

EXPLORING THE SELF-REPORTED PERSPECTIVES AND BEHAVIORS OF
PREDOMINANTLY ENGLISH-SPEAKING TEACHERS REGARDING THE
INCORPORATION OF ENGLISH LANGUAGE LEARNERS' NATIVE
LANGUAGES INTO INSTRUCTION

by

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B.A., William Jewell College, 1995
M.S., Kansas State University, 2000

AN ABSTRACT OF A DISSERTATION

Submitted in partial fulfillment of the
requirements for the degree

DOCTOR OF PHILOSOPHY

Department of Curriculum and Instruction
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2005

ABSTRACT

Research shows the practice of incorporating English language learner (ELL) students' native languages (L1) into instruction to be a major factor enhancing their success in school. In this study, 327 predominantly English-speaking (PES) teachers in the state of Kansas were surveyed on their perspectives and self-reported behaviors related to this practice. Participants were divided among three targeted teacher groups: pre-service teachers with no ESL-specific university preparation (PS), experienced teachers with no ESL-specific university preparation (No-ESL), and experienced teachers with significant (at least three courses) ESL-specific university preparation (C-ESL).

Findings from descriptive analyses indicated that while teachers generally supported L1 use in instruction, they tended to show stronger support for its underlying theory than for its practical implementation. Results from a series of ANOVA's suggested a clear link between ESL-specific university preparation and an increased support for the theory and practice of L1 use in instruction. Findings further suggested links among some combination of teaching experience and an increase in support for this practice. A series of inter-correlations produced various modest to moderate significant relationships among experienced teachers' perspectives and demographic variables (gender, experience with ELL students).

While both No-ESL and C-ESL teachers reported behaviors incorporating L1 use into instruction to some degree, results from independent samples t-tests showed that C-ESL teachers reported these behaviors significantly more often than No-ESL teachers. For both experienced teacher groups, inter-correlations showed modest to moderate significant relationships among a number of perspective items and behavior items.

Results further indicated that although both groups shared some common relationships among variables, for the most part, the relationships shown to be significant varied considerably by group. Open-ended questions revealed a variety of approaches used by teachers as well as a number of obstacles perceived by teachers in incorporating L1 use in instruction. Findings from this study are discussed in relation to strategies and directions for teacher educators with the responsibility of preparing PES teachers to effectively serve increasing ELL student populations.

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Major Professor
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Chapter 1

Introduction

Our nation is currently experiencing an unprecedented increase in language diversity, transforming its schools and placing new demands on the preparation and professional development of teachers. Rapidly growing numbers of English language learner (ELL) students are enrolling in public schools in regions of the country where bilingual education programs are either not available or not feasible. As a result, many ELL students spend the majority of their school day in classrooms with predominantly English-speaking teachers and classmates (Berube, 2000). Most of the teachers in these environments have had little experience serving ELL student populations and have had minimal or no training on how to effectively meet their academic, linguistic, and social needs (McCloskey, 2002). Professional development for predominantly English-speaking teachers in effective practices for ELL students seems urgently needed. Teacher preparation and in-service programs must be able to provide quality education that is relevant and applicable to teachers and students in these contexts. In designing such programs, an understanding of teachers' perceptions and behaviors concerning the education of ELL students is essential. This study examines predominantly English-speaking teachers' perspectives and behaviors in relation to these new demands in an attempt to inform teacher initial and continuing professional preparation.

In fields such as education, where issues are large-scale, long-term, and continuously evolving, it is critically important to identify the types and nature of problems that need to be studied – especially in areas where research is limited. Studies that are exploratory in nature play a vital role as they help set the agenda for future

research. These investigations are also central in providing teacher educators with knowledge that is both practical and has immediate application. The present study does not attempt to predict any specific outcomes or solve significant problems through rigorous experimental procedures. Rather, this study aims to identify issues relevant to the effective instruction of ELL students in English-dominant settings with the ultimate goal of guiding future research as well assisting in the development and improvement of teacher education programs and teaching practices.

In the professional literature, different terms have been used to describe teachers whose native or dominant language is English and classrooms in which English is the primary language of instruction and use. One term that has been used extensively in the literature is the descriptor mainstream. However, the researcher recognizes that this term has been associated with issues related to special education and that its use may cause confusion or imply negative connotations. For the purposes of this study, the researcher will be using the acronym PES (predominantly English-speaking) when referring to the aforementioned teachers and classrooms.

Discussion in this section is organized in the following sections: (1) overview of the issues, (2) statement of the problem, (3) purpose of the study, (4) significance of the study, (5) limitations of the study, and (6) definition of terms.

Overview of the Issues

The number of ELL students in our nation's public schools is currently on the rise. In the last decade, the enrollment of ELL students across the nation has grown approximately 105%, while the general school population has grown only 12% (Kindler,

2002). Projections indicate that this trend will continue, with ELLs comprising an estimated 40 percent of the K-12 population in the U.S. by the year 2030 (U.S. Census Bureau, 2000). Yet, the needs of a significant number of ELLs remain unmet as the supply of teachers prepared to serve this population falls far behind the demand (McClosky, 2002). Only 2.5% of teachers who teach ELL students hold a degree in either bilingual or English as a Second Language (ESL) education. Additionally, as many as 45% of the nation's teachers currently have ELLs in their classrooms, while only 12% of K-12 teachers nationwide have been provided even modest preparation to address the needs of these students (McClosky, 2002).

The increase in the number of ELLs can, in significant part, be attributed to large waves of immigration in the past decade (U.S. Census Bureau, 2000). While many schools in coastal regions of the U.S. have a history of attempting to meet the needs of ELL students, the issue has become even more complex as the patterns of migration among ELL students and families show substantial change [National Clearinghouse for English Language Acquisition (NCELA) 2002]. Although ELL populations continue to concentrate in coastal areas, the midwest has experienced a dramatic increase in ELL student enrollment over the past two decades. Such increases have exceeded 200 percent per annum in many midwestern states (NCELA, 2002). These midwestern states, which have traditionally had the least experience with ELL student populations, face the greatest shortage of bilingual teachers or teachers prepared to work with this student population [American Association of Employment in Education (AAEE) 2001]. In this region, while students who are designated as ELL are typically enrolled in some type of

language service programs in their schools, the majority of ELL students' time at school is spent in classrooms with native English-speaking peers and teachers (Berube, 2000).

The passage of the No Child Left Behind Act (NCLB) in 2001 brought ELL students into the same context of standards and accountability as their native English-speaking peers. Provisions in NCLB, as well as new Title III legislation, now require schools to segregate and disclose both the academic achievement progress and the English acquisition rates of their ELL students. Schools that cannot demonstrate adequate yearly progress among their ELL students face punitive consequences (Peterson, 2002). These changes have major implications for PES teachers and the districts that employ them. Regardless of the type of program in which ELL students participate, or whether they receive any supplementary instructional support at all, a constant factor in the success of ELL students is the instruction they receive in PES classrooms (Hamayan, 1990). As PES teachers have an essential role to play in the education of ELL students, it is imperative for schools to ensure that teachers gain a better understanding of the theories, principles, and strategies that have been demonstrated to be successful in educating these students.

Extensive research indicates that valuing and capitalizing on the native languages and cultures of ELL students are integral to their success in school. Researchers have underscored the importance of implementing programs that utilize the student's native language in order to give English learners greater access to content knowledge, facilitate academic and cognitive growth, and support the development of both native language and English language proficiency for these students (Greene, 1998; Ramirez, 1992; Ramirez, Yen, & Ramey, 1991; Thomas & Collier, 1997, 2002; Willig, 1985). Studies have

further demonstrated that programs incorporating the native language offer opportunities for social and academic interaction as well as foster a positive self-esteem and identity formation for ELL students (Krashen, 1996; Thomas & Collier, 1997, 2002).

Native language instruction has traditionally been associated with formal bilingual education programs. In these programs, the teacher is usually fluent in the student's native language and English and delivers content-area instruction in both languages. However, due to factors such as the lack of qualified bilingual teachers or school populations with a diversity of languages represented, bilingual classes are often not feasible. Nonetheless, for ELL students with little or no proficiency in English, their native language remains an integral means for providing access to content-area knowledge. If nonnative-speaking students are immersed in English without any instruction in the native language, they will not have access to the content-area knowledge and academic skills that their English-speaking peers are learning (Lucas & Katz, 1994). They are likely to fall further and further behind in their academic development while they are concentrating on learning English (Lucas & Katz, 1994). In many cases, the only practical option for ELLs in PES classrooms is the incorporation of their native languages in instruction.

Research indicates that for ELL students in PES classrooms, inclusion of students' native languages in instruction is both feasible and beneficial. Studies have shown that in schools and classrooms in which English is the principal language of instruction, the incorporation of ELL students' native languages remains a key instructional strategy that can be implemented by monolingual English-speaking teachers (Lucas & Katz, 1994; Tikunoff, Ward, van Broekehuizen, et al, 1991). There are many

ways for PES teachers, or teachers who do not speak all of the native languages of their students, to facilitate native language use among their ELL students to promote academic, cognitive, and linguistic development as well as reinforce a positive self-identity (Collier, 1995; Freeman & Freeman, 1993). Teachers may, for instance, make curricula, literature, and other learning resources available in more than one language; pair or group students who have the same native language but have differing abilities in English; or utilize adult and peer volunteer tutors or aides proficient in the learner's native language.

Despite research demonstrating the critical role of the native language in facilitating the academic success of ELL students in PES settings, the learning environments of many PES classrooms emphasize English immersion, where instruction and learning occur only in English. In these environments, use of the native language among ELLs is often highly discouraged, and in some cases, students may even be punished for speaking their native languages. Suppression of the native languages of ELLs in such ways has been attributed to teacher ideologies of assimilation and monolingualism (Faltis & Hudelson, 1998) as well as misinformation and misperceptions commonly held among PES teachers regarding ELL education and second language acquisition (Tse, 2001; Walker, Shafer, & Liams, 2004).

Teachers' attitudes and beliefs about ELL students and how they learn play a crucial role in determining the educational outcomes for this population. Teachers who hold misconceptions about second language acquisition may develop negative attitudes towards ELLs when their expectations for academic progress are not met (Walker, Shafer, & Liams, 2004). Concomitantly, teachers who hold ethnocentric attitudes about ELLs, or who believe in any of the numerous fallacies surrounding the education of ELL

students, often fail to meet their academic and social needs (Valdes, 2001; Youngs & Youngs, 2001). Furthermore, the attitude that prevails in the school not only toward ELL students, but also toward the native languages that coexist in the community, can be a critical factor affecting the academic success of ELLs. “The value that is placed on having access to two languages helps set a tone for the entire school milieu that promotes achievement for all students.” (Hayaman, 1990, p. 8).

Statement of the Problem

Numerous studies have concluded that a major factor enhancing the academic success of ELL students in PES settings is the incorporation of their native language into instruction (Freeman & Freeman, 1993; Lucas & Katz, 1994; Tikunoff, et.al. 1991). Additionally, research has indicated that PES teachers’ understanding of second language acquisition processes and their attitudes toward native language use is “crucial for setting up students for success rather than failure in school” (Hayaman, 1990, p. 8).

When addressing the challenge of effectively meeting the needs of the increasing ELL populations in public schools, it is important to gain a better understanding of teachers’ perspectives on issues related to language diversity. Perspectives have been described as “a reflective, socially defined interpretation of experience that serves as a basis for subsequent action...a combination of beliefs, intentions, interpretations, and behavior that interact continually” (Clark & Peterson, 1986, p. 287). For the purposes of this study, teacher perspectives are inclusive of knowledge, attitudes, and beliefs.

Very few studies, however, have examined teachers’ perspectives toward use of the native language (L1) in instruction (Ramos, 2001). Additionally, most studies

addressing this issue have been carried out in the context of bilingual education programs as opposed to PES contexts. These germinal studies have emphasized the need for additional research in which the perspectives of PES teachers on use of the L1 are more fully explored.

Purpose of the Study

The participants in this study included teachers who either have served or would likely be serving ELL students in Kansas, a midwestern state experiencing a significant influx of ELL students into its public school districts. In the 2002-2003 school year, Kansas enrolled over 25,000 ELL students in its public schools, grades K-12. This number had increased dramatically from the 1992-1993 school year, when it was just under 7,000 [Kansas State Department of Education (KSDE), 2004]. The majority of public school teachers educating ELL students in Kansas, as in many midwestern states, are PES teachers with little or no preparation to serve the instructional needs of ELL students. Key responsibilities placed on these teachers are valuing and incorporating the native languages (L1) of their ELL students into instruction. Yet, little is known about the perspectives or behaviors of these teachers regarding this instructional practice. To date, no large-scale inquiry has been carried out in the midwest on teachers' perspectives or behaviors concerning native language use in the instruction of ELL students in PES settings. The purpose of this study was to address this gap in the research by exploring how PES teachers perceive the importance of the role of the native language in the instruction of ELL students as well as examining their self-reported behavior with regard to use of the L1 in instruction .

Research Questions

This study explored PES teachers' perspectives and reported behaviors with regard to the incorporation of L1 use in the instruction of ELL students. The study specifically focused on three groups of PES teachers who differed by teaching experience and English as a second language (ESL) related education. These groups included pre-service teachers (PS) at the junior and senior levels who had not taken any ESL-specific university courses, practicing teachers who had not taken any ESL-specific or university courses (No-ESL), and practicing teachers who had completed a significant number (9 credits or more) of ESL-specific university courses (C-ESL). Throughout this report the three groups of teachers are referenced using their abbreviations: PS, No-ESL, and C-ESL. This study addressed the following research questions:

1. What are the perspectives of three groups of teachers with respect to the use of native language in the instruction of ELL students?
2. Do these three groups of teachers significantly differ in their theoretical perspectives on the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
3. Do these three groups of teachers significantly differ in their practical perspectives on the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
4. Do these three groups of teachers significantly differ in their perspectives on individual items pertaining to the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
5. Are the theoretical, practical, and individual item perspectives of the three groups of teachers associated with their years of teaching experience, the number of ELL students with whom they have experience, or their gender?
6. What do two groups of experienced teachers (No-ESL, C-ESL) report as their own instructional behavior regarding use of the native language in instruction with ELL students, and are there differences between the two groups?

7. Are there any significant relationships among teachers' perspectives and instructional behaviors with regard to use of native language in the instruction of ELL students? Are there any differences between the two groups of experienced teachers (No-ESL, C-ESL) concerning these relationships?

Significance of the Study

This study of PES teachers' perspectives on the use of ELL students' native languages in instruction is important for three key reasons. First, the study contributed new knowledge to the field of education in a pressing area in which research is sparse. Schools and teachers currently face the challenge of meeting the new demands of an unprecedented population of ELL students that continues to show significant growth. The professional literature has emphasized the importance of incorporating the native languages of ELLs into instruction in addressing this demand. Yet, little is known about how much PES teachers know or what they think about this instructional practice. To date, very few studies have been carried out that address PES teachers' perspectives on matters related to language diversity. This study will make a valuable contribution to the field as it explores these matters and identifies relative issues that warrant further investigation.

This study is also significant because the perspectives found to be prominent among teachers will have implications for teacher education programs in the state in which it is being undertaken and perhaps more generally. In an attempt to address continued challenges in meeting the needs of their ELL student populations, most of the districts in Kansas have encouraged their PES teachers to obtain an ESL endorsement (KSDE, 2004). As more and more teachers and teacher-candidates in Kansas are enrolling in college or university programs to increase their preparedness to serve ELL

students, it is important to assure that these programs are addressing the needs of school districts and teachers. The insight and knowledge gained from this study of PES teachers' perspectives is likely to be important in helping these programs provide informed, relevant, and effective training for those who currently teach or expect to teach ELL students.

Finally, this study explored how both objective and open-ended reports of new and experienced teachers are related to a variety of demographic characteristics and to each other. The comprehensive information gained from this investigation will help define agendas for research in this relatively new field.

Definition of Terms

The following includes a list of terms (and their definitions) used in this research report. A list of acronyms and abbreviations commonly used throughout the report is further located in Appendix A.

BICS (basic interpersonal communication skills):

The language ability required for verbal face-to-face communication (USDE, 2004). BICS is sometimes referred to as everyday English or “playground” English.

Bilingual education:

Bilingual education is an educational program that is conducted in two languages: the learner's native language and a second language. Bilingual education programs generally take two forms: maintenance and transitional.

CALP (cognitive academic language proficiency):

The language ability required for academic achievement (USDE, 2004) and higher order thinking processes.

C-ESL: Experienced teachers with significant (at least three courses) ESL-specific university coursework

Content-area:

A content-area (also referred to as subject-area) is a discipline of study. Examples of content areas include mathematics, natural sciences, physical education, and the social

sciences. Neither special education nor ESL teachers are considered content-area teachers (Reeves, 2002).

ELL (English Language Learner):

A national-origin-minority student who is currently learning English. This term is often preferred over the term limited-English-proficient (LEP) as it highlights accomplishments rather than deficits (USDE, 2004).

ESL (English as a second language):

ESL is a program of techniques, methodology and special curriculum designed to teach ELL students English language skills, which may include listening, speaking, reading, writing, study skills, content vocabulary, and cultural orientation. ESL instruction is usually in English with little use of native language (USDE, 2004).

ESL pull-out:

A language programming model in which ELL students are “pulled out” of the regular content-area classroom for English language instruction.

LEP:

Limited-English-proficient (see ELL).

Immersion:

Approach to teaching language in which the target language is used exclusively to provide all instruction (NCELA, 2004).

Immigrant:

Any person living in the United States who is originally from another country. For NCLB purposes, an immigrant is defined as a person, aged 3-21 born outside of the United States who’s attended school in the United States for FEWER than three years (KSDE, 2002).

Inclusion:

Inclusion is the integration of special needs students into the mainstream classroom (Reeves, 2002).

L1 (Native language):

A student’s home or heritage language.

L2: Second language

Mainstream:

Mainstream teachers are defined as those who are either elementary classroom teachers or are core content teachers at the middle school and secondary levels (Walker, Shafer, & Liams, 2004). Neither special education nor ESL teachers are considered mainstream teachers. This term has been used in different contexts in the professional literature

(including special education contexts) and is viewed by some as having negative connotations (see PES).

MBE (maintenance bilingual education): This program, also known as two-way, developmental, or late-exit, uses the student's primary language and English as a means of instruction. The instruction builds upon the student's primary language skills and develops and expands the English language skills of each student to enable him or her to achieve proficiency in both languages, while providing access to the content areas. (USDE, 2004).

No-ESL: Experienced teachers without significant ESL-specific university coursework.

PES (primarily English-speaking): This term describes teachers who are monolingual English-speakers or whose native or dominant language is English. This term also describes classroom settings in which English is the primary language of instruction and use among students. The term "mainstream" is similar in meaning to PES and is used extensively in the literature when referring to English-dominant, grade-level, or content-area teachers and classrooms. This term has been used in different contexts in the professional literature (including special education contexts) and may present negative connotations or confusion. The researcher has therefore chosen to use the term PES rather than mainstream throughout the document.

PS: preservice

TBE (transitional bilingual education): This program, also known as early-exit, utilizes a student's primary language in instruction. The program maintains and develops skills in the primary language and culture while introducing, maintaining, and developing skills in English. The primary purpose of a TBE program is to facilitate the ELL student's transition to an all English instructional program while receiving academic subject instruction in the native language to the extent necessary (USDE, 2004).

Organization of the Study

Chapter One has provided an introduction to the study, its purpose and significance, and a list of terms and acronyms to be used in presenting the study. The remainder of the research report is organized into Chapters Two through Five. Chapter Two presents a review of the pertinent literature. Chapter Three outlines the methodology employed in the study with a discussion of the research questions, research design, means of data collection and analysis, and reliability. Chapter Four presents the

results of the data analysis. Chapter Five summarizes the study with a discussion of key findings and implications, limitations to the study, and suggestions for further research.

Chapter 2

Review of the Literature

Introduction

The population of school-age English language learner (ELL) students in the U.S. has steadily and markedly increased over the past decade, with projections indicating that this trend will continue (Kindler, 2002; McClosky, 2002). Rapidly changing demographics, evolving federal and state policies, and politically charged debates have contributed to new challenges faced by educators in meeting the needs of this student population. The majority of our nation's teachers, especially those in areas of the country with an unprecedented influx of English language learners, have little preparation or experience in serving these students effectively. There is an urgent need for professional development among educators in order to foster inclusive school environments that value and support linguistic diversity. Professional knowledge is further needed to dispel common myths and misconceptions concerning the education of ELLs (Walker, Shafer, & Liams, 2004).

This review of the literature will analyze current research relative to the effective education of ELL students, with particular focus on the significance of addressing teachers' perspectives on the incorporation of ELL students' native languages into instruction. The chapter begins with an overview of the historical, ideological, and political roots of language policy in the United States. Evidence demonstrating the critical role of the native language (L1) in the school success of ELLs is then presented, followed by a discussion of the detrimental effects of native language suppression. Next,

various language programming models are described, leading into a summary of studies pertinent to the practice of use of the L1 in instruction in predominantly English-speaking settings. Subsequently, a conceptual framework highlighting the role of teachers as translators of language policy is presented. Finally, studies relevant to teachers' perspectives on use of the L1 in instruction are reviewed, and the chapter concludes with an emphasis on the need for more research in this area.

Language Policy in the United States

Throughout society, the use of languages other than English has long been an issue of controversy in the U.S., with language policy and legislation being cyclical in nature. Native language support for English language learners appeared early in our history. The Continental Congress, for example, printed a number of documents, including the Articles of Confederation, in German and English. In 1837, Pennsylvania legislation required that school instruction be provided in both German and English. California, which was officially bilingual for 30 years, printed its first state constitutional proceedings in Spanish and English (Trasvina, 1988).

Tolerance for linguistic co-existence, however, was short lived with exclusionary language legislation appearing in the 1870s, during the Centennial Era. On the west coast, for example, the Anti-Chinese Workingman's Party led California's second constitutional convention to ratify the state's first English Only provisions. Such exclusionary action continued during the World War I period. In 1917, Congress cut off immigration from designated geographic areas and added a literacy requirement to the immigration law, which was designed to reduce immigration from eastern and southern

Europe (Trasvina, 1988). The Americanization Movement and anti-German sentiment that evolved during World War I affected state laws as well. The Nebraska Act of 1921 made English the official language of its state and required that all state proceedings be printed in English only. Likewise, the state legislatures and courts of 20 midwestern states enacted laws to bar schools from teaching German, arguing that these laws were necessary to “both support a common language and to prevent children from being confused by a second language” (Trasvina, 1988, p. 16).

While these laws gained widespread popularity among the public, the U.S. Supreme Court found that they violated the rights of those who were not fluent English speakers. In 1923, the Supreme Court nullified restrictive state language laws in *Meyer vs. Nebraska*, barring the enforcement of English Only laws in Nebraska, Ohio, South Dakota, and other states (Trasvina, 1988). As a result of the civil rights movement, the U.S. further eradicated practices that used language to discriminate against ethnic and language minorities and enacted legislation designed to address the needs of ELL students. Much of today’s educational policy involving ELL students is grounded in the Civil Rights Act of 1964. Title VI of this act states: “No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance” (Berube, 2000, p. 16). ELL students are protected under this act because their non-English fluency is viewed as an extension of their national origin. Under this law, ELL students in public schools must be given equal educational access and opportunities.

The Voting Rights Act of 1965 put an end to the mandatory literacy tests that had prevented many African Americans from voting. Subsequently, the new Title VII of the Elementary and Secondary Act, referred to as the Bilingual Education Act, was enacted in 1968 to enable schools to meet the educational needs of non-English speaking children (Trasvina, 1988). The Bilingual Education Act was the first piece of federal legislation to recognize that ELL students were not receiving an adequate education in schools that operated exclusively in English. This legislation authorized more teacher training and resources in an effort to address the needs of ELL students. The focus of the law was to improve the school success of students who were at a disadvantage in the current educational system because of their inability to speak fluent English (Schmid, 2001).

Following enactment of the Bilingual Education Act, additional language-based laws and regulations were passed that promoted equitable educational opportunities for ELL students. In *Lau vs. Nichols* (1974), the U.S. Supreme Court held that placing non-English speaking students in a classroom with no special assistance and providing them with instruction that was not comprehensible to them violated Title VI of the federal Civil Rights Act of 1964, citing that “there is not 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” (*Lau vs. Nichols* 1974, p. 566).

In 1974, the Equal Educational Opportunities Act (EEOA) required that school districts take appropriate action to overcome language barriers that impeded equal participation by students in their instructional programs. Controversy followed, however, on what constituted such “appropriate action.” The interpretation of the EEOA was

clarified in 1981 in the case of *Castenada vs. Pickard* which formulated a set of basic standards to determine if a school district was in compliance with the EEOA. These standards required schools to implement language programs for ELLs based on sound educational theory and to demonstrate that their language programming produced positive results. Also of importance was the determination under this case that the type of appropriate compensatory language programs to be implemented should be left up to the state and local educational authorities (Shmid, 2001).

Changing Attitudes Toward Racial and Ethnic Assimilation

At the same time that American social and legal systems moved in the direction of increased civil rights and protection for ethnic and linguistic minorities, public attitudes toward racial and ethnic assimilation began to change. The increase in legal entitlements for language minorities, coupled with a large wave of immigration in the last three decades of the twentieth century, brought attention to the country's increasing linguistic and cultural diversity. In 1980, the number of language minority Americans increased more than four times the rate of the overall population. By 1990, nearly one in every six school-aged students regularly spoke a language other than English at home. By the mid 1990s, almost seven percent of the country's elementary and secondary students were classified as ELL. Over 90 percent of immigrants to the U.S. at the end of the twentieth century were from non-European countries. The rate of increase in minority populations was nearly twice as fast in the 1980s than in the 1970s. This rapid increase in immigration largely fostered a misperception among Americans that newcomers were no

longer learning English, which in turn, led to an increased anti-foreigner sentiment (Schmid, 2001).

In the 1980s, the perceived indifference of immigrants toward English fostered a resurgence of xenophobia and led to increased ideologies of assimilation and monolingualism. To many Americans, immigrants seemed content to live in insular communities where they could maintain their native languages and cultures in everyday life. These perceptions led some Americans to feel like outsiders in their own neighborhoods (Schmid, 2001). Soon groups such as English First and U.S. English began to spread a sentiment of unease with bilingualism, or more precisely, with the notion that immigrants did not want to learn English. They asserted that the common language of English, which was the social glue that held society together, was being threatened as immigrants continued to speak their heritage languages (Crawford, 1989). Not only was English as the national language being threatened, according to Official English/English Only groups, so too was the unity of the United States. Bilingualism was also perceived as a negative force in children's development with many teachers of ELLs viewing bilingualism as a "disease that not only causes confusion in children's thinking but also prevents them from becoming 'good Americans'" (Cummins, 1981, p. 33). These teachers felt that in order to successfully teach children English, it was a necessity to eradicate their bilingualism. As a result, ELL students were often punished for speaking their L1 in school and made to feel ashamed of their own language and cultural background. Educators argued that deficiencies in English should be remediated by intensive instruction in English.

In the fall of 1986, over 70 percent of California voters passed Proposition 63 which amended the state constitution to make English the official language of the state. The law forbade the legislature from passing any new law which “diminishes or ignores the role of English as the common language of the State of California” (Trasvina, 1988, p.10). Since that time, efforts to amend state constitutions to establish English as the official language have appeared in a numerous other states. In 1987, 37 state legislatures debated the issue (Trasvina, 1988). By November of 2000, 25 states passed laws making English the official language -- more than at any time in America’s history (Schmid, 2001).

