The Difference in First Grade KELPA Scores as Affected by Direct ESOL Instruction

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Abstract

The purpose of this study was to determine whether there was a difference in first grade English Language Learner (ELL) language proficiency scores in the areas of reading, writing, listening, and speaking, as measured by the Kansas English Language Proficiency Assessment (KELPA), between students who started receiving direct English to Speakers of Other Languages (ESOL) instruction in preschool or full-day kindergarten. The study examined the extent to which the difference in KELPA reading, writing, listening, and speaking scores were affected by student socio-economic status (SES) and student first language (L1). A quantitative research design was used in this study. The sample for the study included approximately 300 first grade ELLs from two school districts in the state of Kansas who took the KELPA during the 2011-2012, 2012-2013, and 2013-2014 school years. Results from the study revealed a statistically significant difference existed between the average KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten with the interaction of student L1. Students whose L1 was categorized as other scored higher than students whose L1 was categorized as Spanish. There was also a statistically significant difference between the average KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten. Students who started direct ESOL instruction in full-day kindergarten had higher writing scores than the students who started direct ESOL instruction in preschool. Additionally, students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other had higher writing scores than students who started direct ESOL instruction in preschool and whose L1 was categorized as other. In all other areas, a statistically significant difference was not present.
Acknowledgements

There are so many people who have contributed to my successful completion of this program that I would like to thank. From the faculty and my cohort members at Baker University, to my friends and family; each one of you has helped guide me through this process in your own special way. For those numerous people, I will forever be grateful.

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lack of knowledge in these areas. Even though you were also working on finishing your own dissertation, you always made time to meet with me with a kind heart and a willingness to help. Thank you.

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Chapter One

Introduction

Schools in the United States (U.S.) are becoming increasingly diverse, both culturally and linguistically, and include those learners whose first language is not English (National Center for Education Statistics [NCES], 2014). These English Language Learners (ELLs) bring with them an assortment of cultures, languages, background knowledge, and experiences, which could enhance our society as well as our schools (Migration Policy Institute [MPI], 2010). While their linguistic and cultural backgrounds differ greatly, all ELLs share the challenge of adjusting to a new culture and continuing their education in a foreign setting. In order to realize their educational, personal, and social long-term goals, ELLs need to be provided with opportunities that utilize the resources, conditions, and practices needed to achieve higher academic standards (Ballantyne, Sanderman, & McLaughlin, 2008). ELLs need to be able to communicate with others skillfully, appropriately, and effectively in English through reading, writing, listening, and speaking. One of the ways to ensure this is through English to Speakers of Other Languages (ESOL) program models.

ESOL program models and researched-based teaching strategies are important determinants of an ELL’s success. However, differing theories, as well as varying assertions about the best age at which to begin ESOL instruction, are frequently made by educators and policy makers. These have resulted in diverse guidelines for ESOL programs across states (Zacarian, 2012). Therefore, there is a need for additional investigation into the significance of a critical period (CP) in which to initiate specialized instruction for ELLs. As defined by Baker, Chiswick, and Miller (2008), a CP is a designated age in which learning a second language (L2) is ideal. According to Schouten (2009), both casual observers and scholars have postulated that
children have a particular advantage in acquiring an L2 before they reach a certain age. After this CP has ended, whatever mechanisms have accounted for this advantage seem to disappear, and as a result, those seeking to acquire an L2 with native-like proficiency are markedly less successful than their younger counterparts (Schouten, 2009).

While there have been many efforts to repudiate the CP, there has also been difficulty finding consensus among researchers as to when the CP commences and discontinues. As Long (1990) stated, “The easiest way to falsify [the Critical Period Hypothesis (CPH)] would be to produce learners who have demonstrably attained native like proficiency despite having begun exposure well after the closure of the hypothesized sensitive periods” (p. 274). To this end, scholars have pointed to the existence of ELLs who, despite having little or no pre-pubescent exposure to a language, seem to have attained native or near-native like performance (Bialystok, 1997; Birdsong, 1992; Birdsong & Molis, 2001; White & Genesee, 1996). Scovel (2000) noted that not only is there “great variation among researchers on which age spans they use to divide up their subjects, [but] there may [also] be multiple critical periods at varying age levels for different linguistic modalities” (p. 215). As a result, there is a wide range of estimated CPs that have been presented by various researchers, ranging from ages two to puberty, with some repudiators rejecting the notion of a CP altogether (Baker et al., 2008). This debate over the age span in which the CP exists has led researchers to question the extent to which a CP can affect second language acquisition (SLA) over other factors. Therefore, researchers have also investigated individual variables that could affect SLA such as socio-economic status (SES), first language (L1), and environment.
Background

In recent years there has been a rise in the number of school children who speak languages other than English in the U.S. According to Child Trends (2014), between 1994 and 2012, the percentage of children who are either first- or second-generation immigrants increased from 18% to 25%. Furthermore, the NCES (2014) stated that 90% of recent immigrants came to the U.S. from non-English speaking countries. Therefore, as reported by the Center for Applied Linguistics (2014), “Twenty percent of the U.S. population speaks a language other than English at home” (para. 1). As a result, the number of ELLs in America’s public schools has also increased. Figure 1 illustrates the percentage of students who were ELLs in public schools throughout the U.S. during the 2011-2012 school year.

Figure 1. Map of percentage of students who were ELLs in public schools by state for the 2011-2012 school year. Adapted from “English Language Learners,” by the U.S. Department of Education, National Center for Educational Statistics, 2013.
As the number of ELLs has continued to increase, educators have sought effective programs and instructional strategies to serve them. Therefore, government-funded ESOL programs have provided the instruction necessary to reach proficiency in the English language. As made evident by laws and policies established throughout history seeking to fulfill the promise of an excellent and equitable education system, educational policy makers have tried to ensure that all children have an opportunity to gain the most from the U.S. educational system (Ballantyne et al., 2008). Since policy makers in the U.S. have understood that ELLs require a certain proficiency level in English in order to integrate successfully into American society, several landmark policies have helped this ideal come to fruition for ELLs (Whitaker, 2010).

During the time this study was conducted, Title III of the No Child Left Behind Act (NCLB) of 2001 was just one of the most recent examples of policy created to ensure an excellent and equitable education for ELLs (United States Department of Education [USDE], 2005a). Title III was part of legislation enacted, in part, to assure that ELLs develop English proficiency and meet the same academic content and achievement standards that other children are expected to meet (USDE, 2005a). As a result, Title III provided federal financial support to state and local educational agencies for this objective based on the number of ELLs identified by schools in the state. In turn, districts have received funds based on the number of students identified (Kansas State Department of Education [KSDE], 2014b).

Although ESOL programs are federally funded, the guidelines on how ELLs qualify for the program, are serviced within the program, and exit the program are vague and vary across states and school districts (Zacarian, 2012). In keeping with the KSDE’s (2014e) description of how ELLs should be serviced, the department stated, “Eligible students must be offered ESOL services with an ESOL endorsed teacher. Service types include push-in, dual language,
bilingual, ESOL class period, modified instruction, and pull-out. Other types of services may be offered in some districts” (para. 4). Therefore, individual school districts within the state can design and implement ESOL instruction as they see fit.

During the 2012-2013 school year, the state of Kansas, as a whole, reported 480,149 students enrolled. Of the total student population, 8.3% were ELLs, and 49.86% were categorized as economically disadvantaged (KSDE, n.d.). Two public school districts in the state of Kansas were investigated in this study. Table 1 compares enrollment in the districts examined in this study.

Table 1

Demographic Information of School Districts in the Current Study

<table>
<thead>
<tr>
<th>Location</th>
<th>Enrollment</th>
<th>% ELL</th>
<th>% Low SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>477,857</td>
<td>10.3</td>
<td>48.80</td>
</tr>
<tr>
<td>District X</td>
<td>4,593</td>
<td>71.0</td>
<td>69.61</td>
</tr>
<tr>
<td>District Y</td>
<td>21,967</td>
<td>1.1</td>
<td>8.07</td>
</tr>
</tbody>
</table>

Note. Adapted from Kansas State Department of Education Report Card 2012-2013 by the Kansas State Department of Education, 2013b.

The population of the individual schools within the districts in this study varies greatly. SES, as well as the racial and ethnic makeup of the populations, differs from district to district as well. While Table 1 revealed that the school districts in this study vary significantly in size, percentage of ELLs, and low SES percentages, Table 2 provides a detailed look at the state and district ethnicities respectively.
Table 2

*Ethnicity Percentage of the State and School Districts in the Current Study for the 2012-2013 school year*

<table>
<thead>
<tr>
<th>Location</th>
<th>African-American</th>
<th>Hispanic</th>
<th>White</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kansas</td>
<td>7.18</td>
<td>17.75</td>
<td>66.71</td>
<td>8.36</td>
</tr>
<tr>
<td>District X</td>
<td>2.42</td>
<td>46.33</td>
<td>44.63</td>
<td>6.62</td>
</tr>
<tr>
<td>District Y</td>
<td>3.09</td>
<td>4.66</td>
<td>78.45</td>
<td>13.80</td>
</tr>
</tbody>
</table>

*Note.* Adapted from *Kansas State Department of Education Report Card 2012-2013* by the Kansas State Department of Education, 2013b.

With such varying populations, each school district serves its ELL population through a different program model. Therefore, the districts utilized in this study were selected based on their ESOL program model design as it relates to the grade level in which direct ESOL instruction begins within each district. District X begins direct ESOL instruction in preschool (G. A., personal communication, November 13, 2013), and District Y begins direct ESOL instruction in full-day kindergarten (N. A., personal communication, August 4, 2014). Both school districts continue direct ESOL instruction in first grade.

**Statement of the Problem**

Observations of an age effect on SLA can be explained by a hypothesis known as the CPH, which suggested a decreased ability to acquire an L2 as age increases (Johnson & Newport, 1989). Based on the fact that researchers have largely observed that younger children seem to achieve more native-like proficiency than those who learn an L2 as older children or adults, it is generally accepted that “earlier is better” when it comes to L2 learning (MacLeod & Stoel-Gammon, 2010). However, while a CP for L1 acquisition is widely accepted, as previously discussed, when it applies to L2 learning, the CPH has been questioned and debated
because of the lack of consensus among researchers as to when the CP commences and discontinues.

The debate over a specific timeframe for a CP led researchers to question the extent to which a CP affects SLA over other factors. As stated by MacLeod and Stoel-Gammon (2010), a number of factors, such as L1, SES, and environment, have been identified that can be interwoven with age. Untangling age from these factors has been difficult and contributes to three main problems when generalizing about L2 abilities. These three problems include: (1) identifying the critical age that is crucial for SLA, (2) explaining results that do not correspond to the anticipated effects of age, and (3) drawing together observations across the different domains of the English language: reading, writing, listening, and speaking (MacLeod & Stoel-Gammon, 2010).

Past research has investigated the disparities in SLA between early childhood, adolescent, and adult learners. The research has predominantly focused on L2 oral proficiency (Birdsong & Molis, 2001; Bongaerts, van Summeren, Planken, & Schils, 1997; White & Genesee, 1996). Therefore, there seems to be a lack of research comparing early childhood L2 learners. Additionally, there appears to be a need to investigate all aspects of English language learning to include reading, writing, listening, and speaking rather than just oral proficiency. Due to identified factors that can be interwoven with age effects on SLA, there is also a need to investigate individual variables that could affect SLA such as student SES, and student L1.

**Purpose Statement**

The purpose of this study was to contribute to and extend an existing body of research by concentrating primarily on early childhood L2 learners who started direct ESOL instruction in preschool and those who started direct ESOL instruction in full-day kindergarten to determine to
what extent there was a difference in first grade Kansas English Language Proficiency (KELPA) scores. The current study expanded upon previous bodies of research by encompassing all domains of English language learning to include reading, writing, listening, and speaking rather than just speaking. In addition, the purpose of this study was to determine to what extent student SES and student L1 affected differences in first grade KELPA scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

**Significance of the Study**

At the time of the study, there were discrepancies between states, as well as school districts within each state, as to when ESOL instruction began and how ELLs were serviced. For example, in the current study, the two participating school districts began direct ESOL instruction in preschool or full-day kindergarten. With the results from this study, the researcher aimed to contribute to the existing body of research by determining to what extent there is a difference in an ELL’s first grade KELPA scores for the domains of reading, writing, listening and speaking among ELLs starting direct ESOL instruction in preschool and full-day kindergarten. The results may provide guidance regarding a CP in which to begin ESOL instruction during the early childhood school years as well as when to best instruct ELLs from various SES and L1 backgrounds.

**Delimitations**

To intensify the focus of research, Roberts (2004) recommended that researchers set self-imposed boundaries (delimitations) to “narrow the purpose and scope of the study” (p. 128). Therefore, the following delimitations were placed on this study of ELLs. The researcher limited the study to two public school districts in Kansas based on the grade level in which direct ESOL
instruction began in each district (preschool or full-day kindergarten). ELLs starting in kindergarten were limited to those attending full-day kindergartens. Although students in the state of Kansas are not required to attend school until first grade (Kansas Parent Information Resource Center, n.d.), Gayle Stuber, early childhood coordinator for the KSDE, said, “Research shows all-day kindergarten is particularly helpful for kids who would otherwise struggle in school” (as cited in Cooper, 2014). Therefore, it is generally recommended that ELLs who start in kindergarten attend the full-day program so increased ESOL services could be received sooner (N. A., personal communication, August 4, 2014). Finally, although there are several ways to measure English language proficiency, the research limited the measurement tool in this study to the KELPA. The KELPA is a required assessment for ELLs in the state of Kansas, and the only measurement tool consistent across both districts in the study.

Assumptions

Lunenburg and Irby (2008) defined assumptions as the “postulates, premises, and propositions that are accepted as operational for purposes of the research” (p. 135). The first assumption of this study was that ELLs in this study encountered similar English language exposure before receiving ESOL services at their respective school districts. This refers to English language exposure at home through students’ families, friends, television, music, and books. The researcher also assumed that both school districts, regardless of when ESOL instruction began, used researched and viable instructional strategies, methods, and curricular materials to support ELLs in the ESOL classrooms. Finally, it was assumed that, due to state regulations, all ESOL classroom teachers were certified in ESOL through the state of Kansas.

Research Questions

The following research questions were used to guide this study:
1. To what extent is there a difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

2. To what extent is the difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

3. To what extent is the difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

4. To what extent is there a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

5. To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

6. To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

7. To what extent is there a difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?
8. To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

9. To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

10. To what extent is there a difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

11. To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten grade affected by student SES?

12. To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**Definition of Terms**

Terms specific to this research have been identified and defined to assist the reader in an accurate interpretation of the intent and findings of this study. For these purposes, the following definitions are provided:

**Critical period (CP).** As defined by Baker et al. (2008), a CP is a designated age in which learning an L2 is ideal. According to Schouten (2009), both casual observers and scholars have postulated that children have a particular advantage in acquiring an L2 before they reach a certain age. After this CP has ended, whatever mechanisms have accounted for this advantage
seem to disappear, and as a result, those seeking to acquire an L2 with native-like proficiency are markedly less successful than their younger counterparts (Schouten, 2009).

**Domain.** There are four domains, or classifications, of language. They include reading, writing, listening and speaking (Teachers of English to Speakers of Other Languages, 2006). While interaction naturally occurs between and among language domains, the four domains and their expected outcomes for each are defined separately for ELLs as follows:

**Reading.** English learners read English to acquire language and comprehend, examine, deduce, and assess a variety of fiction and non-fiction texts. They connect the written and spoken languages, recognize and interpret meaning of vocabulary and symbols in print, demonstrate command of fiction and non-fiction texts, demonstrate reading fluency, and use strategies to develop meaning from text (KSDE, 2011).

**Writing.** English learners write in English for a variety of social and academic purposes using appropriate vocabulary, grammar, and Standard English writing conventions. They use vocabulary to communicate effectively in writing, use Standard English grammar and conventions to communicate clearly and precisely in writing, and write to express personal information and academic information (KSDE, 2011).

**Listening.** English learners listen to English to acquire language, comprehend and deduce meaning, and respond appropriately in social and academic contexts. They demonstrate comprehension of spoken vocabulary, identify and distinguish pronunciation and intonation patterns to interpret meaning, demonstrate command of oral instructions, queries, and prompts, demonstrate comprehension of information presented orally, and listen to and participate in conversations and discussions (KSDE, 2011).
**Speaking.** English learners speak English fluently for a variety of social and academic purposes using appropriate vocabulary, grammar, pronunciation, and nonverbal communication strategies. They use vocabulary to communicate successfully in speaking, use Standard English grammar to speak precisely and accurately, speak clearly using comprehensible pronunciation, intonation, and fluency, express personal information and ideas, communicate academic information with precision and fluency, and participate in conversations and discussions on a variety of topics (KSDE, 2011).

**English language learner (ELL).** As defined by KSDE (2014f), an ELL is, “a student age 3-21 not proficient in spoken and/or written English, as determined by an English language proficiency assessment” (p. 3).

**English to speakers of other languages (ESOL).** ESOL is a program where English is taught to people whose L1 is not English (KSDE, 2014f).

**First language (L1).** L1 refers to, “the first or native language of a person” (KSDE, 2011, p. 210).

**Second language (L2).** L2 is, “a second or additional language learned after the native language” (KSDE, 2011, p. 210). Within this document, it refers to English.

**Second language acquisition (SLA).** SLA is the term used to define the act of learning a nonnative language after L1 learning has begun. A significant characteristic defining SLA is that it occurs in the context in which that language is spoken natively (Baker & Baker, 2009).

**Socio-economic status (SES).** SES refers to the eligibility for free or reduced-price meals, which is determined by household size and income. The U.S. Department of Agriculture sets the income eligibility levels annually. Children in households with incomes at or below 130% of the federal poverty guidelines are eligible for free meals. Children in households with
incomes between 130 and 185% of the federal poverty guidelines are eligible for reduced-price meals (USDE, 2012).

**Overview of the Methodology**

A method for testing theories by analyzing the relationship among variables is defined as a quantitative study (Creswell, 2009). A quasi-experimental methodology was used to evaluate the extent that a difference existed in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten, when students’ SES and L1 were taken into account. The study involved the examination of three years of archived data (2011-2012, 2012-2013, and 2013-2014) in two Kansas school districts. Archived KELPA data and the district data on student SES and student L1 of first grade ESOL students were collected. The data were then compiled into one worksheet. Eight two-factor analyses of variance (ANOVA) were conducted to test the hypotheses based on the research questions to determine to what extent there is a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten. Additionally, the ANOVAs were used to determine to what extent student SES and student L1 affected the differences among those KELPA scores.

**Organization of the Study**

This chapter provided introductory and background information regarding ESOL instruction and the various factors that can influence English language acquisition. The focus of this research was the examination of the effects of beginning direct ESOL instruction at two different grade levels: preschool and full-day kindergarten, while taking student SES and student L1 into consideration. Chapter two presents a review of literature on ELLs, including the history
of the increase of the ELL population, laws protecting this population of students, the debate over the existence and effect of a CP of language acquisition, and an explanation of variables that can affect English language acquisition. Chapter three describes the methodology of this study and presents the research design, population and sample, instrumentation, measurement, data collection, and hypothesis testing procedures. Chapter four reports the results of the hypothesis testing. Chapter five provides a summary of the study, interpretation of the results of data analysis, a comparison of the results to what was found in the literature, a statement of conclusions drawn, and recommendations for further study.
Chapter Two

Review of Literature

The review of literature for this study provides an overview of the history of an increasing ELL population including motivating factors for the growing number of immigrants into the U.S. and a general summary of the diversity found in public schools as a result. Legal policies are discussed as well as the processes for how ELLs are identified into, educated within, and exited from ESOL programs in the U.S. As SLA is a complex process, each language domain is defined and described in this chapter, in addition to the variety of instructional models for teaching ELLs. The purpose of this literature review was to investigate the large amount of research conducted on the existence of a CP and the impact age, SES, L1, and environment have on SLA.

