p. 12)

As a reading researcher, my goal is to ensure that my PD project is implemented effectively so that content-area teachers can gain the skills and knowledge that they need to help middle school students who are struggling to read.

References

Achilles, C. M. (1999). *Let's put kids first, finally: Getting class size right.* Thousand Oaks, CA: Corwin Press.

Afflerbach, P. (2011). *Understanding and using reading assessment K-12* (2nd ed.). Newark, DE: International Reading Association.

Algozzine, B., Wang, C., & Boukhtiarov, A. (2011). A comparison of progress monitoring scores and end-of-grade achievement. *New Waves-Educational Research and Development, 14*(1), 3-21. Retrieved from http://www.caerda.org/

Alderman, M. K. (2013). *Motivation for achievement: Possibilities for teaching and learning* (3rd ed.). New York, NY: Routledge.

Alliance for Excellent Education. (2006). *Who's counted? Who's counting? Understanding high school graduation rates*. Retrieved from http://all4ed.org/wp-content/uploads/WhosCounting.pdf

Alliance for Excellent Education. (2009). *High school dropouts in America.* Retrieved from http://www.all4ed.org/files/GraduationRates_FactSheet.pdf

Alliance for Excellent Education. (2010). New report finds that writing can be powerful driver for improving reading skills. Retrieved from http:/www.alled.org/

Allington, R. (2011). *What really matters for struggling readers: Designing reading research-based programs* (3rd ed.). Retrieved from http://www.hip-book.com/

Allington, R., & Gabriel, R. (2012). Every child, every day: Reading the core skills. *Educational Leadership, 69*(6), 10-15.

Allington, R., & Walmsley, S. A. (Eds.). (1995). *No quick fix: Where do we go from here?* New York, NY: Teachers College Press.

Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Al Otaiba, S. (2014). Is scientifically based reading instruction effective for students with below-average IQs? *Exceptional Children, 80*(3), 287-306. Retrieved from http://ecx.sagepub.com/

American Federation of Teachers. (2008). *No Child Left Behind at five: A review of changes to state accountability plans* [AFT Policy Brief No. 19]. Retrieved from http://www.cep-dc.org/

Antonnacci, P. (2000). Reading in the zone of proximal development: Mediating literacy development in beginner readers through guided reading. *Reading Horizon, 4*(1), 18.

Ardenne, C., Barnes, D., Hightower, E., Lamason, P., Mason, M., Patterson, P., … Erickson, K. (2013). PLC's in action. *Reading Teacher, 67*(2), 143-151. Retrieved from ERIC database.

Arif, A. A. R., Yazi, N. K., Musab, M. A. A., Zaman, M. S. A. M., Hussin, S., & Embi, M. A. (2014). Development of self-access Internet-based English module to support student-centred learning (SCL) of engineering education. *Asian Social Science, 10*(7), 153-162. Retrieved from http://search.proquest.com/

Askew, B. J., Kaye, E., Frasier, D. F., Mobasher, M., Anderson, N., & Rodriguez, Y. G. (2002). Making a case for prevention in education. *Literacy Teaching and Learning: An International Journal of Early Reading and Writing, 6,* A3-A12.

Au, K. H. (1994). Portfolio assessment: Experiences at the Kamehameha Elementary Education Program. In S. Valencia, E. H. Hiebert, & P. P. Afflerbach (Eds.), *Authentic reading assessment: Practices and possibilities* (pp. 103-136). Newark, DE: International Reading Association.

Au, K. H. (2002). Balanced literacy instructions: Implication for students of diverse backgrounds. In J. Flood, D. Lapp, J. R. Squire, & J. M. Jenson (Eds.), *Handbook of research in teaching the English language arts* (2nd ed., pp. 955-966). Mahwah, NJ: Erlbaum.

Baker, S., Simmons, D., & Kame'enui, E. J. (1998). Vocabulary acquisition: Research bases. In D. Simmons & E. J. Kame'enui (Eds.), *What reading research tells us about children with diverse learning needs: Bases and basic* (pp. 4-25). Mahwah, NJ: Erlbaum.

Balajthy, E. (2007). Technology and current reading/literacy assessment strategies. *Reading Teacher, 61*(3), 240-247. doi:10.1598/RT.61.3.4

Bambrick-Santoyo, P., Settles, A., & Worrell, J. (2013). *Great habits, great readers: A practical guide for k-4 reading in the light of common core.* San Francisco, CA: Jossey-Bass.

Bandura, A. (1977). *Social learning theory.* Parsippany, NJ: Pearson Education.

Barton, K. C., & Smith, L. A. (2000). Themes or motifs? Aiming for coherence through interdisciplinary outlines. *Reading Teacher, 54*(1), 54-64.

Beaver, J. W., & Carter, M. A. (2003). *Developmental Reading Assessment: Blackline masters: In collaboration with classroom teachers.* Parsippany, NJ: Celebration Press.

Beaver, J. W., & Carter, M. A. (2006). *Developmental Reading Assessment (DRA2): In collaboration with classroom teachers* (2nd ed.). Parsippany, NJ: Celebration Press.

Bennett, S. E., Rhine, S. L., & Flickinger, R. S. (2000). Reading's impact on democratic citizenship in America. *Political Behavior, 22*(3), 167-195. doi:10.1023/A:1026616029255

Berghoff, B., Blackwell, S., & Wisehart, R. (2011). Using critical reflection to improve urban teacher preparation: A collaborative inquiry of three teacher educators. *Perspectives on Urban Education, 8*(2), 19-28.

Biancarosa, G., & Snow, C. E. (2006). *Reading next: A vision for action and research in middle and high school literacy: A report to Carnegie Corporation of New York* (2nd ed.). Retrieved from www.readquick.org/

Biddle, R. (2011). The moral imperative of literacy. *Dropout Nation,* 1-10. Retrieved from http://dropoutnation.net/

Blachman, B., Fletcher, J., Munger, K., Schatschneider, C., Murray, M., & Vaughn, M. (2014). Effects of intensive reading intervention for pupils. *Journal of Educational Psychology, 1*(106), 46-57. doi:10.1037/a0033663

Blacks and Hispanics continue to struggle. (2015). *USA Today, 144,* p. 5. Retrieved from http://search.proquest.com/

Blaustein, P., & Lyons, G. (2003). Why kids can't read: Take action for effective reading instruction. Retrieved from http://www.whykidscantread.com/

Bottge, B. A., Rueda, E., Serlin, R. C., Hung, Y. H., & Kwon, J. M. (2007). Shrinking achievement differences with anchored math problems: Challenges and possibilities. *Journal of Special Education, 41*(1), 31-49.

Brozo, W. G. (2011, June). The boys' reading crisis. *Dropout Nation,* 4-8. Retrieved from http://dropoutnation.net/

Bruner, J. (1966a). Constructivist theory. Retrieved from http://tip.psychology.org/

Bruner, J. (1966b). *Toward a theory of instruction.* New York, NY: W. W. Norton.

Burkman, A. (2012). Preparing novice teachers for success in elementary classrooms through professional development. *Delta Kappa Gamma Bulletin, 78*(3), 23-33.

Cabral-Márquez, C. (2015). Motivating readers. *Reading Teacher, 68*(6), 464-472. doi:10.1002/trtr.1332

California Department of Education. (2010). Socioeconomically disadvantaged. Retrieved from http://www.cde.gov/ta

Chartier, S., & Cousineau, D. (2011), Computing mixed-design (split-plot) ANOVA: *Mathematica Journal, 13,* 13-17. http://dx.doi.org/doi:10.3888/tmj

Chen, G. (2009). Understanding self-contained classrooms in public schools. Retrieved from http://www.publicschoolsreview.com/

Chhabra, V. (2006). Building capacity to deliver multi-tiered reading intervention in public schools and the role of response to intervention. *Perspectives on Language and Literacy, 32*(5), 33-34.

Cirino, P. T., Romain, M. A., Barth, A. E., Tolar, T. D., Fletcher, J. M., & Vaughn, S. (2013). Reading skill components and impairments in middle school struggling readers. *Reading and Writing, 26*(7), 1059-1086. doi:10.1007/s11145-012-9406-3

Clay, M. M. (2003). Child development. In J. Flood, D. Lapp, J. R. Squire, & J. M. Jensen (Eds.), *Handbook of research in teaching the English language arts* (2nd ed., pp. 46-52). Mahwah, NJ: Erlbaum.

