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CLOSING THE ACHIEVEMENT GAP FOR ENGLISH LANGUAGE LEARNERS:  
A COMPARISON OF LANGUAGE ARTS/ESOL AND ONE-WAY  
DEVELOPMENTAL BILINGUAL PROGRAMS

by

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A dissertation submitted in partial fulfillment of the requirements  
for the degree of Doctor of Education  
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in the College of Education  
at the University of Central Florida  
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## ABSTRACT

The present study was conducted to investigate two English Language Learner programs in one Florida county and their implications for student achievement. The literature review showed that, as students progress through the educational system, the academic content becomes more and more abstract, forcing students to rely more heavily on their oral and written communication skills in English. Significant achievement gaps, sometimes extremely large, were also identified between English-only students and English Language Learner students. One study highlighted a 46% gap on the 2005 National Assessment of Education Progress (NAEP).

The present study was designed to investigate 23 middle schools in one Florida county. The focus of the study was on two English Language Learner programs: Language Arts/ESOL and One-Way Developmental Bilingual Education. A total of 13 schools were identified that had implemented the Language Arts/ESOL program, and 10 middle schools were identified that had implemented the One-Way Developmental Bilingual Education program. The 2007 FCAT reading mean scale scores for the schools' 7th-grade English Language Learners were compared to those of standard curriculum students.

For both English Language Learner programs, a statistical significance was found using t-tests. In addition, FCAT reading Levels 1-5 were investigated. At FCAT Levels 1-3, the Language Arts/ESOL program out-performed the One-Way Developmental Bilingual Education program. At FCAT Levels 4 and 5, the One-Way Developmental Bilingual Education program out-performed the Language Arts/ESOL program.

I would like to dedicate this study to my wonderful husband, Bob, who for six years made sure that I kept studying and writing, all the while providing love, support, and encouragement. This study would not have been completed without his taking care of the many activities that needed attention. I would, also, like to dedicate this study to my loving parents: My mom, Rita, who inspired me to take the first steps to go to college at the age of 28, and to my dad, Dean, who always knew that I could do it.

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# CHAPTER 1

## THE PROBLEM AND ITS CLARIFYING COMPONENTS

### Introduction

As a country rich in the tradition of immigration, the United States has historically been a country full of people who have migrated and settled, hoping for greater opportunity. The 2000 United States Census provided data that reflected 12.5% of Americans are from Hispanic or Latino origin. Short and Echevarria (2005) stated that the 2004-2005 school year included 5.5 million students who were designated as Limited English Proficient. By 2050, the Latino population was expected to reach 24% and the Asian population was expected to reach 10% of the total population (Lindholm-Leary, 2003). Lessow-Hurley (2003) stated:

Newcomers to the United States tend to be younger than highly assimilated traditional populations, so schools have felt the impact of population changes in the later part of the 20<sup>th</sup> century and the beginning of the 21<sup>st</sup> more rapidly and more dramatically than other social and government institutions. (p. 1)

In 2001, the Office of English Language Acquisition of the United States Department of Education reported more than 4.4 million school children were designated as English Language Learners (Lessow-Hurley, 2003). Lessow-Hurley cautioned that exacting the precise number of students who need second language services was difficult due to the various methods that states used to measure language proficiency and student needs. Additionally, in the 1995 position paper of the National Association for the Education of Young Children, this agency reported, “Approximately, 9.9 million of the estimated 45 million school-age children, more than one in five, live in households in

which languages other than English are spoken” (Waggoner qtd. in National Association for the Education of Young Children, p. 2).

At the time of the present study, the total number of second language student population was high. For example, approximately 25% of California’s public school K-12 students were English Language Learner (ELL) students (Lessow-Hurley, 2003). These data were significant since the public school students in California represented 10% of the total public school students in the United States. Other states with large numbers of ELLs included Florida, Texas, and New York. Miller, Miller, and Schroth (1997) stated that the predictions for public school student numbers were ones to which schools should pay attention. Lindholm-Leary (2003) predicted, “An ever increasing percentage of students enter school not proficient in English” (p. 1).

### Background of the Study

Frequently, children are entering school with little or limited use of the English language (Green, 2003). Migrant children in the United States have been a fast growing population, especially in Florida, Texas, and California. These 3 states have functioned as “sending or home bases” for migrant families as the families move about the remaining “45 contiguous ‘receiving’ states” (p. 57). Green cited the Urban Institute’s 2000 research which suggested that there were 650,000 migrant children traveling with their families. Mexican children constituted the greatest majority who are most frequently in Texas and California. These children represented diversity in cultures but were tied together by

“poverty, inadequate health care, substandard housing, and astonishingly poor educational achievement” (p. 62).

According to the August 2005 report from the Office of Economic and Demographic Research, 34% of Florida’s ELL students were born abroad with 66% of the students born in the United States. These students were born in 273 foreign countries in addition to the United States and were speakers of approximately 277 different languages. A total of 58% of these students were born in Cuba, Mexico, Haiti, Colombia, Venezuela, Jamaica, Peru, and Brazil. Students receiving second language services have been closely divided with 51% born in the United States and 49% born abroad. Spanish has been the dominant minority language for students born in the United States and abroad if they speak a language other than English. This ever-increasing student diversity has alerted public school personnel that teachers need to acquire the skills necessary to promote acceptance and to teach students so that they are successful (Miller & Miller, 1997).

Under state and federal requirements to meet the need for high standards of achievement for second language learners, schools have been challenged with meeting the language acquisition needs of the student as well as the academic needs of the student (Bohn & Sleeter, 2000). The No Child Left Behind Act of 2001 required all public school students to reach high standards of proficiency by 2014 (Abedi & Dietel, 2004).

State tests have shown the gap that English language learning students have with their academic performance on standardized tests. Sometimes, the gap between ELLs and English speaking students has been as wide as 20 to 30 percentage points (Abedi &

Dietel, 2004). The longitudinal data have shown little improvement across the years. According to the National Assessment of Educational Progress (NAEP), Latino students from low socio-economic backgrounds have typically scored two years behind other students in the fourth grade (White-Clark, 2005). This gap widens by 12<sup>th</sup> grade, and these students are nearly four years behind English speaking students. English Language Learner students may be underestimated by their teachers, and this can affect their student achievement as well.

High stakes testing can start as early as Head Start, and heavy emphasis on higher student achievement has created an even bigger gap for English Language Learners. At the time of the present study, 25 states had graduation requirements that included a high-stakes test. It was anticipated that other states would follow suit (Bielenberg & Fillmore, 2005). California's 1.6 million English Language Learners represented one in four students who were designated as English Language Learners.

Bazron, Osher, and Fleischman (2005) stated that there is a growing body of evidence that needs to be addressed regarding the cultural and linguistic needs of ELL students. Ferguson et al. (2001) found:

Successfully including students with so many differences and different ways of learning challenges schools to reinvent themselves as more flexible, creative learning communities that include and are responsive to a full range of human diversity. This newly defined diverse norm replaces the old statistically derived, bellshaped-curve norm that uncompromisingly identifies some students as "inside" and others as "outside." (p. 1)

Bazron et al. (2005) added that many schools have a tendency to downplay or ignore the needs and strengths of the increasing second language learning student

population. This cultural disconnect can lead to increased discipline problems, inferior self-concepts, and poor academic achievement (Osher et al. cited in Bazron et al.). Part of the problem was that teachers have not had the training to help ELL students, and, sometimes, teachers misinterpreted the behavior because of the cultural differences. The most powerful approach has been to help teachers to provide a culturally rich classroom where instruction takes into consideration the cultural value systems of diverse populations (Bazron et al.).