Ideologies of Assimilation and Monolingualism

Proponents of English only movements and legislation portray language diversity as a divisive force. They ground their arguments in the commonly held belief that immigrants resist learning English and cling to their native languages and cultures, separating themselves linguistically from mainstream society (Tse, 2001). Public opinion on how well children are learning English, as indicated by congressional speeches and newspaper editorials, mirror policy-maker views that immigrants are not learning English fast enough nor well enough, and that the cause of this is the continued use of the native language. Politicians and the media argue that legislation is needed to compel immigrants to learn English and without such intervention come negative consequences for the country such as the expansion of current immigrant pockets beyond their enclave communities. This expansion of immigrants who don’t want to learn English could, in turn, threaten English as the national language as well as the unity of the country (Tse,

2001). The dominant trend in the United States is to see assimilation as a zero-sum process. According to this perspective, true acculturation means shedding the mother tongue and learning English. Consequently, most educational programs in the U.S. are based on subtractive linguistic acculturation which promotes the use of English only, leading to the eventual demise of the heritage language (Shmid, 2001).

While the ideas that immigrants and their children are not learning English and resist doing so are a prominent arguments for language restriction policies, they are in fact based on myth (Krashen, 1996; Trasvina, 1988; Tse, 2001). Abundant evidence shows that immigrants historically have had and continue to have a strong desire to learn English. In 1986, almost 40,000 Hispanics and Asians in Los Angeles were placed on waiting lists for or were turned away from already packed ESL classes. Ninety-eight percent of Hispanics in 1985 said that it was important for their children to learn to read and write in English (Trasvina, 1988). Every major poll or survey taken during the last decade and a half of the twentieth century has shown that the vast majority of immigrants believe it is very important to learn the English language (Shmid, 2001). Additionally, contrary to public perception, children of immigrants are by and large learning English rapidly and succeeding in school. Especially important to note is that these achievements are being made in spite of formidable obstacles including socioeconomic barriers and inadequate language programming in public schools. In fact, it has been shown that immigrant children actually prefer English over their L1, which has contributed to the systematic loss of the native language for many immigrant families (Tse, 2001).

In addition to the common misperception among Americans that immigrants resist learning English, many recent surveys illustrate further widespread misconceptions about

immigrants and language policy. In general, white Americans overestimate the number of minorities in the U.S. and believe that most immigrants enter the country illegally, which is incorrect (Shmid, 2001). There is also a general belief that immigration has never been higher, when, in fact, as a percentage of the American population, foreign-born residents were a larger proportion of the U.S. at the beginning of the 20th century. Additionally, although over two-thirds of Americans believe that English is the country's official language, to the contrary, the U.S. does not have an official language (Shmid, 2001).

The English Only movement, like the Americanization movement before it in the 1920's, has prompted a resurgence of antforeigner sentiment to the detriment of ELL students. For many Americans, there is a conviction that national identity and speaking English are inseparable. Many believe that English is one of the few values that hold Americans together and fear the expansion of immigrants' heritage languages:

There currently exists a 'national schizophrenia' on the subject of language: languages taught in school are valued, while 'ethnic' languages are feared. While proficiency in another language is seen as an educational advantage for native English-speakers, it is seen as a deficit for ELL students. The linguistic gifts of new Americans are largely neglected and allowed to deteriorate, while their children lose a sense of identity that the mother tongue once conveyed. (Crawford, 1989, p. 237)

High rates of immigration from Latin America and Asia, coupled with common misperceptions about immigrant and language issues, have fueled English-Only forces in a drive to limit bilingual services and encourage English-Only laws in the educational sector. Evidence of this can be seen in California, Arizona, and Massachusetts, where voter referendums have banned bilingual education and limited ELL instruction to a single year of structured immersion (Krashen, 2002). Rather than making decisions

based on sound educational research, voters in these states have been influenced largely by prevailing societal attitudes, media bias, and political campaigns funded by organizations such as English First and U.S. English (Krashen, 2002).

These laws, however, have not promoted national unity and acceptance of newcomers, but rather have prompted an antforeigner sentiment that fuels public ideologies of monolingualism and assimilation. Immigrants are perceived as refusing to assimilate and to learn the English language, even though research shows that most ELL students are learning English and actually lose their native languages by the second or third generation (Shmid, 2001). In the second half of the twentieth century, non-English speaking immigrants did have more legal protections than those who entered the U.S. before them. However, legislation has not established an entitlement to language rights, either under the constitution or under the major federal statutes (Shmid, 2001). Rather, language-based rulings such as *Lau vs. Nichols* (1974) and the No Child Left Behind Act (2001) have established limited rights for language minorities. Under these statutes, decisions about language programming have largely been left up to state and local entities, whereby programs are not required to use instruction in students' native languages.

Role of the Native Language in the Education of ELLs

Use of the native language in the instruction of ELLs has long been an issue of controversy. The debate, however, has been fueled not by educational and pedagogical considerations, but rather by changing conceptions of immigration and cyclical political ideologies. Despite fluctuating attitudes toward the issue, methodologically rigorous

long-term research has consistently underscored the importance of the native language in promoting the school success of ELL students. For example, in their longitudinal study on school effectiveness for ELL students, Thomas and Collier (1997) concluded that native language support “explains the most variance in student achievement and is the most powerful influence on [ELL] students’ long-term academic success” (p. 67). Studies clearly demonstrate that use of the native language in the instruction of ELLs is integral to advancing their academic, cognitive, and linguistic development as well as fostering a positive self-esteem and cultural identity among these students (Greene, 1998; Krashen, 1996; Ramirez, 1992; Ramirez, Yen, & Ramey, 1991; Thomas & Collier, 1997, 2002; Willig, 1985).

Cummins’ Interdependence principle (1981, 1989) identifies a common underlying proficiency (CUP) that enables cognitive/academic and literacy related skills to transfer across languages. According to the CUP model (also referred to as the Transfer Theory), instruction in the native language provides the comprehensible input students need to develop academic concepts. Once a concept or skill is learned in the first language, it will transfer to the second language. For instance, a student who learns about the process of photosynthesis in their L1 needs to learn the corresponding English vocabulary to talk about it, but they do not have to relearn the concept again in English. Likewise, students who, in their native language, have developed the metacognitive skill of monitoring their own learning or the social-affective cognitive skill of questioning for clarification, will have these skills to draw upon in the second language. Learning these skills in one’s strongest language is much easier than trying to learn them in a second language while simultaneously struggling with new vocabulary.

Research also strongly supports the transferability of literacy skills across languages. Studies have shown that when confounding variables are controlled, there are positive correlations between literacy development in the first and second language (Krashen, 1996). Students only learn to read once. Students who have been taught to read in their L1 do not need to learn a new set of sound-letter correspondences, but they do not have to relearn the whole process of reading in English (Cummins, 1981).

Research has additionally demonstrated the transferability across languages of “context-reduced” proficiencies such as those involved in reading (e.g., inferring and predicting meaning based on sampling from the text) and writing (e.g. planning large chunks of discourse) (Cummins, 1981; Saville-Troike, 1984). Data further indicated that there may be strong relationships between context-embedded language proficiencies that are language specific (e.g. decoding or spelling) across languages (Cummins, 1981). Even when the languages and writing systems appear to be very different, the underlying process of reading in different languages is similar. For instance, research has shown that reading ability transfers from Vietnamese to English and from Japanese to English (Cummins, Swain, Nakajima, Handscombe, Green, & Tran, 1984)

Cummins’ CUP Model helps to explain why students who have a strong educational background from their native country often perform better academically than students who have been in English-speaking schools longer but did not receive an adequate education in their L1. Students who received instruction from the beginning in a language they could understand developed skills and concepts, negotiated meaning, and learned to read. They were then able to transfer these abilities as they began learning English in a new environment (Cummins, 1989).

In addition to serving as a pedagogical tool that allows ELL students greater access to academic content and the ability to draw on previously acquired skills and knowledge, native language use and development also have psychological benefits. Use of the native language confers status and suggests value and power. When the L1 of students is valued and capitalized upon, their language is given a status comparable to that of the dominant language (Aurbach, 1993) and the cultural and personal identities that they bring to the classroom are affirmed (Cummins, 2002). When the student's native language is placed in high esteem, the student's own self-esteem is likely to improve. Use of students' native languages can also increase their motivation and success in school by reducing the degree of culture and language shock they are facing (Aurbach, 1993). Parents are also more likely to become involved in their children's education if use of the native language is valued, especially by predominantly English-speaking teachers (Hamayan, 1990).

Detrimental Effects of Native Language Suppression

Those who promote the use of English only in the instruction of ELLs argue that students must be immersed in English and that the native language should be left behind in order for effective learning and second language acquisition to take place. This argument implies that proficiency in the L1 is separate from proficiency in English, and that there is a direct relationship between exposure to a language (in home or school) and achievement in that language (Cummins, 1981). The separate underlying proficiency model (SUP) maintains that if the L1 and L2 proficiency are separate, then content and skills learned through the L1 cannot transfer to the L2 and vice versa. However,

researchers have found no evidence supporting the SUP model (Cummins, 1981). To the contrary, suppressing or no longer nurturing the native language of ELLs during the development of proficiency in the second language, can have inhibiting and sometimes detrimental effects on the first language (a process known as subtractive bilingualism). Subtractive bilingualism may even result in skills that are below expected levels of proficiency in both languages, especially in academic areas – a state referred to as semilingualism. The educational strategy that best overcomes subtractive bilingualism and its resulting semilingualism is that of valuing and promoting the development of ELL students' native languages (Cummins, 1981).

Although most policymakers and educators agree that ELL students need extra support in learning English, the role of students' native languages in programs for these students is controversial. Even within schools in which the native language is incorporated in instruction, individual teachers may argue that it is unnecessary and even detrimental to students' mastery of English. However, the evidence suggests that the opposite is true. It takes ELL students from two to three years to become proficient in basic communication skills (BICS) in a second language and from four to ten years to approach grade-level competence in second language cognitive/academic skills (CALP), depending upon a variety of factors (Cummins 1981). Thus, if students enter school at any grade without having developed BICS or CALP, they will be at a distinct disadvantage if they are expected to function and learn only in English. However, when schools provide instruction and support in students' native languages, ELL students have access to content while they are still developing their English skills. Unfortunately, a frequent assumption among educators is that ELL students have become proficient in

English once they have acquired relatively fluent conversational skills. Academic deficits are often created by teachers and psychologists who fail to realize that it takes ELL students considerably longer to attain CALP than it does BICS (Cummins, 1981). As students appear fluent in English, they are expected to perform at grade-level without use of the native language or other forms of support. This creates numerous obstacles (both academic and social) for ELL students in their quest for success in school.

Cummins (1989) identifies a continuum in relation to educators' views on students' use of the native language. At one end of the continuum is an additive perspective where bilingualism and biculturalism are seen as positive resources to be drawn on in designing instruction. On the opposite end is a subtractive perspective in which bilingualism and biculturalism is seen as impediments to academic achievement and English language development. Subtractive perspectives (also referred to as deficit model perspectives) view ELL students' native languages as obstacles that must be overcome. However, when ELL students' native languages are not valued and utilized as key resources, this can not only hinder academic and second language development, but it can have devastating effects on a students' self-esteem and sense of cultural identity. Cummins (2002) contends that political initiatives and school programming which are grounded in a deficit perspective send a clear message to ELL students and their parents that only certain kinds of identities are accepted within the school and society.

When [ELL] students are instructed, explicitly or implicitly, to leave their language and culture at the schoolhouse door, they are also being told that everything they have learned from parents and grandparents up to this point in their lives has no value; the language through which they have expressed themselves up to this point in their lives is deficient and must be replaced by a superior model. In such classrooms, human potential is being diminished. (Cummins, 2002, p. 2)

Not only are problems in school exacerbated by misperceptions commonly held among educators about language development (i.e. ELLs learn better if they are prohibited from using their native language in school, and learning a second language is entirely different from learning one's own native language), but they can also be intensified by misunderstandings among the family members and peers of ELLs. In many ways, parents are gatekeepers to the development of a child's native language. The first possible exposure to the native language for any child is in the home before the child reaches school age. Whether parents speak to their child in the L1, the attitudes parents hold about maintenance of the L1, or the degree to which parents provide L1 reading materials in the home all may have an impact on how the child develops and maintains the L1 (Tse, 2001). Unfortunately, many immigrant parents operate under the false assumption that speaking the L1 at home will hinder their child's development of English and academic achievement in school. Beyond the immediate family, the community and peers may also serve to encourage or discourage the development of the L1. The value placed on knowing and utilizing the L1 by these groups can have a tremendous impact on a child's motivation to improve proficiency in the L1 and be proud of speaking a native language other than English (Tse, 2001). When these groups hold misperceptions or negative attitudes about native language development, however, this can have a negative impact on the ELL student's continued development and use of the native language.

Programming for ELL Students

The lack of specificity in the wording of Lau vs. Nichols (1974) and subsequent federal language legislation (often referred to as the Lau Remedies) gave states and

school districts a great deal of latitude in designing and implementing their Lau plans (language programs serving ELL students). The main directive given to school districts was that they take appropriate action to help ELL students overcome language barriers that impeded them from access to equal educational opportunities (Berube, 2000). Although the Office of Civil Rights (OCR), the federal agency in charge of monitoring compliance with the Lau legislation, encourages districts to utilize the native language of ELL students in content-area instruction, use of the L1 is not required by law.

School districts have several options when it comes to programming for ELL students. Programs generally fall into three categories: ESL courses in combination with content-area instruction in students' native languages (bilingual programming), ESL classes in combination with modified content-area instruction in English, or ESL classes in combination with regular content-area classes (or ESL pull-out) (Berube, 2000). The first category, bilingual programming, includes different models such as transitional bilingual education (TBE) and maintenance bilingual education (MBE). TBE focuses on maintaining and developing skills in the primary language and culture while introducing and developing skills in English. The primary purpose of a TBE program is to facilitate the ELL student's transition to an all English instructional program while receiving academic instruction in the native language to the extent necessary (USDE, 2004). MBE (also referred to as two-way or developmental) uses the student's primary language and English as a means of instruction. The instruction builds upon the student's primary language skills and develops and expands the English language skills of each student to enable him or her to achieve proficiency in both languages, while providing access to the content areas (USDE, 2004). Research indicates that this is the most effective of

program models, providing numerous benefits for both ELL's and native English-speaking students (Ramirez, Yen, & Ramey, 1991; Thomas & Collier, 1997, 2002; Willig, 1985).

The second programming category, ESL classes in combination with modified content-area instruction in English, focuses on teaching English and content through an integrated approach. There are different models in this category, such as sheltered instruction or integrated content-based instruction (ICB). The goal of these models is for ELL students to develop English language skills while learning subject matter in English. Different strategies are used by the teacher to make subject matter comprehensible and meaningful to the ELL student. Instruction is often supplemented with ESL classes that focus specifically on English language development.

In the third type of programming, ESL pull-out, students leave their regular content-area classrooms to attend programs in where they receive intensive English language instruction. The amount of time ELL students spend away from their regular classroom to receive this service may range anywhere from a few hours a week to an hour or more a day. Although this type of programming is the most prevalent, accounting for over half of all language programs implemented in America's schools (Berube, 2000), research indicates that it is the least effective (Thomas & Collier, 1997; 2002). The ESL pull-out model is problematic for a number of reasons. First, ESL pull-out programs are the most expensive of all program models because they require recruiting and hiring extra resource staff who must be trained and continuously supported (Crawford, 1997; Herrera & Murry, 2005). Second, when students leave the classroom to receive ESL services, they often miss out on much of the regular grade-level curriculum.

Leaving their classroom, coupled with not having access to content-area instruction in the L1, makes it very difficult for ELL students to achieve academically at grade-level (Ovando & Collier, 1998). These obstacles serve as a key contributor to the widening achievement gap between ELL students and their native English-speaking peers (Thomas & Collier, 2002). Finally, the social assumption that is tied to ESL pull-out programming is that ELL students have linguistic deficiencies that need to be remediated. ELL students often feel isolated and stigmatized as they are sent to what is commonly perceived by staff and other students as a remedial class (Herrera & Murry, 2005; Ovando & Collier, 1998).

Despite the popularity of pull-out ESL programs or modified instruction in English for ELLs, the fact remains that these programs usually exclude an element critical to the academic success of students – utilization of the native language. In addition to numerous studies emphasizing the importance of L1 use in the instruction of ELLs, the *Standards for the English Language Arts*, put forth by the International Reading Association and National Council of Teachers of English in 1996, explicitly focus on the need for this practice. Two of the twelve standards directly relate to ELL student issues with one focusing on the importance of native language development, and the other promoting an understanding of and respect for diversity in language use. Authors of the English arts standards stress the importance of native language development in learning English, with one standard directly stating that ELL students should make use of their first language both for learning English and content-area subject matter (Anstrom, 1997).

Researchers are further calling particular attention to the increased need for this practice at the secondary level. In 2002, data on language of instruction for over three quarters (77%) of ELL students nationwide indicated that 22.7% of ELL students were receiving instruction that incorporated the student's native language. English was the exclusive language of instruction for 53.9% of the national ELL enrollment. Native language was incorporated more frequently in the elementary grades, with English becoming more prevalent in the later grades. The general trend showed a noticeable decrease in instruction that incorporated the native language for ELL students for increasing grade levels (Kindler, 2002). The decrease in incorporation of the L1 at the secondary level is an issue of great concern. Adolescent immigrants enter the U.S. from many countries for economic and political reasons. Even ELL students who do enter U.S. schools at elementary grades may not have had time and opportunity to develop their English abilities sufficiently by the time they reach the secondary grades (Lucas, 2005). Students at the secondary level who are not proficient in English face serious challenges in their quest to succeed in school. In only a few years, they must learn about and adjust to an unfamiliar educational system if they are to successfully prepare for future schooling or employment, and they must develop their oral and written English abilities to be able to communicate complex concepts in various subject areas. For the most part, the native languages of secondary ELL students are rarely incorporated in instruction, leaving them with little support in this difficult undertaking (Lucas, 1992).

Incorporation of the L1 in Predominantly English-Speaking Settings

Research indicates that bilingual education is the most successful type of programming for ELL students (with some models being more effective than others) (Thomas & Collier, 1997, 2002; Willig, 1985). However, the reality is that traditional bilingual programs are not feasible in many instances. Reasons for this include a limited number of qualified bilingual staff or contexts in which multiple native languages are represented among the ELL population. Under the most common type of program model (ESL-pull out) currently being implemented in U.S. schools, ELL students spend the majority of the school day in English-dominant content-area classrooms with predominantly English-speaking (PES) teachers. With the incorporation of the native language in instruction remaining integral to the school success of ELL students, the responsibility of implementing this practice falls primarily on the PES content-area teacher. While many educators view this as a daunting (and often impossible) task, promising research demonstrates that regardless of the school's official language programming model, PES teachers can feasibly incorporate the native language of ELL students into instruction in their content-area classrooms in a variety of purposeful and beneficial ways.

A study of nine exemplary K-12 programs for ELL students in which English was the primary language of instruction (Lucas & Katz, 1994) demonstrated the feasibility of L1 use in instruction. The majority of the programs in this study (thought of as English-only programs) were characterized by a pervasiveness and variety of uses of students' native languages. These programs, unlike traditional bilingual education programs, were designed to provide instruction primarily in English. In practice, however, the classrooms were multilingual environments in which students' native languages served a

multitude of purposes and functions. Use of the native language gave students access to academic content, to classroom activities, and to their own knowledge and experience. This practice also empowered teachers to show students that their languages and cultures were held in high esteem. Incorporation of the L1 further promoted positive social interaction and an inclusive environment for all students, fostered family involvement, and created a sense pride among ELLs in their native languages and cultures (Lucas & Katz, 1994).

Across sites, native language use emerged as a persistent and key instructional strategy realized in very site-specific ways. (At many of these sites, it was emphasized that it was not a district policy but rather up to the teacher to make a decision about the use of students' native languages) (Lucas & Katz, 1994). Of the many ways that native language use in instruction was successfully implemented included teachers pairing students with the same L1 but different levels of English proficiency and experience. This strategy allowed more fluent students to help the less fluent ones with language, to clarify instructions, and to assist in explaining content-area material. Another practice consisted of teachers encouraging ELL students to use bilingual dictionaries when they did not understand something in English. A third beneficial strategy included teachers encouraging ELL students to ask their parents for help with schoolwork in the L1. For instance, at one site a teacher, knowing that a student's father was more proficient than the student in English, persuaded the student to ask her father to explain her social studies assignment to her in the L1.

Tikunoff, et al. (1991) found that one of the major instructional features impacting the school success of ELL students in PES settings was incorporation of their native

language into instruction. This study outlined several ways in which PES teachers can promote use of the L1 in learning for ELL students. Strategies include specifically structuring classroom activities in which ELLs are required to use their native language; utilizing the services of aides, student peers, or volunteers fluent in students' native languages to help explain academic concepts; and encouraging students to respond to questions in their native languages.

Freeman and Freeman (1993) offered a number of ways for PES teachers to enhance the language and literacy development of ELL's through incorporation of the L1 in instruction. Their suggestions were based on their work with teachers who had involved their students in native language reading and writing even though the teachers did not speak the L1 of all their students. These teachers included those in districts with no bilingual education despite large numbers of ELL students, and teachers who had only a few ELL students in their classes. PES teachers used a variety of strategies to incorporate and value the L1 of their students into classroom practices. They ensured that environmental print reflected the students' L1. They provided the school and classroom libraries with ample books, magazines, and other resources in languages other than English. (One teacher described how her ELL students would first select materials in Spanish for research on thematic units. As the students learned more about the content, they switched between books in Spanish and English). Additionally, teachers encouraged ELL students to publish books and share their stories in languages other than English. They further had their ELL students read and write with aides, parents, or other students who spoke the same L1 and used videotapes in the L1 of ELL's produced professionally or by the students.

English only instruction and bilingual education do not need to be conceptualized as opposite extremes of a continuum. Rather, when educators ask themselves what circumstances and strategies will provide the best opportunities for particular students to learn in a particular setting, they must consider that for ELL students, use of the L1 is a key resource for teaching both content and English (Lucas & Katz, 1994). Furthermore, as research demonstrates, use of the L1 to promote the academic, cognitive, linguistic, and social development of ELLs is a practice that PES teachers can successfully implement in a variety of contexts and settings.

Teacher Roles in the Translation of Language Policy

Historical accounts of language education in the U.S. show that there have been cyclical fluctuations in language policy which were often influenced by political (versus pedagogical) factors and which reflected larger societal power relations (Schmid, 2001). With ESL pull-out programs being the most prevalent form of second language programming in American schools today, the long-standing debate between sides has once again shifted in favor of those who hold monolingual and assimilationist perspectives. Yet, experts contend that although the decisions that teachers make in the classroom are influenced by various ideological and political factors, these decisions “also take shape in policy contexts in which teachers themselves play agentive roles in the translation of policy to practice” (Varghese & Stritikus, 2005, p. 75).

Cummins (2000) presented a theoretical framework proposing that “relations of power in the wider society (macro-interactions) influence (how) educators define their roles and the types of structures that are established in the educational system” (p. 44).

Educators define their roles according to the beliefs assumptions they hold regarding the education of culturally and linguistically diverse students. The types of power structures in educational institutions range in varying degrees from “coercive” to “collaborative” (p. 44). Coercive relations of power refer to the use of power and control by dominant groups or individuals (usually representing the majority population) to the detriment of subordinated groups or individuals (usually representing minority or traditionally underserved populations). Coercive relations of power are exemplified by dominant group policies and programming grounded in assimilationist perspectives that have been prevalent in our nation’s schools. Under these policies and programs, ELL students have been required to give up their native languages and cultures in order to be successful and accepted in American society. In order for the successful transmission of knowledge to occur, ELL students’ have had to leave behind their cultural and linguistic identities (which were viewed by the dominant group as obstacles that needed to be overcome). Collaborative relations of power, in contrast, do not subordinate minority populations (i.e. ELL students), but rather empower them to achieve more:

Within collaborative relations of power, ‘power’ is not a fixed quantity but is generated through interactions with others. Educational structures, together with educator role definitions, determine the micro-interactions between educators, students, and communities. These micro-interactions form an interpersonal space within which the acquisition of knowledge and formation of identity is negotiated. Power is created and shared within this interpersonal space where minds and identities meet. As such, these micro-interactions constitute the most immediate determinant of academic success or failure. (Cummins, 2000, p. 44)

A central principle of Cummins’ framework is that the negotiation of identity through micro-interactions is critical to the academic success or failure of the ELL student. With collaborative relations of power, micro-interactions create interpersonal spaces where ELL students’ identities are validated (i.e. their native cultures and

languages are viewed as assets) and a process of empowerment is generated that enables both students and teachers to challenge existing coercive relations of power. How an educator transacts language policy within his or her own classroom can either reinforce or challenge coercive relations of power. Educators who encourage use of the L1 are not only promoting literacy development and academic achievement (in both languages), but they are also directly challenging coercive relations of power (i.e. English-only movements that subordinate the native languages and cultures of ELLs) (Cummins, 2000).

Other scholars affirm the notion that ways in which teachers translate language policy into the classroom either reinforce or challenge societal relations of power. Auerbach (1993) contends that educators may espouse opposition to the English Only movement on a policy level, yet in their own classrooms they insist that their students use English as the sole medium of communication. He further argues that concerns often expressed by teachers regarding L1 incorporation in the classroom (such as not being able to speak the L1 themselves or having multiple native languages represented) often have ideological implications relating to how issues of power are embedded in classroom relations. Auerbach maintains that the issue of language choice often boils down to teacher-student roles, with the teacher having the power to either negate or reinforce use of the L1: “Whether or not we support the use of learners’ L1 is not just a pedagogical matter: It is a political one, and the way that we address it in instruction is both a mirror of and a rehearsal for relations of power in the broader society” (p. 10). Auerbach further argues that practices which are unconsciously accepted as the normal way of doing things (such as using English-only in the classroom) may be grounded in a particular political

ideology, serving to maintain the relative position of groups with respect to each other and helping to perpetuate existing power relations. “Relations of power and their affective consequences are integral to language acquisition. Acquiring a second language is to some extent contingent on the societally determined values attributed to the L1, which can be either reinforced or challenged inside the classroom” (Auerbach, 1993, p. 17).

Micro-interactions between educators and ELL students are never neutral with respect to power relations in the larger society (Cummins, 2000). Teachers’ roles within these interactions, particularly in regard to validation of ELL students’ native languages and cultures, either challenge or reinforce existing societal power relations. “Historically, subordinated group students have been disempowered educationally in the same way their communities have been disempowered in the larger society” (p. 49). Whether or not ELL students will succeed academically largely depends on to what degree teacher and student interactions challenge and reverse patterns that have dominated in the larger society. What’s important is not what a particular program is called (i.e. ESL, bilingual, sheltered instruction), but rather what is being transacted between educators and students (Cummins, 2000). Some programs labeled as bilingual may make little effort to value and incorporate students’ native languages and cultures into instruction. On the other hand, PES programs in various contexts may view infusion of the native language into classroom practices as an integral component to the success of ELL students.

Teachers' Perspectives Toward Use of the Native Language in Instruction

Scholars have argued that although educational policy is influenced by larger societal relations of power, teachers can play critical roles in how policy is translated into practice. Teachers are not seen as reproducers of a particular policy but rather are viewed as agents who make specific choices based on their own histories and their evolving professional lives (Varghese & Stritikus, 2005). These choices have particular implications for native language use in instruction. Teachers are policy-makers in their own classrooms. “Within the constraints of their educational systems, teachers, as individual decision-makers, choose language policy for their classrooms and infuse their practice with their beliefs about appropriate education for all students” (Reeves, 2002, p. 40).

Research suggests that individuals' beliefs are often good indicators of the decisions they make (Bandura, 1986) and the beliefs that educators hold directly influence their educational practices and their behavior in the classroom (Nespor, 1987). Teachers' theoretical beliefs are seen as key elements through which teachers perceive, interpret, and act upon information in the classroom (Clark & Peterson, 1986). Findings from a review of 36 studies on diversity and its relationship to teacher thinking (Moore, 1999) suggest that teachers come with distinct beliefs and conceptualizations about diversity. These beliefs affect what teachers know, and influence to what extent the context in which they work contributes to the implementation of classroom curriculum and policy.