Coke, P. K. (2005). Practicing what we preach: An argument for cooperative learning opportunities for elementary and secondary educators. *Education, 126*(2), 392-398.

Collins, D. N. (1996). Motivating low performing adolescent readers. Retrieved from http://www.kidsource.com/

Cooper, K. (2014). Supporting adult literacy. *Public Libraries, 53*, 8-10. Retrieved from http:// search .proquest.com/

Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson Education.

Dahl, K. L. Shearer, P. L., Lawson, L. L., & Grogan, P. R. (2000). Students' achievement and classroom case studies of phonics in whole language for first grade. In J. Flood, D. Lapp, J. R. Squire, & J. M. Jenson (Eds.), *Handbook of research in teaching the English language arts* (2nd ed., pp. 314-338). Mahwah, NJ: Erlbaum.

Danielson, C. (2007). *Enhancing professional practice: A framework for teaching* (2nd ed.). Alexandria, VA: ASCD.

Darling-Hammond, L., McLaughlin, M., & Milbrey, W. (2012). Policies that support professional development in an era of reform. *Kappan Magazine, 92*(6), 81. Retrieved from Education Research Complete database.

Davenport, T. H., & Prusak, L. (2000). *Working knowledge: How organizations manage what they know*. Cambridge, MA: Harvard Business School.

Desimore, L. (2011). A primer of effective professional development. *Kappan Magazine, 96*(6), 68-71. Retrieved from Education Research Complete database.

Dewey, J. (1967). Lectures in philosophy of education. *Studies in Philosophy and Education, 5*(1), 60. (Original work published 1899)

de Zarobe, Y. R., & Zenotz, V. (2014). Chapter three strategic instruction in primary education: A pathway to successful learning in content-based contexts. *Utrecht Studies in Language and Communication, 28,* 37-54. Retrieved from http://search.proquest.com/

Dillman, D. A. (2000). *Mail and Internet survey: The tailored design method* (2nd ed.). New York, NY: John Wiley & Sons.

Donnelly, D. F., & Boniface, S. (2013). Consuming and creating: Early-adopting science teachers' perceptions and use of a wiki to support professional development. *Computers & Education, 68,* 9-20.

DuFour, R. DuFour, R. Eaker, R., & Karhnek, G. (2010). *Raising the bar and closing the gap: Whatever it takes.* Bloomington, IN: Solution Tree Press.

Duke, N. K., Pressley, M., & Hilden, K. (2004). Difficulties with reading comprehension. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 501-520). New York, NY: Guilford Press.

Easton, L. (2012). From professional development to professional learning. *Phi Delta Kappan, 89*(10), 755-761.

Ediger, M. (2015). The teaching of reading and its new emphasis. *Reading Improvement, 52*(4), 145-146. Retrieved from http://go.galegroup.com.libaccess.fdu.edu/

Education Law Center. (2006). *The Abbott Districts in 2005-06 Progress and Challenges*. Newark, NJ: Education Law Center

Egodawatte, G., McDougall, D., & Stoilescu, D. (2011). The effects of teacher collaboration in grade 9 applied mathematics. *Educational Research for Policy & Practice, 10*(3), 189-209. doi:10-1007/s10671-011-9104-y

Fawson, P. C., & Reutezel, D. R. (2000). But I only have a basal: Implementing guided reading in the early grades. *Reading Teacher, 54*, 84-97.

Fernandez-Fein, S., & Baker, L. (1997). Rhyme and alliteration sensitivity and relevant experiences among preschoolers from diverse backgrounds. *Journal of Literacy Research, 29*(3), 433.

Fielding, L. G., & Pearson, D. P. (1994). Synthesis of research/reading comprehension: What works. *Educational Learning*, *51*(5), 62-68.

Fingon, J. C. (2012). Nontraditional texts and the struggling/reluctant reader. *Voices from the Middle, 19*(4), 70-75. Retrieved from http://search.proquest.com/

Fisher, D. (2008). Struggling adolescent readers. *Teacher Librarian, 35*(3), 36-37.

Fisher, D., Frey, N., & Lapp, D. (2012). *Text complexity: Raising rigor in reading.* Newark, DE: International Reading Association.

Fountas, I. C., & Pinnell, G. S. (2012). Guided *r*eading: The romance and the reality. *Reading Teacher, 66*(4), 268-284. doi:10.1002/TRTR.01123

Fuchs, D., & Fuchs, L. S. (2008). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly, 41*(1), 93-99. Doi:10.1598/RRQ.41.1.4

Fuchs, D., Fuchs, L. S., & Compton, D. L. (2012). Smart RTI: A next-generation approach to multi-level prevention. *Exceptional Children, 78*(3), 263-279.

Gagné, F. (1985). Giftedness and talent: Reexamining a reexamination of the definitions. *Gifted Child Quarterly, 29,* 103-112. Retrieved from http://www.nagc.org/

Gambrell, L. B. (2015). Getting students hooked on the reading habit. *Reading Teacher, 69*(3). Retrieved from http://ejournals.ebsco.com.libaccess.fdu.edu/

Gambrell, L. B., Morrow, L. M., & Pressley, M. (2007). *Best practices in literacy instruction.* New York, NY: Guilford Press.

Gander, L. (2013). Put an end to the middle school reading decline. *Library Media Connection, 32*(3), 20. Retrieved from http://search.proquest.com/

Gardner, H. (1983). *Frames of mind*: *The theory of multiple intelligences.* New York, NY: Basic Books.

Gay, L. R., Mills, G. E., & Airasian, P. (2012). *Educational research: Competencies for analysis and applications.* Upper Saddle River, NJ: Pearson Education.

Goodman, K. S. (1993). Phonics phacts. Retrieved from www.readingmatrix.com

Graves, E. G., Sr. (2011). Public education: A state of emergency. *Black Enterprise, 42*(2), 12. Retrieved from http://search.proquest.com/

Gravetter, F. J., & Wallnau, L. B. (2008). *Essentials of statistics for behavioral science* (6th ed.). Los Angeles, CA: Laureate Education.

Greenwell, S., & Zygouris-Coe, V. (2012). Exploring high school English language arts teachers' responses to professional development in reading instruction. *Journal of Reading Education, 37*(2), 21-26. Retrieved from Education Research Complete database.

Greenwood, C. R., Carta, J. J., Goldstein, H., Kaminski, R. A., McConnell, S. R., & Atwater, J. (2014). The center for response to intervention in early childhood: Developing evidence-based tools for a multi-tier approach to preschool language and early literacy instruction. *Journal of Early Intervention, 36*(4), 246-262. Retrieved from http://search.proquest.com/

Gregory, G., & Chapman, C. (2013). *Differentiated instructional strategies: One size doesn't fit all* (3rd ed.) Thousand Oaks, CA: Corwin.

Groff, C. (2014). Making their voices count: Using students' perceptives to inform literacy instructions for striving middle grade readers with academic difficulties. *Reading Horizons, 53*(1), 2.

Gunning, T. (2011). *Reading success for all students: Using formative assessment to guide instruction and intervention.* San Francisco, CA: Jossey-Bass.

Guthrie, J. T., & Wigfield, A. (2000). Engagement and motivation in reading. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (Vol. 3, pp. 403-422). New York, NY: Erlbaum.

Hall, T., & Mengel, M. (2002). Curriculum-based evaluations: Effective classroom practices report [Research Report No. H324H990004]. Retrieved from http://aim.cast.org/

Hatch, J. A. (2002). *Doing qualitative research in educational settings.* Albany: SUNY Press.

Hayes, B., & Wilson, B. (2016). Literacy: The essential skill for college and career readiness. *Techniques Connecting Education and Careers, 91*(2), 8.

Heller, R., & Greenleaf, C. (2007). *Literacy instruction in the content areas: Getting to the core of middle and high school improvement*. Retrieved from http://www.all4ed. org/files/LitCon.pdf

Herrell, A. L., Jordan, M., & Eby, J. W. (2013). *Teaching in the elementary school: A reflective action approach*. Boston, MA: Pearson.