Brief History of ELL Growth in the U.S.

Every year, the U.S. becomes more ethnically and linguistically diverse. According to the NCES (2014), the percentage of ELL students in public schools increased between the years 2002–2003 and 2011–2012 in all but 10 states from 8.7% to 9.1%, which equates to an almost 200,000 student surge. During the 2011-2012 school year, ELLs comprised an average of 14.2% of total public school enrollment in cities, an average of 9% of enrollment in suburban areas, and an average of 3.9% of public enrollment in rural areas (NCES, 2014). In all, an estimated 9.1% of the country’s K-12 public school student population consisted of ELLs at the time of this study (NCES, 2014).

Motivation for immigration into the United States. President John F. Kennedy asserted in his book, A Nation of Immigrants, that
Little is more extraordinary than the decision to migrate … the accumulation of emotions and thoughts which finally leads a family to say farewell to a community where it has lived for centuries, to abandon old ties and familiar landmarks, and to sail across dark seas to a strange land … There were probably as many reasons for coming to America as there were people who came … Yet it can be said that three large forces – religious persecution, political oppression, and economic hardship – provided the chief motives for the mass migrations to our shores. They were responding, in their own way, to the pledge of the Declaration of Independence: the promise of “life, liberty, and the pursuit of happiness.” (Kennedy, 1964, p. 4)

As reported by Flannery (2009), the majority of the U.S.’ ELLs are second-generation students, constituting 75% of elementary ELLs. Second-generation students are defined as children who are born in the U.S. to at least one immigrant parent as compared to first-generation students who were born outside of the U.S. (Child Trends, 2014). As reported by Child Trends (2014), between 1994 and 2012, the percentage of children who are either first- or second-generation immigrants increased from 18% to 25%. Furthermore, the NCES (2014) stated that 90% of recent immigrants came from non-English-speaking countries.

Regardless of how or when ELLs came to the U.S., there are both push factors and pull factors that provoke families to immigrate. Push factors are motives that encourage a person to leave a particular place (Dorigo & Tobler, 1983). Contrarily, pull factors are the causes that encourage a person to relocate to a particular place (Dorigo & Tobler, 1983). These psychological, social, and political influences are unique to each family.

**Push factors.** Historically, push factors such as war, religious or political oppression, and economic hardships were the primary influences on immigration into the U.S. (Hash, n.d.).
The Lewis Historical Society (2013) stated that war has caused large-scale migration of ethnic groups in the 20\textsuperscript{th} and 21\textsuperscript{st} centuries. Representatives from One America (2014) stated that “the persistence of genocide throughout the 1990s, … government oppression and brutality in countries like China, Iran, El Salvador, Cambodia, Somalia, and other countries, … [and] most recently the U.S. war on Iraq” have all contributed to the approximately 279,548 refugees that reside in the U.S. today (para. 12-14).

Additionally, economic hardships have been a dominant push factor for immigrants both past and present (Hash, n.d.). According to Hash (n.d.), the Irish potato famine of 1845-1847 constituted half of all of the nation’s immigrants, approximately 500,000 Irish, in the 1840s. When considering present-day income, One America (2014) pointed out that the per capita in Haiti is $400 per year. In the U.S., the same amount could potentially be earned by a laborer within one week (One America, 2014). With the absence of a livable wage, and the potential for harm from war or political or religious oppression, it is clear why people in desperate situations, such as the ones listed above, chose to migrate to the U.S.

\textit{Pull factors.} Pull factors are the primary motivators for recent immigrants to come to the U.S., and can include jobs and better standards of living, humanitarian protection, family reunification, and immigrant networking (Hash, n.d.). As stated by representatives from the organization Jobs in the USA (n.d.), many immigrants come to America for improved job opportunities, or for increased pay that might not have been available in their home country. If not on their own accord, large corporations from abroad will often transfer employees to the U.S. for a few years to gain experience in the American market (Jobs in the USA, n.d.). Frequently, these employees will choose to stay to keep the salary and benefits that support their lifestyle in the U.S. (Jobs in the USA, n.d.).
For others, moving to the U.S. can represent a better way of life, more freedom of expression, political asylum, improved medical care, and refuge. As reported by Hash (n.d.), approximately 5 to 10% of immigrants enter the U.S. due to the criteria established from the U.S. Immigration and Naturalization Act, which states that those “seeking humanitarian protection from persecution or a well-founded fear of persecution because of race, religion, nationality, membership in a particular social group or political opinion … are granted legal refugee status prior to entering the country” (p. 3). For those seeking refuge from their native country, the liberties granted and the democratic nature of the U.S. can be very appealing to foreigners (Jobs in the USA, n.d.).

Due to the variety of pull factors that bring individual immigrants to the U.S., it is not uncommon for an immigrant to live in the U.S. for a short while before their relatives decide to follow soon after. In fact, family unity is a major influence among recent immigrants (Hash, n.d.). According to Hash (n.d.), the Hart-Cellar Act of 1965 created a policy that apportioned 75% of available visas to spouses and children of legal permanent residents and adult children and siblings of U.S. citizens to promote the reunification of immigrant families. As increased numbers of immigrants and their families journey to the U.S., immigrant networks begin to establish between and among countries of origin (Hash, n.d.). Seeing these networks and the many cultures that are melted together in the U.S. is appealing to immigrants, and is yet another pull factor attracting migrants to this country (Jobs in the USA, n.d.).

Whether the children of these immigrants come as first-generation immigrants or are born here, their educational rights are protected by the U.S. Supreme Court’s ruling in the Plyler vs. Doe case in 1982 (American Immigration Council, 2012). In this case, the U.S. Supreme Court issued a landmark decision which stated that both documented and undocumented immigrant
children and youth are entitled to the same right to attend public schools as U.S. citizens and permanent residents (American Immigration Council, 2012). As a result, U.S. schools are more diverse than ever, bringing implications for teachers across the nation.

**Diversity in U.S. schools.** Due to increased immigration into the U.S., the number of ELLs in public schools has also increased. In fact, as claimed by Walqui and Heritage (n.d.), ELLs constitute the fastest growing population of students in U.S. schools. From 1993-2008, the ELL population doubled to 5 million students (National Education Association [NEA], 2008). By the year 2015, the NEA (2008) projected that the number of ELLs would reach 10 million students, and it is estimated that by the year 2025, one in every four students will be an ELL.

Although all ELLs share the goal of learning English, all ELLs are not alike. Figure 2 indicates that while ELLs in the U.S. speak more than 150 languages, Spanish is the most common L1 nation-wide (MPI, 2010).
Figure 2. Most common L1s nation-wide. Refers to ELLs ages 5 to 18 enrolled in public schools. From “Top Languages Spoken by English Language Learners Nationally and by State,” by MPI, 2010. Copyright 2010 by the Migration Policy Institute.

Although Spanish is the most common L1 nation-wide among ELLs, it is not the most common language spoken by ELLs in all of the states (MPI, 2010). In 2010, seven states had a language other than Spanish as the top language spoken by ELLs. For example, the top language spoken in Maine was Somali. See Appendix A for other examples. The range in number of ELLs among these states, as well the assortment of the top five languages spoken within each of these states, exhibits the vast amount of diversity within the U.S.

Not only do ELLs differ in their L1, these learners also vary in their countries of birth, amount of L1 and L2 exposure, level of parental education, schooling experiences, developmental differences, SES, amount of time in the U.S. and immigration status (Walqui & Heritage, n.d.). Echevarria, Vogt, and Short (2008) stated that the spectrum of these students can
be wide-ranging. In various ways, as discussed later in this chapter, these factors can either augment or hinder the ability of ELLs to succeed in U.S. schools.

The evolution of ELL education

While the population of public schools in the U.S. has rapidly changed throughout the years, the educational models considered best practice for educating ELLs have gradually evolved as well. Teaching methods have been impacted by progressions in theory and the psychology of learning, and basic assumptions about why and how ELLs learn have advanced as a result. Therefore, over the years, many different methods and approaches to teaching ESOL have come and gone.

According to Taber (2008), from the turn of the 19th century to the late 1940s, grammar-translation was a prevalent method for teaching ELLs. In a typical grammar-translation class period, students may have listened to an instructor’s explanation of a targeted grammar skill followed by corresponding fill-in-the-blank exercises, translations of literary passages, vocabulary memorization drills, and other written work (Taber, 2008). As made evident by the types of learning activities, those who employed the grammar-translation method believed that the main goal for learning an L2 was not for communication purposes, but for the motive of exercising the mind while being able to read in the language (Zainuddin, Yahya, Morales-Jones, & Ariza, 2011).

This structure-based methodology also paid little attention to the role of the learner in language acquisition, and relied heavily on the teacher’s role in the direct instruction of grammar, sentence structure, and translation activities, with an emphasis on reading and writing (Griffiths & Parr, 2001). While little importance was placed on speaking and listening, vocabulary was taught through rote memorization, as were verb conjugations and grammatical
rules (Griffiths & Parr, 2001). However, since many theorists determined that the grammar-translation method was not research-based, it was no longer utilized in schools (Taber, 2008).

Taber (2008) stated that the direct method was conceived in the 1880s by Charles Berlitz, a nineteenth-century linguist. This system of teaching and learning became popular during the first quarter of the 20th century, and was “developed as a reaction against the monotony and ineffectiveness of grammar translation classes” (Taber, 2008, para. 10). Since this method was in opposition of the grammar-translation method, the primary goal of the direct method was to imitate the way children learn their L1 by thinking and speaking in the L2 and by making direct associations between objects, concepts, and the corresponding words in the L2 without the use of translation (Taber, 2008). This ideology stemmed from Berlitz’s belief that an ELL could learn an L2 in the same way children learn their L1, which is through the induction of and immersion into the L2 without the direct instruction of grammar or sentence structures (Taber, 2008). Once again, this method was found to be futile as it was not supported by research, and eventually its use was discontinued (Taber, 2008).

Due to researchers such as Ivan Petrovich Pavlov, B.F. Skinner, and John Watson, who supported behaviorism-based techniques which indicated that learning results from a change in explicit behaviors in the classroom, the audio-lingual method was employed for L2 instruction and learning after World War II (Taber, 2008). This was a result of the U.S. government realizing that there needed to be an improved method of language instruction, where they then asked universities to produce students who could use the L2 effectively (Zainuddin et al., 2011). While the main goal of the audio-lingual method was similar to that of the direct method where the purpose was communication, the technique was different. With this method, students used rote memorization of dialogues and language structures to essentially develop a habit of speaking
correctly (Zainuddin et al., 2011). However, although students were successful at memorizing particular scripts, they were not able to apply the language with proficiency in a natural setting, so the method was withdrawn (Zainuddin et al., 2011).

In the early 1980s, psychiatrist-educator, Georgi Lozanov, presented the suggestopedia theory for learning, by claiming that a language can only be acquired when the learner is receptive and has no mental blocks (as cited in Nostrati, Karimi, Malekian, & Hariri, 2013). With this method, the classroom environment was essential to creating a positive affective domain, or the positive attitudes and beliefs about one’s own ability to learn, which was believed to stimulate L2 learning (Zainuddin et al., 2011). Aside from the physical environment of dim lighting, comfortable seating, and soothing music, a non-threatening learning environment was established through the use of song, dramatic role-play, and games (Zainuddin et al., 2011). However, due to the fact that this method was unrealistic for use with larger groups and because of the overall lack of acceptance of this method in the U.S., this technique was not utilized for long (Zainuddin et al., 2011).

Around the same time as suggestopedia started, the total physical response (TPR) method was introduced to education by James Asher (Taber, 2008). This theory of L2 learning was based on Asher’s observations of L1 learning, where children acquire their native language through listening, and demonstrate their understanding by physically reacting to speech, or following commands (Taber, 2008). Since this method was based on the principle that people learn better when they are physically and mentally involved, this approach involved the teacher giving commands and the students physically responding or following the command (Zainuddin et al., 2011). The commands started out simple, became more complex, and eventually allowed for verbal responses from the students. Ultimately, this method ended with the students
providing commands themselves (Zainuddin et al., 2011). Although this method is still used in today’s instruction as it is an effective way to introduce verbs and new vocabulary, and is often used with students who are in the silent period of language acquisition, TPR is somewhat limited to the confines of the classroom and cannot be easily applied to natural, real-world settings.

In the early 1990s the natural method was introduced, which also reflected the view that L2 learning was based off of the same theories as L1 (Taber, 2008). The natural method placed emphasis on communication and comprehension, with importance focused on vocabulary acquisition (Zainuddin et al., 2011). Because this method followed the belief that language acquisition followed a progression, it was imperative that teachers provided comprehensible input, or language input that is one level above that of the students so they can understand information despite not knowing all of the vocabulary or language structures (Zainuddin et al., 2011). Similar to suggestopedia, the natural method underlined the importance of creating a non-threatening environment through its emphasis on the absence of error-correction. According to Zainuddin et al. (2011), this could potentially have a negative effect on learners in terms of motivation and attitude.

In addition to the natural method being popular during the 1990s, the communicative method was also prevalent in ESOL classrooms (Richards, 2006). The main goal of the communicative method was to create communicative competence, which means the learner understands how to use language for different purposes, functions, settings, and audiences, recognizes how to produce and comprehend different types of texts, and identifies and utilizes ways to maintain communication despite having a language barrier (Richards, 2006). This method worked under the assumption that the need to communicate is authentic and used to accomplish an objective (Richards, 2006). Therefore, the communicative method applied the
notion of ‘learning by doing’ by encouraging total emersion of the L2 from the beginning of
instruction” (Zainuddin et al., 2011).

Since the late 1990s, the trend in L2 teaching and learning has been an eclectic approach
(Taber, 2008). Because there are many factors that affect students’ abilities to acquire an L2,
using a variety of methodologies and utilizing the effective aspects of each method throughout
instruction has allowed teachers to meet the unique needs of each of their students (Taber, 2008).
Although there can be flexibility for choosing the programs and methodologies used to educate
ELLs, there is the expectation that these learners will meet the same rigorous content standards
as their English-speaking peers. In an effort to ensure that ELLs are not left to fend for
themselves, laws were created to protect these students and their right to an equitable education.

**ELLs and the Law**

Educators and educational policy makers are committed to ensuring that all children,
including ELLs, are learning to their fullest potential in U.S. schools. As the ELL population
changes and continues to increase, policies and laws that support these children continue to
expand as well. As made evident by newly established laws and policies throughout history, in
order to fulfill the promise of an excellent and equitable education system, educational policy
makers have tried to ensure that all children have an opportunity to gain the most from the U.S.
educational system (Ballantyne et al., 2008). Several landmark policies have helped this ideal
come to fruition for ELLs.

Many of the policies resulting from landmark cases regarding the education of ELLs have
been based on the due process and equal protection clauses of the U.S. Constitution itself. In
keeping with the Library of Congress (2013), the 14th Amendment was ratified on July 9, 1868,
and declared that states could not create nor enforce any laws that denied U.S. citizens of their
rights. Furthermore, it specified that states could not “deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws” (Library of Congress, 2013, para. 1).

Twenty eight years after the ratification of the 14th Amendment, the U.S. Supreme Court ruled that “separate but equal” public facilities, to include schools, were constitutional (Plessy v. Ferguson, 1896). Although this ruling was primarily associated with the segregation of African American students, many other ethnicities were experiencing segregation throughout the U.S. as well (Wright, 2010). It was not until 58 years later that the U.S. Supreme Court unanimously overturned this decision with Brown v. Board of Education in 1954, sending the message that separate was not equal (Wright, 2010).

In 1970, the Office for Civil Rights (OCR) issued a memorandum asserting that equality did not necessarily translate to equity. The memo declared that school districts were required to not only include ELLs with their native English-speaking peers, but to take affirmative steps to resolve their language barriers to provide them with equitable access to the same learning opportunities as their English-speaking peers (National Clearinghouse for English Language Acquisition [NCELA], n.d.-b). Although this memorandum did not specifically stipulate how to service ELLs, it did ensure that these students would not be excluded from the classroom or placed in special education programs solely because of their lack of English proficiency. Finally, it gave parents the right to receive information from the school in a language that they understood (NCELA, n.d.-b).

In addition to the memorandum, the Lau v. Nichols case resulted in conceivably the most important court decision concerning the education of ELLs (Wright, 2010). In this case, the U.S. Supreme Court found the San Francisco school system guilty of failing to provide approximately
1,800 Chinese-speaking ELLs with English language instruction, adequate instructional procedures, and a meaningful opportunity to participate in the public educational program (OCR, 2005). Whereas the school district had argued that it had done nothing wrong because the ELLs were treated equal to that of other students, the U.S. Supreme court did not agree and detailed, “There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education” (NCELA, n.d.-b, para. 7). This verdict elaborated on the OCR memorandum by clarifying that providing an equal opportunity for education for ELLs did not necessarily mean that they would receive the same education as their English speaking peers since these students would likely have goals unique to their needs.

Shortly after the ruling of Lau v. Nichols, the OCR created the Lau Remedies, which outlined specific procedures for identifying and evaluating ELLs’ English language proficiency, determining suitable instructional strategies and programs, deciding when ELLs were ready to be in the mainstream classroom with their English-speaking peers, and defined expectations for teachers of ELLs (Wright, 2010). Eventually, the principles of the Lau Remedies became federal law through the Equal Educational Opportunities Act (EEOA) of 1974 (Wright, 2010). The EEOA enforces several federal civil rights laws pertaining to race, color, national origin, language, sex, religion, and disabilities as they relate to educational institutions (The United States Department of Justice [USDOJ], n.d.). Section 1703(f) of the act specifically refers to ELLs and requires state educational agencies and school districts to “take action to overcome language barriers that impede ELL students from participating equally in school districts’ educational programs” (USDOJ, n.d., para. 6). Although the section does not require a specific educational program for school districts to implement for instructing ELLs, there are three
factors that ensure compliance with the law (USDOJ, n.d.). If the schools’ programs are research-based, organized in a way that reflects educational theories effectively, and are able to show student improvement, then the district is considered to be in compliance (USDOJ, n.d.).

The NCLB Act was signed by President George Bush in 2001, and was created to improve student achievement and change the culture of schools in the U.S. (USDE, 2005a). According to the USDE (2005a), NCLB was “built on four common-sense pillars: accountability for results; an emphasis on doing what works based on scientific research; expanded parental options; and expanded local control and flexibility” (para. 2). As far as results are concerned, NCLB called for all students to be able to read and demonstrate understanding of math concepts at grade level or better by 2014. To reach this goal, the education of ELLs must have been made a top priority (USDE, 2006). To meet the unique learning needs of ELLs required additional resources and specialized programs, which in turn, mandated supplementary funding. Therefore, Titles I and III of NCLB addressed this population of students specifically.

Title I addressed the issues of high-stakes testing, outlined the state standards, adequate yearly progress (AYP), and other accountability requirements (Public Education Network & National Coalition for Parental Involvement in Education, n.d.-b). Title III provided policy makers with a vague definition of the language instruction that English learners must receive, while giving each state the ultimate authority to determine what programs will be utilized and supported (Wright, 2012). Federal law dictated only that ELLs be placed in language programs in which they can develop English proficiency while meeting the rigorous state academic standards and allowed for the use of a child’s native language in instruction as well as the participation of native English-speaking children if it would help ELLs become proficient in English (Wright, 2012). Title III also provided funding to the services necessary to enhance
ELLs’ fluency in English as well as their understanding of the American culture (Wright, 2012). In other words, these services were designed to help offset the cost school districts incur in their efforts to educate limited English proficient students and provide them with the academic and social language they need to succeed in their educational endeavors. Activities required to be incorporated in these services funded by Title III include first-rate, research-based language instruction and high-quality professional development for classroom teachers; updating and implementing the use of program objectives, effective instructional strategies, curricular materials, educational software, and other technologies; and family literacy and parent outreach programs (KSDE, 2014g). However, before ELLs can receive the benefits of Title III, they must qualify as an ELL.

