THE RELATIONSHIP BETWEEN DELIVERY MODELS AND THE GRADE-LEVEL
READING DEVELOPMENT OF SIXTH-GRADE ENGLISH LEARNERS

by

Holly Weber Arnold

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

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ABSTRACT

This study examines the relationship between delivery models (the class size reduction model and the sheltered instruction model) and language development levels on the grade-level reading development of sixth-grade English learners (ELs) attending public middle schools in metro Atlanta, Georgia. The instrument used to measure grade-level mastery of reading standards and development is Georgia's sixth-grade Criterion-Referenced Competency Test (CRCT). Language development levels are measured and provided by the Assessing Comprehension and Communication in English State-to-State (ACCESS) test. Criterion sampling and convenience sampling are the means by which ELs are selected. A causal-comparative design was implemented for both research questions. Interaction effects were identified between independent variables of delivery models and language development levels. Main effects between each independent variable and the dependent variable were analyzed for statistically significant differences. Data analysis consisted of a two-way ANOVA, followed by normality and assumption testing. Descriptive data, including demographic and linguistic data, was discussed as well.

Keywords: ELs, English learners/English language learners, class size reduction model, literacy, middle school, Criterion-Referenced Competency Test (CRCT).

Dedication

This dissertation is dedicated to my dad, Bob Weber. When I was a child, we would go on long walks through the forest that surrounded our home. During this time, we would talk about everything, but most of our time was spent discussing how I could be anything I wanted when I grew up. We also discussed which college I might attend – not attending was never thought of – and how I was capable of earning my doctorate degree one day.

Throughout this doctoral adventure, there have been many ups and downs, and some days I have been frustrated and ready to throw in the towel. However, my dad always served as the voice of reason, telling me not to give up – that everything would work out. I will admit that there were some times I did not want to hear this; I just wanted to be mad for a while, but I always would hear my dad's voice in the back of my mind: "How cool would it be to be called Dr. Holly!" While that sounds silly to some, that statement echoing in my mind has often brought me back to those walkabouts through the woods with my dad, finding that one log we used to sit on, and talking about how I can achieve the dream of receiving my doctorate. Little did my dad know that God was using him to plant a seed that would grow into something about which I would become extremely passionate.

The purpose of this dedication is to simply thank my father, who always believed that I was capable of accomplishing this task and encouraged me to do so. So thank you, dad, for never giving up on me, for supporting me, for listening to me vent, for being the voice of reason, and for cheering me on. Thank you, and I love you. -yk

Acknowledgements

I want to first express my gratitude to my Lord and Savior, who has blessed me beyond what I could ever imagine and has given me more grace than I ever deserve. Without His unfailing love, I would not have had the strength to continue this journey. To God be the glory, and may I use the degree to serve Him. I knew at the age of eight that I wanted to teach, and as I grew older, I fell in love with learning about other cultures. When I worked as a Spanish translator at the Department of Family and Children Services in college however, I realized that I wanted to empower the women and men for whom I translated every day. Even though I was bound by contract and not able to provide them with the English lessons they sought, I saw that teaching English was how God wanted to use me to share His love.

I also want to acknowledge that brilliant faculty who served on my dissertation committee. Dr. McDonald has guided me through this process as my chair, praying over my journey and always available to answer the many questions I would email her. I would undoubtedly not have survived this journey without her wisdom and patience. Dr. Furrow has served as the voice of encouragement since she first joined my committee. On more than one occasion, she has cheered me on as another step was made toward the finish line and continued to cheer me on when it seemed that my study would never progress. Dr. Kuhel has been my TESOL content mentor throughout my Masters program and throughout my dissertation. A fount of wisdom, Dr. Kuhel has empowered me to create and write a much more thorough study of literacy of English Learners; she has encouraged me to think and move outside the box and has reminded me numerous times that my dissertation will be finished when it gets finished. Another professor to

whom I must express gratitude is Dr. Szapkiw, who served as my research consultant. She has been patient beyond measure when I have come to her with clueless questions about statistics. Without these four remarkable women serving as guides and mentors throughout my doctoral process, I would not have been able to survive this doctoral adventure. Mere words cannot express how much I value their wisdom, support, and words of encouragement.

Last but certainly not least, I want to acknowledge my family for supporting me more than I ever could have imagined. Without fail, they always knew what I needed before I even had to ask. My mother has prayed over this dissertation and me for several years and has always been willing to lend a hand or get me out of the house when I most needed it. My father was the perpetual optimist, always telling me that things would work out; forms would get approved and signed in time, and I would make it. I could not ask for more wonderful parents. Thank you, and I love you.

My husband, Matt, deserves a gold medal for living this process with me. He has cooked, cleaned, let me vent about the stressors of this process, and has been understanding when I would stay locked in our upstairs office for hours on end just so I could write. Most importantly, though, he has been there for a hug, words of encouragement and praise, and unconditional love. This dissertation would not have been possible and probably still would not be completed without you; you have been the calm to my writing stress. I could not have done this without you in my corner. Thank you, and I love you more.

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CHAPTER 1: INTRODUCTION

Introduction

As economic, social, political, and demographic forces shift throughout the United States, school systems are faced with the challenge of anticipating how schools and students will be affected, as well as how curriculum should be adjusted to meet the new challenges associated with these forces (Parkay, Hass, & Anctil, 2010). It can no longer be assumed that students share similar cultural frameworks, nor can curriculum remain unchanged if diverse students are to receive an equitable education (Banks, 2006). With a rising number of English learners (ELs) entering schools (Field, 2008), teachers are encountering the challenge of how to bring students with limited English proficiency up to grade-level standards and prepare them to read and function independently in the general education classroom.

Even though differentiated instructional methods create a pathway by which ELs can access content material at their respective language development levels (Echevarria, Short, & Powers, 2006), many ELs still are not achieving on standardized assessments or in the classroom (Pacheco, 2010). Therefore the diverse, innovative delivery model of the class size reduction model, which has been implemented and found effective in some general education classes (Ding & Lehrer, 2010), and the sheltered instruction model are being implemented with the goal of increasing academic achievement of ELs. The purpose of this study is to analyze the relationship between the class size reduction (CSR) model and sheltered instruction model on sixth-grade ELs' grade-level reading development scores, as measured by Georgia's standardized Criterion-Referenced Competency Test (CRCT). This chapter details the background, problem and purpose

statements, significance of the study, research questions and hypotheses, variables and applicable definitions, as well as assumptions and limitations.

Background

Over 20 states, including South Carolina, Kentucky, Indiana, Alabama, and Georgia, have seen over a 240% increase in English learners (ELs) since the 1997-1998 school year (Batalova & McHugh, 2010). These percentages equate to over five million students who primarily speak another language or learned another language as their first. In Georgia alone, there was over a 400% increase in ELs between the school years of 1997/1998-2007/2008 (Editorial Projects in Education Research Centers, 2009). Between the years of 1990 and 2000, Georgia was one of the five leading states with the largest population growth with 247.5%, and between the years of 2000 and 2006, Georgia increased by 48.9%, or 282, 317 students (Editorial Projects in Education Research Centers, 2009). Because of these statistics and for convenience sampling purposes, Georgia is the location for this study.

Within this population of ELs, there is great diversity, as there are students who have limited formal schooling and live in poverty while others can read and write on grade level in their first language and come from middle- to upper-class families (Echevarria, 2008). Apart from socioeconomic status and previous formal schooling, the level of academic language, or academic language proficiency, that an EL possesses determines language proficiency in academic English and success in the classroom (Echevarria, 2008). It is this academic language proficiency that dictates the level and type of instruction needed for academic functioning and progress.

Historically, the methods of EL instruction and implemented delivery models ranged from regular class placement, where students received the same instruction as native English-speakers, to bilingual education through the 1968 Title VII Bilingual Education Act, which implements instruction in English and the native language (Stewner-Manzanares, 1988). However, teachers were not required to adapt instruction to meet the needs of these ELs. It was not until *A Nation at Risk* (National Commission on Excellence in Education, 1983) was published that the need for improvement across American schools was realized. This report led to the development of the National Assessment of Education Progress (NAEP), which is a national assessment program that compares student achievement in reading, math, and writing across states (National Center for Education Statistics, 2012). Data from this program began the movement of educational reforms to increase all student achievement and increase standards and accountability (NCES, 2012).

When the No Child Left Behind (NCLB) Act of 2001 was enacted, the achievement of ELs was finally addressed in Title III, Part A: English Language Acquisition, Language Enhancement, and Academic Achievement Act. This component of NCLB requires that ELs receive accelerated language and content instruction in attempts to bring them up to grade level (The English Language Acquisition, Language Enhancement, and Academic Achievement Act, 2001). In combination with the growing achievement gap of 47% of ELs lagging behind native English-speaking students (Pacheco, 2010), schools are faced with the stringent requirements to make academic gains and bring these ELs up to grade-level mastery of standards.

According to the 2009 National Assessment of Education Progress, only 3% of ELs met the eighth grade reading standard (Education Week, 2012). Therefore, the implementation of strategies to meet the linguistic and cultural needs of students is no longer optional (Fairbairn & Jones-Vo, 2010), especially when the time needed for language exposure and acquisition in basic interpersonal communicative skills (BICS) is at least 0-2 years and academic language proficiency is a minimum of 5-7 years (Cummins, 2003). It is important to note that academic reading and writing skills are more difficult than communicative speaking and listening skills for ELs to master and often require more time to do so (Adesope, Lavin, Thompson, & Ungerleider, 2011). This could be due to the social cognitive aspects of language learning in which the environment and surrounding culture influences the extent to which an EL acquires a second language (Daniels, 2008). Because of this, the social cognitive theory is one of the guiding matrixes of language learning.

Literature has shown that sheltered instruction can increase language acquisition (Barr, Eslami, & Joshi, 2012). Townsend (2009) highlighted how visual representations increased academic vocabulary for ELs at various development levels, while Palmer, Shackelford, Miller, and Leclere (2007) found that modeling, explicit instruction, visual representations, and addressing prior knowledge (all of which are research-based differentiated practices commonly used in sheltered instruction classes) aided ELs in identifying, analyzing, and comprehending figurative language. In other studies, addressing background knowledge as a means to preview stories and flexible groupings to facilitate peer collaboration has proven beneficial for the increased reading comprehension of ELs (Ogle & Correa-Kovtun, 2010; Pacheco, 2010).

Little research, however, has been conducted with ELs receiving instruction in the CSR model, which has been effectively implemented in Great Britain, Japan, Sweden, Australia, Israel, and Canada (Achilles, 2004). In this model, classes are made up of approximately 20 students depending on the size of the school district, state, and original class size (Hood, 2003). While benefits have been found for general education students (Finn, Gerber, Achilles, & Boyd-Zaharias, 2001), little research exists on the relationship of the CSR model as it impacts the reading ability of ELs.

While other research has highlighted the effectiveness of one or more differentiated strategies despite delivery model (Townsend, 2009; Watkins & Lindahl, 2010) in conjunction with reading skills, budgets cuts have led to a re-evaluation of ways in which ELs can best be served alongside their native English-speaking peers. At this time, research of the CSR model has primarily focused on smaller classes in elementary grades (The Center for Public Education, n.d.), highlighting the need for research at higher grades.

Because many schools are overwhelmed with growing student populations and fewer teacher allotments, classroom management strategies, quality of education, instruction, behavior, and teacher stress are often negatively impacted by larger class sizes (Pedder, 2006). To act against these effects of large class sizes, some school boards and government funding have focused on decreasing class size through the CSR model with hopes that student achievement, and by default of having a smaller class size, behavior will improve. Even though the CSR model places all students within the same general education classroom, studies have found that general education students' scores increased the year of implementation and benefits sustained to high school (Boyd-

Zaharias & Pate-Bain, 2000b; Pedder, 2006). It is important to highlight that the previous studies address general education students' standardized achievement or ability to pass from one grade level to the next, which differs from ELs' ability to independently read and meet grade-level reading standards while simultaneously learning content and language.

The CSR model is not designed specifically for ELs or to explicitly address the learning needs of ELs, but it does place them in an environment in which the teacher is able to better meet student needs due to smaller class sizes. The emphasis of having ELs in the CSR model is to place ELs in an environment surrounded by native English-speaking peers that provides ELs with the opportunity for active language learning through interaction. This coincides with Vygotsky's (1978) sociocultural theory, which posits that students are able to acquire more vocabulary and more complex language structures when working with others in the zone of proximal development. This model of instruction also connects to Bandura's (1997, 2002) social cognitive theory that details how children are able to adapt to linguistically diverse environments and have the skills to adjust their language to receive appropriate feedback from the surrounding culture.

Despite the combination of best practices that emphasize language and linguistics implemented by teachers, increased rigor and heightened lexile reading levels from the implementation of the Common Core State Standards (Common Core State Standards Initiative, 2011) highlights the need for analysis of the extent in which the CSR model provides an environment that enables struggling ELs to improve their grade-level reading ability at the new lexile levels and increase comprehension. ELs' reliance on

social observations, more explicit instruction, and operant conditioning link this method of instruction to the social learning theory and sociocultural theory for language development and literacy growth (Lantolf, 2006) and provide the theorectical framework for this study's literature review and research findings, as ELs are provided with an opportunity for grade-level achievement in academic settings.

Problem Statement

The problem is that ELs of all language development levels are still not reaching the grade-level reading skills determined by federal legislation and state standards (Friend, Most, & McCrary, 2009; Pacheco, 2010). Because combining content and language instruction has proven to be an "authentic academic challenge" (Pawan, 2008, p. 1450) in general education classrooms, the CSR model has been found effective with native English-speaking students (Shin & Chung, 2009) and is now being implemented in classrooms serving larger numbers of ELs. However, research is needed to examine how the relationship between the implementation of CSR and ELs' reading development and mastery of grade-level reading standards, in correlation with language development levels (Shin & Chung, 2009). The effectiveness, or lack thereof, of the CSR model is being evaluated in comparison to the sheltered education instructional model, which is commonly used with ELs (Barr et al., 2012).

Purpose Statement

The purpose of this causal-comparative study is to test the social cognitive theory (Bandura, 2002) and the sociocultural theory, which includes the zone of proximal development (Vygotsky, 1978). The sociocultural theory is used to study how learning, development, and language acquisition are linked to the environment, which indicates

that social interaction and experiences increase and assist in learning and language development (Vygotsky, 1978). The smaller class sizes of the CSR model link to research that supports that ELs learn more language and content when in smaller class sizes (Peregoy & Boyle, 2005). Social interaction, scaffolding, and instruction within the zone of proximal development are means by which children develop and acquire language skills. By placing ELs in smaller environments, they are surrounded by peers with whom they can more closely interact in their zone of proximal development, which posits that students begin learning at a specific level but are able to grow and build upon that level by social interaction with peers, the surrounding culture, and the environment.

The social cognitive theory is used to analyze development and human functioning as it is embedded within cultures, where people contribute to their experiences through self-efficacy and the understanding that certain actions cause certain events (Bandura, 2006). The social cognitive theory indicates that students can adjust their behaviors and language usage and acquisition to achieve desired outcomes that are culturally and socially reinforced by being understood and having interactions with others. By placing ELs in the smaller learning environments, they are provided with more meaningful opportunities in which they can observe and learn from the language of their peers without having to linguistically process outside noises or intimidation in large group settings that inhibit focus on the lesson. Therefore, the meaningful social interactions in the classrooms would strengthen language cognition, increasing language skills and increasing ELs' ability to master grade-level reading standards. Table 1 details how the theoretical framework links to each independent variable. It should be noted that the delivery models are explained in correlation with the language

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development levels. This is structured in this manner because the language development level plays a key role in the instruction that takes place within the delivery model, especially within the sheltered instruction delivery model.

Table 1

Description of How The Theoretical Framework Links to the Independent Variables

Social Cognitive Theory	Instructional Significance	Theoretical Importance
IV: Sheltered Instruction/ Language Development Levels	- Provides extensive and explicit instruction based on language level. - Language and cultural nuances are taught by meaningful interactions with peers and teacher – always based on language development level. - Behaviors and appropriate language structures are reinforced.	- Linguistically appropriate social interactions allow for operant conditioning to occur. - Observation, internalization, and mimicry take place. - ELs are taught at their language level but are provided with tools to cognitively develop more complex structures.
IV: CSR/ Language Development Levels	-Exposed to language of general education peers. - Scaffolding is provided but is not based on language level. -Positive language development is reinforced through participation.	- Self-efficacy is increased, as operant conditioning with proper language structures and vocabulary makes ELs cognitively aware of language.
Sociocultural Theory	Instructional Significance	Theoretical Importance
IV: Sheltered Instruction/ Language Development Levels	- Comprehensible input from teacher and output from student. - Social interactions are at a linguistic level that allows ELs to participate. - Extensive scaffolding that meets current language level and provides exposure to one level above.	- Ability to practice current level with exposure to higher levels allows for internalization of more complex grammar and vocabulary.

		- Learn content but are able to move beyond that, linguistically and academically, due to scaffolding.
IV: CSR/ Language Development Level	- Integration of the social and academic environments. - Social interaction with native English-speaking peers with both BICS and academic vocabulary. - Collaboration with native English-speakers with scaffolding that is not based on language levels.	- Learn language based on cultural structures and situations. - ELs are exposed to more language by native English-speaking peers. - Learn at higher linguistic levels because ELs are exposed to higher levels and have the opportunity to work with peers who are proficient in English. - Learn more vocabulary when in collaborative environment. - Avoids fossilization as language is reinforced socially.

As applied to my study, these theories hold that I would expect my independent variables of the sheltered instruction delivery model and the CSR delivery model, and language development levels, to influence the dependent variable of Georgia's sixth-grade Criterion-Referenced Competency Test (CRCT) reading scores, as social interaction, self-efficacy, scaffolding, and maximized, differentiated instruction are means by which children develop and acquire language skills. A comparison between these two delivery models analyzes how ELs learn language and reading content in small classes with their ESOL peers, guided by both CCGPS and ESOL standards and ESOL

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modifications to the curriculum, as compared to how they learn alongside general education students in smaller groups, which has only CCGPS standards and is not driven by language development levels of the students. The language exposure in the smaller classes embeds grade-level reading achievement in the theoretical framework of the social cognitive theory and the sociocultural theory, as students are exposed to reading behaviors, strategies, and language structures in an environment appropriate for linguistic stimulation and development, thus allowing ELs to process and apply new language structures.

The second independent variable of language development levels was also analyzed but not manipulated (Rovai, Baker, & Ponton, 2013). Despite expected language development and improved reading development scores through the implementation of the CSR delivery model, fossilization could impede further language development (Lightbown & Spada, 2006).

The study compared the relationship of the CSR delivery model, which places ESOL students in a smaller general education reading classroom to receive reading content, to sheltered instruction, which is an ESOL class in which an ESOL teacher teaches reading content and language simultaneously. The relationship between the CSR model and sheltered instruction model on grade-level reading development and mastery of standards for ELs at two middle schools in metro-Atlanta, Georgia was analyzed. The study also evaluated the relationship that both models had with grade-level mastery of reading standards, in conjunction with how ELs' individual language development levels influenced the reading development after the sixth-grade year. Even though a quasi-experimental study is commonly used in educational research (Gall, Gall,

& Borg, 2007), the delivery models and language development levels were already in place and therefore created a causal-comparative study, as independent variables were not manipulated (Rovai et al., 2013). Both cause and effect of the language development levels and delivery models have occurred and were, therefore, studied ex post facto (Rovai et al., 2013).

The first independent variable, the delivery model, is categorical and has two levels: the CSR model and the sheltered instruction model. The CSR model is generally defined as a general education classroom with a lower number of students, and the goal is to "improve academic achievement" (Hood, 2003, p. 3) as guided by the content standards. Through the CSR model, smaller student numbers allow general education teachers to better adjust instruction according to student needs. Sheltered instruction, on the other hand, serves as the second level of the first independent variable and is taught by an ESOL teacher certified in the content area. Sheltered instruction focuses on the instruction of both language and content and is guided by ESOL standards as well as content standards.

The second independent variable is language development level and is generally defined as the current levels of an EL's language ability in reading, writing, speaking, and listening, and an overall composite score as measured by the Assessing Comprehension and Communication in English State-to-State (ACCESS) test. An overall literacy score is also provided by ACCESS and is a combination of the reading and writing language development level of the EL. Because literacy is a primary concern, schools are faced with the challenge of bringing ELs up to mastery of grade-level reading standards. The ACCESS test is not used as the dependent variable because

it is not based on specific grade-level standards but is based on a cluster of skills and vocabulary that an EL should have mastered upon reaching middle school. This test is the same for all middle school students, as grades 6-8 are clustered together for ACCESS, thus including vocabulary and language demands from all three grade levels. This would not provide an accurate representation of how well sixth-grade ELs have mastered grade-level reading standards.

The dependent variable is generally defined as the grade-level reading score as measured by Georgia's sixth-grade reading Criterion-Referenced Competency Test (CRCT) Reading test, which is the control variable as the CRCT Reading test is unchanged between the two groups.

Significance of the Study

Theoretically, this study contributes to the instruction of ELs as cross-cultural social cognition and social interaction with the environment leads to conditioning in language development (Bandura, 2002; Bandura, 2006). According to the agentic perspective of Bandura (2002), which posits that ELs are able to learn and be influenced by their environment as well as adjust language and interactions to produce certain outcomes, human agencies allow the social cognitive theory to place language development and learning in a cultural context. Cross-cultural generalizability allows ELs to apply social cognitive factors to more than one culture due to factors within or outside that culture (Bandura, 2002). The agentic perspective of human development highlights that they can intentionally change their actions, thus causing them to contribute to their life through proactive efforts and make self-reflective and reactive choices (Bandura, 2006).

Because humans do not "live their lives in individual autonomy" (Bandura, 2006, p. 165), "transactional experiences" (p. 169) provide ELs with the opportunities to interact with each other and modify language when necessary. By these interactions, language development is reinforced through "the social practices in which individuals participate" (Daniels, 2008, p. 52) and is scaffolded, internalized, and built upon when ELs work in their zone of proximal development (ZPD) (Vygotsky, 1978). Within the ZPD, ELs learn from more fluent peers, allowing for internalization of the more difficult vocabulary, language structure, and external activities happening around them. Just as language development relies on these social interactions, higher order thinking and mental language functioning also originate in social experiences (Vygotsky, 1978), as the "development of word meaning with development and transformation of practice" (p. 39) are linked together. This study serves to strengthen the theoretical bridge between second language acquisition, delivery models, and mastery of grade-level reading standards.