Huber, K. (2013). Strategies for success: Autism and cooperative learning. Retrieved from http://prezi.com/

Hunter, R. (2004). *Madeline Hunter's mastery teaching increasing instructional effectiveness in elementary and secondary schools.* Thousand Oaks, CA: Corwin Press.

Hunzicker, J. (2010). *Characteristics of effective professional development: A check list* (Unpublished master's thesis). Retrieved from http://r3nc.ncdpi.wikispaces.net/fil/view/design+checklist.pdf

Iaquinta, A. (2006). Guided reading: A research-based response to the challenges of early reading instruction. *Early Childhood Education Journal, 33*(6), 413-418. doi:10.1007/s10643-006-0074-2

International Reading Association. (2006). *Standards for middle and high school literacy coaches*. Newark, DE: Author.

International Reading Association. (2010). *Standards for reading professionals* (Rev. 2010 ed.). Newark, DE: Author.

Invernizzi, M., Landrum, T. J., Howell, J. L., & Warley, H. P. (2005). Toward the peaceful coexistence of test developers, policymakers, and teachers in an era of accountability. *Reading Teacher, 58*(7), 610-618.

Islas, M. (2010). The federal policy landscape. *Journal of Staff Development, 31*(6), 10-12. Retrieved from ERIC database.

Jenkins, R. A. (2005). Interdisciplinary instruction in the inclusion classroom. *Teaching Exceptional Children, 37*(5), 60-66.

Jennings, J., Caldwell, J., & Lerner, J. (2010). *Reading problems: Assessment and teaching strategies* (6th ed.). Boston, MA: Allyn & Bacon.

Jensen, E. (2005). *Teaching with brain in mind.* Alexandria, VA: ASCD.

Jiang, X., & Grabe, W. (2011). Skills and strategies in foreign language reading. In Y. Ruiz de Zarobe & L. Ruiz de Zarobe (Eds.), *La lectura en lengua extranjera* (pp. 2-31). London, England: Portal Education.

Joftus, S. (2002). *Every child a graduate: A framework for an excellent education for all middle and high school students.* Washington, DC: Alliance for Excellent Education.

Johnson, K., Lucas, L., & Lucas, C. (2014). Learning together: A technology professional learning community. In *Society for Information Technology &Teacher Education International Conference, 2014*(1), 1912-1915.

Kauerz, K. (2002). *Literacy. No Child Left Behind policy brief.* Retrieved from ERIC database. (ERIC Document Reproduction Service No. ED468666)

Kaufman, R., & Ring, M. (2011). Pathways to leadership and professional development. *Teaching Exceptional Children, 43*(5), 52-60. Retrieved from http://journals.cee.sped.org/

Kelly, C., & Campbell, L. (2008). Helping struggling readers: New horizons for learning. Retrieved from http:www.newhorizons.org/

Keppel, G. (2004). *Design and analysis: A researcher's handbook* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Klug, J., Krause, N., Schober, B., Finsterwald, M., & Spiel, C. (2014). How do teachers promote their students' lifelong learning in class? Development and first application of the LLL Interview. *Teaching and Teacher Education, 37,* 119-129.

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development.* Englewood Cliffs, NJ: Prentice Hall.

Lacina, J. (2014). Learning from poverty and high-stakes testing: Developing as a professional educator in Texas. *English Journal, 103*(6), 28-32. Retrieved from http://search.proquest.com/

Lee, J., Grigg, W., & Donahue, P. (2007). *The nation's report card: Reading 2007* (NCES 2007- 496). Washington, DC: U.S. Department of Education.

Lenski, S. (2011). What RTI means for content area teachers. *Journal of Adolescent & Adult Literacy, 55*(4), 276-282. doi:10.1002/JAAL.00034

Lesaux, N. K. (2012). Reading and reading instruction for children from low-income and non-English-speaking households. *Future of Children, 22*(2). Retrieved from http://search.proquest.com/

Lewis-Lancaster, A., & Reisener, C. (2013). Examining the results of a brief experimental analysis and reading fluency intervention with a middle school student. *Reading Improvement, 50*(4), 166-174. Retrieved from http://search.proquest.com/

Lieberman, A., & Pointer Mace, D. (2008). Teacher learning: The key to education reform. *Journal of Teacher Education, 59*(3), 226-234.

Lips, D. (2008). *A nation still at risk: The case for federalism and school choice*. Retrieved from http://www.policyarchive.org/handle/10207/bitstreams/13487.pdf

Lodico, M., Spaulding, D., & Voegtle, K. (2010). *Methods in educational research.* San Francisco, CA: Jossey-Bass.

Lopez, M. D., & Schroeder, L. (2008). *Designing strategies that meet the variety of learning styles of students.* Chicago, IL: Saint Xavier University.

Lovett, M. W., Lacerenza, L., Borden, S. L., Frijters, J. C., Steinbach, K. A., & DePalma, M. (2000). Components of effective remediation for developmental reading disabilities: Combining phonological and strategy-based instruction to improve outcomes. *Journal of Educational Psychology, 92*(2), 263-283.

Lybbert, B. E. (2015). Is 10th-grade graduation the answer to the dropout crisis? *USA Today, 144*, 52-53. Retrieved from http://search.proquest.com/

Lyon, G. R., & Chhabra, V. (2004). The science of reading research. *Educational Leadership, 61*(6), 12-17.

MacGinitie, H., MacGinitie, R. K., Maria, K., & Dreyer, L. G. (2002). *Gates-MacGinitie Reading Test: Technical report forms S and T.* Boston, MA: Riverside.

Mather, N., & Welding, B. (2012). Essentials of dyslexia assessment and intervention. Retrieved from http://www.allthingsdyselexia.info/

McCormack, R., & Pasquarelli, S. (2009). *Teaching reading: Strategies and resources for grade k-6.* New York, NY: Guilford Press.

McCoss-Yergain, T., & Krepps, L. (2010). Do teacher attitudes impact literacy strategy implementation in content areas classrooms? *Journal of Instructional Pedagogies, 41*(18). Retrieved from Education Research Complete database.

McLaughlin, M., & Rasinski, T. V. (2015). Reaching struggling readers. *Reading Today, 32*(6), 36-37.

McRel, C. (2012). The high school dropout rate: The problem, its consequences, and some possible solutions. Retrieved from http://www.mcrel.org/

McTighe, J., Sief, E., & Wiggins, G. (2004). You can teach for meaning. *Educational Leadership, 62*(1), 26-31.

Melekoğlu, M. A. (2011). Impact of motivation to read on reading gains for struggling readers with and without learning disabilities. *Learning Disability Quarterly, 34*(4), 248-261.

Melekoğlu, M. A., & Wilkerson, K. L. (2013). Motivation to read: How does it change for struggling readers with and without disabilities? *International Journal of Instruction, 6*(1),77-88. Retrieved from https://www.researchgate.net/

Miller, R. T. (2014). Bold on literacy. *Library Journal, 139*(4), 8. Retrieved from http://search.proquest.com

Moreau, L. K. (2014). Who's really struggling?: Middle school teachers' perceptions of struggling readers. *RMLE Online, 37*(10), 1-17. Retrieved from http://search.proquest.com/

Morris, D. (2015). Preventing early reading failure. *Reading Teacher, 68*(7), 502-509. doi:10.1002/trtr.1346

Mosenthal, J., Lipson, M., Sortino, S., Russ, B., & Mekkelsen, J. (2002). Literacy in rural Vermont: Lessons from schools where children succeed. In B. Taylor & P. D. Pearson (Eds.), *Teaching reading: Effective schools, accomplished teachers* (pp. 115-141). Mahwah, NJ: Erlbaum.

Naeimi, M., & Foo, T. C. V. (2015). Vocabulary acquisition through direct and indirect learning strategies. *English Language Teaching, 8*(10), 142-151. Retrieved from http://search.proquest.com/

Naidu, S. (2011). *Teachers and the policy reform agenda. What is policy?* Retrieved from ERIC database.