With teachers playing such a critical role in the transaction of language policy into practice, it is essential to gain a better understanding of teachers' perspectives

relevant to language diversity. Karabenick, Phyllis, and Clemens (2004) concluded that teacher attitudes toward ELL students and language diversity can affect their receptivity to professional development efforts addressing ELL student achievement and related instruction. They suggested that attitudes can also promote or dispel commonly accepted myths about language and cognition that, unchallenged, can impede attempting new instructional practices (i.e. native language use in instruction) that are more conducive to ELL student success. Rueda and Garcia (1996) further suggested that teachers' beliefs and understandings toward dual language proficiency and biculturalism can have an important effect on their classroom behavior and practices and their treatment of native language use in the overall context of the classroom.

Yet, there is little research in the area of ELL students and their teachers' perspectives on native language use. There are few contemporary studies that address how teachers feel and think about language diversity issues regarding ELL students. There are even fewer studies that address predominantly English-speaking (PES) teacher perspectives, with most of the research in this area focusing on teachers in bilingual programs (Byrnes & Kiger, 1997). The following includes a review of studies addressing teacher perspectives toward the incorporation of native language use in the instruction of ELL students. While the first three studies discussed include both bilingual and PES participants (Ramos, 2001; Shin & Krashen, 1996; Rueda & Garcia, 1996) the remaining studies reviewed are specific PES teachers in English-dominant settings.

Research has shown that teachers' perspectives concerning the theoretical underpinnings of L1 use in instruction do not always parallel their perspectives on the practical implementation of L1 use. Ramos (2001) conducted an analysis of 218 K-8

teachers' responses to a survey dealing with teachers' opinions about the theoretical and practical aspects of use of the native language in the instruction of ELLs. Results indicated that support among teachers for the theoretical principles underlying L1 use was strong; however, support for its practical implementation was not as strong. Findings did not show any clear predictors of attitudes toward the issue, nor did the study produce any significant variations among groups in which teachers were clustered (K-2, 3-4, 5-8). Ramos concluded that teachers appeared to be guided by their own beliefs at the time of answering the survey (as opposed to factors such as teacher preparation or experience). Ramos further emphasized the need for more research in this area, with particular attention to consideration of teachers' personal opinions, feedback, and input when designing teacher preparation programs.

Consistent with Ramos' findings, Shin & Krashen's (1996) survey of 794 elementary and secondary teachers probing attitudes about L1 use in instruction showed gaps between theory and practice attitudes. While participants showed strong support for the principles underlying L1 use in instruction, their support for ELL students' actual participation in programs that incorporate this practice was not as strong. Contrary to Ramos' findings, however, results indicated that teachers with more supplementary training in ESL and bilingual education were more supportive of use of the L1. Shin and Krashen further observed that relatively few respondents opposed ELL students developing literacy and learning subject area material in the L1 in school (less than 30%), yet only slightly more than half approved of it, with a substantial percentage saying they were not sure. Additionally, 40% of participants were opposed to continuing L1 development for students who were already bilingual. Shin and Krashen emphasized the

need to explore reasons behind the discrepancy between support for the underlying principles and the actual implementation of L1 use in instruction. They further noted that teachers who had some supplementary training showed stronger support for L1 use, and that those with more ELL students and who were fluent in another language tended to support L1 use more. However, they concluded that it can't be determined from the data whether training led to the support, or whether those who already supported L1 use were more likely to seek supplementary teacher education.

In a qualitative study, Rueda & Garcia (1996) examined the beliefs and practices of special education, credentialed bilingual, and bilingual waived teachers relevant to the incorporation of L1 in instruction. A significant pattern that emerged from participant interviews and classroom observations conducted in the study was the pervasiveness of a strong pressure for ELL students to learn English rapidly. Rueda and Garcia noted that teachers who would have otherwise supported L1 instruction were concerned about the limited opportunities that would be available to students who did not become proficient in English. This concern for students, coupled with the pressure for students to learn English, appeared to hinder these teachers from having a more positive perspective on bilingualism and biliteracy. Rueda and Garcia further observed that although all of the teachers had been exposed to theories that emphasize L1 instruction as a bridge to building English literacy skills, they were reluctant to incorporate students' native languages into instruction because of the strong school emphasis on English proficiency. Results also showed that although there were no group differences between teachers' views on bilingualism/biliteracy, the views of all groups tended to be less than positive. Rueda and Garcia proposed that effects of beliefs were mediated by features of

the context, such as the strong emphasis on the rapid acquisition of English found in many schools. Many of the teachers expressed somewhat negative views of bilingualism and biliteracy, even those who had specialized coursework in how to incorporate language and culture in teaching. Rueda and Garcia emphasized the need for further exploration of issues such as whether certain teacher beliefs existed before their professional coursework and remain unchanged, or whether their beliefs were modified as a result of factors in the contexts where they taught.

In their quantitative study of 191 PES teachers' attitudes toward language diversity, Byrnes and Kiger (1997) found that region of the country, experience working with language minority children, and a completed graduate degree were related to positive language attitudes among teachers. Results suggested that formal training gives teachers skills necessary to work effectively with ELL students and reduce the degree of negative language stereotypes held by teachers. Byrnes and Kiger expected elementary level teachers to be more positive in their language diversity attitudes than secondary level teachers. They based this assumption on the rationale that secondary teachers tend to focus more on subject matter and content area than elementary teachers and that their attitudes are likely to be influenced by frustrations at perceptions of poor progress by ELL students. Contrary to these expectations, however, they did not find grade-level to be a significant moderating factor on teachers' language attitudes.

Byrnes and Kiger (1997) concluded that experience is associated with language attitudes and that formal training should include carefully planned presentations and field experiences that focus on attitudes necessary to understand and appreciate language and cultural diversity. They cautioned, however, that experience should be in a supportive

context in which teachers have resources at their disposal to help them effectively work with ELL students.

In a survey of 729 teachers in a midwestern suburban school district recently impacted by a large increase in immigrant and refugee ELL students, Karabenick and Clemens (2004) found that while teachers generally held positive attitudes toward ELLs, bilingual education, and bilingualism, there were a large number of teachers who held less supportive beliefs, attitudes, and practices. Teachers more accepting of ELLs in their classes were more likely to believe that an ELL's proficiency in the L1 promotes school performance and doesn't hinder the learning of a second language. They were also more inclined to believe that bilingualism and bilingual education are beneficial and that ELL students should be tested in their L1.

Most teachers (80%) considered it possible to be equally proficient in more than one language. However, slightly more than half (52%) believed that the use of the L1 at home interferes with learning a second language, whereas 29% did not believe this and 23% were unsure. Thus, although most teachers believed it was possible to be equally proficient in two languages, they viewed use of the L1 in the home as having a negative effect on the speed and efficiency with which ELLs acquired an L2. Teachers also evidenced a disposition toward an English immersion approach with the tendency to agree with the following statement: "The more students are exposed to English, the more they will learn" (p. 62). Karabenick et al. (2004) proposed that this may signify an emphasis among teachers on the acquisition of BICS, rather than use of students' L1 as a means of developing CALP. They conclude that teacher language attitudes evidenced in the study signal a need to offer professional development sessions that incorporate second

language acquisition theory, with particular emphasis on successful techniques to build bridges between the L1 and L2.

Findings from studies indicate that myths and misperceptions relevant to ELL students and language acquisition are prevalent among teachers. Survey results collected from 422 K-12 teachers in a triangulation mixed method study assessing prevailing ideological beliefs and attitudes of PES teachers highlighted two common misnomers in second language acquisition believed by both teachers and the U.S. public. Fifteen percent of respondents (N=61) felt that ELLs learn better if they are prohibited from using their native language in school. The vast majority of teachers (46%, N=189) responded neutrally to this statement. Seven percent of teachers (n=30) believed that ELLs should be fluent in English after only one year of ELL instruction, and 27% (N=108) were neutral (Walker, Shafer, & Liams, 2004).

Claire's (1995) ethnographic study further evidenced the prevalence of erroneous assumptions among teachers relevant to the education and language acquisition of ELL students. Claire concluded that teachers' beliefs about ELL students were based on hearsay and misinformation and that many teachers engaged in practice based on misguided notions of language proficiency.

Reeve's (2002) mixed-method design study, which included survey data from 279 subject-area teachers and a qualitative inquiry of four teachers, indicated that teachers' perceptions of L1 use as a classroom resource were generally negative and that most teachers encouraged the rapid linguistic assimilation of ELLs. Reeve's study further evidenced the prevalence of common misperceptions held by teachers relevant to native language use and second language acquisition issues.

Results of the quantitative analysis in Reeve's (2002) study indicated a tendency toward agreement with the notion that ELLs should be able to acquire English within two years of enrolling in U.S. schools. It is quite likely that participants who agreed with this concept also bought into the myth that once ELLs acquire basic conversational skills (which generally takes only a few years), they no longer need additional support in school. To the contrary, however, research shows that it takes ELL students much longer (4-10 years) to develop the academic and cognitive language proficiency necessary to be successful in school. Other quantitative findings indicated neither strong agreement nor strong disagreement with the statement that ELL students should avoid using their native languages at school. Slightly over half of participants seldom or never allowed their students to use their L1 in class and most respondents (94%) seldom or never provided native language materials for their ELL students. Respondents highlighted the benefits of an "English immersion" experience for ELL's language acquisition. One participant commented that immersing students in English would help them learn the language more quickly. Another noted that English immersion was the "best way" for ELL's to develop the language (Reeves, 2002, p. 78). These findings go hand in hand with the commonly accepted myths that the more students are exposed to English, the faster they will learn the language (Samway & McKeon, 1999).

Reeve's (2002) qualitative analysis demonstrated that the inclusion of ELL students was sometimes considered a misplacement, with one participant emphasizing that ELLs should not be included in the content-area classroom until they had attained at least a minimal level of English proficiency. All participants emphasized the need for ELLs to learn English as quickly as possible in order to better learn subject area

knowledge. While one participant was willing to utilize ELL's native language to speed up content-area learning, she indicated the inability to use ELL's L1 as a classroom resource due to the lack of access to materials and native speakers of her ELLs' first languages. Another participant believed that his ELL students needed to abandon their native language at school and at home in order to speed up the English language acquisition process. This perception evidences the common misperception among teachers that ELLs learn better if they are prohibited from using their native language (Samway & McKeon, 1999; Tse, 2001; Walker, et al, 2004).

As the above review of the literature illustrates, relatively little research has addressed teachers' perspectives toward native language use in instruction. Findings from studies that do exist indicate that many teachers hold negative or contradictory perspectives toward L1 use. Teachers often show support for the theoretical underpinnings of L1 use in instruction, yet have less positive views toward its practical implementation. Studies further indicate that teachers hold perspectives about native language use and second language acquisition issues that are based on unfounded myths as opposed to substantive educational research. Finally, research in this area has produced inconsistent (and sometimes inconclusive) results regarding what factors significantly moderate teacher perspectives on L1 use in instruction.

Summary

The role of the native language in the instruction of ELL students has historically been and continues to be an issue of controversy. The public's view toward this issue has been largely influenced by changing immigration patterns which have stimulated

ideologies of assimilation and monolingualism. These ideologies have been shown to be based largely on misperceptions about immigrants' willingness and success in learning the English language. Public opinion, language legislation, and heated political debates have influenced language policy and practice in our nation's educational system.

Language policy and practices are a reflection of larger societal relations of power and can serve to either empower or subordinate language minority groups. Federal language-based entitlements such as the Lau Remedies and the No Child Left Behind Act, give state and local entities a great deal of latitude in language programming policy, with no legal requirements to include the native language of students in instruction. States such as Arizona, California, and Massachusetts have promoted English-only policies by banning or limiting bilingual education in their public schools. Currently, English pull-out is the most prevalent form of ELL programming, even though research has shown it to be the least effective of program models.

Many policymakers and educators argue that English-only practices are not only the most effective forms of language programming, but are also the only practical option in predominantly English-speaking (PES) contexts. Research, however, indicates the contrary. Large-scale longitudinal studies have clearly demonstrated that incorporation of ELL students' native language into instruction is crucial in promoting the academic, cognitive, linguistic and social development of these students. Furthermore, research indicates that PES teachers can successfully incorporate use of the L1 in instruction in a variety of ways to foster school success among ELL students. Scholars have emphasized that implementation of this practice largely falls on the decisions that teachers make and their behaviors within their own classrooms. Teachers play a critical role in the

translation of language policy into practice. Regardless of what official language policy exists, teachers can either reinforce coercive relations of power (i.e. subordinating the ELL student by suppressing the L1) or reinforce collaborative relations of power (i.e. empowering the ELL student by valuing and incorporating the L1 into classroom practices).

With an ever-increasing ELL population in English dominant settings, it is crucial to gain an understanding of teachers' knowledge, beliefs, and behaviors related to use of the L1 in instruction. This is important not only to better understand the classroom realities of teachers and students, but also to ensure that teacher education programs can provide PES teachers with the guidance and tools necessary to effectively serve the growing number of culturally and linguistically diverse students in their classrooms. Yet, little is known about teachers' perspectives relevant to this practice. The study of teachers' perspectives on the incorporation of the L1 in instruction is underdeveloped, particularly in English-dominant settings. Relatively few studies have examined teachers' perspectives concerning language diversity issues, and most of these studies have focused on bilingual teachers. Although these germinal studies have offered valuable insights, they have also produced mixed results and raised important questions. Further examination of the perspectives of PES teachers regarding the practice of L1 use in instruction is clearly needed.

Chapter 3

Methodology

This section presents the research methodology employed. Information within the chapter is organized into the following sections: (1) restatement of research questions, (2) research design, (3) data collection, (4) data analysis, and (5) reliability.

Restatement of Research Questions

The methods and procedures used in this study were designed to explore the following questions:

1. What are the perspectives of three groups of teachers with respect to the use of native language in the instruction of ELL students?
2. Do these three groups of teachers significantly differ in their theoretical perspectives on the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
3. Do these three groups of teachers significantly differ in their practical perspectives on the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
4. Do these three groups of teachers significantly differ in their perspectives on individual items pertaining to the use of native language in the instruction of ELL students?
 - (a) Are these perspectives moderated by their instructional grade-level?
5. Are the theoretical, practical, and individual item perspectives of the three groups of teachers associated with their years of teaching experience, the number of ELL students with whom they have experience, or their gender?
6. What do two groups of experienced teachers (No-ESL, C-ESL) report as their own instructional behavior regarding use of the native language in instruction with ELL students, and are there differences between the two groups?
7. Are there any significant relationships among teachers' perspectives and instructional behaviors with regard to use of native language in the instruction of ELL students? Are there any differences between the two groups of experienced teachers (No-ESL, C-ESL) concerning these relationships?

Research Design

Participants and Site

The participants for this study were drawn from pre-service and practicing teachers in the state of Kansas. Participants were chosen using a purposive clustering sampling method (Huck, 2000; Krathwohl, 1997). The intent of this study was to explore the perspectives and behaviors of three groups of PES teachers concerning use of the native language in instruction with ELL students. The clustering sampling method allowed the researcher to select individuals who were representatives of the focuses of the investigation. Specifically, participants were chosen according to the likelihood they were K-12 PES teachers and fell into one of the following groups: PS, No-ESL, or C-ESL. Targeting PES teachers in each of these groups was beneficial in helping the researcher gain insight into how teachers' perspectives and behaviors concerning incorporation of ELL students' native language in instruction might be moderated by factors such as teaching experience and ESL-specific education.

Three hundred eighty-five participants were surveyed for the study, with the goal of targeting approximately 100 teachers in each of the specified groups. Participants were recruited for the study through the College of Education at Kansas State University (KSU). Participants included junior and senior pre-service teachers who were completing undergraduate coursework, teachers who were taking graduate-level courses, and teachers who were taking graduate-level courses and had completed at least 9 credit hours in ESL at KSU. Besides accessibility, the rationale behind targeting participants at KSU was that teachers who graduate from this university or take courses from KSU and remain in the midwest almost certainly will be teaching ELL students at some point in

their career, and most of the No-ESL and C-ESL teachers will already have such experience. Many school districts in this region have experienced more than a 200% increase in their ELL student population in the past decade. Projections indicate that significant growth of this student population is expected to continue (NCELA, 2002).

Protection of Human Subjects

Kansas State University's Committee on Research Involving Human Subjects (IRB) is required by law to ensure that all research involving human subjects is adequately reviewed for compliance with federal, state, and university protection of human subjects standards and is approved prior to inception of any proposed activity. In accordance with required protocols, the researcher submitted an application for approval form to the IRB identifying the proposed study's objectives, design and procedures, research subjects, informed consent, and additional required compliance information. The researcher subsequently received a written notice of approval from the IRB which indicated that the proposed research study was exempt from further review.

The IRB standards further mandate that careful procedures be followed to assure informed consent. In accordance with these procedures, an informed consent statement was included in a cover letter accompanying the survey that was administered to participants (see Appendix A). The cover letter introduced the researcher and gave a brief description of the purpose and procedures of the study. The informed consent statement indicated to participants that their completion of the survey constituted their informed consent. The statement further informed participants that their participation was strictly voluntary, estimated the length of time expected to complete the survey, and

assured them of their rights to skip any questions that made them uncomfortable or withdraw from participation at any point. The cover letter concluded with the researcher's contact information and instruction for participants to keep the letter for their records.

Data Collection

Survey

Preparing the Survey

A three part survey was constructed to investigate PES teachers' perspectives and behavior regarding use of the native language in the instruction of ELL students (see Appendix B). An introductory note at the beginning of the survey defined the term ELL for participants for the purposes of the study as follows: "English language learner (ELL), often referred to as ESL, is inclusive of any student whose native language is not English and whose English language ability, in your view, impedes his/her progress in subject-area coursework. It is not necessary for a student to be enrolled in an ESL program to be considered an ELL student." Section A of the survey included twelve items intended to explore participants' perspectives concerning the theory and practice of incorporation of the native language in instruction with ELL students. These items consisted of statements for participants to rate according to a seven point Likert scale. Respondents were instructed to read each statement and circle the indicator that most closely reflected their understandings or opinions: 1 = strongly agree, 2 = agree, 3 = moderately agree, 4 = not sure, 5 = moderately disagree, 6 = disagree, or 7 = strongly disagree.

The twelve items were drawn from a survey designed by Ramos (2001), who based his instrument on questionnaires published by Rueda and Garcia (1996), Shin and Krashen (1996), Aguirre (1984), and Williams (1997). Ramos (1991) grouped items on the survey under two main descriptors -- theory and practice:

Items grouped under the descriptor *theory* represented the theoretical principles of native language instruction (Krashen, 1994, 1996) and, therefore, of knowledge (Deford, 1985; Pajares, 1992; Shavelson, 1983). Items grouped under the descriptor *practice* were intended to elicit teachers' personal opinions regarding primary language use implementation in the classroom. They, therefore, represented beliefs. (p.7)

Ramos (2001) demonstrated high coefficient alpha reliability of the theory and practice variables through factor loadings for confirmatory factor model (.8974 and .8059, respectively). Extraction methods included a principal component rotation and Varimax with a Kaiser normalization. Rotation converged in three iterations. The rigorous procedures employed in his analysis, which produced strikingly high reliability for so few items (six on each test), were strong reasons for choosing the twelve items in the current study.

To maintain consistency with Ramos' (2001) analyses, the twelve items were ordered the same as in the original instrument: items representing theoretical perspectives consisted of items one through five and item eight. Items representing practical perspectives included items six, seven, and nine through twelve (see Table 1).

Section B of the survey consisted of seven questions intended to elicit information about participants' instructional grade levels, gender, years of teaching experience, native language, second language proficiency, types of ESL-specific training, and degree of experience with ELL students in their classes. This section of the survey differed slightly for PS participants so questions were relevant to the group (see Appendix C). Modified

Table 1

Theory and Practice Items

<i>“Theory” Items</i>
1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.
2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).
3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.
4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.
5. ELL students’ development of literacy in the first language will facilitate the development of reading and writing in English.
8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.
<i>“Practice” Items</i>
6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.
7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.
9. Using the native language in the classroom will have a negative effect on the ELL student’s ability to learn English.
10. If an ELL student is in an English-only classroom, he/she will learn English better.
11. Teaching ELL students in both English and their native language results in language confusion for them.
12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

questions included asking about participants’ *anticipated* instructional grade level once they enter the teaching profession as well as what year they are in their undergraduate program (as opposed to asking about teaching experience). Options listed for ESL-related training also varied slightly.

Section C of the survey was intended to explore PES teachers’ self-reported behaviors concerning use of the native language in instruction with ELL students. (Participants who indicated they had never had an ELL student in their classroom in Section B were instructed to skip this section of the survey since it was not relevant to

them). Also, the PS group of teachers had not yet entered the teaching profession, therefore the items in this section did not pertain to them. For this reason, section three of the survey was not included on the surveys administered to this group.

After a thorough review of the professional literature, the researcher was unable to find any published surveys or other instruments that specifically addressed behaviors by PES teachers with regard to incorporation of the native language in instruction. Therefore, items in section C were developed by the researcher based on current research regarding related instructional practices (Freeman & Freeman, 1993, 2001; Lucas & Katz, 1994; Tikunoff, et. al., 1991) as well as the researcher's own experiences working with PES teachers who serve ELL students. The first two items in this section elicited information about the percentage of ELL students that teachers had in their classrooms during the previous school year as well as the average number of ELL students teachers had in their classrooms each year for the past five years. Items three through eight of this section included "I" statements describing practices of native language use in instruction (e.g. "I encourage ELL students to answer questions or write their assignments in their native languages"). Participants were asked to respond to these statements by indicating to what degree these statements were descriptive of their practices with ELL students: 1 = seldom or never, 2 = some of the time, or 3 = most or all of the time. The last two items in this section were open-ended questions that explored additional ways that participants incorporated ELL students' native languages into instruction as well as what participants perceived to be the greatest challenges in implementing this instructional practice.

Pilot Testing the Survey

The survey was piloted with 19 teachers taking a graduate-level course at Kansas State University. Similar to the survey population, the pilot study population included PES teachers with varying degrees of experience and ESL-related education. The researcher introduced the study and explained to teachers that the purpose of the pilot study was to verify the clarity of the research instrument. Participants were asked to evaluate the instrument by writing comments relevant to the clarity and appropriateness of items included in the survey. They were specifically asked to make note of any items that were confusing to them and to feel free to include any suggestions they had for improving the survey. In Section A, although one teacher asked for more detail on items two and twelve and one teacher noted that item seven was not as easily understood as previous questions, no other comments were made that indicated that the twelve Likert items were unclear or confusing. Because these items appeared to be acceptable to the majority of teachers and were found highly reliable by Ramos (2001), the twelve item scale in Section A was not modified. In Section B, question one asked participants to indicate the grade level that they teach. Possible choices included Pre-K-2, 3-4, 5-8, and 9-12. These choices appeared problematic for one teacher who wrote in 7-9. In order to avoid confusion on this item, possible grade level choices were changed to elementary, middle, and secondary on the final survey. No other items in Section B appeared to be unclear or problematic for participants.

Although no comments or suggestions for improvement were made by participants regarding the items in Section C, the researcher noted that several of the teachers' responses to item two did not directly pertain to the question asked. This item

was stated as follows: “Please list what you consider to be the *greatest challenges* in incorporating use of your ELL students’ native languages into classroom practices.”

Responses given by participants appeared to address challenges in general (as opposed to incorporating the native language) relevant to the instruction of ELL students. For example, one teacher stated that there were “not enough ELL teachers to support & help do what we need to do.” In order to ensure that participants did not overlook the “native language incorporation” aspect of this item, it was changed to the following: “What do you find to be most challenging about incorporating use of your ELL students’ native languages into classroom practices?”

Selecting and Accessing Participants

To secure subjects for the PS group, the researcher selected pre-service teachers who were enrolled in upper level (juniors and seniors only) teacher education courses at KSU. The researcher gained access to participants by getting permission from a KSU professor to administer the survey to students enrolled in his elementary and secondary multicultural courses. In return for this access, the researcher offered to provide a presentation on ELL-related issues for participants after the survey had been administered.

The researcher selected PES teachers who had not taken ESL-specific university courses for the study from graduate classes on campus at KSU (with instructor permission) as well as from an ESL/dual language endorsement distance education program offered by KSU. The ESL/dual language program serves in-service teachers who work with ELL populations or whose school districts expect to serve ELL students

in the near future. Each semester, 2-3 courses in the endorsement sequence are offered through the program, and approximately 600 participants from an average of 25 different sites across Kansas enroll in courses. The program provides an opening session at the beginning of the semester and a closing session at the end of the semester in which KSU instructors travel to course sites and meet with course participants.

In an effort to target teachers who were just beginning the program (and had not yet taken any ESL-specific courses), the researcher asked the directors of the program for permission to distribute surveys at the opening sessions of the Methods courses (Methods is typically the first course taken in the endorsement sequence). Additionally, in order to target PES teachers who had completed at least three ESL-specific university courses, the researcher received permission to distribute surveys at the opening sessions of the Multicultural and Practicum courses (which are typically the last two courses taken in the endorsement sequence). Opening session sites at which surveys were administered included the following towns and cities across the state of Kansas: Manhattan, Garden City, Emporia, Topeka, Salina, Wichita, Dodge, DeSoto, Junction City, and Kansas City.

Administering the Survey

Depending upon the preference of the course instructor, the survey was either proctored by the instructor or it was administered by the researcher. Participants who were invited to complete the survey were given a brief introduction to the study and were informed that the research was for a graduate student's dissertation. After surveys were given to participants, participants were directed to read the cover letter accompanying the survey which stated that their participation was completely voluntary and not a

requirement for the course in which they were enrolled (see Protection of Human Subjects section for additional information detailed in the cover letter). The survey administrators allowed time for participants to complete the survey (which took approximately 15-20 minutes). Survey proctors then collected the surveys and thanked participants for taking part in the study.

Return Rate and Surveys Rejected

A total of 385 surveys were distributed to participants. Of those surveys, 379 were returned to proctors, resulting in a 98.4% return rate. This study specifically targeted teachers in grade levels K-12 who were either pre-service teachers, teachers who had taken no ESL-related university courses, or teachers who had completed at least three ESL-related university courses. Thirty-five of the surveys collected were completed by teachers who had taken either one or two university courses or had marked that they had taken ESL-specific university courses but did not indicate how many. These surveys were not included in the study. Seven surveys completed by pre-service teachers indicating that they had taken ESL-specific university courses were also rejected from the analysis (the goal of targeting this group was to obtain a sample population representative of teachers about to enter the profession without ESL-specific university preparation). An additional 10 surveys that had been completed by respondents who specifically indicated that they were not K-12 teachers under the item pertaining to grade-level were further rejected from the analysis. Respondents in this group included the following: three administrators, one counselor, one staff developer, three university-level instructors, one ESL aide, and one person who did not teach. Due to the aforementioned reasons, 52

surveys were rejected in total, resulting in a final number of 327 participants included in the study.

Data Analysis

Data Coding

All survey items were assigned a label and entered into an Excel spreadsheet. Each response on the objective items of the survey was assigned a numerical value. These values were entered into the spreadsheet under the corresponding survey item label. Data and labels from the Excel spreadsheet were then transferred into the statistical program SPSS. Written responses by participants were transcribed verbatim into a word processing document.

The six practice items in Section A of the survey were written in reverse order of the theory items. In other words, on the theory items, the higher the score, the less support for native language (L1) use in instruction was indicated; whereas, for the practice items, the higher the score, the more L1 use in instruction was supported. For clarification in data interpretation, and in following Ramos' (2001) methodology, the six practice items (6,7, and 9-12) were reverse coded in data analyses. This meant that for practice items, a score of one was entered into SPSS as a score of seven, a score of two was entered as a score of six and so forth. As a result, for all twelve items, the higher the score, the less support for L1 use in instruction was signified. Except for the initial computation of means in addressing *Research Question One*, all analyses were carried out with practice items reverse coded. In addition, a summative score for the six theory

items and a summative score for the six practice items was computed in SPSS in accordance with the analyses and procedures conducted by Ramos (2001).

