

IMPLEMENTING A CULTURALLY AND LINGUISTICALLY RESPONSIVE  
PHONICS CURRICULUM THAT INCORPORATES MUSIC TO MEET THE NEEDS  
OF ENGLISH LANGUAGE LEARNERS IN THE RESPONSE TO INTERVENTION  
PROCESS

by

Danielle Denise Miller

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

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ABSTRACT

The purpose of this study is to investigate the effect of the Sing, Spell, Read, Write (SSRW) phonics curriculum that uses explicit and systematic methods and incorporates music to teach literacy skills implemented as a tier-two reading intervention in the Response to Intervention process to meet the cultural and linguistic needs of English Language Learners. A sequential explanatory mixed methods design will be used to explore the research questions. Using a quantitative quasi-experimental comparison method, the researcher gathered archived data relating to ELLs reading achievement using the reading portion of the Criterion-Referenced Competency Tests and the STAR Reading assessment. The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. Teachers' perceptions were examined through open ended post intervention interviews. The interviews aimed to gather data related to the effect the intervention had on teachers' perceptions of the appropriate types of interventions to use when working with ELLs. The music intervention was implemented in addition to students' daily reading instruction. The sample for this study was comprised of third and fifth grade teachers, and third and fifth grade ELLs in tier- two of the RTI process for reading.

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## **LIST OF ABBREVIATIONS**

Education for all Handicap Children Act (EHA)

English Language Learner (ELL)

English Speakers of Other Languages (ESOL)

Individuals with Disabilities Education Act (IDEA)

Institutional Review Board (IRB)

Multiple Intelligence (MI)

No Child Left Behind Act (NCLB)

National Research Center on Learning Disabilities (NRCLD)

National Reading Council Report (NRC)

National Reading Panel Report (NRP)

Office of Special Education Programs (OSEP)

Response to Intervention (RTI)

Sheltered Instruction Observation Protocol (SIOP)

Specific Learning Disability (SLD)

Students with Disabilities (SWD)

Sing, Spell, Read, Write (SSRW)

WIDA ACCESS Placement Test (W-APT)

## **CHAPTER ONE: INTRODUCTION**

### **Background**

When the first special education legislation, the Education for All Handicapped Children Act (EHA), was enacted in 1975, several provisions were put into place that aimed to guarantee and to protect the rights of children with disabilities and their parents (Office of Special Education Programs, 2007; Wamba, 2008). Since then, several amendments have been made to address the needs of students with disabilities (SWD) so that they can receive the equal educational opportunities promised to them. However, as needed changes were being made to special education legislation in order to strengthen the educational system, the United States was also going through drastic demographical changes that the educational system was failing to address.

Between 1991 and 2001, English language learners' (ELLs) enrollment in public schools in the United States increased by 95%, while the general student population increased by only 12 % (Brown, 2007). In Georgia, ELLs in the public school system increased by 650 % during this same time (Batt, Kim, & Sunderman, 2005). While the United States has always welcomed diversity, there is cause for great concern because the nation is failing to meet the educational needs of students from diverse backgrounds, and an achievement gap has formed between these learners and their mainstream counterparts. In 2009, statistics showed that 69% of fourth grade non-ELLs in the United States were at or above the basic level in reading, while only 29% of ELLs were at the same level (National Center of Educational Statistics, 2010). As students reached higher educational levels, the achievement gap increased in the area of reading. In 2009, only

25% of eighth grade ELLs performed at or above the basic reading level, while 76% of their non-ELL peers performed at the same level (National Center of Educational Statistics, 2010).

Throughout history, minority groups that have struggled with the existing achievement gap have also been overrepresented in special education programs. In 2002, the United States Department of Education reported that 357,300 ELLs were in special education programs in grades K-12 in the 2001-2002 school year. This amount represented 9% of all ELLs in the United States public school systems and 8% of all children in SPED (Li & Associates, Inc., 2004; Zehler, Fleischman, Hopstock, Stephenson, Pendzick, & Sapru, 2003). In 2004, the government recognized the disproportionate numbers and reauthorized the Individuals with Disabilities Education Act (IDEA). Several components were adjusted to strengthen special education programs, but the United States Office of Special Education Programs (OSEP) and National Research Center on Learning Disabilities (NRCLD) were assigned the task of examining methods that could fortify specific learning disability (SLD) identification, thus possibly tackling the overrepresentation of minorities in special education programs. The work of this team was taken into consideration during the reauthorization of IDEA. As a result, the use of aptitude assessments for SLD identification were eliminated and the implementation of the RTI model was adopted in school systems across the nation (Bradley, Danielson, & Doolittle, 2007). RTI is a three-tiered prevention model used to identify children with SLD earlier and more accurately than methods adopted during the EHA era. RTI seeks to provide at-risk students, defined as students who are not meeting achievement requirements, with individualized support and interventions with the hope

that students will respond and less referrals will be made for special education programs (National Joint Committee on Learning Disabilities, 2005).

Educational researchers and theorists accredit the overrepresentation of ELLs in special education programs to the low number of qualified English Speakers of Other Languages (ESOL) teachers, as well as to the lack of linguistic and culturally responsive methods and curricula (Au, 2007; Gay, 2000; Cardenas-Hagan, Carlson, & Pollard-Durodola, 2007; Waxman, Tellez, & Walberg, 2004). If RTI is implemented effectively, each individual student's academic needs and cultural background will be considered. Therefore, RTI assists educators in implementing interventions that have been proven by research to be culturally and linguistically appropriate and effective for ELLs, while also giving at-risk ELLs the academic support they need (Brown & Doolittle, 2008, Linan-Thompson, Cirino, & Vaughn, 2007; Rinaldi & Samson, 2008). Because of the individualized interventions being implemented through the RTI process, ELLs stand a chance of benefiting academically, which, in turn, could aid in decreasing the number of ELLs in special education programs.

A linguistically responsive method that has been adopted by a small number of schools in the nation is bilingual education. While 83% of all schools in the United States have adopted ESOL programs, only 14% of those programs use a student's native language to deliver academic instruction (National Center of Educational Statistics, 2004). Research has shown that ELLs benefit enormously and show tremendous overall academic gains when they are exposed to bilingual programs that gradually build English competence with the goal of dual language proficiency (Brown, 2007; Lenters, 2004). However, most of the United States is disregarding this data and immersing ELLs in

English speaking classrooms where they are asked to learn content that is delivered in English without having any knowledge and understanding of the language. It is then expected for ELLs to learn to read, write, and speak in English before giving them a state mandated standardized test that will evaluate their academic achievement at the end of the school year. The National Center of Educational Statistics (2010), reported that the average scale reading score of ELLs in eighth grade was 188 while non-ELLs in eighth grade averaged a 223 scale reading score. The immersion method that is widely being used may be one of the major factors contributing to the large number of ELLs who are struggling with reading achievement, as well as the overrepresentation of ELLs in special education programs. Since the immersion method continues to be practiced in a majority of schools across the nation, educators should seek to examine other linguistically responsive methods to assist ELLs.

This study measured the reading achievement of ELLs in tier-two of the RTI process who were at-risk for reading failure. At the beginning of the 2010-2011 school year, standard and school-wide RTI screening took place using the STAR Reading assessment. In 2010, the STAR Reading assessment was recognized by the National Center on Response to Intervention for being a highly rated resource that assists in RTI screening, progress monitoring, and producing diagnostic reports. After initial RTI screening, students in need of tier-one RTI reading interventions were identified. At this point, teachers followed standard RTI procedures and implemented tier-one interventions while also keeping data that showed students' progress for a period of six weeks. At the conclusion of the six weeks, teachers followed standard school-wide RTI procedures and reviewed tier-one students' progress and re-administer the STAR Reading assessment.

Teachers then scheduled a progress monitoring meeting with the school's progress monitoring team. The participating school's progress monitoring team consisted of the counselors, reading specialist, and administrators. At the meeting, each student's progress and implemented tier-one interventions was discussed between the student's homeroom teacher and the progress monitoring team.

The participating students had been unresponsive to tier-one reading interventions and had failed to show gains on the STAR Reading assessment, therefore, their teachers and the school's progress monitoring team decided to move them into tier-two of the RTI process. In tier-two, the reading specialist intensified the delivery of the intervention and implemented a different research-based intervention that had been found to incorporate appropriate methods when working with ELLs. Thus, the implementation of the SSRW phonics curriculum that uses explicit and systematic methods found to be linguistically responsive was used as a tier-two reading intervention. The SSRW phonics curriculum also uses music to teach literacy skills. The implementation of music into a curriculum has also been found to be linguistically and culturally responsive. At the conclusion of the study, educators have a better understanding of the effects of a linguistic and culturally responsive reading intervention on the reading achievement of ELLs in tier-two of the RTI process. The use of these methods will aim to diminish the overrepresentation of ELLs in special education programs.

### **Problem Statement**

The demographics of the United States has been changing for decades. Many immigrant children are entering schools across the nation with little to no prior knowledge of the English language. Most of these students are immersed into English

speaking classrooms and are judged on their academic performance. As a result, a large achievement gap exists between a growing number of ELLs and their mainstream counterparts. Because of their low achievement, ELLs continue to struggle and are overrepresented in special education programs.

### **Purpose Statement**

The purpose of this study is to investigate the implementation of an explicit and systematic phonics intervention that incorporates music designed to meet the cultural and linguistic needs of third and fifth grade ELLs in tier-two of the RTI process, and the resulting effect on their reading achievement and placement in special education programs.

### **Significance of the Study**

The findings of this study can assist educators in uncovering an effective RTI intervention to implement in order to best support ELLs struggling with reading achievement. Universities preparing in-service teachers to become effective educators can use the findings of this study to determine course content and ensure that in-service teachers are prepared to meet the cultural and linguistic needs of diverse populations in the nation's school systems. Additionally, educational leaders can incorporate these findings into professional development opportunities for educators that will ensure each student receives effective and appropriate educational opportunities.

### **Research Questions**

The purpose of this study was to identify an effective tier-two RTI reading intervention for the growing number of ELLs entering the nation's public school systems. An investigation into the effect the intervention has on students' reading achievement

during the 2010-2011 school year was the study's main focus. Also examined were teachers' perceptions of the linguistic and culturally responsive intervention.

The following research questions were explored:

### **Research Question 1**

Is there a relationship between the SSRW phonics curriculum that uses explicit, systemic methods and music to teach literacy skills when implemented as a cultural and linguistically responsive RTI intervention and the achievement of third and fifth grade ELLs on the reading portion of the Criterion Referenced Competency Test (CRCT) and STAR Reading assessment?

### **Research Question 2**

What are third and fifth grade teachers' perceptions of the cultural and linguistically responsive tier-two reading RTI intervention that included music?

### **Null Hypotheses**

**H<sub>01</sub>**. There will be no significant, positive affect on third and fifth grade ELLs exposed to the SSRW phonics curriculum that uses explicit, systematic methods and music to teach literacy skills to meet the cultural and linguistic needs of ELLs during the 2010-2011 school year and their achievement on the reading portion of the CRCT and STAR Reading assessment.

### **Identification of Variables**

The researcher used a quantitative quasi-experimental comparison design to determine the effect an explicit and systematic phonics curriculum that incorporates music to teach literacy skills had on the reading achievement of ELLs in tier-two of the RTI process. The independent variable was the SSRW phonics program. The SSRW

curriculum was implemented as a tier-two reading intervention. The SSRW curriculum uses explicit and systematic methods, as well as music, to teach alphabetic principle, phonemic awareness, and phonics skills needed to assist in literacy development. This intervention was chosen because research-based studies have concluded beneficial results for students that have been exposed to this type of curriculum (Brown, 2007; Lenters, 2004; National Reading Panel, 2000; Santoro, Jitendra, Starosta, & Sacks, 2006). Studies also examined teachers' perceptions of phonics curriculums that are taught explicitly and systematically and found that a majority of teachers preferred this method of instruction and believed it to be the most beneficial for their students (Mesmer & Griffith, 2006). However, since RTI is a newly adopted method, little research has been conducted regarding effective RTI interventions to implement with ELLs that can in turn reduce special education referrals and placement.

One dependent variable for this study was the reading achievement of ELLs in tier-two of the RTI process when they were exposed to the SSRW curriculum as a research-based intervention that uses explicit and systematic methods and incorporates music designed to meet their cultural and linguistic needs. In order to examine this dependent variable, the researcher gathered archived reading scores on the CRCT from 2010 and 2011, as well as STAR Reading assessment scores from the 2010-2011 school year. The CRCT is a stated mandated assessment used to measure the level at which a student has acquired the skills and concepts described in the Georgia Performance Standards. Also used to investigate student's reading achievement is the STAR Reading assessment. The STAR Reading assessment is a computer-based literacy assessment that measures overall student reading achievement by questioning students in the areas of

word knowledge and skills, analyzing literacy text, understanding author's craft, comprehension strategies and constructing meaning, analyzing arguments, and evaluating text (Renaissance Learning Inc., 2010).

The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. Teacher interviews were used to investigate teachers' perceptions. The researcher created a list of questions to guide interviews and gather data relating to teachers' perceptions of the implementation of the cultural and linguistically responsive intervention. Teachers were interviewed at the conclusion of the study. In addition to the interview questions, when teachers made comments relating directly to what was being studied, the researcher made statements or asked general questions to gather more detailed information.

## **CHAPTER TWO: LITERATURE REVIEW**

### **Introduction**

Throughout the history of education, there has been an ongoing debate on how to improve language arts and reading instruction in schools to ensure students literacy achievement. In 2001, the Elementary and Secondary Education Act, more commonly known as No Child Left Behind (NCLB) was reauthorized. NCLB states that all students will meet state standards in reading and math by 2014. While all educators are striving to accomplish the goal of NCLB, the rapidly increasing ELL population in schools across the nation is continuing to struggle in these content areas.

This study seeks to determine the effect that explicit and systematic phonics intervention, that incorporates music, implemented as a tier-two RTI intervention to meet the cultural and linguistic needs of ELLs had on their reading achievement. The findings of this study were intended to assist in reducing the number of ELLs eligible for special education services.