Empirical evidence has found that previous studies examining the CSR model had statistically significant results on student achievement (Finn et al., 2001; Jepsen & Rivkin, 2009; McKee, Rivkin, & Sims, 2010; Rivkin, Hanushek, & Kain, 2005). However, these studies did not include populations solely consisting of ELs. Sims (2008) discusses the inclusion of ELs in California CSR studies but does not disaggregate the data for this population, but includes it with data of other minority and lower socioeconomic status students. Because the population of ELs grew 246.7% between 1998 and 2008 in Georgia (Batalova & McHugh, 2010), the achievement gap between ELs and their native-English speaking peers in this state continues to widen.

However, the current study serves to expand this research to middle grades grade-level reading ability and mastery of standards at the new lexile levels established by Common Core State Standards, as affected by the CSR model.

Grade-level reading development provides the foundation for mastery in the content and success on achievement tests, which is necessary for all ELs. Practically, this study provides contributions to research-based delivery models for ELs, as school districts, principals, and teachers will be more aware of how and to what extent their current delivery models assist ELs in acquiring English and reading independently on grade-level materials.

Research Questions

The research questions in this study are:

Research Question 1: What is the relationship between the class size reduction model, when compared to sheltered instruction, and language development levels on the reading development of sixth-grade English learners, currently receiving ESOL services, as measured by the Criterion-Referenced Competency Test?

Research Question 2: What is the relationship between the class size reduction model, when compared to sheltered instruction on the reading development of sixth-grade English learners, currently receiving ESOL services, as measured by the Criterion-Referenced Competency Test?

Hypotheses

H_1: There is a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction

through the class size reduction model, as measured by the Criterion-Referenced

Competency Test based on delivery model.

H$_2$: There is a statistically significant difference in the grade-level reading development

for sixth-grade English learners, who are active ESOL students, receiving instruction

through the class size reduction model, as measured by the Criterion-Referenced

Competency Test based on language development level.

H$_3$: There is a statistically significant difference in the grade-level reading development

for sixth-grade English learners, who are active ESOL students, receiving instruction

through the class size reduction model, as measured by the Criterion-Referenced

Competency Test based on delivery model and language development level.

Alternatively, the following are null hypotheses for the first research question:

H$_{01}$: There is not a statistically significant difference in the grade-level reading

development for sixth-grade English learners, who are active ESOL students, receiving

instruction through the class size reduction model, as measured by the Criterion-

Referenced Competency Test based on delivery model.

H$_{02}$: There is not a statistically significant difference in the grade-level reading

development for sixth-grade English learners, who are active ESOL students, receiving

instruction through the class size reduction model, as measured by the Criterion-

Referenced Competency Test based on language development level.

H$_{03}$: There is not a statistically significant difference in the grade-level reading

development for sixth-grade English learners, who are active ESOL students, receiving

instruction through the class size reduction model, as measured by the Criterion-

Referenced Competency Test based on delivery model and language development level.

Identification of Variables

There are two independent variables that are analyzed in conjunction with the CRCT reading scores: delivery models and language development levels. The instruction is an independent categorical level with two levels (Gall et al., 2007). The first categorical level of the first independent variable will be the CSR delivery model, which places ELs (currently receiving ESOL services) in the general education classroom. With a smaller number of students, more individualized instruction is used to present the curriculum in a differentiated manner to all students (Grisham, 2000). Because teachers are less preoccupied with disruptive behaviors, the quality of instruction is improved, and student achievement is generally greater (Shin & Chung, 2009). General education, ESOL, and students with learning disabilities (LD) are all present in this model.

The second level of instruction in the second independent categorical variable is the sheltered instruction delivery model. While literature supports that sheltered instruction can assist ELs with language development (Abadiano & Turner, 2002), it not only presents language instruction but also content material in a comprehensible manner for ELs. Taught by an ESOL teacher who is certified in the content, sheltered instruction has been implemented in all core curriculum classes and combines language and content standards. This model serves only ESOL students.

Language development level is the second independent variable. Determined by the WIDA Consortium's (2007) ACCESS test, these language development levels are the measure of ELs' language proficiency in reading, writing, listening, and speaking and range from Tier A (beginning), Tier B (intermediate), and Tier C (advanced) on the

ACCESS test (World-Class Instructional Design and Assessment, 2011). It is on Tier C

that ELs can exit the ESOL program if they attain a language development level of 5.0

or higher.

These ACCESS test tiers are based upon WIDA language development levels

that ensure ELs receive appropriate language testing. The tiers allow ELs to take the

ACCESS test based on their current level of English language development. Based on

the ACCESS scores, ELs are provided with a language development level; there are six

levels: level 1 is *entering*, level 2 is *beginning,* level 3 is *developing,* level 4 is

expanding, level 5 is *bridging,* and level 6 is *reaching*. This language development level

shows ELs' abilities within each level and addresses social and academic language

(Board of Regents of the University of Wisconsin System, 2011). ELs who are at a

language development level of 6 are considered to have near-native English fluency.

Levels below 5.0 are included in this study, thus creating a larger sample size. It should

be noted that ELs at a level one are considered part of the Intensive English Language

(IEL) program, which falls under the umbrella of the ESOL department. These IEL

students, however, are deferred from CRCT Reading, English Language Arts, and Social

Studies tests. Therefore, no data is available for these ELs. (See Figure 1.1).

Figure 1.1. The WIDA Chart English Language Proficiency Levels

Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging

ACCESS for ELLs®: TIER A

ACCESS for ELLs®: TIER B

ACCESS for ELLs®: TIER C

TIER A is most appropriate for English language learners who:

• have arrived in the U.S. or entered school in the U.S. within this academic school year without previous instruction in English, OR

• currently receive literacy instruction ONLY in their native language, OR

• have recently tested at the lowest level of English language proficiency

TIER B is most appropriate for English language learners who:

• have language proficiency and some, but not extensive, academic language proficiency in English, OR

• have acquired some literacy in English, though have not yet reached grade level literacy

TIER C is most appropriate for English language learners who:

• are approaching grade level in literacy and academic language proficiency in the core content areas, OR

• will likely meet the state's exit criteria for support services by the end of the academic year

Level 6 - Reaching

One dependent variable exists in this study: the reading scores as measured by Georgia's CRCT Reading test. The purpose of this test is to monitor students' mastery of grade-level standards (Georgia DOE, 2012b). This standardized assessment was designed by the Georgia Department of Education for school district personnel. It serves the purpose of "[measuring] student acquisition and understanding of the knowledge,

concepts, and skills set forth in the CCGPS/GPS" (Georgia DOE, 2012b, p. 2). This instrument identifies grade-level reading abilities of reading skills, vocabulary, comprehension, and information literacy, and media literacy as determined by grade-level CCGPS/GPS standards; it also provides "reliable measures as well as structure to the assessment program" (p. 2).

Definitions

Academic Language Proficiency

Academic language proficiency refers to the academic vocabulary and language used inside the classroom and within a specific content (Cummins, 1979). Taking more time to master than BICS, the academic language proficiency requires five years to seven years (on average) to reach a native-English level of academic language (Cummins, 1979).

ACCESS Test

Developed by the Center for Applied Linguistics, the Assessing Comprehension and Communication in English State-to-State for English Language Learners (ACCESS) test is the annual English proficiency test for ELs in grades K-12 in the state of Georgia. It measures progress in the language domains of reading, writing, listening, and speaking to determine language development levels of ELs (Board of Regents of the University of Wisconsin System, 2011). Students are tested on one of three tiers: Tier A, Tier B, or Tier C. It is according to ELs' ACCESS test scores at a specific tier that a language development level is determined.

Basic Interpersonal Communicative Skills

Basic interpersonal communicative skills (BICS) refer to conversational English acquired by ELs (Cummins, 1979). It generally takes about two years for ELs to reach a functional level of conversational vocabulary and fluency (Cummins, 1979). BICS is a component of language development and is included in various components of the ACCESS test. Being able to communicate conversationally allows ELs to interact with native English-speaking peers, and it assists them with increasing cultural and linguistic knowledge that can be transferred to all language domains.

Class Size Reduction Delivery Model

The educational reform of the class size reduction (CSR) model seeks to decrease class size than what it is at present with the purpose of increasing student learning (Achilles, 2005). In this model, general education teachers have a smaller number of students to whom they are able to present more individualized instruction of the general education content. In these settings, a diverse student group exists, as students with disabilities, English learners, and general education students are placed in the same class. Behavior is generally improved and academic achievement is seen by most students (Hood, 2003). With a fewer students per teacher (Achilles, 2005), teachers have greater opportunities to work individually with students, which positively impacts behaviors and students staying on task.

Common Core State Standards

The Common Core State Standards (CCSS) are now the "benchmark for determining college and career readiness in English language arts/literacy and mathematics" (Council of Chief State School Officers, 2012). More rigorous than previous performance standards, CCSS promote high expectations for all students and

expect that students will be able to read and write at higher levels while incorporating higher order thinking skills in all language domains (CCSSO, 2012).

Comprehension

Comprehension of reading texts is "the reason for reading" (National Institute for Literacy, n.d., p. 41). Readers who read with purpose and utilize active reading strategies are able to better understand what they read. Therefore, comprehension is linked to explicit instruction of how to best use reading strategies (National Institute for Literacy, n.d.). Comprehension strategies vary by grade level and student needs and provide students with the tools to read grade-level text independently. It is important to note that the reading comprehension scores are provided by the CRCT Reading assessment. The comprehension scores are paired with reading levels that detail how well a student can read at that grade level. Reading levels are: frustration level which posits that students cannot read and comprehend at this grade level, instructional level which signifies that students can read and comprehend with assistance from the teacher, and independent level which means that students can read and comprehend at this grade level with no assistance (Leslie & Caldwell, 2011).

Criterion-Referenced Competency Test

The Criterion-Referenced Competency Test (CRCT) is a standardized test required for all Georgia students in grades three through eight and is "designed to measure student acquisition and understanding of the knowledge, concepts, and skills set forth in the CCGPS/GPS (Georgia DOE, 2012b, p. 2). This test contains sections for each of the five content areas: Mathematics, Science, Social Studies, English/Language Arts, and Reading. The Reading, Mathematics, and English/Language Arts sections are

"designed to measure student achievement of the Common Core Georgia Performance Standards (CCGPS)" (p. 2), while the Science and Social Studies sections measure achievement for the Georgia Performance Standards (GPS).

The Georgia Department of Education mandates that students in third, fifth, and eighth grades must receive a performance levels score of at least an 800 on the Reading and Mathematics sections of the CRCT in order to move to the next grade. According to the Georgia Department of Education's CRCT Score Interpretation Guide (2012a) a score below 800 indicates that a student *Does Not Meet the Standard* for the that content area, while a score from 800-849 indicates that a student *Meets the Standard*, and a score at or above 850 indicates that a student *Exceeds the Standard* for that content area. While it does measure the mastery of grade-level standards, tt should be noted that the CRCT is designed to measure minimum competency in each content section.

On the CRCT students with disabilities and ELs are allowed to receive accommodations, which change "how a student takes or responds to the assessment" (p. 1). Standard accommodations for ELs are extended time, small group, explaining and paraphrasing directions in English, repetition of directions in English, and the use of a word-to-word dictionary.

English Learners

English learners (ELs) consist of children whose parents have "come to work or study in the United States" (Fairbairn & Jones-Vo, 2010, p. v). ELs also consist of refugees and U.S.-born native English-speakers "whose language development does not lend itself to immediate academic applications" (p. vi). The ELs have first learned or primarily speak another language other than English and come from a non-English

speaking home or country (Capps et al., 2005). In the United States, the majority of ELs (80%) are Spanish speakers and come from lower economic and educational backgrounds (Capps et al., 2005); the second largest group is ELs of Asian origins. It should be noted that the ELs participating in this study are in sixth-grade, as the middle schools in this school district are grades 6-8. Private schools and some other public school in the state may include fifth grade in the middle school program.

Fossilization

Fossilization refers to the time when some components of ELs' second language stop changing (Lightbown & Spada, 2006). During fossilization, ELs no longer identify or correct errors in their reading, writing, listening, and/or speaking of English. They also no longer recognize the differences between their first language and English but develop an inter-language, which is "a system intermediate between the mother tongue and the target language" (Gass & Selinker, 1992, p. 23). Fossilization can be short term or long term. It is often only through direct instruction that an EL can develop recognition of errors and continue towards native-like language proficiency.

Language Proficiency Level

Language proficiency is defined as the ability to effectively use a language in social, work, personal, and educational situations that are required for daily functioning and living in society (Peregoy & Boyle, 2005). Language proficiency levels of ELs include their ability to read, write, speak, and listen (Board of Regents of the University of Wisconsin System, 2011). It should be noted that WIDA terminology has changed from *language proficiency levels* to *language development levels* when addressing the

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current functioning language level of ELs. Because of this, the term *language development levels* will be used throughout this study.

Second Language Acquisition (SLA)

Second language acquisition (SLA) occurs in the four domains of language: listening, speaking, reading, and writing (Peregoy & Boyle, 2005). The SLA process includes learning the language subsystems of phonology, morphology, syntax, semantics, and pragmatics (Lightbown & Spada, 2006; Peregoy & Boyle, 2005), which are acquired individually and simultaneously depending on the learning environment. SLA can occur formally (e.g. in a classroom through instruction) and informally (e.g. exposure in society and interaction with peers).

Sheltered Instruction Delivery Model

Sheltered instruction is a content class taught by the ESOL teacher, who is also certified in that content area. ELs currently in the ESOL program are the only students in sheltered instruction classes. Sheltered instruction provides ELs with the opportunity to socially interact with peers and the teacher in a manner appropriate for their language development levels, while learning content material (Abadiano & Turner, 2002). Through comprehensible input, learning objectives are cognitively appropriate and based on grade-level content and are taught in conjunction with linguistically appropriate strategies and objectives. More explicit instruction is implemented, as mastery of complex vocabulary and implicit content topics are difficult for lower level ELs (Russell, 1995).

WIDA

The World-Class Instructional Design and Assessment (WIDA) standards are based on Teaching English to Speakers of Other Languages (TESOL) national English language proficiency standards and are the means by which ELs' language development levels are measured (World-Class Instructional Design and Assessment, 2011). Using these standards, WIDA has created *Can-Do Descriptors* that depict what an EL can do in each language domain at development levels 1-5 (WIDA, 2011). The WIDA standards and *Can-Do Descriptors* guide the selection of differentiation methods of this study.

WIDA Language Development Level

The language development levels of WIDA range from level 1 (beginning) to 6 (reaching). Level 6 signifies that an EL has reached near-native fluency in English (Board of Regents of the University of Wisconsin System, 2011). According to WIDA, these six language development levels "outline the progression of language development in the acquisition of English as an additional language, from 1, Entering the process, to 6, Reaching the end of the end of the continuum" (Gottlieb, Cranley, & Cammilleri, 2007). In Georgia, a student exits the ESOL program at be reaching a Level 5 – *bridging* of Tier C, the advanced level, on the ACCESS test because their English level will allow them to successfully function in the content classrooms with little to no language support. Therefore, ELs in the current research study will have language development levels below 5.0.

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Assumptions

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Assumptions

Influencing the generalizability of the findings is the accuracy in the report of demographics. However, it is assumed that because students' identities were protected,

their demographic information was accurately provided. It is also assumed that teachers correctly implemented their delivery model as instructed by school administration. Fidelity is increased, as each school has appropriately certified teachers working with student groups attending classes under the CSR and sheltered instruction delivery models. In both groups, teachers are certified in ESOL and reading content. However, the CSR model provides reading content to both general education and ESOL students and uses CCSS standards, general education materials, and does not using the language development levels of the students to guide the lessons. In these classrooms, the curriculum is the same, but the sheltered instruction delivery model is guided by both CCSS and WIDA standards and differentiation based on linguistic differences and language development levels guide instruction.

Likewise, the assumption is made that students taking the CRCT assessment and ACCESS test did so to the best of their ability. Due to the esoteric nature of the content of the CRCT, it is also assumed that students were not provided with assistance on the CRCT. Due to the fact that the CRCT is standardized, it is assumed that the administration of the CRCT was exact and according to the CRCT manual, as all teachers have been trained in test administration. It should be noted that teachers do not score the CRCT, but these assessments are collected by the state and scored.

CHAPTER 2: REVIEW OF THE LITERATURE

As school systems implement steps toward improving the standardized test scores of ELs, research-based, differentiated teaching pedagogy must increase in the classroom (Fairbairn & Jones-Vo, 2010). Tomlinson (2004) states that teachers are responsible for differentiating "what the student needs to learn or how the student will get access to the information" (no page) through strategic methods, assessments, or presentation and scaffolding of material. This can be difficult when new ELs move into school districts mid-year but still are expected to read at grade level by the time they take standardized tests in the spring.

Difficulty is also found in the challenge of teachers either feeling or being "underprepared to teach these students" (Teale, 2009, p. 699) and lacking the appropriate training for addressing the literacy development of diverse learners through a multicultural context and culturally and linguistically relevant pedagogy (Klingner & Soltero-Gonzalez, 2009; Lucas & Villegas, 2010). ELs' struggles with literacy, though, are heightened when less than appropriate pedagogy and learning conditions exist in the classroom (Klingner & Soltero-Gonzalez, 2009). By incorporating differentiated practices into the classroom, however, ELs receive language-appropriate pedagogy that simultaneously supports content and language development based on students' language development levels (DelliCarpini, 2006).

This literature review highlights how language acquisition is embedded in social contexts and occurs on a broader scale than mere classroom instruction (Peregoy & Boyle, 2005). While still growing in popularity, the class size reduction (CSR) model has only been studied in relation to grade-level content mastery by predominantly

native-English speakers as measured by achievement or standardized assessments (Ding & Lehrer, 2011; NICHD Early Child Care Research Network, 2004; Shin & Chung, 2009). This review discusses the theoretical framework of the delivery models, the history of EL instructional models, instructional approaches that teachers have implemented when teaching ELs, how the CSR model and sheltered instruction have been used in content and language instruction, as well as how the implementation of the new Common Core Standards impact literacy in the classroom. The review concludes by addressing the current gap in literature, which is how the CSR model and sheltered instruction model relates to ELs' grade-level comprehension, reading ability, and mastery of grade-level standards (as measured by Georgia's standardized assessment), in correlation with language development levels that are between levels 2-5 on the ACCESS test.

Theoretical Framework

As the National Reading Panel (NRP) and National Institute of Child Health and Development (NICHD) worked together to determine the most effective ways in which children learn to read, they studied phonemic awareness, fluency, phonics, reading instruction and comprehension, and vocabulary (National Reading Panel (NRP), 2000). The NRP and NICHD found that word identification is first learned through stories that reflect the personal and applicable life experiences of children (NRP, 2000). Addressing cultural and social experiences within a student's personal environment provides a vocabulary and linguistic foundation that allows students an appropriate and accessible way to decode new words, build new schema, and increase reading comprehension (Opitz, Rubin, & Erekson, 2011). Schema and vocabulary development grow into a

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language acquisition process in which ELs observe and acquire new language from the world around them through social interactions in specific contexts (Lantolf, 2006; Vygotsky, 1978).

NICHD and NRP also found that early readers will "use what they know about language, literature, and the world" (Yatvin, 2000, p. 4) in order to make sense of new texts. Because children begin the reading process by learning to read and later must learn to read for information, their vocabulary and schema constantly expand by implicitly building background through the culture and people around them (Bandura, 2002). This is accomplished as children are able to converse with, listen to, and view modeling by adults and more fluent peers. The class size reduction model's reliance on social interaction, culture, and environment, which are the means by which a language is developed, embeds this study in the social cognitive theory.

By placing ELs in smaller classes, appropriate language and social behaviors are better evaluated by ELs, as conduct improves as overall disruptive behavior descreases in the CSR model, especially in lower SES schools (McKee, Rivkin, & Sims, 2011). Because of this, teachers are able to focus that time on explicit instruction, working individually with students, and providing appropriate social interaction. As the quality of instruction is improved and created to meet the individual needs of students, all students requiring more differentiated, explicit, or modified instruction are able to achieve (McKee, Rivkin, & Sims, 2011). Being able to focus instruction on the needs of the students is imperative for ELs immersed in a general education environment, which also embeds this study in the sociocultural theory.

Social cognitive theory. Claiming that children "operate cognitively on their social experiences" (Grusec, 1992, p. 781), the social cognitive theory centers on socialization, observation, and associationism (Miller, 2002). It is through these processes that children mimic adult behaviors that are positively reinforced by society and associate certain actions, language structures, and vocabulary with specific social interactions (Miller, 2002). Bandura, a leader in social learning theory, links learning with observation, modeling, and social interaction (Bandura, 2006). As children learn behaviors and language, their behaviors and language are either reinforced or corrected by society (Miller, 2002).

According to Dobzhansky (1972), the behavior of humans has a plasticitiy and learnability that transcends culture, allowing us to adapt to diverse environments. Because of the agentic perspective (i.e. the perspective that people are able to have some control over situations and the environment) that Bandura (2002, 2006) places on the social cognitive theory, students not only react to their environments but self-regulate and self-reflect through modes of personal and proxy agencies in which they proactively ensure desirable outcomes from environmental forces. While the normed characteristics of these agencies vary across cultures, these agentic modes enable students to adjust to social systems and language despite native culture and language.

Just as students have the ability to reflect on and be selective in how they react to their environment, self-efficacy creates the belief that they can receive certain effects based on their actions (Bandura, 1997). Through this reflection and selection process and agentic perspective, students are able to observe the world around them (both linguistically and culturally) and acquire the language skills necessary to survive and

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grow in these new environments. As students require time to master new language skills, they utilize "their ingenuity to insulate themselves from selection pressures" (Bandura, 2002, p. 272).

Social cognition allows students to regulate their own learning and master vocabulary, semantics, and other facets of language at their own pace based on their self-efficacy and peer pressure to engage themselves in activities (Gee, 2001). Children learn modeled behaviors by observation, and those behaviors are either positively or negatively reinforced (Bandura, 2006). By this same process, content and academic language is acquired for use in educational contexts with peers or teachers. Actions can be modified to intentionally influence consequences, just as proper use of language allows students to receive good grades or ask where the restroom is located (Bandura, 2006).

