

PREDICTORS OF THE USE OF ENGLISH LANGUAGE ASSISTANCE SERVICES BY  
ENGLISH LANGUAGE LEARNERS IN ELEMENTARY SCHOOLS

by

Juanita L. Hosch-Martin

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

Liberty University

2016

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2016

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## ABSTRACT

The number of English language learners (ELLs) in the American classrooms is growing at a rapid rate. The purpose of this correlational study was to determine whether there was a statistically significant relationship between the need for English language assistance services predicted using a combination of a student's home language, student's first language, student's language used most, and W-APT scores for elementary school students in a southeastern state. The instrumentation for this study consisted of the Home Language Survey and W-APT scores. With the approval of the IRB and a southern state school district, the research was conducted using a convenience sampling method from archival data for 57 pre-kindergartens and 82 kindergarten second language elementary students from four elementary schools to total a sample size of 139. Archival data from 2011-2015 school years were available to the researcher based on the researcher's professional relationship with the school district. A statistical test using a logistical regression was conducted and the data analysis results concluded there was a statistically significant relationship between the need for English language assistance services predicted using a combination of a student's home language, student's first language, student's language used most, and W-APT reading, writing, and oral proficiency scores for elementary school students. The researcher rejected the null hypothesis. Recommendations for future research were included in this study.

*Keywords:* English Language Learner (ELL), home language, language proficiency, second language acquisition, second language acquisition theory, student's first language, student's language used, W-APT score.

**Copyright Page**

### **Dedication**

I would like to dedicate this work to my children, Gabby and Seth. The example of the importance of education and service is presented by demonstration in your daily life. My persistent work to reach this pinnacle has set a precedence for your future aspirations in life. Thank you for your cooperation and encouragement. You have truly shown me that we are a team by constantly cheering for me, as we worked together to make sure that “we win” together. Remember you are the “salt and light” of the earth, “Let your light so shine before men, that they may see your good works, and glorify your Father which is in heaven” (Matthew 5:16, KJV).

I would like to dedicate this work to my nieces, nephews, and students. You have the power within you to accomplish any goals that you set for yourself.

Also, I would like to dedicate this work to my parents (Guy and Jean Hosch), siblings, and other family members. Your support, love, and encouragement enabled me to accomplish this goal.

## Acknowledgments

I would like to thank Dr. David Nelson, the Chair of my dissertation committee, for your continuous support, guidance, and encouragement. Your patience was the exemplar of the scripture “Follow my example, as I follow the example of Christ” (1 Corinthians 11:1, NIV). I would like to thank Dr. Reginald Kimball, my committee member. I prayed for God to send you as a member; you accepted the call. A humble thank you to Dr. LaMoyne Brunson, my committee member. Words cannot express my gratitude for your guidance, kindred spirit, and constant words of encouragement. The three of you have demonstrated “the Liberty Way.”

I would like to thank my Liberty University family, professional colleagues, and dear friends for your continuous support. Thank you to Dr. Carol Pierannunzi, who spoke the words into my life of pursuing an advanced degree years before I could even see the vision.

I would like to thank my husband, Franklin Martin. There are no words that can express my gratitude for your constant encouragement, love, and never-ending support. During the moments that I felt that I couldn't complete this task, you never lost your belief in me. You enabled me to accomplish this achievement by making sacrifices that were unimaginable. You constantly reminded me that our children were observing my determination despite the many obstacles, and how I needed to endure with an unbreakable spirit and never-ending joy in my heart. In return, our children were observing your demonstration of love and commitment to see me through this journey. You are an honorable father and husband, second to none.

All of the glory belongs to my Savior, Jesus Christ. This journey has truly brought new meaning to the scripture, “Trust in the LORD with all thine heart; and lean not unto thine own understanding. In all thy ways acknowledge him, and he shall direct thy paths” (Proverbs 3:5-6, NIV).

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### **List of Abbreviations**

Annual Measurable Achievement Objective (AMAO)

Assessing Comprehension and Communication in English State-to-State for English

Language Learners (ACCESS)

Child Vocalizations (CVs)

Early Childhood Longitudinal Study (ECLS)

English as a Second Language (ESL)

English Language Learners (ELLs)

English Learners (ELs)

Institutional Review Board (IRB)

Language Socialization theory (LST)

Multivariate Analysis of Variance (MANOVA)

No Child Left Behind (NCLB)

Oral Language Development Screener (OLDS)

Second Language Speaker (L2)

WIDA-ACCESS Placement Test (W-APT)

Word Per Minute (WPM)

Variance Inflation Factors (VIF)

## CHAPTER ONE: INTRODUCTION

### Background

Many people believe the path to liberty and freedom resides in immigrating to the U.S. However, as immigration continues to the U.S., trends and patterns are changing. Historically, immigration into the United States has followed distinct patterns, though these patterns have changed compared to the past century (Stacey, Carbone-López, & Rosenfeld, 2011). Many immigrants who arrived in America between 1880 and 1920 were from Southern and Eastern Europe (Hirschman, 2014). Those who immigrated have had many obstacles to overcome and in some situations, discrimination to face. The solution was to create a safeguard for those immigrating to the U.S. As a result, the 1965 Immigration Act established immigration reform to abolish national origin quotas (Marinari, 2014). Between the years 2000 and 2010, the Asian population was the fastest growing racial group in the United States, increasing from 10.2 million to 14.7 million (Humes, Jones, & Ramirez, 2011). Recently, the Hispanic population has been recognized as the fastest growing and largest ethnic group in the United States (U.S. Census Bureau, 2010). As the population continues to grow, present and future educators have the responsibility of developing a curriculum that supports English Language Learners (ELLs) in acquiring background knowledge and developing proficient English language skills (Bunch, 2013).

Individuals who speak a language other than English at home represent 19.7% of the U.S. population (U.S. Census Bureau, 2010), and the number of American households where the primary language was spoken as a language other than English continues to increase. According to Lee, Lee, and Amaro-Jiménez (2011), one in four children below the age of five in the United States are living in a non-English speaking household. These ELLs accounted for approximately

4.5 million students in public schools across the United States during the 2010-2011 school year (U.S. Department of Education, 2011). In 2006, ELL students were served by 43% of teachers in American classrooms (Helfrich & Bosh, 2011). Furthermore, the number of ELL students are projected to increase from the minority of 18% of the population to a projected majority population by 2030 (Lee, Lee, & Amaro-Jiménez, 2011). The increasing number of immigrants moving into the United States over the past three decades has created a need to address the instruction of non-English speakers. Among those classified as ELLs are Spanish-speaking students, who are a part of the majority immigrant population and individuals involved in the growing debate of how educators should implement quality English instruction, ELL services, and language assessment (Calderon, Slavin, & Sanchez, 2011).

In 1990, Hispanics represented one in every eight students in American schools (Fry & Gonzales, 2008). Within the 1997-1998 school year, 20 non-traditional migration states, including Alabama, Kentucky, Georgia, and Indiana, saw a 240% increase in ELL student populations (Batalova & McHugh, 2010). Additionally, densely populated states such as California, Florida, New York, and Texas have schools that have accrued increasing numbers of Hispanic students (Cho & Larke, 2010). In 2008, Hispanic students represented one in every five students enrolled in public schools (Fry & Gonzales, 2008). Some states have experienced a higher influx of ELLs than other states. In the past three decades, Georgia had not been classified as a state with a dense population of Hispanic immigrants; however, the focus on this population has become apparent. During the 2007-2008 school year, the state of Georgia saw a 400% increase in the number of ELL students, with Hispanic students representing the highest enrollment of students (Editorial Projects in Education Research Centers, 2009). Although the entire country has seen an influx of immigration, larger states such as California, Florida,

Illinois, New York, and Texas account for the most immigration. In 2010-2011, these states enrolled 2.9 million ELL students (U.S. Department of Education, 2009). Although many cities have seen tremendous growth in the immigrant population, metropolitan cities have shown the highest growth (Liu, 2013), creating a greater need for English language assistance services for ELL students in classrooms across the United States. The case of *Lau vs. Nichols* (1974) created protection for the growth of ELLs by requiring that schools identify ELLs with limited English proficiency, thus providing the ELL student with language services. The modern classroom has changed compared to the past, particularly due to the increase in the number of ELL students and the mandates requiring educators to focus on increasing the academic proficiency of all students. Previous research has shown ELL students have limited exposure to English until a formal entrance into an academic setting (Mancilla-Martinez & Lesaux, 2011), which can lead to students who lack English proficiency to maximize grade level academic skills.

The measurement of language proficiency has been determined using 10-year U.S. census reports and general surveys (Akresh, Massey, & Frank, 2014). Title III of No Child Left Behind (NCLB, 2002), a federally mandated program that requires administration of the W-APT for ELL services, based on student home language survey results. If the student's home language survey reveals any language other than English, the W-APT is administered to determine the student's English proficiency level. If the student is not proficient in English, he or she will receive language assistance services. English language assistance services are defined as language support through a supplemental program for students with limited English proficiency (Goldenberg, 2008) and include services such as instructional support that enable ELLs to develop academic, social, and cultural proficiency. The model that schools use to measure language proficiency includes home language surveys and screener tests.

Implementation of a language proficiency screener test has been a tool to assess the needs of ELL students. The WIDA-ACCESS Placement Test (W-APT) is an English language proficiency screener test used to assess ELL students' English language proficiency and performance in social and instructional language, language of language arts, language of mathematics, language of science, and language of social studies by educators. Despite the efforts of leaders in the public education system to address student needs, a social context of fewer English proficient students has apparently been created.

ELLs create a different task for educators to adjust curriculum associated with demographic, economic, social, political, and forces (Parkay, Hass, & Anctil, 2010). Furthermore, states are mandated to align ELL standards to those of assessments in reading, writing, speaking, and listening (Zehr, 2010). The No Child Left Behind Act (NCLB, 2002) mandated that states set proficiency trajectory goals in mathematics and reading with the target year of 2014 (Deville & Chalhoub-Deville, 2011). Many of the guidelines are outlined in Title III. Many ELL students lack the academic language to be successful and to score at or above a proficient level in school. Baumann and Graves (2010) defined academic language as the language of a content area in education. In 2011, 34% of fourth-grade students performed at the proficient level, while 67% of fourth-grade students were at or above the basic reading level (U.S. Department of Education, 2011). The reading proficiency of American eighth-grade students was measured at 34% (U.S. Department of Education, 2011). Non-English primary home language groups performed below grade level by 51% to 84% of fourth graders (Foundation for Child Development, 2013). The results show ELL students lag behind grade-level native English-speaking peers and struggle to reach grade level mastery requiring additional educational services. The implications suggest the number of students participating in

English as a Second Language (ESL) programs will continually grow in an upward trend (National Clearinghouse for English Language Acquisition, 2011).

Language theory demonstrates the fundamental background to acquire language. The development of language proficiency was referenced in theories such as Language Socialization Theory (LST) (Ochs & Schieffelin, 1984) and Second Language Acquisition Theory (Krashen, 1988). For each theory, the influence of language can determine the proficiency outcome, particularly in academics as it links to the goal of educators. As a whole, the most influence for these theories was derived from the home, which plays a significant role in the early education of ELL students. Previous research supports the theory that home language influences children's English language proficiency, but it does not predict students' English proficiency (Littlejohn, 1998). According to a study conducted by Mancilla-Martinez and Kieffer (2011), the home environment is the primary influencer of language. A previous study determined that the process of learning a second language while maintaining a home language helped to build metalinguistic abilities, support cultural identity and increase self-concept (Oller & Jarmulowicz, 2007). The present study was guided by the components of language theory associated with second language speakers and the influence of home language to the ELL's proficiency skills. Despite the possibility of a positive influence of home language use on ELLs' English language ability, it is apparent to educators that the influence is not always positive in regards to academic achievement and student assessment.

### **Problem Statement**

The increase in the number of non-native English speakers living in the United States has created concerns about whether students who are ELLs meet the content area requirements, as well as the process to determine those students' language needs (Babal, Cao, Filer, Hedtke, &



Lo, 2015). An ELL's English proficiency measurement can expand further than reading, writing, listening, and speaking skills through the use of on state standards-based performance assessments (Wolf & Faulkner-Bond, 2016). Students in the United States are expected to perform at a mastery level in content areas each year. Previous research by Paradis & Kirova (2014), determined that more studies needs to be conducted on the ELL population and the ELL's home language influence as it relates to their English language proficiency. Educators are challenged with implementing strategies to meet the needs of ELLs due to limited English as a second language and for some ELLs the lack of mastery of their native language (Vaughn, 2012). Furthermore, less research has been implemented to determine the relationship of home language and the L2 English learner's proficiency skills (Dixion & Wu, 2014).

ELL students routinely perform 20 to 50 percentage points below native English speakers on state assessments (Menken, 2010). Disproportionately, ELL students come from low-income homes, adding to the possibility of performing below grade level (Ransdell, 2012). The percentage discrepancy has caused great concern for educators in regard to student learning outcomes. In previous research, the findings supported that communication between the parent and child was the foundation of academic achievement, language development, and language proficiency (Lutz, 2007). Findings of previous studies call for more research to be conducted on the influence of a student's home language and academic achievement upon entering school (Hammer, Komaroff, Rodriguez, Lopez, Scarpino, & Goldstein, 2012). Geva (2014) noted that understanding the specifics of students' language acquisition and qualification for language assistance will enable educators to understand the abilities of ELL students. Fox and Fairbairn (2011) suggested ongoing research with ELL test-takers would offer guidance to educators on assessment development and provide some insight into the needs of students in language

assistance programs. Gaps in the literature exist due to limited research performed in this area to predict the influence of home language on academic proficiency outcomes in the field of education (Branum-Martin, Mehta, Carlson, Francis, & Goldenberg, 2014; Carreira & Kagan, 2011; López & McEneaney, 2012). Current inconsistencies in ELL students' achievement necessitates more research into the use of home language surveys and the relationship between W-APT scores. The problem is whether the home language survey gives educators some insight on language proficiency.

### **Purpose Statement**

The purpose of this correlational study was to determine whether a linear combination of a student's home language, student's first language, student's language used most, and W-APT scores could predict the need for English language assistance services for elementary school students. The six predictor variables studied were the student's home language, student's first language, student's language used most, and W-APT scores. Student's home language was defined as the first language a child learns in the home setting (McGroarty, 2012); student's first language was defined as the language a student uses first in childhood when he or she is learning to speak and communicate (Guijarro-Fuentes & Rothman, 2008); and student's language used most often was defined as the language the student uses to communicate with others (McGroarty, 2012). W-APT is defined as the WIDA-ACCESS Placement Test. The criterion variable was English language assistance services. Archival data of 193 ELL student records from the school years 2011-2015 was obtained from four elementary schools. The ELL students ranged from pre-kindergarten to kindergarten and were identified as early learners.

### **Significance of the Study**

This study was important in the field of education as all stakeholders work to assist in the

academic proficiency of all individuals involved and better evaluate educational tools used for language services. According to Lei et al. (2010), as students move from lower levels of academics to college-level courses, the ELL students must be able to comprehend a greater amount of academic material. The foundation and preparation for this area of academics begin in primary education. Previous studies have researched the influence of early patterns of home language use on vocabulary skills (Mancilla-Martinez & Lesaux, 2011), the effects of dual language exposure and early bilingual development (Hoff, Core, Place, Rumiche, Senior, & Parra, 2012), and the effectiveness of reading programs for ELL student in the elementary grades (Cheung & Alan, 2012). The identification process has been debated; little research exists on the use of home language surveys and qualifying students for language assistance in schools for non-English speaking home language of ELL students (Mancilla-Martinez & Kieffer, 2011). More research needs to be conducted on using a combination of the home language survey and W-APT scores to predict the need for English language assistance among elementary students. Currently, there are no common national criteria to determine a student who is EL status (Téllez & Mosqueda (2015). Although the identification process has been debated (Abedi, 2008; Bedore & Pena, 2010; Paradis et al., 2011), little research exists on the use of home language surveys (Bailey & Kelly, 2013) and patterns of language proficiency among ELLs (Mancilla-Martinez & Kieffer, 2011). A better understanding of linguistic relationships that affect ELL achievement needs further examination (Goodwin et al., 2012), giving educators a better understanding of ELL students' weaknesses and strengths. More research needs to be conducted by using a combination of the home language survey and W-APT scores to determine whether a relationship of proficiency exists among early English Language Learners. The significance of this study adds to the body of research representing the factors used to predict English

proficiency among ELL students whose home language is not English (Bailey & Carroll 2015; Boals, Kenyon, Blair, Cranley, Wilmes, & Wright, 2015; Durán, 2008; Halle, Hair, Wandner, McNamara, & Chien, 2012).

### Research Question

The following research question was addressed in this study:

**RQ1:** How accurately can English language assistance services for elementary students be predicted from a linear combination of home language, first language, language used most, and W-APT scores?

### Null Hypothesis

The following null hypothesis was tested:

**H<sub>0</sub>1:** There will be no statistically significant predictive relationship between English language assistance services and the linear combination of home language, first language, language used most, and W-APT scores for elementary students.

### Definitions

The following definitions were used for this study:

1. *English language assistance services* - A supplemental program that supports language development for students with limited English proficiency through English-based services (Goldenberg, 2008).
2. *English language learners (ELL)* - Individuals who are non-native speakers of the English language while acquiring proficiency at the same time (Wright, 2010).
3. *Home language* - The language a child learns first in the home setting (McGroarty, 2012).