**Qualifying Students as ELLs**

As stated by the USDE (2005b), the law defines an ELL as an individual who is 3 to 21 years old; is enrolled in an elementary or secondary school; was not born in the U.S. or whose native language is not English; who is a Native American or Alaska Native; who comes from an environment where English is a non-dominant language, or who is migratory and from a non-English-language environment; and whose level of English proficiency may deny him or her the ability to reach a proficient achievement level on state tests, to succeed in English-led classrooms, or to participate fully in society. Although there is no federal guideline mandating the use of an official survey that states are required to use to determine if another language is spoken at home, many states use a tool called Home Language Survey as an initial step in the process of identifying potential ELLs (Zacarian, 2012). Although Home Language Surveys are not required in all states, federal law does expect states to implement a procedure, such as parent and student interviews, teacher input, and assessments, to indicate any languages other than
English and to therefore identify potential ELLs (Zacarian, 2012). Regardless of how a student is identified, when another language is indicated by the means deemed acceptable by the state, the student must be assessed using an assessment approved by that state to determine the level of English proficiency and whether they qualify for ESOL instruction (Zacarian, 2012). Since the procedures for identifying and qualifying ELLs varies between states, the focus of this section will narrow to the state of Kansas, which is where the current study takes place.

As indicated by the KSDE (2014c), in order to qualify as an ELL, a few steps must occur. First, all students in the school district must receive and fill out a Home Language Survey upon enrollment, which is used to determine which students should be assessed for English proficiency. As indicated by the KSDE (2014c), this survey asks questions about the child’s first language spoken, what language is most used at home, and what language the adults in the home primarily use. “If the Home Language Survey indicates a history of a language other than English, the student must be assessed for his/her English proficiency” (KSDE, 2014c, p. 1). The KSDE has a list of approved assessments to initially test English proficiency. It is each school district’s discretion as to which assessment is used. It is not assumed that just because another language is indicated on the Home Language Survey, the student has limited English proficiency. Therefore, students who are determined to be fluent in all domains of English proficiency on the approved assessment will not receive ESOL services (KSDE, 2014c).

According to the KSDE (2014c), if the approved English language proficiency assessment concludes that a student is limited, or non-proficient, in any domain (reading, writing, listening, and speaking) of English, that student must receive ESOL services by a highly-qualified teacher. A highly-qualified teacher is defined by the KSDE (2014c) as one who holds an ESOL endorsement, one who has passed the ESOL Praxis test and has applied to the
KSDE’s Teacher Licensure and Accreditation for endorsement, one who has a Kansas ESOL waiver, or one who has an ESOL Endorsement Plan of Study at their district office.

**ESOL Instructional Models**

There are many service models used to provide research-based instruction with a highly-qualified teacher to meet the needs of ELLs. As claimed by Learning Point Associates (2007), while Title III requires ESOL programs to be research-based and to demonstrate effectiveness, it gives states, districts, and schools the flexibility to implement multiple language instruction programs and activities to meet the needs of their population of ELLs. For example, as Arizona, California, Florida, and Massachusetts have passed laws specifying which instructional programs are used to instruct ELLs, others have not (Moughamian, Rivera, & Francis, 2009). According to the National Comprehensive Center for Teacher Quality (2009), as part of Title III reporting requirements, no matter what instructional models a state adopts for their ELLs, they must document and report the types of ESOL instruction provided in their districts and schools. Moughamian et al. (2009) stated there are “many factors [that] make it difficult to develop a ‘one size fits all’ model of instruction for this diverse group of students. The characteristics and dynamics of the student population, classroom, school, and community all affect appropriate program selection” (p. 2). Instructional models for ELLs can range from English-only programs to bilingual models, with a variety of degrees of either in between. The Editorial Projects in Education (2009) reported that 46 states support English-only instructional models. While multiple models can be used within each state, the most prevalent English-only models utilized were content-based programs, reported by 43 states, and pull-out programs, reported by 42 states. The Editorial Projects in Education (2009) also recounted that while 36 states provide
bilingual support, nine states have banned or restricted the use of bilingual programs due to debates over their effectiveness.

As previously stated, states have the flexibility to implement multiple language instruction programs and activities to meet the needs of their population of ELLs. Therefore, states have either created laws specifying the instructional models school districts and schools are permitted to use, or have simply outlined research-based models as suggestions for use. Due to the fact these models vary between states and because the current study focuses on the state of Kansas, the following sections outline the instructional models supported by the KSDE.

**English-only models.** English-only models are primarily used in schools and school districts where there is great variety in the language backgrounds of their students (Moughamian et al., 2009). With these models, English instruction is predominantly administered in English, and with the exception of some directions given in the native language for students with little to no English skills, the L1 does not play a role in learning the L2 (Moughamian et al., 2009). With English-only models, ELLs can be serviced within the mainstream classroom or pulled out of the classroom for specialized English language instruction. Regardless of the model, as previously described, the KSDE requires ELLs to be serviced by a highly-qualified teacher.

Instances where an ELL may be pulled from the mainstream classroom would be with the pull-out, ESOL class period, sheltered instruction, and in some cases the paraprofessional support models (KSDE, 2014f). As stated by the KSDE (2014f), the pull-out model is mostly used in districts in which there are a limited number of ESOL teachers, many schools across the district, and usually in the elementary setting. With this model, the ESOL teacher pulls the ELL out of the regular classroom to focus on English language acquisition, with a focus on grammar, vocabulary, and communication skills, not academic content (NCELA, n.d.-a). The KSDE
(2014f) suggests that pull-out instruction not take place during core English Language Arts or Mathematics instruction since ELLs are held to the same content standards as their English-speaking peers. This model could also be replicated with the use of paraprofessional support, where the instructional aid would work with an ELL under the direction of and within close proximity to an ESOL teacher rather than solely through an ESOL teacher. The ESOL class period is similar in its purpose and objectives in that the focus is solely on English language acquisition (KSDE, 2014f). However, since this model involves the enrollment of the ELL as a class period in their school day, it is usually utilized at the middle and high school levels.

Another pull-out model is the sheltered instruction model. NCELA (n.d.-a) described this model as a class comprised solely of ELLs, where the goal is proficiency in English while learning academic content material as well. With the sheltered instruction model, the teacher can adapt instruction to make the content comprehensible through implementing instructional strategies that support ELLs specifically (NCELA, n.d.-a).

Models which would allow ELLs to stay with their English-speaking peers in the mainstream classroom would include the push-in, modified instruction, and in some cases paraprofessional support models. With the push-in model, an ESOL teacher comes into the regular classroom to co-teach with the general education classroom teacher to provide language assistance to ELLs (KSDE, 2014f). This assistance could include providing clarification, visual aids, and implementing instructional strategies that support ELLs specifically (NCELA, n.d.-a). This type of model could also be replicated as a paraprofessional support model, where a paraprofessional assists with instruction rather than an ESOL teacher (KSDE, 2014f). The other instructional model which would allow an ELL to stay with their English-speaking peers in the mainstream classroom is through the modified instruction model. With this model, an ESOL
endorsed classroom teacher can adapt instruction to make the content comprehensible through implementing instructional strategies that support ELLs specifically (KSDE, 2014f). The only difference between the modified instruction and the sheltered instruction models is that with the modified instruction model, the ESOL endorsed classroom teacher is meeting the needs of ELLs and non-ELLs simultaneously (KSDE, 2014f).

**Bilingual models.** Bilingual models in the U.S. offer instruction in English and in the students’ native language (Moughamian et al., 2009). While programs can vary in the amount of L1 that is used as well as the length of time in which students participate, the KSDE outlines two specific models which are suggested for use in the state of Kansas: the transitional model and the dual language model. The transitional model is a pull-out program that only works if all of the ELLs in the classroom speak the same L1 (KSDE, 2014f). With this program, the bilingual teacher provides content instruction in the ELLs’ L1 while slowly and increasingly introducing English into instruction throughout the year (KSDE, 2014f). Additionally, students are typically transitioned into the general education setting to be with their English-speaking peers as soon as they can easily access and be successful with English language instruction (NCELA, n.d.-a).

The other bilingual model is called the dual language model. With this model, the classroom consists of both ELLs and non-ELLs who are familiar with the ELLs’ L1 (NCELA, n.d.-a). With this model, some instruction is in the L1 and some instruction is in English, where the goal of the program is for all students to become both bilingual and bi-literate (KSDE, 2014f).

**Measures of Progress for ELLs**

Despite individual circumstances, and regardless of the instructional approach used to promote L2 acquisition, ELLs still face the challenge of having to fill in content gaps while simultaneously learning English, and with a focus on standards-based instruction since the
advent of the NCLB Act of 2001, schools have been held accountable for the success of all of their students, including ELLs (Colorin Colorado, 2007). As required by federal law, ELLs are evaluated under two categories of assessments annually: statewide assessments and English proficiency exams (Zacarian, 2012). Under each category, states are required to meet specific expectations for AYP for the statewide assessments as well as Annual Measurable Achievement Objectives (AMAOs) for the English proficiency exams (Zacarian, 2012).

**Statewide assessments.** NCLB required that, by the 2005-2006 school year, states must measure every child’s progress in reading/language arts, math, and science (USDE, 2004). While reading/language arts and mathematics assessments are administered annually to grades 3-8, and at least once during grades 10-12, the science test is only administered once during grades 3-5, grades 6-9, and grades 10-12 (USDE, 2004). Under Title I of NCLB, states must also evaluate ELLs in all three content areas with the same requirements as their native English-speaking peers (Office of Elementary and Secondary Education, 2007). However, federal law does provide some exceptions and exclusions from these assessments for “recently arrived” ELLs. As reported by the Office of Elementary and Secondary Education (2007), a recently arrived ELL is defined as an ELL “who has attended schools in the United States (not including Puerto Rico) for less than 12 months” (p. 6). Under this designation, a recently arrived ELL may be exempt from one annual administration of the state’s reading/language arts assessment (Office of Elementary and Secondary Education, 2007). Although there are no circumstances that would make an ELL eligible for a second exemption for the reading/language arts assessment and while no exemptions exist for recently arrived ELLs for the statewide mathematics and science assessments, Title I requires states to assess ELLs “in a valid and reliable manner” (Office of Elementary and Secondary Education, 2007, p. 8). This could consist of appropriate
accommodations to include assessments in the students’ native language (for no longer than three years after their date of arrival) so as to gain accurate information on what ELLs know and can do in subjects other than English (Office of Elementary and Secondary Education, 2007). These accommodations are determined by each state.

The Kansas Assessment Program (KAP) was designed to meet the requirements for federal and state accountability and to support educators and policy makers in measuring student learning (KAP, n.d.). The KAP includes a variety of tests aligned to the Kansas College and Career Ready Standards (KCCRS) in English/language arts and mathematics, and the Next Generation Science Standards (KAP, n.d.). The English/language arts and math standards mirror the Common Core State Standards (CCSS), which were developed by the National Governor’s Association and the Council of Chief State School Officers (Kansas Association of School Boards, 2013). The CCSS were established to provide a ‘common’ set of standards for student reading and math expectations across the U.S.; better prepare students vocationally, technically, and academically for higher education and employment; match the educational expectations of international competitors, make transitions easier for children who move throughout the U.S.; and provide states with an easier way to determine which state educational policies deliver higher success rates by comparing their academic performance with other states (Kansas Association of School Boards, 2013).

During the 2014-2015 school year, students in the state of Kansas were required to take the English/language arts and mathematics tests annually in grades 3-8 and once in grade 10, and the science assessment in grades 4, 7, and 11 (KSDE, 2014d). The state permits accommodations for ELLs who require specific accommodations or resources outside of the appropriate teaching strategies used for ELLs in the classroom (KSDE, 2014a). Each ELL in the
state of Kansas has an Individual Learning Plan (ILP), which outlines individualized learning goals for ELLs, suggested instructional strategies for use in the general education classroom, and required accommodations for assessments (see Appendix B). Accommodations could include text-to-speech where an audio voice will read the test directions and test items (excluding reading passages) to the student or a Spanish version of the math and science assessments (KSDE, 2014d). In order for an ELL to receive an accommodation on a statewide assessment, the need must be documented on their ILP and in a Personal Needs Profile, which “defines a learner’s needs and preferences for digitally-delivered resources or services” (KSDE, 2014a, p.20).

The exemption of testing for newly arrived ELLs and the availability of accommodations for statewide assessments for ELLs demonstrate that the federal government and state of Kansas recognize the language barriers that make these assessments difficult for ELLs. However, as previously stated, states are required to meet specific expectations for AYP for their statewide assessments. According to the Public Education Network and National Coalition for Parent Involvement in Education (n.d.-a), ELLs’ statewide assessment scores are included in this measure.

**AYP.** In keeping with the Public Education Network and the National Coalition for Parent Involvement in Education (n.d.-a), AYP is how states determine whether public schools or school districts are making progress each year towards the academic goals defined by each state. Under AYP, each state created goals for each public school district and individual public schools with the ultimate goal of 100% of students being proficient in reading/language arts and math by 2014 (Public Education Network & National Coalition for Parent Involvement in Education, n.d.-a). Each school district must report their AYP as a whole as well as disaggregate
the data into four subgroups, with a minimum number in each group that was defined by each state and included economically disadvantaged, special education, ELLs, and racial/ethnic groups (Public Education Network & National Coalition for Parent Involvement in Education, n.d.-a). The Public Education Network and the National Coalition for Parent Involvement in Education (n.d.-a) stated that each subgroup must have at least 95% of their students tested and each subgroup must make AYP.

**ELL performance on statewide assessments.** The NEA (2008) stated that ELLs’ academic performance levels were considerably below their English-speaking peers in nearly every measure of achievement. As cited by the NEA (2008), only 29% of ELLs scored at or above the basic level of reading on the National Assessment of Educational Progress in 2005, compared to 75% of non-ELLs. While ELLs have shown progress on state tests throughout the years, the Center on Education Policy (CEP) (2010), cautioned researchers to investigate this data more closely, as there are several findings that make it difficult to obtain an accurate picture of the performance levels of this unique population of students.

In surveys taken after NCLB was enacted, the CEP (2010) claimed while states and school districts were content that newly arrived ELLs were exempt from certain aspects of statewide testing, the fact that ELLs who exited ESOL programs, due to mastering English, were moved out of the ELL subgroup, which made it extremely difficult to show growth for AYP. Additionally, it is difficult to compare ELL performance across states due to the state-established minimum number of students that constitute a subgroup, where some states’ minimum number is so high that few schools have ELL subgroups that are large enough to count (CEP, 2010). Aside from the variance among state tests themselves, many questions have arisen about the validity of ELLs’ tests results with the argument that these assessments are not a true measure of their
content knowledge due to these students’ language barriers (CEP, 2010). While accommodations do exist for this population of students, researchers question the validity and reliability of these and how they possibly affect ELL performance trends over time (CEP, 2010).

Regardless of possible factors which could affect the validity and reliability of statewide assessment results, in 2008, the CEP (2010) “looked at ELL trends at the proficient level for three grade levels: elementary (grade 4 in all cases), middle school (grade 8 in all but one state), and high school (generally grade 10 or 11)” (p. 4). They compared this data to the percentage of non-ELLS reaching the proficient level in each state as well (CEP, 2010). Table 3 shows the median percentages of ELLs who scored proficient in reading and math at three grade levels in 2008 compared to the median percentages of non-ELLS who scored proficient in reading and in math at three grade levels in 2008.

Table 3.

Percentages proficient for ELLs and students who are not ELLs at three grade levels in 2008

<table>
<thead>
<tr>
<th></th>
<th>Elementary</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ELL</td>
<td>Non-ELL</td>
<td>ELL</td>
</tr>
<tr>
<td><strong>Reading</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>49</td>
<td>78</td>
<td>36</td>
</tr>
<tr>
<td>Lowest %</td>
<td>12</td>
<td>46</td>
<td>6</td>
</tr>
<tr>
<td>Highest %</td>
<td>84</td>
<td>93</td>
<td>75</td>
</tr>
<tr>
<td><strong>Math</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>57</td>
<td>78</td>
<td>35</td>
</tr>
<tr>
<td>Lowest %</td>
<td>14</td>
<td>42</td>
<td>10</td>
</tr>
<tr>
<td>Highest %</td>
<td>87</td>
<td>94</td>
<td>76</td>
</tr>
</tbody>
</table>

*Note: Elementary = 41, middle = 38 high school = 35. Adapted from State test score trends through 2007-08, Part 6: Has progress been made in raising achievement for English language learners? by Center on Education Policy, 2010.*
The CEP (2010) pointed out the spread between the lowest and highest percent proficient in any state was far greater for ELLs than for non-ELLs. There was variability among states such as demographics, policies relating to the identification and education of ELLs, minimum number of ELLs constituting a subgroup, assessments, and learning standards which could account for such disparities. However, despite these differences, the percentages still demonstrate that ELLs are performing very well in some states and poorly in others (CEP, 2010).

**ELL performance on statewide assessments in Kansas.** In accordance with the KSDE (2010), AYP measures state reading assessment results, state mathematics assessment results, state assessment participation, attendance in elementary and middle schools, and graduation rates in secondary schools. Just as determined by federal law, subgroups in the state of Kansas include those who are economically disadvantaged, students with disabilities, ELLs, and racial/ethnic groups to include African Americans, American Indian or Alaskan Native, Asian, Native Hawaiian or Pacific Islander, Hispanic, White and multi-racial (KSDE, 2010). The minimum number of students needed to be considered a subgroup, both at the district and state level, is 30 as a preventative measure of identification of individual students so as to protect the individual student’s privacy rights (KSDE, 2010).

The five performance levels on the state assessments in Kansas are listed from highest to lowest and include: Exemplary, Exceeds Standard, Meets Standard, Approaches Standard, and Academic Warning (KSDE, 2010). In order for a school, school district, and/or the state to meet AYP, each entity and all of their subgroups need to meet the annual measurable objectives, or targets, of students scoring at the Meets Standards proficiency level or above (KSDE, 2010).

**English proficiency exams.** Under federal law, ELLs are not only required to participate in the same statewide assessments as their English-speaking peers, but they are mandated to take
an English proficiency exam (Zacarian, 2012). Proficiency exams must evaluate an ELL’s proficiency in the areas of reading, writing, listening, and speaking the English language (Zacarian, 2012). The results of these assessments, combined with the AYP on the statewide assessments, are what create AMAOS, which are used to measure the effectiveness of programs used throughout school districts and states (Zacarian, 2012).

**AMAOS.** Title III under NCLB, requires states to annually demonstrate ELLs’ development and attainment of the English language while meeting state content standards in reading and mathematics through three measurable achievement objectives called AMAOS (USDE, 2010). According to the USDE, the three AMAOS calculated at both the state and district level are defined as the following:

- **AMAO 1-** Progress in English language development. This is noted by an annual increase in percentage of ELLs who made progress in English
- **AMAO 2-** Attainment of English proficiency. This is measured by an annual increase in the percentage of ELLs who have reached proficiency in English
- **AMAO 3-** AYP. This is measured by the annual percentage of ELLs who make AYP

States and school districts must meet all three of these measures in order to qualify as meeting their AMAOS in a given year (USDE, 2010).

Similar to AYP determination, states can decide what delineates “making progress” and “attaining proficiency” for AMAOS 1 and 2, (USDE, 2010). Both the numeric targets and the definition of “progress” and “proficiency” vary radically across states, which makes it difficult to compare ELL performance (USDE, 2010). While some states use a percentage to gauge student progress and proficiency, others use a point-value system (USDE, 2010). As reported by the
USDE (2010), of those states that use percentages, AMAO 1 targets in 2007-2008 “ranged from 20 percent in Kansas and New Mexico to 85 percent in Illinois” (p. 10). While this wide range in percentages could be an indicator of more or less challenging targets for their ELLs to meet, it is difficult to assess without understanding the terms “progress” and “proficiency” in each state. Furthermore, many states have revised or are currently revising their AMAOS targets, which make it difficult to track annual progress even within individual states.