National Assessment Governing Board. (2013). National assessment of educational progress. Report on student achievement in largest states sheds light on direction of U.S. education. Retrieved from http://www.nagb/org

National Assessment of Educational Progress. (2004). Interpreting NAEP long-term trend results. Retrieved from http://nces.ed.gov/

National Center for Education Statistics. (2005). *Education in the states and nations.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (2010). Alternative teacher certification: A state analysis. Retrieved from http://www.teach-now.org/

National Center for Education Statistics. (2011) . *The nation's report card: Reading 2011*. Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (2013a). *At-risk students struggle with reading across all age and grade level.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (2013b). *The Nation's Report Card (2013) mathematics and reading Grade 12 assessment.* Washington, DC: U.S. Department of Education.

National Center for Education Statistics. (2015). The condition of education: Status dropout rate. Retrieved from http://nces.ed.gov/

National Center on Response to Intervention. (2010). *Essential components of RTI -A closer look at response to intervention.* Retrieved from http://www.rti4success.org/sites/default/files/ rtiessentialcomponents_042710.pdf

National Council of Teachers of English. (2008). English language learners: A policy research brief, Urbana, IL: Author.

National Endowment for the Arts. (2007). T*o read or not to read: A question of national consequences* [Research Report No. 47]. Retrieved from http://www.nea.gov/research/toread.pdf

National Reading Panel. (2000a). Decoding and fluency: Foundation skills for struggling readers. Retrieved from http://www.questia.com/

National Reading Panel. (2000b). Teaching children to read. Retrieved from www.nationalreadingpanel.org

National Science Teachers Association: Board of Directors. (2006). Professional development in science education. Retrieved from http://www.nsta.org/

Neafus, B. (2004). The Sonday System. Retrieved from http://www.bdainternational conference.org/

Ness, M. (2009). Reading comprehension strategies in secondary content area classrooms: Teacher use of and attitudes towards reading comprehension instruction. *Reading Horizons, 49*(2), 5. Retrieved from http://scholarworks.wmich.edu/

New Jersey Department of Education. (2011a). Historical report card data 2009. Retrieved from http://education.state.nj.us/

New Jersey Department of Education. (2011b). NJASK Grades 3-8 score interpretation manual. Retrieved from http://www.state.nj.us/education/assessment/es/njask interpret Manual

New Jersey Department of Education. (2011c). NJASK Grades 3-8 technical report. Retrieved from http://www.state.nj.us/

New Jersey Department of Education. (2011d). NJASK Grades 3-8 test specifications. Retrieved from http://www.state.nj.us/education/assessment/es/specs/Overview njask lal.pdf

New Jersey Department of Education. (2012). In wake of the No Child Left Behind Act, worst N.J. schools receive stern message. Retrieved from http://blog.nj.com/

New Jersey Department of Education (2015). New Jersey state-wide assessment report. Retrieved from http://www.state.nj.us/

Nickerson, R. (1984). *Research on the training of higher cognitive learning and thinking skills* (Final Report 5560). Cambridge, MA: Bolt, Beranek and Newman.

No Child Left Behind Act of 2002, Pub. L. No. 107-110, § 115, Stat. 1425 (2002).

Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., … Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review, 34,* 87-106. Retrieved from http://www.nasponline.org/

Northouse, P. G. (2012). *Leadership, theory and practice* (6th ed.). Thousand Oaks, CA: Sage.

Ormrod, J. (1999). *Human learning* (3rd ed.). Englewood Cliffs, NJ: Prentice Hall.

Ortlieb, E., & Cheek, E. H. (Eds.). (2013). *Literacy research, practice and evaluation, Volume 3: School-based interventions for struggling readers, K-8.* Bradford, England: Emerald Insight.

O'Sullivan, J., Canning, P., Siegel, L., & Olivieri, M. E. (2009). *Key factors to support literacy success in school-aged population: A literature review.* Retrieved from http://www.cmec.ca/Publications/Attachments/201/key-factors-literacy-school-aged.pdf

Pallant, J. (2010). *SPSS survival manual* (4th ed.). New York, NY: McGraw-Hill.

Paratore, J., & McCormack, R. (Eds.). (2011). *After early interventions, then what? Teaching struggling readers in grade 3 and beyond.* Newark, DE: International Reading Association.

Paris, S. G. (2002). Linking reading assessment and instruction in elementary grades. In C. M. Roller (Ed.), *Comprehensive reading instruction across the grade levels: A collection of papers from Reading Research 2001 conference* (pp. 55-69). Newark, DE: International Reading Association.

Pavlov, I. P. (1966). *Conditioned reflexes.* New York, NY: Dover Press.

Pearson, W. (2007). *Connecticut State Department of Education Developmental Reading Assessment (DRA) questions and answers.* Retrieved from http://pearsonlearning.com/rsp/researchPaper_DRA_weber.pdf

Peluso, M. J., Hafler, J. P., Sipsma, H., & Cherlin, E. (2014). Global health education programming as a model for inter-institutional collaboration in interprofessional health education. *Journal of Interprofessional Care, 28*(4), 1-3.

Perin, D. (2013). Literacy skills among academically underprepared students. *Community College Review, 41*(2), 118-136. http://dx.doi.org/10.1177/0091552113484057

Piaget, J. (1962). *Play, dreams and imitation in childhood.* New York, NY: W. W. Norton.

Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9*(5), 1-6.

Prewett, S., Mellard, D. F., Deshler, D. D., Allen, J., Alexander, R., & Stern, A. (2012). Response to intervention in middle schools: Practices and outcomes. *Learning Disabilities Research & Practice, 27*(3), 136-147. doi:10.1111/j.1540-5826. 2012.00359.x

Price, M. (2013). Convenience sampling: What they are, and what they should (and should not) be used for. Retrieved from http://www.conveniencesampling

Prytuia, M. P. (2012). Teacher metacognition within the professional learning community. *International Education Studies, 5*(4), 112-121. doi:10.5539/ies.v 5n4p112

Queen, S. (2009). *The effect of cooperative learning and traditional strategies on academic performance in middle school language arts* (Doctoral dissertation). Available from ProQuest Digital Dissertations database. (AAT 3355076)

Rasinski, T. V., & Hoffman, J. V. (2003). Oral reading in the school literacy curriculum. *Reading Research Quarterly, 38*(4), 510-511. Retrieved from www.reading.org/

Rathvon, N. (2006). *Developmental Reading Assessment: A handbook for practitioners.* New York, NY: Guilford Press.

Rattigan-Rohr, J. (2012). *Takes a village: A collaborative assault on the struggling reader dilemma.* Rotterdam, NLD: Sense.

Renaissance Learning. (2012). Accelerated Reader Enterprise. Retrieved from http://www.renlearn.com/ar/

Reyhner, J. (2003). The reading wars: Phonics versus whole language. Retrieved from http://jan.ucc.nau.edu/

Rissman, L. M., Miller, D. H., & Torgesen, J. K. (2009). *Adolescent literacy walk-through for principals: A guide for instructional leaders.* Retrieved from http://www.eric.ed.gov/PDFS/ED521604.pdf

Robelen, E. W. (2012). State policies. *Education Week, 32*(12), 4. Retrieved from http://search.proquest.com/

Ross, M. E. (2010). Designing and using program evaluation as a tool for reform. *Journal of Research on Leadership Education, 5*(12), 481-506. Retrieved from http://jrl.sagepub.com/

Samuels, C. A. (2011). An instructional approach expands its reach. *Education Week, 30*(22), 2-5. Retrieved from http://www.edweek.org.libaccess.fdu.edu/

Schiller, E., Wei, X., Thayer, S., Blackorby, J., Javitz, H., & Williams, C. (2012). *A randomized controlled trial of the impact of the fusion reading intervention on reading achievement and motivation for adolescent struggling readers.* Evanston, IL: Society for Research on Educational Effectiveness.

School Matters. (2010). Executive summary for the East Orange School District. Retrieved from schoolmatters.com

Sedita, J., Friedman, T. L., & Friedman, A. B. (2010). Intervention for eight graders. Retrieved from http://www.adlit.org/

Senate HELP Committee Passes ESEA Reauthorization. (2015). Retrieved from http://newenglandcouncil.com/assets/Higher-Education-Committee-Senate-HELP-Committee-pases-ESEA-reauthorization.pdf

Severson, J. (2015). *Evaluation of the Sonday System: Learning to read within a second grade classroom* (Unpublished master's thesis). The Graduate School, University of Wisconsin-Stout, Menomonie, WI.

