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## ANALYSIS OF ESL TEACHER ENDORSEMENT EFFECTS ON ENGLISH LANGUAGE LEARNERS' STUDENT ACHIEVEMENT AND ENGLISH LANGUAGE ACQUISITION

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ABSTRACT OF DISSERTATION

Anna Marie Tracy

The Graduate School  
University of Kentucky

2009

ANALYSIS OF ESL TEACHER ENDORSEMENT EFFECTS ON ENGLISH  
LANGUAGE LEARNERS' STUDENT ACHIEVEMENT AND ENGLISH  
LANGUAGE ACQUISITION

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ABSTRACT OF DISSERTATION

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A dissertation submitted in partial fulfillment of the  
requirements for the degree of Doctor of Education in the  
College of Education  
at the University of Kentucky

By  
Anna Marie Tracy

Lexington, Kentucky

Director: Dr. Charles Hausman, Associate Professor

2009

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## ABSTRACT OF DISSERTATION

### ANALYSIS OF ESL TEACHER ENDORSEMENT EFFECTS ON ENGLISH LANGUAGE LEARNERS' STUDENT ACHIEVEMENT AND ENGLISH LANGUAGE ACQUISITION

Over the past twenty years, classrooms throughout the United States have become more ethnically and linguistically diverse with the influx of immigrant residents. The impact of this demographic change has directly affected the makeup of the mainstream classroom. One response to this rapid growth in diversity demographics has been the requirement of additional teacher preparation for instruction of English language learners.

The study focuses on the impact of English as a Second Language endorsement (ESL) on the English language acquisition and academic achievement of elementary English language learners (ELL) over a two year period in a large mountain west urban-suburban school district. The rationale for the study was to examine the impact of ESL endorsement as required for continued service in this school district. Data were collected from 1,838 English language learners and their 276 mainstream elementary classroom teachers in grades two through six over a two-year period. A one-way Analysis of Covariance (ANCOVA) was conducted to compare the mean change in language levels during a two year period as measured on the IDEA Proficiency Test (IPT), including the oral, reading and writing scores, between ELL students taught by mainstream classroom teachers with ESL endorsement and those taught by teachers without ESL endorsement. A one-way Analysis of Covariance (ANCOVA) was also used to compare elementary ELL students', taught by teachers with and without ESL endorsement, mean Language Arts and mathematics Criterion Referenced Tests score gains using the state's Neutral Value Table point assignment. Covariates included student gender, socio-economic status, minority status, language level, and teacher's years of experience.

The results of this analysis indicate that teacher endorsement did not account for a significant amount of variance in the dependent measure of change in English language acquisition nor the dependent measure of change in academic achievement in Language Arts and mathematics. The findings raise further questions about the quality of professional development of mainstream teachers of English language learners and the accountability standards required for elementary English language learners. The study

concludes with implications and recommendations for policies and practices applicable to teacher preparation for English as a Second Language and accountability levels for English language learners.

**KEYWORDS:** English Language Learners, English as a Second Language  
Endorsement, Teacher Quality, Alternative Language Services,  
Student Achievement

Anna Marie Tracy

April 10, 2009

ANALYSIS OF ESL TEACHER ENDORSEMENT EFFECTS ON ENGLISH  
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LANGUAGE ACQUISITION

By

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DISSERTATION

Anna Marie Tracy

The Graduate School  
University of Kentucky  
2009

ANALYSIS OF ESL TEACHER ENDORSEMENT EFFECTS ON ENGLISH  
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*This work is dedicated to my family, my husband, Jay, and my sons Ben, Owen, Dan, and Colin. They have blessed me with their encouragement, support, and humor. Finally, this work is dedicated to my mother, and the memory of my father, who instilled in me a life-long love of learning.*

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## **CHAPTER ONE: INTRODUCTION**

Increasing enrollment of linguistically and culturally diverse student populations in U. S. classrooms today presents educators with unique challenges. English Language Learners (ELLs) represent the fastest-growing portion of the student population in the United States today. Sweeping educational reforms, including the passage of No Child Left Behind (NCLB, 2002), have required schools to focus on the academic achievement of all students, including those students not yet proficient in the English language. These reforms have brought the ever growing number of English Language Learners (ELLs) into the spotlight. Such legislative and judicial changes have had major implications for mainstream classroom teachers across the U. S. The mainstream classroom teacher is central to answering the challenge of serving culturally and linguistically diverse students a rigorous and appropriate education in our public schools.

It is estimated that by 2050, immigrants and their descendants will account for 82% of the population growth in the United States, representing almost 20% of the U. S. population (Passel & Cohn, 2008). The impact of these new demographics on the American education system is imposing. Fix and Passel (2003) report the 10.5 million children of immigrants accounted for 19% of all students in K–12 public education in 2000 and it is estimated that by 2015, children of immigrants will make up 30% of the total school population (Fix & Passel, 2003). Such changes in student demographics are likely to escalate well into the twenty-first century.

Regardless of the language of their students, mainstream classroom educators are now responsible for the delivery of quality instruction not only for academic proficiency but also for the attainment of progress in English language acquisition. Students must become skilled in the use of the English language for not only speaking, but also for

reading and writing in academic content areas, demonstrated through academic content mastery commensurate with their native English-speaking peers.

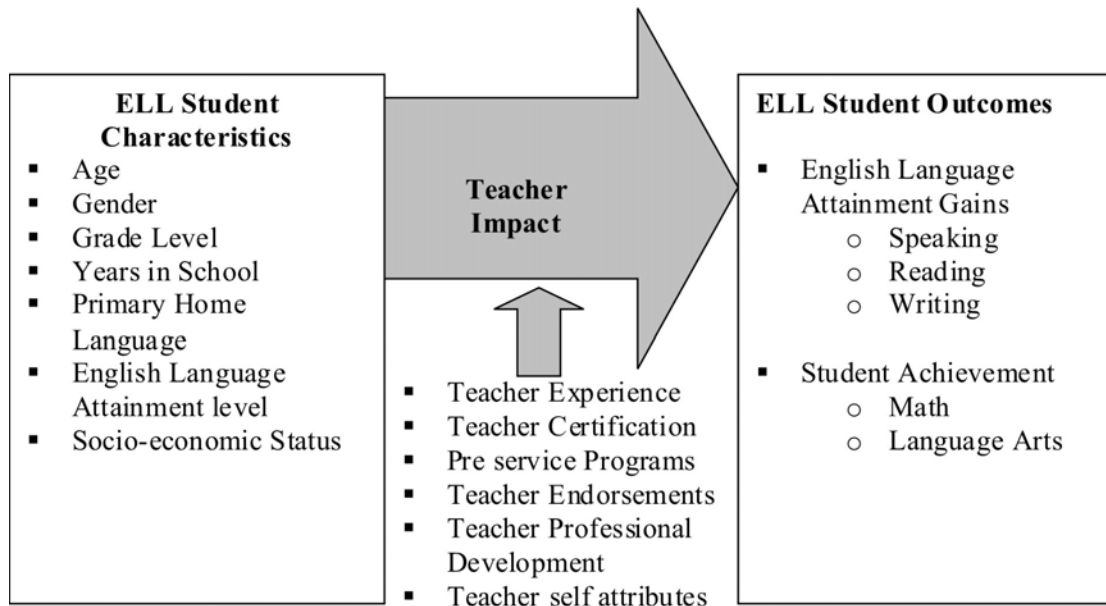
The challenge in meeting the needs of these new learners is enormous because of the central role language plays in acquiring academic proficiency and content area knowledge. Students without English proficiency will be disadvantaged citizens. The challenge for the mainstream teacher is multi-tiered; mainstream classroom teachers must not only have content knowledge and pedagogical skills, but they must also have the skills to adapt and refine their instruction to meet and raise the level of English language understanding and make content comprehensible for all of their students, regardless of language proficiency.

Decisions for educational programming for ELLs have previously been influenced by the specific educational language needs within regional contexts and by political agendas within those regional contexts. However, with the growth in numbers of ELL students and their wider distribution throughout all geographic areas of the United States, including rural, suburban and urban areas, each and every teacher in public school classrooms has been affected or will be affected. Educational policy regarding the ELL can no longer be written off as a regional challenge. Consideration for addressing educational programming to meet the needs of this growing population should be based on the on-going research of second language acquisition and teacher impact on second language acquisition and academic achievement.

A large body of research has established that quality teachers can make a significant difference in student achievement (Darling-Hammond & Youngs, 2002; Ferguson, 1998; Hanushek, 1992; Sanders & Horn, 1995; Sanders & Rivers, 1996, 2002).

Quality teachers for all students in all classrooms is a mandate of NCLB. However, programming and qualifications for teachers as instructors of students with English as their second language varies. Programming for language instruction has ranged from instruction in native language to multiple forms of bilingual education through immersion in all English classrooms. The resource-intensive nature of providing separate qualified instructors with the multiple language skills necessary to address the wide languages and instructional levels for all ELLs is likely to be quite costly and questionably feasible. This knowledge, taken together in the climate of accountability, makes a case for gaining a better understanding of the classroom teacher effect on ELL academic progress and English language acquisition. Short-term research in the Los Angeles City School District has also shown the impact of the classroom teacher with adequate ELL preparation can have a significant impact on ELL student achievement and English language acquisition (Hayes, Salazar, & Vukovic, 2002).

This study focuses on the impact of teachers on the ELL students' English language development and their academic attainment over a one-year period. The framework for this study includes broad categories of measurable and policy-relevant indicators to organize the teacher characteristics assumed to reflect teacher quality and student characteristics that have an influence on teacher impact on various student outcomes (see Figure 1.1). The teacher as a facilitator of learning affects the student's learning environment, mediating between what the student brings of him or herself and the climate of learning, including the curriculum, the classroom climate, and the school community.



*Figure 1.1. Framework of English Language Learner Student Characteristics and Teacher Indicators Influencing English Language Learner Student Outcomes*

### **Purpose**

The purpose of this study is to identify how teacher preparation and endorsement contribute to the English language development and academic success of English language learners. A refined understanding of which teacher attributes affect student outcomes can be helpful in determining the range of potentially effective policy options. In particular, this multivariate study examines the teacher attributes of teacher endorsement and years of teaching experience in relationship to ELL student progress in academic achievement and English language acquisition.

### **Research Questions**

This study seeks to answer the following questions:

1. Are there differences in the English language acquisition gains between ELL students taught in mainstream elementary classrooms by teachers with ESL

endorsement compared to ELL students taught by mainstream teachers without such endorsements?

2. Are there differences in achievement levels gains in Language Arts and mathematics on the state CRTs between ELL students served by mainstream teachers with ESL endorsements compared to students taught by teachers without such endorsements? 0.

### **Theoretical Rationale**

The theoretical rationale for this study is based on these main areas: (a) Socio-Cultural Theory, (b) Situated Learning Theory, and (c) Second Language Acquisition Theory.

#### *Socio-Cultural Theory*

Socio-cultural theory draws upon the view that higher order functions, such as learning and language, develop out of social interaction. To understand the development of the individual, there must be an examination of the social world in which that individual interacts. Participation in activities permit the practice of social/learning functions and builds upon them; learning occurs embedded within the constructs of the interactions with people, knowledge, and events (Kublin et al., 1989; Vygotsky, 1986). Socio-cultural theory also supports the notion that there is a relative zone of proximal development in which a phase of support precedes a phase of independent accomplishment (Kozulin et al., 2003). The theory situates the unique context of both the ELL student and the mainstream teacher. Socio-cultural theory explains the role interpersonal relations play in student or teachers' school lives and the consequences these social relations have for learning. As the ELL student enters into a new learning

situation and proceeds to develop both linguistically and socially within the context of that social organization, including school, peers, and instructors, the ELL is dependent on that social environment for feedback for continuous learning. Additionally, the teacher as instructor of the ELL will also be a learner dependent on the environment he has created with the ELL students to provide feedback for his instruction. A key focus in learning is a collaborative approach that permits a comfortable learning scaffold. As students or teachers develop an awareness and respect for learning differences, cultural awareness, and life experiences of their students or peers, they also tend to develop a sense of community and a rapport that supports the further facilitation of learning. Socio-cultural theory aids in the understanding of the interaction between the micro-level processes of face to face interaction in schools and the macro-level practices of the culture (Renshaw, 1992).

### *Situational Learning Theory*

Situational learning theory, through closely related to socio-cultural theory, more closely examines knowledge acquisition (Brown, Collins, & Duguid, 1989). Situational learning theory argues that knowledge needs to be presented in an authentic context where application of that knowledge would normally be appropriate. Situation learning theory recognizes that there is a gradual acquisition of knowledge and skills, as novices learn from experts in the context of everyday activities and learning requires social interaction and collaboration (Lave & Wenger, 1990). Brown et al. (1989) define learning as a “process of enculturation” (p. 33). Learning through authentic and collaborative activities, broken down for the learner, from an embedded activity to later application as a generality, permits gradual enculturation. Of particular application to the environment

of ELLs in the mainstream classroom, peripheral learning within situational learning theory is a legitimate form of participation. Though learning takes place in a participation framework (Lave & Wenger, 1990), assimilation may begin from a peripheral stance.

### *Second Language Acquisition Theory*

Current understanding of second language acquisition has contributors from multiple fields, including linguistics, sociology, psychology, anthropology, and, more recently, neurolinguistics (Freeman & Freeman, 2001). The topic of how to best “teach” students as they learn English is a hotly-debated and politically-volatile topic. The definition and breadth of second language acquisition can be relative to its learning context (Walqui, 2000). For the purpose of this study, language acquisition theory is set within the framework of literacy—what it takes to function in a culture on a daily basis. Within the culture of school, this includes learning to speak, read, and write in the second language. Multiple factors on behalf of the student shape their second language learning. In addition to the second language acquisition (SLA) theory espoused in the school context, other factors include: the level of proficiency and literacy in the student’s native language, the status of the native language, the goals of the learner, the home support, peer support, role models, classroom interaction, learning style, learning process, and motivation to learn (Walqui, 2000).

### **Significance of the Study**

Schools, as the primary vehicle for the transmission of culture and a sense of national identity, rely heavily upon language to initiate and facilitate learning. The use of language has the power both to unite and to exclude. This power fuels the current debate concerning appropriate education and best instructional practices for English language

learners. American education equates English monolingualism, or speaking English as one's language of choice, with being an American. This philosophy underlies the way language is taught and used in U. S. schools (Linton, 2006). However, outside of the classroom, the United States is far from being a monolingual community; the United States is a highly multilingual country. One in five people over age five speaks a language other than English (Shin & Bruno, 2003). Today's public school classrooms across the United States present multiethnic, multiracial, and multilingual student bodies.

With the passage of No Child Left Behind (NCLB, 2000), all students, including non-English speaking students, are held to the same context of standards and accountability as native English-speaking students. This legislated change has major implications for mainstream teachers across the U. S. Mainstream teachers are now central to answering the challenge of serving culturally and linguistically diverse students and insuring quality instruction for English language acquisition and academic success. The academic success of English Language Learners (ELLs) has grave implications not only for the individual's economic future but also the socioeconomic impact on American society at large. At this juncture of demographic change, political intervention, and educational challenge, we are pressed with the need for good information to best address the education of ELLs. If educational policies and practices are to be improved to address these challenges, attention to the evidence of what works must be clear. We must be able to clearly focus on the factors within the classroom that contribute to student growth.

## **CHAPTER TWO: REVIEW OF THE LITERATURE**

### **Purpose**

The purpose of this chapter is to examine and review the scholarly literature on factors that contribute to the successful impact of teachers on English Language Learners' (ELLs') English language development and academic success. More specifically, the scholarly literature review first contains information on the pressing education policy challenges based on current demographic information on ELLs. Second, the literature review examines the supporting information on the history of legislation and major initiatives that are directed at assisting ELL students receive a high-quality education. Third, a review of the research on the factors of teacher impact on students is developed. Finally, the hypothesis used to evaluate the effectiveness of English as a Second Language (ESL) endorsement on the academic success and English language development of English Language Learners.

### **Demographic Overview**

According to the 2000 Census, individuals in 14 million U. S. households speak one of 311 languages other than English in the home; of these, 149 are immigrant languages. This large number of foreign language speakers in the United States is largely a consequence of recent immigration. This large number of foreign language speakers presents a challenge to the U. S. educational system and its focus on high standards of learning and quality instruction for all students.

Though the United States has always been a nation of immigrants, the decade of the 1990s and beyond has seen greater immigration numbers than any other decade in U. S. history (Camarota & McArle, 2003). The impact of this latest wave of immigration has been felt at the classroom level throughout the United States. The challenge to meet

the needs of this diverse group of new learners is enormous because of the central role language plays in the acquisition of both content area knowledge and academic language proficiency.

Students without English proficiency are potentially disadvantaged citizens. The single most important factor in an individual's earnings as an adult in the U. S. is the number of years of education attained (Day & Newburger, 2002). Additionally, learning academic English is one of the most reliable ways of attaining socio-economic success (Scarcella, 2003). A quality education is critical to the economy and the vitality of a democratic nation. The ability of the student to master English literacy skills will determine their future educational and employment opportunities nationally and internationally.

#### *Demographics of the English Language Learners*

The number of immigrants in the United States has tripled from 10 million in 1970 to over 31 million in 2000 (Fix & Passel, 2003). Suro and Passel (2003) predict that by 2050, the U. S. population will increase by over 117 million people due to new immigration. By 2050, nearly one in five Americans (19%) will be an immigrant, compared to one in eight (12%) in 2003. With this influx of immigrants, many school districts throughout the United States are challenged by larger linguistically, culturally, socio-economically, and educationally diverse populations. This demographic shift has created a dramatic change in the landscape of the American classroom. Today, one out of every five students represents a child of immigrants (Capps et al., 2005). While these children bring a wealth of diversity and assets to American public school classrooms,

they also bring challenges to the system including the linguistic and cultural difference for which many teachers are unprepared.

The impact of these new demographics on the American education system is imposing. Fix & Passel (2003) report the 10.5 million children of immigrants accounted for 19% of all students in K–12 public education in 2000. Such changes in student demographics are likely to escalate well into the 21st century. It is estimated that by 2015, children of immigrants will make up 30% of the total school population.

### *Definition of English Language Learners*

Accompanying these demographic shifts over the past two decades, the number of Limited English Proficient (LEP) children in K–12 public school classrooms also rose (Capps et al., 2005). Who are the English Language Learners (ELLs)? The 2000 Census defined LEP to include all children who speak a language other than English at home and speak English less than “very well” (Capps et al., 2005). For the purpose of this study, the No Child Left Behind (NCLB) definition of a LEP student is used as the majority of school districts in the U. S. receives funding under NCLB and must identify students based on these criteria. Under NCLB, these criteria define students who are limited English proficiency:

- (A) aged 3 through 21;
- (B) enrolled or preparing to enroll in an elementary school or secondary school;
- (C)(i) not born in the United States or whose native language is a language other than English;
- (ii) (I) is a Native American or Alaska Native, or native resident of the outlying areas;
- (II) comes from an environment where a language other than English has had a significant impact on the individual’s level of English language proficiency; or
- (iii) is migratory, whose native language is a language other than English, and who comes from an environment where a language other than English is dominant; and
- (D) whose difficulties in speaking, reading, writing or understanding the English language may be sufficient to deny the individual

- (i) the ability to meet the State's proficient level of achievement on State assessments described in section 111(b)(3);
- (ii) the ability to successfully achieve in classroom where the language of instruction is in English; or
- (iii) the opportunity to participate fully in society.

In addition, Abedi (2004a) states that:

Among the most important criteria for identifying LEP students are being a speaker of a language other than English and scoring low on the English proficiency tests. The first criterion, i.e., being a non-native English speaker is defined in many areas nationwide based on the information from the Home Language Survey. The second criterion, student's proficiency in English, is obtained based on scores on English proficiency tests and achievement tests. (p. 3)

Although state and federal regulations generally refer to LEP, Limited English Proficient students, these students are more recently referred to throughout the literature and across schools, as English Language Learners (ELL). In this paper, the term ELL will be used rather than "Limited English Proficient," so as the focus is on the development of language and academic abilities rather than its limitations. ELLs who speak a primary language other than English in their home and are not yet proficient in English accounted for approximately 7% of the K–12 public school population in 1999–2000, which is up from 5% in 1993–94. In 2001, 9.7% of the K–12 public school populations were composed of ELL students (Meyer, Madden, & McGrath, 2004).

#### *Background of the English Language Learners*

The ELL population is composed of newcomer immigrants, as well as second-, third- and even fourth-generation immigrant children whose English language acquisition may have been affected by language and cultural isolation factors of the home and community (Ruiz de Velasco & Fix, 2000). Currently, most ELL students are U. S.-born and are second-generation immigrants. Twenty-four percent of the PK–5 students are

first-generation, 59% are second-generation, and 18% third-generation immigrants. Among older ELL students, grades 6 to 12, 44% are first-generation, 27% are second-generation, and 29% are third-generation immigrants (Capps et al., 2005). Three-quarters of immigrant children are born in the U. S., and are therefore citizens of the United States with the same rights and privileges as other U. S.-born citizens, including a public education. The majority of ELLs are not foreign-born, but rather long-term ELLs who have not developed English language proficiency.

It is estimated that in 2003, over 28% of the immigrant population were illegal or undocumented residents (Capps et al., 2005). However, the 1982 U. S. Supreme Court decision *Plyler v. Doe* declared state and school districts cannot deny a K–12 education to any resident child if a free appropriate public education is offered to other children. Our educational systems are required to accept and educate all students, regardless of their legal status. It is our moral and legal obligation to provide an education with almost no questions asked. However, parents and relatives as newcomers are often fearful of school involvement in fear of immigration-related consequences. These concerns compound the barriers to positive educational culture for many ELL children.