Despite the success of educating bilingual students in these classrooms, a stereotype has developed, often alienating the teachers and the students from mainstream school activities and involvement (Calderon, 1997). In addition to academic remediation, the remedial label has, also, served to deprive students from high expectations and educational opportunities. The isolation created by such programming has created an “us vs. them” mentality among the mainstream teachers and the bilingual teachers wherein the students are placed at a disadvantage when compared to mainstream education students (Calderon, p. 2).

When comparing ELL students to native English speakers, the dropout rate has been higher for ELL students, and significant achievement gaps have been reported on state and national assessments (Snow & Biancarosa cited in Short & Echevarria, 2004). Students have had an added challenge of learning English and at the same time comprehending and applying English to meet the high academic standards that are set in the nation’s schools. Short and Echevarria cautioned that students could be placed in

academic classrooms and expected to complete the work just like English-only speaking students.

Thomas and Collier (1997b) reported that students who were not yet proficient in English could perform at or above grade level in mathematics, science, and social studies, but their English acquisition rate was not as fast as their grasp of other subjects. A typical English-speaker will gain 10 months of learning in a 10 months time, but ELL students who have not yet reached full English proficiency can score three or more years below their current grade level on standardized tests because they cannot demonstrate in English all that they know. In order to keep pace with mainstream students, ELL students must make one-and-one-half year's progress each academic year on the standardized tests.

Green (2003) cited Thomas & Collier's 2000 study which tracked the academic progress of ELL students. It was found in this study that when instruction was given in English only, ELL students took approximately 7 to 10 years of English language instruction to reach proficiency in language and academic performance. Students who had 2 to 3 years of schooling in their first language from education in their native country took about 5 to 7 years to reach the same performance levels. They, also, found that students who were schooled in successful bilingual programs in the United States usually took between 4 and 7 years to reach this same proficiency.

Lessow-Hurley (2003) supported the work of Cummins who found that initially students who learn English as a second language were first in the Cognitive Academic Language Proficiency (CALP) stage, speaking English without knowing any of the context-related clues. Later, students entered the Basic Interpersonal Communication

Stage (BICS) stage and extract meaning with content and situational clues when they were speaking English (Lessow-Hurley).

According to Krashen (1997), students who speak a language other than English for their first language will read and comprehend English more comprehensibly if they already read in their first language. When literacy was already mastered in the first language, the language transferred to the second language. Krashen supported a bilingual education model that was rich in first language support, placing students initially in English as second language classes, then in sheltered classes with first language support, and, finally, in mainstream classes. As students advanced, the only subjects taught in the first language were the most abstract classes in language arts and social studies. When a student reached full mainstream capability, advanced first language classes were available as an option.

Krashen (1997) reported that when limited English proficient (LEP) students had access to books at home and at school, their literacy in their first language transferred to English, but much of the problem fell on students who had little or no access to books in the home. Tompkins (2000) stated that access to books in the home promotes literacy, but many LEP students do have books in their homes. The only English that some students encounter in a day was at school since they may live in a community that spoke a second language and live in a family that spoke a language other than English (Krashen).

In a position paper from the National Association for the Education of Young Children (1995), it was contended:

The United States is a nation of great cultural diversity, and our diversity creates opportunities to learn and share both similar and different experience. There are opportunities to learn about people from different backgrounds; the opportunity to foster a bilingual citizenry with skills necessary to succeed in a global economy; and opportunities to share one's own cherished heritage and traditions with others. (p. 3)

Short and Echevarria (2005) believed that public school systems and teachers performed a disservice for ELL students if these students were all grouped together and treated the same. Second language learners have come from all over the world and bring their histories and their cultures with them to the nation's schools. Some ELL students have an extensive educational background and perform at or above grade level while other students may not have ever stepped foot into a classroom.

Since each student brings his or her own history into the classroom, students may have positive or negative attitudes about school depending upon their own previous experiences. Some of these students come from high-literacy families and are very proficient in their native languages. Other students are illiterate in their native language, making the transition to English more difficult. Teacher sensitivity to each student is one key to helping each child assimilate into the American way of life while preserving the student's home culture (Short & Echevarria, 2005).

Bohn and Sleeter (2000) cautioned that multilingual education is under increasing danger as the greater educational focus is on the standards movement. They warned, that in lieu of a standardized curriculum, the educational system will fail to be sensitive to the many facets of ELL students, forcing pluralism to be marginalized (Bohn & Sleeter).

### Statement of the Problem

The purpose of the study was to compare the achievement gap between the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program as delivered to 7th-grade English Language Learner (ELL) students. A total of 23 middle schools from one large urban Florida county were included in the study.

The researcher anticipated finding differences among the selected middle schools' ELL and standard curriculum tests scores for the 2007 Florida Comprehensive Achievement Tests for 7th-grade reading. It was also anticipated that differences would be found between the schools' ELL population and standard curriculum population FCAT achievement level test scores. The National Clearinghouse for English Language Acquisition (2006) stated that No Child Left Behind's "spotlight" was on closing the achievement gap. Abedi and Dietel (2004) stated that historically ELL students have had low performance scores that were frequently 20 to 30 points lower than their English-only classmates.

### Definitions of Terms

#### Basic Mainstream Instruction with Language Arts/ESOL Model:

"Comprehensible instruction in all grade level classes through ESOL strategies; strong language development program; Language Arts through ESOL (Content-based; Sunshine State Standards; National ESL Standards; Learning Strategies, CALLA Approach). In secondary schools, Language Arts/ESOL is taught by a different teacher other than the subject areas teachers." Program objectives include to "development listening, speaking,

reading and grade level writing skills through second language acquisition practices for LEP” (Orange County Public Schools Multilingual Student Education Services (n.d.a.).

ELL: English Language Learner

ESL: English as a second language.

ESOL: “Means English for Speakers of Other Languages (1) when modifying instruction, the strategy used to teach limited English proficient students; or (2) when modifying program, the program funded in the Florida Education Finance Program, listed under English for Speakers of Other Languages”(2006 Florida Statutes, Title XLVII K-20 Education Code, Chapter 1003 K-12 Education Code).

FCAT: “The Florida Comprehensive Assessment Test (FCAT) is part of Florida’s overall plan to increase student achievement by implementing higher standards. The FCAT, administered to students in Grades 3-11, contains two basic components: criterion-referenced tests (CRT), measuring selected benchmarks in Mathematics, Reading, Science, and Writing from the Sunshine State Standards (SSS); and norm-referenced tests (NRT) in Reading and Mathematics, measuring individual student performance against national norms” (Retrieved on July 29, 2007, from <http://fcat.fldoe.org/>).

Home language or Native Language: “When used with reference to an individual of limited English proficiency, means the language normally used by such individual or, in the case of a student, the language normally used by the parents of the student” (2006 Florida Statutes, Title XLVII K-20 Education Code, Chapter 1003 K-12 Education Code).

LEP: “‘Limited English proficient’ or ‘limited English proficiency’ when used with reference to an individual, means: (a) An individual who was not born in the United States and whose native language is a language other than English; (b) An individual who comes from a home environment where a language other than English is spoken in the home; or (c) An individual who is an American Indian or Alaskan native and who comes from an environment where a language other than English has had a significant impact on his or her level of English language proficiency; and (2) Who, by reason thereof, has sufficient difficulty speaking, reading, writing, or listening to the English language to deny such individual the opportunity to learn successfully in classrooms where the language of instruction is English” (2006 Florida Statutes, Title XLVII K-20 Education Code, Chapter 1003 K-12 Education Code).