Shackman, G. (2009). The Global Social Change Project. Retrieved from http://socialogy.icaap.org/

Shagrir, L. (2012). How evaluation processes affect the professional development of five teachers in higher education. *Journal of the Scholarship of Teaching & Learning, 12*(1), 23-35. Retrieved from http://www.iupui.edu/

Shaha, S., Glassett, K., Copas, A., & Huddleston, T. L. (2016). Maximizing educator enhancement: Aligned seminar and online professional development. *Contemporary Issues in Education Research (Online), 9*(1), 15. Retrieved from http://search.proquest.com/

Shaywitz, S., & Knopf, A. A. (2005). Overcoming dyslexia: A new and science-based program for reading problem at all levels. Retrieved from http://www.writers reps.com/

Skinner, B. F. (1930). On the conditions of elicitation of certain eating reflexes. *Proceedings of the National Academy of Science of the United States of America, 16*(6), 433-438.

Slavin, R. (2006). *Educational psychology* (8th ed.). Boston, MA: Allyn & Bacon

Snow, C. E., Burns, S., & Griffin, P. (1998). *Preventing reading difficulties in young children.* Washington, DC: National Academy Press.

Sonday, A. (2007). *The Sonday System Two: Learning to read* (2nd ed.). St. Paul, MN: Winsor Learning.

Sonday, A. (2009a). The brain zone reading and learning center. Retrieved from http://www.thebrainzone

Sonday, A. (2009b). Winsor learning methodology: Using data to drive instructional decisions: A four-step student success model. Retrieved from www.winsor learning.com

Spelman, M., & Rohlwing, R. (2013). The relationship between professional development and teacher learning: Three illustrative case studies of urban teachers. *Journal of Research in Innovative Teaching, 6*(1), 155-171. Retrieved from Education Research Complete database.

Spencer, T. (2012). In defense of today's struggling reader: What policymakers can learn. *Childhood Education, 88*(6), 382-387. Retrieved from http://search.proquest.com/

Stahl, S. A., & Kuhn, J. (2002). Making it sound like language: Developing fluency. *Reading Teacher, 55*(6), 582-584. Retrieved from www.readingrockets.org/

Stanovich, K. E. (1986). Matthew effect in reading: Some consequences of individual differences in the acquisition of literacy. *Reading Research Quarterly, 21*(2), 360-407.

Strickland, D. S., Ganske, K., & Monroe, J. K. (Eds.). (2002). *Supporting struggling readers and writers: Strategies for classroom intervention 3-6.* Newark, DE: International Reading Association.

Sturtevant, E. G., Boyd, F. B., Brozo, W. G., Hinchman, K. A., Moore, D. W., & Alvermann, D. E. (2010). *Principled practices for adolescent literacy: A framework for instruction and policy.* New York, NY: Routledge.

Sugarman, S. (2013). Moral classrooms, moral children: Creating a constructivist atmosphere in early education. *Choice, 50*(5), 933. Retrieved from http://search.proquest.com/

Suggate S. (2010). Why what we teach depends on when: Grade and reading intervention modality moderate effect size. *Developmental Psychology* [Serial online], *46*(6), 1556-1579.

Sweet, R. W. (1996). Illiteracy: An incurable disease or education malpractice? Retrieved from http://www.nrrf.org/

Swerling, L., & Cheesman, E. (2012). Teachers' knowledge base for implementing response-to-intervention models in reading. *Reading and Writing, 25*(7), 1691-1723. doi:10.1007/s11145-011-9338-3

Tabachnick, B. G., & Fidell, L. S. (2012). *Using multivariate statistics* (6th ed.). Boston, MA: Pearson.

Taylor, B. M., & Critchley, C. (2002). Sunnyside Elementary School, Mounds View, Minnesota. In B. M. Taylor & P. D. Pearson (Eds.), *Teaching reading: Effective schools, accomplished teachers* (pp. 163-165). Mahwah, NJ: Erlbaum.

Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000a). *Beating the odds in teaching all students to read: Lessons from effective schools and accomplished teachers* (CIERA report). Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

Taylor, B. M., Pearson, P. D., Clark, K., & Walpole, S. (2000b). Effective schools and accomplished teachers: Lessons about primary-grade reading instruction in low-income schools. *Elementary School Journal, 101*(2), 121-165.

Taylor, B. M., Pressley, M., & Pearson, P. D. (2000). *Effective teachers and schools: Trends across recent studies* (CIERA report). Ann Arbor, MI: Center for the Improvement of Early Reading Achievement.

Taylor, B. M., Pressley, M., & Pearson, P. D. (2002). Research-supported characteristics of teachers and schools that promote reading achievement. In B. M. Taylor & P. D. Pearson (Eds.), *Teaching reading: Effective schools, accomplished teachers* (pp. 361-374). Mahwah, NJ: Erlbaum.

Tomlinson, C. A., & Jarvis, J. (2006). Teaching beyond the book. *Educational Leadership, 64*(1), 16-21.

Trust, T. (2012). Professional learning networks designed for teacher learning. *Journal of Digital Learning in Teacher Education, 28*(4), 133-138.

U.S. Department of Health and Human Services. (2000). Report on the National Reading Panel: Teaching children to read [NIH Pub No. 004754]. Retrieved from www.hhs.gov/

Vacca, R. T., & Vacca, J. L. (2001). *Content area reading: Literacy and language across the curriculum* (7th ed.). Boston, MA: Allyn &Bacon.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* Cambridge, MA: Harvard University Press.

Wackerle-Hollman, A. K., Schmitt, B. A., Bradfield, T. A., Rodriguez, M. C., & McConnell, S. R. (2015). Redefining individual growth and development indicators: Phonological awareness. *Journal of Learning Disabilities, 48*. http://ldx.sagepub.com.libaccess.fdu.edu/

Walczyk, J. J., & Griffith-Ross, D. A. (2007). How important is reading skill fluency for reading comprehension? *Reading Teacher, 60,* 560-569

Wallace Foundation. (2010). *The school turnaround field guide.* New York, NY: Author.

Wang, X. (2012). Stability of educational expectations among baccalaureate aspirants beginning at community colleges. *Community College Review, 40*(4), 300-319. http://dx.doi.org/10.1177/0091552112454914.

Watson, J. B. (1913). Psychology as the behaviorist views it. *Psychological Review, 20*(2), 158, 160.

White House. (2009). Steps to reduce dropout rate and prepare students for college. Retrieved from http://www.whitehouse.gov/

Williams, T. O., Jr., Ernst, J. V., & Kaui, T. M. (2015). Special populations at-risk for dropping out of school: A discipline-based analysis of STEM educators. *Journal of STEM Education: Innovations and Research, 16*(1), 41-45. Retrieved from http://search.proquest.com/

Wright, J. (2006). Learning interventions for struggling students. *Education Digest, 81*(5), 35-39.

Yates, J. R.; & Ortiz, A. (1998). Issues of culture and diversity affecting educators with disabilities: A change in demography is reshaping America. In R. J. Anderson, C. E. Keller, & J. M. Karp (Eds.), *Enhancing diversity: Educators with disabilities in the education enterprise* (pp. 21-37). Washington, DC: Gallaudet University Press.

Zakariya, E., & Daud, M. Y. (2009). Assessing mathematics teachers' professional development needs. *European Journal of Social Sciences, 8*(2), 272-275.

Appendix A: The Project, PD for Middle School Teachers on Implementing the Sonday System

PD Project Learning Outcome

More teachers need to be trained to expedite the Sonday System so that more students can gain the skills that they need to read effectively. The proposed PD will be able to accommodate more teachers in all content areas. The training will be the best approach to direct teachers and help them to monitor student progress. It also will help teachers to learn from other teachers who might already be familiar with the program. For each PD session, the teachers will receive written information on what was presented in the PowerPoint as well as how they can access other information. The target audience will be principals, administrators, and teachers in all content areas.

Previous Sonday System training programs did not include all content-area teachers. Selected language arts teachers were trained for 12 hours within 2 days and then for 4 weeks apart. If the teachers were not available, they missed the training. The PD that I propose will include all content-area teachers. It will be presented in a PowerPoint format so that teachers who are absent can review the sessions independently. The PD will be offered during team meetings. New teachers will have the chance to learn from others and get feedback as they learn to implement the Sonday System. The PD might provide school and district administrators with valuable information on implementation strategies.