### *Changing Landscape of the Classroom*

The statistics on immigration veil many of the educational implications for the instruction of the ELL student and the challenges to the local schools. Both the concentration of the ELL students geographically and the current widespread dispersal of the ELL students throughout the United States complicates the understanding of local impact. Many geographic areas of the United States not previously accustomed to addressing immigration and its accompanying cultural and language diversity are faced

with an influx of second-language students. With the changing patterns of immigrant distribution across the U. S., the capacity of school districts to teach to these diverse students is often suddenly taxed.

The density of local or regional immigrant populations, as well as historical immigration patterns, have played a role in the rate, quality, and availability of school program implementation for ELL populations. While traditionally, the U. S. Northeast and West have been gateways for immigration, those patterns are changing. In 2000, six states—California, Texas, New York, Florida, Illinois, and New Jersey—accounted for 69% of the PK–5 children of immigrants, with California educating nearly one-half of those students (Meyer, Madden, & McGrath, 2004).

By 2004, however, ELL students in public schools in the Midwest and the South had increased significantly, from 1.4 to 2.6% in the Midwest and from 3.5 to 4.5% in the South (National Center for Education Statistics [NCES], 2004). Immigrant children's enrollment rates are exceeding 50% growth rates in some areas of the Southeast, Midwest, and interior West.

In addition, nearly one-half of all ELL students live in rural communities, which are often faced with higher concentration of the traditional challenges to education, including poverty and cultural isolation, than their counterparts serving fewer ELLs. The growth of the ELL student population is not spread uniformly across states, within states, or even within school districts. These uneven patterns of growth and immigration uniquely affect individual schools or districts in many areas. In both New Mexico and Alaska, about one in three rural students qualified for ELL services; in Arizona and California, one in five qualified. East of the Mississippi River, North Carolina ranks

highest among states in ELL student growth, with just over 5% (or one in 20) of students qualifying for ELL services (Johnson & Strange, 2007).

### *Language Challenges for the Schools*

A wide variety of languages have always been spoken in the U. S. Today, second-language speakers compromise over 18% of the American population (NCES, 2004). In 1990, 14% spoke a different language in their home, and by 2000, that number increased by 47%. Nationwide school districts work with ELL children whose languages might include: Spanish (79.0%), Vietnamese (2.0%), Hmong (1.6%), Chinese (1.0%), Korean (1.0%), Haitian Creole (0.9%), Arabic (0.9%), Russian (0.8%), Tagalog (0.7%), and Navajo (0.6%).

The percentage of immigrant children who are ELL also varies by country of origin. For example, Mexican and Hispanic immigrant children are almost twice as likely to be ELL as Asians or other non-Hispanic groups. Hispanic students make up over 75% of the ELL population nationwide, while Asians, who make up 22% of children of immigrants, compromise only 13% of ELL students (Fix & Passel, 2003).

Regardless of home language or country of origin, ELL students also vary greatly in other respects, including individual personal characteristics, prior educational experiences, and motivation to attain English language proficiency. This variety of languages, backgrounds, cultural norms, educational experiences, and individual characteristics challenges districts, schools, and teachers to go beyond the notion of one size fits all assistance. Forward planning for the evolution of language diversity in each state, district, school, and classroom for national self-interest and maximum cultural, linguistic, and economic resources is needed.

## **Historical Perspective**

### *Legislative and Judicial Impact*

This rapid transformation in student demographics coincides with dramatic policy changes introduced through the No Child Left Behind Act (NCLB, 2002). NCLB has put many issues surrounding English language acquisition into the light. However, earlier legal and judicial actions clearly recognized the issues surrounding the ELL student's education.

Early in the twentieth century, 34 states had statutes restricting instruction to English-only (Kloss, 1977/1998). In 1954, the now famous *Brown v. Board of Education* ruling established the precedent of same not being equal, which would later be used to address issues facing ELLs. In response to the launch of Sputnik, the creation of the National Defense Education Act in 1958 spurred the level of foreign-language education in the U. S. However, this period did not include instruction for those with non-English backgrounds.

The Civil Rights Act of 1964, which prohibited discrimination on the basis of race, color, or national origin, set precedent for the later Bilingual Education Act of 1968, Title VII of the Elementary and Secondary Education Act, which supported the use of bilingual education programs as a feasible method for instruction of language minority students. This support for bilingual education resulted in part from changes in immigration laws. Quota systems were revoked, and larger numbers of Asians and Hispanics entered the U. S., prompting changes in classroom instruction.

In 1974, the landmark decision in *Lau v. Nichols*, a suit on behalf of Chinese students in San Francisco, went beyond the pretense of equality, and required districts to address the need for providing services to the ELL students to gain full access to the

curriculum. The ruling required school districts to take “affirmative steps” to overcome educational barriers faced by non-English speakers beyond merely providing students access to the same textbooks, teachers, and curriculum. Shortly after this decision, Congress passed the Equal Educational Opportunity Act of 1974, defining what constituted denial of educational opportunities, but stopped short of outlining appropriate actions. In 1974, Title VII of the ESEA was amended to include a focus on teacher professional development for native language instruction; it included instruction in native language and culture. This was followed in 1978 by the reauthorization of Title VII to focus on the transitional nature of native language instruction and two-way bilingual instruction.

In 1982, the U. S. Supreme Court, ruling in *Plyer v. Doe*, struck down a Texas law excluding undocumented immigrant children from free public education. This decision set the precedent that children could not be denied an education based on immigration status. Ongoing reauthorization of Title VII of the ESEA saw several new developments in constructive services to ELL students including family literacy, academic excellence, early education, teacher training, and research as well as increased financial support for such programs (NCELA, n.d.).

Under No Child Left Behind (2002), Title VII was replaced with Title III, a formula grant program to the states which aimed to focus on promoting English acquisition and increasing accountability through a system of standards and assessments. With the inception of the NCLB Act (2002) and the replacement of Title VII with the English Acquisition Act (2003), the emphasis of ELL education was redirected to the acquisition of English and rapid transition into English-only instructional programs

(Rolstad, Mahoney, & Glass, 2005). Issues with ESL instruction for the ELL remain current in the courts. The long-running case of *Flores v. Arizona* (2008) continues to address issues of adequate funding of instruction for English language learners. Results from that case could potentially influence ESL instruction nationwide.

### *Accountability*

The No Child Left Behind Act (2002), with its strong accountability components has brought the instructional needs of the ELL students to the forefront of educational reform. NCLB established high expectations for all students, and required demonstrated proficiency and accountability from schools, districts, and states for all groups of students. Accountability demands for ELLs are two-fold. Progress must be demonstrated for both content mastery and English language acquisition. ELLs face the dual challenges of mastering English while simultaneously attaining proficiency in content area academics (DeGorge, 1988). ELLs must reach proficiency in reading and mathematics by 2014 at a rate comparable to their English speaking peers.

The law requires achievement gaps to be eliminated between advantaged and disadvantaged students, between native English speakers and ELL students, yet the challenge of contentious politics surrounding immigration, subsequent ELL programming disputes, inconsistent accountability measures across states, and the reauthorization of the law itself may diminish that educational spotlight.

Since the passage of NCLB, school districts across the nation have been working to comply with the accountability requirements of the law. Districts are using the results from the accountability requirements to provide data to inform both programming and instruction. However, accountability requirements vary from state to state. Under the law,

districts have the flexibility to create programming to meet the needs of ELLs. The types of programs offered to address the educational needs of ELLs vary considerably. Programs differ extensively in philosophy, framework, assistance level, and direct instruction. Programming can include variations of structured immersion programs, partial immersions programs, bilingual programs, and two-way immersion programs, all of which may involve a variety of approaches including, but not limited to, English as a Second Language classes, collaborative ELL programming in the mainstream, professional development for staff, or other approaches. Additionally, some states, including California, Arizona, and Massachusetts, have English-only requirements (Rolstad et al., 2005). Other states and school districts have additional requirements that affect teacher quality.

NCLB stipulates measured accountability for all students. ELL students are counted as a sub-population for NCLB Adequate Yearly Progress (AYP) accountability. School districts are required to use scientifically-based instructional programs, hire highly-qualified teachers, and institute high-quality professional development. Title III of NCLB, Language Instruction for Limited English Proficient and Immigrant Students, specifies the development of English language proficiency standards and assessment linked to states measurable achievement standards. Local Education Agencies (LEAs) are accountable for the progress of ELL students on such state assessments in reading and mathematics. In terms of assessment, there is a need for reliable and valid measurement of not only oral language development but also academic English development that systematically measures the key features of academic English for the purpose of informing further instruction (Scarcella, 2003).

Under the law, states and districts apply their own criteria to determine which students are officially assigned ELL status (Abedi, 2002, 2004b). This inconsistency nationally has made the clarity of educational and technical issues especially difficult. Such discrepancies in classification lead to unbalanced data in understanding the depth and breadth of the accountability under the law. Other challenges under NCLB for servicing English language learners include: the persistent large achievement gap, measurement accuracy, instability of the ELL as a subgroup, counting in multiple accountability groups, and other factors outside a school's control (Abedi & Dietel, 2004).

#### *Assessment Concerns*

Historically, the ELL subgroup has scored significantly lower on academic performance measures than the overall student population. The Center for Research, Evaluation, Standards and Student Testing (CRESST), following the Massachusetts Comprehensive Assessment System over a six year period from 1998 to 2003, report the ELL achievement gap widens rather than diminishes (Abedi & Dietel, 2004). NAEP scores in 2005 and 2007 also demonstrate a substantial and persistent gap in both reading and math for the ELL across grade levels. Reporting to the House Education and Labor Committee, Peter Zamora (2007), co-chair of the Hispanic Education Coalition, reported that only 29% of ELLs nationwide scored at or above the basic level in reading, compared with 75% of non-ELLs based on 2005 NAEP scores.

#### *Sub-Group Designation*

Several factors emerge around ELL accountability and testing. First, the ELL designation itself, unlike gender or ethnicity, is intended to be temporary. As children

move through the grades, the percent of ELL would be expected to diminish as they acquire English; however, as more students enter at varying grade levels, the distribution does not follow a simple progression. In addition, ELLs often account for multiple subgroups, including low socioeconomic status, racial minority, or students with disabilities. Their presence may account for many schools or districts not achieving Adequate Yearly Progress (AYP) in several content areas.

The subgroup of ELLs is itself a very diverse group, which raises questions around the group's construct validity. There are substantial differences within this subpopulation. This added student complexity makes it difficult for teachers who have no English as a Second Language (ESL) training to meet the diverse needs of the English language learner (Adger, Snow, & Christian, 2003; Kanabenick & Noda, 2004; Menken & Antunez, 2001b).

#### *Measurement Accuracy*

A second issue is measurement accuracy. Language demands of tests negatively influence accuracy of measure of ELLs' proficiency (Abedi & Dittel, 2004). Many ELLs may achieve social English proficiency, but cannot yet demonstrate proficiency in academic English language or in content mastery (Kopriva, 2000; Ruiz de Velasco & Fix, 2000; Wiley & Wright, 2004).

Accountability standards for ELLs are also unique in that they include K–1 students. The reliability of accountability measures at this level is questionable in that there is little research on what English reading and writing looks like for the K–1 ELL (Crawford, 1997; Wiley & Wright, 2004).

### *Graduation Rate*

Finally, NCLB accountability takes into consideration the successful graduation rate. Research shows that language-minority students face many challenges in school. ELL students are less likely than the mainstream student to finish high school. They are 1.5 times more likely to drop out of school than their native English-speaking peers (Cardenas, Robledo, & Waggoner, 1988). Klein, Bugarin, Beltranena, and McArthur (2004) report that 10% of students who speak English at home failed to complete high school while the percentage was three times as high (31%) for language-minority students who spoke English and five times as high (51%) for language-minority students who spoke English with difficulty. In 2000, 44.2% of Hispanic young adults born outside of the United States were high school dropouts. However, Hispanic young adults born within the United States were much less likely to be dropouts (Kaufman, Alt, & Chapman, 2001). Though ELL students who stay in school may eventually perform as well as non-ELL in attendance and classroom grades, they often score below English speakers on standardized tests and college admittance tests. Secondary school ELLs generally receive lower grades, are perceived by their teachers to have lower academic capability, and score below their classmates on standardized tests of reading and math (Moss & Puma, 1995). In general, the ELL students are less likely to receive a high school diploma (Collier, 1989; Gandara et al., 2003; Olsen et al., 1999; Ruiz de Velasco & Fix, 2000). While Hispanic English language learners account for a large percentage of the ELL population, they account for an even higher percentage of the dropout rate (Fry, 2003).

Because immigrant teens often come with significant education gaps in their schooling, many of these students are not fully literate in their native language. Though

the oral proficiency of such older students may be perceived as English proficient, these older students often lag in academic English proficiency and may be essentially illiterate. The capacity of secondary schools to work with language newcomers and achieve academic as well as oral English proficiency is questionable. While NCLB challenges the secondary schools to meet high academic requirements as well as English language development, it also requires schools to reduce the number of high school dropouts.

#### *Accountability Results*

In 2005, the Department of Education released its first evaluation on how states have met the requirements of NCLB for ELL students from the 2002–2003 and 2003–2004 school years. Although the data cannot be compared across states and not all states reported data in every category, the report showed progress made by the states in developing standards for English proficiency aligned with academic content standards. Eighty percent of the total ELL population serviced through Title III was making progress in learning English. ELL students in 22 states out of 39 that reported in this category met annual measurable achievement objectives (AMOs) in acquiring English proficiency. Yet the impact of language factors associated with assessment in the form of achievement tests developed for English-speaking students often place these students well behind their peers (Kindler, 2002). Of 41 states reporting, only 18.7% of ELLs scored above the state-established norm for reading comprehension (Kindler, 2002).

It is clear that the English language learner population present a multitude of questions for the U. S. education system and the political arena to grapple with. However, even with an understanding of the current state of affairs of ELLs, it less clear as to what programs, strategies, and preparation educators should implement to improve the

educational opportunities for ELL students. Verdugo and Flores (2007) suggest an examination of the current status of educational programming for ELLs framed within the following areas: language acquisition, school capacity, and teacher preparation. The current literature addressing these factors are address discussed in the following sections.

### **Challenges to Learning for ELLs**

On any school day, children entering the doors of school come with a wide variety of circumstances unique to each individual. ELLs, like other children, come to school with individual differences and personal challenges (Echevarria, Short, & Powers, 2006). However, over and above personal issues, are differences that challenge their opportunity to learn including: primary language literacy, reading and writing abilities, home language literacy practices, previous educational exposure, and age of entrance into U. S. schooling. In addition, there is disparity between student needs and teacher preparation, the focus of this study. Though many immigrant ELL students come to U. S. schools with some previous school experience, the majority of ELLs are already a few years behind academically (Capps et al., 2005; Echevarria et al., 2006; Fillmore & Snow, 2003). Additionally, despite assumptions to the contrary, 76% of elementary school and 56% of secondary school ELLs are U. S. citizens, and over one-half of the ELLs in public secondary schools are second- or third-generation citizens whose academic and linguistic needs are not adequately being met within the public school system (Capps et al., 2005).

### *Literacy Development in English Language Learners*

#### *Language Acquisition*

ELLs have two major goals in school: learning standard English and mastering academic content (Tharp, 1997). With new state standards for measuring proficiency for

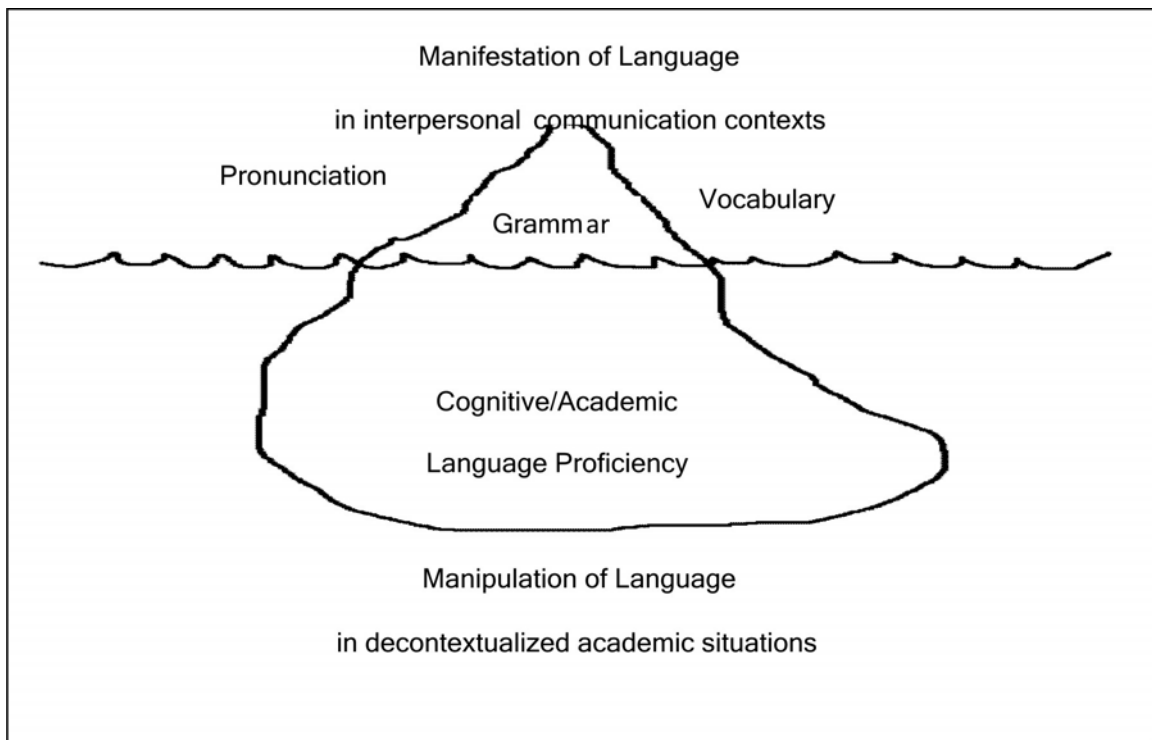
student learning and performance, ELLs are being asked to master the same curriculum standards and pass the same tests as their native English-speaking peers, regardless of learning differences, starting points, or previous experiences. The basic process for reaching these goals is through language. Language acquisition is a complex process that involves the linguistic, psychological, and social aspects of each individual set within context of the use of that language (August & Garcia, 1988). A review of second language acquisition (SLA) theory reveals multiple and conflicting views of the acquisition process (Cummins 1980, 1981; Freeman & Freeman, 2001; Hanayan, 1990; Krashen, 1983; Fillmore & Snow, 2003).

Krashen's (1983) theory of second language acquisition consists of five main hypotheses: acquisition-learning, monitor, natural order, input, and affective filter hypotheses. The functions of this theory are built on the concepts that: language is learned subconsciously through formal instruction; there is a relationship between acquired and learned language; there is an order to grammatical learning in language acquisition; new understanding is added to existing proficiency in language if there is a comprehension of the input; and the personal environment of the learner, motivation, confidence, anxiety affects the acquisition of a second language.

Collier's (1995) conceptual model for second language development, illustrated in a multifaceted prism, involves four major components: socio-cultural, linguistic, academic, and cognitive processes. Collier recommends all components be in balance for the optimum acquisition of a second language.

Initial development of a second language may be different for social versus academic use. The cognitive and academic literacy development of a second language

depends upon the degree of development of a student's first language (L1) (Collier, 1995; Genesee et al., 2005). Shay's (1976, as cited in Baker & Hornberger, 2001) "iceberg" metaphor (see Figure 2) graphically illustrates how the more observable portion of second language development often associated with the initial construct of the second language is only a portion of second language literacy.



*Figure 2.1. Shay's Language "Iceberg" Metaphor*

Cummins (1980, 1981) uses the distinction of basic interpersonal communicative skills (BICS) and cognitive academic language proficiency (CALP) to illustrate the difference between the fluency of conversational language and the more demanding aspects of language proficiency. Though other researchers have questioned the oversimplification of this model and the potential for misinterpretation, the distinction provides a model for understanding the difference between conversational proficiency

and those components of language more often associated with academic proficiency (Edelsky et al., 1983; Rivera, 1984; Scarcella, 2003). Cummins (1984) later addressed the idea of language proficiency in a broader framework—Common Underlying Proficiency (CUP). The premise of the CUP framework explains the fusion of languages through the same central processing system towards an integration of thought (Cummins, 1984).

Genesse et al.'s (2005) analysis of second language development highlights the important role that oral second language (L2) development plays in the overall development of English language acquisition. L2 oral proficiency is related to the academic uses of English as measured in English reading achievement. Results from this analysis reveal that English acquisition requires multiple years of instruction, but it is unclear from the studies reviewed if the rate of oral English language attainment is due to the language learning process itself or due to the effects of school on oral L2 language development. With increased L2 oral language development, students are more apt to use English and increase peer interaction, thus providing further opportunities to use English (Genesse et al., 2005).

The relationship between L2 oral language use and the development of proficiency in English is complex. To become a successful student, the learner must acquire and become proficient in academic English. Academic English is the variety of English used in professional books and characterized by specific linguistic features associated with academic disciplines. Academic English is dynamic and ever-changing, and varies from subject to subject in both reading and writing (Scarcella, 2003).

Mastery of the first or home language of the ELL is significant in the development of the second language. The student's home language and its support in the

home and community may influence the social literacy level of the student. In Spanish-speaking communities, there may be a wealth of social language interaction in the home or first language, L1. However, for other populations there may be little L1 social language development other than in the home due to isolation of that language within the community (Ruiz de Velasco, Fix, & Clewell, 2000).

Age is another factor in language development. The influence of age on the rate of second-language learning has been examined by numerous researchers (Bialystok & Hakuta, 1994; McLaughlin, 1984; Snow, 1987). According to McLaughlin (1984), older language learners often demonstrate a faster rate of second language acquisition than younger language learners because they are more cognitively sophisticated, have a more fully-developed first language, and have more experiential knowledge.