One-way Developmental Bilingual Education/ESOL Center: “A center school serves its own LEP students and also LEP students from schools that do not offer One-way Developmental Bilingual Education/ESOL services due to insufficient enrollment of students who speak the same language. Students receive grade level instruction in the native language and English” (Orange County Public Schools Multilingual Student Education Services, n.d.b.).

One-Way Developmental Bilingual Education/ESOL Program: “The One Way Developmental Bilingual Education Program uses two languages for the purpose of academic instruction consisting of an organized curriculum which includes: Continued language and literacy development in the primary language; subject matter instruction through the primary home language; English language acquisition and Language Arts

through English to Speakers of Other Languages (ESOL); Content Sheltered Instruction for intermediate and advanced ESOL levels as a bridge to mainstream instruction. Native language instruction is provided to avoid loss of grade-level skills while mastery of the second language is taking place. Well implemented bilingual education programs assist LEP in developing grade level subject cognitive skills in primary home language that will gradually transfer into English to a level where they can succeed in an English-only classroom” (Orange County, IX-51).

Sunshine State Standards (SSS): “The Sunshine State Standards were approved by the State Board of Education in 1996 to provide expectations for student achievement in Florida. The Standards approved in 1996 were written in seven subject areas, each divided into four separate grade clusters (PreK-2, 3-5, 6-8, and 9-12). This format was chosen to provide flexibility to school districts in designing curriculum based on local needs. However, as Florida moves toward greater accountability for student achievement at each grade level, the Sunshine State Standards have been further defined. In the subject areas of language arts, mathematics, science, and social studies, the Sunshine State Standards have been expanded to include Grade Level Expectations. These Grade Level Expectations will eventually become the basis for state assessments at each grade 3-10 in language arts and mathematics--and may eventually be used in state assessments in science and social studies” (Retrieved on July 29, 2007, from [www.fldoe.org/bii/curriculum/sss/](http://www.fldoe.org/bii/curriculum/sss/)).

### Delimitations

This study was delimited to the 23 middle schools in the one Florida county selected for this study. The population was seventh grade standard curriculum and seventh grade ELL students. Data were obtained from Florida Department of Education, as disaggregated and reported by eMetric.net, a San Antonio-based web-based reporting company.

### Limitations

The following limitations of the study were recognized in conducting the research:

1. Only one county was identified as implementing the One-Way Developmental Bilingual Education program.
2. The study was conducted in a single county.
3. The study was limited to 23 middle schools within the identified county.
4. The study did not consider the mobility rate of the families, the cultural backgrounds, socio-economic status, nor the ethnic diversity of the schools as they related to the English Language Learners.
5. The study did not consider the length of time in the United States, the native languages of the students, nor the amount of formal schooling in the students' native countries for the schools' English Language Learner students.
6. The study did not consider current school climate and culture as it related to the English Language Learner students.

7. The study did not consider the amount of teacher training, the number of years of teaching service, nor the school and district-based support personnel for the ESOL teachers.
8. The study did not control for quality of teaching variables nor consistency in standard curriculum.

### Assumptions

The specific assumptions in this study were as follows:

1. The 2007 FCAT reading test was properly administered.
2. Appropriate testing accommodations were provided for the LEP students.
3. Test security was maintained with maximum care.
4. FCAT reading tests were collected appropriately from the testing sites and delivered in a timely manner to the testing vendor for scoring.

### Theoretical Framework

Collier's (1995) language acquisition concept model is based on her work with co-researcher Wayne Thomas. This model is based on four components: sociocultural, linguistic, academic, and cognitive process. These four components are interdependent and create the foundation for language acquisition. Visually, the concept model is formed using a prism design with social and cultural processes in the center, connecting and relating to the other three components. The development of the second language student

depends on the relationships of the four components. If one of the components is neglected, the other three components will suffer the effect.

According to Collier (1995) and central to the student's language acquisition is the sociocultural process. The experiences of the student's past, present, and future in all contexts of home, school, and community work together to enhance or detract from the student's ability to acquire language. Individual student variables which include self-esteem and anxiety are all at work as the student navigates the language acquisition process. Community or regional social patterns of perception, prejudice, and discrimination, also, affect the student's ability to acquire a second language (Collier, 1995).

Linguistic development involves the student's ability to process language. The acquisition of oral and written language includes metalinguistic, paralinguistic, and formal other subconscious components of language development. The linguistic development of the student also depends on the formal and informal teaching to which the student has already been exposed (Collier, 1995). Collier stated, "To assure cognitive and academic success in a second language, a student's first language system, oral and written, must be developed to a high cognitive level at least through elementary-school years" (p. 3).

The academic development of the student includes all school work in all courses in grades K-12; e.g., language arts, mathematics, science, and social studies. With each grade that the student completes, the academic vocabulary increases and builds on the sociolinguistic and discourse development of each subject area. Collier (1995) stated,

“Postponing or interrupting academic development is likely to promote academic failure”  
(p. 3). Academic knowledge transfers across languages; therefore, it is important to continue the student’s academic development in the student’s first language during second language acquisition (Collier).

### Research Questions

The following research questions were used to guide this study:

1. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program on the 2007 7th-grade FCAT reading test?
2. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program on the 2007 7th-grade FCAT reading test?
3. What is the distribution of schools in the study with standard curriculum students and schools with ELL students as measured by the mean scale score in levels 1-5 of the 2007 7th-grade FCAT reading test?
4. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

5. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

### Hypotheses

In addition, the following research hypotheses were proposed:

H<sub>1</sub> : There is an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program.

H<sub>2</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program.

H<sub>3</sub>: There is an achievement gap in the distribution of all schools with standard curriculum students and all schools with ELL students as measured by the mean scale score in levels 1-5 of the 7th-grade FCAT reading test.

H<sub>4</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher as measured by the 7th-grade FCAT reading test.

H<sub>5</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program scoring Level 3 or higher as measured by the 7th-grade FCAT reading test.

## Methodology

The study was conducted to investigate the differences of two program delivery models for English Language Learner (ELL) students as compared to the standard curriculum students in the 23 middle schools located in one large urban Florida county as measured by the 2007 FCAT 7th-grade reading test. The study was initiated after being approved by the Institutional Review Board of the University of Central Florida (Appendix A). The program delivery models selected for this study were the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program as delivered to ELL students as well as the standard curriculum delivered to standard curriculum students.

The Language Arts/ESOL program used language arts instruction as delivered by a certified teacher with ESOL endorsement or a certified ESOL teacher who used comprehensible instruction through ESOL strategies, using the Sunshine State Standards for Language Arts (Orange County Public Schools Multilingual Student Education Services, n.d.a.). The One-Way Developmental Bilingual Education program is most closely identified with bilingual instruction as the content is in English and the student's native language (Orange County Public Schools Multilingual Student Education Services, n.d.b.).

The study targeted schools with 7th-grade ELL students who were receiving English as a second language support services as well as the schools' standard curriculum students using the 2007 Florida Comprehensive Assessment Test (FCAT) reading test results as the assessment measurement.

A total of 23 middle schools were selected for this study. Schools were identified by the county ESOL contact at the district level or the principal or designee at the school site.