### **Conceptual or Theoretical Framework**

As special education developed in the United States, the overrepresentation of minorities began to concern advocates across the nation. It was not until the reauthorization of IDEA 2004 that Congress acknowledged a connection between the misidentification of minorities in special education programs and the dropout rate. IDEA 2004 strengthened efforts to reduce the number of minorities in special education programs, but ELLs were found not to be responding as quickly as intended (Bradley et al., 2007).

Around the same time, researchers joined together to complete a comprehensive assessment of methods that could increase the accuracy of SLD identification at an earlier stage of child development, in turn making them eligible to receive special education services. Their efforts gave rise to the RTI model (Bradley et al., 2007; Brown & Doolittle, 2008; Education Evolving, 2005; Kamps, Abbott, Greenwood, Arreaga-Mayer, Wills, Longstaff, Culpepper & Walton, 2007; Linan-Tompson et al., 2007; Rinaldi & Samson, 2008). The RTI model is fundamentally a variation of the scientific method. The scientific method was first published as being applied to educational problems in 1984 when IDEAL was developed as a model for solving educational problems (Education Evolving, 2005). Education Evolving (2005) “explains the acronym IDEAL represents: Identify the problem, Define the problem, Explore alternative solutions, Apply a solution, and Look at the effects of the application” (p. 7).

The RTI model of intervention is based on three tiers. In each tier, at-risk students are targeted and exposed to intense research-based interventions. If students fail to respond to the interventions implemented in all three tiers, they are referred for SLD evaluation. Based on the results of the evaluation, students who are eligible to receive special education services are placed into the special education program (Bradley et al., 2007; Brown & Doolittle, 2008; Education Evolving, 2005; Kamps et al., 2007; Linan-Tompson et al., 2007; Rinaldi & Samson, 2008).

As the number of ELLs in special education programs continued to climb, theorists and researchers began investigating why ELLs were not responding to RTI when compared to their counterparts in the RTI process. After analyzing studies, they found contradicting results in the use of RTI with ELLs. Four main factors were found to

contribute to ELLs non-success in the RTI process: (a) teachers who were working with ELLs were not qualified to do so, (b) decisions being made about placing ELLs into special education programs were not valid because teachers were not qualified to make these decisions (Brown & Doolittle, 2008; Klingner, Artiles & Barletta, 2006; Waxman, Tellez, & Walberg, 2004), (c) RTI interventions were not culturally responsive, and (d) RTI interventions were not linguistically responsive (Au, 2005; Gay, 2000; Cardenas-Hagan, Carlson & Pollard-Durodola, 2007; Klinger & Artiles, 2006; Klingner & Orosco, 2010). This study aimed to respond to the linguistic and cultural needs of ELLs while supporting them with the appropriate reading interventions needed to exit the RTI process based on reading achievement, therefore, diminishing the overrepresentation of ELLs in special education programs.

Several studies have been conducted that examined the effect that certain interventions had on ELLs' reading achievement. These studies show that ELLs benefit from reading interventions that consist of (a) the essential components of reading which include phonological awareness, phonics, fluency, vocabulary, and comprehension; (b) research based methods; and (c) the development of English language skills (Denton, Anthony, Parker, & Hasbrouck, 2004; Gunn, Biglan, Smolkowski, & Ary, 2000; Gunn, Smolkowski, Biglan, & Black, 2002; Vaughn, Mathes, Linan-Thompson & Francis, 2005).

Educators have also discovered that an explicit and systematic phonics curriculum is essential for enhancing the reading performance and addressing the linguistic needs of ELLs (Stewart, 2004; Santoro et al., 2006). Research has found that ELLs that come from backgrounds that utilize a similar alphabetic system to English, as well as

backgrounds with a completely different alphabetic system, benefit from a phonics curriculum that is taught explicitly and systematically (Lenters, 2004; Slavin & Cheuang, 2004).

The 1988 Education Reform Act stressed the importance of educators implementing the multiple intelligence (MI) theory into their classrooms. Howard Gardner published findings related to human intellect that convinced legislators that educators needed to differentiate instruction and develop lessons based on students' individual learning styles (Hopper & Hurry, 2000). One of the nine MIs published was the musical-rhythmical intelligence. Since initial implementation of the MIs into classroom curriculum, several studies have been published that discuss the many potential benefits associated with implementing the musical-rhythmic intelligence into the classroom (Brand, 2006; Brooks & Brooks, 2005; Humpal & Wolf, 2003; Ozdemir, Guneyesu & Tekkaya, 2006; Press, 2006; Smith, 2000; Snyder, 1997).

More specifically, researchers began to investigate how the musical-rhythmic intelligence affects literacy development. Their studies concluded that incorporating music into the classroom can promote literacy skills (Darrow, Cassidy, Flowers, Register, Sims, Standley, Menard, & Swedberg, 2009; Gromko, 2005; Lamb & Gregory, 1993; Register, Darrow, Standley, & Swedberg, 2007; Snyder, 1997). As classrooms across the nation became more diverse, researchers uncovered how the musical-rhythmic intelligence could assist in meeting the needs of ethnically diverse learners in their classrooms. They discovered that ELLs benefit linguistically and culturally from implementing music into a curriculum. To meet the linguistic needs of ELLs, educators can use music to teach literacy skills which aid in second language acquisition (Brown,

2006; Paquette & Rieg, 2008; Schoepp, 2001). Educators can also use music to meet the cultural needs of ELLs by exposing them to American classics and providing ELLs opportunities to teach their classmates their own cultural songs and dances (Paquette & Rieg, 2008).

Many theories and methods of instruction are being promoted about how to successfully meet the educational needs of diverse populations currently in the nation's schools. However, educators seem to agree that the core of a student's school success depends on his/her literacy achievement (Fisher & McDonald, 2001; Hansen & Bernstorf, 2002; Meisels & Xue, 2004; Mesmer & Griffith, 2006; Villaume & Brabham, 2003). How can educators ensure that ELLs achieve reading success? The implementation of an explicit and systematic phonics curriculum that incorporates music to meet the linguistic and cultural needs of ELLs as an RTI intervention may be the answer. Does research confirm these claims? A review of studies on these educational methods will aim to answer this question.

### **Review of the Literature**

The purpose of this review is to provide a comprehensive overview and synthesis of the research related to ELLs' reading achievement when they are exposed to RTI interventions that implement explicit, systematic strategies and music to teach literacy skills. The literature review will answer these specific questions:

1. How does the implementation of RTI affect special education placement?
2. How do ELLs respond to RTI?
3. What are some possible benefits to implementing a phonics curriculum that is taught explicitly and systematically when teaching reading to ELLs?

4. How do ELLs learn to read?
5. Why is it important to incorporate music in primary education?
6. How does music affect memory and retention of information?
7. What are some possible benefits to implementing MI instruction and specifically musical-rhythmic instruction into classrooms when working with ELLs?

The review of literature is organized as follows: Section one of the review will be an overview of special education. The sub-heading in this section will be the historical development of special education. Section two of the review will be an overview of the RTI process. This section will be structured under the sub-headings: (a) the RTI model, (b) the benefits of implementing RTI, and (c) the challenges of implementing RTI. Section three will be an overview of minorities in special education. This section will be structured under the sub-headings (a) the overrepresentation of minorities in special education, (b) ELLs in special education, and (c) ELLs in the RTI process. Section four of the review will be an overview of what leads educators to consider teaching phonics using explicit and systematic methods. This section will be structured under the sub-headings: (a) historical development of explicit and systematic phonics instruction and (b) benefits of implementing explicit and systematic phonics curriculum into the classroom. Section five will discuss how ELLs learn to read. This section will be arranged under the following sub-headings: (a) reading instruction for ELLs and (b) how implementing phonics curriculum that is taught explicitly and systematically can benefit ELLs. Section six of the review will examine music in education. This section will be arranged under the following sub-headings: (a) importance of music in early primary education and (b) how music aids with memory and retention of information. Section

seven will discuss the inclusion of MIs in the classroom. This section will be divided under the following sub-headings: (a) developmental history of MIs, (b) importance of implementing MIs into the classroom, (c) benefits related to implementing musical-rhythmic instruction into the classroom, and (d) how implementing music into a curriculum can benefit ELLs. The literature review will conclude with a synopsis that summarizes the research findings related to ELLs in the RTI process and ELLs' reading achievement when they are exposed to a phonics curriculum that incorporates music and explicit, systematic methods of instruction.

### **Special Education**

**Historical development of special education.** Special education services date back to the early 1800's in France (Van Drenth, 2005). Theorists built beliefs on phrenology, the practice of evaluating the shape and size of a skull, to conclude a person's mental capabilities. As a result of this theory, educators responded by establishing a moral and educational approach to teach individuals with low mental capabilities. Early in the nineteenth century, phrenologists used their studies of the physical characteristics of the skull to develop categories within populations that defined the concept of an average individual (Van Drenth, 2005).

In 1847, Dorothea Dix, a phrenologist from the United States, began advocating for the rights of individuals classified as having low mental capabilities or a disability which hindered their capabilities. Dix believed that individuals with disabilities deserved better treatment. Dix declared that the government was bound by moral obligation to watch over, provide for, and protect certain classes of individuals including the blind, deaf, low cognitive functioning, and insane (Van Drenth, 2005).

Shortly after Dix began advocating, Edouard Seguin immigrated to the United States from France. Seguin was important to the development of special education because he believed that physical activities that were exciting and encouraged the company of others promoted brain stimulation for individuals with disabilities. Thus, these activities could advance learning and assist in educating individuals with disabilities. This belief shaped the foundation of what would later be called special education programs. Once this new educational movement became popular in the United States, psychologists began developing assessment tools to identify individuals that would respond to special education services (Van Drenth, 2005).

Many advocates for special education credit the Civil Rights Movement for leading to the first special education legislation called the Education for All Handicapped Children Act (EHA) of 1975 (Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, & Chung, 2008; Wamba, 2008). Following the Civil War, the Thirteenth, Fourteenth, and Fifteenth Amendments were added to the Constitution giving African-American men equal citizenship rights as Caucasian men. Subsequently, southern states passed state laws that evaded all three amendments. The Fourteenth Amendment prohibited state governments from denying any citizens of life, liberty, and property without due process and required that each state provide equal protection to all its citizens. Twenty-one southern states used the Fourteenth Amendment and developed Jim Crow Laws. Jim Crows Laws made it legal to institute separate public facilities for African-Americans and Caucasians, but these facilities were infrequently found to be equal (Zimmerman, 2005).

In 1896, *Plessy v. Ferguson* disputed the segregation of African-Americans from Caucasians in public places because of the inequalities that existed. Using the Fourteenth

Amendment to support their decision, the Supreme Court established to the policy of “separate but equal” which in turn initiated the fight for equality in all areas of Americans lives throughout the entire United States (Skiba et al., 2008; Zimmerman, 2005). In the twentieth century, *Brown v. Board of Education of Topeka, Kansas*, (1954) shed light on the inequalities in education. At the end of the trial, The Supreme Court ruled that separate facilities based on race were in actuality unequal (Skiba et al., 2008; Wamba, 2008; Zimmerman, 2005). Throughout the twentieth century, special education advocates continued to cite *Brown v. Board of Education of Topeka, Kansas*, (1954) when taking legal action. In the twenty-first century, it is possible to look back and attribute *Brown v. Board of Education of Topeka, Kansas*, (1954) to legislative action taken that provided students with disabilities equal access to education (Skiba et al., 2008, Wamba, 2008).

Prior to EHA, state institutions housed individuals with significant disabilities. In 1967, almost 200,000 individuals with disabilities were in institutions that had students in restrictive environments with minimal food, clothing, and shelter. These institutions were simply holding tanks and were not meant to assess, educate, or rehabilitate individuals (Office of Special Education Programs, 2007). In the 1950’s and 1960’s, states began to feel pressure from the Federal government to begin implementing programs and services of intervention within the special education program that had developed. Examples include the (a) Training of Professional Personnel Act of 1959, which trained leaders in educate mentally retarded children; (b) Teachers of the Deaf Act of 1961, which provided instructional training of teachers that work with students who are deaf or hard of hearing; (c) Elementary and Secondary Education Act of 1965, which

provided states the opportunity to receive grant money to assist in educating students with disabilities; (d) Handicapped Children's Early Education Assistance Act of 1968, which approved early childhood programs for children from ages zero to five years old that have disabilities; and (e) Economic Opportunities Amendments of 1972, which established procedures to ensure that no less than 10% of the national enrollment of the Headstart programs would be made available to children with disabilities between the ages of zero to five years old (Office of Special Education Programs, 2007). Headstart is an early intervention program established by President Lyndon B. Johnson. The purpose of the program is to provide children in poverty the opportunity to enhance their social and cognitive development before starting school (Gallagher, 2000).

*Pennsylvania Association of Retarded Citizens v. Commonwealth* (1971) and *Mills v. Board of Education of the District of Columbia*, (1972) disapproved the rationale given by school districts for excluding students with handicapping conditions (Wamba, 2008). Around the same time, Congress discovered that more than half of the SLD children in the United States were not receiving appropriate educational services and that the public school systems were entirely excluding one million SLD children (Turnbull, Turnbull, Shank, Smith, & Leal, 2002). In response, Congress enacted the first special education legislation in 1975 (Turnbull et al., 2002; Wamba, 2008). EHA had six purposes: (a) to guarantee that all children with disabilities have available to them a free appropriate public education which emphasizes special education and related services designed to meet their needs; (b) the implementation of individualized education programs which enables all educators serving a student with disabilities to develop an educational program that will aid to assist the student in gaining progress in mandated

curriculum; (c) to protect the rights of children with disabilities and their parents; (d) the establishment of the least restrictive environment, which ensures schools will educate students with disabilities in the same setting of their nondisabled peers as long as it is appropriate; (e) to assist states and local governments in providing an appropriate education for children with disabilities; and (f) to assess the effectiveness of efforts to educate all children with disabilities (Office of Special Education Programs, 2007; Wamba, 2008).