4. *Language proficiency* - Measured “in terms of performance across language’s fundamental properties, including phonology, morphology, syntax, semantics, and pragmatics” (Banks, 2012, p. 1333).
5. *Native speakers* - Individuals who develop proficiency with a language as a youth in a natural setting (O’Grady, 2005).
6. *Reading comprehension* - The involvement and interaction of developing the written language meaning (Shanahan et al., 2010).
7. *Second language acquisition* - “How individuals acquire a certain language other than the native language” (Aimin, 2013, p. 162).
8. *Student’s first language* - The language a student uses first in childhood when learning to speak and communicate (Guijarro-Fuentes & Rothman, 2008).
9. *Student’s language used* - The language the student uses to communicate with others (McGroarty, 2012).
10. *WIDA-ACCESS Placement Test (W-APT)* - A pre-screening test used to determine the need for English language assistance classes (WIDA, 2009).

## CHAPTER TWO: LITERATURE REVIEW

### Introduction

Native speakers of the English language learn to use English from birth as the first language heard, spoken, and used in the home. In contrast, English Language Learners (ELLs) are learning English as a second language (Wright, 2010). Speaking English represents a new form of communication for the ELL students resulting in different challenges than the native English-speaking students. According to Case (2015), “It encompasses scores of native languages, cultures, socioeconomic levels, and educational backgrounds, not to mention a kaleidoscope of individual aspirations and life experiences” (p. 362). The challenges may occur in the home, community, or an academic setting. For both first language (L1) and second language (L2) students, communication in English is the foundation of mastery within the academic setting. When comparing monolingual children to the ELLs, the English language development growth rate of the monolingual children shows an orderly and continuous trajectory (Gleason & Ratner, 2009). However, the growth trajectory of the ELLs is different as it shows different patterns (Hammer, et al., 2011). Academically, each ELL student needs to be grade-level proficient in all subject areas by the end of each academic year. The tasks for the ELL teachers is to prepare the ELL student. The opportunity for the English learner allows increased gains in English language acquisition that can be utilized in listening, speaking, writing, and reading.

### Theoretical Framework

English acquisition is based on the foundation of language theoretical framework. Everyday language communication for many individuals commences through oral, verbal, and nonverbal processes. Different theoretical frameworks suggest the premise that language

evolves from communication through various models (Bronfenbrenner, 1989; Chomsky, 1986; Shaffer, Wood, & Willoughby, 2002; Vygotsky, 1978). Research by Ellis (1994), Chomsky (1986, 1993) and Vygotsky (1978) support a theoretical framework of an ELL's language acquisition in a second language. Other theoretical frameworks offer different views. Theories such as the Language Socialization Theory (LST) (Ochs & Schieffelin, 1984) and Second Language Acquisition Theory (Krashen, 1988) offer an understanding of the daily obstacles of ELLs and the factors that can determine the language proficiency for each individual.

Individuals using more engaged and commonly used language become more proficient over time. As described in many language frameworks, social engagement in the language with the learning environment is the key component to second language acquisition (Chomsky, 1986; Schieffelin & Ochs, 1986; Vygotsky, 1978). The components can be comprised of culture, social, and linguistics environments that lead to levels of proficiency and lack of proficiency. According to Duff and Steven (2011), language socialization provides a theoretical framework that formulates through interaction with more proficient individuals via culture, communicative competence, and linguistic development. The intertwining components of culture, social, and linguistics knowledge are the foundational model of language socialization (Duff, 2007). The theoretical framework of language socialization incorporates multiple disciplines represented by anthropology, education, linguistics, and sociology, acting as an induction to language and literacy development (Duff, 2010). These disciplines encompass the process of language development into proficiency levels. Despite all the previous research, Firth and Wagner (2014) debated the second language from a social constructionist perspective as a cultural phenomenon. However, Bayley and Langman (2011) suggested LST originated based on emotion, knowledge, and social action of less language proficient individuals. Duff and Steven (2011) conducted

research concerning the language socialization, noting the development occurred in daily social interaction through work, school, community, family, and peer relationships that influenced the language learning of a second language learner. Through relational social interaction, learners are active participants in a language learning setting consisting of verbal, nonverbal, and expressive writing.

### **Second Language Acquisition Theory**

In previous years, Second Language Acquisition (SLA) was approached through language teaching pedagogy, behaviorism, grammatical patterns and vocabulary learning (Myles, 2010). Menezes (2013) argued there are theories and hypotheses in SLA, but the theories and hypotheses in SLA have more powerful impressions in the field of languages such as acculturation, behaviorism, connectionism, comprehension hypothesis, universal grammar hypothesis, output hypothesis, interaction hypothesis and sociocultural theory. Recent research on English Learners (ELs) and second language theory researched by Krashen (1982) has deepened the inquiry of the role of language proficiency when acquiring a second language.

The Second Language Theory (SLT) focuses on five hypotheses by Krashen (1982). The theory shows a theoretical linguistics hypothesis that derives from data and generalizations. The five hypotheses center on the relationship between second language teaching practice and the process of second language acquisition. The five hypotheses are acquisition-learning hypothesis, natural order hypothesis, monitor hypothesis, input hypothesis, and affective filter hypothesis.

Krashen's (1982) first hypothesis of second language theory represents the acquisition-learning hypothesis. The learning hypothesis views language as developing through a subconscious and process. According to Gregg (1984), one shows conscious learning, while the others show subconscious learning. Although communication is developed in the native



language, the learning process is not as apparent. However, the use of language instruction enables the conscious to understand the process. The foundation of this hypothesis is based on the realization that the student continues to learn and acquire a second language (Krashen, 1982).

The second hypothesis of the second language theory concerns the natural order hypothesis (Krashen, 1982). This process of language acquisition involves the grammatical structures and the predictable order of grammar that second language learners experience. Predictable grammar order for a second language learner may be too difficult to change due to the early acquisition and sequencing. Krashen and Terrel (1983) explained the process of the natural order as foreseeable grammatical structures. According to Krashen (1982), although the second language learner may not use the language order the same, the process used by first and second language individuals remains the same. Some grammar structures may be easier to acquire than others; however, if the language concept is too complicated for the learner, the use of simpler language structures may be more productive for the acquiring of the second language (Krashen, 1982).

Hypothesis three of the second language theory represents the monitor hypothesis (Krashen, 1982). The demonstration of monitoring is unnecessary in this stage, as it is the earliest stage of language and is represented in the latter stages. The monitor hypothesis reflects the process of monitoring and editing the language. According to Schutz (2007), monitoring provides a normal form of communication to reflect a more natural type of communication. Krashen's (1982) noted that the process occurs when the speaker is self-correcting through personal speaking or writing. Furthermore, the hypothesis functions as actions for accuracy but the monitoring should be limited, causing a hindrance to fluency.

The fourth hypothesis of Krashen's (1982) second language theory provides an input

hypothesis contradicting the learning of language but facilitates the acquisition of language. According to Krashen (1982), the input hypothesis emerges in two parts. Part one represents an understandable input that is beyond the usual understanding. However, part one of the input hypothesis allows the learner to process the information during the language development process. The process leads to the expanding opportunity for the learner to effectively learn the language. Part two represents the acquisition of the language through the understanding of extra-linguistic context. Furthermore, the hypothesis shows a linear perspective relationship between input and acquisition based on cause and effect grammatical structure (Menezes, 2013).

In the final hypothesis of second language acquisition theory, the emotional variable of learning a second language represents the feelings of the speaker resulting in the affective filter hypothesis. According to Krashen and Terrel (1983), the affective filter hypothesis emerges in the affective variables of anxiety, self-reliance, and stimulus. The affective filter hypothesis views the acquiring of a second language as being related to the emotional aspect of acquiring a new language and the connection to the brain. According to Krashen (1982), the affective filter can be prompted by factors such as motivation, self-confidence, and anxiety.

### **Stages of Language Acquisition**

Educators who have an expanded understanding of second language acquisition can improve the ability of linguistically diverse students who are mainstreamed in the non-ELL classrooms (Schellpegrell & O'Hallaron, 2011). Stages and time play an important role in second language acquisition. According to Schellpegrell and O'Hallaron (2011), language proficiency occurs in stages of development over a period. The process of the first language is usually universal, but the second language can be a different process (Robertson & Ford, 2008). Therefore, the key to developing language acquisition skills involves the educator's

understanding of the ELL's needs and the stages of language acquisition. The stages are pre-production, early production, speech emergent, beginning fluency, intermediate fluency, and advance fluency (Schellpegrell & O'Hallaron, 2011). Previous research shows that various stages of Second-Language development and second language individuals can reach stages at different times (McLaughlin, 1987; Meisel, Clahsen, & Pienemann, 1981). During these stages, individuals are using various learning elements of acquiring a new language through grammatical and writing structure, vocabulary, and phonological components (Robertson & Ford, 2008). Many second language individuals require years to develop their second language skills. Some learners progress at a rapid rate, while others develop at a less than moderate rate based on age, home language, cognitive issues, affective issues, and initial stages of second language entry (Schellpegrell & O'Hallaron, 2011); thus leading to years for many second language individuals to develop skills.

According to Haynes (2007), there are six stages of Second-Language Acquisition. Stage one is the pre-production stage, which involves a period when an individual may gain the knowledge of up to five hundred words (Haynes, 2007). Additionally, stage one is the silent stage as the individual is not making sentences, but parroting words through repetition. Stage two concerns the early production stage, during which time the second language learner has developed an active vocabulary of one thousand words and short phrases (Haynes, 2007). Stage three represents the emergence speech stage. The second language individual has developed up to three thousand words (Haynes, 2007). During stage three, the individual communicates in sentences more frequently. Stage four begins the intermediate fluency stage. The second language learner has now gained six thousand active words in his/her vocabulary (Haynes, 2007). Stage five introduces the English learner's vocabulary development. During this stage,

the second language individual has four to 10 years of active academic language proficiency in a second language through an ELL support program yielding a more pronounced fluency with a native language accent (Haynes, 2007). This stage symbolizes the advanced stage of language fluency.

### **Cognate**

The role of language can have an effect on a child's cognitive functions. According to Jang, Dunlop, Wagner, Kim, and Gu (2013), "The effects of social interactions on cognitive and behavioral development may be mediated by language and symbols" (p. 122). Essential cognitive processes can influence language and literacy development of a second language speaker. Nicolay and Poncelet (2011) conducted a study investigating early second language (L2) immersion and the impact of attention and executive functioning through early family or community bilingualism. The aim of the study was to determine whether early less extended and less intensive second language immersion developed some cognitive benefits. The study used nonspeaking English participants who were immersed into an English program. The authors noted the previous research of Bialystok (2005) and Costa, Hernández, Costa-Faidella and Sebastián-Gallés (2009), as it relates to the influence on the cognitive development of bilingual acquisition. Nicolay and Poncelet (2011) noted that impact was observed through cognitive domains of flexibility, concept task inhibiting distractors, symbolic representation, and attention inhibition skills. The researchers concluded that the immersion group outperformed the monolingual group in tasks involving auditory selective attention, mental flexibility, interference inhibition, divided attention, and assessing alerting. However, the monolingual group outperformed in the area of response inhibition. Nicolay and Poncelet (2011) suggested that second language speakers need to adapt to switch flexibly from one language to another

language according to communication necessities. Furthermore, the authors suggested that more accurate language proficiency of bilingual speakers can improve through continuous attention control between the two languages leading to a better working memory. Nicolay and Poncelet (2011) suggested that second language children become more language proficient through early exposure, language switching between the native language and the second language, being mindful of one language while suppressing the other and intensive practice in controlling attention.

### **Metalinguistic Awareness**

Metalinguistic awareness can play a vital role in proficiency among ELLs, thus leading to poor reading comprehension skills. Tong, Deacon, and Cain (2014) conducted a study to gain an understanding of poor reading comprehension as it relates to metalinguistic skills, morphological and syntactic awareness. The findings demonstrated that students who showed poor reading comprehension did not perform well in morphological awareness and syntactic awareness tasks. Although the authors noted that the sample size was small, the findings were consistent with other studies. Often, individuals who struggled with reading lack comprehension skills in word reading and vocabulary. The second finding showed there was a bidirectional association between morphological awareness and word reading in average readers. Third, the study found individuals with limited reading comprehension skills were also weak in syntactic and morphological awareness. Previous research has been conducted to determine morphological awareness in monolingual children who speak English (Nagy, Beringer, & Abbott, 2006; Nagy & Scott, 2000), while few studies have examined this relationship with ELLs.

Chen et al. (2012) conducted a study to determine the relationship of morphological awareness among Spanish-speaking ELLs compared to Chinese-speaking ELLs, the

metalinguistic factors of English derivational awareness and English–Spanish cognate awareness, and sociocultural factors of maternal education and length of residence. The participants were in grades four through seven with Spanish-speaking, Chinese-speaking backgrounds, and were monolingual native speakers of English. The study used a family questionnaire that examined the home language use, immigration experience, and parental education. The variables used were the mother’s education and length of residence. The authors suggested that these two populations were compared because of the fact that there is little evidence that cognate awareness is shared by the Chinese and English language. Furthermore, Chen et al. (2012) suggested that metalinguistic, psycholinguistic, and sociocultural factors contribute to the vocabulary development of ELLs. The researchers also suggested that older children are more likely to be more proficient in the English language due to L1 and L2 strategies. The study showed strong evidence of derivational awareness associated with vocabulary learning, age, nonverbal skills, maternal education, phonological awareness, and word reading with Spanish-speaking ELLs and Chinese-speaking ELLs. Chen et al. (2012) found that the association was connected to the cognitive and linguistic skills according to reading success in ELLs regardless of the language backgrounds. The results suggested that the derivational awareness in vocabulary in Spanish-speaking ELLs and Chinese-speaking ELLs was somewhat larger than monolingual English-speakers.

### **Letter Sound**

English proficiency can begin with letter sound and recognition. However, early literacy development may be limited to ELLs due to delayed early start programs. A previous study showed phonemic awareness growth trajectories as being similar between ELLs and native speakers in kindergarten (Linklater, O'Connor, & Palardy, 2009). The first step to phonemic

awareness and reading is letter–sound recognition. Furthermore, spelling is vital, as the letter sequencing forms words. ELLs face additional challenges of same visual representation and differing phonemes between English and the ELL’s native language (Raynolds & Uhry, 2010); therefore, making direct phonics instruction paramount for native language speakers and ELLs.

Raynolds et al. (2013) conducted a study on the phonological and phonetic differences between Spanish and English. The participants were English-speaking and Spanish-speaking elementary students. The students participated in lessons that included English and bilingual Spanish instruction. The findings showed there was no difference in early spelling transfer. Both groups of students had phonetic spelling errors. Raynolds et al. (2013) suggested that explicit vowel instruction would have a greater impact on the ELL’s learning.

Dagli (2009) conducted a study that aimed to determine the predictive role of English letter naming fluency, initial sound fluency, and vocabulary skills of ELL first grade students. The study found that the best predictor for English letter naming fluency resulted from English oral reading fluency for ELL students with significant gains from the beginning to the end of first grade. Additional findings showed that reading skills prerequisites were stronger in non-ELL students than ELLs (Dagli, 2009). A further finding from this study suggested that home demographics had an impact on the English language and literacy skills of the ELLs.

### **Word Pronunciation**

English language pronunciation of L2s can be a concern. English pronunciation compared to another language pronunciation is different. The difference can result in the mispronunciation or understanding of a word’s sound or meaning. Word pronunciation can be easily acquired and understood by many language speakers due to L1 acquisition. However, the

proficiency skills of L2 speakers may be a little more difficult to accomplish than the proficiency skills of an L1 speaker. According to Gilakjani (2012):

Pronunciation refers to the production of sounds that we use to make meaning. It includes attention to the particular sounds of a language (segments), aspects of speech beyond the level of the individual sound, such as intonation, phrasing, stress, timing, rhythm (suprasegmental aspects), how the voice is projected (voice quality) and, in its broadest definition, attention to gestures and expressions that are closely related to the way we speak a language. A broad definition of pronunciation includes both suprasegmental and segmental features. Although these different aspects of pronunciation are treated in isolation here, it is important to remember that they all work in combination when we speak, and are therefore usually best learned as an integral part of spoken language. (p. 96)

Pronunciation can be improved through segmental accuracy and prosody measurements resulting in better expressiveness, intonation, and fluency (Lui, 2011). These improved skills will lead to better English proficiency. According to Hu et al. (2013), word pronunciation can be an easily acquired ability for L1 in early onset, but a constant problem in pronunciation, contrasting, knowledge of vocabulary and grammar difficulty for L2, particularly those who start later.

Previous research by Derwing (2003) and Derwing and Munro (2009) examined the English pronunciation of ELLs. The study called for further research of pronunciation in communication and effective pedagogy in language instruction for pronunciation. Olsen (2014) conducted a study to examine phonetic instruction at lower levels of language instruction, language pedagogical application, and the use of speech-analysis software for pronunciation language instruction. The study found that repetition and modeling improved L1 pronunciation,



as the voice recording of pronunciations provided self-monitoring and self-analysis to improve pronunciation. The outcome in the study showed measurable pronunciation benefits in language proficiency among L2 learners.