Seventh Grade 2007 FCAT reading test scores were retrieved from eMetric.net, a San Antonio, Texas, company which reports disaggregated FCAT data.

The mean scale scores for the 13 schools' 7th-grade ELL students who participated in the Language Arts/ESOL program at the selected schools were retrieved and compared to the schools' standard curriculum student population scores at the same schools. An independent t-test was used to test the means.

The mean scale scores for the 10 schools' 7th-grade ELL students who participated in the One-Way Developmental Bilingual Education program at the selected schools were retrieved and compared to the schools' standard curriculum population student scores at the same schools. An independent t-test was used to test the means.

### Organization of the Study

Chapter 1 has introduced the problem statement and the design components of the study. Chapter 2 presents a review of relevant literature which supports the problem statement. Chapter 3 contains the design of the study and details of the population, instrumentation, and statistical procedures. Chapter 4 reports the analyses of data collected for the study. Chapter 5 offers a summary and discussion of the results and findings of the study and their implications and recommendations for future research.

## CHAPTER 2 REVIEW OF LITERATURE

### Introduction

Capp, Passel, Perez-Lopez, and Fix (2003) reported that 47 million people speak a language other than English. The 2000 Census listed 40 different languages with 11% of the immigrant population listed as speaking Spanish and about 4% of the total population listed as speaking “Asian and Pacific Island languages, including two million Chinese-speakers” (as cited in Capp, Passel, Perez-Lopez & Fix, p. 14).

An important goal of bilingual education has been the promotion of the majority language and the transfer of skills (Roberts, 1995). Krashen (1999) stated that a solid bilingual program should provide for instruction in the first language through content subject matter so that future content delivery in English is comprehensible to students and they can develop first language literacy.

Feinberg and Morencia (1998) and Genesee (1999) stated that typically bilingual programs include instruction in the native language arts which provides for literacy foundation and skill transfer to English. Programs such as these can be transitional to English-only instruction or developmental language arts and serve to maintain native language.

Combs, Evans, Fletcher, Parra, and Jimenez (2005) defined Structured English Immersion (SEI) as English-only instruction with modifications to meet the needs of the second language learner. Rossell (2005) defined SEI as a self-contained classroom of primarily English Language Learner (ELL) students with mostly English instruction.

Roberts defined SEI as sheltered instruction. Using this definition, classrooms are comprised primarily of ELL students, and the trained teacher uses second language acquisition methods in his or her teaching (Rossell, 2005).

Also known as the early exit program (Genesee, 1999), transitional bilingual is probably the least controversial of all the program models because it uses the student's native language initially to promote a transition to English-only classrooms (Lessow-Hurley, 2003). Genesee (1999) stated that transitional bilingual programs do not aim for full bilingualism and biliteracy for the students involved in the program. This program model is based on the premise that the better students perform in early grades, the better they will perform in the upper grades.

NAEYC and NAECS/SDE (2003), in their joint position statement, declared that assessment for children should be culturally and linguistically sensitive. They contended that assessments for young children in some schools "have become mismatched to children's cultures or languages, ages, or developmental capacities" (p. 4). Rossell (2005) found that schools serving over 240 ELL students had lower test scores than schools who did not serve ELL students.

Historically known as "the melting pot," families from all over the world have come to the United States at a rate which demands public schools to service students in ways that will benefit both the students and their families in their home language. Non-English speakers have increased to be a greater percentage of school-age children than ever before. With this higher percentage, a pressing need for greater awareness for schools to understand and to serve ELL students and their families has emerged.

Rothstein (2001) commented, looking at the last 20 years to the present, “1972 to 1995, despite rapidly accelerating immigration (more Hispanic youths are first-generation immigrants today than 20 years ago) the Hispanic high school completion rate has crept upward (from 66% to 70%)” (p. 229). United States Department of Education Secretary Rod Paige stated that there were 5.5 million Limited English Proficient (LEP) children in the United States. Many states have over 100 languages other than English spoken as a first language by their students (Paige, 2004).

Information from the 1990 census showed that approximately 75% of the total immigration population lived in six states, including Florida and Texas. At the time of the present study, these six states had well-established communities where the native languages and English as a Second Language are supported. None of the six states were included in the top immigration destinations as reported in the 2000 Census, but these states remained relatively high immigration destinations (Capps, Passel, Perez-Lopez, & Fix, 2003). Early figures from 2000s provided no indication of declining immigration; in fact, in the U.S. Current Population Survey, it was concluded that “by March 2002, the foreign-born population had grown to an estimated 32.5 million” (Capps, Passel, Perez-Lopez, & Fix, p.4).

The U.S. Department of Education, National Center for Education Statistics, (2006a) reported that between 1979 and 2004 the number of second language learning students increased from 3.8 million to 9.9 million, rising from 9 to 19% of all school age children. During this period, there was an overall increase in student population of 18%, but the number of “children who spoke a language other than English at home increased

by 162 percent” (p. 34). Spanish was also reported as the dominant minority language spoken in the students’ homes. The student minority population was expected to reach 39% by the year 2020 (Miller, Miller, & Schroth, 1997).

Meyer, Madden, and McGrath (2004) reported for the National Center for Education Statistics that between 1993-1994 and 1999-2000 the South had an increase in the second language learner student population from 3.5 to 4.5%. Over one-half of second language learning students were enrolled in schools that had less than 1% second language designated students (Meyer, Madden, & McGrath).

Capps, Passel, Perez-Lopez, and Fix (2003) reported for the Urban Institute:

In 2000 there were 2.5 million immigrants in the United States (about 8 percent of the total) who had entered since 1980 as refugees or Cuban-Haitian entrants or who had received asylum . . . . Most of this group had already obtained legal permanent residency and many had become citizens. (p. 11)

The 2000 Census listed nearly 100 countries of origin for U.S. immigrants. Los Angeles County and New York City had the greatest diversity in population. The following is a breakdown of countries and the total percentages represented by immigrants in the 2000 Census: Mexico at 30%, Asia at 26%, Latin American countries other than Mexico at 22%, Europe and Canada at 18%, and Africa and other countries at 3% (Capps, Passel, Perez-Lopez, & Fix, 2003).

Capps, Passel, Perez-Lopez, and Fix (2003) reported for the Urban Institute that despite immigration trends to major, traditional destinations like California and Florida, the states with the greatest amount of immigration currently included new states such as Georgia and Tennessee. Hoefler, Rytina, and Campbell (2006) reported for the Office of

Homeland Security that approximately 10.5 million unauthorized immigrants lived in the United States in January 2005 with California, Texas, and Florida accounting for the states with the greatest percentages of illegal immigrants. An estimated 850,000 illegal immigrants resided in Florida (p. 1).

According to Smith-Davis (2004), Miami-Dade County, Florida, had received students from 162 countries. These students spoke several hundred languages and included immigrants who are moving for a second or third time to a new country. Small communities were, also, experiencing language minority student population growth as families were drawn to industrial jobs, e.g., food processing. Many Miami-Dade County high school graduates had command of the Spanish language but lacked the literacy in the first language to be successful in international commerce (Feinberg & Morencia, 1998).

Kohler and Lazarin (2007) stated that Hispanics were the second largest group of students after White students, representing more than 10.9 million students in 2005 in grades Pre K-12. Among these school-age children were an increasing migrant population. Frequently, these children have entered school with little or limited use of English (Green, 2003). In a position paper by the National Association for the Education of Young Children (1995), it was contended that “the United States is a nation of great cultural diversity, and our diversity creates opportunities to learn and share both similar and different experience” (p. 3).