The more proficient ELLs are in their first language, the faster the rate of second language acquisition (August & Hakuta, 1997; Cummins, 1999a). In addition, the number of year of formal schooling in the ELLs' first language is also a predictor of language acquisition rate and academic achievement in English (Thomas & Collier, 1997). Genesee (2005) cites multiple studies that demonstrate the correlation of the ELL's L2 oral proficiency and English literacy development. This relationship between English oral proficiency and English reading achievement is strongly linked to the academic aspects of language proficiency.

Each discipline has its own level or nature of academic literacy for listening, reading, writing, and oral communication (Fillmore & Snow, 2003; Scarcella, 2003). Academic English requires a much higher level of skill and mastery of linguistic features than ordinary English. Yet "academic English is used erratically in teacher-student and

student-student interactions” and “ teachers of older learners rarely understand the importance of teaching the features of academic English that students need to learn to communicate well in specific academic contexts” (Scarcella, 2003, p. 8). Because academic English is dependent upon reading, initial language interactions through speech are insufficient for development of this higher-level skill.

Genesee et al.’s review (2005) found little research on best practices in instruction for ELLs within content area classes. However, the research indicates the importance of involving language development and sheltering techniques into content area instruction (Scarcella, 2003). Direct instruction and interactive approaches produced significant gains in learning, while process approaches produced mixed results with ELLs (Genesee et al., 2005).

ELL students draw on their unique experiential knowledge from both the home language and the L2 acquisition process. The research indicates that the ELLs’ active use of all resources, skills, and strategies are needed to acquire literacy skills in the new language (Genesee et al., 2005; Scarcella, 2003).

#### *Rate of Second Language Acquisition*

Second language researchers have recognized that language acquisition is a complex process occurring over a lengthy period of time (McLaughlin, 1984). In any language, children continually acquire phonological distinction, vocabulary, semantics, syntax, discourse, and the pragmatics of the oral system of their first language up to the age of 12. Cummins’s (1980, 1981) studies of second language learners indicate that children can develop BICS (social language) in 2 years, but it takes 5–7 years for a child to achieve at the same level as native speakers in CALP (academic language). Collier

(1987), in a study using cross-sectional data from 1977 to 1986 on ELL students, analyzed the length of time required for 1,548 ELL students from advantaged circumstances, receiving English as a second language assistance, to become proficient in English for academic purposes. The results of Collier's analysis found that ELL students who began English instruction at the ages 8–11, were the fastest achievers, requiring 2 to 5 years to reach the 50th percentile, while students beginning English language instruction at the ages 12–15 required up to 6 to 8 years to reach grade-level equivalency in English. Collier (1995) considers ELLs to be at a proficient level when they score at the 50th percentile or NCE (norm curve equivalent) on the same standardized test given to a native speaker. The youngest ELLs, those who have had little or no first language schooling, were found to take the longest to reach an average level of English academic proficiency, taking as long as 7 to 10 years in core academic areas. Collier's (1989) synthesis also found that "consistent, uninterrupted cognitive academic development in all subjects throughout students' schooling is more important than the number of hours of L2 (second language) instruction for successful academic achievement in a second language" (p. 527).

### **School Capacity for Service of English Language Learners**

#### *Program Models for ELL*

Current and previous legislative and judicial decisions require the education systems to address the needs of the ELLs. However, educational debates continue over which programs or methods are the most effective in bringing ELL students to English proficiency, the amount of time it takes to attain English proficiency, and what is considered English proficiency (August & Shanahan, 2008; Cummins, 1981; Genesee et

al., 2005; Krashen, 1983). Empirical research is slow to demonstrate evidence of best instructional programs or practices for ELLs (Genesee et al., 2005; Gersten & Baker, 2000). Though various program models have been used in the public schools to educate ELL students in second language development, recent legislative developments in some states have limited or curtailed the use of some programs as alternative models, as in California's Proposition 227 or Arizona's Proposition 203.

In an earlier review of program models for ELLs, the Center for Research on Education, Diversity, & Excellence (CREDE) reported "No single approach or program model works best in every situation. Many different approaches can be successful when implemented well. Local conditions, choices, and innovation are critical ingredients of success" (Genesee, 1999, p. 4). These findings are confirmed in a later review of over 4,000 articles focused on ELLs in U. S. schools (Genesee et al., 2005). Though this synthesis of the research on ELLs in U. S. schools, the researchers reveal that programs designed especially for ELLs promote equal or higher outcomes than mainstream English classes only. However, elements of programs in which educators shared the belief that "all children can learn," in which the curriculum was rigorous and meaningful, the school environment facilitated learning, the program was associated with best practices and sustained over time, and the teachers understood second language development were found to be most effective.

#### *Alternative Language Services*

In a synthesis of 34 research studies, most of which were qualitative and involved a limited number of classrooms, Téllez and Waxman (2006b) found seven instructional strategies that were effective for all ELLs: collaborative learning communities, multiple

representation, building on prior knowledge, instructional conversation, culturally-responsive instruction, and technology-enriched instruction. Téllez and Waxman argue that such practices cannot be independent of each other, but must be embedded throughout instruction. The researchers stress that the quality of the classroom instruction is more significant than the form it takes.

Genesee (1999), in a review of instruction program alternatives for linguistically-diverse students, outlined six predominant program models: sheltered instruction in English, newcomer programs, transitional bilingual, developmental bilingual, second language/first language (SL/FL) immersion, and two-way immersion. Among these models, sheltered instruction (SI) is the approach used most widely in U. S. classrooms today for teaching both language and content.

Zehler, Fleischman, Hopstock, Stephnson, Pendzick, and Sapru (2003) identified eight service delivery categories. This categorization was based upon intensity of services and language of instruction. Zehler et al.'s (2003) survey data reveals 12% of ELLs receive no services, 36% receive some language services less than 10 hours per week, and 52% receive extensive services. They found the most common form of ELL service delivery was in English. The percentage of students receiving instruction through a bilingual model using Spanish as the predominant instructional language has decreased from 40% in 1993 to 20% in 2003, while services delivery in English only has increased from 37% in 1993 to 60% in 2003.

In their review of programs for the instruction of ELLs, Reed and Railsback (2003) outline four major instructional frameworks for serving ELLs: instructional methods using the native language, instructional methods using native language as

support, instructional methods using English as a Second Language (ESL), and content-based instruction/sheltered instruction. Each of these approaches has been used to develop program models with varying applications throughout U. S. classrooms.

August, Beck, Calderon, Francis, Lesaux and Shanahan (2007), in a review of language instruction programs comparing studies of bilingual programs with programs that use only English, concluded that bilingual education has a small to moderate positive effect on English reading outcomes. The same researchers also concluded that there is not enough research to substantiate a recommendation on how best to teach literacy to ELLs. They conclude, however, from their review of studies on instruction for ELLs, that the types of literacy instruction found effective with native speaking students is also largely effective with ELLs (August et al., 2007). Instructional approaches using interactive and direct approaches are shown to be more effective than process-based approaches to instruction in literacy (Genesee et al., 2005).

#### *Extent of Services*

The percentage of ELLs receiving direct English language instruction varies considerably by locality, grade level, and previous educational experiences. Primary ELL students are more likely to receive English language instruction than secondary students. These figures are at odds with the increasing percentages of older immigrant students who are recent arrivals to secondary schools. The increase in the ELL population was greater in the secondary levels than in the elementary schools in the 1990s, with 73% versus 39% nationwide (Capps et al., 2005).

### *Capacity for Services*

Program organization is only one aspect of challenges in ELL education. In a report from the Program in Immigrant Education (PRIME projects), funded in 1993 through the Andrew Mellon Foundation, Ruiz de Velasco and Fix (2000) reported that the PRIME demonstration schools faced multiple major challenges. First, limited capacity of school staff to instruct ELLs, including a shortage of teachers trained in Alternative Language Services (ALS) and a limited number of content teachers with necessary ELL communication skills. Second, the current organization of most secondary schools isolates rather than combines language development and instructional interaction necessary for the unique needs of the ELL. Third, the accountability systems of the schools played against language instruction. Finally, there exist large knowledge gaps about how to simultaneously build language skills and content knowledge, including the skills necessary for high school graduation and a successful future (Ruiz de Velasco & Fix, 2000).

### *Implications for Mainstream Teachers*

The purpose of second language acquisition in English in the schools is aimed at both proficiency in English as well as academic proficiency. Mere exposure to English language opportunities is insufficient for acquiring advanced proficiency in English language or achieving academic proficiency. The success or failure of ELL students in both English acquisition and content knowledge development depends more and more upon the quality of instruction and the degree of assistance they receive from the mainstream teacher. The education of ELLs in the mainstream classroom may be pragmatically the only available option in some areas. Whether by intent or default in

many schools, ELL students spend much of their school day in the mainstream classroom (Genesee, 1999).

Most mainstream teachers, however, have had little or no training in instruction designed for ELL students or training in cultural diversity (Zehler et al., 2003). In 2000, less than 13% of teachers in public schools had professional development to prepare them as instructors for teaching linguistically and culturally diverse students (Klein et al., 2004). ELLs, then, are receiving instruction from teachers with little or no formal professional development in teaching such students (Barron & Menken, 2002; Echevarria, Short & Powers, 2006; Kindler, 2002).

Genesee et al.'s (2005) analysis of the literature on ELLs in U. S. schools reveals multiple issues of concern for educational policy and instructional implications in the education of ELLs. Among these instructional implications, Genesee et al. (2005) recommends that teachers should design instruction to further “oral language development strategically and, in particular, in line with academic language needs” (p. 47). They also found across the literature characteristics that affect ELL programs include: a positive school environment; curriculum that is relevant, challenging, aligned with the standards and assessment, and sustained over time; models grounded in sound theory and best practice; and teachers skilled in theories of second language development. Educators need more than an array of specific methodology or activities to work with ELL students; they need comprehensive frameworks for selecting, sequencing and delivering instruction targeted to the ELL (Genesee et al., 2005).

With changing political and social standards, ELLs are now held to the same standards and accountability as native English-speaking students. The standards attempt

to hold our educational systems, including the mainstream teachers, accountable for the progress and success of all children. Therefore, the role of every teacher is now central to the success of all children. Teachers are accountable not only for core academic instruction in the given curriculum but also for teaching strategies that will assist the English language development of English language proficiency. With this in mind, it is critical that all teachers have accessible to them the learning and support that permits understanding of programs, theories, principles, strategies, and techniques that are tailored to the successful partnership between teacher understanding and implementation.

### *Importance of the Role of the Teacher*

Teacher quality is a highly significant factor in the determination of student achievement. Researchers have established that teachers can make a significant difference in student achievement (Darling-Hammond & Youngs, 2002; Haycock, 1998; Sanders & Horn, 1995; Sanders & Rivers, 1996; Wright, Horn, & Sanders, 1997). In addition, the research supports that teacher effect is cumulative on the academic progress of students (Sanders & Rivers, 1996).

Increasing the quality of individuals in the teaching force has been the focus of school reform and attempts to improve student achievement and performance. Bolstered by the minimum “highly qualified teacher” requirements of NCLB, all teachers in the workforce are required to hold a bachelor’s degree, have full state certification, and demonstrate knowledge of the content they are teaching. Standards for teacher quality have relied on minimum input measures, including: degree, courses taken, certification status, or scores on certification tests. Some states, however, now rely on more sophisticated data which permit an examination of the relationship between teacher

preparation and teacher effectiveness, as measured by a teacher's value-added contribution to student learning gains.

*Link of School and Teacher Characteristics to Student Outcomes*

Early research, including the Coleman report in 1966, measured seven teacher characteristics including: years of experience, educational attainment, vocabulary test scores, ethnicity, parents' educational attainment, home area, and teacher attitude toward students. These characteristics explained less than 1% in variation in student test scores.

More recent attempts at linking teacher characteristics to student outcomes have focused on more specific traits, including teacher preparation. Ferguson (1991) analyzed teacher and student data on nearly 900 Texas school districts, representing 2.4 million students and 150,000 teachers. Taking into account student background, school variables accounted for from 25% to 33% of the variation in average student test scores. However, one teacher variable, scores on the Texas Examination of Current Administrators and Teachers (TECAT), accounted for a large portion of that effect.

Ferguson and Ladd (1996), in a 1990–1991 analysis of 29,544 fourth grade students Alabama in 690 schools, found evidence that a greater proportion of teachers with post-graduate degrees positively affect student performance, but found no evidence of effect from teacher experience. The researchers found that a difference of 1 standard deviation in teacher test scores resulted in a .25 standard deviation increase in student test scores.

Wenglinsky (2002) reviewed NAEP (National Assessment of Educational Progress) results, including the questionnaires completed by students, principals, and teachers. The purpose of this review was to examine the relationship between teacher

quality and teacher effect on student outcomes. Teacher quality was determined by classroom practices, professional development activity, and other teacher characteristics such as educational attainment. The study consisted of 7,146 eighth graders from the 1996 mathematics assessment. A multilevel structural equation modeling (MSEM) method was used to analyze the NAEP results. The study concluded that professional development influences teachers' classroom practices strongly; the more professional development teachers receive in working with special student populations, the less likely they are to engage in lower-order activities.

Teacher Value-Added Research has been another approach used to examine teacher effectiveness. Sanders and Rivers (1996), using a massive database from Tennessee, the Tennessee Value-Added Assessment System (TVAAS), has examined teacher effectiveness. The TVAAS uses statistical mixed-method methodology to enable a multivariate, longitudinal analysis of student achievement data to produce estimates of school and teacher effects free of socioeconomic confounding. Sanders and Rivers (1996) concluded that the factor most affecting student gains is teacher effectiveness.

Goldhaber and Brewer (2000), in an investigation on the relationship between teacher licensure and student outcomes, used National Educational Longitudinal Study (NELS) data from a large, longitudinal, student-level database. The researchers explored relationships between 12th grade student performance in mathematics and science and teacher characteristics. Their sample included 3,786 12th grade students in mathematics and 2,524 12th grade students in science. Data from this study included detailed teacher and class level information directly tied to individual students by subject and analysis. Consistent with their earlier research, Goldhaber and Brewer (1997b) found evidence that

students with teachers with subject-specific training (a mathematics degree or certification) outperform those students with teachers without subject-matter preparation. Math students who have teachers with Bachelors or Masters degrees in mathematics have higher test scores compared to those with teachers with out-of-subject degrees.

New York City Schools, in a follow-up to an early investigation which identified a positive correlation between an increase in the percentage of certified teachers and gains in performance on reading and mathematics achievement tests in Schools Under Registration Review, conducted an investigation of the impact of teacher certification on reading and mathematics performance in elementary and middle schools. Using data for all elementary and middle schools in New York City, investigators found that the percentage of certified teachers at the school level is related to student outcomes even after controlling for the effects of student demographics. Using multiple regression analyses to study these relationships, the investigators found certification rates explained as much as 5.4% variation in student performance after controlling for student demographics (Division of Assessment and Accountability, 2000).

Sharkey and Goldhaber (2008), examining the effects to teacher certification status on achievement in private schools, suggest that certification requirements, as currently constituted, do not necessarily provide a signal of teacher quality. Sharkey and Goldhaber urge for caution in the generalizability of their finding from private schools to the public school sector; however, their results support the earlier Goldhaber and Brewer studies (2000), suggesting certification status does not necessarily provide an adequate indicator of teacher quality.

However, the relationship between teacher certification, unique to instruction for English language learners, has been examined by other researchers with different results. Hayes and Salazar's (2001) study confirmed a relationship between ELL student achievement gains and the credentials of teachers who taught them. This study of ELL instruction in 177 Structured English Immersion classrooms in first, second and third grade classrooms with was conducted throughout 29 schools in the Los Angeles Unified School District. Hayes and Salazar (2001) found students who studied under credentialed teachers made greater gains than their peers taught by teachers holding emergency teacher credentials. These researchers found that teachers with English language authorization made a positive impact on student outcomes compared to negative or small positive gains made by ELLs with teachers not holding state or district authorization in ESL instruction. Hayes, Salazar and Vukovic (2002), in a follow-up study, using the same classrooms, again found that students with ESL-credentialed teachers outperformed students of emergency ESL-certified teachers.

#### *Teacher Availability*

While the ELL population continues to increase, so too does the need for teachers who are prepare to effectively meet the linguistic, cultural, and academic needs of this population. In addition to other issues, the reauthorization of the Elementary and Secondary Education Act of 2001, No Child Left Behind brings to the forefront the need for highly-qualified teachers for all students. The law recognizes that the pivotal point in successfully educating all students is providing them with a well-qualified teacher.

Issues of teacher quality and availability have been an ongoing concern (Urban, 1990). NCLB requires all schools to have highly-qualified teachers. A highly-qualified

teacher, as defined by Title I, holds a minimum of a bachelors degree, full state certification or licensure, and has demonstrated subject area competence in each of the academic subjects the teacher teaches. However, with regard to teachers qualified to instruct ELLs, there is little question regarding the dearth of availability. Boe (2006), in an analysis of teacher supply, demand, and shortage, from a national perspective, made the distinction between two types of demand and adequacy of supply: quantity demand and quality demand. Many areas of teaching have adequate supplies of highly-qualified teachers, while some areas, including mathematics, science, special education, and ELL have an ongoing inadequate supply of teachers. Teachers with preparation for instructing ELL students are among those in short supply. Data collected by the American Association for Employment in Education ([AAEE], 2001) in a recent wide-scale survey of teacher preparation programs found considerable shortage in both bilingual education (4.48 on a 5-point scale) and ESL teacher preparation (3.89 on a 5-point scale). Teacher positions listed by a variety of titles (Bilingual, Linguistically Different, English Language Learner, English Language Development, Limited English Proficient or other similarly named teacher titles) are considered a critical shortage position throughout the U.S. The shortage is found in every region of the United States, both those states that have had historically large immigrant populations and those states that have not traditionally had large immigrant populations.

Though classrooms are becoming increasingly diverse, the amount of teachers who are prepared to deliver diversified instruction has not grown to meet the task at hand. With increased accountability demands from federal and state laws, the effects of student diversity within the classroom have a larger than ever impact on student, school, and

district successes. It is critical that all educators understand the ramifications of this new diversity on teaching and learning. Educators that rely on standard instruction and assessment strategies will not effectively serve these learners. Only 18% of teachers instructing ELLs reported having some type of ESL or bilingual certification (Téllez & Waxman, 2006a). Today's educators must be flexible to give these diverse English language learner equal access to greater educational content and opportunities for success.

### *Quality Teachers*

The strong accountability measures included in NCLB bring the ELL students into the same context of standards and accountability as their native English-speaking peers. These accountability measures have major implication for mainstream teachers. The classroom teacher is more important today than ever before. With increased diversity in the mainstream classroom, the teacher must ensure that both the curriculum and teaching strategies meet the needs of a wide variety of students including the English language learner.

The demands placed on teachers and their qualifications are larger than ever before (Darling-Hammond, 2000b). During the 1999–2000 school year, approximately 40% of public school teachers nationally had instructed English language learners in their mainstream classrooms (Zehler et al., 2003). By 2006, however, Waxman, Téllez, and Walberg report that 56% of all public school teachers had at least one ELL student in their mainstream classroom, reflecting the changing demographics of U. S. schools.

### *Licensure and Teacher Effect*

All states require minimal competencies for teachers. State licensure is the standard process for evaluating the credentials of teachers to ensure they meet the professional standards set by the state education agency. Although licensing requirements vary from state to state, teacher certification generally requires completion of programs which address foundations of education, methods, and field experiences as well as content competencies. Licensure programs are presented in various formats in either undergraduate or graduate levels including field-based learning to traditional university coursework.

Licensure specific to instruction for ELL has been a more recent development. State licensure requirements are currently the primary gatekeepers for quality instructors for English language learners (Menken & Antunez, 2001b). National Council for the Accreditation of Teacher Education (NCATE) has listed six preparation standards which apply to the instruction of ELLs:

1. Teachers should acquire pedagogical content knowledge which addresses ELLs.
2. Assessment and evaluation data should measure teachers' preparedness to work with ELLs.
3. Field experiences should provide practice and opportunities to see successful teachers model effective techniques in working with ELLs.
4. Candidates should understand the range in diversity among ELLs.
5. 5. & 6. Unit of preparation should provide qualified faculty and sufficient resources to support teachers' learning about ELLs. 0.

Forty-four states and the District of Columbia offer ESL endorsement or certification. Twenty-four states have requirements that teachers in ESL classrooms must be ESL certified (NCELA, 2006).

Fillmore and Snow (2000) suggest that teacher preparation programs should include language and linguistics, including language development; second language learning and teaching; as well as text analysis. Fillmore and Snow suggest that teachers need access to a wide range of information on language and literacy skills, including educational linguistics, which would also cover many of the desired teacher competencies, relating to skills in student assessment, individualizing instruction, and in respecting diversity. They make the case that the core of knowledge for instruction in language development and the pedagogy needed by teachers should be clearly defined and agreed upon.

Short and Echevarria (2004) recommend students in teacher preparation programs be placed in classrooms with teachers trained in sheltered instruction. Yet, only a few teacher preparation programs currently emphasize skills in teaching minority language students as part of their standard teacher preparation curriculum, even though most teachers will at some point work with students who require them to have these skills (Menken & Antunez, 2001b).

Research regarding the relationship between teacher preparation, teacher quality, and student performance is inconsistent and elusive. Specifically, there is a dearth of research connecting English as a Second Language preparation to student outcomes.

Wilson, Floden, and Ferrini-Mundy (2001), in an analysis of over 300 published research

reports concerning teacher preparation, present five probing questions. In a summary of teacher preparation research, Wilson et al. report:

- A positive connection between teachers' preparation in subject matter and teacher performance and impact in the classroom, yet changes in the subject matter preparation are needed.
- Pedagogical preparation—instructional methods, learning theories, foundations of education and classroom management- matter but the research results afford little insight into which aspects of pedagogical preparation matter most.
- Field experience preparation is often disconnected from other aspects of teacher preparation and placement of field experience is critical to the value of the experience.
- There is a dearth of research connecting formal accreditation systems and their effects on teacher preparation.
- Alternative post-baccalaureate preparation programs present a more diverse pool of teacher and vary in the ability to equip teachers for classroom experience.