Through the lens of social cognition, the CSR model presents ELs with an environment that surrounds them with individualized, quality content instruction while allowing them more opportunities for language growth, as working more closely with the teacher in a less disruptive setting can raise achievement (Dobbelsteen, Levin, & Oosterbeek, 2002). This still also allows ELs to form connections between the first language (L1) and second language (L2) (Cummins, 2001 as cited by Baker & Hornberger) as they are able to learn content in an appropriate manner. The plasticity of social cognition facilitates this process, while the component of interacting with classmates through flexible grouping places ELs in a position to draw on their self-efficacy and agentic modes to receive the desired outcomes.

Sociocultural theory and the zone of proximal development. The sociocultural theory integrates "the social environment into the process of [literacy and language] development" (Lantolf, 2006, p. 717). The theory also views humans in a "sociocultural matrix" (Miller, 2002, p. 166), which has an ever-present effect on human behavior and includes beliefs, ways of doing things, social and physical settings, and spoken and written language. Because culture is the guiding factor regarding what vocabulary, knowledge, and skills children need in order to develop language, human behavior cannot be understood apart from this social system (Miller, 2002). The vocabulary and language learned is specific to that environment and culture surrounding students (Lantolf, 2006; Vygotsky, 1978).

According to Vygotsky (1978), learning occurs prior to entering the formal classroom. At early ages, natural curiosity allows children to acquire a vast amount of information. These early childhood experiences lay the foundation of language and content knowledge. Sociocultural in nature, Vygotsky (1978) incorporates the use of social interaction and experiences to increase and assist with language and learning. However, instruction and mastery of new concepts (i.e. language) occur best within the zone of proximal development (ZPD) (Daniels, 2008). Krashen expanded ZPD to language and linguistics in his theory of second language acquisition (SLA). In Krashen's theory of SLA, which states that in order for a student to learn literacy skills he or she must be exposed to one level above his or her current level of reading (i+1), ELs' current reading (or language) level and provide scaffolding to go one level higher (Lightbown & Spada, 2006). This allows students to work above their current level, while continuing to develop reading and language skills.

Within the ZPD, students learn literacy and language on the developmental or linguistic level on which an EL can work independently and the level on which they can work with adult guidance or in collaboration with more proficient peers. In this manner, more vocabulary and overall language is acquired when working collaboratively (Zuengler & Miller, 2006). Due to a richer acquisition of vocabulary through socialization, students are able to perform at a higher level of language when working with others, and by doing so, are able to initially imitate and later internalize new, higher-level vocabulary and language structures (Vygotsky, 1978). Learning shifts from learning from another person to becoming a self-regulating process in which the learner is responsible for making sense of new information and language (Lantolf, 2006).

Because of evolving sociocultural contexts, language development and literacy are not learned by one method of instruction, but through a multitude of cognitive activities that represent cultural participation and interaction (Daniels, 2008; Sasaki & Takeuchi, 2010). This sociocultural perspective allows students to use "the social, cultural, and linguistic resources of students and teacher" (Pacheco, 2010, p. 295). Acquiring vocabulary in a social context is representative of real-world interactions, as adults and native English-speaking peers are able to model, explain at the child's level, provide background knowledge and clues, and address a child's prior knowledge, all of which are components of the CSR delivery model, as interactions with both adults and same-age peers take place. Therefore, the CSR delivery model in this study provides ELs with the language exposure needed to internalize new, higher-level content material, vocabulary, and language structures. The scaffolded development of this instruction is

directed by the state of an EL's interlanguage system and the feedback provided by social interactions and cultural norms (Ellis, 1997).

Depending on the environmental feedback, language and behavioral development can become fossilized, thus no longer receiving social influence or positive reinforcement and becoming stagnant at their current level (Daniels, 2008). However, the sociocultural context of CSR model immerses ELs in a collaborative setting where they receive social interactions to assist them in continuously increasing language and literacy in the content (Echevarria et al., 2004). Such instruction provides the reinforcement and social environment in the ZPD, while working to avoid language fossilization.

History of English Learners' Instruction

Even though English Learners have been present in American schools since the birth of public education, the increased immigration over recent years is altering the demographics of American classrooms forever (Capps et al., 2005). Because of this, the instructional methods and delivery models of ELs have evolved (Capps et al., 2005). According to Echevarria, Vogt, and Short (2004), direct instruction and grammar translation was the predominant means of instruction with ELs in the early 1900s. However, those were later replaced by audiolingual teaching methods, which focus on listening and speaking skills, in the 1950s (Echevarria et al., 2004). As educators and researchers learned more about the process of second language acquisition, the communicative method of instruction grew, as it provided ELs with a means by which they could practice and use language in "meaningful, relevant ways" (Echevarria et al., 2004, p. 8). This increased relevance and application to students' lives raised student motivation and increased learning (Kember, Ho, & Hong, 2008).

With the implementation of communicative instruction, bilingual programs have grown in popularity but only exist in some states (Peregoy & Boyle, 2005). General bilingual programs provide effective content instruction in English and in the native language (Rolstad, Mahoney, & Glass, 2005), while transitional bilingual programs provide native language instruction for one to three years for the purpose of building a foundation in literacy and content upon which future skills can be built. Maintenance bilingual education, however, provides native language and English instruction through middle or even high school, which ensures that the native language is maintained and students are fully bilingual and biliterate (Peregoy & Boyle, 2005).

Contrasting from bilingual programs are English language programs in which instruction is only in English. In sheltered English classes, students are taught grade-level content through linguistically appropriate means by a teacher certified in both ESOL and the content area (Peregoy & Boyle, 2005). ESOL classes offered by schools are influenced by teacher certification, student needs, and teacher allotment and are determined by the school principal and school board.

Pull-out classes allow ELs to receive language instruction from an ESOL teacher for a specific period during the day, while still attending all other content classes (Peregoy & Boyle, 2005); this provides both language and content reinforcement. In English language development and structured English immersion classes, all instruction is in English, just as with sheltered and pull-out classes (Peregoy & Boyle, 2005). However, sheltered instruction focuses on simultaneous development of literacy and language development. Many states provide instruction based on the perceived needs of their ELs, which may not always take into account student background or language

development level (Fairbairn & Jones-Vo, 2011). Also, even though research has shown that teaching ELs to read in their L1 can lead to higher levels of reading in their L2, this is still a controversial issue and native language courses are not always offered in school systems (Goldenberg, 2008).

Just as global, economic, and societal changes are impacting schools (Prenskey, 2005), the needs of the ELs are also influencing curriculum decisions, as teachers must simultaneously address academic and language needs in their classes (Fairbairn & Jones-Vo, 2010). While an EL's reading level in the L1 can determine reading proficiency and language acquisition in the L2 (Avalos, Plasencia, Chavez, & Rascon, 2007), language instruction cannot remain as it was due to a growing number of ELs who lack a foundation in their L1 (Fairbairn & Jones-Vo, 2011). Many ELs were born in the United States and lack a strong foundation in their first language that prohibits language transference to their L2, especially in reading and writing, which creates a bi-illiteracy in some students (Escamilla, 2006). Some ELs even experience fossilization in their language skills, as they cease to develop or improve but remain stagnant at their current English proficiency level. This can be due to learning environment, home culture, or just the difficulty of learning a new language without appropriate language feedback (Lightbown & Spada, 2006).

Despite the appearance of English language proficiency through BICS, ELs require a minimum of five to seven years to master the academic language needed for classroom success and independent functioning (Cummins, 2003). To combat the lack of academic language and linguistic challenges ELs face, educators must understand the linguistic needs of their ELs and "provide rich meaningful lessons that support their

language growth" (Short & Echevarria, 2005, p. 9). Educators also must consider "the central role of culture in learning" (Klingner & Soltero-Gonzalez, 2009, p. 5) for the diverse group of students in their classroom, as well as the differences between the complexity of language used in the academic texts and the language of "ordinary talk" (Fillmore & Fillmore, 2012, p. 1). As a result, many teachers working with ELs have turned to scaffolding, sheltered instruction, and providing culturally and academically appropriate social and education experiences during which ELs can meet more rigorous content and language objectives (Echevarria et al., 2004).

While bilingual, immersion, and sheltered instruction programs have been studied intensely (Teale, 2009), the class size reduction model has been minimally studied with ELs. Even though limited English proficiency and minority students have been included in studies (Cortes, Moussa, & Weinstein, 2012; Grisham, 2000), minimal data of strictly ESOL groups is presented to detail how CSR impacts their language and content skills and if, as a group, they were able to raise achievement scores. Because of this, there is an evident gap in literature for the discussion of CSR as it relates to academic development and language scores of middle grades ELs.

Changing Standards, Changing Instruction: Common Core State Standards

The implementation of the Common Core State Standards provides new standards for and assessments of literacy in the classroom for all learners through "a well-rounded, rigorous, and relevant education to prepare all students for college, career, and citizenship in the 21st century" (Herczog, 2012, p.89). These standards are fewer in number and clearer in expectations than previous performance standards and are

specifically for the content areas of math and English language arts with an emphasis in language and literacy (Herczog, 2012).

For the 2012-2013 school year, 46 states and three territories have formally adopted the Common Core State Standards (CCSS) (Common Core Standards Initiative, 2011, n.p.). (Texas, Nebraska, Virginia, Alaska have not adopted the CCSS, and Minnesota is only using the ELA portion of CCS at this time.) It is important to clarify that CCSS is "not a national curriculum" (Fontichiaro, 2011, p. 49), but each participating state must adopt at least 85% of the standards (Fontichiaro, 2011). The other 15% may be designed and developed by the state education program. Formally beginning in June 2009 (Klotz, 2012), CCSS was not designed and is not funded by the U.S. Department of Education (Fontichiaro, 2011). It is an initiative of the National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO) (Fonticiaro, 2011), which is composed of teachers, parents, school administrators, and education experts across the country.

Providing teachers with a "consistent, clear understanding of what students are expected to learn" (Common Core Standards Initiative, 2011, n.p.), CCSS are rigorous, evidence-based standards that are consistent across states. The initial goal of CCSS was to "identify the most essential skills and knowledge in English language arts and mathematics that students need to succeed in college or in a career" (Klotz, 2012, p. 25). With college and career-readiness serving as a driving force behind these standards (Klotz, 2012), all students are prepared for career and college by providing them with the tools and critical inquiry necessary for survival in the global marketplace (Common Core Standards Initiative, 2011).

A main idea behind CCSS is that all students will be on a level "playing field" (Eckelkamp, 2012, p. 20) through focusing on the integration of 21st century skills and the promotion of higher order thinking skills that merge interdisciplinary approaches of "the use of supportive technologies, inquiry, and problem-based learning to provide contexts for pupils to apply learning" (Herczog, 2012, p. 89). Migrant students, students who move from one state to another, and students who live on opposite sides of the country will now be "similarly prepared for the college or the workforce" (p. 20). As CCSS "build[s] upon strengths and lessons of the current state standards" (Common Core Standards Initiative, 2011, n.p.), students' knowledge is assessed using performance-based assessments incorporating short, medium, and extended responses related to real-world situations (Klotz, 2012). The summative assessments of CCSS are being developed either by the Partnership for the Assessment of Readiness for College and Careers (PARCC) or Smarter Balance Assessment, depending on which consortia the individual state joined (Klotz, 2012). Students with disabilities and ELs are expected to participate in these assessments, occurring at the beginning, middle, and end of the school year. For students with severe cognitive disabilities, specialized assessments are being developed.

Even though all students are tested in a standardized format, teachers are still given the freedom to create lesson plans and adjust and differentiate instruction to meet the needs of all learners in their classrooms (National Governors Association Center for Best Practices and the Council of Chief State School Officers, 2010). This freedom allows teachers to provide scaffolding for ELs and students with disabilities, while challenging students who are working above grade-level. Standards are not "[dumbed]

down" (NGA & CCSSO, 2010, p. 18) but set a high bar for all students, as CCSS places a great deal of emphasis on development of high-order thinking skills, increased reading of informational texts, higher lexile bands, and enhanced literacy development in the classroom. How students reach the bar is up to the discretion of the teacher. NGA and CCSSO (2010) state that students with disabilities and ELs are expected to meet these same standards, as teachers have "a greater opportunity to share experiences and best practices within and across states, which can lead to an improved ability to serve young people with disabilities and English-language learners" (p. 18). Because of this, it is vital that language acquisition and literacy and language objectives are implemented to ensure that ELs are equipped with the academic and language skills needed to read, comprehend, and apply knowledge to achieve these higher levels and standards.

Common Core State Standards and Literacy Development. The Common Core State Standards embed literacy and reading of complex expository text in each content area through language and literacy objectives (Zygouris-Coe, 2012). This push for literacy development is due in part to the fact that U.S. students in fourth grade score very highly in comparison to other countries in reading achievement, but by tenth grade, these same students score very poorly among other students in developed nations (Organisation for Economic Co-Operation and Development, 2006, 2008). Therefore, CCSS has increased the amount of expository texts a student in elementary and middle schools is expected to read and has increased the rigor and skills with which all texts are to be read and analyzed.

Differing from most state standards, CCSS expands literacy development beyond English Language Arts and Reading classes to "reading complex texts" (Beach, 2011) in

science, mathematics, and social studies as well. This highlights that literacy

development is imperative if all students who are expected to meet these standards,

especially for those students who have not been expected to read and apply on as high a

level in years past (NGA & CCSSO, 2010). However, there is concern for how ELs and

language minority students will master these academic texts that "differs enough from

the English familiar to most students that it constitutes a barrier to understanding"

(Fillmore & Fillmore, 2012, p. 1).

The knowledge for mastery of CCSS goes beyond understanding simple content

material; it encompasses the intricate combination of all for language domains (reading,

writing, speaking, and listening), and language development in the content area to urge

students to think outside the box at a higher level. This is done through the

implementation and use of specific language and literacy objectives and standards.

Emphasizing speaking and listening tasks with language-specific standards (CCSS,

2011), CCSS merges all four language domains, creating a literacy-rich environment for

all students (Parkay et al., 2010). For teachers of ELs, these standards do not bring much

change into the classroom, as ESOL language instructional approaches have always

combined the instruction and assessment of all four language domains (Echevarria et al.,

2004).

Even though CCSS provides rigorous goals for all students, including ELs,

teachers have the freedom to bring in literature texts and create assessments that apply

and connect to the real world, thus raising interest and increasing student motivation

(Kember et al., 2008). Addressing the background and prior knowledge of each EL

(Almanza-de-Schonewise & Klingner, 2012), teachers can be culturally and

linguistically responsive in the selection of texts, incorporation of writing, or analysis of ideas while meeting standards and evoking "critical conversation, critical dialogue, …and [generating ideas]" (Rodriguez, 2008, p. 436).

For content areas like science and social studies, which are primarily "text-based" (Goldsmith & Tran, 2012, p. 57), ELs and struggling readers require language support if they are to master the content (Zygouris-Coe, 2012). Despite the challenge of informational science and social studies texts, CCSS still requires that students engage in their reading, which highlights the need of reading strategies that assist all students in comprehension of the content. Expository text organization can include chronology, arguments, cause and effect, and compare and contrast, as well as the inclusion of definitions and descriptions of complex ideas (Goldsmith & Tran, 2012). Because content literacy is important, ELs should not be separated from content literacy instruction but should receive research-based differentiated instruction and modified texts that aid in the development of language skills and vocabulary development needed for comprehension (Goldsmith & Tran, 2008). Teaching content-appropriate reading strategies allows ELs and other struggling readers to efficiently recognize the difficult text structure of content area texts.

In combination with teaching appropriate reading strategies to ELs and low-level readers and building literacy skills (Zygouris-Coe, 2012), text passages should be carefully selected. Considering the language and syntax structures and vocabulary of the text and the overall content, texts should be selected based on the reading ability of the students and the lesson's context (Goldsmith & Tran, 2012). If an expository text is to significantly contribute to a student's learning, the student must be able to comprehend

the text at the instructional reading level (i.e. with assistance from the teacher). Instruction of these texts should promote active participation, collaboration, and discussion incorporating content-specific vocabulary, as well as ongoing assessment, monitoring progress, and providing appropriate feedback (Zygouris-Coe, 2012). Successful literacy development based on CCSS signifies that all students can understand and use the content language in written and oral form (Zygouris-Coe, 2012).

In collaboration with appropriate content, reading level, and purpose, a high priority of CCSS is to engage students in a "balance of literature and informational texts from the early grades through high school" (Kern, 2012, p. 71). Because CCSS acknowledges that informational texts can be highly motivational for students learning to read and engaging in reading (Kern, 2012), the pressures of implementing expository text instruction in all classrooms are growing. This stress is heightened due to the reading achievement gap existing between achievement in informational reading and achievement in literary reading, as U.S. children lack experience with expository text in early and middle grades (Mullis, Martin, Gonzalez, & Kennedy, 2003).

While the National Education Assessment of Educational Progress (NAEP) framework expects that 50% of materials read in the fourth grade class are expository texts, the PARCC assessment framework for English/language arts and literacy with CCSS expects that 50% of reading materials in the third grade class will be expository (Duke, 2010). Such changes from CCSS indicate that all classrooms will have to adjust instruction to address the increase of expository texts. However, for students who already struggle with reading, such as ELs, simply selecting modified expository texts

will no longer suffice. Instructional practices must be altered to address the language development levels and academic skills of all students.

The minority groups of Hispanics, African-Americans, and other underserved students "are lagging in most college and career-readiness benchmarks" (Gilroy, 2011, p. 22). Only 19% of Hispanics are meeting the standards necessary for successful entry into the workplace or in college-level courses (Gilroy, 2011). This is a stark contrast from their Caucasian peers, 42% of whom are meeting the standards of college and career-readiness assessments (Gilroy, 2011). Based on these statistics, it is doubtful that these minority students from underserved populations can succeed without remediation courses in mathematics or English. Such an academic deficit warrants the implementation of teaching practices that not only bring students up to grade-level but also equip them with the language skills necessary to be fully literate in the classroom and in the real world. Due to the increasing diverse population of students in P-12 classrooms, differentiated instruction that simultaneously addresses content and language is now a vital component to instruction.

Common Core State Standards and Lexile Levels. Along with increased number of expository texts students should read, the lexile bands for grade levels have been raised as well. According to Stenner, Burdick, Sanford, and Burdick (2006), the lexile scale was developed based on readability measures of sentence length and word frequency, and it places text readability and students' reading ability on the same scale. In order to determine the lexile level of any student, a 125-word text segment is read, and one comprehension question is answered. On lengthier texts, a comprehension question

is provided for each 125-words. Indicating the difficulty of texts, lexile levels do not evaluate pictures, graphics, or headings of any kind.

In conjunction with increased text complexity, CCSS increased the lexile levels within each grade band, which are: K-1, 2-3, 4-5, 6-8, 9-10, and 11-CCR (MetaMetrics, 2013). Entitling the higher lexile levels "Stretch Lexile Band," students are to stretch themselves "to read a certain proportion of texts from the next higher text complexity band" (MetaMetrics, 2013, n.p.). (See Figure 2.1).

Figure 2.1

Common Core State Standards "Stretch Lexile Band"

Grade Band	Current Lexile Band	"Stretch Lexile Band"
K-1	N/A	N/A
2-3	450L-725L	420L-820L
4-5	645L-845L	740L-1010L
6-8	860L-1010L	925L-1185L
9-10	960L-1115L	1050L-1335L
11-CCR	1070L-1220L	1185L-1385L

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Differentiated Instructional Strategies Used in ESOL Delivery Models for Whole Reading Intervention

Vast amounts of literature highlight the benefits of differentiated instruction in all delivery models on the growth of achievement scores, as measured by state and national standardized assessments (Adesope et al., 2011). Even though research-based differentiated instruction is supported with empirical evidence as a means to meet the diverse needs of ELs, varying definitions for "*what* differentiated instruction actually looks like and *how* teachers can integrate it into their routines and procedures may be unclear" (Baecher, Artigliere, Patterson, & Spatzer, 2012, p. 14). Because of this, a

concise definition of differentiated instruction has been developed and states that differentiation is "generally tailored to specific subgroups of students rather than the whole class and involves the teacher in creating variations of the main activities of the lesson" (Baecher et al., 2012, p. 16); only within Pearson SIOP Model does it explicitly address language and linguistics (Echevarria et al., 2004). As teachers adjust their "base lesson plans" (Baecher et al., 2012, p. 16), differentiated tasks and assessments can be made to focus on ELs' language development levels and share the same content objectives as the general education class, and language objectives are established for the ELs. There are times when differentiation strategies implemented for ELs in the classroom will benefit other struggling readers or possibly all learners, such as in the case of the CSR model.

Literacy instruction includes the same components whether teaching general education students or ELs: vocabulary, phonological awareness, comprehension, phonics, word recognition, writing, and reading fluency (Teale, 2009). When addressing whole reading differentiated instruction, as opposed to teaching specific reading components, researchers have found that the use of metacognitive strategies allow ELs to relate texts to their prior knowledge or build background information (Akyel & Ercetin, 2009; Sasaki & Takeuchi, 2010). Olson and Land (2007) worked with ELs at the high school level; they found that when taught with high expectations, modeling, flexible grouping, guided practice, and using explicit instruction, ELs' achievement scores on the graduation test rose from 74% passing to 93% passing. These scores were 86% higher than the previous "best" score attained by high school ELs. Comprehensive reading instruction consisting

of these components, as well as leveled texts, have been proven effective in increasing reading achievement scores of ELs (Guthrie et al., 2009).

Because ELs lack the language skills to deduce implicit instructions often found in large group, general education classrooms, it is through explicit instruction of how to comprehend texts and reading skills that ELs are able to build upon their L2 literacy foundation (Barr et al., 2012; Bauer & Arazi, 2011; Cirino et al., 2009). When assessing the effectiveness of explicit instruction in both Spanish and English through scaffolding, modeling, small groups, and use of reading strategies, ELs were found to outperform control groups in decoding, fluency, spelling, comprehension, and oral language in both languages of instruction (Cirino et al., 2009). When available, the use of bilingual dictionaries has been key in supporting word learning and text comprehension in correlation with other explicit strategies (Bauer & Arazi, 2011). These differentiation strategies were also found to have long-term effects when ELs were tested the following year (Adesope et al., 2011; Cirino et al., 2009).