Between 1975 and 1997, several amendments were made to EHA to ensure that children with disabilities were receiving equal education opportunities. These amendments aimed to service children zero to five years old. For this reason, early intervention programs were implemented and individualized family service plans were adopted. Then, in 1990, several components were added that strengthened special education services, the most notable change being the implementation of transition services for students by age 16 to aid in their transition to society. The adoption of people first language was also employed during this time. People first language aimed to eliminate the dehumanization of people with disabilities. Because of this, EHA was renamed the Individuals with Disabilities Education Act (IDEA) (Office of Special Education Programs, 2007; Wamba, 2008). In 1997, IDEA was reauthorized to strengthen services of children with disabilities. The reauthorization required that schools fund and provide assistive technology in all settings that will assist students with disabilities in accessing mandated curriculum (Wamba, 2008).

During the reauthorization of IDEA, the National Joint Committee on Learning Disabilities contacted the OSEP to express their concern that children were not being

identified early enough nor accurately as having SLD. SLD identification is imperative to establishing the most appropriate special education program for students with disabilities (SWD). This news was not taken lightly and, in turn, spring-boarded a collaborative effort to bring educational stakeholders together to improve the process of SLD identification. In 2001, OSEP funded research conducted by the NRCLD to investigate methods to improve the process of SLD identification (Bradley et al., 2007).

The NRCLD's body of work was taken into consideration when developing amendments to the 2004 reauthorization of IDEA. The 2004 reauthorization of IDEA removed the requirement of using an aptitude assessment for SLD identification, and now permits the use of the RTI model to identify SLDs (Bradley et al., 2007; Wamba, 2008).

### **Response to Intervention**

**The RTI model.** The RTI model was developed from research conducted by the NRCLD during the 2004 reauthorized of IDEA. RTI is a three-tiered prevention model used to identify children with SLD earlier and more accurately. The first tier of intervention takes place in the general education classroom. Students are identified as being at-risk by a universal screening assessment. When at-risk students are identified, classroom teachers provide students with research-based and effective interventions. Classroom teachers monitor each individual student's progress and identify students who are not responding to interventions. Students not responding to interventions are then referred to tier-two while students responding to tier-one interventions exit RTI (Bradley et al., 2007; Brown & Doolittle, 2008; Kamps et al., 2007; Linan-Tompson et al., 2007; Rinaldi & Samson, 2008).

Once a student moves into tier-two of the RTI process, he or she receives more

intense interventions from a highly qualified teacher in the area of the deficiency. For reading, this would be the Title I reading coach or reading specialist. The intensity of the interventions is increased by reducing intervention group size and increasing the duration and frequency of the interventions. Throughout tier-two, the interventions implemented are research-based. Each student's progress is continually monitored over a period of eight to twelve weeks. If a student fails to respond to research-based interventions that are more intense and individualized, they move into tier-three. If a student makes gains in tier-two, he or she is put back into tier-one and monitored (Bradley et al., 2007; Brown & Doolittle, 2008; Kamps et al., 2007; Linan-Tompson et al., 2007; Rinaldi & Samson, 2008).

Tier-three interventions are even more intense. Intensity is increased by providing one-on-one instruction and by again increasing duration and frequency of the interventions. In tier-three, more individualized research based interventions are implemented. If a student fails to respond to interventions by the end of tier-three, they are referred for SLD evaluation. Based on the results of the evaluation, students become eligible to receive special education services (Bradley et al., 2007; Brown & Doolittle, 2008; Kamps et al., 2007; Linan-Tompson et al., 2007; Rinaldi & Samson, 2008).

**The benefits of implementing RTI.** One of the main reasons educational stakeholders welcomed the RTI model was because teachers no longer would have to wait for their struggling students to fail before they could receive services. RTI's use of a universal screening assessment establishes at-risk students long before they fail. Individualized research-based interventions are then implemented with at-risk students at an earlier point in their schooling. RTI in turn advances the determination of a SLD and

the need for special education services (Bradley et al., 2007; Dunn, 2010; National Joint Committee on Learning Disabilities, 2005).

The RTI model of intervention can also lead to a reduction in the number of students referred to the special education program. RTI is designed to provide interventions for at-risk students and students that might have a SLD. RTI's multi-tiered approach provides at-risk students who have a deficiency due to possible external factors not related to a SLD, the individualized support they need to progress and close their achievement gaps. These students should respond to the implemented interventions and avoid being referred for special education services (National Joint Committee on Learning Disabilities, 2005).

Progress monitoring is a strong component of the RTI model. Throughout the process, student progress is monitored using research-based assessments. These assessments aid in documenting what has worked and has not worked for a student. If a student enters the special education program, special education teachers will already have a plethora of information available on a student which will assist them in creating a student's individualized education program (National Joint Committee on Learning Disabilities, 2005).

The implementation of research-based differentiated interventions is another extremely positive benefit related to the RTI model. Educators know that students in their classroom learn in different ways. Educators must strive to differentiate instruction and continually monitor student progress to make sure they are meeting the individual needs of every student in their classroom. RTI can assist educators in differentiating instruction because they are aligning state and local curriculums with research-based

interventions to meet individual students' instructional needs. Educators continue to monitor student progress and adjust interventions when necessary instead of following a predetermined curriculum guide that does not match students' individual needs (Skiba et al., 2008; Walker-Dalhouse, Risko, Esworthy, Grasley, Kaisler, McIlvain, & Stephan, 2009).

In 2003, Vaughn conducted a study that focused on 45 students in the primary grades that were struggling with reading. The study implemented a three-tiered RTI model. At the end of 30 weeks, the study found 76% of participating students made adequate gains and returned to tier-one. A similar study performed by O'Conner (2003) found that 15% of the at-risk students in a control group were identified as needing special education services versus 8% of students in schools that implemented the three-tiered RTI model.

**The challenges of implementing RTI.** The RTI model is new and regulations do not exactly define the RTI model or even support a specific version of the RTI model. States are only mandated to permit the use of the RTI model to provide at-risk students with research-based individualized interventions and to evaluate students for SLD (Bradley et al., 2007). Because of this, some confusion exists in how the RTI model should be implemented in schools, and more research is needed to find exactly what particular RTI model has been effective in schools.

Shinn (2007) compiled data from several studies and his findings highlighted some issues surrounding the confusion of how RTI should be implemented. Shinn's (2007) study concluded that schools gathered a great deal of data as part of the RTI process, but failed to use data to modify interventions and assist in SLD identification

and were finding it difficult to detect differences between students who could have a SLD and students who were low achievers.

The National Joint Committee on Learning Disabilities (2005) also reports concerns with systematic errors that may occur during the RTI process when identifying students with SLD. They found that underachievement criteria might exclude high-ability students with SLD from special education programs. These students learn to adapt and rely on their strengths. However, as years progress and curriculum difficulty increases, their academic achievement will decrease, and they would have not benefited from years of special education services.

Some of these challenges can be attributed to the lack of continued professional development which is hindering the successful implementation of the RTI model in schools. RTI is a whole-school approach to support students who are at-risk. However, this is not the current practice. Shinn (2007) found that teachers complained about school psychologists being trained on progress monitoring and research-based intervention while little training had been provided to them. In the RTI model, classroom teachers are the first to identify at-risk students, provide research-based individualized interventions, and begin progress monitoring. If this practice continues and teachers are not properly trained, how will it be ensured that students receive appropriate interventions and progress monitoring?

Classroom teachers need continued professional development to support them in monitoring students' progress and determining effectiveness of interventions. Imperative to the successful implementation of RTI is the need for open lines of communication and collaboration with everyone involved in the RTI process to assist teachers in decision

making about intervention modifications used to meet the individual needs of students (Walker-Dalhouse et al., 2009). Professional development should also include providing educators with strategies to assist in the basic everyday decisions related to the implementation of RTI. Educators need to understand how to structure components, monitor movement between tiers, find resources, designate time and space for interventions, and organize documentation (National Joint Committee on Learning Disabilities, 2005).

### **Minorities in Special Education**

**The overrepresentation of minorities in special education.** By the twentieth century, mental competency assessments were established that asserted European individuals were intellectually superior when compared to African-Americans. This belief and the overrepresentation of ethnic and language minorities in special education classrooms raised educational and civil rights concerns (Skiba et al., 2008; Zimmerman, 2005).

After the Supreme Court declared it was not right for African-American and Caucasian students to go to separate schools in *Brown v. the Board of Education of Topeka, Kansas*, (1954), states still managed to keep students segregated by grouping students by ability or creating separate special education classrooms. Citizens noticed what was taking place and began to draw attention to the overrepresentation of minorities in special education. Cases that addressed the role of standardized testing and unequal educational opportunities provided to minorities placed in segregated special education classrooms continued to be brought to the Supreme Court under Title VI of the Civil Right Act of 1964, the Rehabilitation Act of 1973, and the Education for All

Handicapped Children Act of 1975 (Skiba et al., 2008).

It was not until the 1980's that the United States Department of Education began advocating for the implementation of new inclusive methods for educating special education students. The inclusion model did away with separate classrooms and pull-out models that were having little positive effect on students receiving special education services. The reauthorization of IDEA 1997 encouraged inclusion and acknowledged that methods found to be effective with SWD can be highly effective for general education students as well (Sailor & Roger, 2005).

By early in the twenty-first century, inclusion methods had been implemented, but minorities were still an overwhelming percentage of the special education population. Then, in 2004, the reauthorization of IDEA called attention to this issue because a connection between misidentifying SWD and the minority dropout rate had been identified. IDEA 2004 aimed to put an end to the overrepresentation of minority students in special education programs by mandating that states monitor disproportionate representation. If a disproportionate representation of minorities receiving special education services is found, states are required to review local policies, practices, and procedures that could be contributing to the disproportionate findings. Another key component of IDEA 2004 was the addition of the local educational agencies to supervise the condition of instruction and services. If the local educational agency concludes that a significant disproportionate representation exists, the school system must devote a maximum amount of 15% of its funds to early intervention programs (Skiba et al., 2008).

**ELLs in special education.** Although IDEA 2004 has strengthened efforts to reduce the overrepresentation of minorities in special education programs, ELLs are a

minority population that is still struggling to meet state standards. The United States Department of Education reported that 357,300 ELLs were in special education programs in grades K-12 in the 2001-2002 school year (Zehler et al., 2003). During the same year, the National Research Council (2002) reported that from 1987 to 2001 the proportion of students in special education programs for whom English was not the primary language spoken in their homes had risen from 3.3% to 14.2%.

One of the major contributions to these numbers is lack of qualified teachers to teach ELLs. In 2002, 43% of teachers had one or more ELLs in their classroom (Zehler et al., 2003). Of those teachers, less than 20% were certified to teach ELLs (Waxman et al., 2004). Thus, in most cases, unqualified teachers made up a majority of the team members involved in making special education decisions for ELLs (Brown & Doolittle, 2008; Klingner et al., 2006; Waxman et al., 2004). Silva, Hook, and Sheppard (2005) conducted a study that investigated at-risk second grade students. Their observations concluded that teachers' lack of knowledge and implementation of appropriate and research-based best practices lead to ineffective environments and instruction that could lead to increased special education referrals for ELLs.

Linguistic differences pose another issue. There are about 4.4 million ELLs in United States public schools (Cadiero-Kaplan & Rodriguez, 2008). Of the total ELL population, about 77% of ELLs in the nation's schools speak Spanish as their first language (Klinger & Artiles, 2006). While research indicates it takes close to seven years for an ELL to fully acquire a second language, many schools across the country require ELLs to speak only English and immerse them in English only academic environments (Cadiero-Kaplan & Rodriguez, 2008). Several studies have been conducted to measure

the outcomes of ELLs exposed to immersion instruction versus bilingual instruction. At the conclusion of these studies, researchers found that first language support and proficiency was a predictor of overall academic achievement. The students exposed to the bilingual instruction performed better on end of the year assessments (Cardenas-Hagan et al., 2007; Rolstad, Mahoney, & Glass, 2005; Slavin & Cheuang, 2005). In California, where ELLs make up 1.6 million of the state's total population, only 7.6% of ELLs were enrolled in bilingual education programs in 2005 (Gold, 2006). While 83% of the nation's schools provide ESOL programs for students, only 14% of the schools in the nation provide instruction in a student's native language (National Center of Educational Statistics, 2004). Thus, the schools are not providing ELLs with the linguistic support they need to excel academically.

Merisuo-Storm (2007) examined ELLs' attitudes towards second language acquisition. The study found that first grade ELLs who had received bilingual instruction showed a significantly more positive attitude toward learning English than their peers that received monolingual instruction. By eliminating ELLs' native languages from schools, theorists believe educators are not utilizing the students' linguistic and cultural assets. Since educational systems are not allowing ELLs to make connections to prior cultural experiences through their native languages, ELLs are not being taught using culturally responsive instructional methods (Cadiero-Kaplan & Rodriguez, 2008)

Theorists also view parental involvement as an imperative part of providing culturally responsive opportunities for children (Au, 2007; Borba, 2009; Gay, 2000). However, in most schools with high populations of ELLs, parental involvement is low (Au, 2007; Gay, 2000). Borba (2009) suggests that immigrant families become divided

when immigrant children feel pressure from their peers to assimilate into the American culture. This, in turn, divides families and diminishes cultural experiences that can assist ELLs in their second language acquisition and academic achievement. Cummins (2003) found that educators' inclusion of immigrant families into a classroom curriculum expressed to the families and students that their language and culture are valued. The act of an educator reaching out and involving the families of ELLs provided a culturally responsive educational environment that leads to positive academic results. Theorists back these findings by suggesting that culturally responsive instruction and environments will enhance student motivation which will have a positive impact on their overall academic achievement (Au, 2007; Borba, 2009; Gay, 2000).

In a study conducted by Klingner and Orosco (2010), researchers examined the effect the RTI process had on the reading achievement of kindergarten through second grade Latino ELLs. The study found that students were unresponsive to interventions because educators were using generic interventions and materials. The educators had not taken into account students' cultural and linguistic needs, so students were not able to relate to the implemented interventions. This study supports the need for educators to implement curriculum that responds to students' cultural and linguistic needs.

**ELLs and RTI.** RTI has promising potential for ELLs. The three-tiered model assists teachers in choosing research-based interventions specifically for ELLs. When working with ELLs, educators using the RTI process need to take the students' area of need into account, as well as their cultural and linguistic needs. All research-based interventions implemented need to appropriately address all of these areas or ELLs in the RTI process stand the chance of not responding to the interventions and, in turn, being

misidentified with a SLD. If RTI is implemented successfully, the interventions should take into consideration students' cultural background and experiences. Students' linguistic proficiency should also be considered when choosing interventions (Brown & Doolittle, 2008; Linan-Thompson et al., 2007; Rinaldi & Samson, 2008).