#### *What Classroom Teachers Need to Know About Affecting Language Development*

The classroom teacher is often the primary source of encouragement and support for most ELLs; as such, classroom teachers need to be cognizant of these multitasking endeavors to understand the ELL student and to prepare instruction accordingly. In addition, teachers' perceptions of language minority students affect student performance

(Fillmore, 1991; Hamayan, 1990). Clair (1995), using ethnographic methodology in a limited study of three mainstream classroom teachers of ELLs, reported a teacher preference for readily-prepared materials specific to instruction for ELL over professional development suggestions for their own implementation. Clair (1995) also found among the mainstream classroom teachers a lack of second language acquisition process understanding.

An understanding of the language development process for ELL students is also significant for considerations of policy, planning, and programming for the second language learner (Adger, Snow, & Christian, 2003). Teachers need a thorough understanding of linguistics and literacy skills and their application in all content areas (August & Hakuta, 1997). In a report from the National Literacy Panel on Language-Minority Children and Youth, the authors state:

Becoming literate in a second language depends on the quality of teaching which is a function of the content coverage, intensity or thoroughness of instruction, methods used to support the special language needs of second-language learners and to build on their strengths, how well learning is monitored, and teacher preparation. Teacher can learn how to deliver innovative instruction with effective professional development. (August & Shanahan, 2006, p. 4)

Genesee et al.'s (2005) analysis reveals issues of concern for educational policy and the best way to educate ELLs. They found, across the corpus of research, the following characteristics of effecting ELL programs include: a positive school environment; curriculum that is relevant, challenging, aligned with the standards and assessment, and sustained over time; models grounded in sound theory and best practice; and teachers skilled in theories of second language development. Their research also revealed that educators need more than an array of specific methodology or activities to

work with ELL students. Instructors need comprehensive frameworks for selecting, sequencing and delivering instruction.

Milk, Mercado, and Sapiens (1992) suggest fundamental skills for good teaching in contexts that create optimal conditions for ELLs. The skills, knowledge and attitudes include:

- awareness of instructional stages and appropriate services at those stages
- collaboration among specialists and non-specialists in ESL education
- classroom setting (physical and social) as support for instructional strategies
- understanding of second language acquisition principals
- students' existing knowledge as support or as a misunderstandings for learning
- parent engagement to enhance instruction
- full opportunities for speaking, listening, reading and writing in a appropriate scaffolding
- inclusion of ELLs in classroom dialogue
- provision of appropriate formative assessment to guide instruction
- tolerance for divergent responses or viewpoints
- ability and interest to embed students' cultures into the curriculum

Teachers of English to Speakers of Other Languages (TESOL), in conjunction with the National Council for the Accreditation of Teacher Education (NCATE), have developed standards for ESL teacher education. Those standards include five domains:

language, culture, planning, implementing and managing instruction, assessment, and professionalism (Téllez & Waxman, 2005).

In addition to the standards set by TESOL and NCATE, the National Board for Professional Teaching Standards (NBPTS) has also developed standards for teachers of English as a new language. These ideas are similar to those created by other professional organizations, but also include expert knowledge of students, language development, culture, and diversity as well as knowledge of subject matter as standards. This proliferation of standards is commendable but application of such to teacher preparation programs is the challenge.

Professional development is a key factor in providing teachers with the knowledge, pedagogy, and skills they need to actively connect with ELLs. However, traditional two-hour, one-day, or week-long summer in-service opportunities will not meet the needs of teachers new to the service of ELLs (Téllez & Waxman, 2006). Continuous, quality professional learning experiences are needed for all teachers of ELLs. Along with knowledge of developing second language, literacy teachers will need understanding of multicultural-relevant instruction.

Genesee et al. (2005) emphasize that further research is warranted on the instructional needs of teachers, including their levels and kinds of professional development, their understanding of different instruction and assessment approaches, their knowledge and application of second language acquisition theory, and the processes that are required to ensure that new teachers acquire competence in using new approaches.

Milk et al. (1992), addressing the issue of teacher preparation for teachers of ELLs, including the mainstream teacher, found that the structural organization of the classroom is central to establish and promoting functional communication between teachers and students, and students and students. In addition, preparation programs should acknowledge the shifting demographic, political, and programmatic realities, and promote learning environments for teachers that are reflective of those changes along with an emphasis on reflective teaching practices (Milk et al., 1992).

Sayers (1996) details the development of ESL teacher preparation in the state of Utah, where this study is situated. Initial ESL endorsement preparation programs in the state of Utah for grew out of the unique needs of a geographically large and ethnically-split school district fractured by political governance of federal, tribal, state, and local laws. In the absence of law and academic paradigms, Utah's response to inadequate instruction for ELLs in this area developed not from research-based structures but from a dichotomous push from the Office of Civil Rights and grassroots response to the need. Kaplan (1991) uses the terms accidental language policy to describe policy determined in which "functions of government create implicit policy" (p. 153).

With NCLB accountability standards, many SEAs have created guidelines for ELL education for direct English language instruction and policies for teacher licensure for direct English language instruction. However, such educational policies lack legal mandate specific to instructional requirements for mainstream classroom instruction of ELLs. Policies and practices among LEAs vary widely. In the absence of research-based policies and practices surrounding issues of instruction for English Language Learners, implicit language policies will prevail.

Policy development regarding the preparation requirements for teachers as instructors for ELLs has largely been developed without an explicit link to language policy and research-based outcomes.

### *Reaching a Diverse Population*

The trend toward greater diversity in U. S. classrooms is an issue that administration and teachers deal with on a daily basis. Keeping abreast of the changing demographics is crucial for educators. Though awareness of the impact of diversity is important to all, understanding the specific impact of language diversity and student achievement within the classroom is critical. Whether by intent or default, in many school districts, ELL students spend much of their school day in the mainstream classroom (Genesee, 1999). The success or failure of these students in both academic achievement and English language development within that classroom depends more and more upon the quality of instruction and the degree of assistance they receive from the mainstream teacher. An understanding of the connection between teacher preparation and student achievement is essential, as policy and programming decisions are made by SEAs and LEAs to address the educational needs of the ELL.

## **CHAPTER THREE: METHODS**

### **Purpose**

The purpose of this study was to add to the literature through an exploration of the relationships between selected teacher characteristics and two student outcomes for English Language Learners (ELLs): ELL students' rate of English acquisition and ELL student achievement in Language Arts and mathematics on one state's criterion-referenced achievement tests (CRT).

The following questions were investigated:

1. Are there differences in the English language acquisition gains between ELL students taught in mainstream elementary classrooms by teachers with ESL endorsement compared to ELL students taught by mainstream teachers without such endorsements?
2. Are there differences in achievement levels gains in Language Arts and mathematics on the state CRT between ELL students served by mainstream teachers with ESL endorsements compared to students taught by teachers without such endorsements? 0.

Through examination of the relationship between teacher professional preparation in the form of ESL endorsement and ELL students' English language acquisition rates and academic achievement, a rich understanding of the impact of additional teacher preparation and alternative language services on ELL learning is expected. The intent of the analyses was both to gain new insights into understanding the impact of a well-prepared professional work force to serve ELLs and to add to the existing literature that guides important local, state, and national policy decisions intended to address issues related to ELL successful achievement and teacher professional development.

Previous research on teacher impact on student learning and achievement varies in its analysis of outcomes. Estimates on the variance in student achievement accounted for by teachers' impact vary from 3% to between 4% and 8% on student test score changes (Rivkin, Hanushek, & Kain, 2005; Rowan, Correnti, & Miller 2002; Wenglinsky, 2002). Multiple value-added studies indicate that teachers play a determining role in pupil learning and growth (Fallon, 2006). However, varying methods of analysis have compounded the degree to which the size of the impact is understood and accounts for teaching effects (Greenwald, Hedges, & Laine, 1996; Rowan et al., 2002).

Research on teacher preparation and its impact on student achievement has focused on teacher preparation in the areas of reading, math, and science. Other teacher characteristics that have been investigated for links to student learning have included: teacher certification, demographics, ethnicity, years of experience, salaries, educational attainment, preparation course work, teacher basic skills tests, and vocabulary. There has been limited investigation into the impact of teacher preparation on instruction of ELLs in the mainstream classroom. Biases with regard to educational programming, as well as inconsistent accountability measures, have hampered research.

To examine the impact of teacher preparation, in particular teaching English as a Second Language (ESL) endorsement, selected characteristics of the teachers will include: teacher level of educational attainment, ESL endorsement or no ESL endorsement, and total years of teaching experience. The selected student characteristics of ELL students will include: ELL students' gender, grade level, race, level of English language attainment, and socio-economic status. The selected sample of students will

include: Level B and C Limited English Proficient (LEP) students as identified in accordance with the district's identification and assessment procedures for Alternative Language Services (ALS). Student outcomes will include student gain scores on state Criterion-Referenced Tests (CRT) in Language Art and mathematics and ELL student scores on the IDEA Proficiency Test (IPT), a test for English proficiency. In addition, IPT scores will be disaggregated by levels of attainment controlling for starting language levels, specifically Level B and C ELLs to ascertain English language proficiency development gains.

The outcome of student achievement and English language acquisition were selected because the ultimate goal of effective instruction is increased student achievement. Language Arts and mathematics measures, as well as the district's measure of English language acquisition (i.e. IPT), are used for this study. As a part of regular district practices to meet the requirements of NCLB, all students enrolled for at least one year in grades 2–11 participate in the testing. Unlike the secondary level, one home room teacher provides all instruction in both mathematics and Language Arts, which also affects the teachers to be studied in a more targeted manner. This study includes students in grades two through six. Students participating in special education services, as identified through an Individual Education Plan (IEP) will not be part of the sample because of the confounded nature of assessment for students who are both ELLs and who also have a disability particularly related to learning.

## **Context of the Study**

### *Setting*

The school district where this study was conducted is located in large, urban, Mountain West school district in a community of 183,000, encompassing over 110 square miles. This community makes up a relatively small portion of a larger valley community within which is it situated. The city has experienced a decline in population of 1.59% from 2000 to 2007. The median cost of a home in the city is almost \$150,000. While almost 24% of the population is under 18 years of age, only 11% of the population is over 65 years of age. According to a 2007 census, the reported majority ethnic background of the population is White (79.2%). Minority populations include: Blacks (1.89%), American Indian and Alaskan Native (1.34%), Asian (3.62%), Native Hawaiian/Pacific Islander (1.89%), and Hispanic (18.85%), with some groups reporting two or more races.

### *The School District*

The school district has a slightly declining enrollment over the past five years period. For the 2006–2007 school year, the district has over 24,000 students enrolled in grades K through 12 in 36 schools; 27 of these are elementary schools. The district employs more than 1,230 certified teachers. The student teacher ratio is 22:1. The per-pupil expenditure in 2007 was \$4,049 per student. Table 3.1 details the grade level distribution of the student population for grades 1 through 12. During the period of study, 25% of the students attended a school other than a neighborhood school within the district.

*Table 3.1. District-wide Grade Level Distribution (2006–2007)*

Grade Level	Frequency	Percent	Valid Percent	Cumulative Percent
1st	2484	10.1	10.1	10.1
2nd	2268	9.3	9.3	19.4
3rd	2273	9.3	9.3	28.7
4th	2159	8.9	8.9	37.6
5th	2051	8.4	8.4	46.0
6th	1969	8.1	8.1	54.1
7th	1873	7.7	7.7	61.8
8th	1976	7.7	7.7	69.5
9th	1921	7.9	7.9	77.3
10th	1919	7.9	7.9	85.2
11th	1857	7.6	7.6	92.8
12th	1745	7.2	7.2	100.0
Total	24375	100.0	100.0	

Table 3.2 provides an overview of student demographics for the district during the 2006–2007 school year. Student demographics indicate that students are evenly distributed between female and male. Sixty-three percent (63%) of students reside with both parents, while one-third (33.1%) of the students reside in a single parent household. Almost 61% of the students are economically disadvantaged, as identified through eligibility for free or reduced priced lunch. Over 54% of the students represent ethnic minority populations, and almost 14% of the students participate in special education programs as identified by their Individual Education Plan (IEP) (see Table 3.2).

*Table 3.2. District-wide Student Demographics for 2006–2007*

Demographic Information	Category	Frequency (f)	Valid Percent (P)	Cumulative Percent
Gender	Female	12168	49.9	49.9
	Male	12207	50.1	100.0
Guardianship	Both Parents	15352	63.0	63.0
	Single Parent	8073	33.1	96.1
	Other Guardianship	950	3.9	100.0
Economic Status	Non-Economically Disadvantaged	9614	39.4	39.4
	Economically Disadvantaged	14761	60.6	100.0
Race	Asian	1001	4.1	4.1
	African American	1261	2.2	9.3
	American Indian	595	2.4	11.7
	Caucasian	11167	45.8	57.5
	Hispanic	9043	37.1	94.6
	Pacific Islander	12.3	4.9	99.6
	Other	105	.4	100.0
Racial/ Ethnic Minority	White	11167	45.8	45.8
	Non-White	13208	54.2	100
Special Ed/ Regular Education	Regular Education	20993	86.1	86.1
	Special Education	3382	13.9	100.0

Over 34% of this district’s students are identified as ELLs through Alternative Language Services (ALS) district identification procedures via the Idea Proficiency Test (IPT) (see Table 3.3). These students collectively speak 84 different primary languages as their home language.

*Table 3.3. District-wide English Language Learners Grades 1 through 12 (2006–2007)*

ELL Students	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Non ELL	16035	65.8	65.8	65.8
ELL	8340	34.2	34.2	100.0
Total	24375	100.0	100.0	

The ELL population is tested annually to assess their English Language Level. The IDEA Test of Proficiency (IPT) is used to assess their language level in reading, writing, and oral English language development. These subtests determine a composite score for each student. The identified English language level of the students ranges from Level A (non-English proficient speaking, reading, and writing), through levels B, C, and D, to Year I Monitor, at which a student is considered English proficient in all three language modalities (see Table 3.4).

*Table 3.4. District-wide English Language Level of Student s Grade 1–12*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Level A	638	2.6	2.6	2.6
Level B	3715	15.2	15.2	17.9
Level C	1074	4.4	4.4	22.3
Level D	1498	6.1	6.1	28.4
Year 1 Monitor	1415	5.8	5.8	34.2
No ALS	16035	65.8	65.8	100.0
Total	24375	100.0	100.0	

### *Teacher Demographics*

The sample for this study was drawn from the population of certified elementary teachers within the Oxford school district.

### *Teacher ESL Endorsement*

Teachers employed in the Oxford school district must be in compliance with the district's Alternative Language Services (ALS) teacher qualification requirements. In this district, all new elementary teachers, and secondary core teachers (math, Language Arts, Social Studies, and science), and content coaches must have an ESL endorsement or agree to get one prior to the end of their fourth year teaching in the district as outlined in the district's ALS Master Plan. The rationale for this requirement holds that teachers are key individuals for delivering core curriculum instruction in a manner that provides meaningful access to content for English language learners while supporting student needs for developing English language proficiency and furthering academic language development. Additionally, educators need an understanding of the assets students and families bring to their schools and how to integrate this information as part of everyday instructional practice, as well as an understanding of the contribution of diversity for the community.

The state's ESL Endorsement standards are aligned to research, and federal and state policies. The ESL endorsement requirement contains six standards that make up an 18-credit-hour semester program. The ESL endorsement is organized by these six standards as well as by objectives that describe what teachers should know and be able to do. These standards include: Language and Linguistics, Cultural Diversity, Instruction, Assessment, Family and Community Involvement, and Instructional Practice with

English Language Learners. Examples of courses that would meet these requirements include: Foundations of Bilingual/ESL Instruction, Understanding Language Acquisition and Cognition, Assessment for a Diverse Linguistic Population, Methods and Materials for the Bilingual/ESL Classroom, Integrating Language Acquisition into Content Instruction, and Family/Parent Involvement in Education.

Teachers can obtain the coursework necessary for the ESL endorsement in multiple ways. In the state where this study took place, most colleges offering teacher education programs offer coursework towards the ESL endorsement. Many colleges and universities have outreach programs and online courses. The cost to obtain ESL certification in this area of the country varies from less than \$1,000 for a state approved district continuing education unit toward ESL endorsement, to over \$10,000 for a university credit on-campus program.

Local school districts, including the one studied, have offered continuing education opportunities for the teachers to obtain ESL endorsement. The Oxford school district supports its teachers and staff by offering after-hours classes toward ESL endorsement at various locations throughout the district. To further support teachers who work with ELL students, assistance with the implementation of Sheltered Instruction Observation Protocol (SIOP) is provided through classroom-embedded professional development by specially trained teachers. Multicultural awareness training for all district personnel is promoted through REACH, professional development sessions which are offered several times per year. Each school also has a data specialist to assist the school staff in their efforts to use data to improve student achievement. The result is increased information about individual student performance, improved classroom and curriculum

planning, more targeted identification of needed professional development, and greater connections for resource decisions.

More than half of the district's teachers in 2006–2007 had earned English as a Second Language (ESL) endorsement. Table 3.5 illustrates the number of elementary school teachers in the district in 2006–2007 who have a valid ESL endorsement.

*Table 3.5. Oxford School District Elementary School Teachers' ESL Endorsement Status (2006–2007)*

ESL Endorsement	Frequency	Percent	Valid Percent	Cumulative Percent
No	211	41.8	41.8	41.8
Yes	294	58.2	58.2	100.0

Thirty percent of the elementary certified teachers in this district have earned master's degrees or greater, while 11.3% have a bachelor's degree and attained their elementary certification through an alternative route, classified in this district as an equivalent certificate. One elementary teacher holds a doctorate and three elementary teachers hold National Board Certification (see Table 3.6).

*Table 3.6. District-wide Highest Degree of Elementary Teachers (2006–2007)*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Equivalent	57	11.3	11.5	11.5
Bachelor	287	56.8	58.1	69.6
Master	146	28.9	29.6	99.2
Doctor	1	.2	.2	99.4
National Board	3	.6	.6	100.0
Total	494	97.8	100.0	
Missing System	11	2.2		
Total	5.5	100.0		

The district's elementary teachers' years of experience vary from first year teachers (1) to teachers with 48 years of teaching service (see Table 3.7), with a mean of 17.65 years (SD=9.980)(see Table 3.8). Approximately 75% of the elementary teachers have ten or more years of teaching experience (see Table 3.7).

*Table 3.7. District-wide Total Years of Teaching Service for Elementary Teachers (2006–2007)*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 1	3	.6	.6	.6
2	12	2.4	2.4	3.0
3	13	2.6	2.6	5.7
4	23	4.6	4.6	10.3
5	13	2.6	2.6	13.0
6	16	3.2	3.2	16.2
7	12	2.4	2.4	18.6
8	15	3.0	3.0	21.7
9	17	3.4	3.4	25.1
10	17	3.4	3.4	28.5
11	16	3.2	3.2	31.8
12	25	5.0	5.0	36.8
13	8	1.6	1.6	38.5
14	20	4.0	4.0	42.5
15	17	3.4	3.4	46.0
16	16	3.2	3.2	49.2
17	17	3.4	3.4	52.6
18	17	3.4	3.4	56.1
19	15	3.0	3.0	59.1
20	11	2.2	2.2	61.3
21	13	2.6	2.6	64.0
22	19	3.8	3.8	67.8
23	15	3.0	3.0	70.9
24	11	2.2	2.2	73.1
25	7	1.4	1.4	74.5
26	9	1.8	1.8	76.3
27	14	2.8	2.8	79.1
28	16	3.2	3.2	82.4
29	16	3.2	3.2	85.6
30	12	2.4	2.4	88.1
31	10	2.0	2.0	90.1
32	8	1.6	1.6	91.7

*Table 3.7 (continued)*

	Frequency	Percent	Valid Percent	Cumulative Percent
33	9	1.8	1.8	93.5
34	5	1.0	1.0	94.5
35	5	1.0	1.0	95.5
36	7	1.4	1.4	97.0
37	8	1.6	1.6	98.6
38	3	.6	.6	99.2
39	1	.2	.2	99.4
40	1	.2	.2	99.6
44	1	.2	.2	99.8
48	1	.2	.2	100.0
Total	494	97.8		
Missing System	11	2.2		
Total	505	100.0		

*Table 3.8. District-wide Average Elementary Teachers Years of Service (2006–2007)*

	N	Minimum	Maximum	Mean	Std. Deviation
Total Years of Teaching Service	494	1	48	17.65	9.980

*Teacher Sample*

Not all elementary teachers in the district were included in the sample. The teachers involved in the study were linked to ELL students who met the criteria for inclusion in the study. The set of sample teachers for this study consists of elementary teachers (N=276) who were mainstream classroom teachers and had instructed ELL students in the mainstream classroom setting. The sample teachers taught both mathematics and Language Arts to their homeroom class. These mainstream classroom

teachers students taught ELL students who were enrolled for two complete academic years, had an Idea Proficiency Test (IPT) language level of B or C in 2005–2006, and took the state’s Criterion Reference Tests (CRT) tests of academic achievement in Language Arts and mathematics in both 2005–2006 and 2006–20007. Students with IEPs were excluded from the study to eliminate a conflict of language and achievement issues.

More than half of the teachers in the sample had ESL endorsement (see Table 3.9). The mean years of experience for the sample was 16.453 (SD=9.647). Their experience ranged from the first year of teaching to 37 years of experience.

*Table 3.9. Sample Teachers—ESL Endorsement*

Teachers ESL Endorsement	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	95	34.4	34.4	34.4
Yes	181	65.6	65.6	100.0
Total	276	100.0	100.0	

The majority of the teacher sample had earned a bachelor’s degree (N=180, 69%) including those with an equivalent certification, while 81 teachers had earned advanced degrees.