**ELL performance on AMAOS.** Despite the inconsistencies within and across states, states and school districts must still record their AMAOS data for ELLs to the USDE. As stated by the USDE (2010), for the 2007-2008 school year, only 11 states met all of their AMAOS. As expected, these 11 states varied greatly in their AMAOS targets and represented diverse populations of ELLs (USDE, 2010).

As the USDE (2010) reported, 59% of districts across the nation met all of their AMAOS for the 2007-2008 school year. It also demonstrates school districts are more likely to meet AMAOS 1 and 2 than they are to meet AMAO 3, which entails making AYP on statewide reading and mathematics assessments. It should also be noted that some states contributed more heavily to the national average than others. For example, as reported by the USDE (2010) of the 2,740 school districts who met all of their AMAOS, 1,005 of them were located in the state of Texas alone.

**ELL performance on AMAOS in Kansas.** In the state of Kansas, AMAOS 1 and 2 are determined by student performance on the state’s English language proficiency assessment known as the KELPA (KSDE, 2013c). AMAO 1, which measures ELLs’ progress in English, pertains to the percentage of students in each district who displayed an annual increase in their total KELPA score (composite score of the reading, writing, listening, and speaking tests).
(KSDE, 2013c). The KSDE (2013c) reported that the goal for the percentage of ELLs to show growth on the KELPA was 28% in 2011-2012, 32% in 2012-2013, and 36% in 2013-2014.

AMAO 2, which measures the number of ELLs who attain English proficiency, pertains to the percentage of students in each district who displayed the highest score of “4-Fluent” on the total category of the KELPA (KSDE, 2013c). According to the KSDE (2013c), the goal for the percentage of ELLs to reach the “4-Fluent” category was 21% in 2011-2012, 24% in 2012-2013, and 27% in 2013-2014. AMAO 3, which measures AYP, pertains to the reduction of students performing below the “Meets Standards” proficiency category in both the reading and mathematics statewide assessments (KSDE, 2013c). The state’s goal for AMAO 3 was to reduce the number of students performing below the “Meets Standards” category by half at the end of a six-year period (KSDE, 2013c). Each district in the state was responsible for creating goals for AMAO 3 based on their own state assessment data. Results for AMAOs 1, 2, and 3 could not be obtained from the state.

**Exiting students from ESOL.** The processes for exiting students from ESOL vary across states. A variety of resources are used to determine whether or not the ELL is ready to be exited to include the state’s English language proficiency assessment score, statewide assessment scores, teacher and/or guardian input, student grades, student work, and interviews (Wolf et al., 2008). Figure 3 shows the prevalence of the various criteria used to exit ELLs from receiving services.
Almost all states relied on scores from their English language proficiency assessments to determine whether an ELL should exit or remain in the ESOL program. “A closer look at the use of multiple criteria in state policies highlights the complexity and variation in the redesignation [exiting] process across states” (Wolf et al., 2008, p. 8). As reported by Wolf et al. (2008), of the 48 states for which the information was found, 18 states allowed school districts to decide on their own criteria to use in the decision-making process.

In the state of Kansas, once a student qualifies as an ELL, there are only three ways to exit them from an ESOL program (KSDE, 2014c). The most common way is by passing the KELPA. As noted by the KSDE, each spring, all ELLs are required to take the KELPA, which is derived from the Kansas Curricular standards for ESOL’s four language domains: reading, writing, listening, and speaking. The KELPA also measures targeted indicators for all grades K-12. The second option is if a school’s problem-solving team unanimously recommends that a
student be exited from ESOL after one year for those “few cases where a student’s qualification for Special Education services prohibits him/her from taking a grade-level KELPA (or portions thereof) or from improving” (KSDE, 2014c, p. 3). The final way is by parent denial of services. According to the KSDE (2014c), parents can withdraw their child from an ESOL program at any time by submitting written documentation indicating their request. However, even though a student may be withdrawn from ESOL services, they are not exempt from taking the KELPA.

**Language Skill Acquisition**

Schools and school districts across the nation are committed to providing quality educational services to ELLs and enabling them to make a smooth transition to American culture and schooling. Districts ensure this by employing highly-qualified ESOL teachers to assist in students’ social and cultural adjustment and by teaching English language skills, which include reading, writing, listening and speaking. Although each of these language domains can have a symbiotic relationship with one another, it is important to understand the skills required for each language domain and the difficulties ELLs face when learning to employ them proficiently.

**Reading.** Learning to read is a very complex and developmental process which begins at birth (Costantino, 1999). While reading can be a difficult progression for all children, ELLs face additional challenges as their linguistic and cultural backgrounds are different from those rooted in the reading process for the English language (Costantino, 1999). Regardless, due to the testing requirements and most importantly because reading is an essential skill to becoming a successful and contributing member of the American society, it is crucial for ELLs to acquire the skill of reading (Costantino, 1999). Even though the research has demonstrated that readers use the same processes in both L1 and L2 reading, some L2 readers still find reading in the L2 to be more difficult (Costantino, 1999). A number of factors could influence the success of an ELL
with regards to reading including current age, age of arrival into the U.S., attitude and motivation, personality, intelligence, and personal learning style (Costantino, 1999).

For both L1 and L2 learners, “One of the fundamental prerequisites for reading is the knowledge of language” (Costantino, 1999, p. 7). The difference for L1 and L2 learners is where a native English-speaking child would likely enter school with a well-established grasp on the grammar and vocabulary necessary for reading readiness, an ELL may also have a set of language tools already established, but in a language that is unlikely to help them with reading readiness in English (Costantino, 1999). While most of the current views of L2 reading stem from L1 research, the research on L1 reading has helped L2 researchers understand what fluent readers do, which has direct implications for L2 reading (Zainuddin, Yahya, Morales-Jones, & Ariza, 2002).

Snow, Burns, and Griffin (1998) claimed that some of the skills ELLs need to establish in English before actually beginning to read would be a vocabulary of several thousand words, phonological awareness (the ability to hear sounds that make up words in a spoken language) through rhyming and alliteration, and reading environmental print (the text that appears on labels, signs, and logos). Snow et al. (1998) emphasized the importance of these reading readiness skills by stating that providing “initial reading instruction in a language that [an ELL] does not yet speak…can undermine the child’s chance [to] see literacy as a powerful form of communication, by knocking the support of meaning out from underneath the process of learning” (p. 237). Therefore, it is suggested that explicit and formal reading instruction be delayed for ELLs until these prerequisite skills are acquired (Costantino, 1999).

Once an ELL has been supported in attaining pre-reading skills in English, several additional skills are necessary to be able to read effectively. In consonance with Snow et al.
(1998), some of these skills include: an understanding of the alphabet, knowledge of how sounds are represented with those letters, the background knowledge and vocabulary necessary to make text meaningful, access to a variety of texts, strategies for monitoring comprehension and correcting misunderstandings, and an interest in and a motivation for reading. However, many factors could potentially affect an ELL’s ability to acquire these reading skills to the level of proficiency.

Specifically related to L2 reading is the influence of the degree of the student’s language development in their L1. Thomas and Collier (1997) found that the length of time of formal schooling in an ELL’s L1 can be a very strong predictor of their rate of success for reading in the L2. Thomas and Collier (1997) also found that native English-speaking children on average made ten months’ worth of academic progress in a ten-month school year. On the contrary, an ELL would need to make approximately 15-months’ worth of gain in a ten-month school year to eventually be on grade-level with their English-speaking peers (Thomas & Collier, 1997). They also discovered that children who received at least two to five years of formal schooling in their native language achieved or exceeded the same academic standards as their native English-speaking peers in five to seven years, which they claimed as the minimum number of years needed for an ELL to gain native-like academic proficiency (Thomas & Collier, 1997). As a result, some educational experts strongly believe in bilingual education for ELLs to promote higher success in reading in the long run (Costantino, 1999).

Writing. Just as with reading, research on L2 writing has been influenced and shaped by research in L1 writing (Zainuddin et al., 2002). As claimed by Barkaoui (2007), “Writing is one of the most difficult skills that L2 learners are expected to acquire, requiring the mastery of a variety of linguistic, cognitive, and sociocultural competencies” (p. 35). Barkaoui (2007) also
pointed out that there are three theoretical orientations with which ELLs can learn how to write
to include text-focused, process-focused, and sociocultural, all which focus on different aspects
of L2 writing competencies.

A text-focused orientation focuses on the text features needed to successfully
communicate dependent on the overall purpose, or organization, of the text (Barkaoui, 2007).
For example, an author’s purpose could involve a variety of motives to include description,
narration, expression, or persuasion (Barkaoui, 2007). Each purpose of writing could require
varied vocabulary, sentence structures, grammar, discourse, and conventions unique to the
purpose and necessary to communicate it effectively.

A process-oriented approach to writing focuses on the writing process itself (Cumming,
2001). According to Cumming (2001), L2 writing skills outlined in the writing process are
broken down into both macro and micro strategies. Macro strategies include the planning,
drafting, and revising steps of the writing process, while micro strategies include skills such as
word-choice, grammar, content, and form (Cumming, 2001).

A sociocultural methodology of writing requires L2 learners to communicate effectively
based on cultural settings, with a focus on the context and the audience (Barkaoui, 2007). An
author requires different skill sets to customize a message for social, professional, and academic
contexts, and the same is true for whom the written message is intended (Barkaoui, 2007).
Therefore, a proficient L2 writer would need to master the art of negotiating meaning and
formulating their writing to cater to the expectations of the L2 community (Barkaoui, 2007).

Because writing is such a complex process where competence in the skill necessitates an
understanding of writing and all of its associated behaviors outlined by the three different
theoretical orientations, there are often many difficulties for ELLs when learning to write
effectively. One difficulty ELLs may have lies in the difference between their L1 and L2 orthographic systems. Orthographic processing “involves the visual look of a word or string of letters; you might depend in part on orthography to quickly know that ‘cat’ is a real word while ‘cta’ is not” (Dartmouth College Department of Education, n.d., para. 2). As mentioned by Zainuddin et al. (2002), writing systems differ greatly in terms of the symbols they utilize as well as their concepts of print.

For example, the Chinese language uses a logographic system in which each character represents a word. Although any student of Chinese language must be able to recognize an enormous number of symbols…it is not necessary for Chinese speakers to pronounce the word in order to read the written language. Contrarily, English readers rely on graphophonic cues (the letter-sound relationships of language often referred to as decoding or “sounding out” (Manitoba, n.d.)) in addition to context, to distinguish between nouns and verbs, compound words and adjective-noun phrases, and homonyms. (p. 262)

Therefore, it is often extremely difficult for ELLs to interpret the complex structures of English depending on how similar or dissimilar their L1 is to English.

There are also cultural aspects related to an ELL’s L1 that can influence how individuals from different cultures choose to write. Typically, English is considered to have a linear written structure with an introduction, body, and conclusion. However, “Different cultural thought patterns reveal writers’ preferences for organizing written texts in different languages, their views and values about writing” (Zainuddin et al., 2002, p. 298). For example, in consonance with Zainuddin et al., writers of Thai and Arabic languages have a contrasting organizational pattern of writing compared to English, where their cultures allow for more deviations from the
main idea, repetitions, and use of narrative structures which would be considered unsuitable to academic writing in English.

As claimed by Farooq, Uzair-Ul-Hassan, and Wahid (2012), the English language contains many irregularities with regards to spelling, grammar, and vocabulary, which can make coherent compositions difficult for ELLs to attain. Additionally, due to the sociocultural aspect of writing, an ELL’s L1 and its sociocultural norms for writing can be vastly different from English (Farooq et al., 2012). When an ELL’s L1 and L2 language system differ greatly, it can often hinder the learning process of writing successfully in English (Farooq et al., 2012).

**Listening.** According to Zainuddin et al. (2002), “Listening is the ability to identify and understand what others are saying. An able listener is capable of simultaneously understanding a speaker’s accent or pronunciation, grammar and vocabulary, and grasping meaning” (p. 174). Therefore, listening is a complex process that involves the listener, the speaker, and the content of the message. In addition, listeners must also pay attention to any visual support, such as body language and facial expressions, which might accompany the message to determine meaning (Flowerdew & Miller, 2005).

Contrary to popular belief, listening is not a passive skill. Listening is an active skill where many steps “can occur simultaneously, sequentially, in rapid succession, or move backward and forward as needed” (Zainuddin et al., 2002). As stated by Vandergrift (2002), there are two distinct processes involved in listening comprehension. One type of processing is referred to as the ‘top-down’ processing, where a listener uses context and prior knowledge of the topic and their sociocultural background to match speech with what they already know to extract meaning (Vandergrift, 2002). This type of processing is useful for getting the gist of information (Vandergrift, 2002). The other type of processing, ‘bottom up’ processing, involves
taking familiarity of sounds, words, grammatical relationships, and linguistic knowledge to comprehend messages. This type of processing is useful for listening for specific information (Vandergrift, 2002).

Just as with reading, certain strategies for listening are best utilized according to the purpose of the task (Vandergrift, 2002). Two main tasks, with regard to listening, are interactional and transactional purposes. With an interactional purpose for listening, the task becomes socially motivated with an expectation for a contextualized, two-way interaction between the speaker and the listener (Vandergrift, 2002). On the contrary, a transactional purpose for listening simply involves taking in information without an opportunity to interact or seek clarification. Knowing the purpose for listening is important for ELLs to determine how focused they need to be on the input.

As listening skills are complex, yet crucial, to the language acquisition process, research points to the benefit of allowing beginner ELLs to go through a silent period. During a silent period, learners are given the opportunity to intake information without being expected to produce speech in return (Foppoli, n.d.). In keeping with Foppoli (n.d.), the silent period can be long or short depending on each individual learner’s readiness for speech production.

Speaking. As previously noted, ELLs can come from a variety of backgrounds and have an assortment of experiences both in their L1 and L2. Some ELLs may come from homes that have provided them with a rich oral language environment while others do not. According to Zainuddin et al. (2002), a firm background in the L1 can be a strong indicator of eventual success in learning L2. Table 4 describes the oral language proficiency stages through which most ELLs show progression.
Table 4

*Language Proficiency Stages*

<table>
<thead>
<tr>
<th>Stage</th>
<th>The student…</th>
<th>Time Frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preproduction</td>
<td>Has minimal comprehension</td>
<td>0 - 6 months</td>
</tr>
<tr>
<td></td>
<td>Does not verbalize</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nods “yes” and “no”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Draws and points</td>
<td></td>
</tr>
<tr>
<td>Early Production</td>
<td>Has limited comprehension</td>
<td>6 months - 1 year</td>
</tr>
<tr>
<td></td>
<td>Produces one- or two-word responses</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses key words in familiar phrases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uses present-tense verbs</td>
<td></td>
</tr>
<tr>
<td>Speech Emergency</td>
<td>Has good comprehension</td>
<td>1 - 3 years</td>
</tr>
<tr>
<td></td>
<td>Can produce simple sentences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Makes grammar and pronunciation errors</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frequently misunderstands jokes</td>
<td></td>
</tr>
<tr>
<td>Intermediate Fluency</td>
<td>Has excellent comprehension</td>
<td>3 - 5 years</td>
</tr>
<tr>
<td></td>
<td>Makes few grammatical errors</td>
<td></td>
</tr>
<tr>
<td>Advanced Fluency</td>
<td>Has near-native level of speech</td>
<td>5 - 7 years</td>
</tr>
</tbody>
</table>

*Note: Adapted from Classroom instruction that works with English language learners, by J.D. Hill and C.J. Bjork, 2008.*

As claimed by Zianuddin et al. (2002), learning to speak a second language is more difficult than learning to understand a second language. Because more effort is required on the part of the student, the speaking process as a whole necessitates a greater period of time to develop and is more demanding of the students’ energies than listening comprehension (Zianuddin et al., 2002). Speaking is especially difficult for ELLs because their models, native English speakers, do not produce perfectly formed sentences unless they are formally addressing
a public audience (Zainuddin et al., 2002). Therefore, ELLs run the risk of learning English incorrectly. On the contrary, if an ELL has primarily observed formal presentations as a model for acquiring English, they may simulate that perfect English when it is not appropriate, such as in casual conversation (Zainuddin et al., 2002).

It has been evident that all four of the English language domains require specific linguistic and cultural knowledge from the learner. Therefore, it is essential that ELLs receive proper instruction in order to obtain fluency in all four language domains. Although the law requires this instruction to be provided by a highly-qualified ESOL teacher, service models for ESOL programs may differ.

**Age to begin ESOL instruction**

A debate exists over when to begin ESOL instruction. In accordance with Baker et al., (2008), researchers of age-related language acquisition have hypothesized a critical learning period for SLA. Essentially, a CP is a designated age for which learning an L2 is ideal. If the L2 is introduced during the CP, native-like proficiency can be reached with ease, or without the need for explicit instruction. If the L2 is introduced after the CP, it is thought to be much more difficult to acquire (Baker et al., 2008). Research about age-related differences in SLA has provided a number of theoretical models using explanations that are largely biologically-based and cognitively-based.

**Biological explanations for a CP of SLA.** Lenneberg (1967) proposed that a CP of language acquisition was due to cerebral lateralization (the process by which the two hemispheres of the brain increasingly specialize in particular functions where the left hemisphere is responsible for language) and supported this hypothesis from evidence of the effects of early brain damage on language acquisition. Lenneberg (1967) found that children who had an injured
left hemisphere of the brain could completely transfer language functions to the right hemisphere, whereas individuals who were post-puberty could not. Lenneberg (1967) concluded that there was a link between lack of plasticity of the brain to time limitations for language learning.

Since Lenneberg’s research mostly pertained to L1 acquisition, there has been research in SLA that supports this biologically-based CPH. According to Tao (1998), researchers such as Patkowski, Oyama, Johnson, and Newport have proposed a sensitive period hypothesis where “Changes in sensitivity for language acquisition show gradual increases and declines, instead of an absolute and abrupt onset and offset” (p. 2). The general consensus among researchers for sensitive periods for native-like L2 proficiency is age six for pronunciation, and age 15 for morphology and syntax (Tao, 1998). Regardless of the proposed timetable, proponents of the sensitive period hypothesis recognize that while the capacity for language learning declines with age and that native-like proficiency is not guaranteed after the age limits have passed, language learning is still possible after the sensitive periods outlined above.

**Cognitive explanations for a CP of SLA.** Brown (1980) brought out a cognitive component to the CPH, which he calls the optimal distance model. He pointed out that if SLA is occurring within the L2’s culture, it might be possible to explain a CP by including socio-cultural factors (Brown, 1980). There are four aspects of the optimal distance model to include: acculturation, anomie, social distances, and perceived social distance (Brown, 1980). Acculturation refers to the process people face while adjusting and assimilating to a new culture, while anomie is feelings of uncertainty or dissatisfaction as a result of learning an L2 and being exposed to the L2’s culture (Brown, 1980). Social distances are the differences between the L1 and the L2 culture, and perceived social distance is how the learner perceives a cultural
environment (Brown, 1980). Of these four aspects, the acculturation aspect contains critical stages in which language learning can achieve a prime level (Brown, 1980).

According to Brown (1980), there are four stages of acculturation. The first stage is a period of excitement and euphoria when introduced to the new environment (Brown, 1980). The second stage, referred to as culture shock, is when a person becomes aware of and threatened by the cultural differences, may feel frustrated, estranged, and homesick, and often seeks out other individuals from their home culture on which they can rely (Brown, 1980). The third stage, gradual recovery, is when a person begins to appreciate some of the differences between the L1 and L2 cultures and solves some of the problems associated with culture shock (Brown, 1980). The fourth and final stage of acculturation is assimilation or adaptation, where a person begins to fully recover from the effects of culture shock and builds self-confidence in the L2 culture.

Although every L2 learner, no matter their age, goes through acculturation, Brown (1980) claimed that the beginning of the third stage in the acculturation process is when adults and children have the best chance in becoming fluent in the L2. However, since many children’s L1 culture is not as fully engrained in their being as it is for adults, and since children do not have perspective filters like adults do, they can negotiate their way through the acculturation process more quickly than adults (Brown, 1980). As a result, they are able to reach L2 proficiency perfunctorily (Brown, 1980).