Linan-Thompson, Cirino, and Vaughn (2007) investigated the implementation of RTI interventions on ELLs reading achievement in Texas. The experimental groups received intense, systematic RTI interventions daily for 50 minutes over a period of seven months. The interventions were in addition to students' reading instruction and were administered in small groups by a highly qualified teacher. At the conclusion of their study, results indicated that students exposed to the RTI interventions outperformed the control groups in several areas of reading. The results also revealed longitudinal positive effects in the area of reading.

In a study conducted by Kamps, Abbott, Greenwood, Arreaga-Mayer, Wills, Longstaff, Culpepper, and Walton (2007), researchers analyzed the impact that tier-two RTI interventions had on the reading achievement of at-risk primary students. Of the 318 participants, 170 were ELLs. The experimental groups received interventions that used direct instructional methods shown to be effective for ELLs. Results from the study concluded that ELLs achieved greater outcomes in the experimental groups than those that received research-based interventions. If the implementation of research-based and appropriate interventions for ELLs is carried out successfully, RTI has tremendous potential to close the achievement gap that exists in the United States between ELLs and their counterparts.

### **Phonics Instruction in Education**

### **Historical development of explicit and systematic phonics instruction.**

Phonics instruction is a bottoms-up approach to reading instruction for encoding speech sounds into written symbols (Mesmer & Griffith, 2006; Villaume & Brabham, 2003).

According to Smith (1965), phonics instruction was first introduced to reading instruction in the United States in the 1790's through the inclusion of phonetically organized word lists in Noah Webster's Blue Back Spellers (Webster, 1798). These word lists supplemented early reading methods in which children learned the names of letters, how to spell syllables, and memorized passages of text.

In the mid-1900's, reading instruction took a turn in another direction with the introduction of the word method. Today, this literacy approach is known as the whole language method. This method requires students to memorize entire words rather than analyze words according to their sounds (Mesmer & Griffith, 2006). Since the introduction of the word method, the field of education has been debating which approach is more effective in early reading instruction. From 1990 to 1997, 101 legislative bills encouraging or requiring the use of phonics instruction as a teaching method were introduced to state legislatures with 28 bills being enacted (Paterson, 2000). This provides evidence that legislators have come to believe in the academic achievement outcome that phonics instruction has produced rather than whole word instruction.

In 2000, The National Reading Panel Report (NRP) and The National Reading Council Report (NRC) stated that there was an urgent need to improve teacher knowledge of reading instruction in order to address that national priority of helping all children learn to read by the end of third grade (Al Otaiba, Kosanovich-Grek, Torgesen, Hassler, & Wahl, 2005). The NRP and NRC released a statement calling for the

implementation of five components in reading instruction. One of the five components was phonics instruction (Al Otaiba et al., 2005).

Then in 2001, the United States federal legislation enacted NCLB. This act aims to have all children reading at or above grade level by the end of third grade (Mesmer & Griffith, 2006). To help meet this goal, a part of the act known as the Reading First initiative was established to provide states and school districts with up to \$900 million per year of federal funds to implement specific reading instruction to students in kindergarten through third grade classrooms. The Reading First funds are designated to schools that have more than the state average of fourth graders reading below grade level and at least 50% of students receiving free and reduced lunch (Al Otaiba et al., 2005). A major component of the Reading First program is to provide explicit and systematic phonics instruction. Common elements of explicit and systematic approaches include: (a) a curriculum with a specified and sequential set of phonics elements, (b) an instruction that is direct, and (c) practices using phonics to read decodable words (Mesmer & Griffith, 2006).

In conclusion, the NCLB and Reading First program provide evidence that legislators support the implementation of a phonics curriculum that uses explicit and systematic methods as an effective approach for teaching beginning readers. An examination of the literature on the benefits of implementing explicit and systematic phonics curriculum into the classroom follows.

**Benefits of implementing explicit and systematic phonics curriculum into the classroom.** Why do experienced reading teachers implement a curriculum that teaches phonics explicitly and systematically? This is a question that Mesmer and Griffith (2006)

answered through a study they conducted in which they surveyed 382 primary teachers that taught grades K-3. The teachers were randomly selected members of the International Reading Association and had returned a survey that was initially sent out to 1,000 members. The study found that 95% of the participating teachers showed a preference for phonics instruction that was not incidental, leading Mesmer and Griffith (2006) to believe that most teachers favor an explicit and systematic approach to phonics instruction.

After further examination of their data, Mesmer and Griffith (2006) concluded that teachers favored explicit and systematic phonics instruction because the lessons require continuous student-teacher interactions, it allows students to be actively engaged at the individual level, and the skills taught require individual accountability and involvement.

### **How English Language Learners Learn to Read**

**Reading instruction for English language learners.** The implementation of the Sheltered Instruction Observation Protocol (SIOP) model has been found to improve academic instruction while also enhancing reading instruction for ELLs. The SIOP model features eight core components that include 30 features designed to deliver meaningful instruction through teaching techniques that have been proven to be effective when working with ELLs (Echevarria & Vogt, 2010; Short, Echevarria & Richards-Tutor, 2011). Research states that in order for ELLs to make academic progress they must be engaged 90-100% of the time during an academic lesson. Within the SIOP model there is one feature that focuses specifically on student engagement. Within this feature six literacy principles are embedded that enhance instruction while also fostering the

engagement necessary to improve achievement. The principles include (a) providing many opportunities for ELLs to develop oral language competency through interaction with other, (b) explicitly linking ELLs' background knowledge and experiences to lesson content and past learning, (c) providing explicit and contextualized vocabulary instruction, (d) insuring that each lesson taught to ELLs is meaningful, comprehensible, and accessible, (e) stimulating ELLs' thinking and providing meaningful activities for students to demonstrate their learning, (f) assessing ELLs frequently before, during, and after lessons, and planning purposefully based on the assessment data (Echevarria & Vogt, 2010). Studies have proven that the components of the SIOP model along with these embedded literacy principles have resulted in a positive effect on ELLs' language achievement across the domains of reading, writing, listening, and speaking (Echevarria & Vogt, 2010; Short, Echevarria & Richards-Tutor, 2011).

Other evidence from Brown (2007) and Lenters (2004) has shown that ELLs reading success first depends on their oral language vocabulary. Educators must strive to build ELLs vocabulary to the level of basic communication comprehension before attempting reading instruction. Vocabulary building must then continue beyond the point of basic communication. Lenters (2004) also discusses appropriate reading material and emphasizes that in order for text to be used for instructional purposes, a child must know 90% to 95% of the vocabulary and, in addition, it is helpful of ELLs to reread text.

Comprehension instruction is another important guideline that reading instruction must have in order to successfully benefit ELLs. Educators must provide meaning and translations along with text to enhance comprehension. Lastly, reading instruction for ELLs must have phonological awareness training through phonics instruction (Brown,

2007; Lenters, 2004). This guideline is discussed further in the following section, which examines benefits from implementing phonics in ELLs reading instruction.

**How implementing a phonics curriculum that is taught explicitly and systematically can benefit ELLs.** The purpose of reading instruction in schools is to help students' master written language. This involves recognizing words and understanding the words' individual meanings. Knowledge of phonemes is used to assist in decoding and recognizing words, thus, making it an essential part to early reading instruction. Many studies have been conducted examining the benefits of phonics instruction. Through these studies, researchers have found that phonics instruction helps assist students in decoding, sight reading, text comprehension, and spelling (Ehri, Nunes, Stahl, & Willows, 2001; Eldredge & Baird, 1996; Meisels & Xue, 2004).

Decoding is a necessary skill needed to become a successful reader. A reader decodes a word by using phonics knowledge and reading strategies to sound out words or by recognizing the word from sight. In order to sound out words, readers must be able to associate specific letters or letter combinations with a specific phonics sound.

Sight reading is the process of building a vocabulary of words that can be read from memory by sight (Ehri et al., 2001). In order to build their vocabulary, students must use their phonemic and decoding skills to initially identify words. The greater amount of words in a student's sight vocabulary leads to fluency, which in turn increases the comprehension of text (Meisels & Xue, 2004; Mesmer & Griffith, 2006).

Comprehension of written text is why students learn to read, and is necessary for reading and academic achievement. Research has found a connection between knowledge of phonemes and reading comprehension (Eldredge & Baird, 1996). Studies

have concluded that decoding and sight word recognition precedes the process of comprehension (Meisels & Xue, 2004; Mesmer & Griffith, 2006). However, knowledge of phonemes is an essential part in acquiring decoding skills and a sight word vocabulary, making phoneme knowledge a necessary skill for developing reading comprehension.

Studies have concluded that phonics instruction leads to higher spelling achievement (Brooks & Brooks, 2005; Meisels & Xue, 2004; Mesmer & Griffith, 2006). Students that are equipped with knowledge of phonemes are able to use invented spelling at an early age to assist them in writing activities. Invented spelling encourages students to phonically spell out words using their knowledge of letter-sound relationships. Completing writing activities has been proven to improve student attitude toward literacy and increase comprehension of text (Meisels & Xue, 2004).

Although findings have indicated that phonemic awareness contributed to higher reading achievement from students that come from both middle and upper class homes (Ehri et al., 2001), it has also been found that there are particular cultural groups that benefit more from phonics instruction that is taught explicitly and systematically. Research has shown that ELLs benefit more from this type of phonics instruction because even though their native language alphabetic principle may be different from the English alphabet, they are able to relate phonics instruction to their native language alphabetic principle (Lenters, 2004). Data from research also suggests that the repetition of material in an explicit and systematic phonics curriculum helps ELLs with retention of skills (Brown, 2007; Lenters, 2004).

In a study conducted by Lenters (2004), ELLs that were exposed to explicit and systematic phonics instruction outperformed their unexposed English counterparts. Data

collected from Santoro, Jitendra, Starosta, and Sacks (2006) concluded that ELLs exposed to explicit and systematic phonics instruction improved their overall reading achievement. This study found that ELLs exposed to explicit and systematic instruction increased word accuracy, word fluency, and reading comprehension scores while at the same time maintaining their performances.

In conclusion, explicit and systematic phonics instruction has been shown to be extremely beneficial to ELL students. Knowledge of phonics has been found to help these students develop decoding, sight word vocabulary, comprehension, and spelling skills. These are skills that are essential to helping students achieve reading success. With this information, educators should implement an explicit and systematic phonics curriculum to equip ELLs with the necessary skills to improve their reading and overall academic achievement.

## **Music in Education**

**Importance of music in primary education.** In 300 BC, Plato reported that he believed music was the most powerful educational aid (as cited in Van Der Linde, 1999). Children have a natural inclination to sing, and activities that involve music are an essential part to their developing into well-rounded adults. Exposure to music helps the development of children's mental capacity and intelligence by forming a basis for language development and building vocabulary (Towell, 2000; Van Der Linde, 1999).

Exposure and movement to music also assists children in developing self-confidence. Movement to music can help children improve coordination, aid in muscular development, and understand more about how their bodies move. These skills aid children in developing a self image (Van Der Linde, 1999).

Music is also an emotional outlet for children. Children can express their feelings through music and even use it to communicate (Van Der Linde, 1999). Music has also been found to soothe and assist children in releasing tension (Towell, 2000). Research on the use of Baroque music played in a classroom reported that, when the music played, children were better able to concentrate and relax (Botwinick, 1997). The main aim of listening to music and singing is for enjoyment (Towell, 2000). However, the implementation of music into the classroom can increase motivation simply because children love it.

**Music aids memory and retention of information.** Experiences and interactions are vital to children's brain development. When children are born, some neurons that control reflexes and basic learning are in place while there are many other neurons that become connected through experiences after birth (Trainor, Wu, & Tsang, 2004). If children have several experiences with any MI, neurons will form stronger connections between those areas of the brain involved in that type of intelligence and strengthen related types of knowledge. When children have inadequate amounts of experiences with a MI, neural connections may weaken or be lost between affected areas of the brain, thus limiting abilities in that type of intelligence and knowledge area (Snyder, 1997).

Brain development is influenced by children's environments and exposure to various stimuli. It is extremely important to expose children to music at an early age while neural connections are rapidly being made in areas of the brain involved in music processing and production. These areas of the brain are connected to areas involved in cognitive functions such as attention, memory, motivation, and learning (Humpal &

Wolf, 2003; Snyder, 1997). Snyder's (1997) report provides evidence that exposure to music at a young age will help in developing brain areas connected to music and, in turn, ensure strengthening of areas involved in higher level thinking and learning.

Music has also been found to assist students in the retention of information. Songs and chants have been used throughout history to aid students in retaining important information (Heywood, 2004). Yopp and Yopp (1996) reported that children learn concepts more successfully when the concept is put into a memorable song or chant. Linking concepts to songs and chants can also motivate students because they are able to relate their prior knowledge of familiar songs to the new information being presented (Towell, 2000). Implementing this music method into a classroom can trigger a positive emotional response from students which in turn will allow them to become engaged.

### **Multiple Intelligences**

**Historical development.** In 1979, Howard Gardner and a research team from Harvard University took on the task of defining human intellect. In an effort to do this, they examined human intelligence across various disciplines and cultures. Their studies resulted in the identification of eight ways a normal functioning human being can know and communicate about the world (Snyder, 1997). Gardner (1993) published his findings, naming the eight MIs as musical-rhythmical, visual-spatial, bodily-kinesthetic, verbal-linguistic, logical-mathematical, interpersonal, intrapersonal, and naturalistic. Since then, a ninth MI, existential intelligence, has been added.

Although Gardner did not originally develop the MI theory with education in mind, the 1988 Education Reform Act persuaded educators to give Gardner's theory a try. The act called for curriculum differentiation that would meet students' individual

needs through instruction developed to teach varied learning styles (Hopper & Hurry, 2000). In 1997, Gardner stated in an interview with Mindshift Connections:

The MI theory is useful to education because it allows educators to develop educational programs that will enable students to connect their personal interest with educational concepts and will assist educators in helping more of their students reach understanding of important concepts across educational disciplines (as cited in Hopper & Hurry, 2000, p. 1).