#### *Sample Teacher Demographics*

Teachers included for this study included all mainstream teachers for grades two through grade six who taught Language Arts (English) and/or mathematics, and taught those ELL students in the sample in mainstream elementary classes from 2<sup>nd</sup> through 6th grade (N=276). These teachers have been identified as the elementary teacher of record, and are assigned to those students for the majority of their daily classroom instruction in both Language Arts and mathematics. Because student participation numbers vary from

teacher to teacher based on school and classroom assignments prior to any data collection, teachers are weighted per student based on their district ID.

A majority of teachers in the study (65.6%) have ESL endorsement. The sample teachers represent a larger proportion of ESL endorsed teachers than exists in the general teacher population in the district (see Table 3.10).

*Table 3.10. ESL Endorsement for Teachers of Sample Students*

ESL Endorsement	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	95	34.4	34.4	34.4
Yes	181	65.6	65.6	100.0
Total	276	276	100	

The sample teachers mirror their counterparts among the elementary teachers in the district in both the highest degree of education and average years of experience.

*Table 3.11. Sample Teachers—Highest Degree*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Equivalent	20	7.2	7.7	7.7
Bachelor	160	58.0	61.3	69.0
Master	80	29.0	30.7	99.6
Doctor	1	.4	.4	100.0
Total	261	94.6	100.0	
Missing from System	15	5.4		
Total	276	100.0		

*Table 3.12. Total Years of Service for Sample Teachers*

	N	Minimum	Maximum	Mean	Std. Deviation
Years of Service	261	1.00	37.00	16.6453	9.64789
Valid N	261				

The majority of the teachers in the sample have a bachelor's degree or equivalent teacher certification (76.7%), with a mean number of years of service at 16.6453 (SD=9.64) (See table 3.11).

#### *Sample Students Demographics*

The student sample for this study included 2151 students identified as ELL through the district's Alternative Language Services (ALS) (see Table 3.13). The students included in the sample completed both the IDEA Proficiency Test (IPT) and state's Criterion reference Tests (CRT) over a two-year period, and were instructed in mainstream classrooms. The student sample includes students who were enrolled who were enrolled for the full academic years (2005–2006 and 2006–2007), consisting of enrollment for a period of 160 days each year.

A strong connection between teachers and students needed to be established for this study in order to attribute teacher endorsement effects with student language acquisition and academic achievement. Therefore, only those ESL students who scored at Level B and C Language Level on the IPT in 2005–2006 were included, as these students receive daily academic instruction from the mainstream teacher rather than a pullout program from an ESL teacher. Inclusion of only Level B and C Language Level focuses on growth in academic English acquisition rather than the social language gains attributed

to initial English acquisition. Through teacher implementation of ESL instructional best practices acquired through additional professional development in the form of ESL endorsement preparation, mainstream classroom Level B and C language acquisition students are expected to be able to access the grade level curriculum and gain proficiency in English language acquisition. Assessment with the CRT in content areas of Language Arts and mathematics is used to measure academic gains made by these students. Gains in language acquisition and proficiency are measured through the use of the IPT. Excluded from the sample were ELL students with IEPs. These students were excluded based on the literature which identifies the difficulties associated with assessment of language learning and the verification of disabilities. ELL student performance on language-based and culturally-derived tests may be additionally confounded by other learning disabilities.

The English language learners (N=2151) in the study were evenly distributed between male and female. The majority of the students (70.9%) lived with both parents. Most of the students (94.5%) were economically disadvantaged, qualified to receive either free or reduced lunch. The student distribution from grade two through grade six indicates that more students are identified as ELL in the lower grades (2nd=26.4 %) compared to later grade levels (6th=14.7 %). The ethnic background of the ELL students reflects a large Hispanic population (81%).

*Table 3.13. Demographic Data for Student Sample for CRT (2006–2007)*

Demographic Information	Category	Frequency (f)	Percent (P)	Cumulative Percent
Grade Level	2 <sup>nd</sup>	567	26.4	26.4
	3 <sup>rd</sup>	487	22.6	49.0
	4 <sup>th</sup>	392	18.2	67.2
	5 <sup>th</sup>	388	18.0	85.3
	6 <sup>th</sup>	317	14.7	100.0
Gender	Female	1056	49.1	49.1
	Male	1095	50.9	100.0
Guardianship	Both Parents	1526	70.9	70.9
	Single Parent	595	27.7	98.6
	Other Guardian	30	1.4	100.0
Economic Status	Non Economically Disadvantaged	119	5.5	5.5
	Economically Disadvantaged	2032	94.5	100.0
Race	Asian	66	3.1	3.1
	African American	131	6.1	9.2
	American Indian	13	.6	9.8
	Caucasian	76	3.5	13.3
	Hispanic	1751	81.4	94.7
	Pacific Islander	103	4.8	99.5
	Other	11	.5	100.0
Racial/ Ethnic Minority	White	76	3.5	3.5
	Non-White	2075	96.5	100.0

Table 3.14 shows that 72.2% of the ELL students in the study have been identified as Level B on the IPT test and 27.8% of the students are Level C.

*Table 3.14. IPT English Language Level of ELL Students*

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Level B	1554	72.2	72.2	72.2
Level C	597	27.8	27.8	100.0
Total	2151	100.0	100.0	

ELL students who have been enrolled for over one year in the U. S. school system at any language proficiency level participate in the state's accountability tests. These tests include the state's Criterion-Referenced Tests (CRT). Scores are reported on each student in multiple areas including Language Arts proficiency levels and mathematics proficiency levels. As part of the accountability system, each student receives scores. However, the scores also contribute to accountability for a sub-group, a school, and a school district. Additionally, scores can be linked to each teacher.

The Criterion-Referenced Tests (CRT) are reported in terms of proficiency levels as: Minimal, Partial, Sufficient, and Substantial. Among the sample students who completed the CRT Language Arts proficiency levels in the Spring of 2006, 22.7% were Minimal, 32.4% were Partial, 25.9% were Sufficient, and 5.8% were Substantial (see Table 3.15). These scores report 63.6% of the sample students score non-proficient and 36.4% of the sample students score at the proficient level in Language Arts. It is important to note that these scores represent the sample ELL students who have been identified as Level B and C language learners in grades two through six. They do not include non-English speaking students or those who have been identified as English proficient.

*Table 3.15. CRT Language Arts Proficiency Level Spring 2006*

Proficiency Level	Frequency	Percent	Valid Percent	Cumulative Percent
Minimal	489	22.7	26.2	26.2
Partial	696	32.4	37.3	63.5
Sufficient	558	25.9	29.9	93.4
Substantial	124	5.8	6.6	100.0
Total	1867	86.8	100.0	
Missing System	284	13.2		
Total	2151	100.0		

The Criterion-Referenced Tests (CRT) are also reported for mathematics proficiency levels. Among the sample ELL students who completed the CRT mathematics proficiency levels in the Spring of 2006, 21.0% were Minimal, 26.3% were Partial, 21.0% were Sufficient, and 19.4% were Substantial (see Table 3.16). These scores report 54.1% of the sample students score non-proficient and 45.9% of the sample students score at the proficient level in mathematics.

*Table 3.16. CRT Math Proficiency Level Spring 2006*

Proficiency Level	Frequency	Percent	Valid Percent	Cumulative Percent
Minimal	451	21.0	23.9	23.9
Partial	565	26.3	30.0	53.9
Sufficient	452	21.0	24.0	77.9
Substantial	417	19.4	22.1	100.0
Total	1885	87.6	100.0	
Missing System	266	12.4		
Total	2151	100.0		

Further disaggregation of the spring 2006 scores of the sample students permits a deeper analysis of their academic content achievement. Scores have been disaggregated to the low and high level of both minimal and partial levels on CRTs. In Language Arts, ELL sample students scores were equally split between the low and high levels of both minimal and partial scores. This same split is also evident in the spring 2006 math scores of these students (see Tables 3.17 and 3.18).

*Table 3.17. Language Arts Proficiency Levels Spring 2006*

Language Arts Level	Frequency	Percent	Valid Percent	Cumulative Percent
Low Minimal 1a	260	12.1	13.7	13.7
High Minimal 1b	261	12.1	13.7	27.4
Low Partial 2a	365	17.0	19.2	46.7
High Partial 2b	331	15.4	17.4	64.1
Sufficient 3	558	25.9	29.4	93.5
Substantial 4	124	5.8	6.5	100.0
Total	1899	88.3	100.0	
Missing System	252	11.7		
Total	2151	100.0		

*Table 3.18. Mathematics Proficiency Levels Spring 2006*

Mathematics Level	Frequency	Percent	Valid Percent	Cumulative Percent
Low Minimal 1a	228	10.6	12.0	12.0
High Minimal 1b	235	10.9	12.4	24.4
Low Partial 2a	269	12.5	14.2	38.6
High Partial 2b	296	13.8	15.6	54.2
Sufficient 3	452	21.0	23.8	78.0
Substantial 4	417	19.4	22.0	100.0
Total	1897	88.2	100.0	
Missing System	254			
Total	2151	100.0		

## **Research Design and Analysis**

### *Data Collection*

Data collected for this study was retrieved with permission from extant data prepared through the information systems department of the Oxford School District. The study used extant student and teacher data for a period from the 2005–2006 school year through the 2006–2007 school year. The data used from this school district strictly adheres to the principles of ethical research. No identifiable student or teacher data identifiers were obtained in this process. Student data was aggregated strictly at the level of teacher ESL endorsement. An SPSS format was used. Through the district's information system both students and teachers are linked to student achievement, demographic and language development scores.

This study will employ a causal comparative research design. Specifically, this study will be conducted using an Analysis of Covariance (ANCOVA.) Covariates are variables that are correlated with the dependent variable and are included before the start

of the experiment to control or adjust the results for differences existing among subjects. This excludes variance in the dependent variable attributable to the covariates, which enables the study to focus on the variance explained in the dependent variable by group differences. Alpha will be set at .05 to interpret statistical significance.

## **Variables and Measures**

### *English Language Acquisition*

This chapter explores two research questions, the first of which is: *Are there differences in the English language acquisition gains between ELL students taught in mainstream classrooms by teachers with ESL endorsement compared to ELL students taught by mainstream teachers without such endorsements?* The dependent variable for this question is the student's change in IPT Language Level from 2005–2006 to 2006–2007.

Results from the IDEA Proficiency Test (IPT), which identify English acquisition levels for reading, writing, and speaking, will be used to identify the ELL student's level and their progress in English acquisition. The IPT is given to all students in grades 1 through 12 who have been identified as possible ELL students through the school registration form which indicates if a student's primary or home language is other than English (PHLOTE). This test is generally administered to students in the fall.

The IPT is designed to generate measures of oral proficiency and reading and writing ability for students in grades K through adult. The oral measure is individually administered while the reading and writing tests are most often administered in small groups. In general, the tests can be described as discrete-point, measuring content such as vocabulary, syntax, and reading for understanding. The instrument places students into

one of six levels. Within levels, there are 14 items, each of which concentrates on a different aspect of language. The test provides a helpful list of what students can be expected to do at each level.

Students are identified as ELL in grades 2 through 12 if the student scores N (non English proficient) or L (limited English proficient) on any of the three (oral, reading, and writing) components of the IPT. A different criterion is used at lower grade levels.

Students are considered Fluent English Proficient (FEP) when all of the following conditions are met:

- Results from the IPT indicate that the student is a Fluent English Speaker (FES), a competent English Reader (CER), and a Competent English Writer (CEW).
- The student demonstrates competency on district Performance Task or other state or district literacy assessment given at the student's grade level.
- Parents are notified and provide the opportunity to review student performance data and provide input into the placement decision.

Using the IPT, students are identified in a language proficiency category as follows:

A=Non-English proficient speaking, reading, and writing.

B=Limited English proficient (student is non-English proficient in at least one of the language modalities of speaking, reading, and writing, or at least limited in two of the language modalities of speaking, reading, and writing.)

C=Fluent in two of the language modalities and limited in one.

D=Monitored student for minimum of two years for English proficiency (student is fluent in all three language modalities).

E=Exited, former ELL student who is fully proficient in English speaking, reading, and writing, and has been exited from an alternative language services program and fully assimilated into the mainstream. (District ALS Plan)

Understanding students' levels of language informs teachers as they address the needs of their students on a daily, weekly and monthly basis. Teachers prepared with an ESL endorsement are considered to be equipped to address the instructional needs of the students identified as ELL at each language level. With this information, teachers are expected to assist students in moving from one language level to the next while making content comprehensible.

#### *Academic Achievement*

The study's second question, *Are there differences in achievement levels gains in math and Language Arts on the state CRT between ELL students served by mainstream teachers with ESL endorsements compared to teacher without such endorsements?*, focuses on the academic achievement of ELL in Language Arts and Mathematics. The dependent variable for this question is the gain score in achievement level from 2006 and 2007 for Language Arts and also for mathematics. This question utilizes the results of the Criterion Referenced Tests (CRT), which is a portion of the state's assessment system for students. CRT scores serve as the dependent variable. These test results assess the knowledge and skill of students in grades 2 through 11 in the areas of Language Arts, and grades two through seven in mathematics as required for NCLB and state accountability to demonstrate adequate yearly progress. It should be noted that second grade scores do not count toward either the state accountability results or the NCLB accountability; however, those scores are used to inform instruction. CRTs are given to all students in grades 2 through 11 in the spring of each school year. All students participate in this

testing, excluding alternative assessment special education students and ELL students who have less than one year in an English-speaking school system.

The English Language Arts CRTs assess the knowledge and skills of students in grade 2 through 11 in the areas of reading, writing, and listening as outlined in the state's core curriculum. Based on the belief that reading is critical to all areas of student success, this series of tests incorporates reading passages from a variety of content areas. Students that have background knowledge from grade level science and social studies concepts, as outlined in the core curriculum, will have a greater understanding of vocabulary and reading material included in these assessments. The purpose of the mathematics CRT is to measure student understanding of the mathematics Core Curriculum. The mathematics CRT is administered in grades one through seven in the areas of pre-algebra, elementary algebra, and geometry.

Test administration time varies from two to three hours. Students' results are reported for each individual as an overall scaled score, an overall proficiency level, and a raw score for each standard, objective, and intended learning outcome (ILO.) The CRT results are used to inform subsequent year's instruction; to show gains and trends in student proficiency for individual students; and to provide information on the class, grade, school, district, and state. Scores resulting in proficient ratings are equated across all grade levels in Math and Language Arts. Scores are rated in proficiency levels (1=Minimal, 2=Partial, 3=Sufficient, 4=Substantial). A gain score will be calculated by subtracting the spring 2006 proficiency level scores from the spring 2007 proficiency level scores. The mean levels will serve as the dependent variables for question two.

Comparisons across grade levels can be accomplished using the state assessment system's Neutral Value Point Table (see Table 3.19). The table assigns a point value for the movement of scores from one value to another from year to year. Progress then is a longitudinal measure defined by comparing the same student from one year to the next year for all CRTS and attendance. A progress score is determined for every student who is enrolled for a full academic year (160 days or more) in the current year and who has a score from the previous year. The points assigned to student score changes assist the schools in determining the overall progress of students within a school over a period of time through a comparison of the achievement level per student from one year to the next. The value table was developed on the basis of historical trend data at the state level. The neutral value point system permits an examination of student growth because the mean number of points earned at each proficiency level is equal across the district and state.

*Table 3.19. Gain Scores—Neutral Value Points Table*

Year 1 Level	Year 2 Level					
	1a	1b	2a	2b	3	4
1a	0	225	350	375	375	375
1b	0	125	225	350	375	375
2a	0	50	150	225	325	350
2b	0	0	75	175	275	325
3	0	0	0	100	200	275
4	0	0	0	0	125	225

### *Variables*

The independent variable is dichotomous, distinguishing between two groups of teachers: those without an ESL endorsement, coded 0, and those with an ESL endorsement, coded 1. Teachers included in the study serve ELLs in a mainstream classroom setting teaching mathematics and Language Arts. Covariates include total years of teaching experience, highest degree, student English proficiency level (A=1, B=2, C=3, D=4), gender (1=female, 2=male), and socioeconomic status as indicated by eligibility for free/reduced lunch (0=No, 1=Yes).

### **Limitations of the Study**

#### *Assessment*

There are several limitations acknowledged regarding this study. The first limitation concerns the assessment of ELLs. Standardized assessment, as measured in this study with CRTs, does not fully account for differences in ELL cultural background, native language proficiency, level of formal education, or English language proficiency level. The CRTs given in this study to measure academic achievement use academic English as opposed to conversational English. Achievement tests are biased toward a norm group, generally not including the variety of ELL who will be taking the assessment. These biases impact how well the ELL will perform. Content testing outcomes may be confounded by the ELL language background as well as the English language proficiency level of the individual. Research shows the ELL assessment outcomes may suffer from lower reliability and validity (Abedi, 2006). The *Standards for Educational and Psychological Testing* (American Education Research Association, American Psychological Association, & National Council on Measurement in Education [AERA, APA, & NCME], 1999) explains:

For all test takers, any test that employs language is, in part, a measure of their language skills. This is of particular concern for test takers whose first language is not the language of the test. Test use with individuals who have not sufficiently acquired the language of the test may introduce construct-irrelevant components to the testing process. In such instances, test results may not reflect accurately the qualities and competencies intended to be measured. (p. 91)

Assessment for English language acquisition may also prove to be a limitation for this study. Though the IPT test is designed for unbiased individual administration, inconsistencies may exist on how the test is administered and results interpreted. Klesmer (1993) found English language assessments are somewhat confounded by teacher's perceptions; teachers often overrate the English language competencies of ELL students. In addition, language proficiency tests themselves may yield questionable results on student language abilities because they assess a very narrow measure of language (Vecchio & Guerrero, 1995).

#### *Data Source*

The data collect for this study was secured through the school district extant data previously organized from the district's information systems. Students and their test results are linked to the assigned mainstream classroom teacher. Teachers ID's have been weighted to value the student assignment across classrooms.

#### *Teacher Preparation*

This study is intended to examine student outcomes gains based on their teachers' preparation with or without English as a second language endorsement. State requirements for the endorsement are designed to guarantee that teachers have a minimum level of pedagogical and content matter competence gained through the earned 18 hours of credits, and based on six standards. How, where, and when teachers obtain ESL endorsement may also have an impact on teacher effectiveness, however. An

attempt to examine a relationship between ESL endorsement and teacher effectiveness in aiding student in English language development and academic content proficiency may also be affected by the exposure to a wide range of other forms or purposes of professional development comparable to the content and pedagogical training found in ESL endorsement training.

Finally, this study is limited to a single school district, which constrains the generalizability of the results. The sample is also limited to grades two through six, which narrows the generalizability to a smaller population and limits the analysis of the effect of the ESL endorsed teachers at earlier or later grade levels.

## **CHAPTER FOUR: RESULTS**

### **Overview of the Study**

This chapter presents the quantitative results of this study, which explored two research questions. This research was primarily designed to examine the impact of mainstream teacher ESL endorsement and two outcomes of ELL student achievement: the progress of ELL students' English language acquisition and ELL student academic achievement in Language Arts and mathematics. Information will be presented for each research question separately.

The quantitative results begin with general descriptive information on the student English language acquisition change measures created from IDEA Proficiency Test (IPT) results addressing the first research question. Students identified as ELL in this school district have been typically assessed with the IPT for language levels each school year. Therefore, a measure of change is reflected from one year to the next using the same instrument. The chapter then provides findings on the change measures created from the state's Criterion Referenced Tests.

### **ESL Endorsement and Language Acquisition**

Research Question 1: Are there differences in the English language acquisition gains between ELL students taught in mainstream elementary classrooms by teachers with ESL endorsement compared to ELL students taught by mainstream teachers without such endorsements?

This study examined the mainstream classroom teachers' influence on the English language development of the identified English language learners. Students were included in the study based on their language level as determined by their IPT proficiency level during the 2006–2006 school year. The IDEA Proficiency Tests evaluate

proficiency in English. Tests consist of an oral proficiency test and reading/writing tests. The reading/writing test may be given independently of the oral test, but all tests are needed for an overall assessment of language ability. Results from the IPT were used to determine inclusion for this study. Students who scored at a Level A language proficiency level are determined to be Non English Speakers (NES) or Limited English Speaker (LES) and Non English Readers (NER) and Non English Writers (NEW). The Level A students were not included in the study. Level A student were excluded from this study because they receive alternative language services in a self-contained setting, which potentially removes them from the mainstream classrooms during core instruction in Language Arts and mathematics. Level D students, or those scoring as Fluent English Speakers (FES), Competent English Readers (CER) and Competent English Writers (CEW), were not included as part of this study. These Level D students had already demonstrated English proficiency on the IPT, are monitored for two additional years. Also excluded from this study are ELL students who have been identified for special education services through an Individual Education Plan (IEP). Level B and Level C English language learners, or those students with limited English proficiency in reading and writing (LER and LEW), were included.

All elementary teachers hired after July 1, 2006, are required as a condition of contract to obtain an ESL or Bilingual endorsement prior to the expiration of the third year of their contract with the school district. Elementary teachers hired prior to 2001–2002 school year have been trained in Specially Designed Academic Instruction in English (SDAIE) or Sheltered Instruction Observation Protocol (SIOP). These requirements are based upon the rationale that as the key individuals responsible for

delivering core curriculum instruction, it is imperative that educators do so in a manner that provides meaningful access to content for English language learners while supporting student needs for developing English language proficiency and furthering academic language development. It could be expected that teachers who had additional preparation through ESL endorsement influence the English learning language levels of their students to a greater degree than teachers without such endorsement. However, relatively few quantitative studies have examined the relationship between student achievement outcomes and teacher endorsement, and no studies have examined a relationship between student outcomes and ESL endorsements.