While there have been many efforts to repudiate the CP, there has also been difficulty finding consensus among researchers as to when the CP commences and discontinues. Scovel (2000) noted that not only are there discrepancies among researchers on which age spans they use to categorize their subjects for their studies, but there may also be several CPs at different age levels for each of the language domains. As a result, there is a wide range of estimated CPs.
that have been presented by various researchers ranging from ages two to puberty, with some researchers rejecting the notion of a CP altogether (Baker et al., 2008).

**Variables that Could Affect L2 Learning**

The debate over a CP for learning an L2 led researchers to question the extent to which a CP affected SLA over other factors. Researchers began to inquire whether or not linguistic differences could simply reflect a maturational phenomenon. Therefore, researchers have also investigated individual variables that could affect SLA such as age, SES, L1, and environment.

**Age.** Aside from the presence of a CP, researchers have identified other facets of age which may have an effect on SLA. On one end of the spectrum, Jia and Fuse (2007) argued, “In the immigration setting, early arrivals are exposed to a significantly richer L2 environment than late arrivals, in both quantity and quality. Such systematic environmental differences lead to higher levels of L2 attainment by early arrivals in the long run” (p. 1281). On the other end of the spectrum, Baker et al. (2008) suggested that increased age could have a positive impact on language acquisition due to educational attainment. Baker et al. cited that ELLs with more schooling may have acquired learning skills in school to help them with SLA and are expected to be more adept in the L2 due to that inherently higher level of ability for learning.

An additional influence age can have on SLA involves the consequences of L1 transfer. Jia and Fuse (2007) argued that the older an L2 learner is, the more likely their L1 will transfer to the L2. Jia and Fuse (2007) supported this with the reasoning that since late arrivals use their L1 for longer than early arrivals, late arrivals may experience stronger transfer from their L1 to their L2 that will interfere with some aspects of their L2 acquisition. In some cases, this transfer can be a benefit to L2 learners. For example, in a study by Kelley and Kohnert (2012), 30 eight- to 13-year-old native Spanish-speaking children learning English as their L2 completed
standardized vocabulary tests in spoken English. Each test item was classified as a cognate (words that share form and meaning in two languages e.g., adult-adulto) or a non-cognate based on the overlap with its Spanish translation (Kelley & Kohnert, 2012). While children’s test scores were higher for items that were classified as cognates as compared to non-cognates, age also proved to be a significant factor in performance on the assessment (Kelley & Kohnert, 2012). In this study, age accounted for 26% of the variance in participants’ performance showing that older children were far more likely to benefit from L1 transfer than younger children. Kelley and Kohnert (2012) found when children and adults learn an L2, they may translate, convert, or encode new words in the L2 from many concepts or words that they already know in their L1.

**Socio-economic status (SES).** Research indicates poverty can be a key predictor of school success. As claimed by the National Center for Children in Poverty (2007), data strongly suggests that children from non-English-speaking homes are more likely to have a lower SES than their English-speaking peers. In 2006, 39% of ELL children lived in low SES families. 61% of those children were Latino, and 57% were children of immigrant parents (National Center for Children in Poverty, 2007). Therefore, not only does the ELL population have linguistic and cultural factors to overcome when learning English as an L2, many of them have to overcome the environmental factors associated with low SES as well.

Early academic skills are correlated with the home environment, where low-literacy environments and the factors associated with low SES can negatively affect a child’s pre-academic skills (Aikens & Barbarin, 2008). Compared to a home of a higher SES, parents and guardians with a low SES may be unable to afford resources such as books, computers, or tutors to support a positive literacy environment at home (Ballantyne et al., 2008). Additionally,
anecdotal evidence suggested that in households where one or both parents do not speak English, parents are less likely to read to their children due to the fear that reading to the child in their L1 will hinder their English acquisition, which is quite the contrary (Ballantyne et al., 2008). Aikens and Barbarin (2008) also pointed out that children’s initial reading competence could be related to the home environment. This negative impact could continue to effect early learners throughout their school career (Aikens & Barbarin, 2008). Specifically, Morgan, Farkas, Hillemeir, and Maczuga (2009), argued that children from low SES homes and communities develop academic skills slower than children from higher SES groups.

Palardy (2008) used large-scale survey data and a multiple group, multilevel growth curve model to assess different school effects between low, middle, and high SES public schools. Not only did the results indicate that learning differed across all three subpopulations, but that students’ learning in low SES schools was far more sensitive to school factors than students’ learning in middle or high SES schools (Palardy, 2008). Even after student background characteristics and other school inputs were controlled, the research still indicated that students’ learning in low SES schools continued at a significantly lower rate than the other two subpopulations (Palardy, 2008). Specifically, students from low SES schools entered high school 3.3 grade levels behind students from higher SES groups (Palardy, 2008). Once in high school, the economically disadvantaged students learned less over four years than children from higher SES groups, graduating 4.3 grade levels behind those with a higher SES (Palardy, 2008).

**First language.** While all ELLs face a similar challenge with having to learn an L2, a student’s L1 could have an effect on the level of difficulty associated with language acquisition as well. One variable that may determine the complexity of how ELLs organize their linguistic systems is the degree of similarity between the L1 and the L2, or cross-language similarity
According to Baker and Trofimovich (2005), the more similar L2 sounds are to L1 sounds, the more likely the L1 will influence the L2.

Zainuddin et al. (2002) stated that language transfer effects may cause difficulty for ELLs. For example, the transfer of L1 syntax, grammar, and false cognates into the L2 can produce interferences in L2 vocabulary identification and comprehension (Zainuddin et al. 2002). Zainuddin et al. defined false cognates as words that look and sound similar, but are, in fact, very different in meaning. For instance, the Spanish word, “embarazada” looks and sounds similar to the English word, “embarrassed”. However, “embarazada” actually means “pregnant” in Spanish. This is just one example of numerous false cognates that could cause communication errors with an L2 learner.

While the misinterpretation of linguistic similarities can cause issues for ELLs, the same can be true for linguistic dissimilarities. According to Zainuddin et al. (2002), some ELLs experience difficulty in producing sounds that are not present in their native language. For example, the /th/ and /sh/ phonemes are not present in the Spanish language, and are often very difficult for Spanish-speaking ELLs to learn to pronounce in English (Zainuddin et al., 2002). Similarly, the rolling r sound in Spanish does not exist in the English language, and is often very difficult for native English speakers to pronounce (Zainudin et al., 2002).

Flege (1999) termed the interaction hypothesis, which illuminated the relationship between age and SLA. Fledge (1999) claimed that an ELL’s L1 and L2 are less likely to interact, or influence each other, in younger students than in older students due to the degree in which the L1 is established. Hazan and Barret (2000) clarified this hypothesis by explaining that the older a student is, the higher the likelihood is that their L1 is more firmly established if not fully developed. Therefore, the more developed an ELL’s L1 is, the more likely it is to influence
their L2 (Hazan & Barret, 2000). Contrarily, the younger an ELL is, the less likely their L1 will influence their L2 since their L1 is still developing (Hazan & Barret, 2000).

**Language environment.** Vygotsky (1978), a Russian psychologist and a leading developmental theorist, stressed the social nature of language and learning and how it is through interaction that children will learn to acquire the skills necessary to be proficient in the English language. Krashen (1981) agreed with Vygotsky’s claim and investigated it further by distinguishing between language acquisition (acquiring language through a subconscious process, much like the way a L1 is learned, where the learner is unaware of grammatical rules) and language learning (the result of direct instruction in the rules of language). Krashen believed that when a learner acquires a language, he/she will attain fluency in the language, whereas a learner who learns a language may not attain the same level of fluency.

Zainuddin et al. (2002) advocated that children in many literate societies attain literacy skills well before learning them when entering school. Zainuddin et al. (2002) stated: This evidence strongly suggests that children are exposed to language and literacy functions they see used around them through environmental print and in the form of magazines, billboards, food labels, road signs, television ads, and different uses of literacy at home. (p. 310)

Ballantyne et al. (2008) indicated that adults in a young ELL’s environment can help them attain proficiency and raise their thinking to higher levels by discussing and interacting with them, extending their responses, and providing knowledge of the world with which they can relate. Similarly, the number of hours of TV children watch in the L2, the number of books they read in the L2, the number of friends they had who predominantly spoke the L2, and the percentage of
time they spoke the L2 at home were all environmental factors that could have an effect on SLA (Jia & Fuse, 2007).

Summary

This literature review served two major purposes. The first purpose was to present a deep understanding of the background of ESOL programs. The second purpose was to formulate a direction for which the study focused on the relationship between an ELL’s age, SES, L1, environment, and English language proficiency. The review presented the history of an increasing ELL population, motivating factors for the growing number of immigrants into the U.S. and a general summary of the diversity found in public schools as a result. Legal policies were discussed as well as the processes for how ELLs are identified into, educated within, and exited from ESOL programs nation-wide and within the state of Kansas. As SLA is a complex process, each language domain was defined and described in this chapter in addition to the variety of instructional models for teaching ELLs. The research was presented to analyze the vast number of perspectives on factors that can impact SLA. Chapter three presents the methodology used in this study and identifies the population and sample, sampling procedures, measurement, data collection procedures, data analysis and hypothesis testing, and limitations.
Chapter Three

Methods

The purpose of this study was to determine to what extent there is a difference in first grade KELPA scores for the domains of reading, writing, listening and speaking among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten. Additionally, data were collected and analyzed for the purpose of determining to what extent the KELPA scores within each group were affected by student SES and by student L1.

Chapter three includes the design of the study and the process used to address the research questions posed in chapter one. This chapter also includes a description of the population, sample, and sampling procedures. Following the description is a discussion on instrumentation, details of data collection procedures, an explanation of data analysis and hypothesis testing, and the limitations of the study.

Research Design

The researcher utilized a quasi-experimental quantitative research design using archived data from the 2011-2012, 2012-2013, and 2013-2014 school years in two Kansas school districts: District X and District Y. The dependent variable was ELLs’ KELPA scores in each of the language domains: reading, writing, listening, and speaking. The independent variables were the grade level in which students began ESOL instruction (preschool or full-day kindergarten), student SES (low SES or non-low SES) and student L1 (Spanish or other).

Population and Sample

The population for the study included first grade ELLs in two public school districts in Kansas: District X and District Y. ELLs in District X received direct ESOL instruction while
attending an at-risk preschool for three and four-year-olds and continued receiving this specialized instruction throughout kindergarten and first grade (G. A., personal communication, November 13, 2013). ELLs in District Y received direct ESOL instruction starting in full-day kindergarten and continued this specialized instruction throughout first grade (N. A., personal communication, August 4, 2014).

**Sampling Procedures**

Purposive sampling was used in this study. Lunenburg and Irby (2008) validated such a sampling method in research when “clear criteria provide a basis for describing and defending” (p. 175) the sample. Students from both districts were selected for inclusion in the sample because they included public, non-charter schools in the state of Kansas, had a first grade ELL population, and have reported KELPA data for the 2011-2012, 2012-2013, and 2013-2014 school years. Students from the included school districts were also selected based on the grade level in which direct ESOL instruction began: preschool or full-day kindergarten.

**Instrumentation**

The dependent variables analyzed for this study were measured using archived district data from the KELPA. The KELPA is a state assessment developed by the Center for Educational Testing and Evaluation (CETE) by the University of Kansas. The assessment is used to determine students’ English language proficiency in all four domains of language: reading, writing, listening, and speaking. The KELPA is the only required assessment used to test ELLs’ English language proficiency in the state of Kansas, and is used consistently across both school districts in this study (KSDE, 2007).
The KSDE administers the KELPA annually during a mid-February to end of April testing window to all ELLs. Test items were based on, and intended to measure student progress in learning the Kansas State Standards for ESOL instruction. The paper-pencil-only assessments were developed to measure the English language proficiency of ELLs as part of the No Child Left Behind federal mandate. All Kansas ELL students, grades K-12, were assessed in each of four domain areas: Reading, Writing, Listening, and Speaking. Five levels of the KELPA were developed with each level appropriate for the assessment of students within specific grade level ranges: grades K-1, 2-3, 4-5, 6-8, and 9-12. (CETE, 2007, para. 1)

Each language domain was administered individually, assessed and scored separately, and included any of three types of tests items: multiple-choice items, constructed-response items, and performance events including writing and speaking prompts evaluated by local scorers using a rubric (Peyton et al., 2009). Table 5 details the percentage correct cut-scores used to measure English proficiency in each of the four domains: reading, writing, listening, and speaking.

Table 5

<table>
<thead>
<tr>
<th>Domain</th>
<th>Beginning</th>
<th>Intermediate</th>
<th>Advanced</th>
<th>Fluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>0-64</td>
<td>65-84</td>
<td>85-94</td>
<td>95-100</td>
</tr>
<tr>
<td>Writing</td>
<td>0-59</td>
<td>60-81</td>
<td>82-94</td>
<td>95-100</td>
</tr>
<tr>
<td>Listening</td>
<td>0-55</td>
<td>56-77</td>
<td>78-90</td>
<td>91-100</td>
</tr>
<tr>
<td>Speaking</td>
<td>0-45</td>
<td>46-70</td>
<td>71-88</td>
<td>89-100</td>
</tr>
</tbody>
</table>

*Note. Adapted from the Kansas English Language Proficiency Assessment (KELPA) score report guide, by The University of Kansas Center for Educational Testing and Evaluation, 2007.*
Cut-scores for the KELPA are also the scores used to classify students into the performance-level categories of Beginning, Intermediate, Advanced, and Fluent. According to CETE (2007),

Cut-scores for each of the four domains and the total score were determined by KSDE based on information gathered using school-based content experts’ item judgments, teacher ratings of student classroom performance, student performance on the state’s general assessment tests, and the recommendations of teachers, curriculum directors, and principals reviewing these data. ("Proficiency Classification Categories," para. 2)

The level categories are also equated to a numerical score. Students classified as Beginning (scored as 1) may have extremely limited ability in understanding the English language or may often mispronounce or misspell words. Students classified as Intermediate (scored as 2) may be able to understand most informal language and information on familiar topics. They can read with some fluency, but often need to reread to clarify. Students classified as Advanced (scored as 3) speak and write in English in formal and informal situations, and can read and understand information. Students classified as Fluent (scored as 4) can participate in academic settings without language support services. They should be able to understand and participate in formal and informal conversations with fluency, and should be able to read and write with fluency as well (KSDE, 2007, para. 1). After consultation with the KSDE, CETE decided to allow for differential weightings for each of the four domains in the calculation of the total score for all grade levels (CETE, 2007). In forming the composite total score for the first grade KELPA exam, reading accounted for 20%, writing accounted for 20%, listening accounted for 30%, and speaking accounted for 30% of the total score.
KELPA scores are used to both requalify a student as an ELL to remain eligible to receive ESOL services as well as to exit ELLs from the program. The state criteria to exit a student from an ESOL program is, “The KELPA determines that the student scored ‘fluent’ in all language domains: listening, speaking, reading, and writing and ‘fluent’ on the composite for TWO CONSECUTIVE administrations of the test” (KSDE, 2013a, p. 2). By these criteria, the earliest a student who began ESOL instruction in kindergarten would be able to exit the ESOL program because of scoring fluent on the KELPA would be at the end of their first grade year.

**Measurement.** As indicated in Table 5, percentage correct cut-scores from the KELPA were analyzed and served as the dependent variables in this study to measure English language proficiency of first grade ELLs in the domains of reading, writing, listening, and speaking. The independent variables in this study were the grade level in which direct ESOL instruction began, student SES, and student L1. The two grade levels in which direct ESOL instruction began were preschool and full-day kindergarten. The researcher was able to categorize students for this variable based on the district in which they were enrolled. The researcher collapsed study participants from different SES into two categories: low SES and non-low SES. Student SES was defined by the Income Eligibility Guidelines (IEG), which are used to determine eligibility for free and reduced price meals or free milk. Therefore, participants who qualified for the statewide free or reduced meal program were categorized as low SES; all other study participants were categorized as non-low SES. Study participants from different L1 backgrounds were collapsed into two categories: Spanish and other due to the wide array of student L1s (see Appendix G). In addition, both districts contained a student L1 category of English with other language. Due to the variability of this category, the researcher removed this as an L1 category. (see Appendix H).
Validity and reliability. Lunenburg and Irby (2008) defined validity as “the degree to which an instrument measures what it purports to measure” (p. 181). According to Peyton, Kingston, Skorupski, Glasnapp, and Poggio (2009), the primary evidence for the validity of the KELPA lies in the processes used to develop and design the assessments. By aligning the test items with the learning objectives outlined in the Kansas Curricular Standards for ESOL, the KELPA has achieved validity in that it measures what it purports to measure (Peyton et al., 2009). As Peyton et al. (2009) noted, not only was the KELPA developed to measure the Kansas ESOL standards, but that the ESOL standards are also aligned to Kansas’ state reading and writing standards, and linked to the language of Kansas’ state science and mathematics standards as well. One method of evaluating the validity of KELPA scores was to “correlate the KELPA domain and total composite scores with Reading scores from the Kansas General Assessments” (Peyton et al., 2009, p. 130). Table 6 provides the correlations between student scores on the KELPA and scores on the state’s general reading assessment. According to Peyton et al. (2009), these correlations are moderate to strong in strength and magnitude. Additionally, they were found to remain across years of test administration.
### Table 6

**Correlations between the General Reading Assessment Scores and the KELPA Domain and Total Composite Scores for Administration Year 2008**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Reading</th>
<th>Writing</th>
<th>Listening</th>
<th>Speaking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd <em>(N = 3373)</em></td>
<td>0.63</td>
<td>0.55</td>
<td>0.45</td>
<td>0.22</td>
<td>0.64</td>
</tr>
<tr>
<td>4th <em>(N = 3156)</em></td>
<td>0.66</td>
<td>0.57</td>
<td>0.52</td>
<td>0.34</td>
<td>0.69</td>
</tr>
<tr>
<td>5th <em>(N = 2625)</em></td>
<td>0.63</td>
<td>0.52</td>
<td>0.49</td>
<td>0.33</td>
<td>0.65</td>
</tr>
<tr>
<td>6th <em>(N = 2321)</em></td>
<td>0.65</td>
<td>0.55</td>
<td>0.54</td>
<td>0.30</td>
<td>0.68</td>
</tr>
<tr>
<td>7th <em>(N = 1893)</em></td>
<td>0.69</td>
<td>0.58</td>
<td>0.59</td>
<td>0.35</td>
<td>0.72</td>
</tr>
<tr>
<td>8th <em>(N = 1502)</em></td>
<td>0.63</td>
<td>0.58</td>
<td>0.58</td>
<td>0.37</td>
<td>0.68</td>
</tr>
</tbody>
</table>

*Note. Adapted from the *Kansas English Language Proficiency Assessment (KELPA) technical manual*, by V. Peyton, N. M. Kingston, W. Skorupski, D. R. Glasnapp, and J. P. Poggio, 2009.*

An additional method for creating validity for the KELPA would be to establish a correlation between the KELPA and other commercially available English language proficiency assessments such as the Language Assessment Scale (LAS) and the Individuals with Disabilities Education Act (IDEA) Placement Test (IPT). At the time of this study, Peyton et al. (2009) indicated that these correlations would be investigated in the future. However, the results were not yet available at the time of this study.

Lunenburg and Irby (2008) defined reliability as “the degree to which an instrument consistently measures whatever it is measuring” (p. 182). One method utilized to document the reliability evidence of KELPA scores was to show the correlations among KELPA domain scores and total composite scores. Peyton et al. (2009) illustrated the relationship that each KELPA domain score had with the other three domain scores as well as with the total composite score. The disattenuated and attenuated Pearson product-moment correlations are presented in
Table 7. These demonstrate the relationship that each KELPA domain score has with the remaining three domain scores for the first grade KELPA assessments.