Couper (2011) conducted a study to determine the relationship of effective pronunciation teaching through socially constructed metalanguage and critical listening. The study suggested that pronunciation was based on cognitive skill. Additionally, the study showed that pedagogical implications represented a vital factor in more accurate pronunciation. The instructional pedagogy related to practical instruction given by the teachers. Couper (2011) found that the use of target language sounds, cross-cultural communications, and ongoing practice and feedback helped ELLs to be more fluent in English pronunciation.

### **Vocabulary**

Vocabulary can be developed through early language introduction from the home environment. Vocabulary language taught in the home can predict positive, receptive vocabulary proficiency among language users (Meng, 2015). As vocabulary development is analyzed for second language users, the progress can differ. According to Yesil-Dagli (2011), ELL students may have a harder time learning vocabulary than native speakers. In some situations, it may take as many as seven to 10 years for ELLs to catch up with peers in vocabulary (Cummins, 2000). This length of time can leave an ELL struggling to make gains on the foundational block of proficiency, while the native English-speaking counterparts are making greater gains. According to Farnia and Geva (2011), the average ELL vocabulary trajectory of early English learners is greater than monolinguals learners, but a gap of vocabulary knowledge narrows as time progresses. This can create a gap in student proficiency when comparing ELLs to native speaking students. ELLs, who have a better understanding of vocabulary upon entry into

kindergarten, can have a better understanding of English and achieve at a more proficient mastery level. Rupley et al. (2012) found that vocabulary instruction among ELLs is more effective and leads to greater English proficiency when,

- (1) a relationship of words is understood by the reader,
- (2) past experiences are connected,
- (3) students are able to move from the concrete to the abstract, and
- (4) instruction is based on associations opportunities form practice, application, and discussion. (p. 2)

Previous research concluded that vocabulary is essential in reading and using English (Carlo et al., 2004; Daneman, 1987). The use of direct vocabulary instruction to enable ELL students to become grade level proficient has become a focus in teaching the English language. In fact, explicit instruction in vocabulary can provide stronger reading fluency and reading comprehension. Vocabulary provides young ELLs with the opportunity to infer and comprehend language.

For many ELLs, the use of repetitive vocabulary can provide better language fluency and proficiency. The process will contribute to stronger reflective English language background knowledge. Previous studies have shown that ELL kindergarten students' vocabulary is an average of three years and two-months below the native English-speaking kindergartener (Uchikoshi, 2005). Other studies found that a smaller English vocabulary results in less English language proficiency, especially during the preschool entry stage (Mancilla-Martinez & Lesaux, 2011), leading to the conclusion that vocabulary plays a critical role in the development of English language.

## Language Growth

Language growth is limited by such factors as socioeconomic status (SES), parental education, and limited opportunities for language instruction. These factors can influence the ability of the ELL to obtain new vocabulary. Over time, the opportunity that an ELL is given to acquire new vocabulary will strengthen language proficiency, resulting in language growth.

Rojas and Iglesias (2013) conducted a study to investigate the language growth, individual variability of ELL language growth, and the impact of initial status on language growth of ELLs and English participants during the early school years. The study found that (a) the female students showed no difference compared to males in English, although the males showed higher initial status; (b) findings of measurable similar positive growth overall within each language among the ELLs and the English speakers; and (c) the English speakers predicted growth according to gender, as well as in the long-term. The findings yielded three patterns: (a) Participants of the study contrasted in language skills based on initial status upon enrollment in kindergarten; (b) ELLs showed different growth rates in English growth measurements and words per minute (WPM) despite gender time period; (c) the lexical domains representing the vocabulary and morph syntactic domain referring to transitive and intransitive verb usage in sentences growth rates were attributed to gender. The researchers concluded that ELLs who had language assistance services at initial enrollment in school had the potential to perform similarly to higher performing English speaking peers over time.

## Reading

According to Koda (2005), reading development among ELLs in English is measurably different from that of English monolingual children. The difference is related to the reading skills connected to comprehension. With any proficient reader, native language or second

language, comprehension is vital in understanding the text and in having an appropriate level of English proficiency. An understanding of relevant background knowledge can be the key, and the limit of it can create an English language proficiency weakness in reading.

Burgoyne, Whiteley, and Hutchinson (2013) conducted a study to measure the reading comprehension of first and second language learners. The aim of the study was to explore the role of background knowledge and text comprehension for second language children. The group of participants was compared to monolingual English-speaking children. The findings showed that there were differences in comprehension, with monolingual children comprehending more favorably. Burgoyne et al. (2013) suggested that the differences might be reflective of availability of relevant background knowledge. A significant difference was found between the second language children compared to the monolingual children based on interpretation of text related to simile. The findings suggested that this difference might be related to context use and language monitoring concepts, and failure to recognize the discrepancy with text. Another finding was memory difference among the two groups. The monolingual children were able to remember the text and recall quickly; however, the second language children were only able to complete a literal extraction to answer the text. This may suggest that limited vocabulary skills weaken the English proficiency ability of the second language children. The researchers concluded that second language children take longer to retrieve and access information in the text, and suggested that further research studies should highlight study of lexical knowledge on comprehension-related skills with second language children.

### **Writing**

Language in academics has expanded beyond linguistics, leading to a focus on writing assessments and proficiency evaluations (Halle, Hair, Wandner, McNamara, & Chien, 2012).

States throughout the U.S. have implemented a performance-based writing assessment to be administered to students. The assessment yields writing samples that are representative of each student's writing skills. Additionally, the sample must be on a performance level that demonstrates English proficiency for the student's grade level. During writing, students must be able to verbalize and express thoughts in written form. This may be a difficult task for many ELLs, as the process for native language speakers and second language speakers is different. The difficulty may be based on the level of English oral proficiency as it is translated into writing proficiency.

Research pertaining to the writing of second language students has created a gap in the literature. According to a study by Salimi, Bonyadi, and Asghari (2014), second language learners' proficiency levels are identified using written and oral task performances. The study determined that second language form is the key for the use of meaning-focused language that is proficient. The researchers randomly chose 60 English learners to participate in the study. The learners were randomly divided into two groups based on low and high proficiency levels. Additionally, two subgroups of with and without form were created. Students in each group were taught 15 lessons with one subgroup of each group receiving form-focused instruction. No treatment was given to the other two subgroups. Raw scores were gathered based on participants' written accuracy.

Salimi et al. (2014) found that more accuracy and proficiency in English was found with low proficient English learners with and without form focused English-learning instruction and no differences in accuracy of an oral narrative task. Furthermore, the study concluded that proficiency level and form-focused instruction could be influential on L2 learners' written task performance in terms of accuracy, with the high proficiency level learners benefiting most. The

researchers found that high proficient learners were more attentive to the forms of language than low proficiency level learners.

### **Speaking**

Assessment of second language oral proficiency is used to determine achievement, academic placement, diagnostics of skills, language proficiency, and to measure cognitive capability (Brown & Abeywickrama, 2010). The language proficiency is predicted based on the level of proficiency. During the assessment, much of the language prediction is measured through fluency, second language processing, and syllabication correction. Although previous research (Segalowitz, 2010) proposed that language involves cognitive fluency through the characterizing and abilities of a speaker, utterance fluency by an example of the speaker's speech ability, and perceived fluency through the impression that the speaker uses in a sample.

Second language requires the learner to acquire basic skills in oral language skills. Oral language skills can be a challenge for some native language speakers, and even more so for second language ELLs, as they learn to use their tongue differently to form the sound of the English language. Understanding the stages of second language acquisition correlates with the oral language skills, as they work together to help the ELL become more proficient. The acquisition of oral English can help to mold the reading skills and fluency of an ELL.

Previous research has been conducted on first language and second language oral language to show inferior proficiency (Lovett et al., 2008; Shi, 2011). However, Ramirez, Chen, Geva and Kiefer (2010) conducted a study to address the challenges of the ELLs' oral language skills. The study used first and second language elementary students. The criterion predictors for the study were syntax, oral language vocabulary, and listening comprehension. The findings of this study showed ELLs and native English speakers were equivalent by Grade 1 due to a few

years of instruction in decoding and phonological awareness (Ramirez et al., 2010).

## **Listening**

Listening skills play a vital role in language proficiency, communication, and academic progress. Although listening represents an essential part of the W-APT, listening needs to be defined by its relationship to language proficiency. Previous research consisted of a collection of definitions on listening (Gilakjani & Ahmadi, 2011; Glenn, 1989). A collection of effective listening through previous research has been defined as:

1. "Understanding is not something that happens because of what a speaker says: the listener has a crucial part to play in the process, by activating various types of knowledge, and by applying what he knows to what he hears and trying to understand what the speaker means" (Anderson & Lynch, 1988, p.6).
2. "Listening, the activity of interpreting the communicative behavior of others in the effort to understand the meaning of that behavior" (Burlison, 2011, p. 28).
3. "The ability to understand the spoken language of native speakers" (Mendelsohn, 1994).
4. "Listening comprehension is an active and conscious process in which the listener constructs meaning by using cues from contextual information and from existing knowledge, while relying upon multiple strategic resources to fulfill the task requirement" (O'Malley, Chamot, & Kupper, 1989, p. 19).
5. "The active and dynamic process of attending, perceiving, interpreting,

remembering, and responding to the expressed (verbal and nonverbal), needs, concerns, and information offered by other human beings”

(Purdy, 1997, p. 8).

6. "The activity of paying attention to and trying to get meaning from something we hear" (Underwood, 1989, p. 1).

However, Glenn (1989) found that the foundations of these definitions were rooted in attention, interpretation, perception, remembering, and response. According to a study by Gilakjani and Ahmadi (2011), the role of listening has been neglected in second language acquisition, research, teaching, and assessment. Furthermore, Gilakjani and Ahmadi found that a good listener has to use various strategies and interactive processes to acquire language. Those strategies represent the speaker's ability to decode messages, make meaning of words, and response ability in a variety of ways. Gilakjani and Ahmadi also found the final element of listening involves thoughts, feelings, and intentions of the listener. The researchers concluded that listening skills are best learned through modeling and a non-threatening environment that is conducive to positive interaction, creativity, and encouragement. The process of listening can promote English comprehensive competence in speaking, reading, writing and translating.

### **First Language**

The first language spoken in the home can influence the language of second language students. A study conducted by McGroarty (2011) examined a previous study by Ruiz (1984) concerning first language. Ruiz (1984) concluded that first language was used in the home as a psychosocial refuge, resource, and form of resistance. A psychological refuge offers a contentment of understanding as it relates to the English learner's homes or neighborhoods (McGroarty, 2011). The refuge is consistent with what the daily norm is in the home, thus



creating a foundation for favorable emotional support. Using first language as a resource serves great values in the daily life of a monolingual individual, and provides an adaptation to a globalizing world (McGroarty, 2011). Reluctance to speak the English language can be considered as language resistance in ELLs. First language use as it relates to resistance propitiates toward attitudes and choices in bilingual situations, "...in which the speaker uses the one language as survival, compared to the attitudes and choices of monolingual speakers (McGroarty, 2011). Although all may not apply to just one individual, the findings may offer some insight to the use of first language, as it relates to the EL student.

First language spoken in the home by the parents can have an impact on students of second language, particularly in the area of vocabulary acquisition. As vocabulary acquisition forms, the foundation for language is developed. According to Asgari and Mustapha (2011), vocabulary represents a crucial component of language development, and the lack of insufficient vocabulary knowledge can lead to second language learning difficulties. Goldberg, Paradis, and Crago (2008) conducted a study to determine the vocabulary acquisition of L2 children, which resulted in a finding that a predictor of the child's vocabulary development was directly related to the mother's level of education.

### **Influence of Home Language**

Many second language homes struggle to maintain their native language, resulting in the loss of their mother language within two generations (Brown, 2011). Whether an ELL's household language is English or another language, home language can have a tremendous influence on student language use (Gardner, 1985; Jalil & Liow, 2008; Luykx, Lee, Mahotiere, & Lester, 2007), particularly if the parent speaks another language other than English or the home is made up of multiple family members (Hernandez, 2004). Family members such as

parents, siblings, cousins, aunts, uncles, and grandparents can influence the student's proficiency level in the school environment. Additionally, other factors such as socioeconomic status, English exposure, and parents' education can influence ELL English proficiency, resulting in the home environment being a tremendous influence (MacSwan & Pray, 2005). As the generations of family members evolve, the language changes within many ethnic groups. Law (2015) concluded that the Chinese bilingual homes, no different from other dual language homes, struggle to pass their native language to their offspring.

Exposure to language and print activities, such as word games, parent-child reading, and word rhyming have a tremendous impact on language learners (Burgess, 2002). The key to proficiency success in second language is early literacy within the home prior to entering school. Branum-Martin, Mehta, Carlson, and Francis (2014) conducted an empirical study to determine the factors that affected Spanish and English language use in the home. The participants were kindergarten students in the early stages of English language and literacy instruction. According to Branum-Martin et al., Spanish use in the home poses three crucial aspects: (a) An interpersonal preference for the amount of English that is desired for the child to speak by the parent, (b) income, cultural background, and the parent's education, and (c) school instruction and community resources that relate back to the home influence and interpersonal preference. (p. 181)

Home language is an environment that nurtures the language development of early language learners. Within this environment, vocabulary acquisition is the crucial component of language acquisition. According to Asgari and Mustapha (2011), vocabulary represents a crucial component to language development, and the lack of insufficient vocabulary knowledge can lead to second language learning difficulties. Vocabulary can be a challenge in any home

environment, depending on the education of the parents. However, Asgari and Mustapha (2011) noted that vocabulary acquisition and second language acquisition can produce very challenging obstacles for EL individuals in the area of reading, writing, speaking and listening.

Research was conducted by Halle et al. (2012) to determine the predictors of English language proficiency among ELLs. The study used a sample of first-time kindergartners in public and private schools. The subsample was comprised of first-time ELL kindergartners. The parents completed a survey regarding primary language spoken in the home. Students whose home language was not English were the ELL sample population. The Early Childhood Longitudinal Study (ECLS) Oral Language Development Screener (OLDS) was administered to the ELL children as a prescreener for proficiency in English. The study's findings indicated a strong prediction of proficiency status based on the family's characteristics and demographics. Furthermore, Halle et al. (2012) noted that limited English proficiency did not predict English fluency or academic achievement.

Dixon, Wu, and Daraghmeh (2012) conducted a study concerning factors that influenced the ethnic language and English language proficiency of kindergartners, the profile of ethnic language groups by socioeconomic status, and language exposure patterns. The instruments used were the Peabody Picture Vocabulary Test-III (PPVT-III) and the PPVT-III Translated, parent questionnaires about the language used with their child, language(s) spoken by the child to the parent, and the language watched through media. The researchers suggested that four factors contributed to the development of bilingual proficiency. The factors were socioeconomic status, the amount of language input, status of the languages involved, and the caregiver's language used with the child. Dixon et al. noted that languages could be associated with power, education, and wealth. Furthermore, results of the study suggested that language proficiency among

bilingual children could be related to socioeconomic status and the mother's use of language and vocabulary. The study noted four key findings. First, there was an equal distribution among the bilingual students when socioeconomic status, amount of language input, status of the languages involved, and the caregiver's language uses with the child were compared. Second, the majority of the participants scored below average on ethnic language vocabulary. Third, the low socioeconomic participants were at risk for English proficiency in English and their native language. Fourth, participants who spoke both languages at home resulted in a risk for low proficiency in English and the ethnic language.

The manner in which language learners interact within the home, family, and community can have an impact on language. Home language environment can have an influence on L2. Hornberger (2002) suggested that "Languages, like living species, evolve, grow, change, live, and die in relation to other languages" (p. 33). Jackson and Callender (2014) conducted a study to determine the differences in the quantity of child vocalizations (CVs) between the school environment and home environments with Spanish-English speaking dual language learners and monolingual English-speaking children. The study found a difference in the average vocalization counts between children who engaged in home and preschool environments, which significantly influenced the communicative performance of the participants. Furthermore, the study found a significant difference in average hourly CVs for children who were monolingual and young ELLs. According to Jackson and Callender, the two influencing factors were the amount of first and second language used throughout the day and the activities in each setting.

Home language has an influence on children due to ethnic backgrounds and cognate skills. According to Frumkin (2013), "Conclusions must be drawn that while ethnic background makes a difference in cognitive assessment scores in the early years, there are other components

of a child's early life that contribute to outcome scores" (p. 233). Understanding the role of the environmental influence in terms of the amount of language influence, quality of language, and cognitive performance of ELL children is an important factor to consider. According to Frumkin, the home learning environment and the language spoken in the home can determine the impact on language and cognitive performance. Frumkin concluded that different minority ethnic groups reflect different cognitive achievement scores than majority groups, higher amounts of home language environment in early childhood blueprints to higher cognitive development, and the use of only English in the home produces higher cognitive scores, while no English in the home produces lower cognitive scores.

The influence of reading at home by a child's parents can have a tremendous impact on the language of a child. Previous research has shown that mothers play a major role in language development through consistent reading at home (Farver et al., 2013). Despite speaking two languages, dual language parents demonstrated a higher rate of reading to their children. Spanish-English fathers with a high school education were more likely to read to their children (Duursma et al. 2008). Sims and Conley (2016) conducted a study and determined that Chinese-English and White-English speaking fathers read more to their second language children. Furthermore, Sims and Coley found that Spanish-Mexican speaking mothers demonstrated low rates of reading and language input, while English speaking Chinese and White mothers reported more frequent reading than Mexican and Chinese speaking mothers. Chinese parents as a whole established the most consistent practice of reading to their children in English from high-level literature (Sims & Coley, 2016).