## Language Acquisition

Some English Language Learner (ELL) students have extensive educational background and perform at or above grade level while other students may not have ever stepped foot into a classroom. Since each student brings his or her own history into the classroom, students may have positive or negative attitudes about school depending upon their own previous experiences. Some of these students come from high-literacy families and are very proficient in their native languages. Other students are illiterate in their native language, making the transition to English more difficult (Short & Echevarria, 2005).

When children learn two or more languages, they gain a greater understanding of the functions of language (Cummins, n.d.a). Collier (1987) stated that many factors contribute to each individual's acquisition of a second language. Some of the factors include the "learner's cognitive style, socioeconomic background, [and] formal schooling in the first language" (p. 1). In addition, Collier and Thomas (1989) stated that "acquisition of cognitive-academic second language proficiency does not occur quickly but is a developmental process that takes a significant number of years" (p. 35).

Cummins (n.d.a.) first introduced the BICS and CALP stages of language acquisition:

The acronyms BICS and CALP refer to a distinction . . . between basic interpersonal communicative skills and cognitive academic language proficiency. The distinction was intended to draw attention to the very different time periods typically required by immigrant children to acquire conversational fluency in their second language as compared to grade-appropriate academic proficiency in that language. (p. 1)

Cummins further elaborated on BICS and CALP, commenting that much of language acquisition in the BICS stage is aided by interpersonal context clues such as facial expressions, gestures, and intonation. These non-linguistic clues are largely dependent on the linguistic context of the face-to-face interaction. Cummins, also, noted that “failure to take into account of the BICS/CALP (conversational/academic) distinction has resulted in discriminatory psychological assessment of bilingual students and premature exit from language support programs (e.g. bilingual education in the United States) into mainstream classes” (p. 1).

DiCerbo (2000) noted that there are many factors to slow acquisition, including a quality education. Collier and Thomas (1989) cautioned that students in transitional bilingual classes may face a social stigma as well as lower academic standards. Collier (1987) stated:

It takes language minority students in any type of program a minimum of four years to reach native speakers’ level of school language proficiency and may take as many as eight or more years, depending on age on arrival and type of school program, as well as sociocultural factors and the individual characteristics of each second language acquirer. (p. 8)

Students who have a strong foundation in their native language will develop stronger second language literacy with skill transfer from the native language to the second language (Cummins, n.d.a.).

Collier (1987) stated that as students progress through the educational system, the academic content becomes more and more abstract, forcing students to rely more heavily on their oral and written communication skills in English. Collier and Thomas (1989) defined academic English as “a complex network of language and cognitive skills and

knowledge required across all content areas for eventual successful academic performance at secondary and university instruction” (p. 27). Zwiers (2005) defined academic language “as the set of words and phrases that (1) describe content-area knowledge and procedures, (2) express complex thinking processes and abstract concepts, and (3) create cohesion and clarity in written and oral discourse” (p. 60).

Second language learning students have tended to have high school mobility rates which interfere with student learning, leaving their instruction frequently jumbled and conflicting (Hopstock, 2003). Many high poverty families have tended to move from school-to-school at least once a school year (DiCerbo, 2000). DiCerbo stated that lack of formal schooling in a student’s home country also slows English acquisition as opposed to students who have had extensive educations in the home country. Krashen (1999) noted that it appears children from wealthier families, who most likely already have a foundation in their first language, are much more likely to succeed in school than those students who do not have caregivers who can provide support. Collier and Thomas (1989) stated that even the most advantaged second language student will take between 5 and 10 years to learn English and be proficient.

DiCerbo (2000) reported:

The research evidence supports the assertion that when students are not provided with high quality day care and early childhood services, once in school, their academic achievement and limited language proficiencies get cumulatively worse over time, over grade levels, and across subject matter. (p. 4)

Collier and Thomas’ (1989) 1987 and 1988 studies was focused on 2,014 second language learning students who spoke 75 languages, the majority of whom were from

low-socioeconomic homes. Their studies revealed that within one or two years of the study, the second language learning students reached normative levels with the English-only students in mathematics. Collier and Thomas (1989) stated that subject area knowledge in the first language transfers to the second language.

Collier's 1987 study of 1,548 immigrants to the United States analyzed the length of time for language acquisition of English when instructed in English only. Collier found that students between the ages of 8 and 12 years of age were the first group to reach normative levels in all content areas in 4 to 5 years. These students may have the advantage of first language skills to transfer to English, and there is enough time left for them to make-up any lost academic time before high school graduation. Students between the ages of 5 and 7 took between 5 and 8 years to reach the same levels in all content areas.

Collier and Thomas (1989) found that students between the ages of 4 and 7 were "significantly below the appropriate performance level for their length of residence in comparison to arrivals at ages eight to eleven" (p. 28). Collier and Thomas found that students who arrive between the ages of 12 and 16 had the lowest scores of all the students in the study. After six years of instruction, these students still had not reached academic norms and did not have enough time to get there before high school graduation with the projected time of 7 to 10 years of instruction from time of arrival.

Collier's (1987) findings indicated that after puberty there are two significant problems for students: They are more likely to maintain an accent with their English, and they may not have enough time left in their public school career to make-up the lost time

while spent learning English. Thomas and Collier (1997a) found that bilingually schooled students who are on grade level in their native language will take from 4 to 7 years to make the 50th percentile in their second language, English, in the United States. Students who have 2 to 5 years of education from their native country and who are schooled wholly in their second language in the United States took from 5 to 7 years to reach the 50th percentile.

DiCerbo (2000) stated that students who are highly proficient in their first language will more easily acquire a second language. A strong foundation in a student's first language transferred to other languages with studies demonstrating that the "reading process is similar in different languages" (Krashen, 1999, p. 1). A bi-directional skill transfer exists between the languages, thereby, supporting both the native language and the second language (Cummins (n.d.b.). When students learn in their native language, they are learning concepts and skills that will transfer to their second language. Children can lose their ability to communicate in their native language within 2 to 3 years if not supported by a second language community (Cummins, n.d.b.).

Cummins (n.d.c.) noted that bilingual students are more proficient at linguistic processing for they have had to decode and decipher in two different languages, leaving them more capable to analyze meaning than a monolingual student. Cummins stated, "Minority children who lack this educational support for literacy development in L1 frequently develop a subtractive form of bilingualism in which L1 skills are replaced by L2" (p. 6). Cummins reported that no negative consequences came from learning a second language.

Hakuta, Butler, and Witt (2000) studied language acquisition with two data sets from the San Francisco Bay Area, California, and existing data sets from Canada. The longitudinal study sought to determine the length of residence for students from the point of immigration to English mastery. The results of the study showed that even in the most effective school district in the San Francisco Bay area, known for its success with ELL students, that the length of time for limited English proficient (LEP) students to reach English proficiency was between 3 and 5 years. To reach academic English proficiency ranged between 4 and 7 years. The results showed that the length of time that ELL students spend in school may not be enough time for them to catch-up with their native English peers and master academic English.

Tompkins (2000) stated that the components of language (reading, speaking, writing) fluctuate during acquisition with both informal and formal usage. Language proficiency has been difficult to define, and no national definition has been established. Proficiency includes the components of language, including social and academic acquisition. Fluency is tested in writing, speaking, reading and listening (Wilde, 2006). All four modes of language must be tested. Since there have been no national standards for proficiency cut scores, each state has been independent in settling on its own definition (Wilde).