Table 7

*Intercorrelations among the KELPA Domains and Total Composite Scores for First Grade in Administration Year 2008 (N = 4,195)*

<table>
<thead>
<tr>
<th></th>
<th>Reading</th>
<th>Writing</th>
<th>Listening</th>
<th>Speaking</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>0.888</td>
<td>0.756</td>
<td>0.532</td>
<td>0.473</td>
<td>0.835</td>
</tr>
<tr>
<td>Writing</td>
<td>0.920</td>
<td>0.760</td>
<td>0.538</td>
<td>0.480</td>
<td>0.838</td>
</tr>
<tr>
<td>Listening</td>
<td>0.717</td>
<td>0.783</td>
<td>0.621</td>
<td>0.499</td>
<td>0.773</td>
</tr>
<tr>
<td>Speaking</td>
<td>0.533</td>
<td>0.585</td>
<td>0.672</td>
<td>0.888</td>
<td>0.794</td>
</tr>
</tbody>
</table>

*Note.* Adapted from the *Kansas English Language Proficiency Assessment (KELPA) technical manual*, by V. Peyton, N. M. Kingston, W. Skorupski, D. R. Glasnapp, and J. P. Poggio, 2009.

According to Peyton et al. (2009),

> The pattern and magnitude of the relationship among domains is consistent: the Reading and Writing domain scores are strongly correlated,…the Reading and Writing domain scores are moderately related to the Listening domain scores,…and, although still moderate in strength and consistent, the Reading, Writing and Listening domain scores are the least associated with the scores on the Speaking domain…This illustrates that the domain scores do share common variability but also uniquely measure the construct in which they were designed to measure. (p. 123)

**Data Collection Procedures**

Prior to collecting data, the researcher submitted a request to District X and District Y for the data needed to complete the study. The requests were granted in writing, and permission was given from District X on January 6, 2015 and from District Y on January 13, 2015 (see
Appendices C and D). In addition, a proposal for research was submitted to the Baker University Institutional Review Board (IRB) (see Appendix E). The IRB granted permission to the researcher in writing on January 5, 2015 (see Appendix F), and data collection began.

All data included in the sample were obtained from District X’s and District Y’s Assessment and Research departments. First grade ELL student achievement data in the form of KELPA scores were downloaded for each individual school from CETE as a spreadsheet for the 2011-2012, 2012-2013, and 2013-2014 school years. The spreadsheets were sorted according to grade level in which direct ESOL instruction began, which was based on the district. Student names were coded as a number by each district. Student SES and L1 were obtained by downloading student demographic information for each ELL student on each districts’ student information program. The researcher combined all data into a final Microsoft Excel spreadsheet for all variables in the study and removed student, school, and district names to protect the anonymity of the children.

Data Analysis and Hypothesis Testing

The researcher used archived quantitative data in this study. The data were compiled and organized into a Microsoft Excel worksheet and imported into the latest version of the IBM® SPSS® Statistics Faculty Pack 22 for Windows. The data were used to answer the research questions described in chapter one. Twelve hypotheses were tested for statistically significant differences among KELPA scores in reading, writing, listening, and speaking as affected by student SES and student L1.

RQ1. To what extent is there a difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?
**H1.** There is a difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A two-factor analysis of variance (ANOVA) was conducted to test H1. The two categorical variables used to group the dependent variable, KELPA reading scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H1. The level of significance was set at .05.

**RQ2.** To what extent is the difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

**H2.** The difference in first grade KELPA reading scores is affected by student SES.

The first two-factor analysis of variance (ANOVA) was also conducted to test H2. The two categorical variables used to group the dependent variable, KELPA reading scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H2. The level of significance was set at .05.
RQ3. To what extent is the difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

H3. The difference in first grade KELPA reading scores is affected by student L1.

A second two-factor analysis of variance (ANOVA) was conducted to test H3. The two categorical variables used to group the dependent variable, KELPA reading scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H3. The level of significance was set at .05.

RQ4. To what extent is there a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

H4. There is a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A third two-factor analysis of variance (ANOVA) was conducted to test H4. The two categorical variables used to group the dependent variable, KELPA writing scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a
main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H4. The level of significance was set at .05.

**RQ5.** To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

**H5.** The difference in first grade KELPA writing scores is affected by student SES.

The third two-factor analysis of variance (ANOVA) was also conducted to test H5. The two categorical variables used to group the dependent variable, KELPA writing scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H5. The level of significance was set at .05.

**RQ6.** To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H6.** The difference in first grade KELPA writing scores is affected by student L1.

A fourth two-factor analysis of variance (ANOVA) was conducted to test H6. The two categorical variables used to group the dependent variable, KELPA writing scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1).
The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H6. The level of significance was set at .05.

**RQ7.** To what extent is there a difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

**H7.** There is a difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A fifth two-factor analysis of variance (ANOVA) was conducted to test H7. The two categorical variables used to group the dependent variable, KELPA listening scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H7. The level of significance was set at .05.

**RQ8.** To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

**H8.** The difference in first grade KELPA listening scores is affected by student SES.

The fifth two-factor analysis of variance (ANOVA) was also conducted to test H8. The two categorical variables used to group the dependent variable, KELPA listening scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and
student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H8. The level of significance was set at .05.

**RQ9.** To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H9.** The difference in first grade KELPA listening scores is affected by student L1.

A sixth two-factor analysis of variance (ANOVA) was conducted to test H9. The two categorical variables used to group the dependent variable, KELPA listening scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H9. The level of significance was set at .05.

**RQ10.** To what extent is there a difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

**H10.** There is a difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A seventh two-factor analysis of variance (ANOVA) was conducted to test H10. The two categorical variables used to group the dependent variable, KELPA speaking scores, were
the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H10. The level of significance was set at .05.

**RQ11.** To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

**H11.** The difference in first grade KELPA speaking scores is affected by student SES.

The seventh two-factor analysis of variance (ANOVA) was also conducted to test H11. The two categorical variables used to group the dependent variable, KELPA speaking scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H11. The level of significance was set at .05.

**RQ12.** To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H12.** The difference in first grade KELPA speaking scores is affected by student L1.

An eighth two-factor analysis of variance (ANOVA) was conducted to test H12. The two categorical variables used to group the dependent variable, KELPA speaking scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1.
(Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H12. The level of significance was set at .05.

**Limitations**

The limitations of a study are the “factors that may have an effect on the interpretation of the findings or on the generalizability of the results” (Lunenburg & Irby, 2008, p. 133). This study had the following limitations, which were beyond the control of the researcher:

1. The curricular materials and instructional strategies used with students prior to taking the KELPA are unknown and vary from district to district and school to school.

2. The environment in which students completed the KELPA is unknown and varies from district to district and school to school.

3. The length of time each ELL has been in his or her respective ESOL program is unknown. For example, some children could have moved into the district in the middle of the school year, which could have an effect on English language acquisition.

4. If an ELL received ESOL services, the type of support (pullout, bilingual, inclusion) is unknown and can have an effect on English language acquisition.

5. The English Performance Level of each ELL before beginning their ESOL program is unknown and could have an effect on English language acquisition.
6. The language proficiency assessment used to qualify students as ELLs in each school district is unknown. Therefore, the criteria used to qualify a student as an ELL could differ among school districts, which could have an effect on English language acquisition.

7. For ELLs who began attending public schools in kindergarten, it is unknown whether or not they were enrolled in a private preschool which could have an effect on English language acquisition.

8. The amount of exposure to the English language outside of school for each ELL is unknown and could have an effect on English language acquisition.

Summary

This chapter revisited the purpose of the research study and offered a detailed explanation of the process used to address the research questions. A purposive sample of all first grade ELLs in District X and District Y as well as conditions for inclusion in the sample were discussed. Careful examination of the instrument including implications for validity and reliability were also presented. A thorough explanation of the data collection procedures and methods of data analysis were discussed in the chapter. Chapter four presents the results of the data analysis.
Chapter Four

Results

The primary purpose of this study was to determine whether there was a difference in first grade ELL language proficiency in the areas of reading, writing, listening, and speaking, as measured by the KELPA, between students who started receiving direct ESOL instruction in preschool or full-day kindergarten. The researcher examined data from the KELPA administered during the 2011-2012, 2012-2013, and 2013-2014 school years to first grade ELLs in two school districts in the state of Kansas. The researcher also examined if the difference in first grade ELL KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten were affected by student SES and student L1. This chapter contains the twelve research questions, the hypothesis tested to address each research question, the statistical analysis conducted to address each hypothesis, and the hypothesis testing results.

Hypothesis Testing

In this section, hypothesis testing results are reported along with the descriptive statistics associated with each test.

RQ1. To what extent is there a difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

H1. There is a difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.
A two-factor analysis of variance (ANOVA) was conducted to test H1. The two
categorical variables used to group the dependent variable, KELPA reading scores, were the
grade level in which direct ESOL instruction began (preschool or full-day kindergarten)
and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three
hypotheses including a main effect for the grade level in which direct ESOL instruction began, a
main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL
instruction began x student SES). The main effect for grade level in which direct ESOL
instruction began was used to test H1. The level of significance was set at .05. The results of the
analysis indicated there was not a statistically significant difference in the average KELPA
reading scores between ELLs starting direct ESOL instruction in preschool and those starting
direct ESOL instruction in full-day kindergarten, $F = .149$, $df = 1, 296$, $p = .700$. See Table 8
for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 8

<table>
<thead>
<tr>
<th>Grade level</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>87.31</td>
<td>15.05</td>
<td>128</td>
</tr>
<tr>
<td>Preschool</td>
<td>80.48</td>
<td>18.33</td>
<td>172</td>
</tr>
</tbody>
</table>

*Note. Grade level = grade level in which direct ESOL instruction began.*

**RQ2.** To what extent is the difference in first grade KELPA reading scores among ELLs
starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-
day kindergarten affected by student SES?

**H2.** The difference in first grade KELPA reading scores is affected by student SES.

The first two-factor analysis of variance (ANOVA) was also conducted to test H2. The
two categorical variables used to group the dependent variable, KELPA reading scores, were
grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H2. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F = .187$, $df = 1, 296$, $p = .666$. See Table 9 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 9

Descriptive Statistics for the Results of the Test for H2

<table>
<thead>
<tr>
<th>Grade level</th>
<th>SES</th>
<th>M</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Low</td>
<td>90.34</td>
<td>12.42</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>76.97</td>
<td>18.57</td>
<td>29</td>
</tr>
<tr>
<td>Preschool</td>
<td>Low</td>
<td>90.17</td>
<td>9.52</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>80.13</td>
<td>18.49</td>
<td>166</td>
</tr>
</tbody>
</table>

Note. Grade level = grade level in which direct ESOL instruction began.

RQ3. To what extent is the difference in first grade KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

H3. The difference in first grade KELPA reading scores is affected by student L1.

A second two-factor analysis of variance (ANOVA) was conducted to test H3. The two categorical variables used to group the dependent variable, KELPA reading scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1
was used to test H3. The level of significance was set at .05. The results of the analysis indicated there was a statistically significant difference between at least two of the means, $F = 5.046$, $df = 1, 296$, $p = .025$. See Table 10 for the means and standard deviations for this analysis. A follow up post hoc was conducted to determine which pairs of means were different. The Tukey’s Honestly Significant Difference (HSD) critical value was 12.46. The difference between the means had to be greater than this value to be considered significant ($\alpha = .05$). One of the differences was greater than this value. On average, KELPA reading scores for students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other ($M = 89.78$) were higher than KELPA reading scores for students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as Spanish ($M = 76.63$).

Table 10

*Descriptive Statistics for the Results of the Test for H3*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>L1</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Other</td>
<td>89.78</td>
<td>13.06</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>76.63</td>
<td>18.47</td>
<td>24</td>
</tr>
<tr>
<td>Preschool</td>
<td>Other</td>
<td>78.33</td>
<td>15.78</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>80.60</td>
<td>18.49</td>
<td>163</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ4.** To what extent is there a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

**H4.** There is a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.
A third two-factor analysis of variance (ANOVA) was conducted to test H4. The two categorical variables used to group the dependent variable, KELPA writing scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H4. The level of significance was set at .05. The results of the analysis indicated there was a statistically significant difference in the average KELPA writing scores between ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten, $F = 7.978$, $df = 1, 296$, $p = .005$. See Table 11 for the means and standard deviations for this analysis. The average KELPA writing score for students who started direct ESOL instruction in full-day kindergarten ($M = 84.34$) was higher than the average KELPA writing score for students who started direct ESOL instruction in preschool ($M = 76.28$).

Table 11

<table>
<thead>
<tr>
<th>Grade level</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>84.34</td>
<td>16.19</td>
<td>128</td>
</tr>
<tr>
<td>Preschool</td>
<td>76.28</td>
<td>17.91</td>
<td>172</td>
</tr>
</tbody>
</table>

*Note. Grade level = grade level in which direct ESOL instruction began.*

**RQ5.** To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?
**H5.** The difference in first grade KELPA writing scores is affected by student SES.

The third two-factor analysis of variance (ANOVA) was also conducted to test H5. The two categorical variables used to group the dependent variable, KELPA writing scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H5. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F = .886$, $df = 1, 296$, $p = .347$. See Table 12 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 12

*Descriptive Statistics for the Results of the Test for H5*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>SES</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Low</td>
<td>86.21</td>
<td>15.17</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>77.97</td>
<td>18.15</td>
<td>29</td>
</tr>
<tr>
<td>Preschool</td>
<td>Low</td>
<td>77.00</td>
<td>12.28</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>76.26</td>
<td>18.11</td>
<td>166</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ6.** To what extent is the difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H6.** The difference in first grade KELPA writing scores is affected by student L1.

A fourth two-factor analysis of variance (ANOVA) was conducted to test H6. The two categorical variables used to group the dependent variable, KELPA writing scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a
A main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H6. The level of significance was set at .05. The results of the analysis indicated there was a statistically significant difference between at least two of the means, $F = 8.047$, $df = 1, 296$, $p = .005$. See Table 13 for the means and standard deviations for this analysis. A follow up post hoc was conducted to determine which pairs of means were different. The Tukey’s Honestly Significant Difference (HSD) critical value was 12.67. The difference between the means had to be greater than this value to be considered significant ($\alpha = .05$). One of the differences was greater than this value. On average, KELPA writing scores for students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other ($M = 86.09$) were higher than students who started direct ESOL instruction in preschool and whose L1 was categorized as other ($M = 66.33$).

Table 13

Descriptive Statistics for the Results of the Test for H6

<table>
<thead>
<tr>
<th>Grade level</th>
<th>L1</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Other</td>
<td>86.09</td>
<td>15.12</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>76.79</td>
<td>18.72</td>
<td>24</td>
</tr>
<tr>
<td>Preschool</td>
<td>Other</td>
<td>66.33</td>
<td>19.40</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>76.83</td>
<td>17.73</td>
<td>163</td>
</tr>
</tbody>
</table>

*Note. Grade level = grade level in which direct ESOL instruction began.*

RQ7. To what extent is there a difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?
**H7.** There is a difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A fifth two-factor analysis of variance (ANOVA) was conducted to test H7. The two categorical variables used to group the dependent variable, KELPA listening scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H7. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference in the average KELPA listening scores between ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten, $F = .095$, $df = 1, 296$, $p = .759$. See table 14 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

### Table 14

*Descriptive Statistics for the Results of the Test for H7*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>83.21</td>
<td>9.80</td>
<td>128</td>
</tr>
<tr>
<td>Preschool</td>
<td>79.59</td>
<td>11.29</td>
<td>172</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ8.** To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?
**H8.** The difference in first grade KELPA listening scores is affected by student SES.

The fifth two-factor analysis of variance (ANOVA) was also conducted to test H8. The two categorical variables used to group the dependent variable, KELPA listening scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H8. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F = .318$, $df = 1, 296$, $p = .573$. See Table 15 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

### Table 15

*Descriptive Statistics for the Results of the Test for H8*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>SES</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Low</td>
<td>84.48</td>
<td>9.44</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>78.86</td>
<td>9.92</td>
<td>29</td>
</tr>
<tr>
<td>Preschool</td>
<td>Low</td>
<td>82.33</td>
<td>9.42</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>79.49</td>
<td>11.36</td>
<td>166</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ9.** To what extent is the difference in first grade KELPA listening scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H9.** The difference in first grade KELPA listening scores is affected by student L1.

A sixth two-factor analysis of variance (ANOVA) was conducted to test H9. The two categorical variables used to group the dependent variable, KELPA listening scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a
main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H9. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference between at least two of the means, $F = 1.779$, $df = 1, 296$, $p = .183$. See Table 16 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 16

*Descriptive Statistics for the Results of the Test for H9*

<table>
<thead>
<tr>
<th>Grade level</th>
<th>L1</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Other</td>
<td>84.16</td>
<td>9.27</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>79.08</td>
<td>11.14</td>
<td>24</td>
</tr>
<tr>
<td>Preschool</td>
<td>Other</td>
<td>78.89</td>
<td>5.09</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>79.63</td>
<td>11.54</td>
<td>163</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ10.** To what extent is there a difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten?

**H10.** There is a difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

A seventh two-factor analysis of variance (ANOVA) was conducted to test H10. The two categorical variables used to group the dependent variable, KELPA speaking scores, were the grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES and non-low SES). The two-factor ANOVA can be used to test three
hypotheses including a main effect for the grade level in which direct ESOL instruction began, a main effect for student SES, and a two-way interaction effect (grade level in which direct ESOL instruction began x student SES). The main effect for grade level in which direct ESOL instruction began was used to test H10. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant difference in the average KELPA speaking scores between ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten, $F = .706, df = 1, 296, p = .401$. See Table 17 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 17

Descriptive Statistics for the Results of the Test for H10

<table>
<thead>
<tr>
<th>Grade level</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>78.93</td>
<td>15.53</td>
<td>128</td>
</tr>
<tr>
<td>Preschool</td>
<td>69.50</td>
<td>15.25</td>
<td>166</td>
</tr>
</tbody>
</table>

Note. Grade level = grade level in which direct ESOL instruction began.

RQ11. To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student SES?

H11. The difference in first grade KELPA speaking scores is affected by student SES.

The seventh two-factor analysis of variance (ANOVA) was also conducted to test H11. The two categorical variables used to group the dependent variable, KELPA speaking scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student SES (low SES or non-low SES). The interaction effect for grade level in which direct ESOL instruction began by student SES was used to test H11. The level of significance was set at .05. The results of the analysis indicated there was not a statistically significant
difference between at least two of the means, $F = .113$, $df = 1, 296$, $p = .737$. See Table 18 for the means and standard deviations for this analysis. No follow-up post hoc was warranted.

Table 18

Descriptive Statistics for the Results of the Test for $H11$

<table>
<thead>
<tr>
<th>Grade level</th>
<th>SES</th>
<th>$M$</th>
<th>$SD$</th>
<th>$N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Low</td>
<td>80.46</td>
<td>16.09</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>73.69</td>
<td>12.27</td>
<td>29</td>
</tr>
<tr>
<td>Preschool</td>
<td>Low</td>
<td>78.67</td>
<td>15.67</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Non-low</td>
<td>69.50</td>
<td>15.25</td>
<td>166</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**RQ12.** To what extent is the difference in first grade KELPA speaking scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten affected by student L1?

**H12.** The difference in first grade KELPA speaking scores is affected by student L1.

An eighth two-factor analysis of variance (ANOVA) was conducted to test H12. The two categorical variables used to group the dependent variable, KELPA speaking scores, were grade level in which direct ESOL instruction began (preschool or full-day kindergarten) and student L1 (Spanish or other). The two-factor ANOVA can be used to test three hypotheses including a main effect for grade level in which direct ESOL instruction began, a main effect for student L1, and a two-way interaction effect (grade level in which direct ESOL instruction began x student L1). The interaction effect for grade level in which direct ESOL instruction began by student L1 was used to test H12. The level of significance was set at .05. The results of the analysis indicated there was a marginally significant difference between at least two of the means, $F = 2.830$, $df = 1, 296$, $p = .094$. See Table 19 for the means and standard deviations for this analysis. The sample mean for students who began direct ESOL instruction in full-day
kindergarten and whose L1 was categorized as other \((M = 79.77, SD = 15.89)\) was higher than the sample mean for students who began direct ESOL instruction in full-day kindergarten and whose L1 was categorized as Spanish \((M = 75.29, SD = 13.56)\).