The results of existing studies on teacher impact are far from conclusive. Hanushek and Rivken (2007) and Sanders and Rivers (1996) conclude that the success of students result in a large part on the quality of the teacher. Darling-Hammond (2000b) concludes that well-qualified teachers, determined through licensing systems, are the most significant determinant of student achievement. Yet others, such as Goldhaber and Brewer (2000), find student achievement outcomes to be roughly the same for students with teachers with full licensure and those with emergency credentials. Specific links to what makes a quality teacher are unresolved and unexplored in the area of English language learners. Further examination of teacher impact, specifically the impact of teachers additionally prepared with ESL endorsement, may provide a better understanding of the teacher factors more specific to ELLs' progress in English language development and academic achievement.

The teacher variables examined in this study—teacher ESL endorsement (0=No, 1=Yes) and years of teaching experience—as well as student variables—gender, SES,

minority status, and initial English Language proficiency level—were selected to remove the effect of these variables from the analysis of student mean gains between the two groups of teachers.

### *Data Collection*

The data used in this study is extant data from the Oxford school district information systems. Student and teacher information have been linked to individual student achievement scores.

The teacher sample for the first question in this study consisted of elementary teachers who taught grades two through six and instructed ELL students identified through the district Alternative Language Services (ALS) plan as Level B and Level C English learners. The sample teachers were homeroom teachers who taught both Language Arts and Mathematics in a mainstream homeroom classroom grades two through six during the 2005–2006 and 2006–2007 school years.

### **Question 1: Teacher ESL Endorsement Effect on Language Acquisition**

*Are there differences in the English language acquisition gains between ELL students taught in mainstream elementary classrooms by teachers with ESL endorsements compared to ELL students taught by mainstream teachers without such endorsements?*

For statistical analysis of this question, teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The majority of the teachers held ESL endorsement compared to teachers who did not hold ESL endorsement. Because distribution of ELL students in classrooms throughout the school district and grade levels varied, teachers were weighted by the school district's teacher ID to account for the number of individual ELL students within the teachers' classrooms.

Weighting the teachers by ID eliminates the effect of unbalanced distribution of students in classrooms throughout the district.

For the purposes of this study, language acquisition was determined through the school district's Alternative Language Services Plan. The IDEA Proficiency Test (IPT) was used to determine a student's language level and the changes in their language levels. The IPT evaluates student's proficiency in English. The test is comprised of oral, reading, and writing subtests. Individual student's results for each subtest place them within a language level: oral language subtest—Non English Speaker (NES), Limited English Speaker (LES) or Fluent English Speaker (FES); reading language subtest—Non English Reader (NER), Limited English Reader (LER), or Competent English Reader (CER); writing language subtest—Non English Writer (NEW), Limited English Writer (LEW) or Competent English Writer (CEW). Based on the individual student's results from the IPT subtests students are assigned as Levels A, B, C, or D as English Language learners. For the purpose of this study, students who scored at Level B and Level C were included in the sample.

Calculations of language level changes were determined as follows: A change in each language level in a positive direction was awarded 1 point. No change in language level was indicated by 0, and a negative change of one language level was awarded -1 (i.e. an advance of one level = 1, no change = 0, and regression one level = -1). For example, a student whose initial 2005–2006 oral subtest language level was Limited English Speaker may have then scored as a Fluent English speaker in 2006–2007. This student would have an Oral Language Level change of +1. A student whose initial Reading Language Level was Non English Reader and scored the following year as

Competent English Reader would receive a change score of +2. A student whose initial 2005–2006 Reading Language Level was Limited English Reader and then in 2006–2007 scored again as a Limited English Reader would have change value of 0. This process of change measurement is not assessing the level of proficiency, but rather the level of advancement or decline made by ELL students in English language acquisition.

*Change in Language Levels from 2005–2006 to 2006–2007*

Data were collected on 1,838 ELL students in grades two through six who initially scored at Level B and Level C for English language proficiency on the IPT in 2005–2006 with daily instruction from teachers in the mainstream classroom and who completed the IPT during the 2006–2007 school years as well (see Table 4.1). For 2005–2006, 1,314 of the students (71.8%) had an initial IPT Language Proficiency Level B, and 516 students had an initial IPT Language Proficiency Level C.

*Table 4.1. Teacher Endorsement*

Students had teachers who held ESL Endorsement	Value Label	N
0	No	671
1	Yes	1167

Total mean change in IPT scores for the sample elementary English language learners from 2005–2006 to 2006–2007 school years was .45 (SD = 65.52). Changes in IPT scores for English language learners instructed by teachers without ESL endorsement represented a mean change in IPT scores of .49 (SD=66.60). Changes in IPT scores for English language learners instructed by teachers with ESL endorsement represented a mean change in IPT scores of .44 (SD=64.85).

*Table 4.2. Change in IPT Language Level from 2005–2006 to 2006–2007*

Held ESL Endorsement	Mean	Std. Deviation	N
No	.49	66.600	671
Yes	.44	64.846	1167
Total	.45	65.524	1838

The initial scores derived from the sub-scores of the IPT—oral, reading, and writing portions for 2005–2006 and the students’ subsequent 2006–2007 sub scores in oral, reading and writing portions are outlined in Tables 4.3 through Table 4.9. These scores represent the collective scores for the sample student population, including students taught by teachers with and without ESL endorsement.

Student Oral Language level scores demonstrate movement from one subtest, oral language level, to the next. The IPT results indicate the ELL students progressed in oral language from 76.4% fluent English speakers in 2005–2006 to 88.9% fluent English speakers in 2006–2007. The results from the reading subtest of the IPT found the ELL students progressed from 26.1% competent English readers to 37.4% Competent English Readers during this one-year period. Results from the writing subtest found that the ELL students moved from 8.1% Competent English Writers to 30.2% Competent English Writers during this one-year period.

*Table 4.3. IPT Oral Scores for 2005–2006*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Speaker	4	.2	.2	.2
Limited English Speaker	405	22.1	23.4	23.6
Fluent English speaker	1321	72.2	76.4	100.0
Total	1730	94.5	100.0	
Missing System	100	5.5		
Total	1830	100.0		

*Table 4.4. IPT Oral Scores for 2006–2007*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Speaker	6	.3	.3	.3
Limited English Speaker	193	10.5	10.8	11.1
Fluent English Speaker	1590	86.9	88.9	100.0
Total	1789	97.8	100.0	
Missing System	41	2.2		
Total	1830	100.0		

*Table 4.5. IPT Reading Scores for 2005–2006*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Reader	426	23.3	24.6	24.6
Limited English Reader	852	46.6	49.2	73.9
Competent English Reader	452	24.7	26.1	100.0
Total	1730	94.5	100.0	
Missing System	100	5.5		
Total	1830	100.0		

*Table 4.6. IPT Reading Scores for 2006–2007*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Reader	308	16.8	17.2	17.2
Limited English Reader	812	44.4	45.4	62.6
Competent English Reader	669	36.6	37.4	100.0
Total	1789	97.8	100.0	
Missing System	41	2.2		
Total	1830	100.0		

*Table 4.7. IPT Writing Scores for 2005–2006*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Writer	336	18.4	19.4	19.4
Limited English Writer	1254	68.5	72.5	91.9
Competent English Writer	140	7.7	8.1	100.0
Total	1730	94.5	100.0	
Missing System	100	5.5		
Total	1830	100.0		

*Table 4.8. IPT Writing Scores for 2006–2007*

	Frequency	Percent	Valid Percent	Cumulative Percent
Non English Writer	51	2.8	2.9	2.9
Limited English Writer	1197	65.4	66.9	69.8
Competent English Writer	541	29.6	30.2	100.0
Total	1789	97.8	100.0	
Missing System	41	2.2		
Total	1830	100.0		

Tables 4.9–4.11 illustrate the percentage of change on the IPT oral, reading, and writing language levels from the sample student population. Over 85% of the ELL students in the sample made no change on the IPT oral language subtest, and over 13% showed a gain of one oral language level. Almost 20% of the ELL sample students made a gain of one level on the IPT reading subtest, and 2% made a gain of two levels. On the writing subtest, 13.4% of the students made a gain of one language level.

*Table 4.9. IPT Oral Language Level change 2005–2006 to 2006–2007*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1	14	.8	.8	.8
	0	1484	81.1	85.8	86.6
	1	231	12.6	13.4	99.9
	2	1	.1	.1	100.0
	Total	1730	94.5	100.0	
	Missing System	100	5.5		
	Total	1830	100.0		

*Table 4.10. IPT Reading Language Level change 2005–2006 to 2006–2007*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1	73	4.0	4.2	4.2
	0	1283	70.1	74.2	78.4
	1	340	18.6	19.7	98.0
	2	34	1.9	2.0	100.0
	Total	1730	94.5	100.0	
	Missing System	100	5.5		
	Total	1830	100.0		

*Table 4.11. IPT Writing Language Level change 2005–2006 to 2006–2007*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	-1	14	.8	.8	.8
	0	1484	81.1	85.8	86.6
	1	231	12.6	13.4	99.9
	2	1	.1	.1	100.0
	Total	1730	94.5	100.0	
Missing System		100	5.5		
Total		1830	100.0		

#### *Analysis of ESL Endorsement Effects on Changes in Language Levels*

##### *ESL Endorsement Effects on Composite Language Level*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in language levels from 2005–2006 to 2006–2007 on the IPT between students taught by teachers with ESL endorsement and those taught by teachers without ESL endorsement (see Table 4.12). The independent variable is teacher ESL endorsement. Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The dependent variable is the students' mean change in language level on the IPT. The score changes are calculated by the change in language level on each of the IPT subtests. An advance of one language level = 1, no change in language level = 0 and regression one level = -1.

The mean change in IPT language level from 2005–2006 to 2006–2007 for students (N= 671) taught by teachers without ESL endorsement is M=.49 (SD=66.60). The mean change in IPT language level from 2005–2006 to 2006–2007 for students (N= 1167) taught by teachers with ESL endorsement is M=.44 (SD = 64.85). Levene's test of

equality of error variances indicates that  $F = .139$ ,  $p = .709$ . The assumption of homogeneity of variance is evident. The error variance of the dependent variable is equal across groups. Gender status, socioeconomic status, and minority status are all significant covariates, with socioeconomic status yielding the largest effect size (partial  $\eta^2 = .015$ ). ESL endorsement is not significant [ $F(6, 1831) = 2.33$ ,  $p = .127$ ,  $\eta^2 = .001$ ]. After adjustment for the covariates, the effect of teacher ESL endorsement was not significant (see Table 4.12). In other words, the teacher endorsement did not account for a significant amount of variance in the dependent measure—change in IPT language level. The students who had been instructed by teachers with ESL endorsement had not made greater language level gains on the IPT than those students instructed by teachers without ESL endorsement. The estimated marginal mean language level IPT score change for students taught by teachers without ESL endorsement is  $M = .487$  ( $SE = .026$ ), and the estimated marginal mean Language Level IPT Score Change for students taught by teachers with ESL endorsement is  $M = .437$  ( $SE = .019$ ) (see Table 4.13). Overall, the model explained 2.7% of the variance in language level change in IPT scores from 2005–2006 to 2006–2007.

*Table 4.12. Tests of Between-Subjects Effects<sup>a b</sup>*  
*Dependent Variable: Change in Students' IPT Language Level from 2005 to 2006*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	237100.541 <sup>a</sup>	6	39516.757	9.458	.000	.030
Intercept	315898.121	1	315898.121	75.611	.000	.040
Gender	32476.940	1	32476.940	7.773	.005	.004
SES	117686.387	1	117686.387	28.169	.000	.015
Minority	38853.799	1	38853.799	9.300	.002	.005
Language Level	134.568	1	134.568	.032	.858	.000
Years Experience	2107.373	1	2107.373	.504	.478	.000
ESL Endorsement	9727.288	1	9727.288	2.328	.127	.001
Error	7649805.813	1831	4177.939			
Total	11477685.0	1838				
Corrected Total	7886906.353	1837				

a. R Squared = .030 (Adjusted R Squared = .027)

b. Weighted Least Squares Regression— Weighted by Teacher ID

Estimating for marginal means, Table 4.13 illustrates the mean change in language level.

*Table 4.13. Dependent Variable: Change in Language Level*

Teacher held ESL endorsement in 2005–2006	Mean	Std. Error
No	.487 <sup>ab</sup>	.026
Yes	.437 <sup>ab</sup>	.019

- a. Covariates appearing in the model are evaluated at the following values: Gender = 1.50, Economic Status (SES) 2005–2006 = .97, Racial/Ethnic Minority 2005–2006 = .97, English Language Level 2005–06 = 2.22, total Years of Teaching service = 13.88.
- b. Weighted Least Squares Regression— weighted by teacher ID 2005–2006.

#### *Subtest Components of Language Level Change*

In the initial analysis for the first research question, IPT composite language level changes from 2005–2006 to 2006–2007 were used. For this one-year period, the ANCOVA analysis demonstrated no significant difference between students' language level changes when taught by a teacher without ESL endorsement versus a teacher with such endorsement. To explore whether subtest scores from the IPT in oral language, reading, or writing would provide more insight into score changes, further investigation of the subtest scores of the IPT was done. Results from the analysis of the three subtests are presented in the following sections.

#### *Change in Oral Language Level*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in oral language levels from 2005–2006 to 2006–2007 on the IPT between students taught by teachers with ESL endorsement and those taught by teachers without

ESL endorsement (see Table 4.14). The independent variable was teacher ESL endorsement. Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The dependent variable was the students' mean change in oral language level on the IPT. The covariates were student gender, socioeconomic status, minority, language level, and teacher's years of experience. Change in language level was calculated from the movement between language levels of NES, LES, and FES; an advance of one language level = 1, no change in language level = 0, and regression one level = -1.

The mean change in oral language level from 2005–2006 to 2006–2007 for students (N= 635) taught by teachers without ESL endorsement is  $M=.16$  ( $SD=37.21$ ). The mean change in IPT oral language level from 2005–2006 to 2006–2007 for students (N=1107) taught by teachers with ESL endorsement is  $M=.19$  ( $SD = 39.02$ ). Levene's test of equality of error variances indicates that  $F = 7.757$ ,  $p = .005$  (see Table 4.15). The assumption of homogeneity is not violated. IPT Language Level 2005–2006 ( $\eta^2 = .049$ ) and years of teaching experience ( $\eta^2 = .003$ ) are the only significant covariates. The covariates of gender, socioeconomic status and minority status are not significant. ESL endorsement is not significant [ $F(6, 1735) = 2.142$ ,  $p = .144$   $\eta^2 = .001$ .] After adjustment by the covariates, the effect of teacher ESL endorsement was not significant. The teacher endorsement did not account for a significant amount of variance in the dependent measure—change in IPT oral language level. In other words, the students who had been instructed by teachers with ESL endorsement had not made greater oral language level gains on the IPT than those students instructed by teachers without ESL endorsement. The estimated marginal mean oral language level IPT score change for

students taught by teachers without ESL endorsement is  $M = .160$  ( $SE = .016$ ), and the estimated marginal mean oral language level IPT score change for students taught by teachers with ESL endorsement is  $M = .188$  ( $SE = .011$ ) (see Table 4.16). Overall, the model explained 5.2% of the variance in oral language level change in IPT scores from 2005–2006 to 2006–2007.

*Table 4.14. Levene's Test of Equity of Error Variances<sup>a b</sup>*  
*Dependent Variable: IPT Oral Level Change 2005–2006 to 2006–2007*

F	df1	df2	Sig.
7.757	1	1740	.005

a. Design: Intercept+GENDER+SES\_group.9+minority.

9+ALS\_Level.2005\_06+Total Years +endores\_9

b. Weighted Least Squares Regression—Weighted by Teacher ID

*Table 4.15. Tests of Between-Subjects Effects*  
*Dependent Variable: IPT Oral Level Change 2005–2006 to 2006–2007*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	141886.706	6	23647.784	16.932	.000	.055
Intercept	71336.244	1	71336.244	51.078	.000	.029
Gender	4117.083	1	4117.083	2.948	.086	.002
SES	151.055	1	151.055	.108	.742	.000
Minority	2648.520	1	2648.520	1.896	.169	.001
Language Level	125678.416	1	125678.416	89.987	.000	.049
Years Experience	7083.948	1	7083.948	5.072	.024	.003
ESL Endorsement	2991.046	1	2991.046	2.142	.144	.001
Error	2423144.652	1735	1396.625			
Total	3088704.000	1742				
Corrected Total	2565031.358					

a. R Squared = .055 (Adjusted R Squared = .052)

b. Weighted Least Squares Regression—Weighted by Teacher ID

*Table 4.16. Dependent Variable: Change in Oral Language Level*

Teacher held ESL endorsement in 2005–2006	Mean	Std. Error
No	.160 <sup>a</sup>	.016
Yes	.188 <sup>a</sup>	.011

a. Covariates appearing in the model are evaluated at the following values: Gender = 1.50, SES 2005–06 = .97, Racial/Ethnic Minority 2005–06 = .97, English Language Level 2005–06 = 2.23, total Years of Teacher Service = 13.73.

b. Weighted least Squares Regression—Weight by Teacher ID 2005–2006

#### *Change in IPT Reading Level*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in reading levels from 2005–2006 to 2006–2007 on the IPT between

students taught by teachers with ESL endorsement and those taught by teachers without ESL endorsement (see Table 4.18). The independent variable was teacher ESL endorsement. Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The dependent variable was the students' mean change in reading level on the IPT. The covariates included student gender, socioeconomic status, minority status, language level, and teacher's years of experience. Change in reading language level between NER, LER, and CER were calculated from the movement between language levels; an advance of one language level = 1, no change in language level = 0, and regression one level = -1.

The mean change in reading level from 2005–2006 to 2006–2007 for students (N= 475) taught by teachers without ESL endorsement was  $M=.23$  ( $SD=51.36$ ). The mean change in IPT reading level from 2005–2006 to 2006–2007 for students (N= 852) taught by teachers with ESL endorsement was  $M=.20$  ( $SD = 53.83$ ). Levene's test of equality of error variances indicates that  $F = .392$ ,  $p = .531$  (see Table 4.17). The error variance of the dependent variable was equal across groups. IPT language level was the only significant covariate, yielding an effect size of partial  $\eta^2 = .044$ . The covariates of gender, socioeconomic status, minority status and years of teaching experience were not significant. ESL endorsement was not significant [ $F(6, 1320) = 1.518$ ,  $p = .218$ ,  $\eta^2 = .001$ .] After adjustment by the covariates, the effect of teacher ESL endorsement was not significant. The teacher endorsement did not account for a significant amount of variance in the dependent measure—change in IPT reading level. Specifically, the students who had been instructed by teachers with ESL endorsement had not made greater reading level gains on the IPT than those students instructed by teachers without

ESL endorsement. The estimated marginal mean reading level IPT score change for students taught by teachers without ESL endorsement was  $M = .233$  ( $SE = .025$ ), and the estimated marginal mean reading level IPT score change for students taught by teachers with ESL endorsement was  $M = .195$  ( $SE = .018$ ) (see Table 4.18). Overall, the model explained 4.4% of the variance in reading level change in IPT scores from 2005–2006 to 2006–2007.

*Table 4.17. Levene's Test of Equity of Error Variances<sup>a b</sup>*  
*Dependent Variable: IPT Reading Level Change 2005–2006 to 2006–2007*

F	df1	df2	Sig.
.392	1	1325	.531

a. Design: Intercept+GENDER+SES\_group.9+minority.

9+ALS\_Level.2005\_06+Total Years +endores\_9

b. Weighted Least Squares Regression—Weighted by Teacher ID

*Table 4.18. Tests of Between-Subjects Effects*  
*Dependent Variable: IPT Reading Level Change 2005–2006 to 2006–2007*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	179969.49 <sup>a</sup>	6	29994.916	11.189	.000	.048
Intercept	106332.350	1	106332.350	39.664	.000	.029
Gender	461.293	1	461.293	.172	.678	.000
SES	1383.031	1	1383.031	.516	.473	.000
Minority	6184.980	1	6184.980	2.307	.129	.002
Language Level	164503.939	1	164503.939	61.363	.000	.044
Years Experience	4513.059	1	4513.059	1.683	.195	.001
ESL Endorsement	4070.815	1	4070.815	1.518	.218	.001
Error	3538688.610	1320	2680.825			
Total	4269923.000	1327				
Corrected Total	37118658.103					

a. R Squared = .048 (Adjusted R Squared = .044)

b. Weighted Least Squares Regression—Weighted by Teacher ID

#### *IPT Writing Level Change*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in writing levels from 2005–2006 to 2006–2007 on the IPT means between students taught by teachers with ESL endorsement and those taught by teachers without ESL endorsement (see Table 4.20). Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The independent variable was teacher ESL endorsement. The dependent variable was the students' mean change in writing level on the IPT. The independent variable was teacher ESL endorsement. The covariates included student gender, socio-economic status, minority status, language level, and teacher's years of experience. Change in writing level between NEW, LEW, and CEW were calculated from the movement between language levels; an

advance of one writing language level = 1, no change in writing language level = 0, and regression one writing level = -1.

The mean change in writing level from 2005–2006 to 2006–2007 for students (N=475) taught by teachers without ESL endorsement was  $M=.44$  ( $SD=52.40$ ). The mean Change in IPT writing level from 2005–2006 to 2006–2007 for students (N=852) taught by teachers with ESL endorsement was  $M=.44$  ( $SD = 54.08$ ). Levene's test of equality of error variances indicated that  $F = 4.660$ ,  $p = .031$  (see Table. 4.19). The error variance of the dependent variable was equal across groups. Socioeconomic status ( $\eta^2 = .008$ ) and language level ( $\eta^2 = .006$ ) were the only significant covariates. The covariates of gender, minority status and years of experience are not significant. ESL endorsement is not significant [ $F(6, 1320) = .000$ ,  $p = .993$ ,  $\eta^2 = .000$ .] After adjustment by the covariates, the effect of teacher ESL endorsement was not significant. The teacher endorsement did not account for a significant amount of variance in the dependent measure- change in IPT writing level. In other words, the students who had been instructed by teachers with ESL endorsement had not made greater writing level gains on the IPT than those students instructed by teachers without ESL endorsement. The estimated marginal mean writing level IPT score change for students taught by teachers without ESL endorsement was  $M = .438$  ( $SE = .026$ ), and the estimated marginal mean writing level IPT score change for students taught by teachers with ESL endorsement was  $M = .439$  ( $SE = .018$ ) (see Table 4.21). Overall, the model explained 1.2% of the variance in writing level change in IPT scores from 2005–2006 to 2006–2007.