### **Assimilation Changes**

In previous studies, language acquisition has been measured through societal interaction

through assimilation (Espinosa & Massey, 1997). Although children gain an understanding of the first language used at home through family interaction, recent immigration has changed compared to past trends. A study conducted by Carliner (2000) found that the English fluency of immigrants into the U.S. has been declining over the past decades. This trend would directly impact the children within the home as far as the language they speak and understand. A study conducted by Xi (2013) found that the decline of English fluency in ELL homes was due to assimilation and cohort effects related to macro environmental issues. Many ELLs have issues with assimilation due to fully assimilating to new environments. Hence, the lack of assimilation to a new community can lead to language acquisition difficulties for many ELLs.

### **Language Pattern**

Switching from a native language to another language represents a challenge for some ELL students. According to Tarlowski, Wodniecka, and Marzecova (2013), the challenges of language switching involve difficulty in language processing capacity, cognitive mechanism, and grammatical structure. Prezas, Hodson, and Schommer-Aikins (2014) conducted a study to determine the phonological patterns and language deviations of bilingual English and Spanish speaking children. The study used four and five-year-old students with similar backgrounds. Phonological scores were compared and indicated that there was a significant difference between bilingual English and Spanish speaking students. The study, which implemented a multivariate analysis, indicated no significant differences between the English and Spanish phonological scores based on gender. Prezas et al. (2014) determined that there was a significant difference in performance based on liquid deviations, and the omission of consonants in clusters/sequences was the most frequently occurring phonological deviation.

### **Cross-linguistic Transfer**

Early emergent is the best age to transition an ELL into a second language (Sousa, 2011). Younger ELLs are better able to linguistically transfer earlier than later. Previous research suggests that ELLs will use information from their first language to understand the second language and bi-directionally transfer the two languages (Dickinson, McCabe, Clark-Chiarelli, & Wolf, 2004). The difficulty begins as the EL experiences comprehension, word identification, context meaning, grammatical structures, and self-monitoring (Sousa, 2011). This may occur as the ELL may become more confused due to the cognitive process and transferring of unfamiliar information. Sousa recognized that ELLs reprocess information from Spanish to English and English to Spanish. The transfer of the information can be confusing to the cognitive process, resulting in difficulty as the ELL becomes older.

### **ELL Identification Process**

The absence of language proficiency assistance in the classroom might result in an ELL being at high risk for academic failure (Mohan, 2011). To address the lack of language proficiency and risk of academic failure, an identification process has been implemented in all schools within the U.S. The identification process of an ELL is essential in meeting federal and state requirements, while monitoring appropriate placement for services. As educators service these students, they must understand the defining terms of ELL. Although ELLs are identified by different criteria, Marzano (2012) identified ELLs as “newly arrived in the United States but well prepared in the schools in their homeland; those newly arrived in the United States but not well prepared; and those who have been in the United States” (p. 6). Identifying these students and conducting a preassessment constitutes the process of determining language assistance services for an ELL.

All states use a process of identifying EL students within the United States, but the process is different for each state based on a specific state's regulations and laws. Linquanti and Cook (2013) suggested that states in consortia need to use a common EL definition. The process of identifying ELL students that require language assistance in the state consortia is implemented through a multi-step process. First, the parent completes a home language survey. The survey consists of three questions to determine which language the student uses most often. The survey represents an important component of ELL identification and serves as the initial identification of a potential ELL (Bailey & Kelly, 2012). In the event that all answers to the home language are English, the student receives a waiver from services and begins a monitoring status. The monitoring process involves a yearly assessment to determine if the student is performing on grade level in English. If any questions on the survey are answered with a language other than English, the second step begins. The second step represents the assessment process, in which the student receives a prescreening assessment known as the WIDA Access Proficiency Test (W-APT). The prescreening scores are assessed to determine a pass or fail score. If the student fails, he or she will be offered English language assistance classes. Students with a passing score begin a monitoring status. The ELL will remain in the monitored status while being required to take an English language proficiency test annually (Fox, 2011). The proficiency is measured through Annual Measurable Achievement Objectives (AMAOs). Each state reports to the federal programs the number of ELLs who make progress and exit the program (Rabinowitz, 2008). Once the ELL student reaches the proficiency level, the ELL is classified as English language proficient and is no longer required to participate in the language assistance program. This practice is consistent with the ELL identification practices of various states in the consortia.

As of 2012, 27 states participated in the WIDA Consortium (WIDA, 2012). Twenty-



three of these 27 states use some variation of the home language survey to identify potential ELL students, and four of the 27 states do not (Bailey & Kelly, 2013). The use of the home language survey has raised some concerns. Bailey and Kelly suggested that the use of the survey might not be valid to identify language needs because there may be a threat to validity. According to Albers and Mission (2014):

These concerns may be based on the legal status of the parent (a) concerns regarding citizenship status, (b) concerns regarding possible discrimination because of their language status, and (c) the possibility that the parents are not able to understand the survey because of language differences. (pp. 284-285)

Whether proponents of the screening process agree or disagree, the use of the home language survey provides important components for schools identifying second language students in need of language assistance. Despite differing approaches, home language survey use is reflective of prescreening assessment, language assistance instruction and federal funding for language development programs for EL students.

### **ELL Programs**

ELL programs are the school's foundation for developing academically prepared L2 students. A language-enriched school setting stimulates language acquisition (Diaz-Rico & Weed, 2010). Research-based second language curriculum can be most beneficial to the ELL and should embody principles that are enriched through the strongest research evidence and instructional practices for English learners through best practices (Anstrom, DiCerbo, Butler, Katz, Millet, & Rivera, 2010). Although a variety of best practices are used within all instruction, best practices for ELLs must involve a program with a daily systematically instructional plan that encompasses the components of listening, speaking, writing, and reading

(Schleppegrell & Fang, 2010).

Castro, Paez, Dickerson, Frede (2011) developed a conceptual framework associated with ELLs and the understanding of language development. The framework focused on the developmental experiences of young monolingual children that may differ from those of bilingual children resulting in language development differences. Furthermore, Castro et al. noted that the framework of difference could cause different growth rates in English language development. Castro et al. proposed that ELL programs are more effective with the implementation of (a) effective instructional resources, (b) early learning standards and program policies, (c) teacher preparation programs, (d) ongoing family support, and (5) research-based resources.

### **World-Class Instructional Design and Assessment Consortium**

The World-Class Instructional Design and Assessment (WIDA) Consortium uses multiple theories and approaches to support academic language contexts in the WIDA standards framework (WIDA, 2009). The initiative was launched in 2003 through a federal grant to meet federal guidelines for ELL programs in schools. Various states use the WIDA framework as a screening tool to determine EL English language proficiency levels (Wisconsin Center for Education Research, 2011).

According to MacGregor et al. (2010), WIDA partners with 25 states to assess student language needs, determine language support, and monitor progress for ELL students. All components reflect an effort to comply with the federal accountability requirements outlined in NCLB. One of WIDA's goals is to provide support for students using a combination of education and linguistic theory. The standards used by WIDA provide a framework that represents five components. The components are Age-Appropriate Academic; Can Do

Philosophy; Guiding Principles of Language Development; Language in Sociocultural Contexts; Performance Definitions; and Strands of Model Performance Indicators. The WIDA Standards identify five language proficiency levels. The proficiency levels are: Entering (1) Beginning, (2) Developing, (3) Expanding, (4) Bridging, (5) Reaching, and (6) L1 is English. The reaching level is the final stage with an exit stage of Level 6 representing accomplishing English proficiency (WIDA, 2012). However, the W-APT prescreener scoring is reported differently, although many states have created a conversion chart to align with the proficiency levels. The W-APT is given in the four language domains of reading, writing, speaking, and listening. The scores report as reading (ranging from 0-15); writing (ranging from 0-17; speaking (ranging from 0-15); and listening (ranging from 0-15).

The WIDA Consortium uses the Assessing Comprehension and Communication in English State-to-State for English Language Learners (ACCESS) test to identify which students need to continue with language assistance. Scoring for the WIDA is computed in a horizontal and vertical scoring scale. Scores of vertically scaled are raw scores that are converted into a single scale based on the different grade levels, while horizontal scaling is compared to a group of students within a single grade on the same scale (Kenyon, MacGregor, Li, & Cook, 2011). Although horizontal scaling is typically used, vertical scaling proficiency level can be ordered (Kolen, 2011). For more than six decades, scaling has been used interchangeably to measure parallel and comparable scores that are similar in domains (Davies, 2006).

A study conducted by Ye Tong, Pearson, and Kolen (2010) investigated assessment scaling. According to the study, scaling translates into a score scale that indicates levels of achievement or proficiency. In addition, an individual's scores can be compared to a relevant reference group to interpret differences or similarities in performance, weaknesses and strengths

across content areas, and achievement or proficiency. Furthermore, Ye Tong, Pearson, and Kolen found that vertical scaling compared scale scores across academic grades levels.

Keyon, MacGregor, Li, and Cook (2011) conducted a study to determine the technical psychometrics of the WIDA vertical scaling and the use of the test in student growth analysis, language proficiency, and exiting services. The study pointed out that WIDA recognized the need to show Annual Measurable Achievement Objective (AMAO) of growth, attainment, and adequate yearly progress for educational accountability purposes. Keyon et al. determined that English language proficiency assessment was more profound in the higher grade level content than at the lower grade levels. Furthermore, the study examined the relationship between student performances, WIDA ACCESS, and state content assessments. The study concluded that the WIDA was most effective when data were used to determine growth over time. Additionally, Keyon et al. found that a relationship of language proficiency could be found between 4.5 and 5.0 levels based on state, grade, and subject assessments and not the student's current level of English language proficiency.

### **ELL Assessment**

Some researchers challenge the reliability and validity of properly assessing ELL students (Flores & Chu, 2011; Lin & Zhang, 2014). Guler (2013) found that "ELLs may interpret and answer some of the questions according to their previous knowledge, language background, and experiences. They decode the meaning of the lectures, readings, and even test instructions according to their previous knowledge" (p. 126). Hopewell and Escamilla (2014) conducted a study within a Colorado school district to determine whether current educational policy on language assistance assessment demonstrates inferences regarding the achievement of Emerging Bilingual (EB) learners. The study examined data using three different methods to

determine three different findings using descriptive statistics of yearly reading and writing assessments in Spanish and English for grades kindergarten through fifth, and an analysis of monolingual assessment and bilingual assessment benchmarks to determine language proficiency between the two groups. The findings of the study noted that third graders were at risk of failure and needed intervention assistance in English. The results showed that a high percentage of students were classified as at risk and needing language proficiency assistance, but did not necessarily need the proficiency assistance, leading to questions of whether L2 policies were accurate in determining needed language assistance.

### **Summary**

ELLs face language proficiency challenges compared to their native language English speaking peers. As dual language speaking ELL students enter American schools, the challenge of language proficiency is a topic that has to be addressed in instruction and assessment (Geva, 2014). The challenges of limited language proficiency can interfere with the ELL student's ability to demonstrate academic mastery, grade level proficiency, and daily communication, leading to a greater risk of academic failure. Consequently, failure can result in higher secondary dropout rates for second language students and lack of future employment opportunities. Though the problem may originate from the ELLs being an L2 in English, other factors discussed in this study may play a role in the diminished skills of English language proficiency among second language students. Furthermore, the process of initially identifying by using a home language survey for ELL students has raised the question of whether the process is effective, accurate, and related. This study sought to examine the predictors of the use of English language assistance services by English language learners in elementary schools.

## CHAPTER THREE: METHODS

### Design

The design used for this research study was a non-experimental correlation study incorporating a logistic regression. This design was appropriate for this study because the study used predictor and criterion variables, as it was advantageous in showing the relationship between the variables in this study and dismissing a cause and effect relationship (Gall et al., 2010). A correlational study was used “to measure the degree and direction of the relationship between two or more variables and to explore possible causal factors” (Gall et al., 2007, p. 336). This relationship can determine whether a variable has a positive, negative, or no relationship variable (Gall et al., 2007). The rationale for the use of the logistic regression statistic is that Y equals one of the categories in the natural log of the odds (Martin, 2015). The predictor variables for the study were dummy coded as student’s home language (0 = English, 1 = non-English); student’s first language (0 = English, 1 = non-English); student’s language used most (0 = English, 1 = non-English); and WIDA-ACCESS Placement Test (W-APT) scores. The W-APT scores reported were reading (ranging from 0-15); writing (ranging from 0-17); speaking (ranging from 0-15); and listening (ranging from 0-15). A combined score for the speaking and listening resulted in an oral proficiency score (ranging from 0-30). Each question for each language domain has a maximum score of one point each. The criterion variable was the need for English language assistance services and coded as either (0 = yes, 1 = no). Yes meant the student qualified for English language assistance services and no meant the student did not qualify for English language assistance services. English language assistance services is defined as language support through a supplemental program for students with limited English proficiency (Goldenberg, 2008) and includes services such as instructional support that enables

ELLs to develop academic, social, and cultural proficiency.

### **Research Question**

The following research question was addressed in this study:

**RQ1:** How accurately can English language assistance services for elementary students be predicted from a linear combination of home language, first language, language used most, and W-APT scores?

### **Null Hypothesis**

The following null hypothesis was tested:

**H<sub>01</sub>:** There will be no statistically significant predictive relationship between English language assistance services and the linear combination of home language, first language, language used most, and W-APT scores for elementary students.

### **Participants and Setting**

This study involved the use of archival student records from the 2011- 2015 school year selected from a convenience sample of ELL students in one school system located in a southern state. The school system consisted of more than 19,500 students who are served by 13 elementary schools, five middle schools, three high schools, one alternative school, one K-8 theme school and a College and Career Academy. The student demographics for the entire school system reflect 52% African American, 36% Caucasian, 6.5% Hispanic, 4% identifying as multi-racial, and 1.5% Asian, Pacific Islander, or American Indian race, and 66.95% of the students receive free and reduced price lunches (AdvanceED, 2013). The Southern Association of Colleges and Schools accredits the school system and monitors each school's compliance with accreditation standards.

The population was comprised of 435 active ELL students and 167 monitored ELL elementary students whose parents completed the home language survey and students who took the W-APT. The home language survey was completed during student registration at the school and the W-APT was conducted as an assessment in the classroom with the ELL teacher at each school location. This study involved the use of archival student data from a convenience sample of ELL students who attended four elementary schools in one school system located in a southern state. The sample consisted of 57 pre-kindergarten (41.0%) and 82 kindergarten (59.0%) from the school years 2011 to 2015. The sample consisted of 75 males (54.0%) and 64 females (46.0%) to total a sample size of  $n=139$ . The ages consisted of four-year-olds (28.1%), five-year-olds (45.3%), and six-year-olds (26.6 %), with an average age of the 193 ELL students as 5.0 years old. The students' ethnicity consisted of Asian or Pacific Islander, African American, not Hispanic, Hispanic, American Indian or Alaskan Native, Multi-Racial, and White, not Hispanic. According to Omair (2014), a representative sample size in quantitative research was needed to prevent generalization of the results related to the targeted population, use of appropriate probability sampling techniques, and hidden biases that can adversely affect the outcome of the study. The sample size of 193 was acceptable for a medium effect size with a .05 alpha level and statistical power of 0.8 (Warner, 2013). Cohen (1988) suggested a small effect size as  $d=0.2$ , medium effect size as 0.5, and a large effect size as 0.8. This study used eta square statistics with the Cohen's conversion chart.

### **Instrumentation**

The instrument for this study was the Universal Home Language Survey (Bailey & Kelly, 2010). The survey was mandated and developed by the U.S. Department of Education and adhered to by the southern state's Department of Education (U. S. Department of Education,



2011). The purpose of this instrument was to identify students with limited English proficiency (WIDA, 2012). The instrument was used in numerous research studies for various research purposes (Abedi, 2007; Goldenberg & Rutherford Quach, 2010; Kindler, 2002; Ragan & Lesaux, 2006). The survey consisted of two language-related questions that are highly recommended to determine the need for language services (Bailey & Kelly, 2013). The survey consisted of the following fill-in-the-blank questions: (a) What was the first language the student first learned to speak? (b) What language does the student speak most often at home? and (c) What language is used most often in the student's home? A fourth question requires a yes or no response, not related to the language services, and asks whether the parents prefer to receive notice of school activities in a language other than English and a fill-in-the-blank response to indicate which language. For each question, if the language was something other than English the question was coded with the number 1. If the question was answered with English, the question was coded with the number 0.

The W-APT items reflected performance indicators with five standards related to social and instructional language, language of language arts, language of mathematics, language of science, and language of social studies. These standards align with the academic content standards for participating member states (Fox & Fairbairn, 2011). The purpose of the W-APT instrument was to “assess the four language domains of listening, speaking, reading, and writing” (WIDA, n.d., Features Section, para. 3). According to WIDA (2012), the field test of the W-APT test items was developed, piloted, field tested, and reviewed based on the ACCESS series tests of the WIDA English Language Proficiency Standards. The test was based on five grade levels ranging from kindergarten, grades 1-2, grades 3-5, grades 6-8, and grades 9-12. Prior to administration, test administrators completed an online training course through the WIDA

Consortium website. The W-APT is individually administered with an administration time of up to one hour. The W-APT was taken using a student test booklet that was reusable, and consisted of graphics for listening, reading, and speaking. The listening section was conducted using a script; students can respond after listening to recorded test items. The reading section was administered with students answering questions after reading a passage. The writing portion consists of a writing task sheet. All W-APTS are scored by an EL teacher, who is trained to administer and score the assessment. The scoring for the W-APT ranged from 0 to 15, 0 to 17, and 0 to 30. Students who score at a proficiency level less than 5.0 were considered to be English learners and eligible for English language assistance services (WIDA Consortium, 2012). The scores were used to determine a student's ELL status or need for services. The results of both assessments were electronically coded and entered into an SPSS spreadsheet for data analysis.