Analyses

In order to explore the perspectives and behaviors of PES teachers concerning the incorporation of ELL students' native languages into instruction, survey data were analyzed descriptively and inferentially. First, in order to better understand and describe the sample population, demographic data from the surveys were analyzed. Numbers and percentages of participants relevant to their instructional grade- levels, gender, years of teaching experience (or year in school), native language, second language proficiency, types of ESL-specific training, and degree of experience with ELL students in their classes were calculated, described, and presented in table format.

Second, descriptive and inferential analyses were carried out which addressed seven specific research questions. For research question one, which explored the perspectives of three groups of PES teachers with respect to the use of native language in the instruction of ELL students, data were analyzed descriptively. Mean scores and standard deviations for each group and all three groups combined on each Likert item were computed. Mean scores and standard deviations were also calculated for each group and all groups combined on "theory" and "practice" item sums.

Research questions two through four explored whether the three groups of PES teachers differed in their theoretical, practice, and "individual item" perspectives as well as whether these perspectives were moderated by instructional grade-level. These questions were examined through inferential statistics in which a series of two-

dimensional analyses of variances (grade-level by teacher group) were run. A key reason for running these analyses was to control for within-cell variability. Although there was no real expectation of interaction effects, if interaction did happen to be significant, a better understanding of the main effects would be gained. If not, important knowledge concerning the limitations of the variables would still be gained.

Research question five asked whether the theoretical, practice, and individual item perspectives of the three groups of PES teachers were associated with their years of teaching experience, the number of ELL students they have experience with, or their gender. Whether or not “categories” of perspectives were moderated by these background variables was assessed through Pearson Product-Moment correlations; tests of significance against the null hypothesis of no population correlation were also conducted.

Research question six inquired about what two groups of PES teachers (No ESL, C-ESL) reported as instructional behavior regarding use of the native language in instruction with ELL students and whether there were differences between the two groups. This inquiry was explored by running independent sample t-tests and comparing means.

Research question seven examined whether there were any significant relationships among PES teachers’ perspectives and instructional behaviors with regard to use of native language in the instruction of ELL students. It also addressed whether there were differences between two groups of these teachers (No-ESL, C-ESL) concerning these relationships. These data were inter-correlated to address the former issue and compared by group in the latter.

The final two open-ended questions on the survey were intended to identify potential issues of importance that may not have been addressed by other items on the survey. Responses to these items were read several times and patterns in responses were noted. Codes were assigned to the patterns and used to identify emerging categories/themes (Creswell, 1998).

Reliability

Coefficient alpha reliability analyses on the summative scores for the theory and practice variables, using the six “theory” items and the six “practice” items, separately, were run to assess their internal reliability. Analyses were carried out for all teacher groups combined and each of the three teacher groups separately. The results of Ramos’ (2001) analyses strongly suggested these reliabilities would be relatively high especially considering the instruments address perceptions/beliefs. A reasonable alpha coefficient for such a short “test” (6 items each) would not be even theoretically possible without reliability in the response to individual items.

The results of all data analyses are presented in Chapter IV of this study.

Chapter 4

Results

This study explored predominantly English-speaking (PES) teachers' perspectives and behaviors pertaining to the incorporation of ELL students' native languages into instruction. In order to explore these issues, the researcher analyzed survey data collected from 327 participants. Survey data included demographic information, responses to objective items, and responses to open-ended questions. This chapter reports the findings from these analyses. Information in this chapter is organized in the following sections: (1) survey participants, (2) reliability, (3) research questions, and (4) open-ended questions.

Survey participants

Survey data were collected from participants classified as pre-service teachers (PS) who had not taken any ESL-specific university courses, experienced teachers who had not taken any ESL-specific university courses (No-ESL), or experienced teachers who had completed at least three ESL-specific university courses (C-ESL). Although most of the questions in this section were the same for all teacher groups, some questions varied slightly for PS teachers versus experienced (No-ESL and C-ESL) teachers. First, survey items that were the same for all teacher groups will be discussed, followed by discussion of items relevant to PS teachers and items specific to experienced teachers, respectively.

Questions in Section B of the survey that were relevant to all teacher groups included items that elicited information about teachers' primary instructional grade-level,

their gender, whether or not their native language is English, and second language ability. Frequencies and percentages for these items are summarized in Table 2. Out of the 327 teachers surveyed, 182 (55.7%) indicated that they were elementary teachers and 132 (40.4%) reported that they were secondary teachers. Seven (1.2%) participants categorized themselves as “other” and six (1.8%) teachers did not indicate their grade-level. Responses under “other” included K-12, intermediate, K-5 ESL, SPED, K-12 special ed., “haven’t taught for the past four years”, and no response.

Over three quarters of participants were female: 268 females, 56 males, with three unreported. Percentages for gender were 82% female, 17.1% male, and 0.9% unreported. The overwhelming majority of teachers were native English speakers (97.9%). Only six (1.8%) spoke a native language other than English and one participant did not respond. Slightly over a third (34.9%) of participants spoke a second language, almost two-thirds (63.9%) did not, and 1.2% of participants did not respond. Of those teachers who did speak a second language, the majority (71) indicated their ability level as beginner, 30 intermediate, and 10 advanced.

Demographic data from Section B on items specific to pre-service teachers (year in school and ESL-related education) are summarized in Table 3. The majority of pre-service participants were in their senior university year. Of the 100 pre-service teachers surveyed, 80 were seniors, 19 were juniors, and one participant did not respond. Slightly over half (53) of pre-service teachers reported having no ESL-specific education while just under half reported that they did have some degree of ESL-related education. For those that did have ESL-specific education, 13 reported having an ESL-related

Table 2

Characteristics of All Teachers

	N	%
Grade-level		
Elementary	182	55.7
Secondary	132	40.4
Other	7	2.1
Unreported	6	1.8
Gender		
Male	56	17.1
Female	268	82.0
Unreported	3	0.9
Native language		
Native language is English	320	97.9
Native language is not English	6	1.8
Unreported	1	.3
Second language		
Speak a second language	114	34.9
Do not speak a second language	209	63.9
Unreported	4	1.2
Second language ability level		
Beginner	71	21.7
Intermediate	30	9.2
Advanced	10	3.1
Not a second language speaker or not reported	216	66.1

Table 3

Characteristics of Pre-service Teachers

	N	%
Year in school		
Junior	19	19.0
Senior	80	80.0
Unreported	1	1.0
ESL-specific education		
None	53	53.0
ESL-related presentation in class	13	13.0
ESL-related material in class	17	17.0
Other	6	6.0
Combination	11	11.0

presentation by an outside speaker in class, 17 reported covering ESL-related material in at least one course, and six participants indicated that they had “other” ESL-related education. Eleven participants reported having some form of combination of the aforementioned education. Experiences considered to be other forms of ESL-related education were cited by participants as “one semester of Spanish in high school”, “exchange student”, and “Block 1 in ESL classroom”.

Demographic information specific to practicing teachers elicited in Section B of the survey included number of years teaching, ESL-specific education, and experience with ELL students. This information is summarized in Table 4. The largest number of teachers surveyed had 10 or more years of teaching experience (43.2%). While there were a considerable number of teachers with 2-5 years of experience (20.7%) and 5-10 years of experience (22.9%), there were also a fraction of teachers (11.5%) new to the profession that had been teaching for less than two years. Four teachers (1.8%) did not report the number of years they had been teaching.

While some teachers (39.2%) reported having no ESL-specific training, the majority of teachers reported having some type of ESL-specific preparation: 26 (11.9%) had received in-service training, 86 (37.9%) participants had taken ESL-specific university courses, 16 (7.0%) had taken ESL-specific university courses and received in-service training, and five (2.2%) had “other” types of preparation. Three participants (1.3%) reported combinations of the aforementioned forms of preparation and two participants did not respond. Responses under “other” included dual language conferences, TEFL training, research projects on ELL, reading information independently, experience and Japanese son, and ESL endorsement.

A large majority (82.4%) of experienced teachers reported having had ELL students in class before. Thirty-eight (16.7%) participants reported never having an ELL student in class. Although most teachers had experience with ELL students, many of these teachers reported having a minimal number of ELL students in their classes: Seventy-six teachers (33.5%) reported that only 1-5% of their students in the past year were ELL and 82 (36.1%) reported that 1-5% of their students in the past five years were ELL. Ranges of ELL student percentages for the past year and past five years reported by the other two-thirds of teachers varied considerably (see Table 4).

Reliability

Section A of the survey consisted of 12 Likert items measuring teacher perspectives. Six of these items measured theoretical perspectives and the other six measured practical perspectives. Coefficient alpha reliability analyses were carried out on the six “theory” and the six “practice” items (separately). Reliability analyses were first conducted for all teachers groups combined and then for each teacher group separately. The resulting very high Chronbach Alpha coefficients indicated substantial homogeneity for each of the two “categories” of perspectives. Results of these analyses are summarized in Table 5.

Table 4

Characteristics of Experienced Teachers

	N	%
Years of teaching experience		
Less than two	26	11.5
2-5	47	20.7
5-10	52	22.9
10 or more	98	43.2
Unreported	4	1.8
ESL-specific training		
None	89	39.2%
In-service training	26	11.5
University courses	86	37.9
University courses and in-service training	16	7.0
Other	5	2.2
Combination	3	1.3
Unreported	2	.9
Experience with ELL students		
Has had an ELL student in class	187	82.4
Has not had an ELL student in class	38	16.7
Percentage of ELL students in class in last school year		
None	12	5.3
1-5%	76	33.5
6-10%	29	12.8
11-20%	20	8.8
21-50%	25	11.2
51-80%	8	3.5
81-100%	14	6.2
Average percentage of ELL students in class in past five years		
None	6	2.6
1-5%	82	36.1
6-10%	29	12.8
11-20%	19	8.4
21-50%	19	8.4
51-80%	13	5.7
81-100%	13	5.7

Table 5

Cronbach Alpha Reliability Coefficients

	Chronbach's Alpha	N
All Groups		
Theory Items	.804	326
Practice Items	.814	318
PS Group		
Theory Items	.687	100
Practice Items	.737	100
No-ESL Group		
Theory Items	.737	117
Practice Items	.680	112
C-ESL Group		
Theory Items	.769	109
Practice Items	.788	106

Research Questions

The following section includes the results of analyses carried out to address the seven research questions posed in this study. Results are organized and presented in the order of research questions.

Research Question One

What are the perspectives of three groups of PES teachers with respect to use of the native language in the instruction of ELL students?

To address this question, mean scores and standard deviations for all teachers combined and each teacher group on the twelve Likert items in Section A of the survey were computed. Means and standard deviations for theory and practice sums were also computed. First, results addressing all teachers' perspectives relevant to "theory" and "practice" items are presented (see Table 6). Second, mean scores and standard deviations for each group are presented (see Table 7). As noted earlier in the

Table 6

Mean Scores and Standard Deviations for All Teacher Groups Combined

Theory Items	All Teachers		
	M	SD	N
1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.	1.78	.899	327
2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).	2.31	1.478	327
3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.	2.83	1.448	327
4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.	2.35	1.204	327
5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.	2.20	1.176	327
8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.	2.56	1.185	326
Practice Items			
6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.	5.19	1.627	324
7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in The classroom instead of speaking English.	4.64	1.634	325
9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.	5.39	1.403	327
10. If an ELL student is in an English-only classroom, he/she will learn English better.	4.80	1.565	327
11. Teaching ELL students in both English and their native language results in language confusion for them.	5.48	1.194	326
12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.	4.05	1.470	324
Theory Sum	14.04	5.320	326
Practice Sum	29.53	6.399	318

Note. Likert item coding: 1 = Strongly Agree, 2 = Agree, 3 = Moderately Agree, 4 = Not Sure, 5 = Moderately Disagree, 6 = Disagree, 7 = Strongly Disagree

Methodology chapter, scores in this section are presented in original form (scores were not reverse-coded in computing means). In all subsequent analyses, however, Likert item scores were reverse coded.

In general, teachers as a whole showed support for both the theoretical underpinnings and practical implementation of native language (L1) use in instruction.

Table 7

Mean Scores and Standard Deviations for Each Teacher Group

Group ID		Item-1	Item-2	Item-3	Item-4	Item-5	Item-6	Item-7	Item-8	Item-9	Item-10	Item-11	Item-12	Theory sum	Practice sum
PS	Mean	2.07	3.03	3.41	2.83	2.70	4.62	3.90	2.94	4.72	4.25	5.15	3.52	16.9800	26.1600
	N	100	100	100	100	100	100	100	100	100	100	100	100	100	100
	Std. Deviation	.987	1.566	1.264	1.111	1.159	1.581	1.439	1.229	1.436	1.507	1.209	1.141	4.61876	5.50063
No-ESL	Mean	1.74	2.52	3.13	2.57	2.43	4.85	4.36	2.91	5.09	4.41	5.19	3.93	15.2906	27.8839
	N	117	117	117	117	117	115	116	117	117	117	116	116	117	112
	Std. Deviation	.824	1.472	1.551	1.322	1.241	1.666	1.517	1.083	1.326	1.509	1.172	1.343	5.01731	5.23114
C-ESL	Mean	1.57	1.43	1.97	1.69	1.51	6.06	5.61	1.85	6.31	5.72	6.08	4.66	10.0092	34.4434
	N	110	110	110	110	110	109	109	109	110	110	110	108	109	106
	Std. Deviation	.829	.829	1.053	.810	.714	1.231	1.452	.901	.886	1.242	.959	1.653	3.53421	5.30243
Total	Mean	1.78	2.31	2.83	2.35	2.20	5.19	4.64	2.56	5.39	4.80	5.48	4.05	14.0429	29.5283
	N	327	327	327	327	327	324	325	326	327	327	326	324	326	318
	Std. Deviation	.899	1.478	1.448	1.204	1.176	1.627	1.634	1.185	1.403	1.565	1.194	1.470	5.32032	6.39974

Teachers did, however, indicate stronger support for the “theory” behind L1 use than for its practical implementation (which was more moderate). Teachers’ theoretical perspectives also appeared somewhat inconsistent with their practical perspectives on L1 use in instruction. For instance, while teachers agreed with the concept that literacy development in the L1 will facilitate literacy development in English (theory item 5), they did not strongly reject the notion that an ELL student will learn English better when placed in an English-only classroom (practice item 10). Additionally, teachers clearly agreed with the construct that biliteracy is beneficial in the higher development of knowledge or mental skills (theory item 1); yet, they only moderately disagreed with the idea that L1 use in the classroom should stop once the ELL student learns English (practice item 6).

Initial observations of means (see Table 7) suggested that C-ESL teachers showed considerably more support for the theory and practice of L1 use in instruction than No-ESL and PS teachers. It also appeared that No-ESL teachers showed slightly more

support for L1 use than PS teachers. The significance of these observed differences are analyzed in results sections that follow (research questions two through four).

Research Question Two

Do three groups teachers significantly differ in their theoretical perspectives on the use of native language in the instruction of ELL students?

(a) Are these perspectives moderated by their instructional grade-level?

A two-way (group ID X grade-level) ANOVA was performed to address this question. Results are presented in Table 8 (see appendix E for descriptive statistics and means in the analysis). The ANOVA yielded a significant main effect for group ID ($df = 2, 313; F = 70.53; p < .001$), but no significant grade-level effect ($df = 1, 313; F = .151; p > .05$), nor a significant interaction effect ($df = 2, 313; F = .109; p > .05$). Levene’s technique confirmed the homogeneity of variance assumptions were not violated. ($p > .05$).

Table 8

Tests of Between-Subjects Effects on Theory Sums

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Group_ID	2842.096	2	1421.048	70.532	.000
Grade_level	3.048	1	3.048	.151	.698
Group_ID * Grade_level	4.390	2	2.195	.109	.897
Error	6185.301	307	20.148		
Total	71190.000	313			

Post hoc Bonferroni multiple comparison tests were run to explore the Group ID differences produced by the ANOVA (see Table 9). The analysis revealed significant differences among all three groups with PS teachers having higher theory summative scores (mean = 17.05) than No-ESL teachers, and No-ESL teachers having higher theory

summative scores (15.43) than C-ESL teachers (mean = 9.91). These findings indicated that PS teachers showed the least support and C-ESL teachers the strongest support for the theoretical underpinnings of native language incorporation in the instruction of ELLs. Findings further demonstrated that these perspectives were not moderated by grade-level.

Table 9

Group ID Multiple Comparisons on Theory Sums

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)
PS	NO-ESL	1.621(*)	.639	.035
	C-ESL	7.147(*)	.636	.000
NO-ESL	PS	-1.621(*)	.639	.035
	C-ESL	5.527(*)	.626	.000
C-ESL	PS	-7.147(*)	.636	.000
	NO-ESL	-5.527(*)	.626	.000

Based on estimated marginal means.

* The mean difference is significant at the .05 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Research Question Three

Do three groups of PES teachers significantly differ in their practical perspectives on the use of native language in the instruction of ELL students?

(a) Are these perspectives moderated by grade-level?

In order to address this question, a two-way (group ID X grade-level) ANOVA was carried out. Between subjects effects are presented in Table 10 (see Appendix E for descriptive statistics and means in the analysis). The ANOVA produced a significant main effect for group ID ($df = 2, 307; F = 70.14; p < .001$) and a modest, but significant interaction effect ($df = 2, 307; F = 3.63; p < .05$), but no significant grade-level effect ($df = 1, 307; F = .968; p > .05$). Levene's technique again indicated the homogeneity of variance assumptions were not violated ($p > .05$).

Table 10

Tests of Between-Subjects Effects on Practice Sums

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Group_ID	3970.287	2	1985.143	70.142	.000
Grade_level	27.395	1	27.395	.968	.326
Group_ID * Grade_level	205.302	2	102.651	3.627	.028
Error	8518.861	301	28.302		
Total	117462.000	307			

Note. Items were reverse-coded in the analysis.

Post hoc Bonferroni multiple comparison tests were carried out to explore differences among the three Group ID levels (see Table 11). The analysis indicated a significant difference between PS and C-ESL groups and No-ESL and C-ESL groups, but no significant difference between PS and No-ESL groups. PS practice sums (mean = 21.76) were higher than C-ESL practice sums (mean = 13.57) and No-ESL sums (mean = 20.72) higher than C-ESL sums. However, because conclusions based on main effects can be quite misleading in the presence of an interaction (Huck, 2000), further probing was needed to more accurately understand and interpret these results (see discussion following Table 11).

Table 11

Group ID Multiple Comparisons on Practice Sums

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)
PS	NO-ESL	1.047	.768	.522
	C-ESL	8.189(*)	.756	.000
NO-ESL	PS	-1.047	.768	.522
	C-ESL	7.142(*)	.756	.000
C-ESL	PS	-8.189(*)	.756	.000
	NO-ESL	-7.142(*)	.756	.000

Based on estimated marginal means.

* The mean difference is significant at the .05 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Note. Items were reverse-coded in the analysis.

Tests of simple main effects were carried out to explore the statistically significant interaction effect and to clarify the main effects produced by the ANOVA on practice sums. Bonferroni group ID by grade-level multiple comparisons (see Table 12) showed that when group ID was held constant, there was a significant difference between elementary and secondary teachers who were in the No-ESL group. No-ESL secondary teachers had significantly higher practice sums (mean = 22.19) than No-ESL elementary teachers (mean = 19.24). There were no other significant differences between elementary and secondary teachers in the other teacher groups.

Table 12

Group ID X Grade-level Multiple Comparisons on Practice Sums

Group ID	(I) Grade level	(J) Grade level	Mean Difference (I-J)	Std. Error	Sig. (a)
PS	elementary	secondary	.916	1.0871400	.400
	secondary	elementary	-.916	1.087	.400
NO-ESL	elementary	secondary	-2.958*	1.086	.007
	secondary	elementary	2.958*	1.086	.007
C-ESL	elementary	secondary	.210	1.052	.842
	Secondary	elementary	-.210	1.052	.842

Based on estimated marginal means.

* The mean difference is significant at the .05 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Note. Items were reverse-coded in the analysis.

Bonferroni grade-level by group ID multiple comparisons (see Table 13) further illustrated that when grade-level was held constant, there were significant differences between all teacher groups at the elementary level on practice sums. For elementary teachers, PS teachers had the highest theory sums (mean = 22.2), No-ESL the second highest (mean = 19.24), and C-ESL the lowest (mean = 13.68). At the secondary level, however, this pattern was quite different. There were significant differences between PS and C-ESL teachers as well as No-ESL and C-ESL teachers. However, differences

between PS and No-ESL teachers were not significant. For secondary teachers, the No-ESL group had slightly higher practice scores (mean = 22.19) than PS teachers (mean = 21.30), but this difference was not significant. C-ESL teachers, on the other hand, had significantly lower practice sums (mean = 13.47) than the other two groups.

Table 13

Grade-level X Group ID Multiple Comparisons on Practice Sums

Group ID	(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig. (a)
elementary	PS	NO-ESL	2.984*	.979	.008
		C-ESL	8.541*	1.035	.000
	NO-ESL	PS	-2.984*	.979	.008
		C-ESL	5.558*	.948	.000
	C-ESL	PS	-8.541*	1.035	.000
		NO-ESL	-5.558*	.948	.000
secondary	PS	NO-ESL	-.890	1.184	1.000
		C-ESL	7.836*	1.103	.000
	NO-ESL	PS	.890	1.184	1.000
		C-ESL	8.726*	1.178	.000
	C-ESL	PS	-7.836*	1.103	.000
		NO-ESL	-8.726*	1.178	.000

Based on estimated marginal means.

* The mean difference is significant at the .05 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Note. Items were reverse-coded in the analysis.

In sum, when the interaction between group ID and grade-level was probed, the results produced a significant difference between secondary and elementary teachers who were No-ESL, with secondary teachers showing less support for the practical implementation of native language use in instruction. Results also showed that at the secondary level, there was not a significant difference between No-ESL and PS teachers on practice sums. On the other hand, there was a significant difference between these groups at the elementary level.

Research Question Four

Do three groups of PES teachers differ significantly in their perspectives on individual items pertaining to the use of native language in the instruction of ELL students?

In addressing this question, a two-way ANOVA was conducted on each individual item. To provide a more conservative decision-making criterion due to running an analysis on each item, an alpha level of .01 was set. Additionally, while Levene's homogeneity of variance assumption was violated in a number of the individual analyses (items 2-6, 9-12), these violations were extremely unlikely to affect the accuracy of the results. Although tests for homogeneity of variance are appropriate as preliminary tests in ANOVA's, when sample sizes are fairly large and close in number, moderate departures from the homogeneity of variance assumption do not seriously affect the distribution of the *F* statistic. "There is no need...for a high sensitivity in such tests, because *F* tests are robust with respect to departures from homogeneity of variance" (Winer, 1962, p. 206). This is especially the case with analyses at the single item level, where the standard error is not as stable. A summary of the results of the series of ANOVA's is presented in Table 14. Details of each analysis are included in Appendices G-R.

Results of the series of ANOVA's indicated similar group differences on individual items 2-5 and 7-12. There were significant differences among teacher groups on responses to these items (which included both theory and practice items); however, there were no significant differences between grade levels, nor was there a significant group ID by grade-level interaction. Results of Bonferroni multiple comparisons (see Appendices H-K and M-R) showed that C-ESL teachers' scores on each of these

Table 14

Summary of F Statistics for Group ID by Grade-level ANOVA's on Individual Items

	Group ID F (df)	Grade-level F (df)	Group ID x Grade-level F (df)
Item 1	9.38 * (2, 314)	8.97* (1, 314)	.218 (2, 314)
Item 2	41.07* (2, 314)	1.139 (1, 314)	1.527 (2, 314)
Item 3	38.90* (2, 314)	.003 (1, 314)	3.78 (2, 314)
Item 4	31.43* (2, 314)	4.64 (1, 314)	.093 (2, 314)
Item 5	36.46* (2, 314)	.430 (1, 314)	.667 (2, 314)
^a Item 6	30.83* (2, 312)	5.58 (1, 312)	7.44* (2, 312)
^a Item 7	35.77* (2, 312)	.124 (1, 312)	.144 (2, 312)
Item 8	33.94* (2, 313)	.675 (1, 313)	.191 (2, 313)
^a Item 9	46.45* (2, 314)	1.77 (1, 314)	1.76 (2, 314)
^a Item 10	35.18* (2, 314)	.026 (1, 314)	2.37 (2, 314)
^a Item 11	22.56* (2, 313)	.008 (1, 313)	.802 (2, 313)
^a Item 12	17.82* (2, 312)	1.20 (1, 312)	.142 (2, 312)

*Indicates F statistic is significant at .01 level.

^a Items were reverse-coded in the analyses.

items were significantly lower than No-ESL teachers' scores and PS teachers' scores.

There were, however, no significant differences between PS and No-ESL teachers' scores on any of these items.

While this consistent pattern of group differences in perspectives was the case on the majority of individual items, there were two items that did not share this pattern. The first item was theory item one, which acknowledges the advantages of bi-literacy in the development of knowledge or mental skills. An ANOVA (see Table 14 above) on item one produced a significant main effect for group ID and a significant main effect for grade-level, but no significant interaction effect. Follow-up Bonferroni multiple comparisons (see Table 15) indicated that PS teachers (mean = 2.08) had significantly higher scores on this item than No-ESL teachers (mean = 1.68) and C-ESL (mean = 1.56)

teachers; however, the slightly higher score that NO-ESL teachers had over C-ESL teachers was not significantly different.

Table 15

Group ID Multiple Comparisons on Item One

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)
PS	NO-ESL	.395(*)	.124	.005
	C-ESL	.515(*)	.124	.000
NO-ESL	PS	-.395(*)	.124	.005
	C-ESL	.120	.122	.981
C-ESL	PS	-.515(*)	.124	.000
	NO-ESL	-.120	.122	.981

Based on estimated marginal means.

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Comparisons of means between elementary and secondary teachers (see Table 16)

further revealed that elementary teachers (mean = 1.93) scored significantly higher on this item than secondary teachers (mean = 1.62).

Table 16

Grade-level multiple comparisons on Item One

(I) Grade_level	(J) Grade_level	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
elementary	secondary	.302(*)	.101	.003	.041	.563
secondary	elementary	-.302(*)	.101	.003	-.563	-.041

Based on estimated marginal means.

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

The second item that not sharing the same pattern of group differences as the majority of the other items was “practice” item six. This item states that use of the primary language in the classroom should stop as soon as the ELL student learns to speak

English fluently. The higher teachers scored on this item (which was reverse coded), the less they agreed with the practice of continuing to incorporate the native language in instruction once the student learns to speak English. An ANOVA conducted on this item (see Table 14 above) produced a significant main effect for group ID and a significant interaction effect, but no significant grade-level effect. Initial Bonferroni multiple comparisons for group ID (see Table 17) indicated that C-ESL (mean = 1.96) teachers had significantly lower scores on this item than PS teachers (mean = 3.32) and NO-ESL teachers (mean = 3.37), but that there was no significant difference between PS and NO-ESL teachers' scores on this item.

Table 17

Group ID Multiple Comparisons on Item Six

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)
PS	NO-ESL	-.046	.209	1.000
	C-ESL	1.368(*)	.207	.000
NO-ESL	PS	.046	.209	1.000
	C-ESL	1.414(*)	.205	.000
C-ESL	PS	-1.368(*)	.207	.000
	NO-ESL	-1.414(*)	.205	.000

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Note. Item was reverse coded in the analysis.

Because there was a significant interaction effect, however, further probing was needed to better interpret the main effects. The interaction was subjected to tests of simple main effects. Bonferroni group ID by grade-level multiple comparisons (see Table 18) showed that when group ID was held constant, there was a significant difference between elementary and secondary teachers who were in the No-ESL group. No-ESL secondary teachers had significantly higher scores on item six (mean = 4.03)

than No-ESL elementary teachers (mean = 2.71). There were no other significant differences between elementary and secondary teachers in the other teacher groups.