Differentiated reading instruction is now influenced by technology in the classroom with the use of e-texts (Fry & Gosky, 2007; Jones & Brown, 2011; Park & Kim, 2011). When comparing the comprehension of e-texts and hard copies of texts, research has found that making the text accessible through clozed reading samples and pop-up dictionaries led to higher text comprehension scores (Fry & Gosky, 2007). Visual representations, pre-, mid-, and post-reading strategies, and modified definitions provide extra scaffolding while addressing all facets of literacy development (Fry & Gosky, 2007; Proctor, Dalton, & Grisham, 2007). Standardized reading achievement tests for elementary and secondary ELs have measured statistically significant student gains with

the implementation of these differentiation techniques (Guthrie et al., 2009; Proctor et al., 2007).

Literature acknowledges that literacy development for ELs can only occur when support through the previously discussed measures, as well as analysis of text structure, vocabulary instruction, linguistic simplifications of definitions and text, making personal connections to the text, guided reading, retelling, and analyzing the contexts of words for appropriate meanings are provided (Barr et al., 2012; Bauer & Arazi, 2011). Because these differentiated strategies address components of reading instruction, such as fluency or vocabulary, that can either increase or impede comprehension, ELs' comprehension is heightened when such strategies are implemented (Kamps et al., 2007).

Goodwin and Ahn (2008) provide support for differentiated strategies for whole reading intervention by approaching this topic in reverse. ELs who had been labeled as struggling readers, and later as language or learning disabled, were the participants in a study in which they received explicit, differentiated instruction on how to decode the phonemes and morphemes of larger, unknown words. It was not until after that these students were able to create and develop a foundation for literacy that led to improvements in reading skills.

Because differentiation can take on many appearances in the classroom, it is important to note that each of the studies in this section contain differentiated components such as: guided or cooperative reading, modified definitions, visual representations, flexible grouping, scaffolding, or explicit instruction based on ELs' development levels (Adesope et al., 2011; Barr et al., 2012; Cirino et al., 2009; Fry & Gosky, 2007; Guthrie et al., 2009; Kamps et al., 2007; Proctor et al., 2007; Townsend &

Collins, 2008). However, these strategies were implemented in classes working only with ELs or in large general education classes that did not employ the CSR delivery model. It is the delivery of these strategies through ESOL classes or larger general education classes that highlight the gap of differentiated reading instruction for ELs in an innovative CSR setting.

Differentiated Components of Reading Development

The National Reading Panel Report (2000) describes five components of reading instruction: phonemic awareness, phonics, vocabulary, comprehension, and fluency. Research illustrates how differentiated strategies improve reading skills when each reading component is taught individually. While this literature ranges from pre-school to high school ELs, a large portion of research at all academic levels has been dedicated to vocabulary acquisition and idiomatic cultural expressions (Collins, 2009; Lugo-Neris, Jackson, & Goldstein, 2010; Palmer, Bilgili, Gungor, Taylor, & Leclere, 2008; Sasaki & Takeuchi, 2010).

Prior to addressing reading components with students, literature shows that many teachers begin instruction of reading components by finding and linking themes and topics to the experiences and personal interests of students (Lee, 2004). This creates an "instructional congruence" (p. 69) between the content material and the schema of the ELs, which assists ELs in overall mastery of the five reading components. According to a literature review by Janzen (2008), language should be interwoven with content instruction, which is where many teachers focus on teaching and assessments for simultaneous mastery of reading components and content. It is important to note that semantics, syntax, pragmatics, and cultural knowledge are included in this area of

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language instruction (Bauer & Arazi, 2011; Szapara & Ahmad, 2007). By using a culturally and linguistically relevant pedagogy to increase student interest and relevance, motivation simultaneously increases in all content areas (Kember et al., 2008).

While many pedagogical approaches for reading instruction exist, research highlights that explicit phonological instruction improves literacy for beginning readers, which helps them link oral sounds to letters and ultimately form words (August & Shanahan, 2006; Ehri, Nunes, Stahl, & Willows, 2001; NRP, 2000). For ELs who have a foundation in their native language, these basic phonetic skills can be transferred upon acquisition of English; this is not always the case, however (Bauer & Arazi, 2011). Cirino et al. (2009) studied ELs who were diagnosed as struggling readers having poor phonetic skills and possible reading disabilities. The young ELs in the treatment groups scored higher on letter-word identification tests of the Woodcock Language Proficiency Battery when they received separate, explicit instruction in fluency, phonics, and comprehension.

Additional studies have supported that ELs at all grade levels require the inclusion of content-related components in their instruction to ensure that they are able to function in the academic setting and on achievement tests (Guthrie et al., 2009; Olson & Land, 2007; Szpara & Ahmad, 2007; Townsend, 2009; Townsend & Collins, 2009). Mastery of vocabulary and idiomatic expressions is necessary for language acquisition (Palmer et al., 2007) but is only a small component of classes at the middle grades level. Explicit vocabulary instruction through the means of scaffolding, gestures, visual representations and synonyms, and alternate words have been proven to increase overall reading

comprehension as measured by the Peabody Vocabulary Test-III and target vocabulary tests (Collins, 2009), especially when paired with repeated readings of the text.

Researchers did note that achievement scores were higher when students had similar vocabulary bases in both English and the native language. Along with base vocabulary, general vocabulary knowledge in English has been found to predict more academic vocabulary growth despite the amount of academic base vocabulary in the native language (Townsend & Collins, 2008). As exposure to content and conversational English increases, ELs are able to experiment with, mimic, and utilize these new words (Sasaki & Takeuchi, 2010).

Because vocabulary is vital for comprehension, studies with vocabulary growth and comprehension as the dependent variables indicate success when taught alongside content (National Institute for Literacy, 2007; Townsend & Collins, 2008). While comprehension strategies and vocabulary instruction are dependent on language development levels (Bauer & Arazi, 2011), special dictionaries with modified definitions or pictures for lower-level ELs, word games, or connections to real life assist ELs with mastering vocabulary (Townsend, 2009). With electronic and online texts, teachers have taken advantage of technological components that easily differentiate content vocabulary (Fry & Gosky, 2007; Park & Kim, 2011). Online textbooks assist ELs with pop-up dictionaries that link a dictionary function to each word in the text (Fry & Gosky, 2007). This connects each word to a modified definition that was the same for all ELs despite language development level, and posttest scores revealed that students with the pop-up dictionary and online textbook received higher content comprehension and vocabulary

mastery than students in the control group who used a hard-copy text with no vocabulary assistance (Fry & Gosky, 2007).

No matter the linguistic structure of the textbooks and grade-level vocabulary, research highlights strategies for vocabulary instruction and provides support that using such differentiated strategies increases overall comprehension as measured by achievement tests or other various posttests and assessments despite the delivery model utilized (Adesope et al., 2011; Barr et al., 2012; Janzen, 2008; Proctor et al., 2007; Sasaki & Takeuchi, 2010; Townsend & Collins, 2008). While the aforementioned literature details how differentiated instruction can increase language and literacy achievement scores for ELs in EL-only classes, it does not address if it will assist students, who are taught alongside their general education peers in CSR classes, in successful comprehension of grade-level content text without previous instruction on the content-area topic. As ELs learn best through instruction that addresses language and content simultaneously (Echevarria et al., 2004), differentiated instruction for ELs presented through the CSR delivery model has not been addressed in literature.

Sheltered Instruction for the Development of English Learners' Literacy Skills

Creating a bridge between differentiated instruction used in typical ESOL classes and the general content education class is sheltered instruction, which serves the purpose of providing tailored instruction "so that students will *understand* [the] instruction and be able to *participate* in learning activities" (Peregoy & Boyle, 2005, p. 78). In some school systems, the term *sheltered instruction* is synonymous with Specially Designed Academic Instruction in English (SDAIE) (California State Department of Education, 1994). Used interchangeably, sheltered instruction and SDAIE provide "*grade*

appropriate, cognitively demanding core curriculum for English learners who have

achieved an intermediate or advanced level of English language proficiency" (Peregoy &

Boyle, 2005, p. 78) and is widely used in mathematics, science, English language arts,

and social studies (Hansen-Thomas, 2008). This type of instruction focuses on teaching

content material and language development simultaneously in English, while teaching at

a comprehensible level for ELs based on language development levels (Abadiano &

Turner, 2002; Russell, 1995).

Highlighting the key components of teaching core curriculum while developing

English language skills, using higher-order thinking skills, and providing the opportunity

for social interaction (Abadiano & Turner, 2002), sheltered instruction uses the content

standards assigned to the school district of the respective school. The learning objectives

for ELs in sheltered classrooms are appropriate for both grade level and cognitive ability

while comprehensible input is practiced through clear, annunciated speech, repetition,

visual representation, and modified definitions. Such comprehensible input, when paired

with social interactions, leads to either oral or written output, which provides teachers

with a means of assessing overall comprehension (Peregoy & Boyle, 2005). This output

is measured in relation to the language objectives of the specific lesson. These objectives

are based on the ELs' current English development level in conjunction with WIDA

Standards and what ELs should be able to produce at their respective levels.

In order to assist ELs in learning new, grade-level content, sheltered instruction

highlights the activation of prior knowledge and building background in order to create

new schema applicable to the content material (Russell, 1995). Using new schema,

graphic organizers, visual representations of content vocabulary, and hands-on

manipulations increase comprehension of the content, especially when paired with written content material. Explicit instruction of content using these strategies assists ELs in mastering the more technical and complex vocabulary and content (Russell, 1995). Differing from the strategies used and schema addressed, the language development levels of the ELs is often the main factor when determining a text's readability (Russell, 1995).

The content area of science has proven to be more difficult for ELs than other subjects when implementing academic vocabulary (Verma, Martin-Hansen, & Pepper, 2008). This difficulty emphasizes the need for explicit science instruction that integrates language and content, which have easily been provided by sheltered instruction (Verma et al., 2008). Incorporating strategies such as "wait time, visual organizers, group work, and allowing students to respond for immediate feedback" (Verma et al., 2008, p. 57), researchers found that in sheltered instruction science classrooms ELs who struggled most with academic vocabulary ended up gaining a deep understanding of the science content and had meaningful, engaging experiences as measured by formative science assessments (Verma et al., 2008).

While there is ample evidence to support that ELs benefit from sheltered instruction, many educators have varying techniques for the implementation of this delivery model. It is because of this that schools are trying other alternatives to deliver content to ELs in an appropriate manner. The class size reduction model is being implemented with ELs at few schools, but there is still minimal research that details the relationship between ELs' grade-level reading mastery and development. Because the

CSR model is generally used with early grades, literature does not sufficiently address the reading comprehension abilities of middle school ELs.

The History of the Class Size Reduction Delivery Model

While differentiated instruction has been found effective for ELs, the delivery model in which it is presented to ELs could impact achievement. The CSR delivery model was not initially created for ELs but for general education students in large classes. Tennessee's legislature funded Project STAR, which was a study introducing CSR to rural, suburban, urban, and inner-city schools for the 1985-1986 school year for approximately $12 million over the course of four years (Krueger, 1999). (It should be noted that these were within school studies.) Designed and carried out by the efforts of four universities (i.e., Vanderbuilt University, Tennessee State University, the University of Tennessee, and Memphis State University), this study implemented the CSR model for four years in schools with populations large enough to implement the delivery model in at least three classes per grade level. General education classes initially had 22-25 students and were decreased to 13-17 students in this model (Word et al., 1990).

Students entering kindergarten participated in this study through third grade and were randomly assigned to a CSR class, regular class, or a regular class with a teacher and paraprofessional. Over the course of the four years, 11,600 K-3 graders were involved in the study and were placed back in regular classes at the end of third grade (Word et al., 1990). Data from this pilot study revealed that during the four years of implementation 19.8% of students in the CSR model were retained, while 27.4% of students in the larger general education classes were retained (Krueger, 1999).

Data revealed that smaller classes did have higher scores initially, but differences were not as large between CSR classes and regular classes over the course of the students' school career. African American students, inner-city, low achieving students, and students on free and reduced lunch saw more improvement than the overall general education population (Krueger, 1999; Krueger & Whitmore, 2002). Despite the gains seen in achievement scores, Prais (1996) and Hanushek (1998) conclude that the STAR study did not support CSR as a means of academic improvement, as previous studies did not conclude that the achievement gap between CSR and regular classes grew over time. Hanushek (1998) states that the achievement gap should widen as students progress through elementary and middle school and exit the primary grades, during which the CSR model was originally implemented. It is important to note that the student population data provided only shows White and Asian students as participants in this study.

Following the STAR experimental study, the Student Achievement Guarantee in Education (SAGE) study was implemented in Wisconsin and was randomized between schools. Taking place in grades K-3, treatment schools in the SAGE study only had 15 students, while control schools had 21-25 (Molnar, Zahorik, Smith, Halbach, & Erle, 2002). Because the SAGE experiment was conducted between schools, scores of African American students and White students could be compared at SAGE and non-SAGE schools. Results showed that African American students in SAGE schools had higher achievement scores between first through third grade than African American students attending non-SAGE schools (Ready, 2008). Higher achievement scores were also found between African American students and White students in CSR classes in

SAGE schools, while Whites had higher achievement scores than African Americans in non-SAGE schools (Ready, 2008).

Proceeding the STAR and SAGE studies, large-scale CSR programs were implemented in California and Florida. Receiving funds for each student enrolled in a CSR class, California was the first state to launch this program in 1996. Due to the selection bias of how higher income schools implemented the CSR model before lower income schools, despite funding incentives (Ready, 2008), true comparisons of skills and achievement scores cannot be made, as the data was not collected in early grades. Also, schools with fewer disadvantaged students were more likely to implement CSR. In terms of educational equity, the CSR initiative of California appeared to have "unintended negative consequences" (Ready, 2008, p. 15). For the purposes of the current study, it should be noted that California did include ELs in their study, but ELs were required to attend sheltered or immersion classes.

To follow up on California's CSR initiative, Stasz and Stecher (2000) surveyed third grade teachers and gathered data from case studies involving 16 teachers. It was found that teachers in CSR model classrooms and non-CSR model classrooms often implemented similar teaching strategies. However, significant differences were also discovered. Teachers in CSR model classrooms spent less time addressing negative behaviors and spent more time on individualized instruction with students who were identified as struggling readers (Stasz & Stecher, 2000).

Florida, however, initiated the CSR model as a result of voter initiative in 2002 when a constitutional amendment was approved to limit K-3 classrooms to 18 (Ready, 2008). In grade 4-8, class sizes are limited to 22, and content classes in high school

were limited to 25. Even though these changes to class size are being phased in,

research has yet to be collected on Florida's CSR implementation (Reading, 2008).

While lowering class sizes appears to be a simple solution to overcrowding and a tool to

better achievement, there are many components to consider for the implementation of a

successful CSR model.

Class Size Reduction Model Implementation

Reducing class sizes has been found effective in raising achievement in primary

and elementary grades and has positive and cognitive benefits through secondary grades

(Achilles, 2005; Krueger, 1999). A study by Angrist and Lavy (1999) found that a

significant increase in achievement scores was found for fourth and fifth grade students

but not for third grade students. Positive differences were even found on high school

SAT and ACT scores for students who had been instructed through the CSR model in

earlier grades (Krueger & Whitmore, 2000). Academic benefits were seen in fewer

grade retentions, higher high school graduation rates, more college application rates, less

remediation needed, and student needs more appropriately addressed, while behavior

(i.e. classroom disruptions and school vandalism) improved and teacher morale

increased, as less teachers reported high levels of stress (Achilles, 2005). Appearing

costly from a financial perspective, these academic and behavioral benefits return mixed

economic results. After analysis of the STAR longitudinal study, Krueger (2002) states

that "every dollar invested in small classes yields about \$2 in benefits" (p. 34).

However, Yeh (2007) conducted a meta-analysis of CSR in Wisconsin, Tennessee, and

California and found that it was "124 times less cost effective" (p. 7) than other delivery

models, such as the rapid formative assessment model.

Implementing the CSR model at early grade levels has been the focus of most research related to the CSR model and reduced class sizes. Studies have found that smaller classrooms in primary grades had more quality instruction, and students had better literacy and mathematics skills than primary students not enrolled in a CSR class (Blatchford, 2003; Cho, Glewwe, & Whitler, 2012; NICHD Early Child Care Research Network, 2004; Shin & Raudenbush, 2011). The benefit of class size on literacy achievement was more evident in lower-achieving students, as opposed to students who were higher (Blatchford, 2003), as well as with African American students as opposed to White students (Nye, Hedges, & Konstantopoulos, 2004; Shin & Raudenbush, 2011; Smith, Molnar, & Zahorik, 2003). Because of such findings, researchers have found "the idea that smaller classes are most beneficial for children living in poverty and for children of color" (Graue & Rauscher, 2009).

Because teachers were able to provide more differentiated approaches for their smaller classes (Blatchford, Bassett, & Brown, 2005), reading scores were significantly higher only through direct instruction to the whole class and not through the delivery model itself (Miseli & Gamoran, 2006). Pong and Pallas (2001) also found higher achievement for smaller classes, but it was also discovered that class size did not influence the instruction, pedagogy, nor the amount of curriculum covered.

As class size has been found to have a direct impact on achievement, CSR classes provide instruction that decreases the students' need for extra help, as teachers are able to implement more thorough lessons, and more thoughtful questions and answers between teachers and students (Pedder, 2006). While instructional strategies were found to boost achievement, the effects of the delivery model were found to be

insignificant for various socioeconomic statuses, academic backgrounds, and races in both large and small classes (Miseli & Gamoran, 2006).

With larger classes, researchers found that there engagement varied during large-group and small-group classes, even though the larger classes used more structured flexible grouping activities directed by the teacher (NICHD Early Child Care Research Network, 2004). It was also noted that students had more positive behaviors toward the teacher in larger classrooms but less positive interactions with peers, thus creating more behavior disruptions in larger groups. In some cases, it was found that students who were more disruptive were assigned to the smaller classes, which negated the possible positive effects of the CSR model (Miseli & Gamoran, 2006). Teachers, however, noted that they were able to provide better support, feedback, and individualized support and instruction to students in smaller classes (Blatchford & Martin, 1998), thus leading to some teachers preferring smaller classes (Milesi & Gamoran, 2006).

Studies in classrooms at the secondary level highlight greater time and abilities allotted to differentiated and scaffolded activities required to master more complex content (Pedder, 2001). Pedder (2001) found that there was little consistency between classroom processes and size in higher grades, and extraneous variables of student workloads and abilities, teacher expertise, and resources were found to be greater influences on student achievement as opposed to class size. The achievement scores of secondary students did not increase as much as the scores of elementary students (Shin & Chung, 2009).

Even though smaller class sizes can be ideal for teachers, districts have found that reducing class sizes provides a surplus of teachers, and because of this, new

teaching positions in more desirable schools may draw teachers away from higher poverty schools. This may leave low-achieving schools with teachers of lower-quality or fewer qualifications (Lankford, Loeb, & Wyckoff, 2002).

While having its share of positive results, research results have been inconsistent. A meta-analysis by Shin and Chung (2009) revealed that effect sizes also vary by state, with Tennessee, North Carolina, Wisconsin, and Indiana having positive effect sizes and West Virginia, South Carolina, and Georgia having negative effect sizes. As conclusive information cannot be found, it can be stated that CSR research is lacking with Georgia middle grades, with minimal research existing for classes consisting of large numbers of ELs. Therefore, this study serves to address this gap in literature.

Conclusion

Meeting the linguistic and literacy needs of ELs must be purposeful, strategic, and differentiated if development in and mastery of the language and content is to occur simultaneously. Despite the federal government's requirement that ELs are to receive services based on language development level and need, there are no policies that instruct school districts in "identifying, assessing, placing, or instructing them" (Calderon, Slavin, & Sanchez, 2011, p. 103). Even though diversity continues to grow in American classrooms, many educators believe that American schools offer all children, including ELs, an equal and equitable education. However, Brock (2007) states that this "utopian vision is not realistic" (p. 471). Providing ELs with differentiated approaches outlined in this chapter is the means by which teachers are able to provide authentic learning experiences in all delivery models while linguistically scaffolding content material which

further allows "ELLs to demonstrate their knowledge without complete reliance on language" (Pawan, 2008, p. 1450).

While there are many teachers who incorporate differentiated components into a lesson, not all teachers are able to provide such individualized instruction in general education classes with large class numbers. With the usage of the CSR, studies show that lower student numbers allow teachers the opportunity to focus on the needs of all students and allow the time to implement quality lessons that include more research-based strategies needed to meet the needs of ELs in classroom instruction. Analyzing how relationship between the CSR delivery model, in comparison to sheltered instruction, and grade-level reading development addresses current gaps in research that analyze if this delivery model plays a role in helping ELs develop literacy skills despite current language development level.

CHAPTER 3: METHODOLOGY

Introduction

The purpose of this methodology chapter is to detail procedures, research design, and analysis for the study. By providing a thorough description of the study, it can be replicated. This research study had one design, as two variables – both of which were preexisting – were examined. According to Campbell and Stanley (1963), collecting data in the form of scientific evidence requires one or more comparisons. A causal-comparative design was employed for both research questions to compare the relationship between the two delivery models (CSR and sheltered instruction), language development levels, and mastery of grade-level reading standards. There was not manipulation of either independent variable, as the delivery models were in place for the course of the school year and were being examined in conjunction with ELs' grade-level reading development scores and mastery of content standards as measured by Georgia's Criterion-Referenced Competency Test (CRCT). Throughout this chapter, the research design, participants, and setting are discussed in relation to the research questions and hypotheses. Instrumentation, research procedures, and data analysis are explained based on the nature of the research design.

Design

A causal-comparative design was employed to examine the impact on grade-level reading scores of ELs by the CSR and sheltered instruction delivery models and preexisting language development levels. Because the language development levels could not be manipulated and were preexisting, the causal-comparative research design was used (Rovai et al., 2013) for examination of the relationship between language

development levels on reading development. Therefore, teachers in the study did not receive special training or receive special instructions prior to the collection of data as the variables were preexisting. It should be noted that the causal-comparative design is used when manipulation of the variables is neither possible nor ethical.

ELs took the CRCT, which is required for all students in grades 3-8 in Georgia, to measure the dependent variable of the grade-level reading development. To control for the selection threat to validity due to non-equivalent groups, homogeneous groups were created as ELs met required criteria as determined by the ESOL program. This criteria requires that ELs must have a language development level between 1.0 and 5.0. It also states that a language other than English must be the first language learned and that a language other than English is the predominant language of the home. Utilizing ESOL requirements to create homogenous groups equalized groups and controled for the selection threat (Rovai et al., 2013).