Today, the MI theory has been adopted for use in schools on six continents, from pre-kindergarten through college and for diverse student populations (Kornhaber, 2004). An examination of the literature on the benefits of implementing the MI theory into classrooms and schools follows.

**Benefits to implementing the multiple intelligence theory.** Why do educators feel comfortable adopting the MI theory? This is a question that Kornhaber and Krechevsky (1995) answered through a study in which they interviewed faculty members from nine diverse schools that implemented the MI theory. The study found that educators felt the MI theory validated what they already knew about different learning styles, complimented their existing philosophies that students learn through activity, used some of the same methods educators already practiced, and provided educators with a framework for organizing their method and lessons (Kornhaber & Krechevsky, 1995). As the evidence stated above displays, educators found it easy to relate the MI theory to their current practices. Thus, educators felt comfortable implementing the theory into their classrooms.

Research also suggests that students benefit greatly from the implementation of MI methods. In a study conducted by Kornhaber (2004), teachers from 41 diverse schools that implemented the MI theory reported improvements in standardized test scores, student behavior, and inclusion of students with learning disabilities. Kornhaber (2004) examined these improvements one by one to link them with the implementation of the MI theory into the schools.

Kornhaber (2004) analyzed these schools' improvements on standardized tests. She reported teachers at these schools were striving to engage students through in-depth units that employed a variety of media, gave students the opportunities to achieve in different ways, and allowed students to express themselves. This sequentially motivated students to learn and achieve academically.

When evaluating improvements in student discipline, Kornhaber (2004) linked behavior to greater engagement among students whose intelligence strength was outside of verbal-linguistic and logical-mathematic, the most frequently used approaches in schools today. Implementing MIs into schools also creates a positive school culture in which different learners were appreciated. Since students are being engaged academically and socially, it leaves little time for students to get into trouble (Hopper & Hurry, 2000).

Research also reported improvements in inclusion experiences for students with learning disabilities. Kornhaber (2004) linked this improvement to students being able to choose and draw on their strengths while they were able to work cooperatively with peers to improve their weaknesses. This cooperative group work helped build respect and care between peers. The results of these studies (Kornhaber, 2004; Kornhaber & Krechevsky,

1995) found that schools and students can benefit greatly from the implementation of the MI theory by giving educators the opportunity to enhance students' academic achievement and overall school experience.

Brand (2006) implemented a children's literature-based program that integrates the MIs and uses a systematic approach to teach primary students literacy skills. The study was conducted in an inner-city kindergarten classroom. The population was comprised of 13 students from diverse and economically disadvantaged backgrounds. The researcher used the DIBELS assessment as a pretest and posttest to determine gains in reading achievement caused by the implementation of the program. After seven weeks, the students exposed to the MI-based literacy program made gains in all tested literacy areas.

**Benefits to implementing musical-rhythmic instruction.** Music has been shown to enhance learning and academic performance, making it vital to include musical-rhythmic instruction in classrooms (Humpel & Wolf, 2003; Ozdemir et al., 2006; Press, 2006; Smith, 2000; Snyder, 1997). Implementing musical-rhythmic instruction has also been linked to a variety of other benefits that help maintain a positive classroom environment. Brooks and Brooks (2005) declared that including musical-rhythmic instruction in a classroom could help build student self-esteem, which research has found to be the greatest predictor of success in school. Self-esteem increases when students are invited to sing, move, or play in a group (Snyder, 1997).

Another benefit to implementing musical-rhythmic activities into the classroom is the development of literacy. Music promotes basic literacy skills, including phonemic awareness, fluency, comprehension strategies, and listening (Darrow et al., 2009;

Gromko, 2005; Lamb & Gregory, 1993; Paquette & Rieg, 2008; Register et al., 2007; Snyder, 1997). Music helps develop phonemic awareness and fluency by promoting the practice of listening to different pitch, rhythm, duration, and timbre. These skills can help students distinguish phonemes and recognize similar sounds that make up words. Listening to music can also help students gain fluency in reading by aiding students in their awareness of the rhythmic structure of language (Darrow et al., 2009; Gromko, 2005; Lamb & Gregory, 1993; Paquette & Rieg, 2008; Register et al., 2007).

Comprehension strategies can also be taught through the inclusion of musical-rhythmic activities by having students reflect on the meaning of nonverbal music. These types of reflections evoke deep thought and analysis in students which will promote critical thinking (Snyder, 1997).

**Benefits to implementing musical-rhythmic instruction with ELLs.** Music is universal. It is found in every culture. Therefore, ELLs instantly have a connection to their peers, through music, when it is part of the classroom curriculum. Music has also been linked to promoting linguistic and cultural needs of ELLs. Endless usage rules and various forms of figurative language make English very complicated to learn. Educators can incorporate music into language lessons that address grammar, fluency, vocabulary, and writing. The repetitive nature of children's songs and rhymes are beneficial to ELLs because they hear words and phrases repeated (Brown, 2006; Paquette & Rieg, 2008; Schoepp, 2001). These opportunities provide the repetition and reinforcement needed for ELLs so that they will become more confident with literacy skills and more inclined to apply what they have learned toward their second language acquisition (Paquette & Rieg, 2008).

The implementation of music into a curriculum can be culturally responsive for ELLs. Educators can build ELLs cultural awareness by exposing them to the classic nursery rhymes. These rhymes can provide language skill support while also exposing ELLs to the culture of the United States (Brown, 2006). ELLs can also assist in providing their non-ELL classmates with the opportunity for a multicultural education, by sharing music and dances from their native culture and teaching peers about their experiences and lives (Paquette & Rieg, 2008).

### **Summary**

The purpose of this review was to provide a comprehensive overview and synthesis of the research related to ELLs' reading achievement when they were exposed to a phonics curriculum that incorporates music and uses explicit and systematic methods. Special education has gone through numerous changes throughout history. Today's legislation has implemented regulations that strengthen efforts to decrease the overrepresentation for minorities in SPED programs including ELLs. The RTI model being implemented in schools across the nation as a result of changing legislation seeks to (a) accurately identify students with SLD, (b) identify students with SLD earlier, and (c) implement research based interventions that are culturally and linguistically responsive.

Explicit and systematic phonics instruction is a method used to teach reading. Explicit and systematic phonics instruction is a bottom-up approach to reading instruction that teaches students to connect sounds with letters or groups of letters that form words. Phonics was first introduced to reading instruction in the United States in the 1790's and,

because of its success, is currently being implemented in classrooms throughout the United States.

Academic achievements exhibited by ELLs who have developed phonological awareness include learning decoding, sight word vocabulary, comprehension, and spelling skills. These skills have assisted students in achieving greater (a) reading, (b) spelling, and (c) overall academic success.

Benefits attributed to implementing the MI theory into classrooms are: (a) improved standardized testing scores, (b) improved student behavior, and (c) better inclusion experiences for students with learning disabilities. Benefits linked to the specific inclusion of the musical-rhythmic intelligence are: (a) greater self-esteem, and (b) development of literacy skills. ELLs specifically benefit from the implementation of music into the curriculum because it supports linguistic skills and cultural knowledge.

Reasons supporting the importance of incorporating music into primary education include: (a) increased brain development, (b) increased self-confidence, (c) the opportunity to release emotion, and (d) increased motivation. Music has been found to aid human memory. Music also aids in the retention of information. Students have found success in linking information to familiar songs and chants to learn and retain new concepts. This strategy has also been linked to increased motivation in students because they are able to relate their prior knowledge of memorable melodies to new information being presented.

## **CHAPER THREE: METHODOLOGY**

### **Introduction**

The purpose of this study was to investigate the effect that an explicit and systematic phonics intervention that incorporates music implemented as a tier-two RTI intervention to meet the cultural and linguistic needs of ELLs had on student reading achievement. The sample consisted of third and fifth grade ELLs in tier-two of the RTI process in reading. The study took place at an urban elementary school in Northeast Atlanta, Georgia. The target school was located in a neighborhood that was comprised of families from diverse backgrounds. Of the 844 students attending the school, 76% were ELLs.

This study was completed using a sequential explanatory mixed methods design. This design uses both quantitative and qualitative approaches in tandem to assist the researcher in gaining a better understanding of the research problem. The motivation the researcher had for mixing both kinds of data within one study is based on the reality that neither quantitative nor qualitative methods implemented on their own was adequate enough to capture all aspects of the data being examined. By mixing the quantitative and qualitative methods, the researcher anticipated that the methods would complement each other and strengthen the study further than if just one approach was used (Creswell, 2009; Ivankova, Creswell, & Stick, 2006).

The quantitative component of the study used quasi-experimental comparison design to determine the effect that an explicit and systematic phonics curriculum that incorporates music to meet the cultural and linguistic needs of ELLs had on their reading

achievement in tier-two of the RTI process. To accomplish this, the researcher gathered archived pretest data that was collected before the implementation of the intervention. During the 2010-2011 school year, the researcher administered the SSRW reading intervention daily for a period of eight months. At the conclusion of the study, students' posttest data was collected using the reading portion of the CRCT and the STAR Reading assessment. This archived data was compared using a dependent sample t-test to determine if a statistically significant gain was made in participating students' reading achievement as a result of the intervention.

The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. To analyze data gathered on teachers' perceptions, the researcher reviewed interviews and completed in case analysis. The researcher wrote a detailed description of each case and described themes that emerged within each case. This process allowed the researcher to analyze different perceptions of the implementation. Once this was complete, the researcher performed a cross case analysis. This provided thematic analysis across all cases. This process allowed the researcher to interpret and report themes found pertaining to perceptions of the implementation of the SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented.

### **Research Design**

This study used a mixed methods design. A mixed methods study is a procedure for collecting, analyzing, and integrating both qualitative and quantitative data at some stage of the research process within a single study (Ivankova et al., 2006). This approach

is appropriate when the researcher uses both quantitative and qualitative approaches in tandem to gain a better understanding of the research problem. A researcher's motivation for mixing both kinds of data within one study is based on the reality that neither quantitative nor qualitative methods implemented on their own are adequate enough to capture all aspects of the study being examined. When used together, quantitative and qualitative methods complement each other and strengthen the study further than if just one approach was used (Creswell, 2009; Ivankova et al., 2006). The timing of this mixed methods study was quantitative data collection and analysis first, followed by the qualitative portion of the study. The weighting gave priority to the quantitative data and secondary importance to the qualitative data. The mixing of the data occurred in the data analysis and interpretation stages. The data from the quantitative and qualitative parts of the study were integrated during the data analysis portion of the study (Creswell, 2009).

The sequential explanatory mixed methods design was used for this study. This type of design involves quantitative data collection and analysis for the first phase of the study followed by qualitative research for the second phase of the study (Creswell, 2009). The quantitative component of the study used a quasi-experimental comparison design to determine the effect that an explicit and systematic phonics curriculum that incorporates music to meet the cultural and linguistic needs of ELLs had on their reading achievement in tier-two of the RTI process.

During the 2010-2011 school year, the researcher administered the SSRW intervention daily for a period of eight months. The SSRW curriculum used explicit and systematic methods, as well as music, to teach alphabetic principle, phonemic awareness, and phonics skills needed to assist in literacy development. When investigating the most

effective methods for assisting ELLs in their reading achievement, studies indicate that ELLs outperformed their academic counterparts when exposed to a phonics curriculum that used explicit and systematic instruction (Brown, 2007; Lenters, 2004; Santoro et al., 2006; Stewart, 2004). Explicit and systematic reading instruction has been found to be responsive to the cultural and linguistic needs of ELLs because they are able to link their native language alphabetic principles with English alphabetic principles (Lenters, 2004; Slavin & Cheung, 2004).

SSRW's musical component also played an important role in the researcher's decision to use the phonics curriculum. The implementation of music in order to teach literacy skills has been found to be beneficial for ELLs because they hear words and phrases repeated (Brown, 2006; Paquette & Rieg, 2008; Schoepp, 2001). Music provides repetition and reinforcement so that ELLs become more confident with reading skills and become more prone to orally practice reading and speaking skills, thus assisting second language acquisition (Paquette & Rieg, 2008). The researcher took all these findings into consideration when choosing the independent variable of this study. The SSRW phonics curriculum aimed to meet the cultural and linguistic needs of ELLs so that they had a greater chance at responding to the tier-two reading intervention that in turn sought to reduce the number of ELLs entering special education programs.

The SSRW phonics curriculum is published by Pearson Education Inc. With the purchase of the program, Pearson also includes a three hour training video. Before the implementation of the SSRW phonic program, the researcher viewed the three-hour training video. The researcher also had access to a toll free number that could have been used for assistance throughout the year.

At the conclusion of the study, participating students' archived 2010 and 2011 reading CRCT, as well as STAR Reading assessment scores, were used as pretest and posttest data to measure the reading achievement of ELLs in tier-two of the RTI process when they were exposed to the SSRW curriculum that is linguistically and culturally responsive as a research-based reading intervention. This archived data was analyzed using a dependent sample t-test to determine if a statistically significant gain was made in participating students' reading achievement as a result of the intervention. The quantitative component is appropriate to provide a general understanding of the research problem, test assumptions, generalize the results, and replicate the findings (Creswell, 2009; Ivankova et al., 2006).

The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW intervention. To analyze data gathered on teachers' perceptions, the researcher reviewed interviews and completed in case analysis. The researcher wrote detailed descriptions of each case and described themes that emerged within each case. This process allowed the researcher to analyze different perceptions of the implementation. Once this is complete, the researcher performed a cross case analysis. This provided thematic analysis across all cases. This process allowed the researcher to interpret and report themes found pertaining to perceptions of the implementation of the SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented. The function of the qualitative data was to support the analysis of the quantitative analysis and findings. The qualitative portion of the study allowed the researcher to refine and explain qualitative statistical

results by exploring participants' perceptions in more depth (Creswell, 2009; Ivankova et al., 2006).

This study seeks to investigate the following research questions:

**Research Question 1:** Is there a relationship between the SSRW phonics curriculum that uses explicit, systemic methods and music to teach literacy skills when implemented as a cultural and linguistically responsive RTI intervention and the achievement of third and fifth grade ELLs on the reading portion of the Criterion Referenced Competency Test (CRCT) and STAR Reading assessment?