Table 18

Group ID X Grade-level Multiple Comparisons on Item Six

Group ID	(I) Grade level	(J) Grade level	Mean Difference (I-J)	Std. Error	Sig. (a)
PS	elementary	secondary	-.006	.298	.984
	secondary	elementary	.006	.298	.984
NO-ESL	elementary	secondary	-1.314*	.292	.000
	secondary	elementary	1.314*	.292	.000
C-ESL	elementary	secondary	.124	.287	.666
	Secondary	elementary	-.214	.287	.666

Based on estimated marginal means.

* The mean difference is significant at the .01 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Note. Item was reverse coded in the analysis.

Bonferroni grade-level by group ID multiple comparisons (see Table 19) further illustrated that when grade-level was held constant, group ID differences were the same at both the elementary and secondary levels. At the elementary level, C-ESL teachers (mean = 2.02) had significantly lower scores on item six than No-ESL teachers (mean = 2.71) and PS teachers (mean = 3.3), but there were no significant differences in scores between NO-ESL and PS elementary teachers. Likewise, at the secondary level, C-ESL teachers (mean = 1.89) had significantly lower scores than No-ESL teachers (mean = 4.03) and PS teachers (mean = 3.33), but there were no significant differences between No-ESL and PS groups.

In sum, when the main effect interaction between group ID and grade-level on item six was probed, the results produced a significant difference between secondary and elementary teachers who were No-ESL. No-ESL secondary teachers showed less support than No-ESL elementary teachers for the practice of continuing to incorporate ELL

Table 19

Grade-level X Group ID Multiple Comparisons on Item Six

Group ID	(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig. (a)
elementary	PS	NO-ESL	.608	.268	.072
		C-ESL	1.303 *	.282	.000
	NO-ESL	PS	-.608	.268	.072
		C-ESL	.695*	.257	.022
	C-ESL	PS	-1.303*	.282	.000
		NO-ESL	-.695*	.257	.022
secondary	PS	NO-ESL	-.700	.320	.088
		C-ESL	1.432*	.303	.000
	NO-ESL	PS	.700	.320	.088
		C-ESL	2.133*	.319	.000
	C-ESL	PS	-1.432*	.303	.000
		NO-ESL	-2.133*	.319	.000

Based on estimated marginal means.

* The mean difference is significant at the .01 level.

(a) Adjustment for multiple comparisons: Bonferroni.

Note. Item was reverse-coded in the analysis.

students' L1 in instruction once they learn to speak English. Results also showed that for both elementary and secondary teachers, there was not a significant difference between No-ESL and PS teachers' perspectives regarding this practice, whereas there were significant differences between each of these groups and the C-ESL group.

Research Question Five

Are the theoretical, practice, and individual item perspectives of two groups of PES teachers associated with their years of teaching experience, the number of ELL students they have experience with, or their gender?

In order to address whether or not “categories” of perspectives were moderated by background factors (years of teaching experience, experience with ELL students, or gender), a series of Pearson Product-Moment correlations were carried out. Results indicated that for C-ESL teachers (see Appendix S), there were significant negative correlations among gender and practice items. These relationships were significant

between gender and the practice sum ($r = -.337, p < .01$) as well as between gender and all individual practice items (r values ranged between $-.203, p < .05$ and $-.287, p < .01$). These correlations indicated that males tend to be less likely than females to support the practical implementation of incorporating the L1 of ELL students in instruction. No significant relationships were found among C-ESL teachers' perspectives and years of teaching experience or experience with ELL students.

For No-ESL teachers, inter-correlations among these variables (see Appendix T) produced significant positive correlations among theory items and whether or not teachers have had an ELL student in class before. These relationships were significant for theory sum ($r = .223, p < 0.05$) and individual items 4, 5, and 8 (see table for values). More specifically, these correlations indicated that teachers who have had an ELL student in class are more likely to show support for subject matter instruction in the L1, which helps children learn subject matter in English (items 5 and 8) as well as show support for primary language literacy development, which facilitates the acquisition of English (item 4).

Analyses also showed significant negative correlations between the average percentage of ELL students a teacher had in the last year and practice sum ($r = -.235, p < 0.05$) as well as the average percentage of ELL students a teacher had in the past five years and practice sum ($r = -.309, p < 0.01$). There were also significant negative correlations between these two factors (degree of experience with ELLs in past year and past five years) and practice item 6 (see table for values). These correlations indicated that the more experience teachers have with ELLs in their classrooms, the more likely they are to show support for the practical implementation of L1 instruction in the

classroom. The negative correlations between degree of experience with ELLs and item six specifically suggested that as teachers' experiences with ELL students in their classrooms increase, so to increases their support for continuing to incorporate an ELL student's L1 in instruction even after the student learns to speak English fluently.

No significant relationships were found among gender or years of teaching experience and No-ESL teachers' perspectives.

Research Question Six

What do two groups of PES teachers (NO-ESL and C-ESL) report as instructional behavior regarding use of the native language in instruction with ELL students, and are there differences between the two groups?

To address this question, means for each group on instructional behavior items were computed and an independent samples t-test was carried out. Means and standard deviations for each group are summarized in Table 20.

Table 20

Group Means on Instructional Behavior Items

	Group ID	N	Mean	Std. Deviation	Std. Error Mean
C.3 (i) I allow ELL students to use their native languages in my classroom	NO-ESL	78	2.10	.616	.070
	C-ESL	106	2.55	.519	.050
C.3 (ii) I locate native language resources such as curricula, books, articles, etc. for ELL students relating to topics of instruction.	NO-ESL	78	1.81	.704	.080
	C-ESL	106	2.12	.597	.058
C.3.(iii) I encourage ELL students to answer questions or write their assignments in their native languages.	NO-ESL	77	1.51	.620	.071
	C-ESL	106	1.96	.767	.075
C.3.(iv) I pair/group ELL students with the same native languages but different levels of English proficiency.	NO-ESL	76	2.00	.693	.079
	C-ESL	104	2.46	.573	.056
C.3.(v) I utilize the services of parents, aides, or volunteers fluent in the native languages of my ELL students to assist in explaining content-area material.	NO-ESL	78	2.22	.750	.085
	C-ESL	105	2.37	.697	.068

Frequencies and percentages (see Appendix U) for each group were also computed to gain a better understanding of the means on teacher instructional behavior items (discussion is based on “valid” percentages of teachers who responded to items). Analyses indicated that more than half of NO-ESL teachers (61.5%) reportedly allow ELL students to use their native languages in the classroom some of the time, with just under a quarter (24.4%) responding that they allow this behavior most or all of the time. Over half of C-ESL teachers (55.7%), on the other hand, reportedly allow this practice most or all of the time, with many of the others (43.4%) responding that they allow this behavior some of the time.

Just under half of NO-ESL teachers (47.4%) reported locating native language resources relating to topics of instruction for ELL students some of the time, with 35.9% indicating that they do this seldom or never. Over half of C-ESL teachers (63.2%) reported locating native language resources for their ELL students some of the time, and nearly a quarter (24.5%) reported doing this most or all of the time.

Over half of NO-ESL teachers (55.8%) indicated that they seldom or never encourage students to answer questions or write assignments in their native languages, with most others (35.9%) encouraging this practice only some of the time. Just under a third of C-ESL teachers (31.1%) reported seldom or never encouraging this practice, 41.5% reported encouraging it some of the time, and 27.4% reported encouraging it most or all of the time.

Slightly over half of NO-ESL teachers (52.6%) reported pairing or grouping ELL students with the same native languages but different levels of English proficiency some of the time, and equal numbers of the others indicated that they did this seldom or never

(27.3%) or most or all of the time (27.3%). Exactly half of C-ESL teachers reported this pairing/grouping of ELLs all of the time, with most of the others (46.2%) indicating that they used this instructional strategy some of the time.

Similar percentages of NO-ESL teachers indicated that they utilize the services of parents, aides, or volunteers fluent in the native languages of their ELL students to assist in explaining content-area material some of the time (39.7%) and all of the time (41%). Over a third of C-ESL teachers (38.1%) reported engaging in this practice some of the time, and nearly half (49.5%) reported engaging in this practice most or all of the time.

Means, frequencies, and percentages indicated that C-ESL teachers reportedly engage in instructional behavior that incorporates the native languages of their ELL students more often than NO-ESL teachers. In order to ascertain if these differences were significant, independent samples t-tests were conducted. Results of t-tests are summarized in Table 21.

Table 21

Independent Samples T-Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
C.3.(i)	Equal variances assumed	2.345	.127	-5.305	182	.000	-.445	.084	-.610	-.279
	Equal variances not assumed			-5.169	148.733	.000	-.445	.086	-.615	-.275
C.3.(ii)	Equal variances assumed	6.162	.014	-3.277	182	.001	-.315	.096	-.505	-.125
	Equal variances not assumed			-3.197	149.419	.002	-.315	.099	-.510	-.120
C.3.(iii)	Equal variances assumed	.318	.573	-4.291	181	.000	-.456	.106	-.665	-.246
	Equal variances not assumed			-4.436	178.889	.000	-.456	.103	-.659	-.253
C.3.(iv)	Equal variances assumed	1.449	.230	-4.882	178	.000	-.462	.095	-.648	-.275
	Equal variances not assumed			-4.741	142.790	.000	-.462	.097	-.654	-.269
C.3.(v)	Equal variances assumed	.141	.708	-1.426	181	.156	-.153	.108	-.366	.059
	Equal variances not assumed			-1.411	159.042	.160	-.153	.109	-.368	.061

Results from t-tests showed that C-ESL means were significantly higher than No-ESL means on all of the items except item C.3. (V). While the test on item C.3. (ii) showed a violation of Levene's assumption of homogeneity of variance, slight departures from this assumption do not seriously affect the F statistic and additional testing resulted in a significant F value when equal variances were not assumed. These findings indicated that by and large, C-ESL teachers reportedly incorporated practices that utilized the L1 of their ELL students more than No-ESL teachers, and most of the differences between these two groups regarding such practices were significant.

Research Question Seven

Are there any significant relationships among PES teachers' perspectives and instructional behaviors with regard to use of native language in the instruction of ELL students? Are there any differences between two groups of these teachers (No-ESL, C-ESL) concerning these relationships?

In addressing the first part of this research question, Pearson Product-Moment correlations on teacher perspectives and instructional behaviors were carried out for both No-ESL and C-ESL teachers combined (see Appendix W). To address the second part of the question, whether there are any differences between the two groups of teachers, correlations for NO-ESL teachers (see Appendix X) and C-ESL teachers (see Appendix Y) were conducted separately and compared.

The first analysis (correlations for both groups combined) produced numerous significant modest to moderate correlations between teachers' perspectives and their reported instructional behaviors. Significant negative correlations were found between practice sum and all instructional behavior items (r values ranged from $-.180$, $p < .05$ to

-.469, $p < .01$) as well as theory sum and instructional behaviors one through four (r values ranged from $-.161, p < .05$ to $-.330, p < .01$). These findings indicated that the more teachers supported the underlying theory and practical implementation of native language incorporation in instruction, the more likely they were to reportedly incorporate the L1 of their ELL students into classroom practices in specific ways. The strongest relationship ($-.469, p < .01$) was found between supporting the practical implementation of L1 use in instruction (practice sum) and allowing students to use their native languages in the classroom. The strongest relationship with the theory sum existed between supporting the underlying theory of L1 use in instruction and pairing or grouping ELL students with the same native languages but different levels of English proficiency.

Correlations among individual perspective items and instructional behaviors (r values ranged from $-.147, p < .05$ to $-.451, p < .01$) further indicated multiple significant modest to moderate negative correlations. Significant relationships existed between the majority of all individual items and instructional behavior items one, three, and four. These findings showed that the more teachers supported the underlying theory and practical implementation of L1 use in instruction, the more likely they were to allow ELL students to use their L1, encourage ELL students to answer questions or write assignments in their L1, and to pair/group ELL students with the same L1. While some individual items were significantly (negatively) correlated with instructional behaviors two and three, there were also individual items that showed no significant relationships with these behaviors. More practice items had significant relationships with these behavior items than did theory items. Specifically, the more teachers supported the “practice” of L1 use in instruction, the more likely they were to report locating native language resources for

ELL students and utilizing the services of others fluent in the L1 of students to assist in explaining content-area material.

One finding indicated no significant correlations among theory item one (which acknowledges the advantages of biliteracy in higher development of knowledge or mental skills) and any of the instructional behavior items. Another finding showed instructional behavior item five (utilizing the services of parents, volunteers, or aides fluent in the L1 of ELLs to assist in explaining content-area material) to have the fewest significant correlations with individual perspective items.

To address whether there were any differences between No-ESL and C-ESL groups with regard to significant relationships between perspectives and instructional behavior, correlations for each group were carried out (see Appendices X and Y) and then compared. Modest to moderate significant correlations were present for both groups (with No-ESL correlation r values ranging from $-.226, p < .05$ to $-.458, p < .01$ and C-ESL r values ranging from $-.192, p < .05$, to $-.411, p < .01$). Although both groups showed significant correlations on multiple items, each group had different patterns of relationships. Both groups did have significant negative correlations between individual theory items and behavior item one as well as theory items (including theory sum) and behavior item one. However, the C-ESL group had more significant relationships than the No-ESL group. Overall, these relationships indicated that for the No-ESL group, and even more for the C-ESL group, the more teachers showed support for literacy development in the L1 and the more they supported the practical implementation of L1 use in instruction, the more likely they were to reportedly allow ELL students to use their native language in class.

When looking at how each groups' perspectives correlated with instructional behavior item two, findings indicated only one significant correlation for No-ESL teachers. This was a negative correlation between behavior item two and practice item six. This relationship indicated that the more likely No-ESL teachers were to think that use of the L1 should stop as soon as the ELL student learns English, the less likely were to locate native language resources for ELL students relating to topics of instruction. Analyses of the C-ESL group, on the other hand, produced several perspective items (theory item 8, practice items 6, 9, 11, and 12, and practice sum) that significantly negatively correlated with this behavior. These relationships indicated that the more inclined C-ESL teachers were to show support for the theory of primary language literacy development and support the practical implementation of L1 use in instruction, the more likely they were to locate native language resources for ELL students relating to topics of instruction.

While No-ESL teachers showed significant negative correlations between practice items (6, 9, 11, and practice sum) and instructional behavior item three, C-ESL teachers showed significant negative correlations between both theory items (5, 8, and theory sum) plus practice items (9, 11) and this behavior. These results indicated that for both No-ESL and C-ESL teachers, the more support they showed for the practical implementation of L1 use in instruction, the more likely they were to encourage ELL students to answer questions or write their assignments in the L1. Results further indicated that C-ESL teachers who supported the theoretical underpinnings behind native language use in instruction were more inclined to engage in this behavior.

Patterns of correlations for groups differed considerably from behavior item three to behavior item four. On behavior item three, it was the No-ESL group that had significant negative correlations between multiple theory items (2, 3, 4, 5, 8, and theory sum) plus practice items (9, 11, and practice sum) and behavior item four. C-ESL teachers, on the other hand, showed only one significant negative correlation with this behavior item, which was with practice item nine. These findings indicated that the more NO-ESL teachers supported the theoretical underpinnings and practical implementation of L1 use in instruction, the more inclined they were to pair/group ELL students with the same native language but different levels of English proficiency. Findings also indicated that C-ESL teachers who were less likely to attribute language difficulties in the L2 to literacy development in the L1, were more likely to engage in this behavior.

No-ESL teachers showed two significant negative correlations between individual practice items (9, 11) and behavior item five. C-ESL teachers showed only one significant negative correlation, which was between practice item 12 and behavior item five. These findings indicated that NO-ESL teachers who were less likely to attribute language difficulties in the L2 to literacy development in the L1 were more likely to utilize the services of parents, aides, or volunteers fluent in the L1 of ELL students to assist in explaining content-area material. Findings further indicated that the less likely C-ESL teachers were to believe that ELL students could successfully participate in regular English classes with one period of native language instruction tutorial, the more likely they were to engage in this instructional behavior.

Other differences noted between groups were that the r values of the three strongest correlations for the No-ESL group (-.458, -.430, and -.414, $p < .01$) were higher

than the r values of the three strongest correlations for the C-ESL group (-.411, -.394, and -.328, $p < .01$). The two strongest relationships for No-ESL teachers included the following: 1. The more likely teachers were to support the practical implementation of L1 use in instruction (practice sum), the more inclined they were to encourage ELL students to answer questions or write assignments in their L1 ($r = -.430$, $p < .05$). 2. The more likely teachers were to support continued L1 use in instruction after the ELL student learns English, the more likely they were to encourage ELL students to answer questions or write assignments in their L1 ($r = -.458$, $p < .01$). These correlations, however, *were not significant* for C-ESL teachers. The two strongest significant relationships for C-ESL teachers, on the other hand, were also significant for NO-ESL teachers (although not quite as strong for No-ESL teachers). These relationships included the following: 1. The more likely teachers were to support the practical implementation of L1 use in instruction (practice sum), the more inclined they were to allow ELL students to use their L1 in class (for C-ESL group, $r = -.394$, $p < .01$; for No-ESL group, $r = -.345$). 2. The less inclined teachers were to support the idea that use of two languages in the classroom has a negative effect on the English language development of ELL students, the more apt they were to allow ELL students to use the L1 in the classroom (for C-ESL group, $r = -.411$, $p < .01$; for No-ESL group, $r = -.305$, $p < .01$).

Open-ended Question One

The first open-ended question in Section C of the survey asked participants to list any additional ways they incorporated use of their ELL students' native languages into

classroom practices. After patterns in responses were noted and coded, responses were grouped into various categories reflective of these patterns. Emerging categories/themes included the following: translation, peer-grouping, materials, learning activities and status/value.

Translation

A number of participants indicated that the translation of such things as instructions, content, assignments, newsletters and calendars was a key way of incorporating L1 use in instruction. Teachers described a variety of resources including the internet, ELL peers, ELL parents and siblings, and teacher aides that were especially helpful in translating items from English to the native languages of their students. Some participants indicated that they themselves served as translators when they were familiar with the L1.

Peer grouping

Many respondents commented that the grouping and pairing of ELL peers was another way they promoted L1 use in classroom practices. Teachers described how they paired or grouped ELL students who spoke the same L1 but had different levels of English proficiency to serve as tutors or mentors for each other. They further indicated that this type of pairing/grouping was also very helpful in clarifying instructions for ELLs.

Materials

Teachers noted a number of ways they utilized native language materials in the instruction of their ELL students. Especially common was the use of visuals such as

word walls, labels, posters, and flashcards in both English and the native language. One teacher described how the creation of a special “Club Leo” for students to buy books in Spanish at a low cost. Other L1 materials reportedly used by teachers included manipulatives, tapes, CD’s, and movies.

Learning activities

Participants shared a number of learning activities they implemented that promoted native language use among their ELL students. Some of these activities included note-taking, read-alouds, singing, and self-selected reading in the L1. Teachers further described the use of story comprehension questions, vocabulary activities, and word problems in the L1 of their students. One participant shared that “We often, when presenting new vocab, have ELL students share/teach vocab in (the) native language.”

Status/value

Teachers described behaviors and activities that conferred status and placed value on the native languages and cultures of their ELL students. Many participants commented on how they not only encouraged their ELL students to speak in their native languages, but also guided them to teach other students (and the teacher) words/phrases in the L1. Participants also reportedly incorporated practices that encouraged ELL students and parents to share information about their native languages and cultures. One participant shared classroom strategies indicative of such practices: “I encourage students to teach us relevant things regarding their native language and I attempt to create a safe environment where students do not feel penalized for their native language.” Another participant described an activity that placed value on the L1 of her students:

“I...have students read picture books to the class using their native language. The other students think it’s neat to hear stories in a different language.”

Open-Ended Question Two

The second open-ended question in Section C of the survey asked participants what they found to be most challenging about incorporating use of their students’ native languages into instruction. Categories/themes that emerged relevant to this question included limited time and resources, peer involvement, multiple native languages, and lack of proficiency in the L1.

Limited time and resources

The common theme of not having enough time and resources to incorporate L1 use in instruction emerged in many participant responses. Teachers commented on how difficult it was to find materials/resources in the L1 when they were already pressed for time with their regular lesson plans. They also expressed frustration with lack of funds and support from the school in obtaining L1 resources as well as the limited availability of bilingual aides to assist in their classrooms. One participant emphasized that she often ends up spending a lot of her own money on books in Spanish for her ELL students.

Peer involvement

Participants noted challenges related to peer involvement when trying to incorporate L1 use in instruction. One difficulty teachers described was trying to get native English-speakers involved and interested in activities that incorporated the L1 of ELLs, particularly in hearing and learning another language. Other challenges

participants emphasized included having to rely on ELL students to translate for their less proficient peers and not knowing whether or not ELLs were on task when working with each other in groups.

Multiple native languages

Another common perceived obstacle to the incorporation of L1 use in classroom practices reported by teachers was having a variety of native languages represented in their classes. One participant commented that while she was comfortable aiding students of Latino ethnicity, it was much more difficult to find L1 support for her Indian and Persian students. Another teacher shared the following frustration: “I taught in a Texas school district where 80 languages were spoken. As a computer teacher, I couldn’t find ways to relate their languages to the material.”

Lack of proficiency in the L1

A final theme that emerged from participant responses was their lack of proficiency in or inability to speak the native languages of their students. Teachers noted not only how this served as a major barrier in incorporating the L1 of their students into instruction, but also in overall communication with ELL students and their parents. Some teachers commented on how learning more of the L1 would help them better serve and incorporate the languages of their ELL students. One participant, for example, noted, “I find that not being able to speak Spanish is the most challenging. It would help me so much especially when speaking to parents.” Other teachers appeared to perceive their lack of proficiency in the L1 as obstacles to communicating with and involving their ELL students in classroom practices. The following participant quote is indicative of such

perceptions: “I don’t remember their language well enough, I can’t really talk to them at all, so I can’t ask them to participate.” Another participant shared her own insecurities in trying to use a language with which she wasn’t familiar: “Since I don’t speak their language, it has been very difficult for me to speak to them – pronouncing words that are wrong or that I’m uncomfortable (saying).”

Chapter 5

Discussion, Implications, and Recommendations

This chapter includes (1) an overview of the study, (2) a summary and discussion of results, (3) implications for practice, (4) limitations to the study, and (5) recommendations for further research.

Overview of the Study

Purpose of the Study

Research has consistently shown that incorporation of English language learner (ELL) students' native languages into instruction is a major factor positively impacting their success in school. Few studies, however, have addressed teachers' knowledge, beliefs, and behaviors concerning this practice. Studies relevant to this issue in predominantly English-speaking (PES) contexts are particularly lacking. The purpose of this study was to address this gap by exploring the perspectives and self-reported behaviors of PES teachers concerning use of the native language (L1) in the instruction of ELL students.

Participants

Three hundred twenty-seven participants in the state of Kansas were included in this study divided among three targeted teacher groups: pre-service teachers with no ESL-specific university preparation (PS) (n = 100), experienced teachers with no ESL-specific university preparation (No-ESL) (n = 117), and experienced teachers with significant (at least three courses) ESL-specific university preparation (C-ESL) (n = 110).

The majority of participants were predominantly English-speaking females (i.e. they either did not speak a language other than English, or if they did, they rated themselves at a beginning level of second language proficiency). The largest number of experienced teachers (43.2%) had been teaching for more than ten years. More than half of both PS and No-ESL teachers had not received any form of ESL-specific education. While most No-ESL and C-ESL teachers had experienced having ELL students in their classes in the past five years, almost half of these teachers indicated that, on average, their ELL students constituted a very small number (no more than 10%) of their classroom populations each year.

Methodology

A survey comprised of objective and open-ended questions was distributed to participants. The first section of the survey included a twelve item Likert scale measuring teachers' theoretical and practical perspectives related to use of the L1 in the instruction of ELL students. Coefficient alpha reliability analyses were conducted on the six "theory" and six "practice" items, separately, comprising the Likert scale. The remaining two sections of the survey consisted of items exploring participant demographics and teachers' self-reported behaviors on L1 use in instruction.

Survey data were analyzed descriptively and inferentially. First, in order to better understand and describe the samples, numbers and percentages of participants were calculated on a series of demographic variables. Second, mean scores and standard deviations on the twelve perspective items (and theory and practice sums) were computed. Third, a series of two-dimensional analyses of variances (grade-level by

teacher group) on these items and theory/practice sums were carried out. Fourth, Pearson Product-Moment correlations were conducted addressing whether or not teachers' perspectives were moderated by certain background variables.

Next, means were compared and independent samples t-tests were performed to determine what two groups of PES teachers (No ESL, C-ESL) reported as instructional behavior regarding use of the L1 in instruction with ELL students and whether there were differences between the two groups. Subsequently, data were inter-correlated to examine whether there were any significant relationships among PES teachers' perspectives and their instructional behaviors with regard to this practice. These correlations were further compared and contrasted by group (No-ESL, C-ESL). Finally, patterns in responses to two open-ended questions exploring issues (i.e. strategies used by teachers, barriers faced by teachers) relevant to L1 use in instruction were coded, and emerging categories/themes were identified.

Summary and Discussion of Results

Reliability

Coefficient alpha reliability analyses on items comprising the Likert scale showed the six "theory" items to be highly reliable in measuring teachers' knowledge of the theoretical underpinnings of L1 use in instruction ($r = .804$, $n = 326$) and the six "practice" items to be highly reliable in measuring teachers' beliefs toward its practical implementation ($r = .814$, $n = 318$). The markedly high reliability found in this study was significant for two main reasons. First, it confirmed the methodology utilized by Ramos' (2001) in the grouping of items under theory and practice variables. Second, it

demonstrated exceptionally high consistency among items in representing the constructs under which they were grouped. Such consistency is unusual for so few items (six items each) on a scale.

Teachers' Perspectives and Group Differences

Mean scores on the twelve perspective items and theory and practice sums indicated that, in general, teachers showed support for both the theoretical underpinnings and practical implementation of native language (L1) use in instruction. Results did indicate, however, that teachers' theoretical perspectives on L1 use in instruction were somewhat inconsistent with their practical perspectives. Teachers tended to show stronger support for the "theory" behind L1 use than for its practical implementation (which was more moderate).

An ANOVA on theory summative scores and follow-up Bonferroni multiple comparisons indicated the three teacher groups differed significantly in their theoretical perspectives toward use of the native language in instruction. PS teachers showed the least support, No-ESL teachers more support, and C-ESL teachers the most support for the theoretical underpinnings of L1 use in instruction. These perspectives were not moderated by grade-level. These findings suggest that teaching experience and even more so, ESL-related preparation are strong factors related to teachers' increased support for the theory underlying L1 use in instruction.

An ANOVA on practice summative scores and follow-up Bonferroni multiple comparisons indicated significant differences in perspectives among teachers by group and grade-level. For the No-ESL group, secondary teachers showed significantly less

support than elementary teachers for the practical implementation of L1 use in instruction. Results further indicated significant differences among all three groups at the elementary level: PS teachers showed the least support, No-ESL teachers more support, and C-ESL teachers the most support for this practice. However, at the secondary level, there was no significant difference between PS and No-ESL teachers. These results suggest that teaching experience appears to be a factor increasing elementary teachers' support for the practical implementation of L1 use in instruction. On the other hand, for these subjects, teaching experience does not appear to positively influence secondary teachers' support for this practice. Additionally, at all grade levels, ESL-specific university preparation seems to be clearly associated with teachers' increased support for the practice of L1 incorporation in instruction.

For the most part, ANOVA's on individual items produced similar group differences. Findings indicated that in most cases, regardless of grade-level, C-ESL teachers held perspectives that were significantly more supportive than those of No-ESL and PS teachers concerning the theory and practice of L1 use in instruction. No-ESL and PS teachers, however, did not significantly differ in perspectives on a number of items. That group differences on individual items varied to some extent from group differences on theory and practice sums is not unusual. To control the probability of experiment-wise type I errors, tests of significance for the more numerous individual items were subjected to a more stringent alpha level ($p < .01$) than for the summative scores analyses ($p < .05$). Furthermore, the individual item tests presumably would have less discriminating ability than tests on the categories of collective items (i.e. theory sums and practice sums). Conducting analyses on the items separately mainly served the purpose

of screening for possible anomalies or outliers related to individual items. With some exceptions (such as producing fewer significant group differences related to teaching experience), findings from individual item analyses were generally consistent with findings from theory and practice sum analyses.