*Table 4.19. Levene's Test of Equity of Error Variances<sup>a b</sup>*  
*Dependent Variable: IPT Writing Level Change 2005–2006 to 2006–2007*

F	df1	df2	Sig.
4.660	1	1325	.031

a. Design: Intercept+GENDER+SES\_roup.9+minority.

9+ALS\_Level.2005\_06+Total Years +endores\_9

b. Weighted Least Squares Regression—Weighted by Teacher ID

*Table 4.20. Tests of Between-Subjects Effects*  
*Dependent Variable: IPT Writing Level Change 2005–2006 to 2006–2007*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	62530.235 <sup>a</sup>	6	10421.706	3.690	.001	.016
Intercept	112637.635	1	112637.635	39.880	.000	.029
Gender	1.970	1	1.970	.001	.979	.000
SES	28941.310	1	28941.310	10.247	.001	.008
Minority	870.625	1	870.625	.308	.579	.000
Language Level	22891.818	1	22891.818	8.105	.004	.006
Years Experience	8812.133	1	8812.133	3.120	.078	.002
ESL Endorsement	.239	1	.239	.000	.993	.000
Error	3728230.106	1320	2824.417			
Total	6250122.000	1327				
Corrected Total	3790760.341	1326				

a. R Squared = .016 (Adjusted R Squared = .012)

b. Weighted Least Squares Regression—Weighted by Teacher ID

*Table 4.21. Dependent Variable: Change in Writing Level*

Teacher held ESL endorsement in 2005–2006	Mean	Std. Error
No	.438 <sup>a</sup>	.026
Yes	.439 <sup>a</sup>	.018

a. Covariates appearing in the model are evaluated at the following values: Gender = 1.51, SES 2005-06 = .98, Racial/Ethnic Minority 2005-06 = .97, English Language Level 2005-06 = 2.30, total Years of Teacher Service = 13.67.

b. Weighted least Squares Regression—Weight by Teacher ID 2005-06

## **Question 2: Teacher ESL Endorsement Effect on Student Achievement**

*Are there differences in achievement levels gains in Language Arts and*

*Mathematics on the state Criterion Referenced Tests (CRT) between elementary ELL*

*students taught by mainstream teachers with ESL endorsements compared to students*

*taught by teachers without such endorsements?*

One of the fundamental issues in the educational progress of the English language learners is the instructional balance between language acquisition and content proficiency. This second research question addressed the impact of teacher ESL endorsement on ELLs content proficiency as measured through student achievement gains in both Language Arts and Mathematics as required by NCLB. Annual assessments through state administered CRTs permit evaluation of students' academic achievement over time.

Scoring for the CRTs is on a four-level scale. Level 4 and Level 3 are considered to be Proficient. Students whose performance on the CRTs is at Level 3 or Level 4 are considered to be Proficient in the subject assessed. Students whose performance on the

CRTs is at Level 1 and Level 2 proficiency are considered to be Not Proficient. Both Level 2 and Level 1 are subdivided into two levels, a and b, recognizing the challenge when moving from lower levels of proficiency.

A Neutral Value Table developed by the Utah State Office of Education was used for comparisons between student groups (see Table 4.22). The Neutral Value Table was developed using state average scores over time to provide schools an equal opportunity to examine school progress using overall student achievement as a measure of comparison. A school's progress rating is determined by a two-year longitudinal measure defined as low, medium, or high by comparing achievement levels of the same student from one year to the next year on CRT assessments. The school's progress is determined as average points earned: Low (0–190), Medium (190–214), or High (215+).

Use of the Neutral Value Table recognizes that it is more difficult to move student achievement from the lowest levels of proficiency than student achievement beginning at high levels of proficiency. The table is neutral in the sense that it assigns equal value to the progress of students from one level to the next level based on historical data at the state level. Schools with high proficiency levels will have fewer gains to be made, as compared to schools beginning with lower proficiency levels where greater gains can be made. Student points are awarded based on the change in CRT proficiency level from year to year.

This study used the Neutral Value Table to calculate gains achieved by the ELL students in Language Arts and Mathematics. For example, a student whose first year Language Arts CRT was Level 1b and then achieved Level 2b the following year received 350 points. Students who regressed received 0 points.

*Table 4.22. State CRT Neutral Value Table*

Year 1 LEVEL	Year 2 LEVEL					
	1a	1b	2a	2b	3	4
1a	0	225	350	375	375	375
1b	0	125	225	350	375	375
2a	0	50	150	225	325	350
2b	0	0	75	175	275	325
3	0	0	0	100	200	275
4	0	0	0	0	125	125

Students were included in the study based on their language level as determined by their IPT proficiency level. Students who had been identified through the IPT as language Levels B and C were included. Those students had also had taken the state's Criterion Reference Tests (CRT) in Language Arts and Mathematics for the 2005–2006 and 2006–2007 school years.

The teacher sample for the second research question in this study consisted of elementary teachers who taught grades two through six and instructed ELL students identified through the district Alternative Language Services (ALS) plan as Level B and Level C English proficient. The sample teachers were homeroom teachers who taught both Language Arts and Mathematics in a mainstream homeroom classroom grades two through six during the 2005–2006 and 2006–2007 school years. For statistical analysis of this question, teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The majority of the teachers held ESL endorsement compared to teachers who did not hold ESL endorsement. Because distribution of ELL students in classrooms throughout the school district and grade levels varied, teachers were weighted by Cactus ID, a unique teacher identification number. An

acronym, C.A.C.T.U.S. (Comprehensive Administration of Credentials for Teachers in Utah Schools) is a database housed at the Utah State Office of Education containing Utah teacher credential information. The use of the weighted ID accounts for the number of individual ELL students within the teachers' classrooms. Weighting the teachers by ID eliminates the effect of unbalanced distribution of students in classrooms throughout the district.

#### *Change in Language Arts CRT Scores*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in Language Arts scores from 2005–2006 to 2006–2007 on the CRT between students taught by teachers with ESL endorsement and those taught by teachers without ESL endorsement (see Table 4.24). Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The independent variable was teacher ESL endorsement. The dependent variable was the students' mean change in Language Arts scores on the CRT using the assigned Neutral Value Table points. The covariates included student gender, socio-economic status, minority status, language level, and teacher's years of experience. Change in Language Arts levels were calculated from points assigned from the Neutral Value Table.

The mean change in Language Arts from 2005–2006 to 2006–2007 for students (N= 442) taught by teachers without ESL endorsement was  $M=185.16$  ( $SD=45546.49$ ). The mean Change in Language Arts level from 2005–2006 to 2006–2007 for students (N=1142) taught by teachers with ESL endorsement was  $M=192.74$  ( $SD = 41.95.72$ ). Levene's test of equality of error variances indicated that  $F = 5.089$ ,  $p = .024$  (see Table. 4.23). The error variance of the dependent variable was equal across groups. Teacher

years of teaching experience ( $\eta^2 = .006$ ) was the only significant covariate. The covariates of gender, socioeconomic status, minority status and language level are not significant. ESL endorsement is not significant [ $F(6, 1584) = 1.640, p = .201, \eta^2 = .001$ .] After adjustment by the covariates, the effect of teacher ESL endorsement was not significant. The teacher endorsement did not account for a significant amount of variance in the dependent measure—change in Language Arts proficiency level. In other words, the students who had been instructed by teachers with ESL endorsement had not made greater Language Arts proficiency level gains on the CRT than those students instructed by teachers without ESL endorsement. Overall, the model explained .8% of the variance in Language Arts proficiency level changes in CRT scores from 2005–2006 to 2006–2007.

*Table 4.23. Leven's Test of Equality of Error Variances<sup>a b</sup>*  
*Dependent Variable: Language Arts Neutral Value Table Points 2006 to 2007*

F	df1	df2	Sig.
5.089	1	1582	.024

a. Design: Intercept+GENDER+SES\_group10+minority  
10+ALS\_Level.2006\_07+totalYears\_endores\_10

b. Weighted Least Squares Regression—Weighted by Cactus ID 2006–2007

*Table 4.24. Tests of Between-Subjects Effects<sup>a b</sup>*  
*Dependent Variable: Language Arts Neutral Value Table Points 2006 to 2007*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	3.418E=010 <sup>a</sup>	6	5696854705	3.196	.004	.012
Intercept	9.320E=010	1	9.320E=010	52.289	.000	.032
Gender	190339997	1	190339997	.107	.744	.000
SES	3937900499	1	3937900499	2.209	.137	.001
Minority	1418258700	1	1418258700	.796	.373	.001
Language Level	9076949351	1	9076949351	5.092	.024	.003
Years Experience	1.648E+010	1	1.648E+010	9.245	.002	.006
ESL Endorsement	2922373880	1	2922373880	1.640	.201	.001
Error	2.811E+012	1577	1782438490			
Total	1.200E+013	1584				
Corrected Total	2.845E+012	1583				

a. R Squared = .012 (Adjusted R Squared = .008)

b. Weighted Least Squares Regression—Weighted by Cactus ID 2006–2007

#### *Change in Mathematics CRT Scores*

A one-way analysis of covariance (ANCOVA) was conducted to compare the mean change in Mathematics scores from 2005–2006 to 2006–2007 on the CRT between students taught by teachers with ESL endorsement and those taught by teachers without ESL endorsement (see Table 4.26). Teachers were identified as not having an ESL endorsement (coded = 0) or having an ESL endorsement (coded = 1). The independent variable was teacher ESL endorsement. The dependent variable was the students' mean change in Mathematics scores on the CRT using the assigned Neutral Value Table points. The independent variable was teacher ESL endorsement. The covariates included student gender, socio-economic status, minority status, language level, and teacher's years of

experience. Change in Mathematics levels were calculated from points assigned from the Neutral Value Table.

The mean change in Mathematics proficiency levels from 2005–2006 to 2006–2007 for students (N= 443) taught by teachers without ESL endorsement was  $M=168.11$  ( $SD=48402.05$ ). The mean change in Mathematics level from 2005–2006 to 2006–2007 for students (N=1140) taught by teachers with ESL endorsement was  $M= 176.53$  ( $SD = 45315.615$ ). Levene’s test of equality of error variances indicated that  $F = 1.138$ ,  $p = .286$  (see Table. 4.25). The error variance of the dependent variable was equal across groups. Language level ( $\eta^2 = .010$ ) was the only significant covariate. The covariates of gender, socioeconomic status, minority status, and years of teaching experience are not significant. ESL endorsement is not significant [ $F(6, 1576) = 2.565$ ,  $p = .109$ ,  $\eta^2 = .002$ .] After adjustment for the covariates, the effect of teacher ESL endorsement was not significant. The teacher endorsement did not account for a significant amount of variance in the dependent measure—change in Mathematics proficiency levels. In other words, the students who had been instructed by teachers with ESL endorsement had not made greater Mathematics proficiency level gains on the CRT than those students instructed by teachers without ESL endorsement. Overall, the model explained .9% of the variance in Mathematics proficiency levels changes in CRT scores from 2005–2006 to 2006–2007.

*Table 4.25. Leven's test of Equality of Error Variances<sup>a b</sup>*  
*Dependent Variable: Mathematics Table Points 2006 to 2007*

F	df1	df2	Sig.
1.138	1	1581	.286

a. Design: Intercept+GENDER+SES\_group10+minority

10+ALS\_Level.2006\_07+totalYears\_endores\_10

b. Weighted Least Squares Regression—Weighted by Cactus ID 2006–2007

*Table 4.26. Tests of Between-Subjects Effects<sup>a b</sup>*  
*Dependent Variable: Mathematics Value Table Points Change 2006 to 2007*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	4.201E+010 <sup>a</sup>	6	7001028518	3.307	.003	.012
Intercept	3.835E+010	1	3.835E+010	18.117	.000	.011
Gender	19288687.4	1	19288687.39	.009	.924	.000
SES	1507308429	1	1507308429	.712	.399	.000
Minority	1143057113	1	1143057113	.540	.463	.000
Language Level	3.225E+010	1	3.225E+010	15.235	.000	.010
Years Experience	4027022971	1	4027022971	1.902	.168	.001
ESL Endorsement	5429424303	1	5429424303	2.565	.109	.002
Error	3.336E+012	1576	2117040010			
Total	1.101E+013	1583				
Corrected Total	3.378E+012	15802				

a. R Squared = .012 (Adjusted R Squared = .009)

b. Weighted Least Squares Regression—Weighted by Cactus ID 2006–2007

### **Synopsis of ELL Student Achievement Changes**

This study was conducted to determine the effect of teacher ESL endorsement on the two student dependent variables: ELL students' English language acquisition progress and ELL students' academic achievement gains. Although overall score changes were

noted, indicating collective movement in a positive direction for language levels in speaking, reading, and writing among the elementary ELL students in this study, the results of the ANCOVA indicate that the effect of teacher ESL endorsement did not account for a significant amount of variance in the dependent measures of change in IPT language levels.

The student gender, socioeconomic state, and minority status were all significant covariates. The overall model explained 2.7% of the variance in language level change in IPT scores from 2005–2006 to 2006–2007. Similar results from ANCOVAs on progress on the specific IPT subtests were found. Specifically, no significant differences were found on gains in oral language, reading, or writing between English language learners served by ESL endorsed teachers and those served by teachers without ESL endorsements.

The results of the ANCOVA examining changes in ELL's academic achievement using CRT proficiency level changes calculated with Neutral Value Table points find the ESL teacher endorsement did not account for a significant amount of variance in the dependent measure change in Language Arts proficiency level or Mathematics proficiency level change. Overall, these models explained only .8% of the variance in Language Arts and .9% of the variance in Mathematics proficiency level changes in CRT scores from 2005–2006 to 2006–2007.

## **CHAPTER FIVE: SUMMARY, DISCUSSION, AND RECOMMENDATIONS**

This chapter consists of five sections. The first section reviews the purpose of the study and provides a summary of the findings of the study in response to the two research questions. A discussion of the effect of teacher ESL endorsement on the two student dependent variables, ELL students' English language acquisition progress, and ELL students' academic achievement gains, is presented. Section two raises discussion on potential limitations of the study. The third section proposes potential topics for future research. Section four discusses recommendations for policy and practice relating to the education of English language learners. The final section provides concluding remarks.

### **Purpose of the Study**

This study addressed questions concerning the value of academically-based teacher education and the extent to which such professional preparation produces quality student learning. It was the intent of this study to add to the literature on specific teacher characteristics, in particular, English as a Second Language (ESL) teacher endorsement. The study examined student outcomes from two groups of students—Level B and Level C English language learners taught by mainstream classroom teachers with ESL endorsement and Level B and Level C English language learners taught by mainstream classroom teachers without such endorsement.

The question of how to best educate English language learners continues to be a highly debatable topic in the fields of education, linguistics, and politics. While the increasing number of English language learners already presents an urgent challenge to the K–12 public schools across the United States, trends suggest that the number of ELLs in public schools across the United States will continue to increase (Fry, 2007). The

changing demographics necessitate State Education Agencies (SEAs) and Local Education Agencies (LEAs) select appropriate ways to best assist English language learners progress at acceptable rates in English language development and academic achievement.

With the increase in the number of English language learners in U.S. schools, there have been concurrent demands—academic accountability and political actions, leveled on schools from local, state, and federal levels. Amid these changes and demands remain the instructional needs of the increasing numbers of English language learners and the teachers at all levels who address their needs every day in mainstream classrooms across the United States. No Child Left Behind (2002) mandates each classroom to have a highly qualified teacher, yet there is no mention in the law about the qualifications necessary to teach ELL students in the mainstream classroom. For political and economic reasons, much of the ELL student population across the United States now receives instruction for both English language acquisition and academic content instruction within the mainstream classroom, taught by the regular classroom teacher. Inclusion of ELL students in the mainstream classroom has become the most widespread and economically preferred model for instructing English language learners (Capps et al., 2005; Genesse, 1999; Kindler, 2002). In an effort to more fully engage these students in learning in the mainstream education classes and ensure that the quality of education within the mainstream classes meets the language development and content accessibility needs of the students, mainstream teachers are being asked to become better prepared to address the unique needs of the ELL based on the premise that teacher certification matters. Multiple states and local education agencies (LEAs), including the district studied in this

research project, have required additional qualifications for initial and continued employment to address the needs of ELLs. Such additional qualifications can take various forms, including additional certification, additional hours of professional development, or an additional endorsement, such as English as a Second Language (ESL), as required in the district studied.

A significant body of research evidence points to the influence of teacher quality on student achievement (Darling Hammond, 2000a, 2000b; Rivken, Hanushek, & Kain 2005; Sanders & Rivers, 2002; Sanders & Horn, 1998); however, understanding and identifying the specific variables of quality teaching that make a difference in ELL progress has proven to be elusive. A deeper understanding of those teacher variables would better inform educators and policy makers about the most effective ways to increase the capacity of teachers and their schools in the instruction of ELLs in both English language acquisition and academic achievement. Literacy in a second language is not only dependent on the quality of instruction, but is also a function of how learning is monitored, with instruction modified to meet the special language needs of the learner and their strengths.

Qualifications gained through added teacher preparation and ESL endorsement have been deemed sufficient through state educational standards boards to impart the skills needed to meet the educational needs of the ELL students. Given that ESL endorsement is required by some states and school districts for teachers in the mainstream classroom or core content areas, it is critical to determine whether the addition of the ESL endorsement requirements affect student achievement in a positive way.

All mainstream elementary and core content teachers hired in the district studied after July 1, 2006, are required to have an ESL endorsement within three years of their date of hire. Many teachers hired prior to 2006 were not required to earn an ESL endorsement, but chose to obtain the ESL endorsement or other professional development for instruction of ELL with district fiscal support.

Most colleges and universities that offer ESL endorsement require an average of 18 credit hours to earn the endorsement. Other types of preparation that address the instructional needs of the ELL include clock hours of professional development, such as that required in the state of Florida. The financial cost for such additional preparation, certification, or endorsement varies for the individual teacher, with costs ranging from no cost with district support, to over \$10,000 for private college post-graduate credit hours. The financial cost, time, and effort assumed by individuals or districts for ESL endorsement are large, but the cost of an uneducated populace is indeed greater.

### **Summary of Findings**

An examination of the impact of additional teacher training, specifically in preparation for instruction of English language learners in the mainstream classroom, helps to establish a background of knowledge on which to build both program design and policy, relative to services for English language learners. This study examines the impact of the added teacher preparation, such as the English as a Second Language (ESL) endorsement required by the school district in this study, through student outcomes of gains in English language acquisition and gains in academic proficiency.

The study addresses two research questions:

1. Are there differences in the English language acquisition gains between ELL students taught in mainstream elementary classrooms by teachers with ESL endorsement compared to ELL students taught by mainstream teachers without such endorsements?
2. Are there differences in achievement levels gains in Language Arts and mathematics on the state CRTs between elementary ELL students taught by mainstream teachers with ESL endorsements compared to students taught by teachers without such endorsements? 0.

The purpose of this study is consistent with the goals of the No Child Left Behind (2002) legislation, in that it focuses on teacher quality and building research on the programmatic capacity to prepare educators who can teach every child effectively. Both research questions address whether the ESL endorsement, as a characteristic of mainstream classroom teachers in this school district, affects ELL elementary students outcomes compared to the outcomes of ELL students taught by teachers without ESL endorsement. For the purposes of this study, English language acquisition gains have been determined by the change in language level on the IDEA Proficiency Test (IPT), including the individual sub-score changes on oral, reading, and writing tests for students identified as Level B and Level C English language learners in the baseline year. Sample students in this study were identified as ELLs through the district's Alternative Language Services division identification process. The sample students had initial language proficiency levels of B and C, as measured by the IDEA Proficiency Test (IPT). Students who were non-fluent English speakers and student who scored at the English Proficient

level were excluded from the sample. Students who received special education services identified through an IEP were also excluded from the sample.

In an effort to control for other confounding variables in elementary ELL student achievement, the use of an ANCOVA was employed. Student covariates controlled for through included: gender, socioeconomic status, minority status, and language level. The teacher covariate controlled for in the ANCOVA analysis was total years of experience. The independent variable was teacher ESL endorsement status. Teachers were weighted through their district teacher identification number to account for varying distributions of ELL students in mainstream classrooms throughout the school district.

### *Results of English Language Acquisition*

Findings from this study examining the language acquisition changes for ESL students indicate that there are no significant differences in student outcomes in English language acquisition gains between students taught by teachers with ESL endorsement and students taught by teachers without ESL endorsement for Level B and Level C English language learners during a one-year period, controlling for the variables of gender, socioeconomic status, minority status, language levels, and the teacher's total years of experience. The overall model explained only 2.7% of the variance in language level change in IPT scores from 2005–2006 to 2006–2007. The impact of the student covariates—gender (partial  $\eta^2 = .004$ ), socio-economic status (partial  $\eta^2 = .015$ ), and minority status (partial  $\eta^2 = .005$ ) revealed significant effect sizes; however, the ESL endorsement was not significant. Further examination of the ESL endorsement effect on changes in the subtest score on the IPT—oral language, reading and writing—also reflect no statistically significant differences between these groups of students.

### *Results on Gains in Academic Achievement*

Test scores from the state's CRTs comparing results from the 2005–2006 to the 2006–2007 school year were used to determine student gains based on proficiency level attainments. Gains were assigned points from the state's Neutral Value Table (see Table 4.22) to determine progress over time. Findings from this study examining the academic achievement gains in Language Arts for ELL students indicate that there are no significant differences in achievement gains between students taught by teachers with ESL endorsement and students taught by teachers without ESL endorsement for Level B and Level C English language learners during a one-year period controlling for the student variables of gender, socioeconomic status, minority, and language levels as well as teacher's total years of experience. Examination of mathematics achievement gains for ELL students also indicate that there are no significant differences in mathematics gains between students taught by teachers with ESL endorsement and students taught by teachers without ESL endorsement for Level B and Level C English language learners during a one-year period, controlling for the student variables of gender, socioeconomic status, minority status, language levels, and the teacher's total years of experience.