Timetable for the Effective Implementation of the PD

The PD will be a PowerPoint delivery model that will enable teachers to ask questions and use the information to implement the program. According to Noell et al. (2005) and Renaissance Learning (2012), proper program implementation is essential for the success of any program. Quick, Holtzman, and Chaney (2009) proposed that PD can have a positive effect on teachers' instructional practices and students' learning outcomes. The proposed PD will be completed over 25 sessions for at least 60 minutes per session for 5 days per week.

Professional Development

Phase 1 of the PD will provide the teachers and administrators with background information on the project, the data analysis, and the outcome that led to the need for PD. During the introduction, the facilitator will discuss the goals and objectives. Details regarding implementation of the project for each phase follow. The goal of this study was to examine the effectiveness of the DRA alone and the effect of adding the Sonday System reading program to the DRA in helping struggling readers to improve their scores on the NJASK test.

Phase 1: Introduction to the Project

The PD will be available to all content-area teachers and administrators, even though only teachers will participate in the sessions. The PD will be conducted during team meetings or in-service periods. Following are some of the goals and objectives of the PD sessions:

Phase 1 Part A: Goals and Objectives

1. Developed the PD to address the results of the data analysis.
2. Provide information on the ineffectiveness of the Sonday System in raising struggling students' NJASK scores at the local middle school level.
3. Discuss the effectiveness of the Sonday System in some schools in the district and in other schools outside the district.
4. Provide all content-area teachers with ways to implement the Sonday System effectively.
5. Discuss the reasons for selecting the PD topic.
6. Build content-area teachers' confidence to implement the Sonday System effectively.
7. Improve struggling students reading skills.

The session will be open to questions and answers after the introduction, then the Phase 1 entry-level pretest will begin.

- Number of sessions: 1
- Time allotted Phase 1 Part A session: 60 minutes

Phase 1 Part B: Introduction to Entry-Level Test

During Phase 1, the in-service teachers will learn how to give the pretest and posttest. Phase 1 of the pretest should take approximately 2 weeks for the students because the entry-level test is administered on a one-on-one basis.

- To administer the spelling pretest, the teachers will use 33 reading words and 33 spelling words.

- Number of sessions: 4
- Time allotted for each session: 60 minutes
- Total time for Phase 1 A and B: 300 minutes

Phase 2: Pretest and Posttest Check for Knowledge

- In this phase, the teachers will have the students say the alphabet. The teachers will circle the letters that the students do not know. The teachers will record the number of correct letters that the students recalled on the pretest.
- The students must score at least 85% to 90% to move to the next level
- Number of sessions: 5
- Time allotted per session: 60 minutes
- Total time for this session: 300 minutes

Phase 3: Level Learning Plan

- During Phase 3, the teachers and students will work on listening for rhyming words. The teachers will select words and then ask the students to locate words that rhyme from the list given.
- The teacher will continue reviewing the activities for Prereading Levels 1 and 2 as reinforcement to ensure an easy transition to Prereading Level 3. During Level 3, teachers will check for knowledge gains.
- Number of sessions: 5
- Time allotted per session: 60 minutes
- Total time for this session: 300 minutes

Phase 4: Learning Plan: Follow-Up Support

- During Phase 4, the in-service teachers will have five 60-minute sessions.
- The presenter will conduct a follow-up segment to strengthen the skills of those who attended Phases 1, 2, and 3.
- Number of sessions: 5
- Time allotted per session: 60 minutes
- Total time for this session: 300 minutes

Phase 5: Reflection

- During Phase 5, teachers will meet as a large group for one 60-minute session for 5 days per week.
- Teachers will collaborate; share; and discuss if, how, and when the implementation strategies were effective. The large group will have the opportunity to collaborate and share any success or problems.

Survey

- Complete a survey with components from the PD and the implementation of the Sonday System

Open-Ended Questions

Teachers will be asked to respond to two short open-ended questions:

- (a) What impact did the PD on the implementation of the Sonday System have on you as a content-area teacher? (b) After participation in the PD, what impact do you think sharing the strategies will have on struggling students' behavior and academic progress?

- Final thoughts on the PD
- Number of sessions: 5
- Time allotted per session: 60 minutes
- Total time for this session: 300 minutes

Introduction to the Program

I developed the PD project to address the results of the data analysis indicating that the DRA/Sonday System combination was not effective in raising the NJASK scores of struggling readers at the middle school for this project. However, the literature review showed that the Sonday System yielded patterns of positive effects in some schools in the districts as well as other participating schools in other districts, suggesting that if the Sonday System were to be implemented carefully, it could show similar success. The PD will be available to all content-area teachers and administrators.

Some of the goals of the introductory training are to (a) provide information on the Sonday System ineffectiveness in raising struggling students' NJASK scores at the local middle school level (b) discuss the effectiveness of the Sonday System in some schools in the district and in other participating schools outside the district, (c) provide all content-area teachers with ways to implement the Sonday System effectively, (d) discuss the reasons for selecting the PD, and (e) build content-area teachers' confidence. The session will be open to questions for 60 minutes. Then the Phase 1 entry-level pretest will begin.

Phase 1: **Entry-Level Pretest**

During Phase 1, the teachers will learn how to give the entry-level pretest. The introduction of the PD project will last for 60 minutes for one session. The remaining four sessions will be to administer the entry-level pretest. Teachers will learn that it is important to administer the pretest to establish a baseline for the students. Phase 1 of the pretest should take the students approximately 2 weeks, depending on the number of students. To begin the instruction, I will direct the teachers to the PowerPoint. To administer the spelling pretest, the teachers will be presented with 33 spelling words. The teachers will dictate each word, pause, say the word again for students who hesitate, pause, and then repeat the word to be spelled.

As the facilitator, I will remind the teachers that the students must be given sufficient time to process the information. I also will remind the teachers that some students might have difficulty hearing the distinctions between vowels, so it is imperative that they pronounce the words clearly. The teachers can use key words for short vowel sounds to assist the students. The teachers will continue to follow the procedure and dictate the words in the column. The teachers will ask the students to write the dictated words on the paper or spelling sheets provided. The teachers will be reminded that it is important to allow the students to make corrections without helping them after they dictate the words to them.

To calculate the scores, the teachers will multiply the incorrect spelled words by 3 to obtain the percentage score. The teachers will be told that the students need a score of 85% on the spelling words and 90% of the reading words to move to the Check for

Knowledge Gains section. If the students spell fewer than 85% words correctly, they will use a lower level book (*Sonday System-Beginning to Read*). The students' score will be recorded for comparison with the results of the posttest. If the students achieve the required scores and can say the letters of the alphabet, know consonant and vowels, know the sounds of consonant blends and pass the entry-level test, they will proceed to Sonday System 2. During and at the end of the presentation, I will pause to ensure that the information is clear and to get feedback from the teachers.

Phase 2: Pretest and Posttest Check for Knowledge

During Phase 2, the teachers will learn how to check for knowledge. Phase 2 will allow the teachers to learn or refresh their memories about effective strategies to increase students' comprehension skills when teaching or reviewing vocabulary words. According to Fisher and Ivey (2005), when teachers have a clear purpose behind a strategy to be learned, then implementation of the skill to be learned will be easier and can result in more frequent use of the strategy in the classroom.

In this phase of checking for knowledge, the teachers will have the students say the alphabet. The teachers will circle the letters that the students do not know. The teachers also will record the number of correct letters that the students recalled on the pretest. When the posttest is given, the same words will be used to determine whether the students have progressed. At the end of the alphabet session, the teachers learn how to check for knowledge with the consonant names. During this phase, the teachers will ask the students to name the consonants; the correct responses will be recorded. In addition,

the students will be asked to say the sound for each consonant, followed by naming the vowels and saying the sounds of the vowels given.

To conclude this phase, the students will seek and find letters. The teachers will ask the students to locate specific letters. The students will then be asked to locate the letter/letters in other words on the page. The teachers will repeat the dialogue until the students are familiar with the letters. Once students show mastery of letters, another segment will be added to strengthen students' visual, auditory and kinesthetic skills. At the end of each session, the teachers will record the pretest scores for comparison with the posttest scores. The students must score at least 85% to 90% to move to the next level.