A chi-square analysis was conducted to demonstrate similar proportions between the CSR group and the sheltered instruction group. It revealed the following CRCT data for the CSR group: six ELs did not meet standards, 33 ELs met standards, and two ELs exceeded standards. Within the sheltered instruction model, the following was found: three ELs did not meet standards, 36 met standards, and zero ELs exceeded standards. Based on the language development levels of ELs in the CSR model: seven ELs were at levels 2 and 3, and 34 ELs were at levels 4 and 5. In the sheltered instruction model, three ELs were at levels 2 and 3, and 36 ELs were at levels 4 and 5.

Research Questions and Hypotheses

The research questions and hypotheses in this study are:

Research Question 1: What is the relationship between the class size reduction model, when compared to sheltered instruction, and language development levels on the reading development of sixth-grade English learners, currently receiving ESOL services, as measured by the Criterion-Referenced Competency Test?

Research Question 2: What is the relationship between the class size reduction model, when compared to sheltered instruction on the reading development of sixth-grade English learners, currently receiving ESOL services, as measured by the Criterion-Referenced Competency Test?

The hypotheses in this study are:

H_1: There is a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model.

H_2: There is a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on language development level.

H_3: There is a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model and language development level.

Alternatively, the following are null hypotheses for the first research question:

H$_{01}$: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model.

H$_{02}$: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on language development level.

H$_{03}$: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model and language development level.

Participants

The population was the ESOL population from a Georgia school district in metro Atlanta (County A). In this county, students are identified for the ESOL program based on their first language, language most spoken in the home, and/or the language of the parents. While in the ESOL program, instruction focuses on the development of both BICS and academic vocabulary. ELs remain in the ESOL program until reaching a language development level of 5.0 on the ACCESS test. It should be noted that the BICS and academic vocabulary are directly measured by the CRCT Reading assessment. Passages on the CRCT are selected based on grade-level academic vocabulary. By teaching both BICS and academic vocabulary, ELs are equipped to read narrative, informational, and persuasive texts that contain a plethora of English words at all

academic and proficiency levels. To provide an equitable learning environment, ELs are provided with accommodations that are based on their individual language development level. These accommodations are provided on an on-going basis throughout the school year and in all classes, even in the CSR and sheltered instruction classes.

To create the sample, criterion sampling was used as it allowed for the selection of participants based on predetermined criteria (Cohen & Crabtree, 2006), which includes speaking English as a second language and having a language development level less than 5.0 as determined by the ACCESS test. Convenience sampling procedures was then implemented, as the sample was conveniently located to my place of employment, and county personnel was needed to collect specific data on sample characteristics and demographics (Gall et al., 2007). As the sample was studied after the fact, based on preexisting delivery models and on the number of 6th grade ELs in the school, a request for participant data (Appendix A) was made and approved by the county.

The sample was homogenous in nature. Within the CSR group of 40, there were 10 ELs who were also diagnosed as students with learning disabilities, 20 girls and 20 boys, while there were 11 ELs diagnosed as students with learning disabilities, 14 girls and 25 boys in the sheltered instruction group. Five students in the CSR group were also found to speak a language other than Spanish (i.e. French, Haitian Creole, and an African dialect), and four students in the CSR group spoke a language other than Spanish (i.e. Vietnamese and French). Apart from gender, the existence of learning disabilities, native languages, and meeting ESOL requirements created homogenous groups. It should also be noted that the CSR group had six students without scores; the

reason for the unavailability is unknown. The sheltered instruction group had five students without scores. Four of the five unavailable scores for that group were due to the ELs being the IEL program, which means that they were newcomers to the United States and were deferred from taking the Reading, English Language Arts, and Social Studies sections of the CRCT. The reason for the fifth unavailable score at School 2 was unknown.

For data analysis purposes, it is also important to note that 78.25% (63 students) of ELs participating in this study were born in the United States and the majority of whom speak Spanish as their native language. (Within this number, 61 students are native Spanish-speakers, one student in a native French-speaker, and one student speaks an African dialect as a first language.) This leaves 21.25% (17 students) in this study who were born in a foreign country. Eighty-seven percent of the sheltered instruction group was born in the United States, while 70% of the CSR model was born in the United States.

Setting

This study was conducted in a large school district in metro Atlanta, Georgia (County A). According to the March 2012 FTE count, there were 106,849 students enrolled in County A schools (Georgia Department of Education, 2010-2011). Of those students, 60,158 were minority students with County A hosting 6,871 ESOL students during that year. Nine percent of students had limited English proficiency, which signifies that they either were currently receiving or have received ESOL services. During the same year, the school system had 32 migrant students, 22,079 food stamp households, and 977 cases of Temporary Assistance for Needy Families (TANF).

County A had 6,871 ESOL students according to the March 2012 student population, with a large Hispanic population, followed by smaller numbers of Asian students (Georgia Department of Education, 2012d). African students were present in County A (as seen in the ACCESS data reports received in the data spreadsheets for this study) but were not provided in County A's March 1, 2012 full time equivalent (FTE) enrollment data, which can be described as the number of ELs attending school full time. Ages ranged from 11 – 13 years old.

Within County A, School 1 and School 2 were the approved sites. School 1 and School 2 are comparable with student numbers, demographics, and scores. School 1, which offered the class size reduction delivery model and is located in the southern end of the county, had 46 sixth-grade ESOL students and offered two 6th grade class size reduction classes with ESOL students. Student demographics for the 2012-2013 school year were: 1% Asian, 65% Black, 29% Hispanic, 3% White, and 2% Multiracial, with 85% of students receiving free and reduced meals. In the 2011 school year, 73% of Limited English Proficient (LEP) students (English learners included) met or exceeded the English Language Arts section of the CRCT (Georgia's standardized test), and 77% of LEP students met or exceeded the Reading section of the CRCT. Including general education students, 86.97% of students met or exceeded the English Language Arts section of the CRCT, with 91.01% of all students meeting or exceeding the Reading section.

School 2, also located in the southern end of County A, provided the sheltered instruction delivery model and had 44 sixth-grade ESOL students and offered sheltered instruction Reading ESOL classes based on the 2012-2013 school year. At School 2,

82% of students received free and reduced meals, with student demographics broken down as follows: 3% Asian, 48% Black, 39% Hispanic, 10% White, and 2% Multiracial. In the 2011 school year, 75% of LEP students (English learners included) met or exceeded the Reading and English Language Arts portion of the CRCT. In 2011, 73.8% of all students at School 2 met or exceeded the CRCT, with 88.39% meeting or exceeding the English Language Arts section and 90.94% meeting or exceeding the Reading section.

School 1 and School 2 had large 6th grade populations and participated with the purpose of providing a sample size of at least 64 students ($N =79$). Even though causal-comparative designs require at least 30 participants per group (Campbell & Stanley, 1963; Rovai et al., 2013), this sample size, which was to insure statistical power for analysis purposes, was determined using Cohen's sample size table (Cohen, 1992). Because educational research sets $\alpha = .05$ and power $= .80$, the suggested sample size when using an ANOVA with two groups is 64 to achieve a medium effect size (Cohen, 1992).

County A's ESOL program is designed to develop language proficiency while assisting students in meeting content standards (WIDA, 2011). Within the middle schools, ELs attend push-in (ESOL teachers linguistically modify content in general education classes), pull-out (students attend ESOL-specific classes taught in English), or sheltered classes (students attend a content class designed for ELs and taught in English by a teacher with ESOL and content-specific qualifications) (Peregoy & Boyle, 2005).

In all ESOL class designs, students are taught reading, writing, listening, and speaking skills per the new implementation of Common Core State Standards.

However, sheltered classes use the content and language standards of the Common Core State Standards and WIDA standards when working with ELs. ACCESS test scores, and ACCESS teacher report data allowed teachers in this study to implement sheltered instruction and assessments based on the current language development levels of ELs in the class. ELs in the class size reduction model, which also served general education students and students with LD, were guided only by the timelines and standards of Common Core Georgia Performance Standards (CCGPS) (CCGPS, 2012). Sheltered classes were also guided by CCGPS but were taught in conjunction with WIDA standards and were impacted by the academic and linguistic needs of ELs, as determined by student accommodations.

Even though the CSR delivery model and the sheltered instruction delivery model both had smaller class sizes and used the same grade-level reading curriculum, the implementation of each delivery differed. The CSR model was considered a general education class that served all students, including ELs. Guided by the CCGPS, the CSR model did not supplement the textbook with ESOL resources and did not use the language development levels of the ELs to set the pace and dictate the direction of the lessons. This class was designed for general education students but included ELs and students with disabilities. Even though the sheltered instruction model implements language and content simultaneously (Echevarria et al., 2004), the teachers in the CSR model implemented only content. In the CSR model, all students, ELs included, were given clearly defined content objectives and content concepts that were appropriate for educational background and age.

The sheltered instruction delivery model, while delivering grade-level reading curriculum, only teaches ESOL students, and the general education textbook was supplemented with linguistically differentiated materials that aided ELs in building background knowledge while learning language and content. The sheltered instruction model provided ELs with language objectives with adapted content that was appropriate for all language development levels. The language development levels of the ELs set the pace and served as an overall guide for what reading and language components needed to be taught and how they should be scaffolded. Because of the diverse nature of the two delivery models, diffusion of treatment was not present. Table 2 provides the description of the sequence, content, and curriculum standards for the sixth-grade Reading classes.

Table 2

Description of Sequence, Content, and Curriculum CCGPS for Sixth-Grade Reading Classes

Time of Implementation	Topic	Standards
First Nine Weeks	Primary Focus:	
	Informational Text	ELACC6RI1-10
	Secondary Focus:	
	Literary Text	ELACC6RL1-10
	1 Extended Informational Text	
	6 Thematically Connected Short Texts	
Second Nine Weeks	Primary Focus:	
	Literary Text	ELACC6RL1-10
	Secondary Focus:	
	Informational Text	ELACC6RI1-10
	1 Extended Informational Text	
	6 Thematically Connected Short Texts	
Third Nine Weeks	Primary Focus:	
	Informational Text	ELACC6RI1-10
	Secondary Focus:	
	Literary Text	ELACC6RL1-10
	1 Extended Informational Text	
	6 Thematically Connected Short Texts	

Fourth Nine Weeks	Primary Focus:	
	Literary Text	ELACC6RL1-10
	Secondary Focus:	
	Informational Text	ELACC6RI1-10
	1 Extended Informational Text	
	6 Thematically Connected Short Texts	

(Chart created by the Georgia Department of Education, January 2012. Retrieved from https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/ CCGPS_ELA_Grade6_CurriculumMap.pdf)

While there are research-based differentiated teaching practices that are employed by all teachers, the CSR model was not be void of this, as student needs and modalities of learning were taken into consideration when instructing. This form of delivery was appropriate as it presented general education content to all students using research-based differentiated practices. However, it did not require the employment of linguistic modifications and link to cultural connections through background or prior knowledge employed sheltered instruction classes. With all teachers trained in the content, the teachers based instruction on the specific delivery model assigned to their school. Doing otherwise would have invalidated findings (Rovai et al., 2013). The curriculum, primary textbooks (not including supplemental language resources), and content standards provided equivalent instruction; everything was held constant except for the method of instruction through each delivery model. This increases fidelity of the delivery models in each classroom and served to provide reliable data.

Instrumentation

The dependent variable that was evaluated was the grade-level CRCT Reading scores of sixth-grade ESOL students. These scores were used to determine if students mastered grade-level standards. To evaluate this, the instrument used in this study was the Criterion-Referenced Competency Test (CRCT). Created by the Georgia

Department of Education (GADOE) and set in place by the A+ Education Reform Act of 2000, the CRCT is taken by all students in grades three through eight (Georgia DOE, 2012b). In years past, students in first and second grades took the CRCT also, but due to budget cuts, those grades did not take it this year. Because this is an annual assessment and the two delivery models were implemented throughout the course of the school year, the CRCT was selected to provide evidence of how the sixth-grade reading standards had been mastered.

Divided into five domains to represent each content area (Reading, English/Language Arts, Science, Social Studies, and Math), the CRCT is "designed to measure student achievement of the Common Core Georgia Performance Standards (CCGPS)" (Georgia DOE, 2012b, p. 2). The purpose of this grade-level standardized assessment is to measure how well students acquire and comprehend skills, concepts, and overall knowledge presented by the CCGPS. The Reading content domain of the CRCT correlates to the CCGPS content domains of: reading skills and vocabulary, information and media literacy, and literary comprehension (Georgia DOEb, 2012). Table 3 demonstrates how each of the CCGPS content domains were covered and tested by the dependent variable of the CRCT test. Table 4 details the Common Core Georgia Performance Standards the correlate to the CRCT Reading section. It is important to clarify that Georgia uses the English Language Arts CCGPS in both English Language Arts and Reading classes. Because the CRCT Reading section is directly aligned with the CCGPS standards used in Reading classrooms in Georgia's schools and explicitly details how well ELs have mastered the grade-level Reading standards, the CRCT served as the instrument in this study.

Table 3

CRCT and CCGPS Domain Alignment

CRCT Domain	CCGPS Standard Associated with Domain
Reading Skills and Vocabulary Acquisition (Language)	ELACC6.L.4 ELACC6.L.5
Literary Comprehension (Reading Literary)	ELACC6.RL.1 ELACC6.RL.2 ELACC6.RL.3 ELACC6.RL.4 ELACC6.RL.5 ELACC6.RL.6 ELACC6.RL.9
Information and Media Literacy (Reading Informational)	ELACC6.RI.1 ELACC6.RI.2 ELACC6.RI.3 ELACC6.RI.4 ELACC6.RI.5 ELACC6.RI.6

Table 4

Georgia English Language Arts / Reading Common Core Georgia Performance Standards

Standard	Description of Standard
ELACC6.L.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. a) Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. b) Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible). c) Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.

	d) Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
ELACC6.L.5	Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
	a) Interpret figures of speech (e.g., personification) in context.
	b) Use the relationship between particular words (e.g., cause/effect, part/whole, item/category) to better understand each of the words.
	c) Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., stingy, scrimping, economical, unwasteful, thrifty).
ELACC6.RL.1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
ELACC6.RL.2	Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
ELACC6.RL.3	Describe how a particular story's or drama's plot unfolds in a series of episodes as well as how the characters respond or change as the plot moves towards a resolution.
ELACC6.RL.4	Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of a specific word choice on meaning and tone.
ELACC6.RL.5	Analyze how a particular sentence, chapter, scene, or stanza fit into the overall structure of a text and contributes to the development of the theme, setting, or plot.
ELACC6.RL.6	Explain how an author develops the point of view of the narrator or speaker in a text.
ELACC6.RL.9	Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics.
ELACC6.RI.1	Cite textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
ELACC6.RI.2	Determine a theme or central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
ELACC6.RI.3	Analyze in detail how a key individual, event, or idea is introduces, illustrated, and elaborated in a text (e.g., through examples or anecdotes).
ELACC6.RI.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
ELACC6.RI.5	Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
ELACC6.RI.6	Determine an author's point of view or purpose in a text and explain how it is conveyed in the text.

(Georgia Department of Education, 2012. Retrieved from https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_ELA_Grade6_Standards.pdf)

In the fifth grade, the Reading and Math scores must show a proficiency score of 800 or higher in order to be promoted to the sixth-grade. A score of *Does Not Meets* is 799 or lower, 800-849 is *Meets,* and 850 and higher is *Exceeds.* (See Figure 3.1.) If this score of 800 is not met, remediation and retesting follow.

Figure 3.1

Grade 6, Reading	
Performance Level Descriptors	
Does Not Meet	The student's overall performance in reading a variety of sixth grade materials does not meet the standard set for students in the sixth grade.
	Students performing at this level have difficulty demonstrating comprehension and showing evidence of a warranted and responsible explanation of literary, informational, and functional texts. They may be able to identify the features of literary and informational texts, but they have difficulty moving beyond identification of those features. They do not adequately understand the author's use of dialogue or description. Students performing at this level are typically inconsistent in determining both the main idea and supporting details in informational texts. They may have difficulty using context and word structure to determine the meanings of new words. Their use of graphic features and understanding of propaganda techniques is limited.
Meets	The student's overall performance in reading a variety of sixth grade materials meets the standard set for students in the sixth grade.
	Students performing at this level typically demonstrate adequate comprehension and show evidence of a warranted and responsible explanation of literary, informational, and functional texts. They can describe the elements and features of text. They can identify the author's use of dialogue, description, and other literary devices in literary texts. Students performing at this level can typically recognize the organizational structure of informational texts while reading. They can determine the main ideas and supporting details in informational texts. When reading functional and media materials, they use graphic features and recognize propaganda techniques. They consistently use context clues, word structure, and reference skills to determine the meanings of words while reading.
Exceeds	The student's overall performance in reading a variety of sixth grade materials exceeds the standard set for students in the sixth grade.
	Students performing at this level consistently show evidence of a warranted and responsible explanation of literary, informational, and functional texts. They have an in-depth understanding of the author's use of dialogue, description, and other literary devices in literary texts. They effectively make use of organizational structures to analyze informational texts. Students performing at this level can determine both implicit and explicit main ideas and themes. They use a variety of strategies to understand and acquire new vocabulary. They use graphic features and interpret propaganda techniques to enhance their cognition. They demonstrate a thorough understanding of grade-appropriate reading concepts and skills.

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Interpretation Guide: Grades 3 through 8.

The Reading passages and content on the CRCT fall within the new lexile band

of 925L-1185L for sixth through eighth grades, as established by CCSS. Some

questions on the CRCT are designed to be easier, while others are designed to be more

challenging. Students' individual lexile levels are provided on the CRCT Score Report,

which is given to schools and parents at the end of the school year; this report details at

what difficulty level the student can read and comprehend.

This assessment is a standardized test consisting of multiple-choice questions,

with no essay or short answer questions. General education students took the test in a

large group. However, accommodations were provided for ESOL and Special Education

students. A Testing Participation Committee (TPC) form was completed at the

beginning of the school year for all active and monitored ELs. This form addresses

accommodations, both standard and conditional, that create "changes in a test

administration that modify how a student takes or responds to the assessment" (Georgia

DOEa, 2012, p. 3). For ESOL TPCs, accommodations are divided into four categories:

scheduling, setting, presentation, and response. These accommodations are decided

upon by a committee of teachers who work with the EL and are determined after

analysis of the EL's proficiency level and classroom performance. All accommodations

are "designed to provide equity, not advantage" (p. 3) and do not in any way change

what CRCT is designed to assess. ELs received these accommodations since the

beginning of the school year, when the TPC form was initially completed, through the

end of the school year. While monitored ELs, may not have received accommodations,

ELs who were actively taking ESOL classes received accommodations based on language development level, unless otherwise specified to receive accommodations based on a learning disability.

This year the Reading CRCT was administered on Monday, April 22, 2013 at all middle schools in County A. Before this test, the testing booklets and answer sheets had to be check out by the administering teacher from the school's testing coordinator. During administration, teachers followed a strict script and were required to detail any and all testing irregularities that occurred during the testing period. After administration, testing materials were collected by the teacher and promptly returned to the testing coordinator. At the end of the testing week, the testing coordinator returned all materials to County A, who in turned sent them off to be scored by the state.

Because of processes taken by the Georgia DOE to carefully monitor CRCT development, the assessment has been proven valid. Mandated by Georgia law to measure students' mastery of CCGPS curriculum, the purpose of the test was identified. The test development begins with the validity of the CCGPS and their implementation in the classroom. The CRCT tests serve the purpose of measuring the performance of first through eighth grade students in each of the content areas. The test's validity is primarily dependent on how well the CRCT "matches the intended curriculum" (GA DOEc p. 1).

The development of the CRCT begins with the CCGPS. Committees of educators at all levels are created to "review the curriculum and establish which concepts, knowledge and skills will be assessed and how they will be assessed" (Georgia DOEc, 2012, p. 2). Once this is established, the committees create a "test blueprint and

test specifications" (GA DOEc, 2012, p. 2) that determines which standards will be measured on the CRCT and how those questions might look. With this information, *content domain specifications* are written and detail the content, difficulty, and item format. This is done by curriculum specialists, Georgia educators, and the Georgia Department of Education. These *content domain specifications* are then adapted into *CRCT Content Descriptions*. The creation of these documents and the participation of Georgia educators is one way the CRCT is a valid measure of the CCGPS.

Once the process of creating those documents is complete, test items and questions are written by "qualified, professional assessment specialists specifically for Georgia tests" (p. 2). Field tests and a committee of educators determine if this assessment is appropriate and serves its intended purpose of measuring the curriculum. After the field tests are conducted, another committee of educators analyzes the test questions in conjunction with the field test data. Student responses are evaluated, as are possible biases in any of the test material. These field items can be re-tested, rejected, or included on future tests. It is only after test questions have been field-tested and given approval by a committee of educators are they included on an actual CRCT test.

Using this data, the team of assessment specialists develop the test form and specific items based on the test blueprints previously developed, further establishing validity. Each test is "[assessed for] the same range of content as well as [carrying] the same statistical attributes" (GA DOEc, 2012, p. 2). Tests are then equated to ensure that all tests are of equal complexity. The final stage of CRCT development is to distribute the testing results and provide test scores. Yearly CRCT data and correlations with the Iowa Test of Basic Skills (ITBS) are analyzed for external validity. Also, by paying

careful consideration to each phase of developing the test, the Department of Education

ensures that the CRCT is valid and aligned with the CCGPS.

Reliability of the CRCT is determined using Cronbach's alpha reliability

coefficient index (Cronbach, 1951), which evaluates the "consistency of test scores as

the ratio of true score variance to observed total score variance" (Georgia DOEc, 2012,

p. 4). A second index used is that of the standard error of measurement (SEM),which is

"an index of the random variability in tests scores in raw score units" (p. 4). See Figure

3.2 for the reliability indices for the 2012 CRCT, as the 2013 CRCT information has yet

to be published.