H<sub>0</sub>1: There will be no significant, positive affect on third and fifth grade ELLs exposed to the SSRW phonics curriculum that uses explicit, systematic methods and music to teach literacy skills to meet the cultural and linguistic needs of ELLs during the 2010-2011 school year and their achievement on the reading portion of the CRCT and STAR Reading assessment.

**Research Question 2:** What are third and fifth grade teachers' perceptions of the cultural and linguistically responsive tier two reading RTI intervention that included music?

### **Participants**

At the beginning of the school year, school-wide RTI screening took place using the STAR Reading assessment. After initial RTI screening had identified students in need of tier-one RTI reading interventions, teachers implemented tier-one interventions. After six weeks of progress monitoring, students in tier-one were given another STAR Reading assessment to progress monitor and screen for RTI tier-two placement. The participating students had not been responsive to tier-one reading interventions and had

failed to show gains on the STAR Reading assessment, therefore, their teachers and the school's progress monitoring team decided to move them into tier-two of the RTI process. When students moved into tier-two, they were administered the SSRW phonics curriculum that incorporates music as a RTI intervention, but data for this study will only report the students who were also ELLs. Because of the large number of primary ELLs enrolled in the 2010-2011 school year, the participating population consists of 29 students.

### **Setting/Site**

The researcher chose a site located in a northeast Atlanta community comprised of families from diverse backgrounds. Demographic information provided to the researcher showed that many of the students in this community were coming from homes where English was not the native spoken language.

Before registering for kindergarten, students that come from these homes are tested using the WIDA ACCESS Placement Test (W-APT) at the school district's international school. The W-APT assesses students English language proficiency in the areas of speaking, listening, reading, and writing. The W-APT qualifies students for placement in the ESOL program and labels students that qualify for these services as ELLs. Of the 844 students at the target school, the population consisted of 87% Hispanic, 9% African-American, 2% Asian, 1% Caucasian, and 1% Multiracial. Of this population, 76% were ELLs and 94% came from economically disadvantaged backgrounds which qualify students for free and reduced lunch (Georgia Department of Education, 2012).

## **Instrumentation**

The reading CRCT and STAR Reading assessments were used to examine the effect that the implemented intervention had on students' reading achievement. The CRCT is a state mandated assessment used to measure the level at which a student has acquired the skills and concepts described in the Georgia Performance Standards (GPS). The test is administered to students in grades three through eight. Students are tested in the areas of reading, English, math, social studies, and science. Each section of the test includes 50 to 70 multiple choice questions that correspond to grade level GPS. The results of the CRCT are used to assess grade level academic achievement at the student, class, school, system, and state levels. Students' scores report grade level achievement at three performance levels: (a) does not meet expectations, (b) meets expectations, and (c) exceeds expectations (Georgia Department of Education, 2010).

To ensure content validity of the CRCT, each year a test development cycle is used to create the assessment. The test development cycle begins with the GPS curriculum. Committees of Georgia educators review the GPS and propose a draft of test items and test item specifications for the CRCT. From this point, content domain specifications and test item specifications are produced to give detail to the writing phase for the test development. A committee then uses the content domain specifications and test item specifications to make the CRCT content descriptions which lays out the organization of the test and how it will be scored. Lastly, an additional document called content weight is developed to show the distribution within each area of the test (Georgia Department of Education, 2010).

When the CRCT document is complete, items are field tested. A committee then analyzes the field test results against the test document to check for error or bias. The Georgia Department of Education also conducts external and internal studies against the GPS and similar CRCT measures as verification for validity (Georgia Department of Education, 2010).

Reliability has also been reported by the Georgia Department of Education using two measures. The Cronbach's alpha results are used to show that all scores are a good representation of a students' performance. The results of this test yield reliability scores from .858 to .932 in a range of 0 to 1. Furthermore, to strengthen reliability, the Conditional Standard Errors of Measurement Test is used to define a range of cut scores within which students are meeting or exceeding performance on the CRCT (Georgia Department of Education, 2010).

The Star Reading assessment is a computer-based literacy assessment that measures overall student reading achievement by questioning students in the areas of word knowledge and skills, analyzing literacy text, understanding author's craft, comprehension strategies and constructing meaning, analyzing arguments, and evaluating text (Renaissance Learning Inc., 2010). Since the Star Reading assessment uses adaptive technology to alter each student's assessment based on their responses to previous test items, the software produces a vast number of actual tests. In order to compare the results of all created tests and develop normed-reference scores, test results have to be converted to a common scale. Once the software converts test results to the common scale, a scaled score is reported. For this study, participating students' Star Reading

scaled scores were analyzed. A scaled score can range from 0-1400 and can be transferred into a grade equivalent (GE) ranging from zero to twelfth grade.

Reliability and validity of the Star Reading assessment are enhanced when test items are modified to closely match each student's achievement level (Renaissance Learning Inc., 2007). Internal validity is also strengthened because the assessment is computer-based. This eliminates experimenter bias, human error, and changes in observers or scores that might produce changes to results if a human administered the assessment. Renaissance Learning Inc. (2007) published findings that prove the STAR Reading assessment provides accurate, normed-referenced reading scores, and criterion-referenced measures of students' instructional reading levels. The test to retest reliability scores were reported in the .85 range while the correlations on other standardized reading assessments are around the .80 range (Renaissance Learning Inc., 2007).

The participating homeroom teachers' perceptions of the intervention were collected via interviews at the conclusion of the study. The researcher created interview questions that aided in gaining teachers' perceptions of tier-one interventions implemented versus the tier-two SSRW intervention. To strengthen the study's credibility of data related to teachers' perceptions, several steps were taken by the researcher. The researcher conducted a pilot study in which specialists in the field of reading were administered the teacher interview. At the conclusion of the pilot study, the researcher sought feedback from specialists that participated in the pilot study. With the help of these specialists, the researcher debriefed on the feedback provided from the pilot study. During this debriefing session, the researcher revised interview questions according to feedback provided from the specialists. The questions were used to help

keep the interviews focused, but discussion was not limited to only the answers for the questions provided. All interviews were audio-taped so that the information could be reviewed and transcribed accurately. In turn, this allowed for the researcher's descriptions to be more detailed and accurate. Before reporting the findings of this study, the participating teachers were given the opportunity to review all transcribed interviews.

### **Procedures**

Before conducting this study, the researcher gained permission from Liberty University's Institutional Review Board (IRB). The job of the IRB is to ensure that risks to participants are minimal and that participants' privacy is well protected. After the IRB had approved the study, the researcher went to the school district where the participating school was located. Once the school district approved the study, the researcher gained permission from the administration at the participating school. At this point, approval was given from all required sources and the study began.

For this study, archived data from the 2010-2011 school year was examined. At the beginning of the 2010-2011 school year, school-wide RTI screening took place using the Star Reading assessment. The initial STAR Reading assessment identified at-risk third and fifth grade students in need of tier-one RTI reading interventions. Teachers then administered chosen tier-one interventions and kept data that showed student progress. At the conclusion of six weeks, teachers reviewed tier-one students' progress and re-administered the STAR Reading assessment. The participating students had not been responsive to tier-one reading interventions and had failed to show gains on the STAR Reading assessment. Therefore, their teachers and the school's progress monitoring team decided to move them into tier-two of the RTI process, while students

responding to the intervention exited from RTI or remained in tier-one. When students were placed in tier-two of the RTI process for reading, the researcher began the implementation of the SSRW intervention.

The SSRW intervention was conducted daily for 30 minutes over a period of eight months. The program incorporated a variety of songs that taught letter names, letter sounds, short and long vowels, consonant blends, and vowel combinations. Each intervention session began with daily repetition of literacy songs in the area being studied to assist students in the mastery of phonic skills. Through explicit and systematic instruction, students were taught letter names and letter sounds in their sequence. Once students mastered letter names and sounds, the short vowel sounds were reintroduced as a group and consonant clusters were introduced as beginning sounds to be blended with short vowels. As students progressed into blending consonant-vowel-consonant words, decodable books were implemented to provide practice and build comprehension. The intervention took place in another classroom outside of students' homerooms in groups no larger than eight. The intervention was additional reading instruction for students in tier-two of the RTI process, and did not take the place of the homeroom teachers reading instruction.

At the conclusion of the intervention, posttest data was gathered using the reading CRCT and STAR Reading assessments. Once archived data from the 2010-2011 school year was gathered, the researcher performed a dependent sample t-test analysis to determine if statistically significant gains were made in students' reading achievement. Participating homeroom teachers were asked to complete a teacher interview. Once interviews were complete, the researcher listened to audio tapes of the teacher interviews

and made sure all comments were transcribed in their entirety. The researcher then analyzed data gathered through the interviews and developed themes associated with teachers' perceptions of the linguistic and cultural responsive reading intervention versus tier-one interventions previously implemented.

### **Data Analysis**

The purpose of this study was to investigate the effect that an explicit and systematic phonics intervention that incorporates music implemented as a tier-two RTI intervention to meet the cultural and linguistic needs of ELLs had on their reading achievement. This study was completed using a sequential explanatory mixed methods design. The researcher administered the chosen SSRW reading intervention during the 2010-2011 school year. To examine the effects of the SSRW reading intervention, the researcher used a quantitative quasi-experimental comparison design. The researcher gathered archived 2010 reading CRCT and initial 2010 STAR Reading assessment scores as pretest data administered before the independent variable was implemented by the researcher. Also gathered was archived 2011 reading CRCT scores and 2011 STAR Reading assessment scores as posttest data. From this data, mean scores were calculated and the researcher performed a dependent sample t-test analysis to determine if a statistically significant gain was made in students' reading achievement.

The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. To analyze data gathered on teachers' perceptions, the researcher reviewed transcribed interviews to complete in case analysis. The researcher wrote a detailed description of each case and described themes

that emerged within each case. This process allowed the researcher to analyze different perceptions related to the implementation of the SSRW phonics curriculum as a culturally and linguistically responsive tier-two RTI intervention versus previously implemented tier-one interventions. Once this was complete, the researcher performed a cross case analysis. This provided thematic analysis across all cases. This process allowed the researcher to interpret and report themes found pertaining to teachers' perceptions of the implementation of the SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented. The outlined methodology, accompanied by the document included in the appendix at the conclusion of the study, will aid in transferability and dependability. These documents, will give other researchers the ability to transfer the conclusions of this study to other similar cases while in-depth methodology descriptions will allow researchers the option of repeating as closely as possible the procedures of this study (Shenton, 2004).

## **CHAPTER FOUR: RESULTS**

The purpose of this study was to investigate the implementation of an explicit and systematic phonics intervention that incorporates music designed to meet the cultural and linguistic needs of third and fifth grade ELLs in tier-two of the RTI process, and the resulting effect on their reading achievement and placement in special education programs. An investigation into the effect the intervention has on students' reading achievement during the 2010-2011 school year was the study's main focus. The group studied consists of 29 third and fifth grade ESOL students from an urban elementary school in northeast Atlanta. Of the 29 students, 21 were in the third grade while 8 were in fifth grade. Any students that did not have two years worth of data were excluded from the study. Also examined were teachers' perceptions of the linguistic and culturally responsive intervention. Nine teachers were solicited to participate in teacher interviews, but only four teachers chose to participate. In this chapter, an analysis of the collected data will be presented.

### **Results**

The study was completed using a sequential explanatory mixed methods design. The design was chosen because the researcher was able to use both quantitative and qualitative approaches in tandem to better understand the research problem. The quantitative component of the study used a quasi-experimental comparison design to examine research question one. Research question one asked, what effect does the SSRW phonics curriculum that uses explicit, systemic methods and music to teach literacy skills when implemented as a cultural and linguistically responsive RTI

intervention has on the reading achievement of third and fifth grade ELLs? To examine the dependent variable, archived pretest data collected before the implementation of the intervention was gathered by the researcher. During the 2010-2011 school year, the researcher administered the SSRW reading intervention daily for a period of eight months in addition to participating students reading instruction. The researcher gathered archived pre and posttest data from the 2010-2011 reading CRCT and STAR Reading assessments, and used a dependent sample t-test to determine if a statistically significant gain was made in participating students' reading achievement as a result of the intervention. To determine significance, the alpha 0.05 level was applied. The data was computed using the Statistical Package for the Social Science (SPSS) computer software program.

Table 4.1

*3<sup>rd</sup> Grade Reading CRCT Results 2010-2011*

Student #	2010	2011
1	786	841
2	809	811
3	815	830
4	781	817
5	789	833
6	786	808
7	806	817
8	786	780
9	800	820
10	803	793
11	797	811
12	797	811
13	781	805
14	797	805
15	773	805
16	794	802
17	812	841
18	789	837
19	812	830
20	n/a	814
21	n/a	796

Table 4.2

*5<sup>th</sup> Grade Reading CRCT Results 2010-2011*

Student #	2010	2011
22	790	813
23	803	787
24	800	825
25	803	800
26	778	835
27	781	804
28	811	828
29	n/a	777

Table 4.3

*Means, Standard Deviations, and Dependent Sample t-tests (Reading CRCT)*

Group	n	M	SD	t	p<
Pretest	26	795.35	11.839		
				-5.435	.00001
Posttest	26	815.19	16.381		

Calculations show that the average reading CRCT scaled scores before and after the intervention was administered increased approximately 20 points. An analysis of the comparison of the mean using a dependent sample t-test at the alpha = 0.05 level showed that there was a significant difference ( $p < .00001$ ) in reading CRCT scores.