Overall, findings from a series of ANOVA's suggest that ESL-specific university preparation is a consistent factor associated with teachers' increased support for both the theory and practice of native language use in instruction. Furthermore, teaching experience appears to be associated with teachers' increased support for the theoretical underpinnings of L1 use in instruction. When it comes to the practical implementation of L1 use, however, experience appears to be linked to increased support among elementary teachers, but perhaps not among secondary teachers.

The difference found between elementary and secondary teachers mirrors research showing that the L1 of ELL students is incorporated in instruction considerably more at the elementary level, with a noticeable decrease in this practice for increasing grade levels (Kindler, 2002). Experienced secondary teachers' seemingly lower support for L1 use in instruction could be attributed to the misperception that if ELL students speak English reasonably well, then they should be able to perform well academically in English. To the contrary, however, research shows that it takes from 5-9 years (Cummins, 1981) for ELL students to develop the cognitive/academic language proficiency (CALP) necessary to perform academically at grade-level. The degree of CALP required at the secondary level is considerably more advanced than that required at the elementary level. Although secondary ELL students often have well-developed conversational skills (BICS), their CALP is often under-developed. A lack of support

for L1 use in instruction among secondary teachers is an issue of great concern. For secondary ELL students who have only been in the country for a few years or who have not had the time or opportunity to develop CALP in earlier grades, support in the L1 can play a critical role in helping them learn content-area material as they continue to develop their English proficiency.

Relationships Among Teachers' Perspectives and Demographic variables

A series of inter-correlations produced various modest to moderate significant relationships among experienced teachers' perspectives and demographic variables. Correlations indicated that for C-ESL teachers, males tended to be less likely than females to support the practical implementation of L1 use in instruction. C-ESL teachers' perspectives did not, however, appear to be moderated by years of teaching experience or experience with ELL students. Findings suggest that for teachers with university-specific preparation, males hold more negative beliefs than females concerning the practice of L1 use in instruction. It is plausible that males' behaviors relevant to this practice may be guided more by deeply held beliefs than by ESL-specific university preparation.

Analyses further indicated that for No-ESL teachers, the more experience teachers have with ELL students in their classroom, the more likely they are to support the theoretical underpinnings and practical implementation of L1 use in instruction. A possible explanation for these findings may be that, although they did not have formal preparation in implementing this practice, these teachers may have found the implementation of L1 support strategies to be successful in their ELL students' academic

success. No-ESL teachers' perspectives did not appear to be moderated by gender or years of teaching experience.

Teachers' Instructional Behavior and Group Differences

Both No-ESL and C-ESL teachers reported incorporating the L1 of their ELL students into instruction. The behavior that No-ESL teachers reported most often was that of utilizing the services of parents, aides, or volunteers fluent in the native language of ELL students to assist in explaining content-area material. The most frequent behavior indicated by C-ESL teachers was allowing ELL students to use their native languages in the classroom. Results from independent samples t-tests showed that C-ESL teachers reported behaviors incorporating L1 use in instruction significantly more often than No-ESL teachers on four out of five items. These results indicated that by and large, C-ESL teachers reportedly incorporated practices that utilize the L1 of their students more often than No-ESL teachers. These findings suggest that, for experienced teachers, ESL-specific university preparation appears to be a factor clearly associated with increased behaviors incorporating the L1 of ELL students into instruction.

Relationships Among Teachers' Perspectives and Behaviors

For both No-ESL and C-ESL teachers, inter-correlations showed modest to moderate significant relationships among a number of perspective items and behavior items. Results also indicated that although both groups shared some common relationships among variables, for the most part, the relationships shown to be significant varied considerably by group. One finding showed instructional behavior item five

(utilizing the services of parents, volunteers, or aides fluent in the L1 of ELLs to assist in explaining content-area material) to have the fewest significant correlations with individual perspective items. Interestingly, this behavior (item 5) was the instructional behavior reported most often by No-ESL teachers and the only behavior item that No-ESL teachers did not report significantly less often than C-ESL teachers. The very few significant correlations with perspective items could indicate that this is perhaps a practice that No-ESL teachers engage in out of convenience or necessity (as opposed to engaging in this behavior because they strongly support the theory and practice of L1 use in instruction).

Emerging Categories/Themes Related to L1 Use in Instruction

Results of open-ended question one indicated that participants used a variety of approaches to incorporate use of their ELL students' native languages into their classroom practices, including translation, peer-grouping, use of a variety of L1 materials, learning activities promoting L1 use, and activities conferring status and value on the L1. These findings confirm research demonstrating there are indeed a number of feasible and practical ways that PES teachers can successfully incorporate the native languages of their ELL students into classroom practices (Freeman & Freeman, 1993, Lucas & Katz, 1994; Tikunoff, et al., 1991).

Results of open-ended question two revealed a number of obstacles perceived by participants as barriers to the incorporation of L1 use in instruction, including limited time and resources, difficulties in involving native-English speaking peers, dependence on ELL peers for translation, representation of multiple native languages, and teachers'

own lack of proficiency in their students' native languages. Although PES teachers attributed difficulties in implementing L1 use in instruction to a number of obstacles, it is not necessarily the case that these *perceived* obstacles are, in reality, significant barriers to this practice. Rather, teachers may be basing their perceptions on unfounded assumptions (i.e. that teachers can not incorporate an ELL students' L1 into instruction if they are not proficient in the language). Or these perceptions may be based on lack of theoretical or practical knowledge relevant to the implementation of strategies incorporating the L1 into instruction. For example, while some teachers may see the utilization of peers for L1 support in a negative light, research indicates that social interaction and the expertise of more capable peers are excellent mechanisms for challenging the ELL student to reach heightened levels of development and performance (Vygotsky, 1978).

Limitations to the Study

No matter how tightly controlled the design or setting, all research has limitations. This is especially the case in the social sciences and education where contextual factors continuously change. Although one can never determine with complete confidence the extent to which research findings mirror the world to which generalization is desired, the researcher has an obligation to address factors that may either strengthen or limit this generalizability.

One potentially limiting factor of this study is that all data collected included self-reported responses by participants. The researcher has assumed that participants, by and large, were being honest as they completed the survey. Some possibility existed that not

all participants were completely truthful in their responses. A second potentially limiting factor in this study was the use of the purposive clustering sample method. This method is advantageous in that it allows the researcher to target participants who are best able to address the focus of the investigation. However, a disadvantage of this approach is that caution is required in generalizing the results of the study. There almost certainly will be some ambiguity about how precisely the perspectives found to be salient among these samples might correspond to those perspectives of some hypothetical larger PES teacher population.

Another potentially limiting factor is that the vast majority of subjects in the ESL-specific preparation group had received their preparation through the same university program. Furthermore, the degree of preparation required for this group was quite extensive – at least three courses (nine semester hours). It is possible that less preparation might produce similar results (see subsequent *Recommendations for Further Research* section).

When conclusions are ultimately drawn based on the results of this study, these limiting factors must be given important consideration. However, there are also strong reasons to believe these issues are unlikely to have posed serious threats to the validity of the study. Although surveys eliciting self-reported responses from participants can always be answered dishonestly, there are no readily identifiable reasons to believe that participants in this study were untruthful as they completed the survey. Subjects' answers were anonymous and subjects were at no risk. The questions are important, easily understood, and not invasive of privacy nor are they personally or professionally sensitive. The reliability of the questions is high and most items are objectively scored.

Additionally, these participants are in a “helping” profession and recognize the importance of their role to provide responses which might well inform their field. Finally, although participants in the C-ESL group did receive preparation from the same university program, this program reflects national standards for ESL preparation common among many programs within and across states [including the Teachers of English to Speakers of Other Languages (TESOL)/National Council for the Accreditation of Teacher Education (NCATE) standards (TESOL, 2001)].

While the researcher acknowledges there is no way of predicting with certainty how generalizable the findings of the study will be to the larger population represented, the intent is not to predict applicability to some hypothetical larger population with great precision -- the population and the related contextual factors are continuously evolving. Rather, the idea is to employ a research design which allows for reasonable confidence in the interpretation of results within the context being considered. The researcher is confident that the size of the samples, the carefully applied methodology, and the reliable measuring instruments and procedures utilized in this study allowed for useful and reasonable interpretations.

Implications for Practice

The findings in this study underscore the importance of ESL-specific university preparation in helping PES teachers effectively serve ELL student populations. Research shows the incorporation of ELL students’ native languages into instruction to be a major factor positively impacting their success in school. Findings from this study have clearly pointed to a link between a significant amount of ESL-specific preparation and an

increase in PES teachers' support for the theory and practice of L1 use in instruction. As the ELL student population continues to increase in PES districts and schools, it is crucial that teacher education programs offer preservice and practicing teachers theory-driven content instruction and practical experiences that give them the tools they need to promote school success among their ELL students. Specifically, teacher education programs should strive to dispel common myths and misperceptions held among PES teachers regarding L1 use and second language acquisition, guide PES teachers to explore their beliefs about L1 use in instruction, and provide them with hands-on strategies for effectively incorporating L1 use in instruction.

Relatedly, findings in this study suggest that teaching experience is positively associated with PES teachers' support for the theoretical underpinnings of L1 use in instruction at all grade levels and for its practical implementation at the elementary level, although perhaps not at the secondary level. These findings have further implications for teacher education programs. As teacher educators plan field or practicum experiences, they should carefully consider what factors and contexts will be most conducive to teacher success in implementing strategies that incorporate the L1 of ELL students into instruction, particularly at the secondary level.

Recommendations for Further Research

While findings from this study have shed important light on PES teachers' perspectives relevant to the incorporation of L1 use in instruction and factors related to these perspectives, they have also raised questions that warrant further investigation. For instance, although findings indicated that ESL-specific university preparation appears to

be a strong factor associated with experienced teachers' increased support for the theory and practice of L1 use in instruction, this study did not address the influence of university preparation on preservice teachers' perspectives. With findings further suggesting that teaching experience is generally associated with increased support for L1 use in instruction, an important issue to explore is the degree of effectiveness of ESL-specific preparation for preservice teachers (with little to no experience) in increasing their support for this practice. Additionally, as mentioned earlier in *Limitations to the Study*, teachers in the C-ESL group had completed an extensive amount of ESL-specific university preparation. An important issue to further explore is whether or not less preparation (such as one university course or a series of presentations) might produce similar results as those found with the extensive preparation (i.e. clear links to an increased support for L1 use in instruction).

Additionally, findings from correlations suggested that for teachers with no ESL-specific preparation, experience with ELL students is positively associated with support for the theory and practice of L1 use in instruction. However, correlations did not show a significant relationship between teaching experience in general and this support. This raises the question of whether results from ANOVA's indicating teaching experience is associated with increased support for L1 use were moderated by degree of experience with ELL students. Furthermore, No-ESL teachers reported the utilization of parents, volunteers, or aides fluent in the L1 of their ELL students as the most frequent behavior incorporating the L1 of students into classroom practices. With this being such an apparently successful strategy for teachers, an issue to further look in to is the degree of access teachers in schools and districts have to bilingual volunteers or aides. Finally, the

tendency revealed by correlations for males (with ESL-specific preparation) to show less support than females (with the same preparation) calls for further investigation (i.e. do males tend to hold more negative beliefs than females concerning this practice, or might ESL-specific university preparation be less effective for males than females for other reasons?).

As is the case with all research, this study has its limitations and raises various issues that warrant further exploration. Nonetheless, key findings from this study are particularly significant in contributing important information in a pressing area and having direct applicability to current educational practices. First, the high reliability established on scales measuring teachers' theoretical and practical perspectives on L1 use in instruction demonstrates the accuracy with which these constructs can be measured. The ability to measure these constructs with a high degree of consistency is particularly important when addressing PES teachers' support (or lack thereof) of the practice of L1 use in instruction. Furthermore, findings of a clear link between ESL-specific education (and some combination of teaching experience) and an increase in support for L1 use in instruction is especially noteworthy. This information offers important insight and direction for teacher educators with the responsibility of preparing PES teachers to meet the academic, linguistic, and social needs of significantly growing ELL student populations.

References

- Aguirre, A. (1984). Parent and teacher opinions of bilingual education: Comparisons and contrasts. *The National Association for Bilingual Education Journal*, 9 (1), 41-51.
- Anstrom, K. (1997). *Academic achievement for secondary language minority students: Standards, measures, and promising practices*. National Clearinghouse for Bilingual Education.
- Auerbach, E.R. (1993). Reexamining English only in the ESL classroom. *TESOL Quarterly*, 27, 9-32.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Berube, B. (2000). *Managing ESL programs in rural and small urban schools*. Alexandria, VA: TESOL.
- Byrnes, D. & Kiger, G. (1997). Teachers' attitudes about language diversity. *Teaching and teacher education*, 13 (6), 637-644.
- Castenada vs. Pickard, 648 F.2d 989 (5th Cir. 1989).
- Clair, N. (1995). Mainstream classroom teachers and ESL students. *TESOL Quarterly*, 29, (1) 189-196.
- Clark, C. M. & Peterson, P.L. (1986). Teachers' thought processes. In M.C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 255-296). New York: Macmillan.
- Crawford, J. (1989). *Bilingual education: History, politics, theory and practice* (4th ed.). Los Angeles, CA: Bilingual Educational Services, Inc.
- Cummins, J. (2002). *Language and the human spirit*. Retrieved April 2, 2005 from www.iteachilearn.com/cummins/langhuman02.htm
- Cummins, J. (2000). *Language, power and pedagogy: Bilingual children in the crossfire*. Great Britain: Cambrian Printers Ltd.
- Cummins, J. (1981). The role of primary language development in promoting educational success for language minority students. In California State Department of Education (Ed.), *Schooling and language minority students: A theoretical framework* (pp. 3-49). Los Angeles, CA: Evaluation, Dissemination, and Assessment Center.
- Cummins, J., Swain, M., Nakajima, K., Handscombe, J., Green, D., & Tran, C. (1984).

- Linguistic interdependence among Japanese and Vietnamese immigrant students.* In C. Rivera (Ed.), *Communicative competence approaches to language proficiency assessment: Research and application*, (pp. 60-81). Clevedon, England: Multilingual Matters.
- Creswell, J. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks: Sage.
- Collier, V. (1995). *Promoting academic success for ESL students: Understanding second language acquisition for school*. Elizabeth, NJ: New Jersey Teachers of English to Speakers of Other Languages--Bilingual Educators.
- Deford, D. (1985). Validating the construct of theoretical orientation in reading instruction. *Reading Research Quarterly*, 20, 351-367.
- Faltis, C. & Hudelson, S. (1998). *Bilingual education in elementary and secondary school communities: Toward understanding and caring*. Needham Heights, MA: Allyn & Bacon.
- Freeman, D.E. & Freeman, Y.S. (2001). *Between worlds: Access to second language acquisition (2nd ed.)*. Portsmouth, NH: Heinemann.
- Freeman, D.E. & Freeman, Y.S. (1993). Strategies for promoting the primary languages of all students. *The Reading Teacher*, 46 (7), 552-558.
- Greene, J.P. (1998). *A meta-analysis of the effectiveness of bilingual education*. Retrieved June 23, 2004 from <http://www.ncela.gwu.edu/pubs/symposia/reading/article5/greene98.html>
- Hamayan, E.V. (1990). Preparing PES classroom teachers to teach potentially English proficient students. *Proceedings of the First Research Symposium on Limited English Proficient student issues, OBEMLA*. Retrieved April 4, 2004 from www.ncela.gwu.edu/pubs/symposia/first/preparing-dis.htm
- Herrera, S. & Murry, K. (2005). *Mastering ESL and bilingual methods: Differentiated instruction for culturally and linguistically diverse (CLD) students*. Boston: Allyn & Bacon.
- Huck, S. (2000). *Reading statistics and research (3rd ed.)*. New York: Addison Wesley Longman, Inc.
- Karabenick, S., & Clemens, N. (2004). Professional development implications of teachers' beliefs and attitudes toward English language learners. *Bilingual Research Journal*, 28 (1), 55-75.

- Kindler, A. (2002). *Survey of the States' Limited English Proficient Students and Available Educational Programs and Services: 1999-2000 Summary Report*. Washington, DC: National Clearinghouse for English Language Acquisition and Language Instruction Educational Programs. Retrieved June 23, 2004 from <http://www.ncela.gwu.edu/pubs/reports/>
- Krashen, S. (1996). *Under attack: The case against bilingual education*. Culver City, CA: Language Education Associates.
- Krashen, S. (2002). *Evidence suggesting that public opinion is becoming more negative: A discussion of the reasons, and what we can do about it*. University of Southern California. Retrieved July 6, 2003 from <http://ourworld.compuserve.com/homepages/JWCRAWFORD/krash11.htm>
- Krathwohl, D. (1998). *Methods of educational social science research: An integrated Approach (2nd ed.)*. New York: Addison Wesley Longman, Inc.
- KSDE. (2002). *English to speakers of other languages (ESOL)*. Retrieved June 9, 2004 from <http://www.ksde.org/sfp/esol/contentpg.htm>
- KSDE. (2001). *English for speakers of other languages (ESOL) and bilingual education in Kansas*. Retrieved June 9, 1994 from http://www.ksde.org/sfp/esol/esol_info.html
- Lau vs. Nichols, 414, U.S. 566 (1974).
- Lucas, T. (1992). What have we learned from research on successful secondary programs for LEP students? A synthesis of findings from three studies. *Third National Research Symposium on Limited English Proficient Student Issues: Focus on Middle and High School Issues*. Department of Education, Office of Bilingual Education and Minority Language Affairs: Washington, D.C. Retrieved April 17, 2005 from <http://www.ncela.gwu.edu/pubs/symposia/third/lucas.htm>
- Lucas, T. & Katz, A. (1994). Reframing the debate: The roles of native languages in English-only programs for language minority students. *TESOL Quarterly*, 26 (5), 537-556.
- McClosky, M. (2002). President's message: No child left behind [Electronic version]. *TESOL Matters*, 12 (4), Retrieved May 2, 2004 from <http://www.tesol.org/pubs/articles/2002/tm12-4-04.html>.
- Moore, C. (1999). *Teacher thinking and student diversity*. (ERIC Document Reproduction Service No. ED429947).

- NCELA. (2004). *Glossary of terms related to the education of linguistically and culturally diverse students*. Retrieved June 10, 2004 from <http://www.ncela.gwu.edu/expert/glossary.html>
- NCELA. (2002). *State elementary and secondary LEP enrollment and growth and top languages*. Retrieved February 3, 2004 from <http://www.ncela.gwu.edu/stats/statespecific/index.html>
- Nespor, J. (1987). The role of beliefs in the Practice of teaching. *Curriculum Studies*, 19, 317-328.
- Ovando, C. & Collier, V. (1998). *Bilingual and ESL classrooms: Teaching in multicultural contexts (2nd Ed.)*. Boston: McGraw Hill Companies, Inc.
- Pajares, F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research*, 62 (3), 307-332.
- Peterson, B. (2002). Leaving English learners behind [Electronic Version]. *Rethinking Schools*, 17 (1). Retrieved June 12, 2004 from http://www.rethinkingschools.org/archive/17_01/Leav171.shtml
- Ramirez, J.D. (1992). Executive summary. *Bilingual Research Journal*, 16, 1-62.
- Ramirez, J.D. Yen, S.D., & Ramey, D.R. (1991). *Executive summary of final report: Longitudinal study of structured English immersion strategy, early-exit and late-exit transitional bilingual education programs for language-minority students*. San Mateo, CA: Aguirre International.
- Ramos, R. (2001). Teachers' opinions about the theoretical and practical aspects of the use of native language instruction for language minority students: A cross-sectional study [Electronic Version]. *Bilingual Research Journal*, 25 (3). Retrieved June 23, 2003 from http://www.brj.asu.edu/content/vol25_no3/pdf/ar6.pdf
- Reeves, J. (2002). *Secondary teachers' attitudes and perceptions of the inclusion of ESL students in mainstream classes*. (Doctoral Dissertation, University of Tennessee). Retrieved February 3, 2004 from <http://idserver.utk.edu/?id=200400000001828>
- Rueda, R. & Garcia, E. (1996). Teachers' perspectives on literacy assessment and instruction with language-minority students: A comparative study. *The Elementary School Journal*, 96 (3), 311-332.
- Samway, K. & McKeon, D. (1999). *Myths and realities: Best practices for language minority students*. Portsmouth, NH: Heinemann.

- Saville-Troike, M. (1984). What really matters in second language learning for academic achievement? *TESOL Quarterly*, 18 (2), p. 199-219.
- Shavelson, R. (1983). Review of research on teachers' pedagogical judgment, plans, and decisions. *The Elementary School Journal*, 83, 392-413.
- Shin, F., & Krashen, S. (1996). Teacher attitudes toward the principles of bilingual education and toward students' participation in bilingual programs: Same or different? *Bilingual Research Journal*, 20 (1), 45-53.
- Schmid, C. (2001). *The politics of language: Conflict, identity, and cultural pluralism in comparative perspective*. New York: Oxford University Press.
- Teachers of English to Speakers of Other Languages (TESOL). (2001). *TESOL/NCATE standards for P-12 teacher education programs*. Retrieved April 16, 2005 from www.tesol.org/s_tesol/seccss.asp?CID=219&DID=1689
- Thomas, W. P., & Collier, V. P. (2002). *A national study of school effectiveness for language minority students' long-term academic achievement*. Center for Research on Education, Diversity and Excellence (CREDE). Retrieved July 3, 2003 from http://www.crede.ucsc.edu/research/llaa/1.1_final.html
- Thomas, W. P., & Collier, V. P. (1997). *School effectiveness for language minority students*. NCELA Resource Collection Series, No. 9. Retrieved July 3, 2003 from <http://www.ncela.gwu.edu/ncbepubs/resource/effectiveness>
- Tikunoff, W.J., Ward, B.A., van Broekhuizen, L.D., Romero, M., Vega-Castaneda, L., Lucas, T., & Katz, A. (1991). *Final report: A descriptive study of significant features of exemplary special alternative instructional programs*. Southwest Regional Laboratory: Los Alamitos, CA.
- Trasvina, J. (1988). *Official English/English only: More than meet the eye*. The National Education Association of the United States.
- Tse, L. (2001). *"Why don't they learn English?" Separating fact from fallacy in the U.S. language debate*. New York: Teachers College Press.
- U.S. Census Bureau. (2000). *American factfinder: quick tables*. Retrieved May 2, 2003 from http://factfinder.census.gov.servlet/SAFFacts_ss=on
- USDE. (2004). *Programs for English Language Learners: Resource materials for planning and self-assessment (Office of Civil Rights)*. Retrieved June 12, 2004 from <http://www.ed.gov/about/offices/list/ocr/ell/glossary.html>
- Valdes, G. (2001). *Learning and not learning English: Latino students in American schools*. New York: Teachers College Press.

- Varghese, M. & Stritikus, T. (2005). "Nadie me dijo (Nobody told me)": Language policy negotiation and implications for teacher education. *Journal of Teacher Education*, 56 (1), 73-87.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Walker, A., Shafer, J., & Liams, M. (2004). "Not in my classroom": Teacher attitudes towards English language learners in the mainstream classroom. *NABE Journal of Research and Practice*, 2 (1), 130-160.
- Willig, A. (1985). A meta-analysis of selected studies on the effectiveness of bilingual education. *Review of Educational Research*, 55, 269-270.
- Williams, G. M. (1997, March). *Challenging the political mirage of ESL and bilingual education: A study of public knowledge*. Paper presented at the Annual Meeting of the Teachers of English to Speakers of Other Languages, Orlando, FL.
- Winer, B.J. (1962). *Statistical principles in experimental design* (2nd ed.). New York: McGraw-Hill, Inc.
- Youngs, C. & Youngs, G. (2001). Predictors of mainstream teacher's attitudes toward ESL students. *TESOL Quarterly*, 35 (1), 97-118.

Appendix A: Frequently Used Acronyms and Abbreviations

ELL	English language learner
ESL	English as a second language
PES	Predominantly English-speaking
L1	First or native language
PS	Preservice
No-ESL	Teachers without significant ESL-related university preparation
C-ESL	Teachers with significant (at least three courses) ESL-related university preparation
BICS	Basic interpersonal communication skills
CALP	Cognitive academic language proficiency

Appendix B: Cover Letter to Survey

Kansas State University
238 Bluemont Hall
Manhattan, KS 66502
August 15, 2004

Dear Teachers,

My name is Katya Karathanos and I am a doctoral candidate at Kansas State University. I would like to invite you to participate in a dissertation study I am completing designed to explore the perspectives of preservice and inservice teachers on issues concerning the education of English Language Learner (ELL) students. As a practicing or future teacher whose classes enroll or some day may enroll ELL students, your input will provide valuable insight in this study.

I would like to ask you to participate in this study by filling out the enclosed survey which should take approximately 15 minutes to complete. Please keep in mind that your participation in this study is completely voluntary and is not a requirement for the course in which you are enrolled nor is it affiliated with the CLASSIC© ESL/Dual Language Program. Additionally, you should feel free to skip any questions in the survey that may make you feel uncomfortable or withdraw from participation at any time. Although results from this survey may be presented at professional conferences or published in professional journals, this survey is anonymous and responses will not be linked to you in any way. Completion of this survey indicates your informed consent to participate.

Please keep this letter for your records and feel free to contact me with any questions or comments you may have at the address above, by email (katyak@ksu.edu), or by phone at 785-539-1175. Thank you for your participation.

Sincerely,

Katya A. Karathanos
Ph. D. Candidate
Curriculum and Instruction
Kansas State University

Appendix C: Survey

Educating English Language Learners

A Survey of Teachers

Note: For the purposes of this study, the term **ELL** (often referred to as ESL) is inclusive of any student whose native language is not English and whose English language ability, in your view, impedes his/her progress in subject-area coursework. It is not necessary for a student to be enrolled in an ESL program to be considered an ELL student.

Please respond to each statement below by circling the indicator that most closely reflects your understanding or opinion:

SA = Strongly Agree A = Agree MA = Moderately Agree N = Not sure
MD = Moderately disagree D = Disagree SD = Strongly Disagree

1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

SA A MA N MD D SD

2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

SA A MA N MD D SD

3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

SA A MA N MD D SD

4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

SA A MA N MD D SD

5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

SA A MA N MD D SD

6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

SA A MA N MD D SD

7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

SA A MA N MD D SD

8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

SA A MA N MD D SD

Appendix C: Survey (Page 2)

9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

SA A MA N MD D SD

10. If an ELL student is in an English-only classroom, he/she will learn English better.

SA A MA N MD D SD

11. Teaching ELL students in both English and their native language results in language confusion for them.

SA A MA N MD D SD

12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

SA A MA N MD D SD

Section B

Please answer the following questions concerning your background, educational, and teaching experiences.

1. Please indicate the grade you teach (if more than one, please indicate the level at which you have mainly taught in the last three years.

Pre-K-2 3-4 5-8 9-12

2. Please indicate your gender..... Male Female

3. Approximately how many years have you been teaching?

less than two 2-5 5-10 10 or more

4. Is English your native language..... **Yes** **No**

5. Do you speak a second language.....

If yes, please estimate your ability level:

beginner intermediate advanced

6. Please indicate any ESL-specific training you have had:

none in-service training
 completed university/college courses (if yes, how many courses have you completed ____?)
 other (Please describe _____)

7. Have you ever had an ELL student enrolled in your class? Yes No

If you answered Yes to the previous question, please continue to section C of this survey. If you answered no, please stop here.