#### Other Influences on Language Acquisition

Voltz and Morrow (1999) contended that American society feels oppressive to the international family. This has been reflected in how culturally diverse families may view

the American school system. Smith-Davis (2004) reported that factors such as immigration stress and acculturative stress may impede parental involvement in American schools. The National Association for the Education of Young Children (2005) stated that the issue of culture and heritage should be a consideration in assessment development. Malave' (1997) concluded that caregivers can develop their own bilingualism while supporting their children's acquisition of a second language; however, this study also revealed the potential loss of the home language for both the children and the caregivers.

Stevens and Tollafield (2003) contended that "some parents are immigrants and cannot read or speak English, much less understand educational jargon" (p. 1). The National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education (2003) in their joint position statement advocated that support should be provided for children and their families in respect to their cultures. Osterling, Violand-Sanchez, and von Vacano (1999) stated that when students are learning a second language their parents often feel disconnected and undervalued, perceiving the second language learning as a disconnection when parents want to communicate with their children.

The National Association for the Education of Young Children's (1995) Position Statement outlined the importance of linguistic and cultural diversity in public schools.

Emphasized was the need for educator sensitivity:

Educators recognize that linguistically and culturally diverse children come to . . . programs with previously acquired knowledge and learning based upon the language used in their home. For young children, the language of the home is the

language they have used since birth, the language they use to make and establish meaningful communicative relationships, and the language they use to begin to construct their knowledge and test their learning. The home language is tied to children's culture, and culture and language communicate traditions, values, and attitudes. (Chang as cited in National Association for the Education of Young Children, 1995, p.1)

Scarcella (2003) stated, "Many ELLs who enter these institutes [of higher learning] lack sufficient academic English language proficiency even when they have completed their entire elementary and secondary educations in the United States" (p. 2). Often neglected, the student's cognitive development has been another important and critical component for language acquisition. Collier (1995) stated that for too long the educational system had not cultivated the second language student's cognitive development, providing watered down curriculum and limited opportunities to foster critical thinking skills.

Rubinfeld, Clement, Lussier, Lebrun, and Auger (2006) stated that second language acquisition depends largely on the student's confidence. Their work with Francophone and Anglophone university students revealed that students with high levels of confidence possessed the skills and experiences necessary to seek an active pursuit of contact with the second language and to communicate with the student's second language community. If their work were applied to younger students, it is likely that the same pattern for contact would emerge.

Pappamihel (2001), in a study of Mexican middle school girls, found anxiety is a factor for second language students in mainstream classes as compared to when they are in ESOL classes. Anxiety for the girls in mainstream classes was more social anxiety as

compared to the academic anxiety in the ESOL classes. Malave (1997) investigated the linguistic practices in the homes of bilingual children, specifically how the caregivers promoted and supported two languages for their children.

Gonzalez (2001) examined socioeconomic status and sociocultural factors with second language students. Gonzalez defined socioeconomic status as:

The home and family structure as an omnibus variable representing numerous sub-variables (e.g., number of siblings, birth order, childrearing practices, value and belief systems held by parents, immigration status of parents, family mobility, and parents' number of years of U.S. residence). (p. 2)

Gonzalez's (2001) study of recent professional literature on the effect of socioeconomic status and sociocultural factors on the development of achievement of English Language Learner (ELL) students revealed a multi-dimensional framework for language acquisition, including internal factors such as "biological, psychological-cognitive, social, emotional," and external factors such as "SES and sociocultural variables such as family, cultural, and school environments" (p. 23). Lower socioeconomic status students, on average, take longer to master English (Hakuta, Butler, & Witt, 2000).

Capps, Passel, Perez-Lopez, and Fix (2003) reported that one in four immigrant children live in a low-income family. Socio-economic status and discrimination contribute to the low performance rate of certain populations of language minority students (Feinberg and Morencia, 1998). Voltz and Morrow (1999) stated that economically struggling families may not have the physical, emotional, and mental resources available to cultivate relationships with their children's schools. Capps, Passel,

Perez-Lopez, and Fix (2003) reported that food as well as other hardships were more closely associated with English proficiency than were length of residency or legal status. Feinberg and Morencia (1998) concluded, “Families--regardless of cultural or socioeconomic group--generally are concerned about the educational well-being of their children” (p. 4).

Gonzalez’s (2005) used an alternative assessment tool to control for developmental, linguistic, and cultural variables in a study of second language students from low, middle, and high socioeconomic backgrounds. This quantitative study revealed that cultural, linguistic, and socioeconomic status was related to cognitive development. Important to the study was that socioeconomic status, and not English proficiency, was what effects cognitive processing and language acquisition. Pearce (2006), in a quantitative study of Chinese and American students, investigated the cultural and structural influences on student achievement. Pearce’s results showed that social structure and cultural factors had a significant impact on student achievement for both groups.

Public school educators have a history of perpetuating a workforce from white, middle class backgrounds. This alone provides an additional handicap for the second language learner whose cultural background is dissimilar to the status quo. Lessow-Hurley (2003) stated:

Linguistic diversity is one simple indicator of the unprecedented cultural diversity in our public schools. But even as classrooms diversify, public school teachers tend to be overwhelmingly white and middle class. And though very few Americans can claim indigenous roots, teachers are most often from highly assimilated backgrounds characterized by mainstream values and mores. (p. 4)

Teacher sensitivity to each student is one key to helping each student assimilate into the American way-of-life while preserving the student's home culture (Short & Echevarria, 2005).

Lessow-Hurley (2003) stated that there are four basic components to culture: "What people believe, think, make, and do to adapt to their environment" (p 9). Students must learn how to manage themselves when faced with the challenges in their own environments related to society and justice while learning how to effect changes in society and to make significant contributions to society (Lessow-Hurley).

The Position Statement of the National Association for the Education of Young Children (1995) stated that educators should accept and encourage the involvement of the second language student's family, thereby, supporting the culture of the student and strengthening the bonds between the school and the family. Parker, Rubalcava, and Teruel (2005) concluded that the availability of bilingual schools reduced the "negative impact of a monolingual indigenous mother on her children's schooling" (p. 73). Titus (2001) studied New Zealand's indigenous Maori people and concluded cultural barriers and racist beliefs were broken down when students learn about different cultures, including their own, and interact with students from other cultures.

Voltz and Morrow (1999) maintained:

Historically, schools have not served diverse populations well . . . [and] additionally, culturally diverse families may experience feelings of distrust for school personnel that result from the view that schools are merely extensions of a culture that they find oppressive, and from which they feel alienated. (p. 2)

Bazron, Osher, and Fleischman (2005) concluded that there was a growing body of evidence that needed to be addressed regarding the cultural and linguistic needs of ELL students. Ferguson et al. (2001) asserted:

Successfully including students with so many differences and different ways of learning challenges schools to reinvent themselves as more flexible, creative learning communities that include and are responsive to a full range of human diversity. This newly defined diverse norm replaces the old statistically derived, bellshaped-curve norm that uncompromisingly identifies some students as “inside” and others as “outside”. (p. 1)

### Assessment and Achievement Gap

#### Assessment

Lazarin (2006) spoke to the limited support provided to states in regard to language assessment:

Due to a lack of resource and technical assistance from the U.S. Department of Education, most states are using invalid and inappropriate testing instruments to assess ELLs in academic content. These assessments are generally invalid because they were not development for use with ELLs, or because they are being used for a purpose other than for which they were designed. (p. 9)

Lazarin (2006) cited only 13 states as having native language assessments available and only 11 states that “offer native-language assessments statewide” (p. 10). The National Association for the Education of Young Children (2005) had earlier reported that the accountability system lacks the assessment tools and trained professionals for effective assessment of young English Language Learner (ELL) students.