### **Procedures**

The researcher conducted required procedures prior to the implementation of the study. The study began after the researcher received Institutional Review Board (IRB) approval to determine the relevance to the field of education (See Appendix B). To avoid harm to participants, risks that would cause any economic, physical, psychological, or social damage were examined (Polit & Beck, 2012). Based on the researcher's professional relationship with the school district, the researcher was able to acquire archival data from the selected schools. An electronic request via the school system's county website was submitted per the school system's procedures and policies for research. The request was reviewed by the school system's director of testing, research, and evaluation coordinator based on the relevance of the study to the improvement of daily instructional practices. Upon approval of the study from the school system

(See Appendix C), the researcher scheduled a meeting with the county assessment coordinator to review the study and procedures. Following the meeting, an e-mail was sent to each elementary school's principal and the county ELL director requesting permission for data to be collected from his or her school (See Appendix D for administrator's letter). Once each administrator received the letter, the researcher scheduled a time to speak with the county ELL director concerning the study and the directions on the data collection to be sent to the county office for archival data. Written instructions (See Appendix E) were sent via school e-mail as a reference for the county ELL director to use. A data collection recording sheet was provided by the researcher (See Appendix A). Upon receiving the data back from the ELL teachers, the ELL director checked the data for accuracy and compiled all of the archival data for the researcher in a sealed confidential interoffice envelope. The ELL director stored the data in a secure locked location until meeting with the researcher to receive the data for the study. The researcher entered the data into Microsoft Excel and prior to the use of running statistics in SPSS, another educator checked the data for accuracy. The researcher stored the physical copies of the data in a locked file cabinet, and electronic data were stored in Microsoft Excel and SPSS on the researcher's computer under a security password to ensure confidentiality. Throughout the entire data collection, participants were assigned numbers for the study to ensure confidentiality.

### **Analysis**

The researcher used SPSS Statistics Version 23.0, software to compile the data for a logistic regression analysis. According to Gall et al. (2010), logistic regression is used when the criterion variable is dichotomous and is classified as a category. Furthermore, Gall et al. (2009) suggested that a logistical regression is useful for a study of this type due to the presence of predictive and criterion variables. The data screening was conducted by checking all data before

and after data entry. Data screening was conducted to check for missing data and to maintain data integrity. Incorrect data was identified by checking each entry, either the incorrect data was corrected or removed. According to Warner (2013), the distribution of a 50/50 split criterion variable score is meaningful, those deviating greater than 50/50 split are found to be meaningless. The total number of participants consisted of at least five data points in each cell and a group that was too small. The significance level of  $p < .05$  was used to reject the null hypothesis and is the standard for educational research (Yıldız & Pınar, 2012). The final data analysis used for the study included the Omnibus Tests of Model Coefficients with a return of a Chi-square value. This enabled the researcher to determine whether the null model or constant-only model was statistically significant at  $p < .05$ . Results from Nagelkerke's  $R^2$ , and Cox and Snell's  $R^2$  were reported. In addition, reporting components included Wald statistics, estimated change in odds, and a 95% confidence interval. Effect size information in the form of odds ratio was presented along with predication equations corresponding to the research question. Descriptive analysis of the data included the variable percentages, standard deviations, and means.

## CHAPTER FOUR: FINDINGS

The purpose of this non-experimental correlational study was to determine whether there was a statistically significant relationship between the need for English language assistance services predicted using a combination of a student's home language, student's first language, student's language used most, and W-APT scores for elementary school students. A binary logistical regression was the best statistical procedure to answer the research question because of the dichotomous (yes or no) criterion variable and the six predictor variables. Warner (2013) suggested that a logistical regression lacks a robust state without the presence of five or more frequencies for the predictor variable cells. Therefore, no less than five frequencies in any of the predictor variable cells were present.

### Research Question

**RQ1:** How accurately can English language assistance services for elementary students be predicted from a linear combination of home language, first language, language used most, and W-APT scores?

### Null Hypothesis

The following null hypothesis was tested:

**H<sub>0</sub>1:** There will be no statistically significant predictive relationship between English language assistance services and the linear combination of home language, first language, language used most, and W-APT scores for elementary students.

### Descriptive Statistics

The original data set contained 193 cases. To meet the assumptions of a logistic regression, all cases with missing values in the study variables were removed from the data set. There were 54 cases with missing values, consisting of 28 males and 26 females. After the

removal of the cases, 139 complete cases remained and were used in the analysis. The variable percentages for the reduced sample are shown in Table 1. The mean and standard for the criterion variable of language services are shown in Table 2. The mean and standard deviation for the predictor variable of student's home, student's first language and, student's language used most can be found in Table 3. The mean and standard deviation for the predictor variable of W-APT reading, writing, and oral proficiency scores can be found in Table 4.

Table 1

*Descriptive Statistics*

Variable	Value	N	Percentage
Gender	Female	75	54
	Male	64	46
Age	Four years	39.06	28.1
	Five years	62.97	45.3
	Six years	39.98	26.6
Grade Level	pre-kindergarten	56.99	41
	kindergarten	82.01	59
Ethnicity	Asian or Pacific Islander	15.99	11.5
	Black, not Hispanic	0.10	0.7
	Hispanic	116.07	83.5
	American Indian or Alaskan Native	1.946	1.4
	Multi-Racial	0	0
	White, not Hispanic	4.03	2.9

Variable	Value and Interpretation	N	Percentage
Services	1 – No, did not receive assistance services	15.29	11
	0 – Yes, received assistance services	123.71	89
Home Language	1 – Language spoken at home was not English	125.10	90
	0 – Language spoken at home was English	13.9	10
First Language	1 – First language was not English	127.88	92
	0 – First language was English	13.9	10
Most Language	1 – Language used most was not English	115.37	83
	0 – Language used most was English	23.63	17
W-APT Reading	1 – Met criterion for English proficiency	37.53	27
	0 – Below criterion level for English proficiency	101.47	73
W-APT Writing	1 – Met criterion for English proficiency	40.31	29
	0 – Below criterion level for English proficiency	98.69	71
W-APT Oral	1 – Met criterion for English proficiency	66.72	48
	0 – Below criterion level for English proficiency	72.28	52

Table 2

*Descriptive Statistics of Criterion Variable (Language Services)*

	N	Mean	Std. Deviation
Services	139	.89	.311

Table 3

*Descriptive Statistics of Predictor Variable (Home Language)*

	<i>N</i>	Mean	Std. Deviation
Home Language	139	.8993	.30205
First Language	139	.9209	.27093
Most Used Language	139	.8345	.37295

Table 4

*Descriptive Statistics of Predictor Variable (W-APT Scores)*

	<i>N</i>	Mean	Std. Deviation
W-APT Reading	139	.2734	.44731
W-APT Writing	139	.2878	.45436
W-APT Oral	139	.4820	.50148

**Assumption Tests**

Assumption tests were conducted to ensure that a binomial logistical regression was the appropriate statistical analysis for the study. The assumptions included (a) determining whether there were variables that were dichotomous, independent, or categorical; (b) making an independent observation with exclusive dependent variables; (c) determining whether there was a linear relationship between the independent variables and the dependent variable; (d) stating that there were no significant outliers using the Casewise List table; and (e) stating that there were no multicollinearity using the correlation coefficients and Tolerance/VIF values (Warner, 2013).

This study consisted of one criterion variable that was dichotomous with two outcomes. The criterion variable was the need for English language assistance services and coded as 0 (yes) or 1 (no). One or more predictable variable was measured in continuous or normal scale. The



predictor variable was student's home language (0 = English, 1 = non-English); student's first language (0 = English, 1 = non-English); student's language used most (0 = English, 1 = non-English); and the WIDA-ACCESS Placement Test (W-APT) scores. The Independence of Observation was the dichotomous (yes or no) criterion variable and the six predictor variables were categorically coded, providing an independent variable for the data set.

Prior to running a logistical regression, tests of assumption were used to ensure a good model associated with the general population (Field, 2009). All data were screened for errors; 54 cases were found to have missing data and were removed. This resulted in a data set of 139 cases included in the analysis. The researcher used a casewise diagnostic to detect outliers. The researcher calculated the standard residuals for the data set using the values of +3 and -3 to determine any outliers (Warner, 2013). No outliers were found for this study.

The sample size for logistical regression has been suggested by various researchers through different calculations. Factors such as effect size, estimation parameters, standard error and statistical power play a role in determining adequate sample size (Park, 2013). Although some calculations are more complex than others, this study used simple calculations to determine an adequate sample size (Alam, 2010; Hosmer & Lemeshow, 2000; Hsieh et al., 1998). Tabachnick and Fidell (2013) used the sample size equation of  $50 + 8m$ , with  $m$  representing the predictor variables,  $50 + 8 * 6 = 50 + 48$ , which indicated a minimum sample size of 98. Warner (2013) recommended sample size calculation of  $104 + k = 104 + 6 = 110$ , as  $k$  was the representative of the predictor variable. Warner's recommendation indicated a minimum sample size of 110. For this study, the sample size of 139 exceeded the recommended minimum requirements. Furthermore, there were no less than five frequencies in the predictor variable cells.

Due to the nature of this logistical regression study, the assumption of linearity was not used for the criterion and predictor variables. Instead, the Box-Tidwell (1962) approach was used to test the linear relationship between the dependent variables and the logit of the dependent variable. A logistical regression runs the risk of a Type 1 error. To prevent this occurrence, the Bonferroni adjustment was used (Cohen, Welkowitz, & Brooke, 2011). A Bonferroni correction was applied by dividing the significant level by the six terms (Tabachnick & Fidell, 2013). The six terms resulted in an acceptable statistical significance level of  $p < 0.008333$  (Tabachnick & Fidell, 2007). Based on this assessment, all variables were linearly related.

Multicollinearity is a potential problem when running a logistical regression in cases where predictor variables are correlated with one another. For this study, a multicollinearity test was conducted to examine the tolerance values and variance inflation factors (VIF). It is suggested that the VIF is not problematic for a model when the VIF is  $< 10$  (O'Brien, 2007). During the first analysis, the results showed that reading and writing slightly correlated in this model. It is suggested that addressing this problem can be done by (a) ignoring the multicollinearity, (b) collecting additional data to make the sample size larger, or (c) dropping or combining one of the variables (Allison, 2010; Baguley, 2012; Gujarati, 2009; Paul, 2013). This study was conducted with archival data, which prevented the researcher from collecting more data. Furthermore, ignoring the multicollinearity was not a possibility due to the value of the multicollinearity. The researcher combined the variables of reading and writing to determine that there was no further multicollinearity within the study. Thus, the multicollinearity among the independent variables was acceptable. The Tolerance values were greater than 0.3 and all Variance Inflation Factors (VIF) values were less than 2.0 (See Table 5).

Table 5  
*Coefficients<sup>a</sup>*

Model		Collinearity Statistics	
		Tolerance	VIF
1	Most Language	.825	1.212
	First Language	.865	1.156
	Home Language	.747	1.339
	W-APT Oral	.867	1.153
	W-APT Reading & Writing	.858	1.166

a. Dependent Variable: Services

## Results

A binary logistical regression was conducted to determine whether English language assistance services for elementary school students can be predicted from a combination of a student's home language, student's first language, student's language used most, and W-APT scores. The design was appropriate for this study due to its potential to measure criterion variables that are dichotomous and predictor variables that are categorical or continuous (Gall, Gall, & Borg, 2007). Gender, age, and grades were excluded as non-significant.

### Goodness-of-Fit for Model

The significance value was less than .05, resulting in rejecting the null hypothesis (See Table 6). The model was tested for all the predictor variables using  $\chi^2(5) = 30.948, p < .001$ .

Table 6

<i>Omnibus Tests of Model Coefficients</i>				
		Chi-square	df	Sig.
Step 1	Step	30.948	5	.001

Block	30.948	5	.000
Model	30.948	5	.000

Furthermore, the Cox and Snell's  $R^2 = .200$  and Nagelkerke's  $R^2 = .403$  (See Table 7) measured the model and was found to be acceptable.

Table 7

*Model Summary*

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	64.164 <sup>a</sup>	.200	.403

The Hosmer and Lemeshow test was used to test the goodness of fit good predictive model. The null hypothesis was tested and results by using  $\chi^2 (5), p = .973$  (See Table 8). The full model was acceptable for this study (Homer et al., 2013).

Table 8

*Hosmer and Lemeshow Test*

Step	Chi-square	df	Sig.
1	.856	5	.973

### Odd Ratio and Effect Size

Table 9 summarizes the binary logistic regression coefficients, Walds statistics, and the estimated change in odds using a 95% confidence interval (CI). The significance was measured at  $p < .05$  for the five predictor variables. The model shows that combined reading and writing, and oral were the only statistical significant variables and had a negative relationship with the predictive variable of language services. Student oral scores showed that students were .013 more likely to need language services with a 95% CI (.001, .129) where  $p = .000$ . Student

reading and writing scores showed that student were .013 more likely to need language services using a 95% CI (.055, .419) where  $p = .000$ .

Table 9

*Variables in the Equation*

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 <sup>a</sup> MostUsed	1.081	.848	1.625	1	.202	2.947	.559	15.523
FirstUsed	.569	1.194	.227	1	.634	1.767	.170	18.359
HomeLang	-.887	1.258	.497	1	.481	.412	.035	4.845
W- APTOral	-4.306	1.151	13.985	1	.000	.013	.001	.129
W- APTReadin gWriting	-1.889	.520	13.185	1	.000	.151	.055	.419
Constant	5.867	1.661	12.469	1	.000	353.072		

a. Variable(s) entered on step 1: MostUsed, FirstUsed, HomeUsed, W-APTOral, W-APTReadingWriting.

**Null Hypothesis One**

For hypothesis one, the researcher examined whether English language assistance services for elementary school students can be predicted from a combination of five predictor variables: student's home language, student's first language, student's language used most, W-APT score for oral language proficiency, and W-APT score for reading and writing language proficiency. This logistical regression study determined there was a statistical significant predictive relationship,  $\chi^2(5) = 30.948, p < .001$ . Therefore, null hypothesis one was rejected

and the research hypothesis was supported. The model explained 40% (Nagelkerke  $R^2$ ) of the variance in language services and 92.8% of the cases were correctly classified. When the five individual predictors were examined, only the W-APT score for oral language proficiency and the W-APT score for reading and writing language proficiency were significant. Student's home language, student's first language, and student's language used most were not significant. No additional analysis was conducted for this study.

### **Summary**

The researcher examined one hypotheses to determine whether English language assistance services for elementary school students could be predicted from a combination of a student's home language, student's first language, student's language used most, and W-APT scores. A logistical regression was conducted to examine research question one. The researcher found a statistically significant relationship when examining the total predictive variables against the criterion variable. The null hypothesis was rejected. The exception to this finding was in the reading, writing, and oral proficiency scores which showed statistical significance. For this relationship alone, the null hypothesis was rejected.

## CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

### Discussion

This chapter represents an overview of the study to review the study and findings, discussion of the findings, limitations of the study, and recommendations for future research and practice. The purpose of this correlational study was to determine whether there was a statistically significant relationship between the need for English language assistance services predicted using a combination of a student's home language, student's first language, student's language used most, and W-APT scores for elementary school students. The predictor variables for the study were student's home language (0 = English, 1 = non-English); student's first language (0 = English, 1 = non-English); student's language used most (0 = English, 1 = non-English); and WIDA-ACCESS Placement Test (W-APT) scores. The criterion variable was the need for English language assistance services and was coded as either (0 = yes, 1 = no).

At the onset of this study, the researcher predicted that there would be a statistically significant predictive relationship between English language assistance services for elementary school students and its prediction from a combination of a student's home language, student's first language, student's language used most, and W-APT scores. Overall, the results of this study showed that the combination of student's home language, student's first language, student's language used most and W-APT scores did successfully predict whether a student required language assistance services. The W-APT scores were significant individual predictors, while student's home language, student's first language, and student's language used most were not significant predictors. The findings of this study were supported by previous research that language acquisition is developed in stages and is influenced by multiple factors (Krashen & Terrell, 1983; Diaz-Rico & Weed, 2006), which play a role in an individual becoming proficient

in a second language. Although home language is fundamental for language development, the home language must provide an opportunity for solid first language proficiency to develop second language proficiency (Utley et al., 2011) and quality exposure in the home (Hammer et al., 2012; Place & Hoff, 2011). Furthermore, Cummins (2007) found that the use of adequate L1 could facilitate L2 proficiency.

Previous research supported the findings of this study that the home language survey does not identify any predictive relationship to home language and overall language proficiency. A recent study by Goldenberg et al. (2010) determined that the use of the present home language survey questions under-identify students who are in need of language services, but over-identify those students who are tested. Goldenberg et al.'s study further found that minor changes in the survey questions would help better identify and assist with student instruction. Another study conducted by Miser and Hupp (2012) suggested that home language surveys need to include more rigorous observational and interviewing measurements. The researchers noted that the present home language survey was too simple, consisting of only three questions. Furthermore, they recommended that there needs to be a tool for all states to use that gives educators some insight as to the level of language used in the home, both native and English.