Appendix C: Survey (Page 3)

Section C

1. During the past school year approximately what percentage of your students were ELL students?
 none 1-5% 6-10% 11-20% 21-50%
 51-80% 81-100%

2. What is the average percentage of ELL students you have had in your classes each year during the past five years?
 none 1-5% 6-10% 11-20% 21-50%
 51-80% 81-100%

Please indicate the extent to which the following statements apply to your practice with ELL students when they are enrolled in your classroom:

	Seldom or never	Some of the time	Most or all of the time
Classroom Practices			
1. I allow ELL students to use their native languages in my classroom.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I locate native language resources such as curricula, books, articles, etc. for ELL students relating to topics of instruction.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I encourage ELL students to answer questions or write their assignments in their native languages.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I pair/group ELL students with the same native languages but different levels of English proficiency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I utilize the services of parents, aides, or volunteers fluent in the native languages of my ELL students to assist in explaining content-area material.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please respond to the following open-ended statements:

1. Please list any additional ways that you incorporate use of your ELL students' native languages into classroom practices.

2. What do you find to be most challenging about incorporating use of your ELL students' native languages into classroom practices?

Thank you for completing this survey.

Appendix D: Section B of Survey for Preservice Teachers

Section B

Please answer the following questions concerning your background and educational experiences.

1. Please indicate the primary grade level you plan on teaching once you enter the teaching profession.
 Pre-K-2 3-4 5-8 9-12

2. Please indicate your gender..... Male Female

3. Please indicate what year of your undergraduate program you are classified as being in this semester.
 freshman sophomore junior senior

	Yes	No
4. Is English your native language.....	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you speak a second language.....	<input type="checkbox"/>	<input type="checkbox"/>

If yes, please estimate your ability level:
 beginner intermediate advanced

6. Please indicate any ESL-specific education you have had:
 none
 had ESL-related presentation by an outside speaker in one or more of your courses
 covered ESL-related material in one or more of your courses
 completed ESL-specific university/college courses (*if yes, how many courses have you completed ____?*)
 other (*Please describe _____*)

Appendix E: Descriptive Statistics and Means for ANOVA on Theory Sums

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	112
	3	C-ESL	105
Grade_level	1	elementary	181
	2	secondary	132

Descriptive Statistics

Dependent Variable: Theory Sum

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	17.0400	4.25686	50
	secondary	17.0652	5.17860	46
	Total	17.0521	4.69573	96
NO-ESL	elementary	15.4795	4.94444	73
	secondary	15.3846	5.16881	39
	Total	15.4464	5.00061	112
C-ESL	elementary	10.1724	3.50507	58
	secondary	9.6383	3.65600	47
	Total	9.9333	3.56604	105
Total	elementary	14.2099	5.17044	181
	secondary	13.9242	5.68730	132
	Total	14.0895	5.38739	313

Levene's Test of Equality of Error Variances(a)

Dependent Variable: Theory Sum

F	df1	df2	Sig.
1.736	5	307	.126

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

**Appendix E: Descriptive Statistics and Means for ANOVA on Theory Sums
(Page Two)**

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: Theory Sum

Group ID	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
PS	17.053	.459	16.150	17.955
NO-ESL	15.432	.445	14.556	16.308
C-ESL	9.905	.440	9.039	10.772

2. Grade_level

Estimates

Dependent Variable: Theory Sum

Grade_level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
elementary	14.231	.338	13.566	14.895
secondary	14.029	.392	13.258	14.801

3. Group ID * Grade_level

Estimates

Dependent Variable: Theory Sum

Group ID	Grade_level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	17.040	.635	15.791	18.289
	secondary	17.065	.662	15.763	18.367
NO-ESL	elementary	15.479	.525	14.446	16.513
	secondary	15.385	.719	13.970	16.799
C-ESL	elementary	10.172	.589	9.013	11.332
	secondary	9.638	.655	8.350	10.927

Appendix F: Descriptive Statistics and Means for ANOVA on Practice Sums

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	108
	3	C-ESL	103
Grade_level	1	elementary	178
	2	secondary	129

Descriptive Statistics

Dependent Variable: Practice Sum

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	22.2200	5.55966	50
	secondary	21.3043	5.49290	46
	Total	21.7813	5.51782	96
NO-ESL	elementary	19.2361	4.51755	72
	secondary	22.1944	5.98484	36
	Total	20.2222	5.21739	108
C-ESL	elementary	13.6786	4.89566	56
	secondary	13.4681	5.94486	47
	Total	13.5825	5.37336	103
Total	elementary	18.3258	5.97031	178
	secondary	18.6977	7.00179	129
	Total	18.4821	6.41553	307

Levene's Test of Equality of Error Variances(a)

Dependent Variable: Practice Sum

F	df1	df2	Sig.
1.068	5	301	.378

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

**Appendix F: Descriptive Statistics and Means for ANOVA on Practice Sums
(Page Two)**

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: Practice Sum

Group ID	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
PS	21.762	.543	20.693	22.832
NO-ESL	20.715	.543	19.647	21.784
C-ESL	13.573	.526	12.538	14.609

2. Grade_level

Estimates

Dependent Variable: Practice Sum

Grade_level	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
elementary	18.378	.403	17.584	19.172
secondary	18.989	.472	18.060	19.917

3. Group ID * Grade_level

Estimates

Dependent Variable: Practice Sum

Group ID	Grade_level	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	22.220	.752	20.739	23.701
	secondary	21.304	.784	19.761	22.848
NO-ESL	elementary	19.236	.627	18.002	20.470
	secondary	22.194	.887	20.450	23.939
C-ESL	elementary	13.679	.711	12.280	15.078
	secondary	13.468	.776	11.941	14.995

Appendix G: Analysis of Variance on Item One

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	112
	3	C-ESL	106
Grade_level	1	elementary	182
	2	secondary	132

Descriptive Statistics

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.22	1.112	50
	secondary	1.93	.827	46
	Total	2.08	.991	96
NO-ESL	elementary	1.88	.865	73
	secondary	1.49	.721	39
	Total	1.74	.836	112
C-ESL	elementary	1.68	.899	59
	secondary	1.45	.717	47
	Total	1.58	.827	106
Total	elementary	1.91	.967	182
	secondary	1.63	.785	132
	Total	1.79	.905	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

F	df1	df2	Sig.
1.898	5	308	.094

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix G: Analysis of Variance on Item One (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	20.611(b)	5	4.122	5.391	.000	.080	26.954	.955
Intercept	949.528	1	949.528	1241.757	.000	.801	1241.757	1.000
Group_ID	14.349	2	7.175	9.383	.000	.057	18.765	.920
Grade_level	6.879	1	6.879	8.996	.003	.028	8.996	.658
Group_ID * Grade_level	.333	2	.166	.218	.805	.001	.435	.021
Error	235.517	308	.765					
Total	1262.000	314						
Corrected Total	256.127	313						

a. Computed using alpha = .01

b. R Squared = .080 (Adjusted R Squared = .066)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	2.077	.089	1.846	2.309
NO-ESL	1.682	.087	1.457	1.907
C-ESL	1.562	.085	1.341	1.784

2. Grade_level

Estimates

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	1.925	.066	1.755	2.095
secondary	1.623	.076	1.425	1.821

Appendix G: Analysis on Item One (Page Three)

3. Group ID * Grade_level

Estimates

Dependent Variable: A.1. High levels of literacy in two languages can result in higher development of knowledge or mental skills.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.220	.124	1.899	2.541
	secondary	1.935	.129	1.601	2.269
NO-ESL	elementary	1.877	.102	1.611	2.142
	secondary	1.487	.140	1.124	1.850
C-ESL	elementary	1.678	.114	1.383	1.973
	secondary	1.447	.128	1.116	1.777

Appendix H: Analysis of Variance on Item Two

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	112
	3 C-ESL	106
Grade_level	1 elementary	182
	2 secondary	132

Descriptive Statistics

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.80	1.443	50
	secondary	3.35	1.676	46
	Total	3.06	1.575	96
NO-ESL	elementary	2.58	1.404	73
	secondary	2.54	1.652	39
	Total	2.56	1.487	112
C-ESL	elementary	1.42	.835	59
	secondary	1.40	.851	47
	Total	1.42	.838	106
Total	elementary	2.26	1.385	182
	secondary	2.42	1.639	132
	Total	2.33	1.497	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

F	df1	df2	Sig.
12.346	5	308	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix H: Analysis of Variance on Item Two (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	153.525(b)	5	30.705	17.267	.000	.219	86.337	1.000
Intercept	1663.954	1	1663.954	935.747	.000	.752	935.747	1.000
Group_ID	146.064	2	73.032	41.070	.000	.211	82.141	1.000
Grade_level	2.025	1	2.025	1.139	.287	.004	1.139	.065
Group_ID * Grade_level	5.429	2	2.715	1.527	.219	.010	3.053	.140
Error	547.689	308	1.778					
Total	2403.000	314						
Corrected Total	701.213	313						

a Computed using alpha = .01

b R Squared = .219 (Adjusted R Squared = .206)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	3.074	.136	2.721	3.427
NO-ESL	2.557	.132	2.214	2.900
C-ESL	1.414	.130	1.076	1.752

Pairwise Comparisons

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.517	.190	.021	-.045	1.079
	C-ESL	1.660(*)	.189	.000	1.102	2.218
NO-ESL	PS	-.517	.190	.021	-1.079	.045
	C-ESL	1.143(*)	.186	.000	.594	1.692
C-ESL	PS	-1.660(*)	.189	.000	-2.218	-1.102
	NO-ESL	-1.143(*)	.186	.000	-1.692	-.594

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix H: Analysis of Variance on Item Two (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.266	.100	2.007	2.526
secondary	2.430	.116	2.128	2.732

3. Group ID * Grade_level

Estimates

Dependent Variable: A.2. A child who can read and write in his/her first language will be able to learn English faster and easier (as opposed to children who cannot read and write in their first language).

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.800	.189	2.311	3.289
	secondary	3.348	.197	2.838	3.857
NO-ESL	elementary	2.575	.156	2.171	2.980
	secondary	2.538	.214	1.985	3.092
C-ESL	elementary	1.424	.174	.974	1.874
	secondary	1.404	.195	.900	1.908

Appendix I: Analysis of Variance on Item Three

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	112
	3 C-ESL	106
Grade_level	1 elementary	182
	2 secondary	132

Descriptive Statistics

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	3.50	1.182	50
	secondary	3.28	1.377	46
	Total	3.40	1.277	96
NO-ESL	elementary	2.97	1.424	73
	secondary	3.54	1.730	39
	Total	3.17	1.553	112
C-ESL	elementary	2.12	1.131	59
	secondary	1.74	.920	47
	Total	1.95	1.055	106
Total	elementary	2.84	1.375	182
	secondary	2.81	1.568	132
	Total	2.83	1.457	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

F	df1	df2	Sig.
5.722	5	308	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix I: Analysis of Variance on Item Three (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	138.144(b)	5	27.629	16.161	.000	.208	80.803	1.000
Intercept	2467.321	1	2467.321	1443.181	.000	.824	1443.181	1.000
Group_ID	133.021	2	66.511	38.903	.000	.202	77.806	1.000
Grade_level	.005	1	.005	.003	.955	.000	.003	.010
Group_ID * Grade_level	12.925	2	6.463	3.780	.024	.024	7.560	.449
Error	526.569	308	1.710					
Total	3176.000	314						
Corrected Total	664.713	313						

a Computed using alpha = .01

b R Squared = .208 (Adjusted R Squared = .195)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	3.391	.134	3.045	3.737
NO-ESL	3.256	.130	2.919	3.592
C-ESL	1.932	.128	1.600	2.263

Pairwise Comparisons

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.136	.186	1.000	-.415	.686
	C-ESL	1.460(*)	.185	.000	.913	2.007
NO-ESL	PS	-.136	.186	1.000	-.686	.415
	C-ESL	1.324(*)	.182	.000	.785	1.863
C-ESL	PS	-1.460(*)	.185	.000	-2.007	-.913
	NO-ESL	-1.324(*)	.182	.000	-1.863	-.785

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix I: Analysis of Variance on Item Three (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.864	.098	2.610	3.118
secondary	2.855	.114	2.559	3.151

3. Group ID * Grade_level

Estimates

Dependent Variable: A.3. A child who is not proficient in English would do better in school if he/she learns to read and write in his/her first language.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	3.500	.185	3.021	3.979
	secondary	3.283	.193	2.783	3.782
NO-ESL	elementary	2.973	.153	2.576	3.369
	secondary	3.538	.209	2.996	4.081
C-ESL	elementary	2.119	.170	1.677	2.560
	secondary	1.745	.191	1.250	2.239

Appendix J: Analysis of Variance on Item Four

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	112
	3 C-ESL	106
Grade_level	1 elementary	182
	2 secondary	132

Descriptive Statistics

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.98	1.116	50
	secondary	2.70	1.133	46
	Total	2.84	1.127	96
NO-ESL	elementary	2.70	1.266	73
	secondary	2.41	1.428	39
	Total	2.60	1.325	112
C-ESL	elementary	1.75	.863	59
	secondary	1.57	.683	47
	Total	1.67	.789	106
Total	elementary	2.47	1.215	182
	secondary	2.21	1.198	132
	Total	2.36	1.213	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

F	df1	df2	Sig.
5.535	5	308	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix J: Analysis of Variance on Item Four (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	84.134(b)	5	16.827	13.776	.000	.183	68.881	1.000
Intercept	1667.535	1	1667.535	1365.231	.000	.816	1365.231	1.000
Group_ID	76.787	2	38.394	31.433	.000	.170	62.867	1.000
Grade_level	4.640	1	4.640	3.799	.052	.012	3.799	.262
Group_ID * Grade_level	.227	2	.113	.093	.911	.001	.186	.014
Error	376.201	308	1.221					
Total	2209.000	314						
Corrected Total	460.334	313						

a. Computed using alpha = .01

b. R Squared = .183 (Adjusted R Squared = .169)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	2.838	.113	2.545	3.130
NO-ESL	2.554	.110	2.270	2.839
C-ESL	1.660	.108	1.380	1.940

Pairwise Comparisons

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.283	.157	.218	-.182	.749
	C-ESL	1.178(*)	.156	.000	.715	1.640
NO-ESL	PS	-.283	.157	.218	-.749	.182
	C-ESL	.894(*)	.154	.000	.439	1.350
C-ESL	PS	-1.178(*)	.156	.000	-1.640	-.715
	NO-ESL	-.894(*)	.154	.000	-1.350	-.439

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a. Adjustment for multiple comparisons: Bonferroni.

Appendix J: Analysis of Variance on Item Four (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.475	.083	2.260	2.690
secondary	2.227	.097	1.977	2.477

3. Group ID * Grade_level

Estimates

Dependent Variable: A.4. Learning subject matter in the first language helps the ELL student learn subject matter better when he/she studies it in English.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.980	.156	2.575	3.385
	secondary	2.696	.163	2.273	3.118
NO-ESL	elementary	2.699	.129	2.363	3.034
	secondary	2.410	.177	1.952	2.869
C-ESL	elementary	1.746	.144	1.373	2.119
	secondary	1.574	.161	1.157	1.992

Appendix K: Analysis of Variance on Item Five

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	112
	3 C-ESL	106
Grade_level	1 elementary	182
	2 secondary	132

Descriptive Statistics

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.60	.808	50
	secondary	2.87	1.470	46
	Total	2.73	1.174	96
NO-ESL	elementary	2.49	1.215	73
	secondary	2.41	1.332	39
	Total	2.46	1.252	112
C-ESL	elementary	1.47	.653	59
	secondary	1.53	.804	47
	Total	1.50	.720	106
Total	elementary	2.19	1.073	182
	secondary	2.26	1.346	132
	Total	2.22	1.193	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

F	df1	df2	Sig.
9.515	5	308	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix K: Analysis of Variance on Item Five (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	88.524(b)	5	17.705	15.261	.000	.199	76.306	1.000
Intercept	1500.446	1	1500.446	1293.366	.000	.808	1293.366	1.000
Group_ID	84.598	2	42.299	36.461	.000	.191	72.923	1.000
Grade_level	.499	1	.499	.430	.512	.001	.430	.028
Group_ID * Grade_level	1.548	2	.774	.667	.514	.004	1.335	.053
Error	357.314	308	1.160					
Total	1993.000	314						
Corrected Total	445.838	313						

a Computed using alpha = .01

b R Squared = .199 (Adjusted R Squared = .186)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	2.735	.110	2.450	3.020
NO-ESL	2.452	.107	2.175	2.729
C-ESL	1.503	.105	1.230	1.776

Pairwise Comparisons

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.283	.153	.198	-.171	.737
	C-ESL	1.232(*)	.152	.000	.781	1.682
NO-ESL	PS	-.283	.153	.198	-.737	.171
	C-ESL	.948(*)	.150	.000	.505	1.392
C-ESL	PS	-1.232(*)	.152	.000	-1.682	-.781
	NO-ESL	-.948(*)	.150	.000	-1.392	-.505

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix K: Analysis of Variance on Item Five (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.189	.081	1.980	2.399
secondary	2.271	.094	2.027	2.514

3. Group ID * Grade_level

Dependent Variable: A.5. ELL students' development of literacy in the first language will facilitate the development of reading and writing in English.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.600	.152	2.205	2.995
	secondary	2.870	.159	2.458	3.281
NO-ESL	elementary	2.493	.126	2.166	2.820
	secondary	2.410	.172	1.963	2.857
C-ESL	elementary	1.475	.140	1.111	1.838
	secondary	1.532	.157	1.125	1.939

Appendix L: Analysis of Variance on Item Six

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	111
	3	C-ESL	105
Grade_level	1	elementary	181
	2	secondary	131

Descriptive Statistics

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	3.32	1.558	50
	secondary	3.33	1.536	46
	Total	3.32	1.539	96
NO-ESL	elementary	2.71	1.448	73
	secondary	4.03	1.763	38
	Total	3.16	1.676	111
C-ESL	elementary	2.02	1.304	58
	secondary	1.89	1.184	47
	Total	1.96	1.247	105
Total	elementary	2.66	1.514	181
	secondary	3.02	1.728	131
	Total	2.81	1.614	312

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

F	df1	df2	Sig.
5.080	5	306	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix L: Analysis of Variance on Item Six (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	158.089(b)	5	31.618	14.831	.000	.195	74.153	1.000
Intercept	2487.184	1	2487.184	1166.632	.000	.792	1166.632	1.000
Group_ID	131.446	2	65.723	30.828	.000	.168	61.656	1.000
Grade_level	11.902	1	11.902	5.583	.019	.018	5.583	.411
Group_ID * Grade_level	31.712	2	15.856	7.437	.001	.046	14.875	.827
Error	652.372	306	2.132					
Total	3270.000	312						
Corrected Total	810.462	311						

a. Computed using alpha = .01

b. R Squared = .195 (Adjusted R Squared = .182)

Estimated Marginal Means

Descriptive Statistics

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	3.32	1.558	50
	secondary	3.33	1.536	46
	Total	3.32	1.539	96
NO-ESL	elementary	2.71	1.448	73
	secondary	4.03	1.763	38
	Total	3.16	1.676	111
C-ESL	elementary	2.02	1.304	58
	secondary	1.89	1.184	47
	Total	1.96	1.247	105
Total	elementary	2.66	1.514	181
	secondary	3.02	1.728	131
	Total	2.81	1.614	312

Appendix L: Analysis of Variance on Item Six (Page Three)

1. Group ID

Estimates

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	3.323	.149	2.936	3.710
NO-ESL	3.369	.146	2.991	3.748
C-ESL	1.955	.143	1.584	2.327

2. Grade_level

Estimates

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.683	.110	2.398	2.968
secondary	3.082	.128	2.750	3.414

3. Group ID * Grade_level

Dependent Variable: A.6. The use of the primary language in the classroom should stop as soon as the ELL student learns English.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	3.320	.206	2.785	3.855
	secondary	3.326	.215	2.768	3.884
NO-ESL	elementary	2.712	.171	2.269	3.155
	secondary	4.026	.237	3.412	4.640
C-ESL	elementary	2.017	.192	1.520	2.514
	secondary	1.894	.213	1.342	2.446

Appendix M: Analysis of Variance on Item Seven

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	111
	3 C-ESL	105
Grade_level	1 elementary	181
	2 secondary	131

Descriptive Statistics

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	4.06	1.346	50
	secondary	4.07	1.569	46
	Total	4.06	1.450	96
NO-ESL	elementary	3.58	1.413	73
	secondary	3.76	1.567	38
	Total	3.64	1.463	111
C-ESL	elementary	2.40	1.555	58
	secondary	2.38	1.392	47
	Total	2.39	1.477	105
Total	elementary	3.33	1.585	181
	secondary	3.37	1.675	131
	Total	3.35	1.621	312

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

F	df1	df2	Sig.
.652	5	306	.661

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix M: Analysis of Variance on Item Seven (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	155.606(b)	5	31.121	14.400	.000	.190	72.001	1.000
Intercept	3407.200	1	3407.200	1576.563	.000	.837	1576.563	1.000
Group_ID	154.606	2	77.303	35.769	.000	.189	71.538	1.000
Grade_level	.268	1	.268	.124	.725	.000	.124	.015
Group_ID * Grade_level	.621	2	.310	.144	.866	.001	.287	.017
Error	661.314	306	2.161					
Total	4317.000	312						
Corrected Total	816.920	311						

a. Computed using alpha = .01

b. R Squared = .190 (Adjusted R Squared = .177)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	4.063	.150	3.673	4.452
NO-ESL	3.669	.147	3.288	4.050
C-ESL	2.390	.144	2.016	2.764

Pairwise Comparisons

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.393	.210	.187	-.228	1.015
	C-ESL	1.673(*)	.208	.000	1.057	2.289
NO-ESL	PS	-.393	.210	.187	-1.015	.228
	C-ESL	1.279(*)	.206	.000	.670	1.889
C-ESL	PS	-1.673(*)	.208	.000	-2.289	-1.057
	NO-ESL	-1.279(*)	.206	.000	-1.889	-.670

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a. Adjustment for multiple comparisons: Bonferroni.

Appendix M: Analysis of Variance on Item Seven (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	3.344	.111	3.057	3.631
secondary	3.404	.129	3.069	3.738

3. Group ID * Grade_level

Dependent Variable: A.7. Core curriculum instruction in the primary language will result in a poor level of English proficiency because the ELL student will use his/her native language in the classroom instead of speaking English.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	4.060	.208	3.521	4.599
	secondary	4.065	.217	3.503	4.627
NO-ESL	elementary	3.575	.172	3.129	4.021
	secondary	3.763	.238	3.145	4.381
C-ESL	elementary	2.397	.193	1.896	2.897
	secondary	2.383	.214	1.827	2.939

Appendix N: Analysis of Variance on Item Eight

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	112
	3	C-ESL	105
Grade_level	1	elementary	181
	2	secondary	132

Descriptive Statistics

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.94	1.300	50
	secondary	2.93	1.200	46
	Total	2.94	1.247	96
NO-ESL	elementary	2.86	1.097	73
	secondary	3.00	1.076	39
	Total	2.91	1.087	112
C-ESL	elementary	1.76	.844	58
	secondary	1.94	.987	47
	Total	1.84	.911	105
Total	elementary	2.53	1.204	181
	secondary	2.60	1.191	132
	Total	2.56	1.197	313

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

F	df1	df2	Sig.
1.769	5	307	.119

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix N: Analysis of Variance on Item Eight (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	83.473(b)	5	16.695	14.093	.000	.187	70.463	1.000
Intercept	1991.398	1	1991.398	1681.019	.000	.846	1681.019	1.000
Group_ID	80.417	2	40.208	33.942	.000	.181	67.883	1.000
Grade_level	.800	1	.800	.675	.412	.002	.675	.040
Group_ID * Grade_level	.454	2	.227	.191	.826	.001	.383	.020
Error	363.684	307	1.185					
Total	2497.000	313						
Corrected Total	447.157	312						

a. Computed using alpha = .01

b. R Squared = .187 (Adjusted R Squared = .173)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	2.937	.111	2.649	3.226
NO-ESL	2.932	.108	2.652	3.211
C-ESL	1.847	.107	1.571	2.124

Pairwise Comparisons

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.006	.155	1.000	-.453	.464
	C-ESL	1.090(*)	.154	.000	.634	1.546
NO-ESL	PS	-.006	.155	1.000	-.464	.453
	C-ESL	1.084(*)	.152	.000	.635	1.533
C-ESL	PS	-1.090(*)	.154	.000	-1.546	-.634
	NO-ESL	-1.084(*)	.152	.000	-1.533	-.635

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a. Adjustment for multiple comparisons: Bonferroni.