Table 19

**Descriptive Statistics for the Results of the Test for H12**

<table>
<thead>
<tr>
<th>Grade level</th>
<th>L1</th>
<th>(M)</th>
<th>(SD)</th>
<th>(N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-day kindergarten</td>
<td>Other</td>
<td>79.77</td>
<td>15.89</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>75.29</td>
<td>13.56</td>
<td>24</td>
</tr>
<tr>
<td>Preschool</td>
<td>Other</td>
<td>64.00</td>
<td>12.08</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Spanish</td>
<td>70.14</td>
<td>15.43</td>
<td>163</td>
</tr>
</tbody>
</table>

*Note.* Grade level = grade level in which direct ESOL instruction began.

**Summary**

Chapter four included a summary of the results of the statistical testing and analysis. Eight two-factor analyses of variance (ANOVA) were conducted for each of the 12 hypotheses and were used to determine whether there was a difference in first grade ELL language proficiency in the areas of reading, writing, listening, and speaking, as measured by the KELPA, between students who started receiving direct ESOL instruction in preschool or full-day kindergarten. The researcher specifically examined the extent to which the difference in KELPA reading, writing, listening, and speaking scores were affected by student SES and student L1.

The result of the analyses revealed statistically significant difference did exist between the average KELPA reading scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten, where students whose L1 was categorized as other scored higher than students whose L1 was categorized as Spanish. There was also a statistically significant difference between the average KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in
full-day kindergarten, where students who started direct ESOL instruction in full-day kindergarten had higher writing scores than the students who started direct ESOL instruction in preschool, and students who started direct ESOL instruction in full-day kindergarten whose L1 was categorized as other had higher writing scores than students who started direct ESOL instruction in preschool and whose L1 was categorized as other. In all other areas a statistically significant difference was not present. Chapter five includes the study summary, overview of the problem, purpose statement, research questions, review of the methodology, major findings, findings related to the literature, conclusions, implications for action, and recommendations for future research.
Chapter Five

Interpretation and Recommendations

As schools in the U.S. are becoming increasingly diverse with the rise in the number of school children who speak languages other than English, ESOL program models and research-based teaching strategies have shown to be important determinants of an ELL’s success (Ballantyne et al., 2008). However, educators and policy makers vary in their theories, as well as varying assertions, about the best age at which to begin ESOL instruction (Zacarian, 2012). The purpose of this study was to determine whether there was a difference in first grade ELL language proficiency scores in the areas of reading, writing, listening, and speaking, as measured by the KELPA, between students who started direct ESOL instruction in preschool and those who started direct ESOL instruction in full-day kindergarten. The researcher also examined how those differences were affected by student SES and student L1. Participants were first grade ELLs at the time of the study. This chapter contains a summary of the study, which includes an overview of the problem, purpose statement, research questions, and a review of the methodology. Furthermore, this chapter presents the major findings of the study and how the findings are related to the literature. Finally, this chapter includes implications for action, recommendations for future research, and concluding remarks.

Study Summary

This study examined whether there was a difference in first grade ELL language proficiency scores in the areas of reading, writing, listening, and speaking, as measured by the KELPA, between students who started direct ESOL instruction in preschool and those who started direct ESOL instruction in full-day kindergarten. In addition, this study examined the
extent to which the difference in KELPA reading, writing, listening, and speaking scores were affected by student SES and student L1.

**Overview of the Problem.** Although ESOL programs are federally funded, the guidelines on how ELLs qualify for the program, are serviced within the program, and exit the program are vague and vary across states and school districts (Zacarian, 2012). Specifically in the state of Kansas, “[ELLs] must be offered ESOL services with an ESOL endorsed teacher. Service types include push-in, dual language, bilingual, ESOL class period, modified instruction, and pull-out. Other types of services may be offered in some districts” (KSDE, 2014e, para. 4). Therefore, individual school districts within the state can design and implement ESOL instruction as they see fit so long as the aforementioned guidelines are followed.

While it is generally accepted that “earlier is better” when it comes to second language acquisition (SLA) (MacLeod & Stoel-Gammon, 2010), a debate exists over when to begin ESOL instruction. In accordance with Baker et al. (2008), researchers of age-related language acquisition have hypothesized a critical learning period for SLA. Essentially, a critical period (CP) is a designated age for which learning an L2 is ideal. If the L2 is introduced during the CP, native-like proficiency can be reached with ease, or without the need for explicit instruction. If the L2 is introduced after the CP, it is thought to be much more difficult to acquire (Baker et al., 2008).

Although a CP for L1 acquisition is widely accepted, when it applies to L2 learning, the critical period hypothesis has been questioned and debated because of the lack of consensus among researchers as to when the CP commences and discontinues. Scovel (2000) noted that not only is there “great variation among researchers on which age spans they use to divide up their subjects, [but] there may [also] be multiple critical periods at varying age levels for different
linguistic modalities” (p. 215). In other words, each domain of language including reading, writing, listening, and speaking, as well as various skill sets within each domain, may have CPs unique to the classification. As a result, there is a wide range of estimated CPs that have been presented by various researchers, ranging from ages two to puberty, with some researchers rejecting the notion of a CP altogether (Baker et al., 2008).

The debate over a specific timeframe for a CP led researchers to question the extent to which a CP affects SLA over other factors and to inquire whether or not linguistic differences could simply reflect a maturational phenomenon. As stated by MacLeod and Stoel-Gammon (2010), a number of factors, such as L1, SES, and environment, have been identified that can be interwoven with age. Untangling age from these factors has been difficult (MacLeod & Stoel-Gammon, 2010).

As previously mentioned, there seems to be a lack of research comparing early childhood L2 learners. Additionally, there appears to be a need to investigate all aspects of English language learning to include reading, writing, listening, and speaking rather than just oral proficiency. Due to identified factors that can be interwoven with age effects on SLA, there is also a need to investigate individual variables that could affect SLA such as SES, and L1.

**Purpose Statement and Research Questions.** The purpose of this study was to contribute to and extend an existing body of research by concentrating primarily on early childhood L2 learners who started direct ESOL instruction in preschool and those who started direct ESOL instruction in full-day kindergarten to determine to what extent there was a difference in first grade KELPA scores. The current study expanded upon previous bodies of research by encompassing all domains of English language learning to include reading, writing, listening, and speaking rather than just speaking. Specifically, the purpose of this study was to
determine to what extent student SES and student L1 affected differences in first grade KELPA scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten.

**Review of the Methodology.** This quantitative study involved two school districts in the state of Kansas. Specifically, the researcher used a quasi-experimental design. The dependent variable was ELLs’ KELPA scores in each of the language domains: reading, writing, listening, and speaking. The three independent variables included when students began ESOL instruction (preschool or full-day kindergarten), student SES (low SES or non-low SES) and student L1 (Spanish or other). Multiple two-factor ANOVAs were conducted to determine whether there were differences in first grade ELL language proficiency scores in the areas of reading, writing, listening, and speaking, as measured by the KELPA, between students who started receiving direct ESOL instruction in preschool and full-day kindergarten and to determine if student SES and student L1 affected the differences.

**Major Findings.** There were statistically significant differences found between students who began direct ESOL instruction in preschool and students who began direct ESOL instruction in full-day kindergarten in three hypotheses. The third hypothesis stated the difference in first grade KELPA reading scores would be affected by student L1. The test results revealed that a statistically significant difference did exist between students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other and students who started direct ESOL instruction full-day kindergarten and whose L1 was categorized as Spanish. The mean KELPA reading score for students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other was more than 13% higher than the mean KELPA reading score for students who started direct ESOL instruction in full-day kindergarten and
whose L1 was categorized as Spanish. The fourth hypothesis stated there would be a difference in first grade KELPA writing scores among ELLs starting direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten. The test results revealed that a statistically significant difference did exist between students who started direct ESOL instruction in preschool and those starting direct ESOL instruction in full-day kindergarten. The mean KELPA writing score for students who started direct ESOL instruction in preschool was more than 8% lower than students who started direct ESOL instruction in full-day kindergarten. The sixth hypothesis stated the difference in first grade KELPA writing scores would be affected by student L1. The test results revealed that a statistically significant difference did exist between students who started direct ESOL instruction in preschool and whose L1 was categorized as other and students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other. The mean KELPA writing score for students who started direct ESOL instruction in preschool and whose L1 was categorized as other was more than 19% lower than students who started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other. Although statistically significant differences did exist for KELPA reading and writing scores between students who started direct ESOL instruction in preschool and students who started direct ESOL instruction in full-day kindergarten, the same did not hold true for KELPA listening and speaking scores. Additionally, while student L1 had an effect on KELPA reading and writing scores, the same did not hold true for KELPA listening and speaking scores. There were no differences found between low SES and non-low SES study participants.
Findings Related to the Literature

The researcher conducted a review of literature related to a CP in which starting to learn an L2 would result in higher language proficiency. A review of literature regarding SES and L1 and their impact on second language acquisition (SLA) was also conducted. While literature surrounding the critical period hypothesis was abundant (Baker et al., 2008; Bialystok, 1997; Birdsong, 1992; Birdsong & Molis, 2001; Brown, 1980; Johnson & Newport, 1989; Lenneberg, 1967; Long, 1990; MacLeod & Stoel-Gammon, 2010; Schouten, 2009; Scovel, 2000; Tao, 1998; White & Genesee, 1996) it was conflicting with regards to the age span and the significance of its impact on SLA. Most of the existing literature explored the disparities in SLA between early childhood, adolescent, and adult learners, and had predominantly focused solely on L2 oral proficiency (Birdsong & Molis, 2001; Bongaerts, van Summeren, Planken, & Schils, 1997; White & Genesee, 1996).

There are a variety of reasons researchers feel age has an impact on SLA. Lenneberg (1967) found biological explanations based off of his research in L1 acquisition and concluded that there was a link between lack of plasticity in the brain and time limitations for language learning. Brown (1980) cited cognitive factors due to the acculturation process, a stage in SLA where ELLs would have the best chance of becoming fluent in the L2. Brown (1980) found since many children’s L1 culture is not as fully engrained in their being as it is for adults, and since children do not have perspective filters like adults do, they can negotiate their way through the acculturation process more quickly than adults, and as a result, they are able to reach L2 proficiency rapidly. Jia and Fuse (2007) reported consistencies in higher language proficiency in younger learners due to their increased access to a richer L2 language environment as well as decreased effects of L1 transfer. Jia and Fuse (2007) argued that the older an L2 learner is, the
more likely their L1 will transfer to the L2 and supported this with the reasoning that since late arrivals use their L1 for longer than early arrivals, late arrivals may experience stronger transfer from their L1 to their L2 that will interfere with some aspects of their L2 acquisition.

As Long (1990) stated, “The easiest way to falsify [the CPH] would be to produce learners who have demonstrably attained native like proficiency despite having begun exposure well after the closure of the hypothesized sensitive periods” (p. 274). To this end, scholars have pointed to the existence of ELLs who, despite having little or no pre-pubescent exposure to a language, seem to have attained native or near-native like performance (Bialystok, 1997; Birdsong, 1992; Birdsong & Molis, 2001; White & Genesee, 1996). Contrary to Jia and Fuse (2007), Baker et al. (2008) suggested that increased age could have a positive impact on language acquisition due to educational attainment. Baker et al. (2008) cited that ELLs with more schooling may have acquired learning skills in school to help them with SLA and are expected to be more adept in the L2 due to that inherently higher level of ability for learning. In some cases, this transfer can be a benefit to L2 learners. This was supported by a study conducted by Kelley & Kohnert (2012) where age accounted for 26% of the variance in participants’ performance showing that older children were far more likely to benefit from L1 transfer than younger children.

The results of this study provided evidence for the domain of writing, the age, or in the case of this study, the grade level, in which direct ESOL instruction began did have an impact on language proficiency. However, the outcomes indicated that earlier was not necessarily better. The average KELPA writing score for students who started direct ESOL instruction in full-day kindergarten was over 8% higher than the average KELPA writing score for students who started direct ESOL instruction in preschool. Additionally, KELPA writing scores for students who
started direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other were more than 19% higher than students who started direct ESOL instruction in preschool and whose L1 was categorized as other. While the studies by Baker et al. (2008) and Kelly and Kohnert (2012) focused primarily on oral proficiency, the findings in this study are in accordance with those researchers for the domain of writing. Scovel (2000) noted, “There may be multiple critical periods at varying age levels for different linguistic modalities” (p. 215), which was why all four domains were investigated in this study. Results indicated that in all other language domains to include reading, listening, and speaking, a statistically significant difference did not exist between students who began direct ESOL instruction in preschool and those who began direct ESOL instruction in full-day kindergarten.

The debate over the age span in which a CP exists has led researchers to question the extent to which a CP can affect second language acquisition (SLA) over other factors. Therefore, researchers have also investigated individual variables that could affect SLA such as SES and L1. Researchers have found factors associated with low SES can negatively affect a child’s pre-academic skills and ultimately SLA (Aikens & Barbarin, 2008; Ballantyne et al., 2008; Morgan et al., 2009). These researchers have argued children from low SES homes and communities develop academic skills slower than children from higher SES groups due to decreased access to an environment rich in the L1 and resources such as books, computers or tutors to support a positive literacy environment at home. Palardy (2008) assessed different school effects between low, middle, and high SES public schools. He found that even after student background characteristics and other school inputs were controlled, the research still indicated that students’ learning in low SES schools continued at a significantly lower rate than the other two subpopulations (Palardy, 2008). Contrary to the studies above, the current study
did not examine language proficiency as affected solely by student SES. Rather, the current study investigated language proficiency based on the grade level in which direct ESOL instruction began as impacted by student SES. Regardless, the researcher found no statistically significant differences between participants from a low SES and those from a non-low SES. Therefore, there was no indication that student SES impacted differences in KELPA scores based on the grade level in which direct ESOL instruction began in any of the language domains.

According to Zainuddin et al. (2002), language transfer effects may cause difficulty for ELLs. For example, the transfer of L1 syntax, grammar, and false cognates into the L2 can produce interferences in L2 vocabulary identification and comprehension (Zainuddin et al. 2002). Baker and Trofimovich (2005) stated that the more similar L2 sounds are to L1 sounds, the more likely the L1 will influence the L2. While the misinterpretation of linguistic similarities can cause issues for ELLs, the same can be true for linguistic dissimilarities. According to Zainuddin et al. (2002), some ELLs experience difficulty in producing sounds that are not present in their native language. Although the research on the effects of L1 on SLA vary, the results from this study indicated the difference in first grade KELPA reading scores was affected by student L1. Specifically, KELPA reading scores for students whose L1 was categorized as other were over 13% higher than students whose L1 was categorized as Spanish. Since the L1 category of other contained such a wide variety of languages, it was difficult to determine if language similarities were a factor contributing to these results.

Conclusions

This section contains implications to help educators interpret assessment data leading them to draw more accurate conclusions and thus make sound decisions regarding student improvement in SLA. The implications of this study could also be used for identifying a
program model for school districts with an ELL population regarding the grade level in which to begin ESOL instruction. Furthermore, as a result of the findings from the current study, recommendations for future research are presented. Last, concluding remarks close this chapter.

**Implications for Action.** The findings from this study have implications for states, districts, and schools that have an ELL population. The data from the current study reveals the results between starting direct ESOL instruction in preschool and starting direct ESOL instruction in full-day kindergarten were comparable in all language domains except for writing. In this domain, it was significantly advantageous for students to begin direct ESOL instruction in full-day kindergarten. Snow et al. (1998) emphasized the importance of establishing reading readiness skills before beginning explicit reading instruction by stating that providing “initial reading instruction in a language that [an ELL] does not yet speak…can undermine the child’s chance [to] see literacy as a powerful form of communication, by knocking the support of meaning out from underneath the process of learning” (p. 237). Therefore, it is suggested that explicit and formal reading instruction be delayed for ELLs until these prerequisite skills are acquired (Costantino, 1999). While the results from this study did not show a significant difference in KELPA reading scores between students who began direct ESOL instruction in preschool and those who began direct ESOL instruction in full-day kindergarten, one could argue that the same suggestions could also apply to the domain of writing. Consequently, it is suggested that ESOL programs beginning in preschool focus solely on listening and speaking acquisition followed by reading and writing acquisition beginning in full-day kindergarten.

When analyzing demographic data, the current study revealed whereas student SES did not affect difference in KELPA scores based on the grade level in which direct ESOL instruction began, student L1 did affect these differences for domains of reading and writing. Within these
domains, it was significantly advantageous for students whose L1 was a language other than Spanish. In addition, while hypothesis 12 did not quite meet significance, there was a difference in KELPA speaking scores based on the grade level in which direct ESOL instruction began as impacted by student L1. In this study, students who began direct ESOL instruction in full-day kindergarten and whose L1 was categorized as other had higher speaking scores than students who began direct ESOL instruction in full-day kindergarten and whose L1 was Spanish. In this study, District X had nine students whose L1 was a language other than Spanish. Since much of the research regarding the impact of student L1 on SLA has to do with the similarities and dissimilarities between the L1 and the L2, it is important for those interpreting assessment data to disaggregate the data by more specific L1 subgroups to ensure achievement levels are comparable. By knowing and understanding the ELL population and by combining the overall assessment results into various subgroups, a system can more accurately draw conclusions and ensure improvement for this increasing population. Analysis of the data from this study can provide information that may be utilized by states, districts, or schools as they work to interpret ELL KELPA scores to choose an ESOL program model that best fits the needs of their specific population.

**Recommendations for Future Research.** The current study allowed the researcher to evaluate student language proficiency based on the grade level in which direct ESOL instruction began and disaggregate the data based on student SES and student L1. The recommendations below are made for others interested in conducting a study involving grade level in which to begin direct ESOL instruction.

1. It is recommended future researchers replicate the current study in districts where there is more diversity or larger populations. Doing so may help provide clarity
to the statistically significant difference that was identified in the current study between students whose L1 was Spanish and students whose L1 was a language other than Spanish.

2. It is recommended future researchers replicate the current study in districts that are more similar demographically. Doing so may help provide clarity to the statistically significant difference that was identified in the current study between students who began direct ESOL instruction in preschool and students who began direct ESOL instruction in full-day kindergarten.

3. It is recommended future researchers replicate the current study using participants in grades two, three, four, and five. This may present new information that school stakeholders could generalize to elementary students. The increased L1 proficiency in a particular grade/age of student may have an impact on student assessment results when comparing the grade level in which direct ESOL instruction began.

4. It is recommended future researchers replicate the current study using districts that use the same language proficiency assessment to identify ELLs. Doing so would help to ensure that a system can more accurately draw conclusions about the population in the study due to more comparable language proficiencies among students beginning direct ESOL instruction.

5. It is recommended future researchers conduct a similar study comparing districts that begin ESOL instruction in preschool with different demographics. This would allow researchers to generalize the results across the grade level in which direct ESOL instruction began.
Concluding Remarks. The population of ELLs will continue to grow in U.S. schools. As this happens, states, districts, and schools will strive to provide ESOL program models that best meet the English language acquisition needs of their students. Furthermore, the U.S. Department of Education will continue to drive advances and raise expectations for both English language and core content area proficiencies for states, districts, and schools’ ELL populations. As this happens, it will be essential for states, districts, and schools to consider variables distinctive to their ELL populations to develop program models that will meet the unique needs of their students. This research encourages those analyzing achievement data to continue to disaggregate the data by the demographics of student SES and student L1.
References


Retrieved from

Kansas State Department of Education. (2014b). *English to speakers of other languages (ESOL).*

Retrieved from
http://www.ksde.org/Agency/DivisionofLearningServices/EarlyChildhoodSpecialEducationandTitleServices/TitleServices/TitleIIIStateESOL.aspx

Kansas State Department of Education. (2014c). *English to speakers of other languages (ESOL)/bilingual education program guidance 2014-2015.* Retrieved from
http://www.ksde.org/Portals/0/Title%20Programs%20and%20Services/ESOL/ESOLProgramGuidance.pdf

Kansas State Department of Education (2014d). *Kansas Assessment Overview.* Retrieved from

http://www.ksde.org/Portals/0/ECSETS/FactSheets/FactSheet-ESOLStepbyStep.pdf

Kansas State Department of Education. (2014f). *Starting an ESOL program [PowerPoint slides].*

Retrieved from
http://www.ksde.org/Agency/DivisionofLearningServices/EarlyChildhoodSpecialEducationandTitleServices/TitleServices/TitleIIIStateESOL.aspx


National Clearinghouse for English Language Acquisition. (n.d.-b) *What legal obligations do schools have to English language learners (ELLs)?* Retrieved from http://www.ncela.us/faqs/view/6


Plessy v. Ferguson, 163 U.S. 537 (1896).