Figure 3.2

Reliability Coefficients (Cronbach's Alpha) and Raw Score SEM for Subject Area Tests by Grade										
Grade	Reading		English Language Arts		Mathematics		Science		Social Studies	
	Alpha	SEM	Alpha	SEM	Alpha	SEM	Alpha	SEM	Alpha	SEM
3	.90	2.39	.90	2.74	.93	3.00	.93	3.14	.92	3.19
4	.90	2.27	.90	2.63	.92	3.00	.93	3.09	.92	3.27
5	.87	2.51	.89	2.70	.92	3.14	.92	3.12	.92	3.23
6	.86	2.35	.89	2.69	.92	3.26	.92	3.33	.94	3.15
7	.87	2.48	.91	2.51	.92	3.08	.94	3.03	.94	3.00
8	.86	2.26	.87	2.72	.92	3.22	.91	3.29	.92	3.21

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and Reliability Brief.

According to the Georgia DOE, the 2012 CRCT's reliability is consistent with

previous CRCT administrations. As the reliability coefficient can be compared between

tests and ranges from 0-1, the reliability index for the Reading CRCT in sixth-grade is

0.86 (Georgia DOEc, 2012). The conditional standard errors of measurement (CSEMs)

details "the degree of measurement error in scale score unites and are conditioned on the

student's score" (p. 5). The 2012 CSEMs for the CRCT are statistically consistent with

previous administrations and suggest current scores provide an accurate measurement of

mastery of the standards. See Figure 3.3.

Figure 3.3

Grade	CSEMs Associated with the CRCT Reading Cut Scale Scores	
	Meets	Exceeds
3	9	11
4	8	12
5	8	11
6	8	10
7	7	10
8	7	10

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and Reliability Brief.

Because of the CRCT has been found to measure that which is intended and can

consistently provide similar results, it has a high degree of validity and reliability.

Reliability of $\alpha = .86$ for the present sample was based on Figure 3.2, which presents the

reliability coefficient for the sixth-grade CRCT Reading test. This alpha level indicates

that there is high reliability for this test (Rovai et al., 2013).

Procedures

Prior to contacting administrators at two of County A's middle schools, a

research application was submitted to the county's research department.   It should be

noted that the first research application included implementation of a different and new

delivery model and the implementation of a different instrument. However, County A's

research department provided a letter stating that my research needed to focus on

delivery models that were currently be implemented in the county. Due to the timeline

when research would be implemented, it was also suggested that I use the CRCT as a

means of measuring reading achievement, as schools were not open to the implementation of a different instrument. (The CRCT had already been administered by teachers already in the schools and using this instrument would not require extra time or training by teachers for implementation.) Once County A granted permission to conduct research in two specific schools (Appendix B), administrators were contacted for permission to conduct this study using data from their student population (Appendix C). The IRB approval from Liberty University was sought after all county permission was granted (Appendix D). After IRB approval was granted, the principals were asked for permission using consent forms. Once those were signed, the county provided a final approval letter. Because participants did not have to take an assessment specifically for this study, as the data is publicly available, the participants and their parents did not receive letters of assent and consent. Therefore, no compensation was given to students at any time.

After all consent forms were returned, I coordinated with district personnel as to when CRCT and ACCESS scores were expected. All of these assessments are administered in the spring of the current school year; therefore Spring 2013 was the administration date. CRCT data and ACCESS scores were provided through the county's research department, who had access to the CRCT and ACCESS scores of all students and agreed to provide this information in the form of a spreadsheet. The ACCESS teacher label query was also collected from the ESOL department at the county level to provide demographic and linguistic data of the students. This eliminated the need for me to enter schools for data collection, which was done at the end of the school year, once scores are available. Once this date of data availability was

established, I received six spreadsheets with both the CRCT and ACCESS scores from County A's research department; the linguistic information was in spreadsheet format as well. This was provided without student names, but it did include students' Georgia Testing Identification Numbers (GTID). Because I was not given the names, it was not possible to match student names with student scores. Because these numbers were randomly assigned to students by the GADOE upon entry to the school system, students were not given another ID number for this study.

Teachers involved in the classrooms at these two sites were the current ESOL teachers for the sheltered instruction model, who primarily teach ESOL but have both ESOL and content certification, and general education teachers, who primarily teach and are certified in the content but have an ESOL certification, in the CSR model. These teachers were employed at the middle schools with large populations of EL. Because the purpose of this study was to analyze delivery models already in place, teachers did not receive special training or instruction from me on how to deliver content and/or language to the ELs in their classes. However, prior to the implementation of the CSR delivery model, district personnel from the ESOL department provided a training session to the teachers who would be implementing the model; this training consisted of how to implement this delivery model while serving ELs. The lead ESOL teacher at School 1 also provided a training session to the general education teachers that focused on differentiation strategies for ELs in the general education classroom. This training was not on-going.

Having received prior training in the administration of both ACCESS and CRCT assessments, the classroom teachers at School 1 and School 2 administered both

assessments according to the language development levels and special education and

linguistic accommodations. It is important to note that teachers followed a strict script

during administration, further increasing reliability, and assessments were sent to the

State Department of Education for scoring, which increases the validity and reliability of

the scores. By utilizing data from valid and reliable assessments, the validity and

reliability of this study's findings increased. After receiving this data, I began the data

analysis of the CRCT and ACCESS scores.

Data Analysis

The two-way analysis of variance (ANOVA) was used to examine the

differences in the test scores based on the independent variables (Gall et al., 2007). The

two-way ANOVA allows for the examination of two independent categorical variables

(i.e. language development levels and delivery models) and one dependent variable (i.e.

CRCT Reading scores), as well as the interaction and main effects between those

variables (Campbell & Stanley, 1963). The interaction effects of the two independent

variables were measured, as were main effects between all variables (Rovai et al., 2013).

It also controlled for "the effects of one or more control variables" (Rovai et al., 2013, p.

317). Because the ANOVA examined the interaction and main effects, all hypotheses

were examined using this one analysis.

Normality was tested using a histogram, and assumptions were found tenable if a

symmetrical, bell-shaped curve was shown (Green & Salkind, 2008). Equal variances

within the population were tested using Levene's Test of Equal Variance (Howell,

2011). Further assumption testing included: (a) examining the assumption of extreme

outliers using a boxplot, and (b) examining the normal distribution of the delivery models and language development levels using a Shapiro-Wilk test.

Tests of between-subject effects and pairwise comparisons analyzed main effects. Post hoc multiple-comparison tests would have been conducted if there was a significant F-test among three or more groups in the variable, and specific information was needed in order to determine which groups were different from each other (Rovai et al., 2013). However, there were less than three groups in each variable.

Effect size was calculated using Eta squared and interpreted using Cohen's *d* (1988). For this study, reported items were: descriptive statistics (including student demographics), number of participants, number per cell, degrees of freedom, the observed *F* value, the significance level, the effect size and power, and results from post-hoc and assumption tests. All data analyses were conducted using SPSS software.

Summary

This chapter has detailed the population, setting, and instrumentation for this study. Restating the research questions and hypotheses, research procedures included implementation of delivery models and standardized assessments. Collecting and analyzing data, the analysis of how the differing delivery models of sheltered instruction and class size reduction related to the reading development scores as measured by the CRCT, the interaction effects between delivery models and language development levels, the main effects between the delivery models and the comprehension scores, and the main effects of the delivery based on development levels was explained. The findings relating to each component of the study is presented in Chapter 4 and includes main and interaction effect data.

CHAPTER 4: FINDINGS

Introduction

The purpose of this chapter is to provide a factual data analysis. SPSS PASW Statistics 18.0 software was used to analyze all data. This causal comparative design study had a purpose of comparing the relationship between different delivery models, such as the class size reduction delivery model and sheltered instruction, on the reading development of sixth-grade ESOL students, as measured by Georgia's CRCT standardized assessment. Language development levels were analyzed in conjunction with reading development and assessed by the ACCESS test. The two categorical independent variables were the delivery models and the language development levels, while the dependent variable was the CRCT Reading scores.

The null and alternative hypotheses are listed below:

H_{01}: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model.

H_1: There is a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model.

H_{02}: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving

instruction through the class size reduction model, as measured by the Criterion-

Referenced Competency Test based on language development level.

H$_2$: There is a statistically significant difference in the grade-level reading development

for sixth-grade English learners, who are active ESOL students, receiving instruction

through the class size reduction model, as measured by the Criterion-Referenced

Competency Test based on language development level.

H$_{03}$: There is not a statistically significant difference in the grade-level reading

development for sixth-grade English learners, who are active ESOL students, receiving

instruction through the class size reduction model, as measured by the Criterion-

Referenced Competency Test based on delivery model and language development level.

H$_3$: There is a statistically significant difference in the grade-level reading development

for sixth-grade English learners, who are active ESOL students, receiving instruction

through the class size reduction model, as measured by the Criterion-Referenced

Competency Test based on delivery model and language development level.

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Descriptive Statistics

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The results in this research study show that the participants' CRCT Reading

score across both groups had a pooled mean of 815.76 ($SD = 16.18$). The measures of

central tendency also showed a median of 816.00.

Table 5 shows the descriptive statistics of the two groups. The sample involved

consisted of 79 students ($N = 79$), with the CSR group having 40 students who provided

test scores. The sheltered instruction group had 39 students with CRCT Reading scores.

The mean CRCT Reading score of students receiving instruction through the CSR

delivery model was 815.57 ($SD = 17.21$), and the mean CRCT Reading score of students

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100

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receiving instruction through the Sheltered Instruction (SI) delivery model was 815.64

(SD = 15.24). Because language development levels 2 (n = 3) and 5 (n = 9) are too

small to analyze, these two groups were collapsed into different language development

level categories. Therefore, language development levels 2 and 3 (n = 31) were

analyzed together as a "lower" level group, and language development levels 4 and 5 (n

= 48) were analyzed together as a "higher" level group. The lower language

development level group in the CSR model (n = 16) had a mean of 809.75 (SD = 17.23);

it had a mean of 809.80 (SD = 16.46) in the sheltered instruction model (n = 15). The

higher language development level group in the CSR model (n = 24) had a mean of

819.46 (SD = 16.60); the higher language development level in the sheltered instruction

group (n = 24) had a mean of 819.29 (SD = 13.52). (See Table 6.)

Table 5

CRCT Reading Scores Based on Delivery Model Descriptive Statistics

Dependent Variable: CRCT Reading Scores			
Delivery Model	n	M	SD
CSR	40	815.88	17.20
Sheltered Instruction	39	815.64	15.24

Table 6

Descriptive Statistics Based on Language Development Level

Dependent Variable: CRCT Reading Scores				
	Levels 2,3		Levels 4, 5	
	M	SD	M	SD
CSR	809.75	17.23	819.46	16.60
Sheltered Instruction	809.80	16.46	819.29	13.52

Assumption Testing

Normality was tested using a histogram. Normality for School 1 was assumed

due to data falling within the bell-shaped curve (Figure 4.1). The assumption of

normality was found tenable. Normality for School 2 was tested in the same manner –

by using a histogram. Figure 4.2 shows that data fell within the bell-shaped curved, thus

finding the assumption of normality tenable.

Figure 4.1

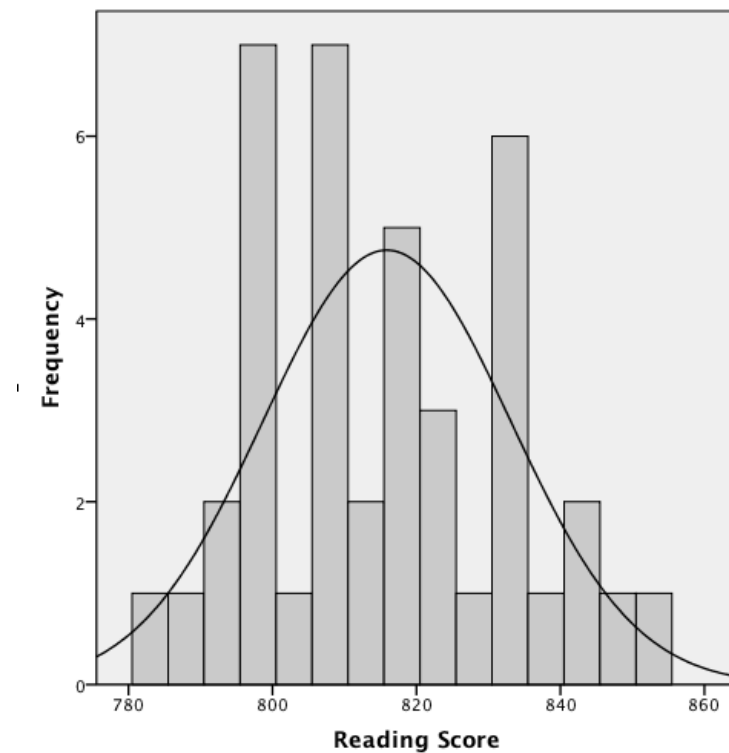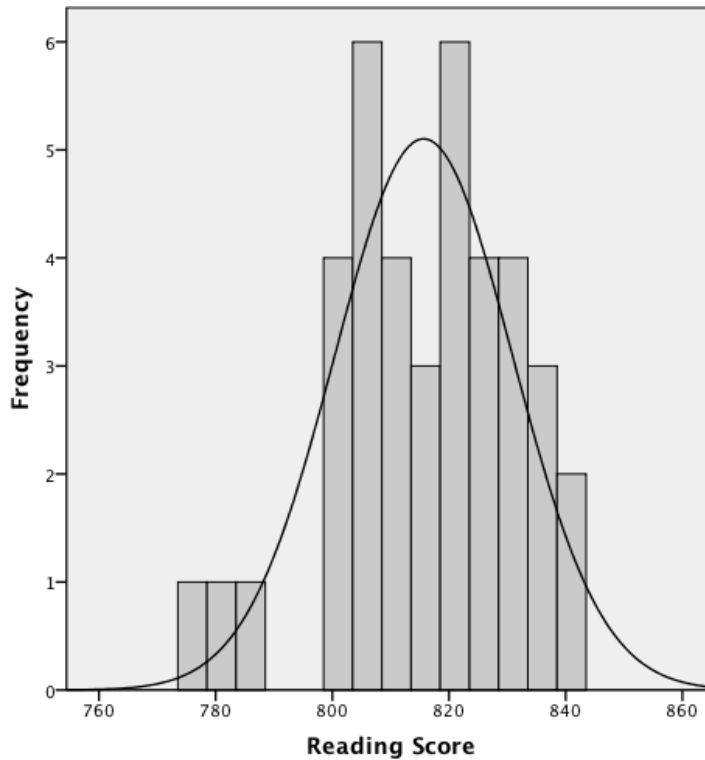*Sixth-Grade Pariticpants at School 1 Normality Test*

Figure 4.2

Sixth-Grade Pariticpants at School 2 Normality Test

A Shapiro-Wilk test was conducted to determine if the CRCT Reading scores were normally distributed for the two delivery models and the language development levels. Table 7 shows that the assumption of normality was not violated for the CSR model or sheltered instruction delivery models since all p values were above .05. The assumption of normality was also not violated for the lower language development levels of 2 and 3 or for the language development levels of 4 and 5 as all p values were above .05.

The assumption of homogeneity of variance also was evaluated and found tenable using Levene's test, $F(7, 71) = 1.41$, $p = .22$. The assumption of extreme outliers was evaluated using boxplots. The boxplots showed that no extreme outliers were present, thus the assumption of extreme outliers was found tenable.

Table 7

Shapiro-Wilk Test

Delivery Model	SW	df	*p*
CSR Model	.12	40	.13
SI Model	.08	39	.20

Language Development Level	SW	df	*p*
Lower Levels (2,3)	.96	31	.23
Higher Levels (4,5)	.99	48	.82

Two-Way Analysis of Variance

The purpose of the study is to evaluate a difference in CRCT Reading scores based on delivery model in conjunction with language development level. Therefore, a two-way analysis of variance (ANOVA) was conducted to evaluate the null hypotheses.

The main effect for delivery model showed no statistically significant differences among the delivery models and CRCT Reading scores, $F(1,76) = .00$, $p = .99$, partial $\eta^2 = .00$, which is a small effect size. The observed power was .05, which indicates that a Type I error was possible. However, the differences among CRCT Reading scores based on language development levels, $F(1, 76) = 6.93$, $p = .01$, partial $\eta^2 = .09$, which is a small effect size based on Cohen's (1992) Effect Size Index. The lower language development levels of 2 and 3 independent variable and the higher language development levels of 4 and 5 independent variable both had a power of .04. Because there were only two language development level groups (low and high), a post hoc comparisons test was not conducted. The delivery model – by – language development level interaction effect was not statistically significant, $F(1, 76) = .00$, $p = .98$, partial $\eta^2 = .00$, with an observed power of .05. According to Rovai et al. (2013), having less than the desired power of .80 increases the probability of a Type I error.

There was a statistically significant difference found in CRCT Reading scores between language development levels. Therefore, the second null hypothesis was rejected:

H_{02}: There is not a statistically significant difference in the grade-level reading development for sixth grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on language development level.

Since there was not a statistically significant difference found between neither delivery models and CRCT Reading scores, nor between the interaction effects of the delivery model and language development on CRCT Reading scores, I failed to reject the first and third null hypotheses:

H_{01}: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model.

H_{03}: There is not a statistically significant difference in the grade-level reading development for sixth-grade English learners, who are active ESOL students, receiving instruction through the class size reduction model, as measured by the Criterion-Referenced Competency Test based on delivery model and language development level.

It can be concluded that there is not a statistically significant difference in CRCT Reading scores between the CSR model and the sheltered instruction delivery model, but language development levels do cause a statistically significant difference in CRCT Reading scores. Chapter 5 provides the limitations for this study, as well as an analysis

of the study's findings, how the findings relate to the theoretical framework, and

provides recommendations for future research.

CHAPTER 5: DISCUSSION

Introduction

The purpose of this chapter is to discuss and summarize the findings of this study. The findings are evaluated in light of current and relevant literature of EL instruction, the CSR model, and sheltered instruction, as well as with the sociocultural and social cognitive theories. Limitations of the study are outlined and discussed, as are implications for this study and recommendations for future research.

Summary of Findings

The first research question in this study presented the question of how the CSR model and language development levels relate to the reading development of sixth-grade English learners, who are currently receiving ESOL services at school. The reading development was measured by Georgia's CRCT Reading score and was compared to the CRCT Reading scores of ELs receiving instruction through the sheltered instruction delivery model. The second research question sought to evaluate the relationship between the CSR model and the reading development of sixth-grade ELs without the inclusion of each EL's language development level.

The results of the two-way ANOVA presented interesting findings that revealed the main effects of both the CSR model and the sheltered instruction delivery model did not have statistically significant differences on the CRCT Reading scores of ELs, but in fact, had similar mean scores (CSR model: $M =815.57$; Sheltered Instruction model: $M = 815.64$). It can be concluded that both delivery models had an overall positive outcome on the CRCT Reading scores of sixth-grade ELs, as the means of both groups equates to a *Meets* on the Reading section of the CRCT. The interaction effects of the CSR model

and language development level and the sheltered instruction and language development level were not found to have significantly impacted the CRCT Reading scores of the ELs either. This could be in part to the instructional freedom of the teacher to better meet the academic needs through individualized instruction for all students when provided with smaller class sizes.

Even though previous studies discussed in Chapter 2 detail how sheltered instruction simultaneously teaches language and content and how the smaller groupings of CSR classes have positively impacted academic scores of students, there has been minimal research to compare the relationship between the inclusion of ELs in the CSR model to ELs receiving instruction in small group classes created specifically for ELs. In the findings of this study, smaller class sizes – despite delivery model – were beneficial for ELs of all proficiency levels. It could be stated that the scaffolding and the social interaction with native English-speaking peers in the zone of proximal development, as provided by the CSR model, compensated for the lack of explicit linguistic instruction. The scaffolding, if not too high, allowed ELs in the CSR group to still meet CRCT Reading standards. The sheltered instruction model, while providing ELs with linguistic resources and basing instruction on language development levels of ELs, used linguistically-appropriate methods to aid ELs in meeting grade-level reading standards.

Main effects of the language development levels, however, did have a significant impact on the CRCT Reading scores. More specifically, ELs with language development lower language development levels (2 and 3) had lower mean scores ($M = 809.75$ in CSR model and $M = 809.80$ in the sheltered instruction model) than ELs with higher language development levels ($M = 819.46$ in the CSR group and $M = 819.29$ in the sheltered

instruction group). It is expected that ELs with higher language development levels would score higher on the CRCT Reading test, as they have mastered more complex language structures and have a wider vocabulary range.

It should be noted that the ELs at a language development level 1 did not take the CRCT Reading test because they are part of the Intensive English Language (IEL) program in County A. The IEL program, while considered part of the ESOL program, only serves students who have a language development level below 2.0, which signifies that they have most likely recently moved to the United States and are just beginning to learn the English language. These students take two intensive English classes, as well as regular ESOL classes. Students in the IEL program are deferred from the CRCT Reading, Language Arts, and Social Studies sections, but they are still required to take the Math and Science sections.

Results of previous research, detailed in Chapter 2, posit that ELs with lower and higher language development levels show the most growth over the course of an intervention. This study upholds those findings by showing that the mean score of ELs was a *Meets*, signifying that as a whole, the group mastered grade-level reading standards.

Theoretical Evaluation of Findings

The social cognitive theory and the sociocultural theory are the theories that comprise the theoretical foundation of this study. Based on these theories, it was expected that the scaffolding and linguistic interaction in both delivery models would assist ELs in raising achievement scores. Even though the sheltered instruction provided linguistic strategies and scaffolding based on language development levels, the CSR

model provided more complex academic scaffolding within the content. Therefore, all forms of social interaction and scaffolding based on academic and language development levels proved valuable for the ELs.

In regards to the social cognitive theory, the ELs' exposure to social and academic language in both delivery models allowed students to build vocabulary and background knowledge, while strengthening their linguistic skills. The pedagogical methods in smaller classes were able to serve ELs more appropriately through more individualized instruction and provide ELs with the opportunity to socialize with the teacher and peers, observe the pragmatics, semantics, and overall correct usage of language, and associate correct linguistic skills with positive reinforcement of everything from earning good grades to being able to freely converse with a native English-speaking peer. Using self-efficacy to monitor language and vary its usage in different situations, ELs learned how to adjust their language according to what they wanted to achieve. Because ELs learned language in a social cognitive manner, the social cognitive theory provides support as to why one delivery model did not significantly impact CRCT Reading scores more than the other; exposure to language in a small setting for both models allowed all ELs in this study to grow linguistically, which impacts both CRCT Reading scores and language development levels.