Appendix N: Analysis of Variance on Item Eight (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.521	.082	2.308	2.733
secondary	2.624	.095	2.377	2.870

3. Group ID * Grade_level

Dependent Variable: A.8. The use of the native language in the classroom allows ELL students to base their learning of English on the conceptual knowledge they possess in their first language.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.940	.154	2.541	3.339
	secondary	2.935	.160	2.519	3.351
NO-ESL	elementary	2.863	.127	2.533	3.193
	secondary	3.000	.174	2.548	3.452
C-ESL	elementary	1.759	.143	1.388	2.129
	secondary	1.936	.159	1.525	2.348

Appendix O: Analysis of Variance on Item Nine

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	112
	3 C-ESL	106
Grade_level	1 elementary	182
	2 secondary	132

Descriptive Statistics

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	3.30	1.446	50
	secondary	3.24	1.463	46
	Total	3.27	1.447	96
NO-ESL	elementary	2.70	1.063	73
	secondary	3.26	1.618	39
	Total	2.89	1.304	112
C-ESL	elementary	1.68	.840	59
	secondary	1.74	.966	47
	Total	1.71	.894	106
Total	elementary	2.53	1.286	182
	secondary	2.71	1.531	132
	Total	2.61	1.395	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

F	df1	df2	Sig.
6.961	5	308	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix O: Analysis of Variance on Item Nine (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	145.326(b)	5	29.065	19.314	.000	.239	96.572	1.000
Intercept	2123.516	1	2123.516	1411.118	.000	.821	1411.118	1.000
Group_ID	139.793	2	69.896	46.448	.000	.232	92.895	1.000
Grade_level	2.663	1	2.663	1.769	.184	.006	1.769	.105
Group_ID * Grade_level	5.344	2	2.672	1.775	.171	.011	3.551	.171
Error	463.493	308	1.505					
Total	2745.000	314						
Corrected Total	608.818	313						

a Computed using alpha = .01

b R Squared = .239 (Adjusted R Squared = .226)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	3.270	.125	2.945	3.594
NO-ESL	2.978	.122	2.662	3.293
C-ESL	1.711	.120	1.401	2.022

Pairwise Comparisons

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.292	.175	.287	-.225	.809
	C-ESL	1.558(*)	.173	.000	1.045	2.071
NO-ESL	PS	-.292	.175	.287	-.809	.225
	C-ESL	1.266(*)	.171	.000	.761	1.772
C-ESL	PS	-1.558(*)	.173	.000	-2.071	-1.045
	NO-ESL	-1.266(*)	.171	.000	-1.772	-.761

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix O: Analysis of Variance on Item Nine (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.559	.092	2.320	2.797
secondary	2.747	.107	2.469	3.024

3. Group ID * Grade_level

Estimates

Dependent Variable: A.9. Using the native language in the classroom will have a negative effect on the ELL student's ability to learn English.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	3.300	.173	2.850	3.750
	secondary	3.239	.181	2.770	3.708
NO-ESL	elementary	2.699	.144	2.326	3.071
	secondary	3.256	.196	2.747	3.766
C-ESL	elementary	1.678	.160	1.264	2.092
	secondary	1.745	.179	1.281	2.208

Appendix P: Analysis of Variance on Item Ten

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	112
	3	C-ESL	106
Grade_level	1	elementary	182
	2	secondary	132

Descriptive Statistics

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	3.98	1.622	50
	secondary	3.54	1.328	46
	Total	3.77	1.497	96
NO-ESL	elementary	3.44	1.404	73
	secondary	3.87	1.592	39
	Total	3.59	1.480	112
C-ESL	elementary	2.24	1.119	59
	secondary	2.32	1.431	47
	Total	2.27	1.261	106
Total	elementary	3.20	1.546	182
	secondary	3.20	1.586	132
	Total	3.20	1.561	314

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

F	df1	df2	Sig.
2.322	5	308	.043

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix P: Analysis of Variance on Item Ten (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	148.745(b)	5	29.749	14.932	.000	.195	74.661	1.000
Intercept	3151.386	1	3151.386	1581.817	.000	.837	1581.817	1.000
Group_ID	140.165	2	70.083	35.177	.000	.186	70.355	1.000
Grade_level	.052	1	.052	.026	.872	.000	.026	.011
Group_ID * Grade_level	9.420	2	4.710	2.364	.096	.015	4.728	.249
Error	613.615	308	1.992					
Total	3979.000	314						
Corrected Total	762.360	313						

a Computed using alpha = .01

b R Squared = .195 (Adjusted R Squared = .182)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	3.762	.144	3.388	4.135
NO-ESL	3.655	.140	3.292	4.018
C-ESL	2.278	.138	1.921	2.636

Pairwise Comparisons

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.107	.201	1.000	-.488	.701
	C-ESL	1.484(*)	.200	.000	.893	2.074
NO-ESL	PS	-.107	.201	1.000	-.701	.488
	C-ESL	1.377(*)	.197	.000	.795	1.958
C-ESL	PS	-1.484(*)	.200	.000	-2.074	-.893
	NO-ESL	-1.377(*)	.197	.000	-1.958	-.795

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix P: Analysis of Variance on Item Ten (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	3.219	.106	2.944	3.493
secondary	3.245	.123	2.925	3.564

3. Group ID * Grade_level

Estimates

Dependent Variable: A.10. If an ELL student is in an English-only classroom, he/she will learn English better.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	3.980	.200	3.463	4.497
	secondary	3.543	.208	3.004	4.083
NO-ESL	elementary	3.438	.165	3.010	3.867
	secondary	3.872	.226	3.286	4.458
C-ESL	elementary	2.237	.184	1.761	2.714
	secondary	2.319	.206	1.786	2.853

Appendix Q: Analysis of Variance on Item Eleven

Between-Subjects Factors

		Value Label	N
Group ID	1	PS	96
	2	NO-ESL	111
	3	C-ESL	106
Grade_level	1	elementary	181
	2	secondary	132

Descriptive Statistics

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	2.98	1.220	50
	secondary	2.74	1.237	46
	Total	2.86	1.228	96
NO-ESL	elementary	2.75	1.017	72
	secondary	2.90	1.392	39
	Total	2.80	1.159	111
C-ESL	elementary	1.90	.904	59
	secondary	1.96	1.062	47
	Total	1.92	.973	106
Total	elementary	2.54	1.133	181
	secondary	2.51	1.287	132
	Total	2.52	1.198	313

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

F	df1	df2	Sig.
3.768	5	307	.003

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix Q: Analysis of Variance on Item Eleven (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	59.826(b)	5	11.965	9.461	.000	.134	47.307	1.000
Intercept	1939.155	1	1939.155	1533.367	.000	.833	1533.367	1.000
Group_ID	57.067	2	28.533	22.563	.000	.128	45.125	1.000
Grade_level	.010	1	.010	.008	.930	.000	.008	.010
Group_ID * Grade_level	2.028	2	1.014	.802	.449	.005	1.604	.064
Error	388.244	307	1.265					
Total	2442.000	313						
Corrected Total	448.070	312						

a Computed using alpha = .01

b R Squared = .134 (Adjusted R Squared = .119)

Estimated Marginal Means

1. Group ID

Estimates

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	2.860	.115	2.562	3.157
NO-ESL	2.824	.112	2.534	3.113
C-ESL	1.928	.110	1.643	2.213

Pairwise Comparisons

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.036	.160	1.000	-.438	.510
	C-ESL	.932(*)	.159	.000	.461	1.402
NO-ESL	PS	-.036	.160	1.000	-.510	.438
	C-ESL	.896(*)	.157	.000	.432	1.360
C-ESL	PS	-.932(*)	.159	.000	-1.402	-.461
	NO-ESL	-.896(*)	.157	.000	-1.360	-.432

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a Adjustment for multiple comparisons: Bonferroni.

Appendix Q: Analysis of Variance on Item Eleven (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	2.543	.085	2.324	2.762
secondary	2.531	.098	2.277	2.786

3. Group ID * Grade_level

Estimates

Dependent Variable: A.11. Teaching ELL students in both English and their native language results in language confusion for them.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	2.980	.159	2.568	3.392
	secondary	2.739	.166	2.309	3.169
NO-ESL	elementary	2.750	.133	2.406	3.094
	secondary	2.897	.180	2.431	3.364
C-ESL	elementary	1.898	.146	1.519	2.278
	secondary	1.957	.164	1.532	2.383

Appendix R: Analysis of Variance on Item Twelve

Between-Subjects Factors

	Value Label	N
Group ID	1 PS	96
	2 NO-ESL	111
	3 C-ESL	105
Grade_level	1 elementary	181
	2 secondary	131

Descriptive Statistics

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

Group ID	Grade_level	Mean	Std. Deviation	N
PS	elementary	4.58	1.090	50
	secondary	4.39	1.238	46
	Total	4.49	1.161	96
NO-ESL	elementary	4.07	1.171	73
	secondary	4.00	1.644	38
	Total	4.05	1.344	111
C-ESL	elementary	3.45	1.729	58
	secondary	3.17	1.551	47
	Total	3.32	1.650	105
Total	elementary	4.01	1.418	181
	secondary	3.84	1.558	131
	Total	3.94	1.479	312

Levene's Test of Equality of Error Variances(a)

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

F	df1	df2	Sig.
6.058	5	306	.000

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept+Group_ID+Grade_level+Group_ID * Grade_level

Appendix R: Analysis of Variance on Item Twelve (Page Two)

Tests of Between-Subjects Effects

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power(a)
Corrected Model	73.066(b)	5	14.613	7.369	.000	.107	36.847	.994
Intercept	4653.757	1	4653.757	2346.907	.000	.885	2346.907	1.000
Group_ID	70.689	2	35.345	17.824	.000	.104	35.649	.999
Grade_level	2.382	1	2.382	1.201	.274	.004	1.201	.069
Group_ID * Grade_level	.562	2	.281	.142	.868	.001	.284	.017
Error	606.777	306	1.983					
Total	5521.000	312						
Corrected Total	679.843	311						

a. Computed using alpha = .01

b. R Squared = .107 (Adjusted R Squared = .093)

1. Group ID

Estimates

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

Group ID	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
PS	4.486	.144	4.113	4.858
NO-ESL	4.034	.141	3.669	4.399
C-ESL	3.309	.138	2.951	3.667

Pairwise Comparisons

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

(I) Group ID	(J) Group ID	Mean Difference (I-J)	Std. Error	Sig.(a)	99% Confidence Interval for Difference(a)	
					Lower Bound	Upper Bound
PS	NO-ESL	.451	.201	.077	-.144	1.047
	C-ESL	1.176(*)	.199	.000	.586	1.767
NO-ESL	PS	-.451	.201	.077	-1.047	.144
	C-ESL	.725(*)	.197	.001	.141	1.309
C-ESL	PS	-1.176(*)	.199	.000	-1.767	-.586
	NO-ESL	-.725(*)	.197	.001	-1.309	-.141

Based on estimated marginal means

* The mean difference is significant at the .01 level.

a. Adjustment for multiple comparisons: Bonferroni.

Appendix R: Analysis of Variance on Item Twelve (Page Three)

2. Grade_level

Estimates

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

Grade_level	Mean	Std. Error	99% Confidence Interval	
			Lower Bound	Upper Bound
elementary	4.032	.106	3.758	4.307
secondary	3.854	.124	3.533	4.174

3. Group ID * Grade_level

Estimates

Dependent Variable: A.12. An ELL student can successfully participate in regular English classes with one period of native language instruction tutorial.

Group ID	Grade_level	Mean	Std. Error	99% Confidence Interval	
				Lower Bound	Upper Bound
PS	elementary	4.580	.199	4.064	5.096
	secondary	4.391	.208	3.853	4.929
NO-ESL	elementary	4.068	.165	3.641	4.496
	secondary	4.000	.228	3.408	4.592
C-ESL	elementary	3.448	.185	2.969	3.928
	secondary	3.170	.205	2.638	3.703

Appendix S: C-ESL Correlations

		Gender	Number of years teaching	Is English your native language?	Do you speak a second language?	Have you ever had an ELL student enrolled in your class?	Percentage of students were ELL in past year	Percentage of students were ELL in past five years
Theory Sum	Pearson Correlation	-.086	.026	.039	.051	.046	.095	.080
	Sig. (2-tailed)	.374	.789	.691	.597	.637	.338	.424
	N	108	106	109	109	108	104	102
Practice Sum	Pearson Correlation	-.337(**)	-.032	-.120	.260(**)	-.136	.027	-.004
	Sig. (2-tailed)	.000	.749	.222	.007	.168	.791	.965
	N	105	103	106	106	105	102	101
Item 1	Pearson Correlation	.020	-.083	-.012	.041	.018	.093	.090
	Sig. (2-tailed)	.833	.396	.901	.672	.852	.347	.367
	N	109	107	110	110	109	105	103
Item 2	Pearson Correlation	-.148	.007	-.070	.121	.048	.023	.026
	Sig. (2-tailed)	.126	.940	.465	.207	.621	.814	.798
	N	109	107	110	110	109	105	103
Item 3	Pearson Correlation	.037	.108	.198(*)	-.055	.056	.057	.020
	Sig. (2-tailed)	.704	.270	.038	.566	.560	.565	.845
	N	109	107	110	110	109	105	103
Item 4	Pearson Correlation	.022	.014	-.032	-.018	-.006	.119	.119
	Sig. (2-tailed)	.822	.890	.738	.855	.948	.225	.232
	N	109	107	110	110	109	105	103
Item 5	Pearson Correlation	-.116	.012	-.002	.117	.036	.062	.092
	Sig. (2-tailed)	.230	.902	.986	.224	.709	.532	.354
	N	109	107	110	110	109	105	103
Item 6	Pearson Correlation	-.203(*)	-.134	-.105	.140	-.040	-.149	-.111
	Sig. (2-tailed)	.035	.170	.275	.147	.685	.130	.265
	N	108	106	109	109	108	104	102
Item 7	Pearson Correlation	-.287(**)	.024	-.036	.178	-.085	.020	.007
	Sig. (2-tailed)	.003	.808	.707	.065	.379	.841	.942
	N	108	106	109	109	108	104	103
Item 8	Pearson Correlation	-.184	.026	.022	.052	.026	.050	.012
	Sig. (2-tailed)	.057	.792	.817	.591	.788	.612	.905
	N	108	106	109	109	108	104	102

Appendix S: C-ESL Correlations (Page Two)

		Gender	Number of years teaching	Is English your native language?	Do you speak a second language?	Have you ever had an ELL student enrolled in your class?	Percentage of students were ELL in past year	Percentage of students were ELL in past five years
Item 9	Pearson Correlation	-.233(*)	.123	-.029	.201(*)	-.069	-.083	-.184
	Sig. (2-tailed)	.015	.206	.760	.036	.474	.399	.062
	N	109	107	110	110	109	105	103
Item 10	Pearson Correlation	-.225(*)	-.040	-.141	.181	-.040	.049	.077
	Sig. (2-tailed)	.019	.683	.142	.058	.680	.618	.437
	N	109	107	110	110	109	105	103
Item 11	Pearson Correlation	-.248(**)	.052	-.060	.198(*)	-.046	.028	-.112
	Sig. (2-tailed)	.009	.591	.536	.038	.636	.776	.260
	N	109	107	110	110	109	105	103
Item 12	Pearson Correlation	-.217(*)	-.091	-.112	.231(*)	-.155	.201(*)	.200(*)
	Sig. (2-tailed)	.025	.356	.248	.016	.110	.041	.043
	N	107	105	108	108	107	104	102

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

a Cannot be computed because at least one of the variables is constant.

Appendix T: NO-ESL Correlations

		Gender	Number of years teaching	Is English your native language?	Do you speak a second language?	Have you ever had an ELL student enrolled in your class?	Percentage of students were ELL in past year	Percentage of students were ELL in past five years
Theory Sum	Sig. (2-tailed)	.260	.373	.	.651	.	.000	.
	N	78	77	78	77	78	77	78
	Pearson Correlation	-.014	.059	.045	.239(**)	.223(*)	.006	.061
Practice Sum	Sig. (2-tailed)	.881	.532	.629	.010	.016	.955	.598
	N	116	116	117	116	116	79	78
	Pearson Correlation	.071	.066	.152	.233(*)	.289(**)	-.235(*)	-.309(**)
Item 1	Sig. (2-tailed)	.460	.493	.109	.014	.002	.044	.008
	N	111	111	112	111	111	74	73
	Pearson Correlation	.049	-.120	-.038	.130	.107	.018	-.009
Item 2	Sig. (2-tailed)	.604	.201	.686	.163	.252	.876	.941
	N	116	116	117	116	116	79	78
	Pearson Correlation	.031	-.047	-.092	.180	.097	-.049	.003
Item 3	Sig. (2-tailed)	.743	.617	.324	.054	.300	.670	.982
	N	116	116	117	116	116	79	78
	Pearson Correlation	-.081	.021	.074	.102	-.034	.020	.101
Item 4	Sig. (2-tailed)	.385	.824	.425	.277	.715	.861	.377
	N	116	116	117	116	116	79	78
	Pearson Correlation	.083	.155	.143	.269(**)	.310(**)	.057	-.016
Item 5	Sig. (2-tailed)	.374	.097	.124	.003	.001	.620	.887
	N	116	116	117	116	116	79	78
	Pearson Correlation	-.075	.060	.008	.119	.226(*)	.106	.106
Item 6	Sig. (2-tailed)	.425	.525	.934	.202	.015	.354	.358
	N	116	116	117	116	116	79	78
	Pearson Correlation	.145	.030	.108	.085	.143	-.300(**)	-.371(**)
Item 7	Sig. (2-tailed)	.123	.751	.249	.371	.130	.008	.001
	N	114	114	115	114	114	77	76
	Pearson Correlation	.031	.009	.032	.190(*)	.209(*)	.019	-.116
Item 8	Sig. (2-tailed)	.739	.928	.735	.042	.025	.867	.316
	N	115	115	116	115	115	78	77
	Pearson Correlation	-.044	.139	.073	.151	.231(*)	-.125	.021
	Sig. (2-tailed)	.642	.137	.436	.106	.013	.271	.853
	N	116	116	117	116	116	79	78

Appendix T: NO-ESL Correlations (Page Two)

		Gender	Number of years teaching	Is English your native language?	Do you speak a second language?	Have you ever had an ELL student enrolled in your class?	Percentage of students were ELL in past year	Percentage of students were ELL in past five years
Item 9	Pearson Correlation	.079	.130	.109	.172	.316(**)	-.158	-.213
	Sig. (2-tailed)	.402	.166	.241	.065	.001	.165	.061
	N	116	116	117	116	116	79	78
Item 10	Pearson Correlation	.096	.077	.124	.178	.197(*)	-.057	.014
	Sig. (2-tailed)	.307	.411	.184	.056	.034	.615	.904
	N	116	116	117	116	116	79	78
Item 11	Pearson Correlation	.085	.025	.135	.280(**)	.285(**)	-.177	-.193
	Sig. (2-tailed)	.364	.791	.148	.002	.002	.120	.093
	N	115	115	116	115	115	78	77
Item 12	Pearson Correlation	-.136	-.086	.043	.078	-.125	-.140	-.128
	Sig. (2-tailed)	.147	.361	.649	.409	.182	.222	.266
	N	115	115	116	115	115	78	77

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

a Cannot be computed because at least one of the variables is constant.

Appendix U: NO-ESL Instructional Behavior Frequencies

Statistics

		C.3.(i)	C.3.(ii)	C.3.(iii)	C.3.(iv)	C.3.(v)
N	Valid	78	78	77	76	78
	Missing	39	39	40	41	39

Frequency Tables

C.3.(i)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	11	9.4	14.1	14.1
	Some of the time	48	41.0	61.5	75.6
	Most or all of the time	19	16.2	24.4	100.0
	Total	78	66.7	100.0	
Missing	System	39	33.3		
Total		117	100.0		

C.3.(ii)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	28	23.9	35.9	35.9
	Some of the time	37	31.6	47.4	83.3
	Most or all of the time	13	11.1	16.7	100.0
	Total	78	66.7	100.0	
Missing	System	39	33.3		
Total		117	100.0		

C.3.(iii)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	43	36.8	55.8	55.8
	Some of the time	29	24.8	37.7	93.5
	Most or all of the time	5	4.3	6.5	100.0
	Total	77	65.8	100.0	
Missing	System	40	34.2		
Total		117	100.0		

C.3.(iv)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	18	15.4	23.7	23.7
	Some of the time	40	34.2	52.6	76.3
	Most or all of the time	18	15.4	23.7	100.0
	Total	76	65.0	100.0	
Missing	System	41	35.0		
Total		117	100.0		

Appendix U: NO-ESL Instructional Behavior Frequencies (Page Two)

C.3.(v)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	15	12.8	19.2	19.2
	Some of the time	31	26.5	39.7	59.0
	Most or all of the time	32	27.4	41.0	100.0
	Total	78	66.7	100.0	
Missing	System	39	33.3		
Total		117	100.0		

Appendix V: C-ESL Instructional Behavior Frequencies

Statistics

		C.3.(i)	C.3.(ii)	C.3.(iii)	C.3.(iv)	C.3.(v)
N	Valid	106	106	106	104	105
	Missing	4	4	4	6	5

Frequency Tables

C.3.(i)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	1	.9	.9	.9
	Some of the time	46	41.8	43.4	44.3
	Most or all of the time	59	53.6	55.7	100.0
	Total	106	96.4	100.0	
Missing	System	4	3.6		
Total		110	100.0		

C.3.(ii)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	13	11.8	12.3	12.3
	Some of the time	67	60.9	63.2	75.5
	Most or all of the time	26	23.6	24.5	100.0
	Total	106	96.4	100.0	
Missing	System	4	3.6		
Total		110	100.0		

C.3.(iii)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	33	30.0	31.1	31.1
	Some of the time	44	40.0	41.5	72.6
	Most or all of the time	29	26.4	27.4	100.0
	Total	106	96.4	100.0	
Missing	System	4	3.6		
Total		110	100.0		

C.3.(iv)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	4	3.6	3.8	3.8
	Some of the time	48	43.6	46.2	50.0
	Most or all of the time	52	47.3	50.0	100.0
	Total	104	94.5	100.0	
Missing	System	6	5.5		
Total		110	100.0		

Appendix V: C-ESL Instructional Behavior Frequencies (Page Two)

C.3.(v)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Seldom or never	13	11.8	12.4	12.4
	Some of the time	40	36.4	38.1	50.5
	Most or all of the time	52	47.3	49.5	100.0
	Total	105	95.5	100.0	
Missing	System	5	4.5		
Total		110	100.0		

Appendix W: C-ESL and NO-ESL Behavior and Perspectives Correlations

		C.3.(i)	C.3.(ii)	C.3.(iii)	C.3.(iv)	C.3.(v)
Theory Sum	Pearson Correlation	-.286(**)	-.161(*)	-.283(**)	-.330(**)	-.123
	Sig. (2-tailed)	.000	.029	.000	.000	.097
	N	183	183	182	179	182
Practice Sum	Pearson Correlation	-.469(**)	-.270(**)	-.369(**)	-.326(**)	-.180(*)
	Sig. (2-tailed)	.000	.000	.000	.000	.017
	N	176	176	176	174	175
Item 1	Pearson Correlation	-.073	-.028	-.094	.035	-.016
	Sig. (2-tailed)	.322	.702	.205	.640	.833
	N	184	184	183	180	183
Item 2	Pearson Correlation	-.182(*)	-.048	-.182(*)	-.335(**)	-.071
	Sig. (2-tailed)	.013	.517	.014	.000	.340
	N	184	184	183	180	183
Item 3	Pearson Correlation	-.215(**)	-.133	-.200(**)	-.253(**)	-.135
	Sig. (2-tailed)	.003	.072	.007	.001	.068
	N	184	184	183	180	183
Item 4	Pearson Correlation	-.159(*)	-.033	-.170(*)	-.206(**)	-.029
	Sig. (2-tailed)	.031	.658	.022	.006	.701
	N	184	184	183	180	183
Item 5	Pearson Correlation	-.211(**)	-.169(*)	-.211(**)	-.297(**)	-.081
	Sig. (2-tailed)	.004	.022	.004	.000	.275
	N	184	184	183	180	183
Item 6	Pearson Correlation	-.402(**)	-.291(**)	-.365(**)	-.224(**)	-.185(*)
	Sig. (2-tailed)	.000	.000	.000	.003	.013
	N	181	181	181	177	180
Item 7	Pearson Correlation	-.300(**)	-.140	-.236(**)	-.112	-.022
	Sig. (2-tailed)	.000	.060	.001	.134	.764
	N	182	182	181	179	181
Item 8	Pearson Correlation	-.352(**)	-.259(**)	-.330(**)	-.254(**)	-.162(*)
	Sig. (2-tailed)	.000	.000	.000	.001	.029
	N	183	183	182	179	182
Item 9	Pearson Correlation	-.451(**)	-.234(**)	-.350(**)	-.394(**)	-.247(**)
	Sig. (2-tailed)	.000	.001	.000	.000	.001
	N	184	184	183	180	183
Item 10	Pearson Correlation	-.301(**)	-.116	-.147(*)	-.088	-.128
	Sig. (2-tailed)	.000	.116	.048	.241	.084
	N	184	184	183	180	183
Item 11	Pearson Correlation	-.385(**)	-.186(*)	-.307(**)	-.320(**)	-.236(**)
	Sig. (2-tailed)	.000	.012	.000	.000	.001
	N	183	183	182	179	182
Item 12	Pearson Correlation	-.176(*)	-.165(*)	-.147(*)	-.163(*)	.119
	Sig. (2-tailed)	.018	.026	.048	.029	.110
	N	182	182	181	179	181

** Correlation is significant at the 0.01 level (2-tailed), * Correlation is significant at the 0.05 level (2-tailed).

Appendix X: NO-ESL Behavior and Perspectives Correlations

		C.3.(i)	C.3.(ii)	C.3.(iii)	C.3.(iv)	C.3.(v)
Theory Sum	Pearson Correlation	-.095	.000	-.102	-.414(**)	-.114
	Sig. (2-tailed)	.408	.999	.375	.000	.321
	N	78	78	77	76	78
Practice Sum	Pearson Correlation	-.345(**)	-.138	-.430(**)	-.334(**)	-.121
	Sig. (2-tailed)	.003	.246	.000	.004	.308
	N	73	73	73	72	73
Item 1	Pearson Correlation	-.117	.136	.005	-.024	.041
	Sig. (2-tailed)	.309	.234	.969	.834	.718
	N	78	78	77	76	78
Item 2	Pearson Correlation	.004	.100	-.032	-.344(**)	.002
	Sig. (2-tailed)	.969	.382	.780	.002	.987
	N	78	78	77	76	78
Item 3	Pearson Correlation	.008	-.062	-.068	-.283(*)	-.197
	Sig. (2-tailed)	.948	.591	.559	.013	.083
	N	78	78	77	76	78
Item 4	Pearson Correlation	-.049	.076	-.102	-.331(**)	-.081
	Sig. (2-tailed)	.667	.508	.376	.003	.482
	N	78	78	77	76	78
Item 5	Pearson Correlation	-.021	-.071	-.019	-.312(**)	-.039
	Sig. (2-tailed)	.852	.536	.866	.006	.734
	N	78	78	77	76	78
Item 6	Pearson Correlation	-.313(**)	-.226(*)	-.458(**)	-.228	-.147
	Sig. (2-tailed)	.006	.050	.000	.050	.204
	N	76	76	76	74	76
Item 7	Pearson Correlation	-.168	-.054	-.204	.000	.147
	Sig. (2-tailed)	.143	.640	.077	1.000	.201
	N	77	77	76	76	77
Item 8	Pearson Correlation	-.282(*)	-.142	-.190	-.230(*)	-.126
	Sig. (2-tailed)	.012	.215	.097	.046	.270
	N	78	78	77	76	78
Item 9	Pearson Correlation	-.305(**)	-.068	-.307(**)	-.342(**)	-.130
	Sig. (2-tailed)	.007	.552	.007	.003	.256
	N	78	78	77	76	78
Item 10	Pearson Correlation	-.115	.044	.034	.079	-.201
	Sig. (2-tailed)	.318	.701	.767	.498	.078
	N	78	78	77	76	78
Item 11	Pearson Correlation	-.294(**)	-.017	-.258(*)	-.290(*)	-.215
	Sig. (2-tailed)	.010	.885	.025	.012	.061
	N	77	77	76	75	77
Item 12	Pearson Correlation	.014	-.026	-.181	-.149	.332(**)
	Sig. (2-tailed)	.902	.823	.117	.202	.003
	N	77	77	76	75	77

** Correlation is significant at the 0.01 level (2-tailed),

* Correlation is significant at the 0.05 level (2-tailed).

Appendix Y: C-ESL Behavior and Perspectives Correlations

		C.3.(i)	C.3.(ii)	C.3.(iii)	C.3.(iv)	C.3.(v)
Theory Sum	Pearson Correlation	-.179	-.124	-.226(*)	.064	-.055
	Sig. (2-tailed)	.067	.208	.020	.520	.578
	N	105	105	105	103	104
Practice Sum	Pearson Correlation	-.394(**)	-.247(*)	-.189	-.094	-.175
	Sig. (2-tailed)	.000	.012	.056	.345	.079
	N	103	103	103	102	102
Item 1	Pearson Correlation	-.008	-.144	-.130	.128	-.049
	Sig. (2-tailed)	.932	.140	.183	.194	.619
	N	106	106	106	104	105
Item 2	Pearson Correlation	-.101	-.010	-.108	-.046	-.077
	Sig. (2-tailed)	.302	.920	.270	.641	.433
	N	106	106	106	104	105
Item 3	Pearson Correlation	-.180	-.010	-.107	.086	.017
	Sig. (2-tailed)	.065	.923	.274	.383	.866
	N	106	106	106	104	105
Item 4	Pearson Correlation	-.056	-.001	-.079	.162	.099
	Sig. (2-tailed)	.570	.988	.421	.100	.316
	N	106	106	106	104	105
Item 5	Pearson Correlation	-.192(*)	-.125	-.223(*)	-.022	-.058
	Sig. (2-tailed)	.048	.203	.021	.828	.554
	N	106	106	106	104	105
Item 6	Pearson Correlation	-.324(**)	-.238(*)	-.181	.012	-.178
	Sig. (2-tailed)	.001	.015	.064	.901	.071
	N	105	105	105	103	104
Item 7	Pearson Correlation	-.251(**)	-.089	-.130	-.005	-.101
	Sig. (2-tailed)	.010	.368	.185	.959	.306
	N	105	105	105	103	104
Item 8	Pearson Correlation	-.199(*)	-.233(*)	-.284(**)	-.039	-.141
	Sig. (2-tailed)	.041	.017	.003	.695	.152
	N	105	105	105	103	104
Item 9	Pearson Correlation	-.411(**)	-.253(**)	-.238(*)	-.238(*)	-.328(**)
	Sig. (2-tailed)	.000	.009	.014	.015	.001
	N	106	106	106	104	105
Item 10	Pearson Correlation	-.272(**)	-.114	-.097	.018	.001
	Sig. (2-tailed)	.005	.245	.322	.858	.990
	N	106	106	106	104	105
Item 11	Pearson Correlation	-.325(**)	-.233(*)	-.234(*)	-.187	-.218(*)
	Sig. (2-tailed)	.001	.016	.016	.058	.025
	N	106	106	106	104	105
Item 12	Pearson Correlation	-.194(*)	-.193(*)	-.038	-.056	.022
	Sig. (2-tailed)	.048	.048	.697	.573	.825
	N	105	105	105	104	104

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).