### **Null Hypotheses One**

For Null hypothesis one, the researcher examined whether English language assistance services for elementary school students can be predicted from a combination of five predictor variables: student's home language, student's first language, student's language used most, W-APT score for oral language proficiency, and W-APT score for reading and writing language proficiency. A logistical regression was used and determined there was a statistical significant predictive relationship,  $\chi^2(5) = 30.948, p < .001$ . Therefore, null hypothesis one was rejected.



The findings of the current study were supported by the earlier research of Bialystok et. al (2010) who hypothesized that younger bilingual students with limited vocabulary skills upon entrance into school are influenced by their ability to demonstrate proficient skills. Although reading is the main focus of this hypothesis, it is noteworthy to mention that previous research has shown that ELLs benefit from early literacy in reading and writing, and will assist the second language learner's development in language proficiency levels (Ernst-Slavit et al., 2002). Due to grammatical, syntax, and verb-subject agreement, transitioning from L1 to L2 can be a daunting task for ELLs in writing. The lack of possessing adequate language skills from the home language environment can further cause a deficit in L2 for ELLs. The current study's findings were supported by the research of Cheatham and Ro (2010), in that the transfer of writing skills for ELLs is better facilitated by the school setting than the home setting due to additional support provided by the schools. In respect to reading, excellent readers have been shown to have strong language skills. However, the development of language involves more than proficient reading skills. The influence of the home environment can influence reading in a positive or negative manner. One of the factors that influences proficient reading is vocabulary.

Second language speakers who are not proficient in L1 speaking tend not to be proficient in L2. In fact, some L2 individuals will transfer the level of L1 accuracy and proficiency into the L2 (Derwing et. al, 2009). This study was consistent with other research that found that L2 speaking for an ELL is determined by the frequency of exposure at home. Listening is a very vital component of language proficiency, as it is either of the uncomprehending or comprehended input of language. According to Renukadevi (2014) listening "interrelated and intervened with the other language skills - speaking, reading and writing" (p. 59). This is due to listening being the first component of language proficiency. According to Gilakjani and

Ahmandi (2011), second language learners who lack auditory skills in an environment will demonstrate lower English proficiency skills. Concurrently, ELLs need auditory skills from the home environment in order to develop L2 skills into acceptable English proficiency levels. However, the factors that influence the speaking of ELLs is the use of oral skills. These skills have to be facilitated by a large amount of input in the monolingual environment (Dunn & Wooding, 1977; Huttenlocher, et. al, 2007; Hoff, 2003; Hoff & Naigles, 2002). Vygotsky (1986) determined that oral language is groomed through communication through the social environment and social contact plays a significant role in language proficiency. Previous studies have found that oral interactions with early language learners stimulated L1 and L2 language development (Patterson, 2002; Scheele et. al. 2010). The results of these studies further support the findings of the current study. Since home language was one of the variables for the current study, the influence of home language on an ELL's speaking is detrimental in determining whether an ELL is proficient in English as an L2.

### **Conclusions**

The researcher predicted that there would be a predictive relationship between student's home language, student's first language, student's language used most, and W-APT scores on reading, writing, and oral proficiency for early second language students. Upon analyzing the data, the researcher determined that there was no significant statistical predictive relationship between the need for English language assistance services and student's home language, student's first language, student's language, and W-APT scores for early second language students. Based on the findings of this study, the researcher recommends that home language surveys should not be used solely to determine whether second language students should receive language services based on assessment in reading, and writing proficiency. In the situation that a

parent completes the survey with all answers in English, educators have missed the opportunity to provide language services to an ELL student, possibly diminishing the opportunity for educators to target the development of proficient English skills. Previous research (Bedore et al., 2012; Hoff et al., 2012; Place & Hoff, 2011) found that there is a strong relationship between ELLs with a comparative amount of English spoken in the home and stronger English proficiency skills. These findings support other previous research (Capps et al., 2005; Phillips, Norris, & Anderson, 2008), showing the relationship of robust home language exposure through early home literacy activities demonstrated language proficiency for second language learners. The years prior to entering school are the most critical for demonstration and preparation of language skills. In order for ELL students to be prepared for the kindergarten English curriculum, English vocabulary is imperative (Farrant & Zubrick, 2013), leading to the understanding that the early years for second language learners are critical for developing a second language. Other research has shown that second language learners receiving as much as four years of formal schooling underperform their peers in listening comprehension and oral language skills (Babayigit, 2014). A study conducted by Lesaux et. al (2007) determined that future academic mastery and proficiency levels of early ELLs could be predicted by the end of kindergarten. The key is that ELLs need five to seven years of English to determine whether they are proficient in English (Tsang, Katz, & Stack, 2008). This may shed light on how educators should approach curriculum and assessment as they relate to ELL students.

### **Implications**

The findings of this study have several implications for practice and theory. The findings implicated in theory that language acquirement involves a broad spectrum of development. Schieffelin and Ochs (1986) determined through the Language Socialization Theory that

“language socialization begins at the moment of social interaction in the life of a human being” (p. 164), which means that home environment plays a major role in language use. In an academic setting, the use of language by ELLs is determined by using the home language survey, as it represents a reference to the interaction of socialization occurring for the second language learner. Furthermore, the findings of this study agreed with the findings of Krashen’s Second Language Acquisition Theory (1988) that language (a) depends on input of an acquisition process and not the learning of the language, (b) the language learner has a variation based on individual monitoring habits, and (c) affective factors facilitate a level of language proficiency.

Previous bodies of research have implicated that successful second language proficiency develops when there is an environment that is conducive to learning through a child’s real life experience and consistent use (Martin-Beltran, 2009). Listening and vocabulary comprehension have been found to be predictors for reading comprehension among early second language learners (Kendeou et al., 2009). Lastly, the findings of the current study suggest the same findings of Krashen (1982) that:

The classroom is of benefit when it is the major source of comprehensible input.

When acquirers have rich sources of input outside the class, and when they are proficient enough to take advantage of it (i.e. understand at least some of it), the

classroom does not make an important contribution. (p. 58)

This deepens the understanding in educational research for classroom teachers to combine the use of the theory of Second Language Acquisition Theory and classroom curriculum to improve student learning.

External and internal threats associated with this study were found. According to Warner (2013), threats to the external validity can limit the researcher’s ability for results to be

generalized. Furthermore, Warner (2013) suggested that internal validity can be threatened because “It is not possible to be certain that we have a complete list of causes or complete assessment of sources of bias” (p. 556). The home language survey was provided to parents in multiple languages. If there was a language proficiency deficit with the parent or the individual assisting the parent to complete the survey, there may have been threats pertaining to accurate information provided to the schools. Ensuring that the parents received and understood the survey in their native tongue was critical to convey accurate information to the schools.

### **Limitations**

The present study offers numerous empirical findings, but yielded limitations. Although the sample size was adequate for this study, a limitation for this study was based on the availability of a majority sampling of students who qualified for language services based on limited student data available determined by the school system. Additionally, the researcher was limited with the sample size. Given the nature of the study, the findings are still useful to the field of education.

The home language survey has been evaluated in previous research studies regarding validity (Bailey & Kelly, 2012; Watkins & Liu, 2013). The improvement of the survey should involve the development of an additional question that aligns with second language acquisition and instructional curriculum. According to Bailey and Kelly (2012) the home language survey fails to focus on the “more relevant identification factors” (p. 770). It allows the human aspect of the response to play a significant role in whether or students should be tested for language proficiency. Monitoring the honesty of survey takers is a very limited task. According to Van de Mortel (2008), individuals answering surveys have a predisposition “to present a favorable image of themselves on questionnaires” (p. 40). This can present self-reporting bias to a study.

According to Fadnes, Taube, and Tylleskar (2009), “Bias can spoil research by indicating false associations or failing to detect true relationships” (p. 1). The limitation of self-reporting by the parent about the home language posed some uncertainties as to the honesty of the parent’s responses on the home language survey. The assumption that parents were honest about the language spoken could only be accepted by the researcher as accurate.

The present study offers a single lens view of home language and reading, writing, speaking, and listening proficiency for early second language students. In order to understand a multi-lens perspective, a longitudinal study for an extensive period would produce a greater view with a larger sample size. For quantitative studies, it is recommended to use larger sample sizes (Gall et. al, 2003); however, this is not always possible. If a multi-lens perspective is initiated, the study would need to involve a larger population from different geographic areas, multiple ethnic groups and social economic statuses.

### **Recommendations for Future Research**

The researcher makes the following are recommendations for future research:

- A future study should be conducted with older elementary ELL students whose home language is not English. Additionally, it is recommended that high school ELL students be considered for a different study to determine any relationship between retention, dropout rates, and English proficiency.
- A future study related to home language and socioeconomic status of second language learners should be considered for a correlation.
- Assessment among ELLs should be further investigated. McNamara (2011) argued that ELL testing lies within two areas, measurement and applied linguistics. Data selection from multiple assessment sources of the English

language learners such as the correlation of ACCESS assessment and the state performance assessment would shed light on the language proficiency aligned and unaligned learning standards.

- Since a larger number of the ELL population was identified in the prekindergarten and kindergarten grades, English acquisition rate upon entering kindergarten would be a future study of interest for the field of education.
- ELL students should be considered for additional services such as special education or the gifted program. Further research on ELL's retention, special education, and the gifted ELL should be considered. As researchers closely examine outliers, this may explain outliers and the legitimacy of their occurrence.
- Research pertaining to ELL, RTI, and special education would improve instruction as it relates to struggling ELL students. According to Miser and Happ (2012), it is necessary to look at language development factors that can identify risks.
- There is limited research on monolingual English-speaking children (Goldenberg, 2012; Longigan et al., 2013), therefore further studies on monolingual English-speakers will add to the empirical body of research.
- During typical ELL instruction, the English language is solely used. A future study examining dual language input that includes both English and native language instruction would be beneficial.
- Research on the training of ELL teachers and their self-efficacy would shed light on how ELL students are assessed. According to Téllez and Mosqueda (2015), the limited second language teaching skills among teachers and generalized

assessment knowledge need to be evaluated. This would further improve ELL instruction and add to the body of research.

- Further research is needed to determine whether high mobility from one school district to another school district among ELLs plays a role in English proficiency.



## REFERENCES

- Abedi, J. (2007). English Language proficiency assessment in the nation: Current status and future practice. University of California: Davis.
- Abedi, J. (2008). Classification system for English language learners: Issues and recommendations. *Educational Measurement: Issues and Practice*, 27(3), 17–31.
- AdvanceED. (2013). Executive Summary. Alpharetta, GA: AdvanceED.
- Aimin, L. (2013). The study of second language acquisition under socio-cultural theory. *American Journal of Educational Research*, 1(5), 162-167.
- Akresh, I. R., Massey, D. S., & Frank, R. (2014). Beyond English proficiency: Rethinking immigrant integration. *Social Science Research*, 45, 200.
- Anstrom, K., DiCerbo, P., Butler, F., Katz, A., Millet, J., & Rivera, C. (2010). *A review of the literature on academic English: Implications for k-12 English language learners*. Arlington, VA: The George Washington University Center for Equity and Excellence in Education.
- Alam M. K., Rao M. B., Cheng F-C. (2010). Sample size determination in logistic regression. *Indian J Stat*, 72(B), 58–75.
- Allison, P. (2010). When can you safely ignore multicollinearity? *Statistical Solutions*
- Asgari, A., & Mustapha, G. (2011). The influence of informal language learning environment (parents and home environment) on the vocabulary learning strategies. *English Language and Literature Studies*, 1(1), 7. doi:10.5539/ells.v1n1p7

- Babal, C., Cao, S., Filer, A., Hedtke, I., Lo, K. (2015). Analysis of English language achievement among Wisconsin English language learners. Madison, WI: Board of Regents of the University of Wisconsin System.
- Babayigit, S. (2014). Contributions of word-level and verbal skills to written expression: Comparison of learners who speak English as a first (L1) and second language (L2). *Reading and Writing*, 27(7), 1207-1229. doi:10.1007/s11145-013-9482-z
- Babayigit, S. (2014). The role of oral language skills in reading and listening comprehension of text: A comparison of monolingual (L1) and bilingual (L2) speakers of English language: Visual-attentional span and lexical decision. *Journal of Research in Reading*, 37(S1), S22-S47. doi:10.1111/j.1467-9817.2012.01538.x'
- Baguley, T. (2012) *Serious Stats: A guide to advanced statistics for the behavioral sciences*. New York, NY: Palgrave Macmillan.
- Baker, S. (2012). Language proficiency. *Encyclopedia of Diversity in Education: Sage Publications*, 3, 1333-1335. Los Angeles, CA: SAGE Reference.
- Bandura, A. (1977). *Social learning theory*. New York, NY: General Learning Press.
- Bailey, A. L., & Carroll, P. E. (2015). Assessment of English language learners in the era of new academic content standards. *Review of Research in Education*, 39(1), 253-294. doi:10.3102/0091732X14556074
- Bailey, A. L., & Kelly, K. R. (2013). Home language survey practices in the initial identification of English learners in the United States. *Educational Policy*, 27(5), 770-804. doi:10.1177/0895904811432137
- Batalova, J., & McHugh, M. (2010). *Number of growth in U.S. schools in need of English instruction*. Washington, DC: Migration Policy Institute.

- Baumann, J. F., & Graves, M. (2010). Commentary: What is academic vocabulary? *Journal of Adolescent & Adult Literacy*, 54(1).
- Bayley, R. & Langman, J. (2011). *Language socialization in multilingual and second language contexts*. New York, NY: Routledge Taylor and Francis Group.
- Bedore, L. M., Pena, E. D., Summers, C., Boerger, K., Resendiz, M., Green, K., & Gillam, R. (2012). The measure matters: Language dominance profiles across measures in Spanish-English bilingual children. *Bilingualism: Language and Cognition*, 15, 616–629.
- Bedore, L. M., Peña, E. D., Gillam, R. B., & Ho, T. H. (2010). Language sample measures and language ability in Spanish-English bilingual kindergarteners. *Journal of Communication Disorders*, 43, 498–510.
- Bialystok, E., & Craik, F. I. M. (2010). Cognitive and linguistic processing in the bilingual mind. *Current Directions in Psychological Science*, 19(1), 19-23.  
doi:10.1177/0963721409358571
- Bialystok, E., Luk, G., Peets, K., & Yang, S. (2010). Receptive vocabulary differences in monolingual and bilingual children. *Bilingualism: Language and Cognition*, 13(04) , 525–531.
- Boals, T., Kenyon, D. M., Blair, A., Cranley, M. E., Wilmes, C., & Wright, L. J. (2015). Transformation in K–12 English language proficiency assessment: Changing contexts, changing constructs. *Review of Research in Education*, 39(1), 122-164.  
doi:10.3102/0091732X14556072
- Branum-Martin, L., Mehta, P., Carlson, C., & Francis, D. (2014). The nature of Spanish versus English language use at home. *Journal of Educational Psychology*, 106(1), 181–199.
- Brenders, P., van Hell, J. G., & Dijkstra, T. (2011). Word recognition in child second language

- learners: Evidence from cognates and false friends. *Journal of Experimental Child Psychology*, 109(4), 383-396. doi:10.1016/j.jecp.2011.03.012
- Brown, C. L. (2011). Maintaining heritage language: Perspectives of Korean parents. *Multicultural Education*, 19(1): 31–37.
- Brown, D., & Abeywickrama, P. (2010). *Language assessment. Principles and classroom practices*. White Plains, NY: Pearson Education.
- Bunch, G. C. (2013). Pedagogical language knowledge preparing mainstream teachers for English learners in the new standards era. *Review of Research in Education*, 37(1), 298–341.
- Burgoyne, K., Whiteley, H., & Hutchinson, J. (2013). The role of background knowledge in text comprehension for children learning English as an additional language. *Journal of Research in Reading*, 36(2), 132–148. doi: 10.1111/j.1467-9817.2011.01493.x
- Burleson, B. (2011). A constructivist approach to listening. *International Journal of Listening*, 25(1), 27-46. doi:10.1080/10904018.2011.536470
- Burns, M. K., & Helman, L. A. (2009). Relationship between language skills and acquisition rate of sight words among English language learners. *Literacy Research and Instruction*, 48(3), 221-232. doi:10.1080/19388070802291547
- Calderón, M., Slavin, R., & Sánchez, M. (2011). Effective instruction for English learners. *The Future of Children*, 21(1), 103-127.
- Carliner, G. (2000). The language ability of U.S. immigrants: Assimilation and cohort effects. *International Migration Review*, 34, 158-182.
- Carreira, M., & Kagan, O. (2011). The results of the national heritage language survey: Implications for teaching, curriculum design, and professional development. *Foreign*