### *Explanation of Results*

The most obvious implications from the findings of this study stem from the lack of a significant difference in student outcomes—English language acquisition or academic achievement gains—between ELL students taught by teachers with the additional ESL endorsement and teachers without the added endorsement. It is important to note that the implications of these findings are not synonymous with a blanket dismissal of the importance of ESL endorsement and the pedagogical, cultural, or linguistic training imparted through the preparation programs attended by these teachers.

However, the outcomes of the study raise multiple questions regarding the impact of ESL endorsement as an indicator of teacher quality for addressing the educational needs of ELL students in the mainstream classroom. These questions and explanations for the results include: the nature of second language acquisition, implementation and fidelity of instruction as a result of the additional endorsement, ESL endorsement preparation programs, and Alternative Language Services policies.

The structure of this study was intended to examine the differences between student growth outcomes of English language learners instructed by teachers with and without ESL endorsement. Outcomes measures of student growth in English language acquisition and academic achievement were chosen to measure differences in instruction because it is the assumption that the source of student growth comes from inside the classroom after accounting for the variance explained by student and teacher background variables. The student growth outcomes were based on current tests required for accountability under NCLB.

To clarify the express connections between the teaching and learning, there must be identifiable relationships between what is taught and the outcomes used to assess learning. Therefore, these two measures of student progress—the IPT and CRT—scores were deemed appropriate. It can be argued these outcome measures—in particular the CRT, which is not a static performance measure, changing with each succeeding grade level and demanding a higher level of academic language—are not refined enough to measure the differences that might be anticipated based on language bias.

### *Rate of Language Acquisition*

The study used student test results from a two-year period, the 2005–2006 school year to the 2006–2007 school year. With consideration that second language acquisition may take from two to ten years or more to reach the age and grade-level norms of native English-speaking peers, a two-year period is a brief measure for both the language acquisition process and academic achievement where proficiency in academic language is necessary (Collier, 1987, 1995; Hakuta, Butler & Witt, 2000; Krashen, Scarcella, & Long, 1982). It could also be argued that this two-year span of measurement of student progress does not adequately address the longitudinal qualifications necessary to answer the research questions. Longitudinal studies covering greater periods of time could better acknowledge second language acquisition theory, which speaks to a two to ten year period for development of academic English language proficiency. That being said, the study covered a two-year period examining all three subtests on the IPT and found no differences in rates of progress. It is questionable that the valued added by an ESL endorsement would begin after a two-year period of time.

The student sample for the study included only Level B and Level C language learners, which indicated they were in developmental language stages that included speech emergence, intermediate fluency and developing academic proficiency. Students' progress in second language acquisition over this relatively short period of time may not be adequately demonstrated by the measures of progress used. The second language acquisition process is developmental, and there is considerable variation in how well and how quickly individuals acquire a second language (Collier, 1987; Hakuta, Butler & Witt, 2000; Krashen, Scarcella & Long, 1982). MacSwan and Pray (2005) found that school-age students require more time to reach a level commensurate with their native

English speaking peers with each success grade level. Certainly, long-term studies could potentially reveal a different effect.

Variability in the rate of English language acquisition may be influenced by factors other than instruction. This study did address issues of the variability of language levels. Early second language learners, or those with limited social English, and students who have been identified for special education services through an IEP were not part of the study. In addition, ELL students whose mastery of English was at or near proficiency as determined by the IPT as Level D students and former LEP students were not included in the study.

#### *Teacher Preparation*

The findings suggest that the impact of an ESL teacher endorsement on elementary ELL students in the mainstream classroom is no more effective than instruction by teachers without an ESL endorsement. The outcomes of this study are congruent with the research of Goldhaber and Anthony (2006), who studied National Board for Professional Teaching Standards (NBPTS) participants and failed to find evidence that the NBPTS certification process itself does anything to increase teacher effectiveness. From that study, Goldhaber and Anthony caution that further investigation is needed before continuing investment of funds further into NBPTS certification without stronger and defined evidence of benefits for students.

Questions concerning teacher effects extend backwards into investigations of the type of individual characteristics and type of preparation that produces effective teachers. This perception begs the question: what is an effective teacher? A recent report on the state of the research base for teacher education points to the historical neglect in the

teacher education research linking teacher preparation with teaching practice and pupils' learning (Cochran-Smith & Zeichner, 2005). With regard to ELL students, this area of teacher preparation is ripe for further study. A growing body of evidence supports the idea that indicates teachers have differential effects on pupil achievement (Clotfelter, Ladd & Vigdor, 2007; Sanders & Horn, 1998; Rivken, Hanushek, & Kain 2005). Such is the basis for requiring an ESL endorsement for those teachers who will affect ELL students most directly. Ultimately, however, why the justification for the requirement of an ESL endorsement makes sense, both in terms of public or private expenditures of time and effort, may depend on more nuanced findings. A closer examination of the ESL endorsement effects might suggest specific benefits which differ by language level, grade level, age or home language.

#### *Structure and Pedagogy of ESL Endorsement*

The teacher preparation programs designed for ESL endorsement may be based on a framework that has been originally developed in light of “pull-out” ESL instruction. The content and framework of teacher preparation programs and professional development designed for “pull-out” ESL instruction may not meet the needs of the mainstream classroom teacher who instructs English language learners as well as their native English speaking peers in the same classroom for both language development and content area instruction. ESL teacher preparation standards as currently designed and implemented may be inadequate for the purpose of improving ESL student achievement within the mainstream classroom. Tedick and Walker (1994) found training for ESL undervalues the links between native language and second language and native cultures. They found ESL training was too fragmented, presenting a dichotomy to language

instruction where instruction in foreign language is highly valued and instruction in English as a second language instruction was poorly valued. In addition, in ESL training, English second language acquisition was relegated to instruction in Language Arts and not content embedded in subjects such as math and science. ESL is often “teaching about language rather than teaching with language” (Tedick & Walker, 1994, p. 5).

### *Implementation of ESL Instruction*

Specialized training, including best practices, pedagogy, instructional programming, and intervention methods gained through an ESL endorsement as it is currently structured, may be beyond the scope of application for the mainstream teacher. The current level of preparation, although addressing ESL standards, may not address what it takes to change teacher classroom practices from “regular” mainstream education to ESL-directed education.

Judgment plays a key role in effective teaching and learning. Implementation of ESL instructional skills gained through the ESL endorsement was unknown in this study. Fidelity of implementation of an ESL framework for instruction was beyond the scope of this investigation, but may be appropriate for further research. Results indicating no significant difference between teachers with or without ESL endorsement could be attributed to poor implementation or follow-through of ESL tenets among those teachers trained in ESL. It is acknowledged that even with professional development, change is slow and incremental. Effective professional development ensures teachers receive personal regular feedback and continued support and follow-up (Guskey, 1991). The level of individual support to ensure fidelity of good ESL instruction was unknown.

However, as the sample size was large, it is dubious that the majority of teachers failed to implement differentiated ESL instruction.

#### *Positive Collaboration and District Support*

Another plausible explanation for results of this study may include the positive effects of professional camaraderie or professional learning communities within schools. Given the emphasis on shared responsibility for all students, district-wide professional development may also have provided a foundation of shared knowledge from which the educators could work together. In many schools, grade-level teachers plan together and in cooperation with ESL pullout teachers; the influence of ESL endorsed teachers working together with teachers without endorsement to prepare and execute lessons may have affected the instructional quality and sequence of all teachers working with ESL students so that the student outcomes were comparable.

An additional explanation for the study's findings includes measurable levels of concern and district commitment to English language learners. The school district studied has made a committed effort over the past nine years to assure instruction at high levels for all students, including English language learners. The school district has been committed to the adequate preparation for all teachers of ELLs, including mainstream classroom teachers. The district's Alternative Language Services Plan (ALS) calls for all elementary teachers, content area coaches, and specialists to obtain an ESL endorsement prior to the expiration of the third year of their contract. In addition, principals, assistant principals, counselors, and psychologists are also required to participate in Understanding Language Acquisition Training and REACH Training (Respecting Ethnic and Cultural Heritage). These required trainings are part of on-going efforts to help establish a climate

of respect and affirmation, as well as understanding the needs of individual ELL students. Required classes for ESL endorsement are offered at a minimum cost at sites throughout the school district to accommodate the staff. In addition to specific classes required for the ESL endorsement, teachers hired prior to the 2006 school year have been provided professional development opportunities addressing instruction of the English language learner on an on-going basis. In this climate of highly visible commitment to adequate preparation, teachers throughout the school district may possess and implement the training necessary for comparable ELL student outcomes as do the teachers with an ESL endorsement. It could be suggested that the lack of difference in student outcomes from teachers with and without ESL endorsement infer that other forms of teacher preparation are sufficient to obtain the same level of results.

### **Limitations of the Study**

The results of this study were based on a short period of time relative to the length of time it takes to acquire a second language for proficient academic use. Second language acquisition theory recognizes that the development of a second language for academic purposes may take from two to over ten years (Collier, 1987, 1995; Hakuta, Butler, & Witt, 2000; Krashen, Scarcella, & Long, 1982). Therefore, measurement of change in language development within a two-year period may be unrealistic, although such measurement remains an accountability measure under NCLB. This limitation, based on unrealistic expectations for language development, extend beyond the scope and results of this study. The stigma of slow progress in developing academic proficiency and English language proficiency plagues not only the English language learners, but also their teachers and their schools.

Assessing language proficiency is difficult because language proficiency is not a static state, but instead a state of constant fluctuation (Ochoa & González, 1996; Wolf et al., 2008). Language proficiency tests provide only a snapshot of student language. In addition, assessment of ELL academic achievement may also be a biased measurement. The linguistic complexity of academic assessment may impact the performance outcomes and may impact the validity of the accountability measure (Rivera, Vincent, Hafner, & LaCelle-Peterson, 1997; Zehler, Hopstock, Fleischman, & Greniuk, 1994). The impact of language factors within the language assessment and academic assessment may be an outcome of the linguistic complexity of the measurement. Many academic assessments are heavily loaded with language that includes decontextualized vocabulary and cultural biases. Ideally, assessments are undertaken to provide feedback that will provide evidence of what students have accomplished and meaningfully inform instruction. However, it should be confirmed that the instruments used in this study to measure both the language acquisition gains, the IPT, and student achievement progress in Language Arts and mathematics, the CRT, are valuable instruments and found to be both valid and reliable (Vecchio & Guerrero, 1995).

The addition of the ESL endorsement component as a condition of employment has been based on a need for mainstream classroom teachers to have an understanding of ELL student diversity, instructional strategies, and program options unique to the English language learner that will provide quality instruction in the mainstream classroom. However, it was beyond the scope of this study to explore the fidelity of implementation of such specific instructional strategies and knowledge gained during the acquisition of

the ESL endorsement. The study does not link teacher education components directly to student gains.

System level structures may be necessary to identify classroom level implementation and support which positively affects ELL student outcomes. One on-going limitation for this study is that schools are complex. The impact of isolated change in one area is likely to be offset by dysfunction in another area.

### **Implications for Future Research**

A richer understanding of the impact of quality teachers for English language learners' language and academic development is significant in many arenas. Shifting demographics bring populations with unique needs to classrooms across the country and present immediacy to the challenge of quality education for the English language learner. A blanket call for ESL endorsement from a political, civil rights, or educational venue may not be the appropriate answer to this pressing need for action. At this point in time, development of preparation, policy, and instructional decision-making should be based upon the groundwork of what we already know about both teacher quality and second language acquisition. As we move forward, our work should be based on evidence directly linked to empirical results on educational achievement of students.

### *Teacher Preparation for English Language Learners*

In the climate of high accountability and focus on subgroup achievement, including English language learners, it stands to reason that teacher preparation programs, including the English as a Second language endorsement, should be based on empirical evidence linked to student achievement outcomes. Currently, education standards for teacher preparation to address quality instruction for ELL students are based

on limited empirical evidence. The effect of the ESL endorsement on ELL students' English language development is not evidenced based. Further research is needed based on accountability models for linking specific teacher education program graduates to the academic achievement of their ELL students through the use of multiple student outcomes. Meaningful research is needed on teacher education programs to analyze which factors develop effective teachers for ELL students. Preparation programs must prepare teachers in a manner that enables them to tie direct instructional approaches, as well as rich language experiences and interactive communicative processes, to student growth in both English language acquisition and academic achievement.

Until recently, many ESL program models in schools called for pull-out programming. Teachers with ESL endorsements generally worked solely with ELL students (McCandless, Rossi, & Daugherty, 1997; Minaya-Rowe, 2008). Many ESL endorsement programs educate teachers for this purpose—as the ESL teacher. However, with shifting demographics and ELL students in many mainstream classrooms, in the vast majorities of schools, many more teachers are now in need of professional development suited to meeting the needs of English language learners in the mainstream classroom. Future research is called for re-evaluating the match between ESL endorsement and the intended audience of teachers. Teacher preparation programs for ESL need to equip the mainstream classroom teacher with the knowledge and skills necessary to address the dual issues making academic content and acquisition of the English language assist the ELL is needed. As the demographics of the English language learner have shifted, so too have the needs of the classroom teacher.

### *ESL Implementation*

Due to the nature of this quantitative study, there was no examination of the implementation of ESL practices within the classrooms. Fidelity of implementation of ESL tenants gained through the ESL endorsement may affect the student responses to learning and strength of student outputs on accountability measures. Assessing to what extent and with what degree of fidelity the sample teachers employed those strategies and best practices would have added to the understanding of this study. More research is needed to address questions regarding what attributes of ESL instruction, as well as what further conditions can be evaluated and manipulated through analysis to improve instructional outcomes.

### *Longitudinal Study of ESL Endorsement*

Second language acquisition and academic language proficiency take from two to ten or more years to acquire. This has implications for much of the future research on English language learners. Longitudinal studies will be necessary to examine the impact of ESL endorsement over the span of ELL K–12 learning. In addition, research indicates that teacher effects are cumulative in nature (Sanders & Rivers, 1996). Longitudinal studies may help to give insight into the growth and gains at different developmental levels of second language acquisition.

### *Levels of English Language*

The results of this study were based on the sample of Level B and Level C English language learners at the elementary school level over a two-year period. Future studies may consider including or focusing on the impact of ESL endorsement on other levels, such as Level A or Level D English language learners or ELL students at the

middle school or high school levels. Is there value added through an ESL endorsement for different language levels, languages, or grade levels? Future investigation on any of these populations would expand the literature on ELL student achievement.

Recommendations for further research are related to the need for valid research on the links between teaching and learning in general. At this time, there is no transparent link between additional teaching preparation in the form of ESL endorsement and student achievement and English language acquisition progress. Further research on ESL preparation would add not only to the understanding of teacher quality but also the understanding of the English language learner in the mainstream classroom.

### **Implications for Policy and Practice**

Based on the data and research in this study there are two important concerns. First, the population of English language learners presents unique and timely challenges to the public education system throughout the United States. Those educational concerns have grave implications for the economic future of the ELL. Among school resources which will most affect positive educational gains for the English language learners, teacher effectiveness likely holds the greatest potential.

#### *Teacher Preparation for ESL Instruction*

Although there are numerous areas in which there is insufficient research to guide policy and practice, clearly, teachers need preparation designed to assist them in working with ELLs. Studies and surveys among classroom teachers indicate teachers acknowledge that they need additional preparation to effectively educate English language learners in the mainstream classroom. Existing research details what is needed for high-quality instruction. (Fillmore & Snow, 2000; Gonzalez & Darling Hammond, 2000; Goldenberg,

2008; Short et al., 2000), yet teacher preparation programs for ESL endorsement may not be targeting the elements of ESL instruction that affect student achievement on current measures of accountability. Teachers from K–12 have ELL with different language levels, educational backgrounds, home languages, and individual characteristics in their classroom each day. Teacher preparation requirements and the organizations of those programs need to be tailored to the needs of these classrooms. No longer can one universal model of preparation suffice, nor can we afford to prepare teachers without specific student outcomes of achievement as measures of preparation program success. A more detailed analysis of which training specifically results in increased ELL student achievement for both English language development and academic achievement is needed. We can no longer rely upon the assumption that the source of student growth is found outside the classroom; we must work to ensure student growth happens within the classroom.

#### *Federal and State Policies*

Although this study dealt with the impact of teacher effectiveness, accountability measures associated with NCLB and state policy were used as yardsticks for student gains.

Those measures of accountability gauge student progress, but also reflect school and teacher effectiveness. However, ELL students are uniquely challenged by these measures because of language bias. Language acquisition studies repeatedly acknowledge the length of time it takes to acquire a second language, yet students are expected to perform at the same pace as their native English speaking peers. The language bias inherent in these accountability measures also challenge the mainstream classroom

teachers who instruct ELL students. Measures that may clearly indicate teacher effectiveness in instruction of native English speaking students may not reflect the same level of effectiveness for teachers who also instruct ELL. Such bias in accountability serves to demoralize the teacher and the culture of the school. Re-thinking the accountability policies for English language learners would permit ESL teacher preparation models to be aligned with expected student outcomes.

### **Conclusion**

There is a continued need to understand why teachers in some classrooms are more effective than others. It is currently believed that improvement in the quality of teachers should lead to improvement in student outcomes. However, only solid evidence of improved student outcomes should drive policy. Educators and policy makers need to identify where potential improvements in student achievement might be produced. All stakeholders, researchers, policy makers, and educators must be concerned about affording a first-rate educational environment for all children. Waiting for nature to take its course for English language acquisition and academic achievement is not an acceptable policy for educating English language learners. To reduce or eliminate the ELL achievement gap, there must be a commitment to better serve the ELL students. If schools do not better assist the ELL in improving academic achievement levels, our nation's economic competitiveness in the global economy will suffer.

Since NCLB has become the dominant educational discourse in the political arena in this country, leadership is necessary in making the intended outcomes a reality; however, quality education will require a fusion of research, policy, and practice; to that end, leaders must have a clear sense of what has been successful in attending to the

language development needs of the ELL. The ability to generalize findings about teacher preparation programs, in particular ESL endorsement, on student achievement would be greatly facilitated by more centralized efforts. Trustworthy evidence is necessary to strengthen teaching, improve learning, inform policy, and prevent dysfunctional government regulation, to better address the complexity of teaching and learning for English language learners.

The challenges educators today face are born from our diverse society. Teachers are faced with teaching academic competence for twenty-first century skills, as well as teaching language to a widely varied population. If mainstream teachers are to help meet the many challenges inherent in educating ELLs, one of many subgroups within a single classroom, a researched-based effective professional development source must be devised to create the workforce with the skills needed to teach these students effectively. Equity of education for ELL students will depend ultimately upon how schools respond to the individual student and his or her needs. The training, follow-through, and support of the mainstream teachers for English language learners are important to all Americans, as education is the pathway to employability, economic independence, and social well-being.

## APPENDIX A: INSTITUTIONAL REVIEW BOARD EXEMPTION CERTIFICATION

### EXEMPTION CERTIFICATION

MEMO: Anna Marie Tracy, EdD  
Education  
2076 Bayberry Lane  
Union, KY 41091

PI phone #: (859)384-2294

FROM: Institutional Review Board  
c/o Office of Research Integrity

SUBJECT: Exemption Certification for Protocol No. 08-0449-X4B

DATE: June 27, 2008

On June 17, 2008, it was determined that your project entitled, *Analysis of Teacher ESL Endorsement Effects on English Language Learner's Student Achievement and English Language Acquisition*, meets federal criteria to qualify as an exempt study.

Because the study has been certified as exempt, you will not be required to complete continuation or final review reports. However, it is your responsibility to notify the IRB prior to making any changes to the study. Please note that changes made to an exempt protocol may disqualify it from exempt status and may require an expedited or full review.

The Office of Research Integrity will hold your exemption application for six years. Before the end of the sixth year, you will be notified that your file will be closed and the application destroyed. If your project is still ongoing, you will need to contact the Office of Research Integrity upon receipt of that letter and follow the instructions for completing a new exemption application. It is, therefore, important that you keep your address current with the Office of Research Integrity.

For information describing investigator responsibilities after obtaining IRB approval, download and read the document "PI Guidance to Responsibilities, Qualifications, Records and Documentation of Human Subjects Research" from the Office of Research Integrity's Guidance and Policy Documents web page [<http://www.research.uky.edu/ori/human/guidance/htm#PIresp>]. Additional information regarding IRB review, federal regulations, and institutional policies may be found through ORI's web site [<http://www.research.uky.edu/ori>]. If you have questions, need additional information, or would like a paper copy of the above mentioned document, contact the Office of Research Integrity at (859) 257-9428.

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## GLOSSARY OF ACRONYMS AND ABBREVIATIONS

ALS	Alternative Language Services
AYP	Adequate Yearly Progress
AMOs	Annual Measurable Objectives
BICS	Basic Interpersonal Communication Skills
CALP	Cognitive Academic Language Proficiency
CER	Competent English Reader
CEW	Competent English Writer
CRT	Criterion Referenced Test
ELL	English Language Learner
ESL	English as a Second Language
FES	Fluent English Speaker
IEP	Individual Education Plan
IPT	IDEA Proficiency Test
LEA	Local Education Agency
LEP	Limited English Proficient
LER	Limited English Reader
LES	Limited English Speaker
LEW	Limited English Writer
L1	Language One (first or home Language)
L2	Language Two (second language)
NCLB	No Child Left Behind
NER	Non English Reader
NES	Non English speaker
NEW	Non English Writer
PHLOTE	Primary or Home Language Other Than English
SDAIE	pecially Designed Academic Instruction in English
SIOP	Sheltered Instruction Observation Protocol

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