Table 4.4

*3rd Grade Star Reading Results 2010=2011*

Student #	Fall 2010 Scaled Score	GE	Spring 2011 Scaled Score	GE
1	194	1.8	236	2.2
2	115	1.5	286	2.5
3	163	1.7	268	2.4
4	91	1.3	153	1.6
5	86	1.1	182	1.8
6	108	1.4	250	2.3
7	196	1.8	279	2.5
8	183	1.3	169	1.7
9	181	1.8	248	2.3
10	n/a	n/a	114	1.5
11	215	2.1	192	1.8
12	72	0.9	136	1.5
13	77	0.9	82	1.0
14	78	0.9	170	1.7
15	63	0.5	83	1.1
16	180	1.7	156	1.6
17	n/a	n/a	280	2.5
18	n/a	n/a	313	2.6
19	144	1.6	172	2.0
20	88	1.2	261	2.3
21	49	0.1	90	1.3

Table 4.5

*5<sup>th</sup> Grade Star Reading Results 2010=2011*

Student #	Fall 2010 Scaled Score	GE	Spring 2011 Scaled Score	GE
22	74	0.9	209	2.0
23	322	2.7	407	3.5
24	374	3.3	444	3.8
25	378	3.3	331	2.7
26	293	2.5	284	2.5
27	353	3.0	244	2.2
28	187	1.8	273	2.4
29	86	1.1	117	1.5

Table 4.6

*Means, Standard Deviations, and Dependent Sample t-tests (STAR Reading)*

Group	n	M	SD	t	p<
Pretest	26	167.31	101.403		
				-4.103	.00038
Posttest	26	221.46	91.041		

Calculations show that the average STAR Reading scaled scores before and after the intervention was administered increased approximately 54 points. An analysis of the comparison of the mean using a dependent sample t-test at the alpha = 0.05 level showed that there was a significant difference ( $p < .00038$ ) in STAR Reading scores.

In addressing research question one, the study rejects the following null hypothesis: Implementing the SSRW phonics curriculum that uses explicit, systematic methods and music to teach literacy skills to meet the cultural and linguistic needs of ELLs will have no positive affect students' reading achievement.

The qualitative component of this study used a phenomenological case study design to examine research question two. Research question two asked, what are third and fifth grade teachers' perceptions of the cultural and linguistically responsive tier-two reading RTI intervention? To analyze data gathered on teachers' perceptions, the researcher reviewed interviews and completed in case analysis. All interviews were audiotaped so that the information could be reviewed and the researcher could transcribe interviews accurately. Each interview was complete in one session lasting between twenty and thirty minutes. The audio recordings were transcribed verbatim over three days, producing a six page non-edited transcript. Once transcribed, the researcher wrote

detailed descriptions of each case and described themes that emerged within each case. This process allowed the researcher to analyze different perceptions. Once this was complete, the researcher performed a cross case analysis. This provided thematic analysis across all cases. Once the themes had been found, the interviews were color coded to highlight themes. This process allowed the researcher to interpret and report the following themes found pertaining to teachers' perceptions of the implementation of the SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented.

The teacher participants involved in this study were third and fifth grade teachers. They all had at least five years of teaching experience, however, all participating teachers had only been teaching at the participating school between two and three years. They all had obtained their teacher certification through an accredited teacher preparation program and are considered highly qualified in the state of Georgia.

Participating teachers saw an increase in students' confidence and motivation to read once the tier-two SSRW intervention was implemented. Before the implementation of the intervention, many of the participating students did not participate in the classroom or even in small groups. Teachers shared that many of the participating students would not pick up a book on their own to read. Teachers noticed as weeks went by that students started to recognize their reading ability was improving. This in turn built intrinsic motivation, and outer confidence started to shine through. Teachers also shared that their tier A ESOL students started to become more outspoken and confident with oral and written expression. One teacher stated:

Before starting the program they were very reluctant to read anything. They rarely raised their hand to participate, even when working in small groups. However, once the intervention was in place, they would ask to read with me each day. They would utilize teacher help when selecting their own library books. At times, especially after getting a new library book, I had to ask them to put the book away because they wanted to read as opposed to participate in other activities.

A theme that emerged related to tier A ESOL students who had just entered the country differed from tier B students who had been in American schools for varying number of years. Teachers stated that their tier A ESOL students were very motivated to read in their native language and learn to read English prior to the implementation of the tier-two intervention. During the interviews, teachers accredited this difference to the fact that their tier A students were not at-risk readers in their native language. These students were able to read and write in their native language and just had to transfer skills over to English. One teacher stated about her tier A ESOL student:

The student was motivated to read. He would consistently ask for help decoding words, and he would ask if he could read his library books to me.

Themes that emerged related to participating students reading achievement were pretty consistent across the board. Before the implementation of the tier-two intervention, students struggled to read grade level passages with fluency. Most could slowly decode lower level words, but reading an entire passage was challenging, which impacted comprehension. Students were performing far below grade level on classroom

reading assessments and the STAR Reading assessment. Students were struggling on classroom assignments even when modifications were made. Many of the students were not able to independently do assignments. Teachers had to guide students through steps or they would have a peer partner help. Non-fiction text was also mentioned in multiple interviews. One teacher shared that her struggling readers actually gravitated toward non-fiction. She attributed this to the graphic pictures that would help them comprehend text that generally is more difficult to read, while other teachers stated that their students struggled with non-fiction text because of their lack of decoding skills and fluency.

Once the tier-two intervention was implemented and complete, students had made significant gains in the area of reading. STAR reading scores improved, but since students were so far below grade level, many still remained below grade level. For the most part, on grade level classroom reading assessments students' achievement improved. However, some teachers still were providing some of their students with modified assessments because, although gains were made, some students were still not close to being on grade level. Teachers also accredited the intervention to overall improvement in other content areas as well.

Students' decoding skills improved, which aided fluency and comprehension. Teachers also noticed that students began using reading strategies that they had not used prior to the intervention. Some noted strategies included checking of words, self-correction, and using context clues and pictures to figure out unknown words. Prior to the intervention, spelling kept students from being confident about expressing themselves through their writing. Teachers attributed the reading intervention to improved writing and spelling. One teacher stated:

I had four students participate and they each had different strengths. One student did a great job of using their new decoding skills to help them spell words when writing. Another student used his skills to slow down and “chunk” his words to find out how to read them; this student also greatly improved his fluency. The two other students took pride in their newfound ability to read, and in turn they helped other students who were struggling.

The purpose of including the phenomenological case study component in this study was to investigate research question two, what are third and fifth grade teachers’ perceptions of the cultural and linguistically responsive tier-two reading RTI intervention? Below are the discoveries found about teachers’ attitudes and beliefs associated to the implementation of the SSRW phonics intervention.

Prior to the intervention teachers were implementing tier-one reading interventions with participating students. Commonalties found in tier-one interventions included small groups, one-on-one guidance, extended time, books on CD, sight word flash cards, and intervention materials found in county adopted reading series. One teacher shared:

Each student received differing tier-one interventions based on his/her needs. Two of the students really needed daily help with letter-sound-correspondence and we would review as they entered class each morning. Others needed sight word fluency and we used flash cards to help with this. All of the students received one-on-one tutorial with self-selected books with the teacher, as well as small group tutorial after-school.

When asked how the teachers felt the tier-one interventions they implemented in their classrooms differed from the tier-two SSRW intervention, two main themes emerged. The SSRW's musical component was discussed in all the interviews. The teacher said they would hear the participating students singing the phonic skill jingles to themselves to remind them of vowel combinations, consonant digraphs, and blends while reading and writing. One of the teachers even admitted that she was initially surprised that her students were referring to the jingles without being prompted and outside the intervention.

The second theme that emerged was how explicitly skills were taught. Teachers explained that tier-one interventions were usually implemented within the context of other lessons. When students left to receive the tier-two intervention, phonics skills were the only thing being taught. They believe this allowed for more direct instruction to take place. They noticed that the phonics songs taught the skill, and then students practiced skills with activities or in decodable readers. The decodable readers were made to provide multiple opportunities for the students to practice the specific focus skill. However, while tier-one interventions skills were taught, students only practiced the skill as came upon the skill while reading.

### **Summary**

The purpose of this study was to investigate the implementation of an explicit and systematic phonics intervention that incorporates music designed to meet the cultural and linguistic needs of third and fifth grade ELLs in tier-two of the RTI process, and the resulting effect on their reading achievement and placement in special education programs. The differences in archived 2010-2011 reading CRCT scores and STAR

Reading assessment scaled scores for the participating students receiving the SSRW phonics intervention as a tier-two RTI intervention were examined to determine the effect of the intervention. An analysis of the data was conducted using a dependent sample t-test. The dependent sample t-test indicated significant increases in the participating students pre-treatment and post treatment reading scores. The participating students mean reading CRCT scores increased by 20 points while their mean STAR Reading assessment scaled scores increased by 54 points.

Interviews were conducted to gather data related to teachers' perceptions of the implementation of the SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented. Cross case analysis allowed the researcher to interpret and report themes found pertaining to teachers' perceptions. Two main themes emerged after analysis was complete. One was SSRW's musical component that used songs to teach phonic skills, while the other were more explicit and direct teaching methods used to teach phonic skills and reading.

## CHAPTER FIVE: DISCUSSION

### Purpose

The purpose of this study was to investigate the implementation of an explicit and systematic phonics intervention that incorporates music designed to meet the cultural and linguistic needs of third and fifth grade ELLs in tier-two of the RTI process, and the resulting effect on their reading achievement and placement in special education programs. The researcher was also interested in examining the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. The researcher aimed to ascertain teachers' perceptions of the linguistic and culturally responsive SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented. The purpose and desired results of the study helped to shape the following research questions:

**Research Question 1:** Is there a relationship between the SSRW phonics curriculum that uses explicit, systemic methods and music to teach literacy skills when implemented as a cultural and linguistically responsive RTI intervention and the achievement of third and fifth grade ELLs on the reading portion of the Criterion Referenced Competency Test (CRCT) and STAR Reading assessment?

**Research Question 2:** What are third and fifth grade teachers' perceptions of the cultural and linguistically responsive tier-two reading RTI intervention that included music?

## **Summary of Findings**

### **Research Question One**

The primary purpose of this study was the quantitative component, which used a quasi-experimental comparison design to determine the effect that an explicit and systematic phonics curriculum that incorporates music to meet the cultural and linguistic needs of ELLs had on their reading achievement in tier-two of the RTI process. The site is located in a diverse northeast Atlanta community. Of the 844 students at the target school, the population consisted of 87% Hispanic, 9% African-American, 2% Asian, 1% Caucasian, and 1% Multiracial. Of this population, 76% were ELLs and 94% came from economically disadvantaged backgrounds which qualify students for free and reduced lunch (Georgia Department of Education, 2012).

At the beginning of the 2010-2011 school year, school-wide RTI screening took place using the STAR Reading assessment. After initial RTI screening had identified students in need of tier-one RTI reading intervention, teachers implemented tier-one interventions. After six weeks of progress monitoring, students in tier-one were given another STAR Reading assessment to progress monitor and screen for RTI tier-two placement. The participating students had not been responsive to tier-one reading interventions and had failed to show gains on the STAR Reading assessment, therefore, their teachers and the school's progress monitoring team decided to move them into tier-two of the RTI process. When students moved into tier-two, they were administered the SSRW phonics curriculum that incorporates music as a RTI intervention, but data for this

study only reports the students who were also ELLs. Thus, the participating population was reduced to 29 students.

The SSRW intervention was conducted daily for 30 minutes over a period of eight months. The researcher pulled out students to another classroom in groups no larger than eight. The intervention was additional reading instruction for students in tier-two of the RTI process, and did not take the place of the homeroom teachers reading instruction.

To investigate the research question, the researcher examined archived pretest and post test scores on the reading portion of the CRCT and the STAR Reading assessment from the 2010-2011 school year. A dependent sample t-test at the alpha = 0.05 level showed a significant difference between pretest and posttest scores on both the reading portion of the CRCT and the STAR Reading assessment.

### **Research Question Two**

The qualitative component of this study used a phenomenological case study design to examine the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention. This research approach was chosen because it reports participants' perceptions of a shared phenomenon they have all lived through. The voices of the participating homeroom teachers were particularly important to this study because it was the only source of data collection to answer research question two. By using this approach, the researcher was able to attain data via open-ended interview questions, analyze responses for commonalities, and report significant findings.

## Discussion of the Results

Two types of instrumentation were used to investigate research question one. One of the instrumentation tools used to determine the effect that an explicit and systematic phonics curriculum that incorporates music to meet the cultural and linguistic needs of ELLs had on their reading achievement in tier-two of the RTI process was the reading portion of the CRCT. In Georgia, the scale score of 800 or above was the indicator of meeting their grade level standards on the CRCT. Archived 2010 pretest scores indicated that only 42% of the participating population met their grade level standards before receiving the SSRW intervention. When breaking the data into grade levels, 37% of participating third graders and 57% of participating fifth graders met their grade level standards before receiving the SSRW intervention. The sample size decreased from 29 to 26 students because three students in the sample population were tier A ESOL students in 2010. This means that the students had arrived in the United States that school year without previous instruction in English. In Georgia, tier A ESOL students only have to take the mathematics and science portions of the CRCT. Archived 2011 posttest scores gathered after the implementation of the SSRW intervention indicated that 92% of the participating population met their grade level standards on the CRCT. When breaking the data into grade levels, 89% of participating third graders and 86% of participating fifth graders with pretest and posttest scores met their grade level standards on the CRCT. This means that the percentage of participating students that met their grade level standards on the CRCT increased by 50%. These findings support the dependent sample t-test results at the  $\alpha = 0.05$  level that showed there was a significant difference ( $p < .00001$ ) in reading CRCT scores.

The second instrumentation tool used to determine the effect that an explicit and systematic phonics curriculum that incorporates music to meet the cultural and linguistic needs of ELLs had on their reading achievement in tier-two of the RTI process was the STAR Reading assessment. Student achievement on the STAR assessment is scored using a scaled score. Scaled scores range from 0 to 1400 and span from zero to twelfth grade. The scaled score is calculated based on the difficulty of the questions and the number of correct student responses. Scaled scores are useful for comparing student performance over time because they can be converted to a GE level performance (Renaissance Learning Inc., 2012). Archived fall pretest scaled scores indicated that 28% of the participating third graders were reading below a first grade level, 67% were reading on a first grade level, and 5% were reading on a second grade level. Of the fifth grade population, 12% were reading below a first grade level, 25% were reading on a first grade level, 25% were reading on a second grade level, and 38% were reading on a third grade level. While archived spring posttest scaled scores indicated that 56% of the participating third graders were reading on a first grade level and 44% were reading on a second grade level. Of the fifth grade population, 12% were reading on a first grade level, 63% were reading on a second grade level, and 25% were reading on a third grade level. These findings support the dependent sample t-test results at the  $\alpha = 0.05$  level that showed there was a significant difference ( $p < .00038$ ) in STAR Reading scores.