Abedi (2001) stated that federal and state legislation required the inclusion of ELL students in wide-scale assessments. Vialpando, Linse, and Yedlin, (2005) defined

assessment as “the fair and reliable measurement of student abilities and progress” (p. iv). Any assessment given in English to ELL students has been viewed as a measure of English language proficiency and not necessarily only a measure of content understanding (Menken, 2000; Abedi & Dietel, 2004). Assessment should be a measure of what students know not a measure of what they do not know (Vialpando, Linse, & Yedlin, 2005). Menken (2000) stated wide-scale assessments typically have been attached to high stakes, including graduation.

Academic minimum competency testing began in the 1970s and signaled to educators and policymakers what should be taught to students (Wilde, 2006). Wide-scale achievement tests are typically developed by professional publishing companies and are administered to large groups of students at the same time. These tests are used as a summative measurement of student performance. Wide-scale criterion-based achievement tests, which are closely aligned to state standards, measure the degree to which students learn that which they are supposed to learn in a given time (National Clearinghouse for English Language Acquisition, 2006; Wilde, 2006).

Menken (2000) stated that stakeholders are split between all-English assessment tests with testing modifications for students and assessment developed especially for ELL students. Abedi and Dietel (2004) reported that the language demands for ELL students negatively influence the test results. Menken (2000) stated that modifications are typically used to level the playing field, but often, the modifications do not meet the needs of the learner.

The National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education (2003) stated in their joint position statement that for young bilingual children embedded assessments and observations provide a fuller picture of the abilities for second language students. Assessments which take into consideration a student's culture, home language, and socioeconomic status, and which have been normed with students who are also ELL students, would be best.

The National Association for the Education of Young Children (2005) stated that few assessments for young English Language Learners meet the rigorous standards for accountability and program evaluation, and, therefore, these students should not be included in the accountability system. Menken (2000) stated that legislation dictates to whom the assessments are given and this includes ELL students.

Abedi (2001) stated that National Center for Research on Evaluation, Standards, and Student Testing (CRESST) research found translating the assessment may not be successful and that a second language learner should be tested in the primary language of the student. Abedi stated that it was reported in CRESST research that language proficiency was a strong component for ELL students who took wide-scale assessments and whose scores were significantly lower than their English-only classmates. Abedi reported that CRESST research showed that the performance gap narrows on math items that do not depend on language ability.

The National Association for the Education of Young Children and the National Association of Early Childhood Specialists in State Departments of Education (2003)

stated that a shared responsibility exists to create assessments that are “developmentally appropriate, culturally and linguistically responsive” (p. 2). Brisk (2000) stated “language and culture greatly influence assessment” (p. 2). The National Association for the Education of Young Children (2005) stated that culturally sensitive assessments should be used with ELL students. These assessments should not include referents to words and phrases that ELL students would not readily be familiar to ELL students and should go beyond mere translation of the English assessment.

Inclusion of ELL students in high-stakes English-only wide-scale assessments could be beneficial to second language learners, but the benefits are still unclear (Menken, 2000). Second language learner performance depends on the program, the curriculum, the instruction, the personnel, and the assessment (Brisk, 2000). Abedi (2001) reported that the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) research found strong performance indicators in student background, including language background.

The National Association for the Education of Young Children (2005) stated, “If an assessment is to be used for program evaluation or accountability purposes, it should take place in the language and dialect in which the child can best show what he or she knows and can do” (p. 13). The primary way that states have included ELL students in the accountability system is to provide them with the same assessment as English-only students (Menken, 2000). Abedi and Dietel’s (2004) research of approximately 14,000 students found that the removal of ELL students from the LEP (limited English proficient) designation coincided with a significant performance drop. Although not a

claim of causation, Abedi and Dietel found this to be a specific dilemma for ELL students.

### Achievement Gap

Abedi and Dietel (2004) contended that the high demands to move proficient English Language Learner (ELL) students out of the bilingual category and regularly add new ELL students who are new and low-performing creates a downward spiral for the group's test average. In addition, Abedi and Dietel, noted that out-of-school influences, also, greatly affect the second language learner's test score.

Abedi and Dietel (2004) cited that the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) and the National Assessment of Educational Progress (NAEP) showed that ELL students consistently scored lower on assessments than English-only students and other subgroups. The National Assessment of Educational Progress (NAEP), which has assessed reading and math skills since the 1990s, showed little difference in the achievement scores for Hispanic and white 4th-grade students on the reading test from 1992 to 2005 (National Center for Education Statistics, 2006b). For this same time period, "Hispanics scored, on average, 26 points lower than Whites" (p. 2). Kohler and Lazarin (2007) stated that the data continued to show that Hispanic education did not match that of non-Hispanics.

Abedi and Dietel (2004) reported that rapid progress students designated as ELL students, including ELL students who have been in English-only schools for a short period of time, contribute to the growing achievement gap between ELL students and

English-only students. Abedi (2001) stated that the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) research showed that “the only accommodation that narrowed the gap between ELL and non-ELL students was linguistic modification of those test questions with excessive language demands” (p. 2).

First and second generation immigrants have frequently out-performed the district averages with regard to grade point averages and high school completion rates. Certain language minority students have performed better than others depending on their country of origin. Students who have received a positive reception into the United States typically have performed better than those whose reception has not been positive (Feinberg & Morencia, 1998). Bazron, Osher, and Fleishman (2005) contended that many schools have a tendency to downplay or ignore the needs and strengths of the increasing second language learning student population. This cultural disconnect can lead to increased discipline problems, inferior self-concepts, and poor academic achievement.

Accountability has two main goals: (a) to hold schools, districts, and states responsible for meeting the educational standards and (b) to ensure that students are meeting these standards (Menken, 2000,; National Clearinghouse for English Language Acquisition, 2006; Vialpando, Linse, & Yedlin, 2005). Genesee, Lindholm-Leary, Saunders, and Christian (2005) stated that improved education for ELL students is the key to narrowing the achievement gap and improving ELL student performance.

Abedi and Dietel (2004), studied 30,000 students and found outside-of-school influences, frequently parent’s level of education and socioeconomic status, influenced second language student achievement. The study revealed an approximate 15-point

achievement gap between second language students whose parents had post-graduate education and those who had not graduated from high school. Lazarin (2006) reported that the 2005 National Assessment of Educational Progress (NAEP) showed that 29% of second language learner eighth graders scored at basic or above achievement levels compared to the 75% of their non-limited English proficient peers who scored at basic or above achievement levels.

Abella, Urrutia, and Shneyderman (2005) studied students from 36 schools in Miami-Dade County, Florida. Using the SAT-9 and the Spanish version, Aprenda-2, their quantitative study focused on whether or not English-only achievement tests were an accurate measure of bilingual student mathematics knowledge. Results showed that the students' native language literacy was directly related to their English language achievement scores and that second language students' overall performance on English-only achievement tests was not necessarily a valid measure of their content knowledge. In the Florida 1999-2000 school year "only 2% of tenth grade ELLs in Florida met the state's standards in reading/English language arts" (Lazarin, 2006, p. 4). Other states had a gap from 5 to 60 points when compared to the non-second language learning student performance (Lazarin).