Appendices
Appendix A: Top Language Spoken by ELLs by State

Note: Numbers indicate the number of ELL students and the percentage of ELLs who speak each of the top five languages in each state other than Spanish. From “Top Languages Spoken by English Language Learners Nationally and by State,” by MPI, 2010. Copyright 2010 by the Migration Policy Institute.
Appendix B: Sample ILP for the State of Kansas

Last Name(s) ___________________ First Name ___________________
Date of Birth ________________ KIDS# ____________________

Types of Support:
- Classroom
  - Sheltered/Modified Instruction
- Classroom Dual Language/Bilingual
- Push-in
- ESOL Class
- Pull-out

ESOL/Bilingual instruction provided by:

___ minutes of ESOL/Bilingual instruction provided per week.

Teacher(s) overseeing implementation:

Classroom Accommodations:

Testing Accommodations:

<table>
<thead>
<tr>
<th>ELPA used for eligibility</th>
<th>Score</th>
<th>Designation</th>
<th>KELPA Year: Score</th>
<th>Level</th>
<th>KELPA Year: Score</th>
<th>Level</th>
<th>KELPA Year: Score</th>
<th>Level</th>
</tr>
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<tbody>
<tr>
<td>Reading</td>
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<tr>
<td>Comprehensiveness</td>
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<td>Comprehensiveness</td>
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<td>Comprehensiveness</td>
<td></td>
</tr>
</tbody>
</table>

Student Data 2014-2015:  

Student/Family Background and Communications:

Goals:
(What standards will be the focus to best allow the student to access the core curriculum? How will the student move along the continuum and accomplish these goals?)
By the end of each English language proficiency level, an ELL can . . .

<table>
<thead>
<tr>
<th>Student:</th>
<th>By the end of each English language proficiency level, an ELL can . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>An ELL can . . .</td>
<td>1</td>
</tr>
<tr>
<td>An ELL can . . .</td>
<td></td>
</tr>
<tr>
<td>An ELL can . . .</td>
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</tr>
<tr>
<td>An ELL can . . .</td>
<td></td>
</tr>
</tbody>
</table>

*Use the 2013 ELP standards to guide goals and instruction.*
Appendix C: Request for Information form to District X

APPLICATION TO DO RESEARCH

Name  Courtney Bowles  Phone
Address

State briefly the purposes of the study and summarize the procedures to be employed:

Description of Research:
When it comes to learning a second language, it is generally accepted that “earlier is better” and is largely observed and hypothesized that younger children achieve more native-like proficiency than older children or adults (MacLeod & Stoel-Gammon, 2010). This observation of an age effect can be explained by a previously-established hypothesis known as the Critical Period Hypothesis (CPH), which suggested a decreased ability to acquire a second language as age increases (Johnson & Newport, 1989). Although a CP for L1 acquisition is generally accepted, when it applies to second language (L2) learning, the CPH has been questioned and debated because of the lack of consensus among researchers as to when the CP commences and discontinues.

Scovel (2000) noted that not only is there “great variation among researchers on which age spans they use to divide up their subjects, [but] there may [also] be multiple critical periods at varying age levels for different linguistic modalities” (p. 215). In other words, each domain of language including reading, writing, listening, and speaking, as well as various skill sets within each domain, may have CPs unique to the classification. As a result, there is a wide range of estimated CPs that have been presented by various researchers, ranging from ages two to puberty, with some researchers rejecting the notion of a CP altogether (Baker et al., 2008).

The debate over a CP led researchers to question the extent to which a CP affects SLA over other factors. According to MacLeod and Stoel-Gammon (2010), a number of factors have been identified that can be interwoven with age. Untangling age from these factors has been difficult.

The majority of past research has investigated the disparities in SLA between early childhood, adolescent, and adult learners. The research has also predominantly focused solely on L2 oral proficiency. Therefore, there seems to be a lack of research comparing early childhood L2 learners. Additionally, there appears to be a need to investigate all aspects of English language learning to include reading, writing, listening, and speaking rather than just oral proficiency. Due to identified factors that can be interwoven with age effects on SLA, there is also a need to investigate individual variables that could affect SLA such as age, SES, and L1.

Major Research Questions:
1. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade?

2. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL
instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade affected by student SES?

3. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade affected by student L1?

**Data Collection Method and Data Analysis:**

The researcher will utilize a quasi-experimental quantitative research design using archived data from the 2011-2012, 2012-2013, and 2013-2014 school years. The dependent variable will be ELLs’ first grade KELPA scores in each of the language domains: reading, writing, listening, and speaking. The independent variables will be time when direct English language instruction began (preschool, full-day kindergarten, or first grade), student SES (low SES or non-low SES) and student L1.

The data will be compiled and organized into a Microsoft Excel worksheet and imported into the latest version of the IBM® SPSS® Statistics Faculty Pack 22 for Windows. The data will be used to answer the research questions previously described. Additionally, twelve hypotheses will be tested for statistically significant differences among KELPA scores in reading, writing, listening, and speaking when student SES and student L1 are taken into account using a two-factor analysis of variance (ANOVA).

**Specific Request for Data from the District:**

The researcher for this study is requesting archived data for the 2011-2012, 2012-2013, and 2013-2014 school years. Archived data should include first grade KELPA scores for the domains of reading, writing, listening, and speaking for those first grade ELLs who received ESOL services while attending preschool and kindergarten in the Emporia School District. In addition to their KELPA scores, student SES (low or non-low) should be identified as well as student first language.

No aspect of the data will be identified with any students, schools, or school districts. The data generated for this study will not be used for any other purposes except to meet the requirements of the Doctorate in Educational Leadership program through Baker University.

**Timeline for Project:**

- **January 5, 2015**
  - Submit final draft of Chapters 1-3- *Completed*
  - Receive approval from Baker University’s Institutional Review Board for Proposal for Research- *Completed (see attachment)*
  - Submit Request for Information for school districts used in this study- *Completed*

- **January 19, 2015**
  - Receive approval of Request for Information from school districts used in this study
- **January 26, 2015**
  - Receive data from school districts
- **January 29, 2015**
  - Analyze data received from school districts
February, 2015
- Write and revise Chapters 4 and 5 of dissertation

March, 2015
- Make final revisions on dissertation

April, 2015
- Defend dissertation

Copies of parent permission and copies of any surveys or materials that will be used:
All data will be archived. Therefore, no subjects will be solicited or contacted for this study.

References: Attached

School(s) and grade(s) to be involved
Although all data requested will be archived, the data that the researcher is requesting will be from all elementary schools with first grade ELL KELPA scores for the domains of reading, writing, listening, and speaking for the 2011-2012, 2012-2013, and 2013-2014 school years.

Number of pupils involved
All ELLs with first grade KELPA scores from the 2011-2012, 2012-2013, and 2013-2014 school years who received ESOL services while attending preschool and kindergarten in the Emporia School District.

If one child only, give name and grade
n/a

Amount of pupil time involved
All data will be archived. Therefore, no subjects will be solicited or contacted for this study.

Attach: Specimen of tests or questionnaires to be used. (not applicable)

Endorsement.

I AGREE TO SUBMIT PROMPTLY TO THE EMPORIA UNIFIED SCHOOL DISTRICT A COPY OF ALL DATA AND INFORMATION COLLECTED IN THE SCHOOLS AND A SUMMARY OR EXTRACT OF THE RESULTING ARTICLE, RESEARCH REPORT, THESIS, OR DISSERTATION INDICATING FINDINGS, CONCLUSIONS, AND IMPLICATIONS. I further agree to respect the confidential nature of information that will become available and to use it only in a highly professional manner. The data will not be used for purposes other than state above or made available to others except as herein stated without the prior approval of the Emporia Unified School District.

Signature of Applicant

Approved by:

Final Approval Granted on January 6, 2015 (date)
Final Rejection Issued on (date)
Form R-1 Policy ME
Appendix D: Request for Information Form to District Y

Research Project Summary for

Principal Investigator’s Name: Courtney Bowles
School
Teacher/Administrator Assignment:
Phone Number: Email Address:

Purpose of proposed research:
This study will determine to what extent there is a difference in an ELL’s first grade KELPA scores for the domains of reading, writing, listening and speaking among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade. Additionally, data will be collected and analyzed for the purpose of determining to what extent the scores within each group are affected by student SES and by student L1.

The purpose of this study is to contribute to and extend an existing body of research by concentrating primarily on comparing early childhood English language learners (ELLs) who started direct English language instruction in preschool vs. full-day kindergarten vs. first grade. The study will expand upon previous bodies of research by encompassing all domains of English language learning to include reading, writing, listening, and speaking rather than just speaking. This study will also take a step towards untangling age from its confounding factors to include socio-economic status (SES) and student first language (L1).

Please check one of the following.
- Research is for a project for a class
- Research is for a thesis/project for a master’s program
- Research is for a dissertation for a doctoral program
- Research is for another purpose – please describe

Name of Institution for which this project is required Baker University
Name of course or graduate program Doctorate of Education in Educational Leadership
Email address for instructor or advisor Dr. Verneda Edwards vedwards@bakeru.edu
Names of any staff who were consulted about the research
Names of any specific schools involved. No solicitation or participation of students or teachers will take place for this study as all data requested will be archived. However, the archived data that the researcher is requesting will be from elementary schools with an English Language Learner (ELL) population.

The following information must be included in the description of the project (email submission as attachments is acceptable)
Description of Research:

When it comes to learning a second language, it is generally accepted that “earlier is better” and is largely observed and hypothesized that younger children achieve more native-like proficiency than older children or adults (MacLeod & Stoel-Gammon, 2010). This observation of an age effect can be explained by a previously-established hypothesis known as the Critical Period Hypothesis (CPH), which suggested a decreased ability to acquire a second language as age increases (Johnson & Newport, 1989). Although a CPH for L1 acquisition is generally accepted, when it applies to second language (L2) learning, the CPH has been questioned and debated because of the lack of consensus among researchers as to when the CP commences and discontinues.

Scovel (2000) noted that not only is there “great variation among researchers on which age spans they use to divide up their subjects, [but] there may [also] be multiple critical periods at varying age levels for different linguistic modalities” (p. 215). In other words, each domain of language including reading, writing, listening, and speaking, as well as various skill sets within each domain, may have CPs unique to the classification. As a result, there is a wide range of estimated CPs that have been presented by various researchers, ranging from ages two to puberty, with some researchers rejecting the notion of a CP altogether (Baker et al., 2008).

The debate over a CP led researchers to question the extent to which a CP affects SLA over other factors. According to MacLeod and Stoel-Gammon (2010), a number of factors have been identified that can be interwoven with age. Untangling age from these factors has been difficult.

The majority of past research has investigated the disparities in SLA between early childhood, adolescent, and adult learners. The research has also predominantly focused solely on L2 oral proficiency. Therefore, there seems to be a lack of research comparing early childhood L2 learners. Additionally, there appears to be a need to investigate all aspects of English language learning to include reading, writing, listening, and speaking rather than just oral...
proficiency. Due to identified factors that can be interwoven with age effects on SLA, there is also a need to investigate individual variables that could affect SLA such as age, SES, and L1.

**Major Research Questions:**
1. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade?

2. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade affected by student SES?

3. To what extent is there a difference in first grade KELPA reading, writing, listening, and speaking scores among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade affected by student L1?

**Data Collection Method and Data Analysis:**

The researcher will utilize a quasi-experimental quantitative research design using archived data from the 2011-2012, 2012-2013, and 2013-2014 school years. The dependent variable will be ELLs’ first grade KELPA scores in each of the language domains: reading, writing, listening, and speaking. The independent variables will be time when direct English language instruction began (preschool, full-day kindergarten, or first grade), student SES (low SES or non-low SES) and student L1.

The data will be compiled and organized into a Microsoft Excel worksheet and imported into the latest version of the IBM® SPSS® Statistics Faculty Pack 22 for Windows. The data will be used to answer the research questions previously described. Additionally, twelve hypotheses will be tested for statistically significant differences among KELPA scores in reading, writing, listening, and speaking when student SES and student L1 are taken into account using a two-factor analysis of variance (ANOVA).

**Specific Request for Data from the District:**

The researcher for this study is requesting archived data for the 2011-2012, 2012-2013, and 2013-2014 school years. Archived data should include first grade KELPA scores for the domains of reading, writing, listening, and speaking for those first grade ELLs who received ESOL services while attending full-day kindergarten in the Blue Valley School District. In addition to their KELPA scores, student SES (low or non-low) should be identified as well as student first language.

No aspect of the data will be identified with any students, schools, or school districts. The data generated for this study will not be used for any other purposes except to meet the requirements of the Doctorate in Educational Leadership program through Baker University.

**Timeline for Project:**

- January 5, 2015
 Submit final draft of Chapters 1-3- Completed
 Receive approval from Baker University’s Institutional Review Board for Proposal for Research- Completed (see attachment)
 Submit Request for Information for school districts used in this study- Completed

- January 19, 2015
  - Receive approval of Request for Information from school districts used in this study

- January 26, 2015
  - Receive data from school districts

- January 29, 2015
  - Analyze data received from school districts

- February, 2015
  - Write and revise Chapters 4 and 5 of dissertation

- March, 2015
  - Make final revisions on dissertation

- April, 2015
  - Defend dissertation

Copies of parent permission and copies of any surveys or materials that will be used:
All data will be archived. Therefore, no subjects will be solicited or contacted for this study.

References: Attached
Appendix E: Proposal for Research to Baker University

School of Education Graduate Department

IRB Protocol Number __________________

(IRB USE ONLY)

IRB Request
Proposal for Research
Submitted to the Baker University Institutional Review Board

I. Research Investigator(s) (Students must list faculty sponsor first)

Department(s) School of Education Graduate Department

Name Signature

1. Dr. Verneda Edwards ____________ Major Advisor
2. Margaret Waterman ____________, Research Analyst
3. Dr. Sharon Zoellner __________________ University Committee Member
4. Dr. Judy Martin __________________ External Committee Member

Principal Investigator: Courtney Bowles
Phone:
Email:
Mailing address:

Faculty sponsor:
Phone:
Email:
Expected Category of Review: _X_Exempt _____Expedited ____Full

II: Protocol Title
Effects of Direct ESOL Instruction on First Grade ELL KELPA Scores.

Summary
The following summary must accompany the proposal. Be specific about exactly what participants will experience, and about the protections that have been included to safeguard participants from harm. Careful attention to the following may help facilitate the review process:

In a sentence or two, please describe the background and purpose of the research.
The purpose of this study is to contribute to and extend an existing body of research by concentrating primarily on comparing early childhood English language learners (ELLs) who
started direct English language instruction in preschool vs. full-day kindergarten vs. first grade. The study will expand upon previous bodies of research by encompassing all domains of English language learning to include reading, writing, listening, and speaking rather than just speaking. This study will also take a step towards untangling age from its confounding factors to include socio-economic status (SES) and student first language (L1).

This study will determine to what extent there is a difference in an ELL’s first grade KELPA scores for the domains of reading, writing, listening and speaking among ELLs starting direct ESOL instruction in preschool, starting direct ESOL instruction in full-day kindergarten, and starting consulting-based ESOL support in full-day kindergarten with direct ESOL instruction starting in first grade. Additionally, data will be collected and analyzed for the purpose of determining to what extent the scores within each group are affected by student SES and by student L1.

**Briefly describe each condition or manipulation to be included within the study.**
There is no manipulation in this study.

**What measures or observations will be taken in the study? If any questionnaire or other instruments are used, provide a brief description and attach a copy.**
The Kansas English Language Proficiency Assessment (KELPA) K-1 assessment will be the instrument used to measure English language proficiency in this study. According to the Kansas State Department of Education, all ELLs are required to take the KELPA in the spring beginning in kindergarten. The assessment is derived from the Kansas Curricular standards for ESOL’s four language domains: reading, writing, listening, and speaking, and measures targeted indicators for all grades K-12.

**Will the subjects encounter the risk of psychological, social, physical, or legal risk? If so, please describe the nature of the risk and any measures designed to mitigate that risk.**
The subjects will not encounter psychological, social, or legal risks.

**Will any stress to subjects be involved? If so, please describe.**
The subjects will not encounter any stress.

**Will the subjects be deceived or misled in any way? If so, include an outline or script of the debriefing.**
None of the participants will be deceived or mislead in this study.

**Will there be a request for information that subjects might consider to be personal or sensitive? If so, please include a description.**
Subjects will not be asked to volunteer any sensitive or personal information.

**Will the subjects be presented with materials that might be considered to be offensive, threatening, or degrading? If so, please describe.**
The subjects will not be contacted as part of this study.

**Approximately how much time will be demanded of each subject?**
The study will not ask for any time from the subjects.

Who will be the subjects in this study? How will they be solicited or contacted? Provide an outline or script of the information which will be provided to subjects prior to their volunteering to participate. Include a copy of any written solicitation as well as an outline of any oral solicitation.
All data will be archived. Therefore, no subjects will be solicited or contacted for this study.

What steps will be taken to ensure that each subject’s participation is voluntary? What if any inducements will be offered to the subjects for their participation?
No solicitation or participation will take place.

How will you ensure that the subjects give their consent prior to participating? Will a written consent form be used? If so, include the form. If not, explain why not.
No consent is required for this study. All data is archived, therefore no inducements will be offered.

Will any aspect of the data be made a part of any permanent record that can be identified with the subject? If so, please explain the necessity.
No aspect of the data will be identified with any subjects.

Will the fact that a subject did or did not participate in a specific experiment or study be made part of any permanent record available to a supervisor, teacher or employer? If so, explain.
Since all data is archived, no subject participation is necessary.

What steps will be taken to insure the confidentiality of the data? Where will it be stored? How long will it be stored? What will be done with it after the study is completed?
Data generated for this study will not be used for any other purposes. No names or other identification will be available to identify the subjects in the study. The data will be stored on a password-protected flash drive, which will be kept in a locked drawer. The data will be stored for one year. Afterwards, the data will be destroyed.

If there are any risks involved in the study, are there any offsetting benefits that might accrue to either the subjects or society?
There is not a risk to the subjects involved in this study.

Will any data from files or archival data be used? If so, please describe.
Archival data will be provided by each school district in the study. Archival data will include first grade KELPA scores from the 2010-2011, 2011-2013, and 2013-2014 school years as well as student SES and L1.
Appendix F: IRB Letter of Approval

Baker University Institutional Review Board

1/5/2015  Dear Courtney Bowles and Dr. Edwards,

The Baker University IRB has reviewed your research project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.

2. Notify the IRB about any new investigators not named in original application.

3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.

4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.

5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.

Please inform this Committee or myself when this project is terminated or completed. As noted above, you must also provide IRB with an annual status report and receive approval for maintaining your status. If you have any questions, please contact me at CTodden@BakerU.edu or 785.594.8440.

Sincerely,

Chris Todden EdD

Chair, Baker University IRB

Baker University IRB Committee Verneda Edwards EdD

Sara Crump PhD Molly Anderson Scott Crenshaw
## Appendix G: Chart of all First Languages Included in the Study

<table>
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<tr>
<th>First Language</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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Appendix H: Chart of all First Languages Included in the Study Minus English

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