As part of RTI, progress monitoring data must be collected and analyzed throughout the process. The qualitative data from this study were used in progress monitoring meetings to determine the needs of the participating students. By the end of this study, the progress monitoring team recommended that fourteen students exit the RTI

process, two move down to tier-one, twelve remain in tier-two, and only one referral was made for a student to receive SPED services. It can be concluded from these findings that implementing the SSRW reading intervention as a RTI reading intervention can in turn reduce the number of students referred to receive SPED services.

To examine research question two, the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention were interviewed. The goal of the interviews was to investigate teachers' perceptions of the linguistic and culturally responsive SSRW phonics curriculum as a tier-two intervention versus the tier-one interventions they had previously implemented. After cross case analysis and interpretation of interviews, two main themes emerged. One was SSRW's musical component. Prior to the tier-two intervention, several common interventions that were put in place included small groups, one-on-one guidance, extended time, books on CD, sight word flash cards, and intervention materials found in county adopted reading series. Teachers acknowledged that students referred back to phonic skill jingles which were a part of SSRW intervention to assist them in decoding words while reading.

The second theme that emerged from the teacher interviews was the method used to deliver the SSRW intervention. Teachers noticed that skills were taught explicitly rather than within the context of other lessons. During tier-one interventions, teachers shared that phonic skills were taught, but students only practiced skills as they came across them while reading. While during the SSRW tier-two intervention, skills were being directly taught, and then directly practiced through activities or decodable readers.

This allowed for multiple opportunities for the students to practice and apply the specific phonic skill being focused on.

### **Implications**

This study's results are consistent with previous research that suggests that explicit and systematic instruction as well as the implementation of the musical-rhythmic intelligence can positively affect ELLs reading achievement. Teacher interviews provided insight into their perceptions of the tier-two linguistic and culturally responsive reading intervention. The teachers' responses to interview questions suggested commonalities related to the tier-two reading intervention. The two major implications made from the shared experiences of teachers whose students participated in this study and were exposed to the SSRW reading intervention was the implementation of music and the explicit teaching method used to teach phonics skills. It is likely that implementing either of these components alone or simultaneously could potentially increase reading achievement and reading scores. Both of these components could have contributed to the positive effect of the tier-two reading intervention, and a plethora of research is available that supports the importance of implementing these two components when working with ELLs.

It can be implied that SSRW's musical component impacted the participating students' reading achievement. As early as 300 BC, Plato reported that he believed music was the most powerful educational aid (as cited in Van Der Linde, 1999). Since then, studies have linked the implementation of music in the classroom to improved mental capacity, intelligence, self imagine, and motivation (Botwinick, 1997; Towell, 2000; Van Der Linde, 1999).

In 1993, Gardner published eight MIs which he had been researching for years. Among the published intelligences was the musical-rhythmical intelligence (Gardner, 1993). In 1988, the Education Reform Act linked MIs to educational instruction to aid in differentiation to reach the varied learning styles of students (Hopper & Hurry, 2000). Studies had uncovered the importance of children exposure to MIs. These studies found that when children are born, some neurons that control reflexes and basic learning are in place while many other neurons connect through exposure to MIs. The more exposure a child has to any MI, the stronger the connection that is made. Inadequate exposure to a MI would result in weaken neural connections which would limit the ability in that type of intelligence (Trainor, Wu & Tsang, 2004; Snyder, 1997).

Specifically, the importance of musical exposure has been found because it connects neurons in the brain that are involved in cognitive functions such as attention, memory, motivation, and learning (Humpal & Wolf, 2003; Snyder, 1997). Findings have been reported that children learn concepts taught through jingles or songs because it assists children in retaining information, phonemic awareness, fluency, comprehension strategies, and listening skills (Brand, 2006; Darrow et al., 2009; Gromko, 2005; Heywood, 2004; Humpel & Wolf, 2003; Lamb & Gregory, 1993; Ozdemir et al., 2006; Paquette & Rieg, 2008; Press, 2006; Register et al., 2007; Smith, 2000; Snyder, 1997; Towell, 2000; Yopp and Yopp, 1996). The SSRW intervention used musical jingles to teach phonics decoding skills, thus possibly strengthening the participating students' neural connections in cognitive areas that would impact their reading achievement.

Subsequently, the target population for this study was ELLs. The implementation of music in order to teach literacy skills has also been found to be beneficial for ELLs.

Literacy skills put to music provides ELLs with the repetition and reinforcement of the skills they need to assist them in the acquisition of reading and oral speaking of the English language (Brown, 2006; Paquette & Rieg, 2008; Schoepp, 2001).

The literature surrounding the most effective methods for assisting ELLs in their reading achievement also indicates a connection between explicit and systematic teaching methods and ELLs' academic achievement. Researchers report that when ELLs are exposed to literacy skills that are taught using explicit and systematic methods, they outperform their academic counterparts (Brown, 2007; Lenters, 2004; Santoro, Jitendra, Starosta and Sacks, 2006; Stewart, 2004). Researchers attribute this success to the fact that explicit and systematic methods have been found to be responsive to the cultural and linguistic needs of ELLs. Common elements of explicit and systematic approaches include: (a) a curriculum with a specified and sequential set of phonics elements, (b) an instruction that is direct, and (c) practices using phonics to read decodable words (Mesmer & Griffith, 2006). Particular cultural groups benefit more from phonics instruction that is taught explicitly and systematically because, even though their native language alphabetic principle may be different from the English alphabet, they are able to relate phonics instruction to their native language alphabetic principle (Lenters, 2004). Data from research also suggests that the repetition of material in an explicit and systematic phonics curriculum helps ELLs with retention of skills (Brown, 2007; Lenters, 2004).

The results of this study have an impact on all educational stakeholders. In July 2010, Georgia adopted a new set of standards for the areas of reading and math. The newly adopted standards called the Common Core Standards have already been adopted

by 47 other states. The standards aim to provide a consistent curriculum throughout the United States that will better prepare students for success in college or in careers. The Common Core Standards are recognized as being much more rigorous than Georgia's previous standards. If large populations of students were struggling to achieve with less rigorous standards, than think about what is going to happen to these students when asked to master more rigorous concepts if appropriate interventions are not put in place to assist them in their learning and understanding of concepts. By spring 2015, a new Common Core assessment will be implemented to test student achievement. It can be implied from this study's results that ELLs who are at-risk of reading failure that participate in an explicit and systematic phonics intervention that incorporates music to meet their cultural and linguistic needs while in tier-two of the RTI process results in increased standardized test scores. In turn, at-risk ELLs who receive this type of reading intervention will have an increased opportunity to meet or exceed the standard on the reading portion of the Common Core assessment being rolled out.

Furthermore, implementing an explicit and systematic phonics intervention that incorporates music to meet the cultural and linguistic needs of ELLs while in tier-two of the RTI process for reading can aid schools and teachers in successful implementation of RTI requirements. The RTI model was developed from research conducted by the NRCLD during the 2004 reauthorized of IDEA. RTI is a three tiered prevention model used to identify children with SLD earlier and more accurately. When a student moves into tier-two of the RTI process, he or she receives more intense interventions from a highly qualified teacher in the area of the deficiency. The intensity of the interventions is increased by reducing intervention group size and increasing the duration and frequency

of the interventions. Throughout tier-two, the interventions implemented must be research-based (Bradley, Danielson & Doolittle, 2007; Brown & Doolittle, 2008; Kamps et al., 2007; Linan-Tompson, Cirino & Vaughn, 2007; Rinaldi & Samson, 2008). This study suggests that an explicit and systematic phonics intervention that incorporates music to meet their cultural and linguistic needs of ELLs while in tier-two of the RTI process for reading may be an appropriate tier-two intervention.

### **Limitations**

Several limitations to this study must be considered. To start with, the participants from this study come from one elementary school in the northeastern part of Atlanta, thus, the sample is not very representative. This also made the sample size relatively small, which would, again, make it difficult to make general conclusions regarding the effect the SSRW intervention had on reading achievement.

Internal validity was affected because there is no control group for this study. The researcher made this decision because she felt that it would not be ethical to administer a treatment to a group that may cause a positive effect while not administering it to another group of children.

The participating school adopted the RTI model to provide at-risk students with individualized support and interventions. Because of this, the researcher was also unable to randomly assign students to the treatment group. Students were assigned to the treatment group by the school's progress monitoring team if tier-one progress monitoring data gathered by homeroom teachers showed that a student was unresponsive to tier-one interventions and failed to show gains on the STAR Reading assessment.

NCLB requires teachers to (a) obtain a bachelor's degree, (b) meet requirements set their state to gain full certification, and (c) demonstrate competency of all subjects they are teaching (Boehner & Castle, 2005). It is assumed that participating teachers are highly qualified based on the school's compliance with NCLB. It is also assumed that teachers had received proper RTI training and professional development since the adoption of the model by the participating county. The researcher assumed that teachers were knowledgeable of the RTI process and appropriate reading interventions to implement in their classrooms while students were in tier-one.

The participating students were receiving ESOL services. Because of this, a Limited English Proficient Testing Participation Committee met to review students' scores on the reading portion of the WIDA-ACCESS Placement Testing results. Based on students' results, it was decided by the committee that testing accommodations were required for some of the participating students. Consequently, on the CRCT, some of the participating students had the entire test read to them. However, as part of RTI guidelines, when collecting progress-monitoring data, testing accommodations are removed. Thus, students completed all STAR Reading assessments independently.

Lastly, in preparation for the CRCT, students who did not pass the CRCT the pervious academic year or had a low score went to after school tutorial for a period of three months during the time this study was conducted. After-school tutorial took place twice a week for a period of two hours. During tutorial, students receive additional reading and math support in groups no larger than fifteen students. These services might have contributed to a student's reading achievement, thus affecting the reliability of the study's results.

## **Recommendations for Future Research**

The Georgia reading CRCT is being phased out after the 2011-2012 school year in favor of a new assessment being developed that will align to the newly adopted Common Core Standards. The implementation of the Common Core Standards is state mandated and will add more rigor to the curriculum to better prepare students for college and careers. Because of this change, future research should aim to analyze students' overall reading achievement growth with assessments like the Star Reading assessment rather than students' achievement on grade level assessments. With more rigor coming down the pipe, struggling students could suffer if educators do not turn their focus to what is moving struggling students across grade levels rather than their achievement on assessments like the CRCT which measure students' achievement on grade level.

If implemented correctly, RTI could assist in doing this. The RTI model implements interventions for students on their current achievement level. As students' achievement grows or fails, interventions and students' tier placements are modified. If students are responding successfully to implemented interventions, they will start moving across grade levels with the hope they will eventually progress to the appropriate grade level. While students not responding to interventions, will be tested to receive SPED services needed to assist in their academic achievement. However, since the RTI model is a newly adopted initiative, further research needs to be done to analyze its effect on student achievement and early, more accurate identification of students needing SPED services.

More research is also needed to determine the long-term effects of the SSRW intervention and the RTI model. A longitudinal study investigating the effects of the

intervention on students' continued reading achievement would possibly reveal a connection with students' middle and high school achievement. It would allow further investigation of students who remained in the RTI process to see if the intervention and the RTI model assisted in exiting these students from the RTI process in the future. At higher educational levels, a researcher could explore if the RTI model and appropriate interventions kept the participants from being referred to receive SPED services at higher educational levels as concepts get more challenging. It would also divulge if they ever had to be placed back in the RTI process at a higher educational level.

With ELLs entering the nation's schools and RTI being implemented at all educational levels, it would be helpful to all educational stakeholders to compare this study's results to a similar study at the middle and high school levels. The SSRW curriculum was created for use with primary students; however, similar programs are available for older students. If a similar study were conducted with a similar program aimed at older students, it would aid in determining if similar reading interventions that are also culturally and linguistically responsive consistently aid ELLs that are in the RTI process for reading.

Teacher interviews rendered a connection between the intervention and students' social and emotional wellbeing. A future study examining the impact of the SSRW intervention on students' attitudes and confidence levels toward reading could provide insight into this. A study that investigates students' perceptions of reading and their reading achievement could divulge that culturally and linguistically responsive reading interventions have a social and emotional effect on students that in turn encourages

increased motivation and confidence levels in reading. These changes in students may have a beneficial impact on more than their academic achievement.

Lastly, further studies researching this problem should increase the sample population and sites where the study is conducted. The experimental group in this study was very small, with only 29 participating students and 4 participating teachers from one elementary school in the northeastern part of Atlanta, Georgia. A replicated study with an increased sample population spanning throughout several regions would lend to stronger results pertaining to the effects of the intervention versus internal factors that might have influenced the results of this study.

### **Conclusion**

Statistics show that a vast number of these struggling students, and students receiving SPED services, are ELLs. It has also been reported that as struggling ELLs reach higher educational levels, the achievement gap in the area of reading increases. Since the implementation of RTI requires schools across the nation to provide struggling students research-based interventions to assist in their learning of concepts, educational stakeholders need to begin looking for interventions to support these students. This study provides evidence that implementing a phonics curriculum that uses explicit and systematic methods and incorporates music to teach literacy skills implemented as a tier-two reading intervention in the RTI process to meet the cultural and linguistic needs of ELLs had a positive effect on their reading achievement. These findings suggest that this type of intervention might be an option for educators working with ELLs in the RTI process for reading. The implementation of this type of intervention could also reduce the number of struggling ELLs, thus aligning with the goals of RTI model which is to

identify children with SLD earlier and more accurately in turn reducing the number all students being referred to receive SPED services. Further longitudinal research is needed with an increased sample size to validate these results and enhance the understanding of the long-term effects the intervention will have on ELLs' reading achievement.

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## **Appendix**

### **Interview Questions**

Answers to questions will be collected for each participating student.

1. Is the participating student motivated to read? How do you know this?
2. What is the participating student's reading strengths?
3. What is the participating student's reading weaknesses?
4. How has the participating student been performing on reading assessments?
5. Explain the tier one RTI interventions you were implementing with this student?  
What intervention resources/curriculum did you use? Why did you choose to implement certain tier-one interventions?
6. Have you seen any improvements on student's reading assessment scores?
7. How do you feel the tier-one interventions differed from the tier-two intervention implemented?
8. What positive/ negative effects have you observed since the implementation of the tier-two intervention? Academic? Behavioral? Social?