At this stage, I will remind the teachers that it is vital to keep accurate records for accountability purposes. I will pause for clarity and address any questions or comments from the teachers regarding the Prereading Levels 1 and Level 2 reinforcement to ensure an easy transition to Prereading Level 3. The goal is to help all content-area teachers to develop confidence and learn the necessary skills to implement the Sonday System reading program effectively so that more struggling students can acquire the skills that they need at a faster rate to become more proficient readers.

Phase 3: Level 1 Learning Plan

During Phase 3, I will show the teachers how to have the students listen for rhyming words. The teachers will select words and then ask the students to locate words that rhyme from the list given. The teachers will continue reviewing the activities for rhyming words. During Level 3, the teachers also will check for knowledge gains. If the

students show mastery of this skill, they will be asked to write words, read sight words or phrases, and write short sentences. The teachers will continue working with the students on the skills in the prereading sections, such as combining words, dividing words, combining word parts, combining sounds, and rearranging words. Once the students show mastery of these skills, they will be given short passages to read.

Once the students have mastered all the steps in Sonday 1, they will take the entry test for Sonday System 2. The teachers will introduce new materials by selecting interesting and appropriate articles, stories, or books to assist the students who have advanced to Sonday 2. The teachers will ask the students to recall some of the information from the last session before proceeding to new materials. For this phase, the teachers will focus on comprehension and ask students factual questions based upon what they read.

Phase 4: Learning Plan: Follow-Up Support

During Phase 4 of the PD, which offers five 60-minute sessions, I will do a follow-up segment to strengthen the skills of those who attended Phases 1, 2, and 3 of the PD sessions. This will be a great opportunity for teachers to work in content-area groups and share some of their students' work and/or progress. This session will be an opportunity for teachers to discuss any problems that they are encountering while implementing the Sonday System program.

Phase 5: Reflections

During Phase 5, the teachers will meet as a large group for five 60-minute sessions for 5 days per week to collaborate; share; and discuss if, how, and when their

implementation strategies are working in their classrooms. This will give the large group the opportunity to share any successes or problems. This phase of the PD is important to building and promoting the teachers' efficacy with the skills and implementation of the Sonday System program. The PD in-service will be for 25 sessions, but the teachers will have the opportunity to continue with the collaboration in subsequent team meetings.

According to Santamaria, Taylor, Park, Keene, and Van der Mandele (2010), when teachers build confidence and implement reading strategies effectively, the benefits can be rewarding to the school community in the following ways: (a) Teachers feel satisfied and can apply knowledge successfully, (b) teachers will be better able to meet the needs of struggling students by providing them with skills to enhance their reading and perform better on standardized tests, (c) students develop reading skills for lifelong learning, (d)) administrators will experience eagerness about supporting content-area literacy implementation initiatives, and stakeholders can obtain a clear understanding of what was successful and how to best use the information gathered to motivate and challenge a wider population of students.

During the reflection phase, I will ask the teachers to (a) complete a survey with components from the PD on the implementation of the Sonday System, and (b) respond to two short questions:

- What impact did the PD on the implementation of the Sonday System have on you as a content-area teacher?
- After participation in the PD, what impact do you think sharing the strategies will have on struggling students' behavior and academic progress?

Teachers' Survey

The teachers will be asked to complete a survey that can generate useful data and measure the most current opinions, attitudes, or practices about the phenomenon being studied (Creswell, 2012; Lodico et al., 2010). The survey will follow Creswell's (2012) guidelines for developing 21 clear and concise questions that address adherence to program implementation procedures.

According to Creswell (2012), researchers using surveys should strive to develop surveys that reflect clear and concise language, provide possible responses, not assume information about the survey respondents, not ask leading questions, and provide directions for completing and returning the survey. The directions for completing the survey will be provided to the teachers as paper copies and online copies. The survey will follow a 5-point Likert scale of responses ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). The teachers will be asked to circle their answers.

Participant anonymity is ensured because there are no names or other identifying information on the survey (Creswell, 2012; Lodico et al., 2010). According to Lodico et al. (2010), participants who complete surveys anonymously are more likely to participate and provide information that is more valid. The information gathered from the survey will help to determine the effectiveness of the training and how improvements can be made.

Resources and Materials

The resources needed to make the PD successful include computers, Internet access, smart boards, copies of the implementation plan for the Sonday System from

PowerPoint presentations, and copies of the evaluation surveys. During Phase 1 of the implementation process, I will guarantee that all participants have access to a computer and the Internet so that they can work online. The information from the PowerPoint will be projected on the Smart Board. In addition to the PowerPoint, I will give the teachers paper copies of the information so that they can make notes.

During Phase 2, I will provide the participants with sticky notes, chart paper, and markers so that they can work in groups. During the small groups, the information that the teachers gather on the chart paper will be shared with the large group at the end of each session and will serve as reinforcement. During the PD, teachers might bring examples of students' work if they have questions, need clarification, or want to share how the implementation strategies impacted or will impact the skills of struggling readers. If the teachers decide to share students' work, the students' name will be redacted from all documents. Other material will be copies of the evaluation, which can be done on the computer or on paper copies.

Project References

Allor, J. H., Mathes, P. G., Roberts, J. K., Cheatham, J. P., & Al Otaiba, S. (2014). Is scientifically based reading instruction effective for students with below-average IQs? *Exceptional Children, 80*(3), 287-306. Available from ProQuest database.

Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Upper Saddle River, NJ: Pearson Education.

Fisher, D., & Ivey, G. (2005). Literacy and language as learning in content-area classes: A departure from "Every teacher a teacher of reading." *Action in Teacher Education, 27*(2), 3-11. Retrieved from Education Research Complete database.

Lodico, M., Spaulding, D., & Voegtle, K. (2010). *Methods in educational research.* San Francisco, CA: Jossey-Bass.

Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., … Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review, 34,* 87-106. Retrieved from http://www.nasponline.org/

Quick, H., Holtzman, D., & Chaney, K. (2009). Professional development and instructional practice: Conceptions and evidence of effectiveness. *Journal of Education for Students Placed at Risk, 14*(1), 45-71. doi:10.1080/10824660802715429

Renaissance Learning. (2012). Accelerated Reader Enterprise. Retrieved from http://www.renlearn.com/ar/

Santamaria, L. A., Taylor, M. K., Park, T. D., Keene, B. L., & van der Mandele, E. (2010). Practical literacy matters: Teacher confidence is key. *Techniques: Connecting Education & Careers, 85*(5), 45-47. Retrieved from Academic Search Complete database.

Appendix B: PowerPoint Presentation for PD Project

Following is a link to the PowerPoint slides that I intend to use in the PD project.

C:\Users\Barb\Documents\WordBackup\Daphne Tinglin-Jarrett\Professional Develop Project power-Point jan 2016.pptx

Appendix C: Teacher Survey

Please circle the answer that best describes your response to each question on the professional development training: Please return your survey responses to collection box provided.

Instructional Goals

1. The professional development training goals for the implementation of the Sonday System program were clear and precise.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
2. The information presented on the implementation of the Sonday System program was clear and precise.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
3. The professional development training presented and combined the needs of individual students with goals of the school/district.
    - (1) strongly disagree

- (2) somewhat disagree
- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

4. The professional development on how to implement the pre-test was easy to understand.
   - (1) strongly disagree
   - (2) somewhat disagree
   - (3) neither agree nor disagree
   - (4) somewhat agree
   - (5) strongly agree
5. The professional development addressed the subject area content and how to implement it.
   - (1) strongly disagree
   - (2) somewhat disagree
   - (3) neither agree nor disagree
   - (4) somewhat agree
   - (5) strongly agree
6. The presentation equipped teachers with a wide range of instructional strategies to help students with various learning styles.
   - (1) strongly disagree
   - (2) somewhat disagree

- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

7. The information presented emphasized how to improve students' learning outcome.
   - (1) strongly disagree
   - (2) somewhat disagree
   - (3) neither agree nor disagree
   - (4) somewhat agree
   - (5) strongly agree

Teacher Collaboration

8. The professional development training engaged all content area teachers and administrators.
   - (1) strongly disagree
   - (2) somewhat disagree
   - (3) neither agree nor disagree
   - 4) somewhat agree
   - (5) strongly agree
9. The professional development training addressed the learning needs of teachers specific grade levels
   - (1) strongly disagree
   - (2) somewhat disagree

- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

10. The professional development training accommodated teachers' individual learning styles and preferences.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
11. The professional development training integrated teachers input and allowed them to make choices.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
12. The professional development training allowed teachers to receive and give feedback.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree

- (4) somewhat agree
- (5) strongly agree

13. The peer feedback was an important aspect of collaborative professional development.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
14. The professional development training engaged teachers socially in working together toward the common objective of helping students achieve the skills they need.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
15. The professional development training supported teacher motivation and commitment to the learning process
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree

- (4) somewhat agree
- (5) strongly agree

16. The Professional development training provided teachers with several opportunities to interact and collaborate with others to share ideas and skills overtime.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
17. The Professional development training provided follow up activities that required teachers to apply learning strategies.
    - (1) strongly disagree
    - (2) somewhat disagree
    - (3) neither agree nor disagree
    - (4) somewhat agree
    - (5) strongly agree
18. The professional development helped to build teachers confidence and assisted with the strategies needed to implement the program successfully in the time allotted?
    - (1) strongly disagree
    - (2) somewhat disagree

- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

19. The professional development training presented the strategies required in the time period allotted.

- (1) strongly disagree
- (2) somewhat disagree
- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

20. The professional development training was connected to clear goals that could be used in school improvement plan.

- (1) strongly disagree
- (2) somewhat disagree
- (3) neither agree nor disagree
- (4) somewhat agree
- (5) strongly agree

21. Would you like more professional development activities, study groups and mentoring relationships at least once per week?

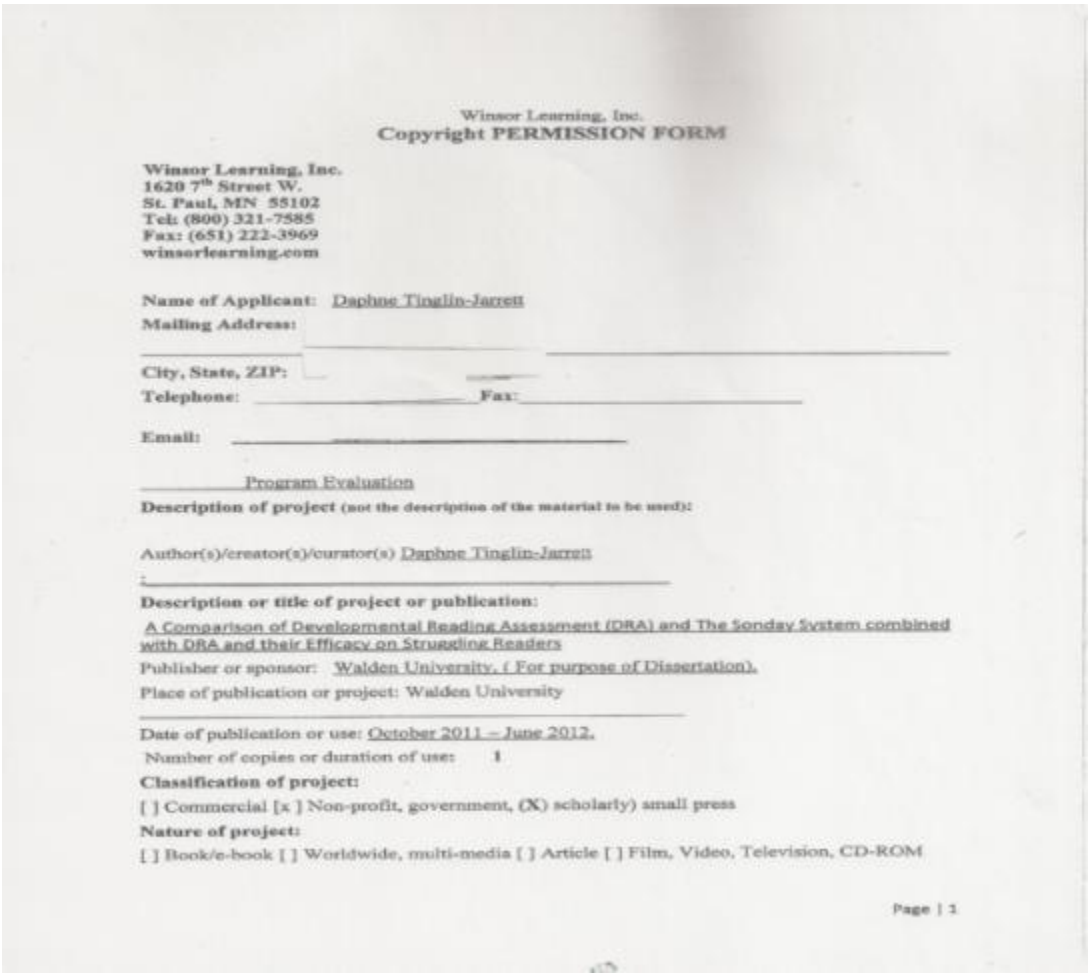
- (1) strongly disagree
- (2) somewhat disagree
- (3) neither agree nor disagree

- (4) somewhat agree
- (5) strongly agree

Open-ended Questions

22. What impact did the PD training on the implementation of the Sonday System have on you as a content area teacher?
23. After participation of the PD training what impact do you think sharing the strategies will have on struggling students behavior and academic progress?

Appendix D: Letters of Permission



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Name of Applicant: Daphne Tinglin-Jarrett
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Telephone: **Fax:**

Email:

Program Evaluation
Description of project (not the description of the material to be used):

Author(s)/creator(s)/curator(s) Daphne Tinglin-Jarrett

Description or title of project or publication:
A Comparison of Developmental Reading Assessment (DRA) and The Sonday System combined with DRA and their Efficacy on Struggling Readers
Publisher or sponsor: Walden University. (For purpose of Dissertation).
Place of publication or project: Walden University
Date of publication or use: October 2011 – June 2012.
Number of copies or duration of use: 1
Classification of project:
[ ] Commercial [x] Non-profit, government, (X) scholarly) small press
Nature of project:
[ ] Book/e-book [ ] Worldwide, multi-media [ ] Article [ ] Film, Video, Television, CD-ROM

Page | 1

[ ] Non-editorial (calendars, cards, book covers, ads, etc.) [X] Unpublished report, thesis, dissertation

[ ] Website [ ] Exhibition [ ] Re-use [ ] Other use – specify: N/A

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Signature of Applicant: Daphne Tinglin-Garrett **Date**: 10/22/2011

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Permission to USE SONDAY SYSTEM DATA IN RESEARCH

From: Daphne Tinglin-Jarrett

Email:

Re: Permission to use The Sonday System data in research

Date: July 7, 2011

To: The Director of Sonday System Education, Inc.

Rights and Permission Department

Dear Director:

My name is Daphne Tinglin-Jarrett, and I am a doctoral student in the School of Teacher Leadership at Walden University. I am preparing to conduct a project study: An Identification of the Effectiveness of Developmental Reading Assessment (DRA) only and The Sonday System combined with DRA and their Impact on Struggling Middle School Readers. I am requesting permission to use samples of your assessment in my research. My middle school is presently using the DRA and the Sonday System programs in grade 6-8th. The purpose of this study is to highlight the features of DRA and the Sonday System that help struggling readers become proficient readers.

There are many benefits to releasing permission for me to use samples of your Sonday System Program in my study which includes but is not limited to understanding, and significantly impacting positive social change in improving struggling students' academic achievement in reading. This study will contribute to the body of knowledge needed to address the problems of struggling readers and how to better meet their goals. The outcome of the program will be beneficial to my school, district and perhaps state wide. The data that will be collected will be used within the research study paper, for the purpose of oral defense of my

project. The result of this project study will be published in my dissertation and possibly in subsequent journals or books and will be compiled and included in my dissertation for the School of Teacher Leadership, Walden University.

If you have a standard form that you wish me to complete, kindly email me at

I am requesting your signature to document that I have cleared this permission to use samples of your Sonday System in my research.

Sincerely,

Daphne Tinglin-Jarrett

Printed Name of Director

Date: _____

Written or Electronic* Signature _____

Researcher's Written or Electronic* Signature _____

_____

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Please complete and return pages 1 and 2