Serving as the second theory in this study is the sociocultural theory, which posits that when surrounded by native English-speaking peers and immersed in an English-speaking culture, ELs are able to learn language from their surroundings. Because the purpose of this study was to analyze how and if the CSR model served as a more beneficial learning environment in which ELs are able to learn alongside their native

English-speaking peers, sheltered instruction was selected as the second level of the categorical independent variable. However, both delivery models positioned ELs within the ZPD. In the sheltered instruction class, ELs were presented with language scaffolding based on their development levels that allowed them to master their current level, while working upward to higher language levels. Within this zone, they were able to interact with a teacher who provided cultural background knowledge and comprehensible input that allowed them to understand content and language simultaneously. Peers with a higher language development level also served as one who could provide modeling of language skills and more complex vocabulary.

In the CSR model, ELs learned alongside native English-speaking peers, who enriched the ZPD by providing language modeling for all levels. While only content was scaffolded in this model, the immersion into an English environment (i.e. students were more proficient in English than in an ESOL class) provided social interactions that dictated that ELs internalize new language structures and vocabulary through higher-order thinking skills. This internalization allowed ELs to successfully interact and independently function within the general education setting of the CSR class. While individualized instruction, scaffolding, differentiated content and language, or lack of linguistically appropriate instruction could have played a role in the CSR model, it cannot be stated that the smaller classes provided by the CSR model aided ELs in meeting standards on the CRCT Reading section more than sheltered instruction classes.

Limitations of the Study

Limitations are present in this study. Internal threats to validity exist. The existence of intact groups threatens internal validity as it prohibits randomization and

creates a selection threat (Gall et al., 2007). Without controlling for the selection threat

through a pretest or matched pairs design, unequal groups were controlled for as ELs met

certain criteria (i.e. having a composite language development level below 5.0 on

ACCESS, learning a language before English, predominantly speaking another language

other than English at home). Therefore, the required criteria for ESOL placement

controls for the selection threat between the two groups.

Another limitation to internal validity is the teachers' fidelity of instruction in

each delivery model. To control for this limitation, these teachers were highly qualified

and certified in ESOL and in the content area. CCGPS standards and a curriculum map

that aligned standards, content, and curriculum in order to increase the fidelity of

instruction in each delivery model.

Added to the testing threat is the instrumentation threat to internal validity. The

instrumentation threat could influence how the CRCT is used to measure reading ability.

Teachers, if not properly trained, could inaccurately administer the instrument providing

false data (Campbell & Stanley, 1963). The CRCT was administered by trained teachers,

who were provided with the CRCT manual and explicit testing accommodations for ELs.

To further control for the instrumentation threat, the CRCT, a valid, reliable instrument,

was selected for use, as it has a specific protocol of reading, administration, and scoring.

If administration of the instrument was not controlled, the ELs' reading development

scores would not be reliable, as implementation of the CRCT would not have been

consistent across groups.

Due to the nature of the ESOL population in County A, there are external threats

to validity. The interaction of personological variables, which are individual

characteristics that may interact with the treatment (Gall et al., 2007), with the treatment

effects coincides with the threat to generalizability, as the backgrounds, native languages,

or cultures of the ELs may impede or alter the effects of the instruction and delivery

model in some manner (Campbell & Stanley, 1963). EL populations vary based on

region, and comparable locations may provide different results if the EL population

differs.

Because Georgia has experienced a large increase of ELs, especially Hispanic, in

the school systems (Editorial Projects in Education Research Centers, 2009), these

findings cannot be generalized to other areas of the United States that might have a

growing EL population but not of the Hispanic ethnicity. While there are three French

and one Vietnamese-speaking students, among the 40 Spanish-speaking ELs at School 1,

there are one French, one Haitian Creole, and three African dialect-speaking students,

among the 39 Spanish-speaking ELs at School 2. With the majority of ELs claiming

Spanish as their first language, the findings of this study should be cautiously generalized

to ELs who speak a native language other than Spanish, and the results of this study

should be limited to the demographics of this population of ELs and urban setting (Gall et

al., 2007).

Implications and Recommendations for Future Research

While the CSR model has proven to be effective in raising achievement scores of

native English-speakers, including minority students, this study revealed that ELs in a

smaller class do not significantly differ in their achievement scores whether they are

placed alongside their native English-speaking peers or in a classroom with other students

learning English for the first time. Even though the CSR model has not been widely used

with ELs in public schools, and even less so with large ESOL populations, the implications behind this research show that smaller class sizes through the sheltered instruction delivery model are equally as effective as the CSR model.

Impacting the reading development and achievement scores of ELs more than these two delivery models are the language development levels that are unique to each student. Because language development levels can be complex, as they are determined by English proficiency in each of the four domains, the background and cultural knowledge each student brings to the classroom can impact reading development. Along with that, fossilization of one (or more) language domains and linguistic structures can inhibit or even impede language development, thus impacting an EL's ability to master grade-level content. Analysis of delivery models and pedagogy for each language development level, as well as for ELs struggling with fossilization, is a recommendation for future research. Along with this, the language development levels and mastery of grade-level reading standards of ELs should be compared to more delivery models containing ELs. Because both the CSR and sheltered instruction models were small, this research should be expanded to delivery models that place ELs in large group settings, such as a general education Reading classroom, in which the teacher does not have an ESOL certification, that includes ELs. This classroom would, however, still serve ELs based on the accommodations discussed in their TPC forms and based on their language development levels. This would allow for more analysis between ELs in large general education classes and the smaller general education CSR model.

It should also be mentioned that there are cultural, social, and emotional factors that ELs often experience after moving into the United States or starting school for the

first time. The CRCT only measures the academic variable of ELs, and recommendations for future research include the analysis of cultural, social, and emotional dependent variables as well. These variables exist within the classroom and can impede or inhibit social interactions or the overall learning process, thus impacting academic achievement as well. Other instruments, either in conjunction with or in place of the CRCT, could possibly better measure the possible effects of delivery models on all facets (e.g., social, academic, emotional, cultural, and linguistic) of ELs' learning.

Analysis of how behavior within the CSR classroom impacts students at different language development levels is recommended as well. Even though the CSR model was created to decrease negative behaviors in the classroom, this is not always the case. While the behavior in this study was not evaluated for data analysis purposes, it is recommended that future research analyze how positive and negative behaviors in CSR classes impact the reading and language development scores of ELs who receive ESOL services in that setting. These behaviors should be correlated with behaviors in other small group settings, like the sheltered instruction delivery model. Along with behavior within the CSR model, professional development for teachers implementing delivery models should be included. Future research should provide intensive and extensive professional development for teachers implementing innovative delivery models. Such training would further increase the fidelity of the delivery models and the instruction imbedded within each model. This would also provide consistent implementation of delivery models across groups.

Another recommendation for future research is to analyze how certain demographics of students, such as learning disabilities or ELs born in the United States or

born in their native country, play a role in language development. With a growing number of ELs born in the United States, they are immersed in English outside of the home, but their native language is predominant within the home. This leads to a bi-illiteracy for many ELs, as a strong linguistic foundation is neither created nor supported in English or the native language (Escamilla, 2006). In the current study, 73.6% of ELs (67 students) were born in the United States and the majority speak Spanish as their native language. (Within this number, 65 students are native Spanish-speakers, one student in a native French-speaker, and one student speaks an African dialect as a first language.) It would benefit future ESOL classrooms if researchers analyzed possible differences in language learning between students who are born in an English-speaking society, but are exposed to an oral and aural native language at home, and students who move into an English-speaking society and have a foundation in their native language but no exposure to English. Such a study could be taken a step farther to analyze this based on how the oral and aural skills impact the literacy skills. For example, Spanish literacy is phonetic in nature, and words are spelled and pronounced phonetically. However, this is not the case for ELs speaking Chinese or Swahili as their first language.

Conclusion

The findings in this study were very clear to highlight that there are no significant differences in reading development, as measured by CRCT Reading scores, for sixth-grade ELs receiving ESOL services through a CSR delivery model or through a sheltered instruction delivery model. The main factor impacting reading development and reading scores was the language development level of students. While there were limitations that could have impacted internal validity, measures were taken to control for them. The

generalizability of findings to other groups of ELs across the country is a great external threat to validity of this study. However, recommendations for future research were made that would allow future research findings to address the generalizability threat. With these recommendations, there would be more research to address the specific components of placing ELs in a CSR setting with general education students, as well as to address how ELs' demographic information, such as native language literacy and birth country, may play a role in language development and grade-level mastery of reading standards. Because we have an ever-changing student population, finding appropriate ways to meet the needs of all students within our schools is not only vital, it is our responsibility as educators.

References

Abadiano, H., & Turner, J. (2002). Sheltered instruction: An empowerment framework for English language learners. *New England Reading Association Journal, 38*(3), 50-56.

Achilles, C. (2004). *Can hope of gain conquer tradition and fear of loss?* Paper presented at the annual conference of the American Educational Research Association. San Diego, CA.

Achilles, C. (2005). *Financing Class Size Reduction.* Washington, D.C.: SERVE and the School of Education at the University of North Carolina at Greensboro.

Adesope, O., Lavin, T. Thompson, T., & Ungerleider, C. (2011). Pedagogical strategies for teaching literacy to ESL immigrant students: A meta-analysis. *British Journal of Educational Psychology, 81*, 629-652. doi: 10.1111/j.2044-8279.2010.020

Akyel, A., & Ercetin, G. (2009). Hypermedia reading strategies employed by advanced learners of English. *Science Direct, 37,* 136-152.

Almanza-de-Schonewise, E., & Klingner, J. (2012). Linguistic and cultural issues in developing disciplinary literacy for adolescent English language learners. *Topics in Language Disorders, 32*(1), 51-68.

Angrist, J., & Lavy, V. (1999). Using Maimonides' rule to estimate the effect of class size on scholastic achievement. *The Quarterly Journal of Economics, 114*(2), 533-575.

August, D., & Shanahan, T. (Eds.) (2006). *Developing literacy in second-language learners: Report of the National Literacy Panel on Language-Minority Children and Youth.* Mahwah, NJ: Lawrence Erlbaum.

Avalos, M., Plasencia, A., Chavez, C., & Rascon, J. (2007). Modified guided reading: Gateway to English as a second language and literacy learning. *The Reading Teacher, 61*(4), 318-329.

Baecher, L., Artigliere, M., Patterson, D., & Spatzer, A. (2012). Differentiated instruction for English language learners as "variations on a theme": Teachers can differentiate instruction to support English language learners. *Middle School Journal,* 14-21.

Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman.

Bandura, A. (2002). Social cognitive theory in cultural context. *Applied Psychology: An International Review, 51*(2), 269-290.

Bandura, A. (2006). Toward a psychology of human agency. *Association for Psychological Science, 1*(2), 164-180.

Banks, J. (2006). The dimensions of multicultural education. In F. W. Parkay, G. Hass, & E. J. Anctil, *Curriculum leadership: Readings for developing quality educational programs* (pp.88-102). Boston: Allyn & Bacon.

Barr, S., Eslami, Z., & Joshi, R. (2012). Core strategies to support English language learners. *The Educational Forum, 76*, 105-117. doi: 10.1080/00131725.2012.628196

Batalova, J., & McHugh, M. (2010). *Number of growth in US schools in need of English instruction.* Washington, DC: Migration Policy Institute.

Bauer, E., & Arazi, J. (2011). Promoting literacy development for beginning English learners. *The Reading Teacher, 64*(5), 383-386. doi: 10.1598/RT.64.5.14

Beach, R. (2011). Issues in analyzing alignment of language arts common core standards with state standards. *Educational Researcher, 40*(4), 179-182. doi: 10.3102/0013189X11410055

Blatchford, P. (2003). *The class size debate: Is smaller better?* Maidenhead, Open University Press.

Blatchford, P., Bassett, P., & Brown, P. (2005). Teachers' and pupils' behavior in large and small classes: A systematic observation study of pupils ages 10 and 11 years. *Journal of Educational Psychology, 97*(3), 454-467.

Blatchford, P., & Martin, C. (1998). The effects of class size on classroom processes: It's a bit like a treadmill –working and getting nowhere fast. *British Journal of Educational Studies, 46*(2), 118-137.

Board of Regents of the University of Wisconsin System. (2011). ACCESS for ELLs overview: Essential Background. Retrieved from www.wida.us/assessment/access/background.aspx

Board of Regents of the University of Wisconsin System. (2011). Criteria for Tier Selection: English Language Proficiency Levels. Retrieved from http://www.wida.us/assessment/access/tier_criteria.aspx

Board of Regents of the University of Wisconsin System. (2011). The English language development manual: Grades 6-8.

Boyd-Zaharias, J., & Pate-Bain, H. (2000b). *The continuing impact of elementary small classes*. Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, LA.

Calderon, M., Slavin, R., & Sanchez, M. (2011). Effective instruction for English

    learners. *The Future of Children, 21*(1), 103-127.

California State Department of Education. (1994). *Building bilingual instruction:*

    Putting the pieces together. Sacramento, CA: Bilingual Education Office.

Campbell, D., & Stanley, J. (1963). *Experimental and quasi-experimental designs for*

    research. Belmont, CA: Wadsworth Publishing.

Capps, R., Fix, M., Murray, J., Ost, J., Passel, J., & Herwantoro, S. (2005). *The new*

    demography of America's schools: Immigration and the No Child Left Behind

    Act. Washington, DC: The Urban Institute.

Cho, H., Glewwe, P., Whitler, M. (2012). Do reductions in class size raise students' test

    scores?: Evidence from population variation in Minnesota's elementary schools.

    Economics of Education Review, 31, 77-95.

Cirino, P., Vaughn, S., Linan-Thompson, S., Cardenas-Hagan, E., Fletcher, J., & Francis,

    D. (2009). One-year follow-up outcomes of Spanish and English interventions

    for English language learners at risk for reading problems. *American Educational*

    Research Journal, 46(3), 744-781. doi: 10.3102/0002831208330214.

Cohen, D., & Crabtree, B. (2006). *Qualitative research guidelines project.* Retrieved

    from http://www.qualres.org/HomeCrit-3814.html

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.).

    Hillsdale, NJ: Lawrence Earlbaum Associates.

Cohen, J. (1992). A power primer. *Quantitative Methods in Psychology,* 155-159.

Collins, M. (2009). ELL preschoolers' English vocabulary acquisition from storybook reading. *Early Childhood Research Quarterly, 25*, 84-97. doi: 10.1016/j.ecresq.2009.07.009

Common Core State Standards Initiative. (2011). Common core standards initiative: Preparing America's students for college and career. Retrieved from http://www.corestandards.org/

Common Core Georgia Performance Standards. (2012). Georgia Department of Education. Retrieved from https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_ELA_Grade6_Standards.pdf

Cortes, K., Moussa, W., & Weistein, J. (2012). Making the grade: The impact of classroom behavior on academic achievement. *2012 APPAM Fall Research Conference.*

Council of Chief State School Officers. (2012). *Framework for English Language Proficiency Development Standards corresponding to the Common Core State Standards and the Next Generation Science Standards.* Washington, DC: CCSSO.

Cronbach, L. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*(3), 297-334.

Cummins, J. (1979). Cognitive/academic language proficiency, linguistic interdependence, the optimum age question and some other matters. *Working Papers on Bilingualism, 19,* 121-129.

Cummins, J. (2001). The entry and exit fallacy in bilingual education. In C. Baker & N. H. Hornberger (Eds.), *An introductory reader to the writings of Jim Cummins* (pp. 110-138). Buffalo, NY: Multilingual Matters.

Cummins, J. (2003). Basic interpersonal communicative skills and cognitive academic language proficiency: BICS and CALP. Retrieved from http:/iteachilearn.org/ cummins/bicscalp.html

Daniels, H. (2008). *Vygotsky and research.* Florence, KY: Routledge.

DelliCarpini, M. (2006). Scaffolding and differentiating instruction in mixed ability ESL classes using a round robin activity. *The Internet TESL Journal, 12*(3). Retrieved from: http://iteslj.org/

Ding, W., & Lehrer S. (2010). Experimental estimates of the impacts of class size on test scores: robustness and heterogeneity. *Education Economics, 19*(3), 229-252.

Dobbelsteen, S., Levin, J., & Oostereek, H. (2002). The causal effect of class size on scholastic achievement: Distinguishing the pure class size effect from the effect of changes in class composition. *Oxford Bulletin of Economics and Statistics, 64*(17), 17-38.

Dobzhansky, T. (1972). Genetics and the diversity of behavior. *American Psychological Bulletin, 27*, 523-530.

Duke, N. (2010). The real-world reading and writing U.S. children need. *Phi Delta Kappan, 91*(5), 68-71.

Echevarria, J. (2008). Instruction for English language learners. New York, NY: Macmillan/McGraw-Hill. Retrieved from www.mhpdonline.com/mhpd_assets/instructionforELL.pdf

Echevarria, J., Short, D., & Powers, K. (2006). School reform and standards-based

      education: A model for English-language learners. *The Journal of Educational*

      Research, 99(4), 195-210.

Echevarria, J., Vogt, M., & Short, D. (2004). *Making content comprehensible for English*

      learners: The SIOP model (2nd ed.)*.* Boston, MA: Pearson Education, Inc.

Eckelkamp, S. (2012). Cheat sheet: Common core state standards. *Scholastic Parent &*

      Child, 20(2), 20.

Editorial Projects in Education Research Centers. (2009). Quality counts: Portrait of a

      population (How English-language learners are putting schools to the test).

      Education Week, 28(17).

Education Week. (2012). National assessment of educational progress (NAEP): English

      Language Learners. Retrieved from http://www.edweek.org/ew/issues/english-

      language-learners/

Ehri, L., Nunes, S., Stahl, S., & Willows, D. (2001). Systematic phonic instruction helps

      students learn to read: Evidence from the National Reading Panel's meta-

      analysis. *Review of Educational Research, 71.* doi: 10.3102/00346543071003393

Ellis, R. (1997). *SLA and language teaching.* Oxford: Oxford University Press.

English Language Acquisition, Language Enhancement, and Academic Achievement

      Act. (2001). *Part A: English Language Acquisition, Language Enhancement, and*

      Academic Achievement Act. Retrieved from

      http://www2.ed.gov/policy/elsec/leg/esea02/pg40.html

Escamilla, K. (2006) Semilingualism applied to the literacy behaviors of Spanish-
speaking emerging bilinguals: Bi-illiteracy or emerging biliteracy? *Teachers
College Record, 108*(11), 2329-2353.

Fairbairn, S., & Jones-Vo, S. (2010). *Differentiating instruction and assessment for
English language learners: A guide for K-12 teachers.* Philadelphia, PA: Caslon
Publishing.

Field, R. (2008). Keeping pace in suburbia and rural America: Teaching English
language learners is a novel challenge to school districts in some unlikely places.
School Administrator, 65(10). Retrieved from
https://www.aasa.org/schooladministratorarticle.aspx?id=4142

Fillmore, L., & Fillmore, C. (2012). What does text complexity mean for English
learners and language minority students? *Understanding Language: Language,
Literacy, and Learning in the Content Areas.* Retrieved from ell.stanford.edu

Finn, J., (1998). *Class size and students at risk: What is known? What is next?*
Washington, DC: National Institute on the Education of At-Risk Students, Office
of Educational Research and Improvement, U.S. Department of Education.

Finn, J., Gerber, S., Achilles, C., & Boyd-Zaharias, J. (2001). The enduring effects of
small classes. *Teacher College Record, 103*(2), 145-183.

Fontichiaro, K. (2011). Common core standards. *School Library Monthly, 28*(1), 49-50.

Friend, J., Most, R., & McCrary, K. (2009). The impact of a professional development
program to improve urban middle-level English language learner achievement.
Middlge Grade Research Journal, 4(1), 53-75.

Fry, S., & Gosky, R. (2007). Supporting social studies reading comprehension with an

  electronic pop-up dictionary. *Journal of Research on Technology in Education,*

  40(2), 127-139.

Gall, M., Gall, J., & Borg. (2007). *Educational Research: An Introduction.* (8th ed.).

  Boston, MA: Pearson Education, Inc.

Gee, J. (2001). Reading as situated language: A sociocognitive perspective. *Journal of*

  Adolescent & Adult Literacy, 44(8), 714-725.

Georgia Department of Education. (2010-2011). *xxxxxx County report card.* Retrieved

  from http://publicuat.doe.k12.ga.us/ReportingFW.aspx?PageReq=102&County

  Id=633&T=1&FY=2011

Georgia Department of Education. (2012a). *2012 CRCT score interpretation guide:*

  Grades 3 through 8. Retrieved from http://www.doe.k12.ga.us/Curriculum-

  Instruction-and-

  Assessment/Assessment/Documents/2702772_sig_s12GA%20(2).pdf

Georgia Department of Education. (2012b). *CRCT content descriptions: Based on the*

  common core Georgia performance standards (CCGPS). Retrieved from

  http://www.xxxxk12.org/centraloffice/accountability/Test_Content_Descriptions/

  CRCT/ReadingContentDescriptionsCCGPS_Aug12.pdf

Georgia Department of Education. (2012c). *CRCT validity and reliability brief.* Atlanta,

  GA: Assessment Research and Development of the Georgia Department of

  Educaiton.

Georgia Department of Education. (2012d). *Enrollment by gender, race/ethnicity and*

    grade (PK-12): Enrollment on March 1, 2012 (FTE 2012-3). Retrieved from

    http://app.doe.k12.ga.us/ows-bin/owa/fte_pack_ethnicsex.display_proc

Gilroy, M. (2011). First look at common core state standards show minorities lagging.

    The Hispanic Outlook in Higher Education, 21(11), 22-24.

Goldenberg, C. (2008). Teaching English language learners: What the research does –

    and does not – say. *American Educator*, 8-44.

Goldsmith, P., & Tran, T. (2012). English learners and reading comprehension: Text

    organization in history. *Social Studies Review, 51*, 57-63.

Goodwin, A., & Ahn, S. (2008). A meta-analysis of morphological interventions: Effects

    on literacy achievement of children with literacy difficulties. *The International*

    *Dyslexia Association,*183-208. doi: 1007/s11881-010-0041-x

Gottlieb, M., Cranley, M., & Cammilleri, A. (2007). WIDA English language

    proficiency standards. In *Understanding the WIDA English language proficiency*

    proficiency standards: A resource guide. Madison, WI: University of Wisconsin

    Board of Regents System. Retrieved from http://www.wida.us/standards/

    Resource_Guide_web.pdf

Graue, E., & Rauscher, E. (2009). Researcher perspectives on class size reduction.