- Language Annals*, 44(1), 40-64. doi:10.1111/j.1944-9720.2010.01118.x
- Case, A. F. (2015). Beyond the language barrier: Opening spaces for ELL/Non-ELL interaction. *Research in the Teaching of English*, 49(4), 361.
- Castro, D. C., Páez, M. M., Dickinson, D. K., & Frede, E. (2011). Promoting language and literacy in young dual language learners: Research, practice, and policy. *Child Development Perspectives*, 5(1), 15-21. doi:10.1111/j.1750-8606.2010.00142.x
- Chen, X., Ramirez, G., Luo, Y. C., Geva, E., & Ku, Y. (2012). Comparing vocabulary development in Spanish and Chinese-speaking ELLs: The effects of metalinguistic and sociocultural factors. *Reading and Writing*, 25(8), 1991-2020. doi:10.1007/s11145-011-9318-7
- Cheung, K. & Alan, C. (2012). Effective reading programs for Spanish-dominant English language learners (ELLs) in the elementary grades: A synthesis of research. *Review of Educational Research*, 82(4), 351–395.
- Cho, E. H., & Larke, P. J. (2010). Repair strategies usage of primary elementary ESL students: Implications for ESL teachers. *The Electronic Journal for English as Second Language*, 14(3), 1-18.
- Chomsky, N. (1986). *Knowledge of language: Its nature, origin, and use*. New York, NY: Praeger.
- Chomsky, N (1986). *Language and the mind*. New York, NY: Harcourt, Brace and World.
- Chomsky, N. (1993). A minimalist program for linguistic theory. In K. Hale & S. J. Keyser (Eds.), *The view from Building 20. Essays in linguistics in honor of Sylvain Bromberger*, 1–52. Cambridge, MA: MIT Press.
- Cognate awareness-raising in late childhood: Teachable and useful. (2012). *Language*

- Awareness*, 21(1), 181-196. doi:10.1080/09658416.2011.639885
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Couper, G. (2011). What makes pronunciation teaching work? Testing for the effect of two variables: Socially constructed metalanguage and critical listening. *Language Awareness*, 20(3), 159-182. doi:10.1080/09658416.2011.570347
- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Clevedon: Multilingual Matters.
- Cummins, J. (2007). Rethinking monolingual instructional strategies in multilingual classrooms. *Canadian Journal of Applied Linguistics*, 10(2), 221–240. □
- Davies, A. (2006). Test equating, scaling, and linking methods and practices. *Psychometrika*, 71(1), 207-209. doi:10.1007/s11336-005-1357-z
- Derwing, T. M., Munro, M. J., Thomson, R. I., & Rossiter, M. J. (2009). The relationship between L1 fluency and L2 fluency development. *Studies in Second Language Acquisition*, 31, 533–557.
- Deville, C., & Chalhoub-Deville, M. (2011). Accountability-assessment under No Child Left Behind: Agenda, practice, and future. *Language Testing*, 28(3), 307-321. doi:10.1177/0265532211400876
- Díaz-Rico, L. T., & Weed, K. Z. (2010). *The cross-cultural, language, and academic development handbook*, 4th Ed. Boston, MA: Allyn & Bacon, Pearson.
- Dickinson, D.K., McCabe, A., Clark-Chiarelli, N., & Wolf, A. (2004). Cross-language transfer of phonological awareness in low-income Spanish and English bilingual preschool children. *Applied Psycholinguistics*, 25, 323-347.

- Dixon, L.Q. and Wu, S. (2014) 'Home language and literacy practices among immigrant second-language learners', *Language Teaching*, 47(4), pp. 414–449. doi: 10.1017/S0261444814000160
- Dixon, L. Q., Wu, S., & Daraghmeh, A. (2012). Profiles in bilingualism: Factors influencing kindergartners' language proficiency. *Early Childhood Education Journal*, 40(1), 25-34. doi:10.1007/s10643-011-0491-8
- Duff, P. A. (2007). Second language socialization as sociocultural theory: Insights and issues. *Language Teaching*, 40(4), 309-319. doi:10.1017/S026144480700450
- Dunn, J., Wooding, C., & Hermann, J. (1977). Mothers' speech to young children: Variation in context. *Developmental Medicine & Child Neurology*, 19(5), 629-38.
- Durán, R. P. (2008). Assessing English-language learners' achievement. *Review of Research in Education*, 32(1), 292-327. doi:10.3102/0091732X07309372
- Duursma, E., Pan, B. A., & Raikes, H. (2008). Predictors and outcomes of low-income fathers' reading with their toddlers. *Early Childhood Research Quarterly*, 23(3), 351–365.
- 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).
- Ernst-Slavit, G., Moore, M., & Maloney, C. (2002). Changing lives: Teaching English and literature to ESL students. *Journal of Adolescent & Adult Literacy*, 46, 116–128.
- Espinosa, K. E., & Massey, D. S. (1997). Determinants of English proficiency among Mexican migrants to the United States. *International Migration Review*, 31(1), 28-50.
- Fadnes, L. T., Taube, A., & Tylleskär, T. (2009). How to identify information bias due to self-reporting in epidemiological research. *The Internet Journal of Epidemiology*, 7(2), 1.
- Farnia, F., & Geva, E. (2011). Cognitive correlates of vocabulary growth in English language

- learners. *Applied Psycholinguistics*, 32(4), 711-738. doi:10.1017/S0142716411000038
- Farrant, B. M., & Zubrick, S. R. (2013). Parent-child book reading across early childhood and child vocabulary in the early school years: Findings from the Longitudinal Study of Australian Children. *First Language*, 33, 280-293.
- Farver, J., Xu, M., Lonigan, C., & Eppe, S. (2013). The home literacy environment and Latino Head Start children's emergent literacy skills. *Developmental Psychology*, 49(4), 775-791.
- Flores, S., & Chu, S.Y. (2011). Assessment of English language learners with learning disabilities. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, 84(6), 244-248.
- Fox, J., & Fairbairn, S. (2011). *Test review: ACCESS for ELLs*. London, England: Sage Publications, Inc.
- Frumkin, L. A. (2013). Young children's cognitive achievement: Home learning environment, language and ethnic background. *Journal of Early Childhood Research*, 11(3), 222-235.
- Fry, R., & Gonzales, F. (2008). One-in-five and growing fast: A profile of Hispanic public school students. Washington, DC: Pew Research Center.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2007). *Educational research: An introduction* (8<sup>th</sup> ed.). New York, NY: Allyn & Bacon.
- Gall, M. D., Gall, J. P., & Borg, W. R. (2010). *Applying education research* (6<sup>th</sup> ed.). Upper Saddle River, NJ: Pearson Publishing.
- Geva, E. (2014). Learning difficulties in English language learners. *Perspectives on Language and Literacy*, 40(4), 7.
- Gilakjani, A. P. (2012). The significance of pronunciation in English language teaching. *English*



- Language Teaching*, 5(4), 96. doi:10.5539/elt.v5n4p96
- Gilakjani, A., & Ahmadi, A. (2011). A study of factors affecting EFL learners' English listening comprehension and the strategies for improvement. *Journal of Language Teaching and Research*, 2(5), 977-988.
- Gleason, J., Berko & Ratner, Nan Bernstein (Eds.) (2009). *The Development of Language*, (7th Ed.). Boston, MA: Pearson Allyn & Bacon.
- Goldenberg, C. (2008). Teaching English language learners: What the research does-and does not-say. *American Educator*, Summer, 8-44.
- Goldenberg, C., & Rutherford-Quach, S. (2012). The Arizona home language survey: The under-identification of students for English language services. *Language Policy*, 11(1), 21-30.
- Goldenberg, G., & Rutherford Quach, S. (2010). The Arizona Home Language Survey and the identification of students for ELL services. Retrieved from <http://civilrightsproject.ucla.edu/research/k-12-education/language-minoritystudents/the-arizona-home-language-survey-and-the-identification-of-studentsfor-ell-services/AZ-PHLOTEGO8-17-10revision.pdf>
- Goldberg, H., Paradis, J., & Crago, M. (2008). Lexical acquisition over time in minority first language children learning English as a second language. *Applied Psycholinguistics*, 29, 41-65.
- Goodwin, A. P., Huggins, A. C., Carlo, M., Malabonga, V., Kenyon, D., Louguit, M., & August, D. (2012). Development and validation of extract the base: An English derivational morphology test for third through fifth grade monolingual students and Spanish-speaking English language learners. *Language Testing*, 29(2), 265-289.  
doi:<http://dx.doi.org/10.1177/0265532211419827>

- Gujarati, D. (2009) Multicollinearity: What happens if the regressors are correlated? *Basic Econometrics* (4th ed.). McGraw-Hill.
- Guijarro-Fuentes, P., & Rothman, J. (2008). Linguistic interfaces in child language acquisition. *First Language*, 28(2), 106. doi:10.1177/0142723708090111
- Guler, N., & DelliCarpini, M. (2013). Assessing ELL students in mainstream classes: A new dilemma for the teachers. *English Journal*, 102(3), 126 - 129.
- Halle, T., Hair, E., Wandner, L., McNamara, M., & Chien, N. (2012). Predictors and outcomes of early vs. later English language proficiency among English language learners. *Early Childhood Research Quarterly*, 27(1), 1-20.
- Hammer, C. S., Komaroff, E., Rodriguez, B. L., Lopez, L. M., Scarpino, S. E., & Goldstein, B. (2012). Predicting Spanish-English bilingual children's language abilities. *Journal of Speech, Language, and Hearing Research: JSLHR*, 55(5), 1251-1264.
- Hammer, C. S., Rodriguez, B. L., Davison, M. D., Lawrence, F. L., & Miccio, A. W. (2011). Changes in language usage of Puerto Rican mothers and their children: Do gender and timing of exposure to English matter? *Applied Psycholinguistics*, 32, 275-297.
- Haynes, J. (2007). *Getting started with english language learners: how educators can meet the challenge*. VA: ASCD.
- Helfrich, S. R., & Bosh, A. J. (2011). Teaching English language learners: Strategies for overcoming barriers. *The Educational Forum*, 75(3), 260-270.
- Hirschman, C. (2014). Immigration to the United States: Recent trends and future prospects. *Malaysian Journal of Economic Studies*, 51(1), 69.

- Hoff, E. (2003). The specificity of environmental influence: socioeconomic status affects early vocabulary development via maternal speech. *Child Development, 74*, 1368–1378.  
doi: 10.1111/1467-8624.00612
- Hoff, E., Core, C., Place, S., Rumiche, R., Senior, M., & Parra, M. (2012). Dual language exposure and early bilingual development. *Journal of Child Language, 39*(1), 1-27.
- Hoff, E. & Naigles, L. (2002). How children use input to acquire a lexicon. *Child Development, 73*(2), 418-433.
- Hopewell, S., & Escamilla, K. (2014). Struggling reader or emerging biliterate student? Re-evaluating the criteria for labeling emerging bilingual students as low achieving. *Journal of Literacy Research, 46*(1), 68-89.
- Hornberger, N. H. (2002). Multilingual language policies and the continua of biliteracy: An ecological approach. *Language Policy, 1*(1), 27–51.
- Hu, X., Ackermann, H., Martin, J. A., Erb, M., Winkler, S., & Reiterer, S. M. (2013). Language aptitude for pronunciation in advanced second language (L2) learners: Behavioural predictors and neural substrates. *Brain and Language, 127*(3), 366-376.  
doi:10.1016/j.bandl.2012.11.006
- Humes, K., Jones, N. A., & Ramirez, R. R. (2011). *Overview of race and Hispanic origin: 2010*. Washington, D.C.: United States Census Bureau.
- Huttenlocher, J., Vasilyeva, M., Waterfall, H., Vevea, J., Hedges, L. (2007). The varieties of speech to young children. *Developmental Psychology, 43*(5), 1062-1083.  
<http://dx.doi.org/10.1037/0012-1649.43.5.1062>.
- Hsieh, F. Y., Bloch, D. A., & Larsen, M. D. (1998). A simple method of sample size calculation for linear and logistic regression. *Statistics in Medicine, 17*, 1623–1634.

- Jackson, C. W., & Callender, M. F. (2014). Environmental considerations: Home and school comparison of Spanish–English speakers’ vocalizations. *Topics in Early Childhood Special Education, 34*(3), 165-174.
- Jalil, S. B., & Liow, S. J. (2008). How does home language influence early spellings? Phonologically plausible errors of diglossic Malay children. *Applied Psycholinguistics, 29*(4), 535-552. doi:<http://dx.doi.org/10.1017/S0142716408080235>
- Jang, E. E., Dunlop, M., Wagner, M., Kim, Y., & Gu, Z. (2013). Elementary school ELLs' reading skill profiles using cognitive diagnosis modeling: Roles of length of residence and home language environment. *Language Learning, 63*(3), 400-436.  
doi:10.1111/lang.12016
- Kendeou, P., Van den Broek, P., White, M. J. & Lynch, J. S. (2009). Predicting reading comprehension in early elementary school: The independent contributions of oral language and decoding skills. *Journal of Educational Psychology, 101*, 765–778.
- Kenyon, D. M., MacGregor, D., Li, D., & Cook, H. G. (2011). Issues in vertical scaling of a k-12 English language proficiency test. *Language Testing, 28*(3), 383-400.  
doi:10.1177/0265532211404190
- Kindler, A. (2002). *Survey of the states’ limited English proficient students and available educational programs and services, 2000–2001 summary report*. Washington, DC: U.S. Department of Education.
- Kolen, M. J. (2011). *Issues associated with vertical scales for PARCC Assessments*. Retrieved from [http://www.parcconline.org/sites/parcc/files/PARCCVertScale\(9-12-2011\).pdf](http://www.parcconline.org/sites/parcc/files/PARCCVertScale(9-12-2011).pdf).
- Krashen, S. D. (1982). *Principles and practice in second language acquisition*. Oxford, UK: Pergamon Press.

- Krashen, S. D. (1988). *Second Language Acquisition and Second Language Learning*. Prentice-Hall International.
- Krashen, S. D., & Terrell, T. D. (1983). *The natural approach: Language acquisition in the classroom*. London, UK: Prentice Hall Europe.
- Lau v. Nichols, 414 U.S. 563 (1974).
- Law, S. (2015) Children learning Chinese as a home language in an English-dominant society, international. *Journal of Bilingual Education and Bilingualism*, 18(6), 735-748, doi: 10.1080/13670050.2014.946399
- Lee, J., Lee, Y. A., & Amaro-Jiménez, C. (2011). Teaching English language learners (ELLs) mathematics in early childhood. *Childhood Education*, 87(4), 253-260. Retrieved from <http://search.proquest.com/docview/866565276?accountid=12085>.
- Lei, S. A., Berger, A. M., Allen, B. M., Rosenberg, W., & Plummer, C. V. (2010). Strategies for improving reading skills among ELL college students. *Reading Improvement*, 47(2), 92.
- Lesaux, N. K., Rupp, A. A., & Siegel, L. S. (2007). Growth in reading skills of children from diverse linguistic backgrounds: Findings from a 5-year longitudinal study. *Journal of Educational Psychology*, 99, 821-834.
- Lin, C., & Zhang, J. (2014). Investigating correspondence between language proficiency standards and academic content standards: A generalizability theory study. *Language Testing*, 31(4), 413-431. doi:10.1177/0265532213520304
- Linguanti, R., & Cook, H. G., (2013). *Toward a “common definition of English learner”:* *Guidance for states and state assessment consortia in defining and addressing policy and technical issues and options*. Washington, DC: The Council of Chief State School Officers.

- Liu, C. Y. (2013). Latino immigration and the low-skill urban labor market: The case of Atlanta. *Social Science Quarterly*, 94(1), 131-157.
- Littlejohn, J. (1998). *Federal control out of control: The office for civil rights' hidden policies on bilingual education*. Sterling, VA: Center for Equal Opportunity.
- López, F., & McEneaney, E. (2012). State implementation of language acquisition policies and reading achievement among Hispanic students. *Educational Policy*, 26(3), 418-464.  
doi:10.1177/0895904811417581
- Lovett, M. W., De Palma, M., Frijters, J., Steinbach, K., Temple, M., Benson, N., & Lacerenza, L. (2008). Interventions for reading difficulties: A comparison of response to intervention by ELL and EFL struggling readers. *Journal of Learning Disabilities*, 41(4), 333–352.
- Lutz, A. (2007). Barriers to high-school completion among immigrant and later-generation Latinos in the USA: Language, ethnicity and socioeconomic status. *Ethnicities*, 7, 323-342. doi:10.1177/1468796807080232
- Luykx, A., Lee, O., Mahotiere, M. & Lester, B. (2007). Cultural and home language influences on children's responses to science assessments. *Teachers College Record*, 109(4), 897.
- Mancilla-Martinez, J., & Kieffer, M. J. (2011). Language minority learners' home language use is dynamic. *Educational Researcher*, 39(7), 545-546. doi:10.3102/0013189X10383168
- Mancilla-Martinez, J., & Lesaux, N. (2011). Early home language use and later vocabulary development. *Journal of Educational Psychology*, 103, 535–546.
- Mancilla-Martinez, J., & Lesaux, N. K. (2011). Early home language use and later vocabulary development. *Journal of Educational Psychology*, 103(3), 535.
- Marinari, M. (2014). Americans must show justice in immigration policies too: The passage of the 1965 Immigration Act. *Journal of Policy History*, 26(2), 219-245.