    Education Policy Analysis Archives, 17(9), 1-23.

Green, S., & Salkind, N. (2008). *Using SPSS for Windows and Macintosh: Analyzing*

    and understanding data. (5th ed.). Upper Saddle River, NJ: Pearson Education,

    Inc.

Grisham, D. (2000). Class size reduction: Learning from the California experience. *Reading Online, 4*(5). Retrieved from http://www.readingonline.org/editorial/november2000/index.html

Grusec, J. (1992). Social learning theory and developmental psychology: The legacies of Robert Sears and Albert Bandura. *Developmental Psychology, 28*(5), 776-786.

Guthrie, J., McRae, A., Coddington, C., Klauda, S., Wigfield, A., & Barbosa, P. (2009). Impacts of comprehensive reading instruction on diverse outcomes of low- and high-achieving readers. *Journal of Learning Disabilities, 42*(3), 195-214.

Hansen-Thomas, H. (2008). Sheltered instruction: Best practices for ELLs in the mainstream. *Kappa Delta Pi Record, 44*(4), 165-169.

Hanushek, E. (1998). The evidence on class size. *Occassional Paper, 98*(1), Rochester, NY: University of Rochester.

Herczog, M. (2012). What's our objective for English learners?: Preparation for college, career, and citizenship via language objectives and research-based instruction. *Social Studies Review*, 89-93.

Hood, A. (2003). *A Parent's Guide to Class Size Reduction.* Washington, D.C.: SERVE and the School of Education at the University of North Carolina at Greensboro.

Howell, D. (2011). *Fundamental statistics for the behavioral sciences.* (7th ed.). Belmont, CA: Wadsworth, Cengage Learning.

Janzen, J. (2008). Teaching English language learners in the content areas. *Review of Educational Research, 78*(4), 1010-1038.

Jepsen, C., & Rivkin, S. (2009). Class size reduction and student achievement: The potential tradeoff between teacher quality and class size. *Journal of Human Resources, 44*(1), 223-250.

Jones, T., & Brown, C. (2011). Reading engagement: A comparison between e-books and traditional print books in an elementary classroom. *International Journal of Instruction, 4*(2), 1308-1470.

Kamps, D., Abbott, M., Greenwood, C., Arreaga-Mayer, C., Wills, H., Longstaff, J., Culpepper, J., & Walton, C. (2007). Use of evidence-based, small-group reading instruction for English language learners in elementary grades: Secondary-tier intervention. *Learning Disability Quarterly, 30*, 153-168.

Kember, D., Ho, A., & Hong, C. (2008). The importance of establishing relevance in motivating student learning. *Active Learning in Higher Education, 9*(249), 249-263. doi: 10.1177/1469787408095849

Kern, D. (2012). Real-world reading and the common core state standards. *New England Reading Association Journal, 47*(2), 71-73.

Klingner, J., & Soltero-Gonzalez, L. (2009). Culturally and linguistically responsive literacy instruction for English language learners with learning disabilities. *Multiple Voices for Ethnically Diverse Exceptional Learners, 12*(1), 4-20.

Klotz, M. (2012). Idea in practice: Common core state standards. *National Association of School Psychologists: Communique, 40*(8), 25.

Krueger, A. (1999). Experimental estimates of education production functions. *The Quarterly Journal of Economics, 114*(2), 497-532.

Krueger, A., & Whitmore, D. (2000). *The effect of attending a small class in the early grades on college test-taking and middle school test results: Evidence from Project STAR.* Princeton, NJ: Princeton University, Industrial Relations Section.

Krueger, A., & Whitmore, D. (2002). Would smaller classes help close the black white achievement gap? In J.E. Chubb & T. Loveless (Eds.)., *Bridging the achievement gap (*pp. 11-46). Washington, DC: Brookings Institution Press.

Lankford, H., Loeb, S., & Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis, 24*(1), 37-62.

Lantolf, J. (2006). Language emergence: Implications for applied linguistics – A sociocultural perspective. *Applied Linguistics, 27*(4), 717-728. doi: 10.1093/applin/am1034

Lee, O. (2004). Teaching change in beliefs and practices in science and literacy instruction with English language learners. *Journal of Research in Science Teaching, 41*(1), 65-93.

Lightbown, P., & Spada, N. (2006). *How languages are learned.* (3rd ed.). Oxford, UK: Oxford University Press.

Lucas, T., Villegas, A. (2010). The missing piece in teacher education: The preparation of linguistically responsive teachers. *Yearbook of the National Society for the Study of Education, 109*(2), 297-318.

Lugo-Neris, M., Jackson, C., & Goldstein, H. (2010). Facilitating vocabulary acquisition of young English language learners. *Language, Speech, and Hearing Services in Schools, 41,* 314-327.

McKee, G., Rivkin, S., & Sims, K. (2010). Disruption, achievement, and the heterogeneous benefits of smaller classes. *NBER Working Paper No. 15812.*

MetaMetrics. (2013). Text complexity grade bands and Lexile bands. Retrieved from http://www.lexile.com/using-lexile/lexile-measures-and-the-ccssi/text-complexity-grade-bands-and-lexile-ranges/

Miller, P. (2002). *Theories of developmental psychology.* (5th ed.). New York: Worth Publishers.

Molnar, A., Zahorik, J., Smith, P., Halbach, A., & Ehrle, K. (2002). Wisconsin's SAGE program and achievement through small classes. In J.E. Chubb & T. Loveless (Eds.)., *Bridging the achievement gap* (pp. 91-108). Washington, DC: Brookings Institution Press.

Mullis, I., Martin, M., Gonzalez, E., & Kennedy, A. (2003). *PIRLS 2001 international report: IEA's study of reading literacy achievement in primary school in 35 countries.* Chestnut Hill, MA: International Study Center, Boston College.

National Center for Education Statistics. (2012). National assessment of education progress (NAEP). Retrieved from http://nces.ed.gov/nationsreportcard/about/#overview

National Commission on Excellence in Education. (1983). *A nation at risk.* Washington, DC: U.S. Government Printing Office.

National Governors Association Center for Best Practices & Council of Chief State

    School Officers. (2010). Common standards for all?: What do common standards

    mean for you and your students, faculty, and school? *Principal*, 16-20.

National Institute for Literacy. (2007). *What content-area teachers should know about*

    adolescent literacy. Washington, DC: United States Department of Education.

National Institute for Literacy: The Partnership for Reading. (no date). *Put reading first:*

    Kindergarten through grade 3. (3rd ed.). United States Department of Education.

National Reading Panel. (2000). *Teaching children to read: An evidence-based*

    assessment of the scientific research literature on reading and its implications

    for reading instruction. Washington, DC: United States Department of

    Education.

NICHD Early Child Care Research Network. (2004). Does class size in first grade relate

    to children's academic and social performance or observed classroom processes?

    Developmental Psychology, 40(5), 651-664.

No Child Left Behind Act. (2001). How *No Child Left Behind* benefits Hispanics.

    Retrieved from http://www2.ed.gov/nclb/accountability/achieve/nclb-hisp.html

Nye, B., Hedges, L., & Konstantopoulos, S. (2004). Do minorities experience larger

    lasting benefits from small classes? *Journal of Educational Research, 98*(2), 94-

    100.

Olson, C., & Land, R. (2007). A cognitive strategies approach to reading and writing

    instruction for English language learners in secondary school. *Research in the*

    Teaching of English, 41(3), 269-303.

Ogle, D., & Correa-Kovtun, A. (2010). Supporting English-language learners and

   struggling readers in content literacy with the "Partner Reading and Content,

   Too" routine. *The Reading Teacher, 63*(7), 532-542. doi: 10.1598/RT.63.7.1

Opitz, M., Rubin, D., & Erekson, J. (2011). *Reading diagnosis and improvement:*

   Assessment and instruction. (6th ed.). Boston, MA: Pearson Education, Inc.

Organisation for Economic Co-Operation and Development. (2006). *Education at a*

   glance 2006. Paris: Author.

Organisation for Economic Co-Operation and Development. (2008). *Benchmarking for*

   success: Ensuring U.S. students receive a world-class education. A report by the

   National Governors Association, the Council of Chief State School Officers, and

   Achieve, Inc. Washington, DC: National Governors Association.

Pacheco, M. (2010). English-language leaners' reading achievement: Dialectical

   relationship between policy and practices in meaning-making opportunities.

   Reading Research Quarterly, *45*(3), 292-317.

Palmer, B., Bilgili, E., Gungor, A., Taylor, S., & Leclere, J. (2008). Reading

   comprehension, figurative language instruction, and the Turkish English language

   learner. *Reading Horizons, 48*(4), 261-282.

Palmer, B., Shackelford, V., Miller, S., & Leclere, J. (2007). Bridging two worlds:

   Reading comprehension, figurative language instruction, and the English-

   language learner. *Journal of Adolescent & Adult Literacy, 50*(4), 258-267. doi:

   10.1598/JAAL.50.4.2

Park, H., & Kim, D. (2011). Reading-strategy use by English as second language

   learners in online reading tasks. *Computers and Education, 57*, 2156-2166.

Parkay, F., Hass, G., & Anctil, E. (2010). Curriculum leadership: Readings for

    developing quality educational programs (9th ed.). Boston, MA: Pearson

    Education, Inc.

Pawan, F. (2008). Content-area teachers and scaffolding instruction for English language

    learners. *Teaching and Teacher Education, 24*, 1450-1462. doi:

    10.1016/j.tate.2008.02.003

Pedder, D. (2001). *The impact of class size on effective teaching and learning: a*

    conceptual and methodological investigation. (Unpublished doctoral

    dissertation.) Cambridge University Faculty of Education.

Pedder, D. (2006). Are small classes better?: Understanding relationships between class

    size, classroom processes, and pupils' learning. *Oxford Review of Education,*

    32(2), 213-234.

Peregoy, S., & Boyle, O. (2005). *Reading, writing, and learning in ESL: A resource*

    book for K-12 teachers (4th ed.). Boston, MA: Pearson Education, Inc.

Pong, S., & Pallas, A. (2013). Class size and eighth-grade math achievement in the

    United States and Abroad. *Educational Evaluation and Policy Analysis, 23*(3),

    251-273.

Prais, S. (1996). Class-size and learning: The Tennessee experiment – What follows?

    Oxford Review of Education, 22, 399-414.

Proctor, C., Dalton, B., & Grisham, D. (2007). Scaffolding English language learners

    and struggling readers in a Universal Literacy Environment with embedded

    strategy instruction and vocabulary support. *Journal of Literacy Research, 39*(1),

    71-93.

Ready, D. (2008). Class-size reduction: Policy, politics, and implications for equity. *Equity Matters: Research Review No. 2*. New York, NY: Columbia University.

Rivkin, S., Hanushek, E., & Kain, J. (2005). Teachers, schools, and academic achievement. *Econometrica, 73*(2), 417-458.

Rodriguez, A. (2008). Toward a transformative teaching practice: Criticity, pedagogy and praxis. The International Journal of Learning, 15(3), 345-352.

Rolstad, K., Mahoney, K., & Glass, G. (2005). The big picture: A meta-analysis of program effectiveness research on English language learners. *Educational Policy, 19*(4), 572-594. doi: 10.1177/0895904805278067

Rovai, A., Baker, J., & Ponton, M. (2013). Social science research design and statistics: A practitioner's guide to research methods and SPSS analysis. Chesapeake, VA: Watertree Press.

Russell, S. (1995). Sheltered content instruction for second language learners. *Reading Today*, 30.

Sasaki, A., & Takeuchi, O. (2010). EFL students' vocabulary learning in NS-NNS email interactions: Do they learn new words by imitation? *ReCALL, 22*(1), 70-82. doi: 10.1017/S0958344009990206

Sims, D. (2008). A strategic response to class size reduction: Combination classes and student achievement in California. *Journal of Policy Analysis and Management, 27*(3), 457-478.

Shin, I., & Chung, J. (2009). Class size and student achievement in the United States: A meta-analysis. *KEDI Journal of Educational Policy, 6*(2), 3-19.

Shin, Y., & Raudenbush, S. (2011). The causal effect of class size on academic

    achievement: Multivariate instrumental variable estimators with data missing at

    random. *Journal of Educational and Behavioral Statistics, 34*(2), 154-185.

Short, D., & Echevarria, J. (2005). Teacher skills to support English language learners.

    Educational Leadership, 62, 8-13.

Smith, P., Molnar, A., & Zahori, J. (2003). Class-size reduction: A fresh look at the data.

    Educational Leadership, 61(1), 72.

Stasz, C., & Stecher, B. (2000). Teaching mathematics and language arts in reduced size

    and non-reduced size classrooms. *Educational Evaluation and Policy Analysis,*

    22(4), 313-329.

Stenner, A., Burdick, H., Sanford, E., & Burdick, D. (2006). How accurate are lexile text

    measures? *Journal of Applied Measurement, 7*, 302-322.

Stewner-Manzanares, G. (1988). The bilingual education act: Twenty years later.

    Retrieved from http://www.ncela.gwu.edu/files/rcd/BE021037/Fall88_6.pdf

Szpara, M., & Ahmad, I. (2007). Supporting English-language learners in social students

    classes. *The Social Studies, 98*(6), 189-195.

Teale, W. (2009). Students learning English and their literacy instruction in urban

    schools. *The Reading Teacher, 62*(8), 699-703. doi:10.1598/RT.62.8.9

The Center for Public Education. (n.d.). Class size and student achievement: Research

    review. Retrieved from http://www.centerforpubliceducation.org/Main-

    Menu/Organizing-a-school/Class-size-and-student-achievement-At-a-

    glance/Class-size-and-student-achievement-Research-review.html?css=print

Tomlinson, C. (2004). Differentiation of instruction in the elementary grades. *ERIC Digest.* [Electronic Version]. Retrieved from http://www.ericdigests.org/2001-2/elementary.html

Townsend, D. (2009). Building academic vocabulary in after-school settings: Games for growth with middle school English-language learners. *Journal of Adolescent and Adult Literacy, 53*(3), 242-251. doi: 10.1598/JAAL.53.3.5

Townsend, D., & Collins, P. (2008). Academic vocabulary and middle school English learners: An intervention study. *Reading and Writing, 22*, 993-1019. doi: 10.1007/s11145-00809141-y

Verma, G., Martin-Hansen, L., & Pepper, J. (2008). Using sheltered instruction to teach English language learners. *Science Scope, 32*(3), 56-59.

Vygotsky, L. (1978). Interaction between learning and development. In M. Gauvain & M. Cole (Eds.), *Readings on the development of children* (2nd ed.), (pp. 29-36). New York, NY: W.H. Freeman and Company.

WIDA Consortium. (2007). *Understanding the WIDA English language proficiency standards - A resource guide.* Board of Regents of the University of Wisconsin System.

Word, E., Johnston, J., Bain, H., Fulton, B., et al. (1990). *"The State of Tennessee's Student/Teacher Achievement Ratio (STAR) Project: Technical Report 1985-1990".* Nashville, TN: Tennessee State Department of Education.

World-Class Instructional Design and Assessment. (2011). Standards and instruction. Retrieved from http://www.wida.us/standards

Yatvin, J. (2000). *Minority view.* Retrieved from http://www.nichd.nih.gov/publications/
nrp/upload/minorityView.pdf

Yeh, S. (2007). Class size reduction or rapid formative assessment?: A comparison of
cost-effectiveness. *Educational Research Review, 4*(2009), 7-15.

Zuengler, J., & Miller, E. (2006, March). Cognitive and sociocultural perspectives: Two
parallel SLA worlds? *TESOL Quarterly, 40*(1), 35-58.

Zygouris-Coe, V. (2012). Disciplinary literacy and the common core state standards.
Topics in Language Disorders, 32(1), 35-50.

APPENDIX A

▮▮▮▮ **School District**
Request for Data

Name ▮▮ Holly Arnold ▮▮ Email Address holly.arnold@▮▮▮▮.rg Phone Number ▮▮▮▮▮

Preferred Contact Method   Email   _X_   Telephone   ____

Location/Department ▮▮▮▮▮▮▮▮▮▮ Position ▮▮▮▮▮▮

1. Describe the data you are requesting. Be as specific as possible, use the back of the form if more space is needed. Include any tables or reports for which you need specific data or provide a sample of the report layout that is needed.

The current (2012-2013 school year) 6th grade ESOL enrollment numbers for middle schools is needed. I do not need FTE counts but the number of 6th grade ESOL students, with their respective ACCESS proficiency levels, at each middle school.

2. Date Needed as soon as possible Format word doc. or spread sheet; any format is acceptable though.

3. How will the data be used?
For my dissertation, I plan to work with 6th grade ESOL students at 2-6 middle schools. Only 64 students are needed, per my data analysis method; therefore, only the schools with larger numbers of 6th grade ESOL students will be asked to participate – until I reach the 64 student goal. This data will assist me in selecting schools with larger 6th ESOL student numbers.

4. Who, besides the requester, will have access to the data?
No one will have access to this data other than myself. In my dissertation, the names of the participating middle schools will be changed for confidentiality purposes. Identifiable student information will not be included; students will receive a separate ID number to protect maintain anonymity. All information will be kept in a locked cabinet.

5. Read the confidentiality statement and sign below.

I understand that any unauthorized disclosure of confidential information is illegal as provided in the Family Educational Rights and Privacy Act of 1973 (FERPA) and in the implementing federal regulations found in 34 CFR Part 99. In addition, I understand that any data, datasets or outputs that I, or any authorized representative, may generate from data provided by the Accountability Office are confidential and the data are to be protected. I will not distribute to any unauthorized person any data or reports that I have access to or may generate using confidential data. I also understand that students, schools, or the district may not be identified in any published report. Data with names or other identifiers (such as student numbers) will be properly disposed of when their use is complete.

▮▮▮▮▮▮▮▮▮▮   Nov. 5, 2012
Signature   Date

▮▮▮▮▮▮▮▮▮▮   Nov. 5, 2012
Principal/Supervisor Signature   Date

Return this form to the ▮▮▮▮▮▮ through the county mail. To speed the process, you may fax the form to ▮▮▮▮▮ but we require the original before any data will be provided. Priority to the data request will be assigned by the Chief Academic Officer.

▮▮▮▮

[REDACTED]

May 6, 2013

Ms. Holly Arnold
[REDACTED]

Dear Ms. Arnold:

Your research project titled, The Effects of Delivery Models on the Grade-Level Expository Reading Comprehension Scores of Sixth-Grade English Learners, has been approved. Listed below are the schools where approval to conduct the research is complete. Please work with the school administrator to schedule administration of instruments or conduct interviews.

School

[REDACTED]

Should modifications or changes in research procedures become necessary during the research project, changes must be submitted in writing to the Academic Division prior to implementation. At the conclusion of your research project, you are expected to submit a copy of your results to this office. Results cannot reference the [REDACTED] or any District schools or departments.

Research files are not considered complete until results are received. If you have any questions regarding the process, contact our office at [REDACTED].

Sincerely,

[REDACTED]

Director of C-STEM, Assessment & Research

BOARD OF EDUCATION [REDACTED]

SUPERINTENDENT [REDACTED]

Principal Consent Letter

Dear Principal,

CONSENT FORM

The Effects of Delivery Models on the Grade-Level Reading Development of Sixth-Grade English Learners

Holly Arnold

Liberty University

School of Education

Your school is invited to be in a research study of how classroom delivery models can impact reading comprehension of sixth grade ESOL students. You were selected as a possible participant because of the innovative delivery models used to teach sixth-grade students in the ESOL program at your school. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by Holly Arnold in the School of Education.

Background Information:

The purpose of this study is to determine the effects of classroom delivery model (i.e., a class size reduction (CSR) model or sheltered instruction) on how well English learners read and comprehend.

Procedures:

If you agree for your school to be in this study, I will not asking anything from your teachers or students. I will use the CRCT and ACCESS test scores from the Spring 2013 administration. These scores will be obtained from the county research department, and the linguistic information of the ELs will be obtained from the ESOL county office.

Risks and Benefits of being in the Study:

The risks for being in this study are no more than the participant would encounter regularly attending class. Students' information will be provided on the spreadsheets but will be detached and stored in a locked location separate from test scores to ensure confidentiality.

The benefits to participation are: your school will be provided with the details of how two different delivery models influence sixth grade ESOL students' reading development.

Compensation:

There will be no compensation.

Confidentiality:

The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a subject or specific school. Research records will be stored securely in a locked cabinet, and only the researcher will have access to the records.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University or xxxxx County School District. If you

decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:
The researcher conducting this study is Holly Arnold. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact her at arnold.hollyw@gmail.com or (706) 897-2879. You may also contact Connie McDonald at cmcdonald2@liberty.edu or (434) 592-4365.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24502 or email at irb@liberty.edu

You will be given a copy of this information to keep for your records.

Statement of Consent:

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Signature: _____ Date: _____

Signature of Investigator:_____ Date: _____

IRB Code Numbers: [Risk]

IRB Expiration Date: [Risk]

Appendix D

LIBERTY
UNIVERSITY.

The Graduate School at Liberty University

May 10, 2013

Holly Arnold
IRB Exemption 1529.051013: The Effects of Delivery Models on the Grade-Level Reading
Development of Sixth-Grade English Learners

Dear Holly,

The Liberty University Institutional Review Board has reviewed your application in accordance
with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA)
regulations and finds your study to be exempt from further IRB review. This means you may
begin your research with the data safeguarding methods mentioned in your approved application,
and that no further IRB oversight is required.

Your study falls under exemption category 46.101 (b)(4), which identifies specific situations in
which human participants research is exempt from the policy set forth at 45 CFR 46:

> (4) Research involving the collection or study of existing data, documents, records, pathological specimens,
> or diagnostic specimens, if these sources are publicly available or if the information is recorded by the
> investigator in such a manner that subjects cannot be identified directly or through identifiers linked to the
> subjects.

Please note that this exemption only applies to your current research application, and that any
changes to your protocol must be reported to the Liberty IRB for verification of continued
exemption status. You may report these changes by submitting a change in protocol form or a
new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether
possible changes to your protocol would change your exemption status, please email us at
irb@liberty.edu.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

(434) 592-4054

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