- Martin, K. (2015). What is a Logit function and why use Logistical Regression? *The Analysis Factor*. <http://www.theanalysisfactor.com/contact-us/>
- Martin-Beltrán, M. (2009). Cultivating space for the language boomerang: the interplay of two languages as academic resources. *English Teaching: Practice and Critique*, 8(2), 25–53.
- Marzano, R. J. (2012). *Becoming a reflective teacher*. Bloomington, IN: Marzano Research Laboratory.
- McGroarty, M. (2012). Home language: Refuge, resistance, resource? *Language Teaching*, 45(1), 89–104.
- McNamara, T. (2011). Applied linguistics and measurement: a dialogue. *Language Testing*, 28, 435–40. □
- Meisel, J., Clahsen, H., & Pienemann, M. (1981). On determining developmental stages in natural second language acquisition. *Studies in Second Language Acquisition*, 3, 109-135. doi:10.1017/S0272263100004137
- Menezes, V. (2013). Second language acquisition: Reconciling theories. *Open Journal of Applied Sciences*, 3(7), 404. doi:10.4236/ojapps.2013.37050
- Meng, C. (2015). Home literacy environment and Head Start children's language development: *The Role of Approaches to Learning, Early Education and Development*, 26(1), 106-124, doi: 10.1080/10409289.2015.957614
- Menken, K. (2010). NCLB and English language learners: Challenges and consequences. *Theory Into Practice*, 49, 121-128.
- Miser, T. M., & Hupp, J. M. (2012). The influence of socioeconomic status, home environment, and childcare on child language abilities. *Current Psychology*, 31(2), 144-159. doi:10.1007/s12144-012-9139-0

- Mohan, B. A. (2011). *Social practice and register: Language as a means of learning*. In E. Hinkel, (Ed.). *Handbook of research in second language teaching and learning*. New York, NY: Routledge Taylor and Francis Group.
- Myles, F. (2010). The development of theories of second language acquisition. *Language Teaching*, 43(3), 320-332. doi:10.1017/S0261444810000078
- National Center for Education Statistics. (2001). The condition of education (Appendix 1, Table 29-3). Washington, DC: U.S. Government Printing Office.
- No Child Left Behind Act. Public Law No. 107-110, § 115 Stat. 1425 (2001).
- O'Brien, R. M. (2007). A caution regarding rules of thumb for variance inflation factors. *Quality & Quantity*, 41(5), 673-690.
- Ochs, E., & Schieffelin, B. (1984). Language acquisition and socialization: three developmental stories and their implications. in *culture theory: essays on mind, self, and emotion*.
- Ochs, E. & Schieffelin, B. (1986). **Language socialization across cultures**. Cambridge: Cambridge University Press.
- O'Grady, W. (2005). How children learn language. *Cambridge Approaches to Linguistics*. Cambridge, UK.
- Oller, D. K. & Jarmulowicz, L. (2007). *Language and literacy in bilingual children in the early school years*. *Blackwell handbook of language development*. Malden, MA: Blackwell, 368-386.
- Olson, D. (2014). Phonetics and technology in the classroom: A practical approach to using speech analysis software in second-language pronunciation instruction. *Hispania*, 97(1), 47-68. doi:10.1353/hpn.2014.0030
- Omair, A. (2014). Sample size estimation and sampling techniques for selecting a representative



- sample. *Journal of Health Specialties*, 2(4), 142.
- Parkay, F., Hass, G., & Anctil, E. (2010). *Curriculum leadership: Readings for developing quality educational programs* (9th ed.). Boston, MA: Pearson Education, Inc.
- Phillips, L. M., Norris, S. P., & Anderson, J. (2008). Unlocking the door: Is parents' reading to children the key to early literacy development? *Canadian Psychology*, 49, 82–88.  
doi:10.1037=0708-5591.49.2.82
- Place, S., & Hoff, E. (2011). Properties of dual language exposure that influence two-year-olds' bilingual proficiency. *Child Development*, 82, 1834–1849.
- Prior, A., Goldina, A., Shany, M., Geva, E., & Katzir, T. (2014). Lexical inference in L2: Predictive roles of vocabulary knowledge and reading skill beyond reading comprehension. *Reading and Writing*, 27(8), 1467-1484. doi:10.1007/s11145-014-9501-8
- Ragan, A., & Lesaux, N. (2006). Federal, state, and district level English language learner program entry and exit requirements: Effects on the education of language minority learners. *Education Policy Analysis Archives*, 14(20).
- Ramirez, G., Chen, X., Geva, E., & Kiefer, H. (2010). Morphological awareness in Spanish-speaking English language learners: Within and cross-language effects on word reading. *Reading and Writing*, 23(3), 337-358. doi:10.1007/s11145-009-9203-9
- Raynolds, L., Uhry, J., & Brunner, J. (2013). Vowel representations in the invented spellings of Spanish (Euro) English bilingual kindergartners. *Reading and Writing*, 26(5), 647.  
doi:10.1007/s11145-012-9380-9
- Raynolds, L. B., & Uhry, J. K. (2010). The invented spellings of non-Spanish phonemes by Spanish–English bilingual and English monolingual kindergartners. *Reading and Writing*, 23(5), 495-513. doi:10.1007/s11145-009-9169-7.

- Renukadevi, D. (2014). The role of listening in language acquisition; the challenges & strategies in teaching listening. *International Journal of Education and Information Studies*, 4(1), 59-63.
- Robertson, K., & Ford, K. (2008). *Language acquisition: An overview*. Retrieved from <http://www.colorincolorado.org/article/26751/>
- Rojas, R., & Iglesias, A. (2013). The language growth of Spanish-Speaking English language learners. *Child Development*, 84(2), 630-646. doi:10.1111/j.1467-8624.2012.01871.x
- Rupley, W., Nichols, W., Mraz, M., & Blair, T. (2012). Building conceptual understanding through vocabulary instruction. *Reading Horizons*, 51(4), 299.
- Paradis, J., Genesee, F., & Crago, M. (2011). *Dual language development and disorders: A handbook on bilingualism and second language learning* (2nd Ed.). Baltimore, MD: Brookes Publishing.
- Paradis, J., & Kirova, A. (2014). English second-language learners in preschool: Profile effects in their English abilities and the role of home language environment. *International Journal of Behavioral Development*, 38(4), 342-349.
- Park, H. (2013). An introduction to logistic regression: From basic concepts to interpretation with particular attention to nursing domain. *Journal of Korean Academy of Nursing*, 43,154–164.
- Paul, R. (2013). Multicollinearity: Causes, effects and remedies. Working paper, unknown date. Accessed, <http://www.iasri.res.in/seminar/AS-299/ebooks%5C2005-2006%5CMsc%5Ctrim2%5C3.%20Multicollinearity-%20Causes,Effects%20and%20Remedies-Ranjit.pdf/>.
- Prezas, R., Hodson, B., & Schommer-Aikins, M. (2014). Phonological assessment and analysis

- of bilingual preschoolers' Spanish and English word productions. *American Journal of Speech-Language Pathology*, 23(2), 176-185. doi: 10.1044/2013\_AJSLP-12-0132
- Polit, D. F. & Beck, C. T. (2012). *Nursing research: generating and assessing evidence for nursing practice*. (9.ed.) Philadelphia, PA: Wolters Kluwer Health/Lippincott Williams & Wilkins.
- Salimi, A., Bonyadi, A., & Asghari, A. (2014). The effect of focus on form on EFL learners' written task accuracy across different proficiency levels. *Theory and Practice in Language Studies*, 4(4), 829.
- Segalowitz, N. (2010). *Cognitive bases of second language fluency*. New York, NY: Routledge.
- Shaffer, D. R., Wood, E., & Willoughby, T. (2002). *Developmental psychology: Childhood and adolescence* (1<sup>st</sup> ed.). Scarborough, Ontario: Nelson/Thomson Canada Ltd.
- Scheele, A. F., Leseman, P. P. M., & Mayo, A. Y. (2010). The home language environment of monolingual and bilingual children and their language proficiency. *Applied Psycholinguistics*, 31(1), 117-140. doi:10.1017/S0142716409990191
- Schleppegrell, M. J., & Fang, Z. (2010). Disciplinary literacies across content areas: Supporting secondary reading through functional language analysis. *Journal of Adolescent & Adult Literacy*, 53(7), 587-597.
- Schieffelin, B., & Ochs, E. (1986). *Language socialization across cultures*. New York, NY: Cambridge University Press.
- Shanahan, T., Callison, K., Carriere, C., Duke, N., Pearson, P. & Schatschneider, C. (2010). *Improving reading comprehension in kindergarten through 3<sup>rd</sup> grade: A practice guide*. Washington, D.C.: National Center for Education Sciences, U.S. Department of Education.

- Schutz, R. (2007). Stephen Krashen's theory of second language acquisition. *English made in Brazil*. Retrieved from <http://www.sk.com.br/sk-krash.html>. online. June 2, 2007.
- Stacey, M., Carbone-López, K., & Rosenfeld, R. (2011). Demographic change and ethnically motivated crime: The impact of immigration on anti-Hispanic hate crime in the United States. *Journal of Contemporary Criminal Justice*, 27(3), 278-298. doi:10.1177/1043986211412560
- Sims, J., & Coley, R. (2016) Independent contributions of mothers' and fathers' language and literacy practices: associations with children's kindergarten skills across linguistically diverse households. *Early Education and Development*, 27(4), 495-512, doi: 10.1080/10409289.2016.1091973
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th Ed.). Boston, ME: Pearson.
- Tarlowski, A., Wodniecka, Z., & Marzecová, A. (2013). Language switching in the production of phrases. *Journal of Psycholinguistic Research*, 42(2), 103-18. doi: 10.1007/s10936-012-9203-9
- Tong, X., Deacon, S. H., & Cain, K. (2014). Morphological and syntactic awareness in poor comprehenders: Another piece of the puzzle. *Journal of Learning Disabilities*, 47(1), 22-33.
- Tsang, S., A. Katz, & Stack, J. (2008). Achieving testing for English language learners, ready or not? *Education Policy Analysis Archives* 16(1): 1–26. <http://epaa.asu.edu/ojs/article/view/26/152>
- Uchikoshi, Y. (2005). Narrative development in bilingual kindergarteners: Can Arthur help?

- Developmental Psychology*, 41(3), 464–478. doi: 10.1037/0012-1649.41.3.464
- Utley, C. A., Obiakor, F. E., & Bakken, J. P. (2011). Culturally responsive practices for culturally and linguistically diverse students with learning disabilities. *Learning Disabilities: A Contemporary Journal*, 9(1), 5-18.
- Van de Mortel, T. F. (2008). Faking it: Social desirability response bias in self-report research, *Australian Journal of Advanced Nursing*, 25(4), 40-48.
- Vaughn, S. (2012). Response to intervention in reading for English language learners. *Washington, DC: RtI Action Network*. Retrieved October 20, 2016.
- Vygotsky, L. (1978). *Mind in society: the development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Warner, R. M. (2013). *Applied statistics: From bivariate through multivariate techniques* (2<sup>nd</sup> ed.). University of New Hampshire: SAGE Publishing.
- Watkins, E., & Liu, K. K. (2013). Who are English language learners with disabilities? *Impact: Feature Issue on Educating K-12 English Language Learners with Disabilities*, 26, 1.
- Webb, S. (2010). Pre-learning low-frequency vocabulary in second language television programmes. *Language Teaching Research*, 14(4), 501-515.  
doi:10.1177/1362168810375371
- Weisburg, S. (2014). *Applied linear regression* (4th ed.). Hoboken, NJ: John Wiley & Sons, Inc.
- WIDA Consortium. (2012). *Can-Do descriptors; Standards. World-class instructional design and assessment*. Madison, WI: University of Wisconsin- Madison, WI: Center for Educational Research (WCER). Available at [http://www.wida.us/standards/CAN\\_DOs/](http://www.wida.us/standards/CAN_DOs/).
- Wright, W. E. (2010). *Foundations for teaching English language learners: Research, theory, policy, and practice*. Philadelphia, PA: Caslon.

- Wolf, M. K., & Faulkner-Bond, M. (2016). Validating English language proficiency assessment uses for English learners: Academic language proficiency and content assessment performance. *Educational Measurement: Issues and Practice*, 35(2), 6-18.
- World-Class Instructional Design and Assessment (WIDA). (2009). *English Language Proficiency (ELP) Standards*. Madison, WI.
- World-Class Instructional Design and Assessment (WIDA). (2012). *English Language Proficiency (ELP) Standards*. Madison, WI.
- Xi, J. (2013). English fluency of the U.S. immigrants: Assimilation effect, cohort variations, and periodical changes. *Social Science Research*, 42, 1109–1121.
- Ye, T., & Kolen, M. J. (2010). Scaling: An ITEMS module. *Educational Measurement: Issues & Practice*, 29(4), 39-48. doi:10.1111/j.1745-3992.2010.00192.x
- Yesil-Dagli, U. (2011). Predicting ELL students' beginning first grade English oral reading fluency from initial kindergarten vocabulary, letter naming, and phonological awareness skills. *Early Childhood Research Quarterly*, 26(1), 15-29.  
doi:10.1016/j.ecresq.2010.06.001
- Yıldız, N., & Pınar, E. (2012). Examining teachers' behavior related to students with special needs in inclusive classrooms. *International Online Journal of Educational Sciences*, 4(2), 475-488.
- Zehr, M. A. (2010). Standards organizers leave English proficiency to states. *Education Week*, 29(33), 1-10.

### APPENDIX A: Student Data Recording Sheet

School/School District: \_\_\_\_\_ School Administrator: \_\_\_\_\_  
 School Year \_\_\_\_\_

**Instructions:** Based on archival data from official school records, complete the table below for ELL students selected within the past 5 school years. To protect student confidentiality, alphanumerical codes are used.

Student Assigned Number	Grade	Gender	Age	Ethnicity	Student's Home Language 1= English 2= Non-English	Student's First Language 1= English 2= Non-English	Student's Language Used Most 1= English 2= Non-English	W-APT Reading Score (The W-APT has a Score Range of 0-15).	W-APT Writing Score (The W-APT has a Score Range of 0-17).	W-APT Speaking Score (The W-APT has a Score Range of 0-15).	W-APT Listening Score (The W-APT has a Score Range of 0-15).	English Language Assisted Services 0= Yes 1= No
A1												
A2												
A3												
A4												
A5												
A6												
A7												
A8												
A9												
A10												
A11												
A12												
A13												
A14												
A15												
A16												
A17												
A18												
A19												
A20												

## APPENDIX B: IRB Approval

### LIBERTY UNIVERSITY INSTITUTIONAL REVIEW BOARD

March 29, 2016

Juanita L. Hosch-Martin  
IRB Exemption 2415.032916: Predictors of the Use of English Language Assistance Services by  
English Language Learners in Elementary Schools

Dear Juanita,

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 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 in 45 CFR 46.101(b):

(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 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](mailto:irb@liberty.edu).

Sincerely,

[Redacted Signature]

[Redacted Name]

Administrative Chair of Institutional Research  
The Graduate School

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## APPENDIX C: School System Letter of Approval

*Superintendent*

PHONE

January 20, 2016

Liberty University  
IRB Board  
1971 University Blvd. Suite 1837  
Lynchburg, VA 24515

To whom it may concern:

Juanita Hosch-Martin is authorized to conduct a research study in the \_\_\_\_\_ School District. She has permission to use archival data from Home Language Surveys and WIDA-ACCESS Placement Test scores in order to examine the need for English Language assistance services.

The documents and data collected during this study will be identified only by an assigned coded number to protect the identity of students. At no time will students' names be associated with the results of the research. At the end of the research, results obtained from the analysis of data will be published without any identifying information of the participating students. Data collected during the study will be stored at Liberty University for three years after the study ends. The identity of the school as well as educational district will not be published in relation with the research.

Confidentiality requirements of the \_\_\_\_\_ and the university's Institutional Review Board must be followed.

If you have any questions, please contact me at \_\_\_\_\_

Sincerely,

Director of Testing, Research and Evaluation

### APPENDIX D: Administrator's Letter

Juanita L. Hosch-Martin, Doctoral Candidate  
 Liberty University  
 1971 University Boulevard  
 Lynchburg, VA 24515

Dear Principal,

I am a doctoral candidate at Liberty University in the process of completing fulfillment requirement for my dissertation. As a part of the requirement, I will need archival data from elementary schools pertaining to English Language Learners. I am writing to request permission to collect research data from your school.

The purpose of this study is to determine whether there is a statistically significant relationship between student's home language, student's first language, student's language used most, and W-APT scores for early second language students. To protect the student's identity, a confidential process of assigning numbers to students in lieu of names will be used. Information such as student's name, address, or student identification number will not be needed nor collected. Pseudonyms will be used to protect the identity of the school district and school.

Upon approval from the district's county office, I will provide a data collection instrument to disseminate to the ELL teachers within your school and instructions. All data collected can be sent to in a sealed confidential interoffice envelope to the ELL Director. Upon receipt, the data will be stored in a secure location and a copy of the result of the dissertation will be provided.

In advance, thank you for your assistance in this process. In you have any questions or concerns, please contact me at [martin.juanita@xxxxxxxxxxxxxxxxxxxxxx](mailto:martin.juanita@xxxxxxxxxxxxxxxxxxxxxx).

Sincerely,

Juanita L. Hosch-Martin  
 Liberty University

## APPENDIX E: Research Instructions

Directions for data collection completion:

1. Obtain student records from the last five years to a secure location.
2. Detach the Student Data Recording Sheet and the instructions.
3. Record the requested information on the Student Data Recording Sheet for the school year 2015.
4. Repeat steps 2-4 for the school year 2014.
5. Repeat steps 2-4 for the school year 2013.
6. Repeat steps 2-4 for the school year 2012.
7. Repeat steps 2-4 for the school year 2011.
8. Securely place the Student Data Recording Sheet into a confidential envelope.
9. Return the sealed envelope to the ELL Director.
10. The ELL Director will deliver data to the researcher in a seal envelope.