The Advocates for Children of New York and the New York Immigration Coalition (2002) investigated the New York City public school drop-out rate for ELL students. New York State's graduation requirement has been that all all students pass the English Language Arts (ELA) Regents test. Performance data for the class of 2001 showed that former ELL students had the highest graduation rate of all students and the

lowest drop-out rate. The 2001 data showed that current ELL students had the highest drop-out rate with a projected drop-out rate of over 50% for the class of 2001.

Escamilla, Chavez, and Virgil's (2005) study was conducted to investigate teacher and policymaker perspectives in Colorado regarding language as a problem for Latino students. The Spanish version of the Colorado Student Assessment Program (CASP), a criterion-referenced test, has been administered to ELL students or these students have been exempted from the CASP altogether. In 14 schools, Spanish reading achievement scores outperformed English reading achievement. A total of 12 of these schools outperformed the district average (p. 141). Despite this, teacher perceptions contradicted the results: "All educators involved in the study expressed the view that having heavy concentrations of Spanish-speaking ELLs equates to having underachieving schools" (p. 142).

Mahon (2006) in a quantitative study investigated the performance of 200 Colorado fourth and fifth grade students on the CASP, the Language Assessment Scales Oral short form (LAS-O), and the Woodcock-Munoz Language Survey (WMLS). Schools involved used the transition bilingual program model, pull-out ESL program model, and the dual language program model. Mahon found that English acquisition was directly related to English academic achievement, finding "a strong correlation between CASP scores on English and Spanish reading ( $r = .73$ ) and English and Spanish writing ( $r = .76$ )" (p. 494).

Parker, Rubalcava, and Teruel (2005) studied poor, rural Mexican students and the factors relating to their acquisition of English. Their results showed little difference

for indigenous bilingual children and non-indigenous bilingual children regarding school attainment, but mono-lingual Spanish-speaking children showed lower rates of school attainment than their bilingual peers. Parker, Rubalcava, and Teruel concluded that for mono-lingual children, learning Spanish was achieved over time and was an indicator of school success. Only a small fraction of indigenous mono-lingual children failed to master Spanish. It was found in this empirical study that “children with mono-lingual indigenous mothers do significantly worse in school than children with Spanish-speaking mothers, whether bilingual or nonindigenous” (p. 89). They concluded that “bilingual schools reduce the achievement gap in school enrollment between children with monolingual indigenous mother and those with Spanish-speaking mothers” (p. 90).

Tompkins (2000) studied the SAT-9 with California students and found that many bilingual students, especially during testing, were easily distracted by noise and other environmental factors, possibly due to stress. Native language assessment can be useful when the student is literate in his native language, but the problem arises when content is taught in English and the student is required to process information in two languages. True bilingual assessment would measure how the student responds to content using both languages. Gomez, Freeman, and Freeman (2005) reported that their study of 50/50 two-way immersion for Spanish-speaking and English-speaking students resulted in higher standardized test scores.

The Hispanic Border Leadership Institute investigated five Southwestern states and reported in 2002 that almost one-third of the population was Latino. In all five states, there were school districts with over 80% Latino enrollment (Acevedo et al., 2002). Cited

in the report was an Arizona court case which judged bilingual classrooms to be inadequately funded and equipped; and in California, Latinos were frequently tracked into vocational or terminal programs at the two-year college level. The report noted that in 2001 Colorado amended the definition of at-risk to include ELL students.

Further noted in the report of the Hispanic Border Leadership Institute (2002) was the status of teacher preparedness in New Mexico; 50% of the teachers came from out-of-state and very few were properly trained in second language learner pedagogy. Many of New Mexico's probationary schools have experienced high Hispanic enrollment and a low socio-economic base. With a high drop-out rate, many students have been placed in remedial classes with few students in honors or advanced classes. Within the last 15 years, the Office of Civil Rights found that eight school districts were not in compliance with the law providing for ELL students. The report concluded that the majority of students enrolled in Texas public schools between grades kindergarten and sixth were Hispanic. Using 2000-2001 data, 31% of Latino students were reported to have graduated from high school (Acevedo et al., 2002).

A Texas longitudinal study focused on students entering the first grade in 1992-93 (Texas Education Agency Office of Policy Planning and Research, 1998). Despite remarkable academic improvement in TAAS (presently known as the Texas Assessment of Knowledge and Skills TAKS) test scores, economically disadvantaged second language learning students and non-second language learning students performed lower and experienced higher retention rates than their economically advantaged peers. An investigation into high performing schools still revealed higher retention rates for second

language learning students. An inspection of campus poverty also showed that as campus percentage of economically advantaged student increased, LEP (limited English proficient) and non-LEP TASS passing test scores increased. Lazarin (2006) stated that in the Texas 2001-2002 school year second language learning students in grades 7 to 12 were retained at twice the rate of their non-LEP peers (Texas Education Agency Office of Policy Planning and Research, 1998).

The research supported the cultural differences among students and the negative impact teachers can have on the students' academic success. English Language Learner students may be underestimated by their teachers, and this can affect their student achievement as well (White-Clark, 2005). Academic achievement tests for ELL students can be problematic in that they may know the content but may be unable to respond to the questions in English. In short, until English mastery is attained, academic tests in English are a test of English mastery not academic content (Wilde, 2006).

## Bilingual Education

### History of Bilingual Education

Wiese (2004) stated that "English is a high status tongue in the United States" (p. 71). Lessow-Hurley (2000) commented that "standard language is the language of the group in power" (p. 33).

Typically, schools have existed to assimilate newcomers to the United States and to support the status quo who are already a part of the American way-of-life and

education system (Lessow-Hurley, 2003). Examples of second language dominant schools were apparent in German language schools in Philadelphia in 1694. By the mid-1800s, “instruction in French in Louisiana, in Spanish in New Mexico,” along with other languages in other states, “had been explicitly authorized by state and local education authorities” (Feinberg & Morencia, 1998, p. 2).

Historical significance can be attributed to the Common School movement of the late 1800s which placed an emphasis on “Americanizing” immigrants in order to make them responsible American citizens (Weise & Garcia, 1998, p. 2). The largest number of immigrants arrived during the early 20th century from southern, eastern, and central Europe. Families struggled for linguistic and cultural power to control the schools (Ovando, 2003). This increase in immigration gave way to increased nativist fears of separatism with the only viable solution being a quick assimilation into the American way-of-life (Wiese & Garcia). The Naturalization Act of 1906 not so surprisingly expressly stated that to become naturalized US citizens, immigrants must speak English (Ovando).

History has documented bilingual education in the 19th and early 20th century, but from 1920 to the mid-1960s, native language instruction was largely absent from schools due to an anti-German reaction to World War I. This reaction manifested itself into an anti-immigrant trend felt by the American public. By 1923, 35 states, which had supported native-language instruction, adopted new legislation requiring that all classes would be taught in English (Rothstein, 2001).

The first half of the 20th century rooted the teaching of immigrant students in a pursuit of homogeneity, grounded in the “standardization and bureaucratization of urban schools, the need for national unity during the two world wars, and the desire to centralize and solidify national gains around unified goals for the country” (Ovando, 2003, p. 5). During this time, many large districts created classes to educate immigrant students on the American way-of-life in order to prepare them for integration into mainstream society. The dominant approach to teaching second language students at this time was submersion or “sink-or-swim” (Ovando, 2003, p. 6).

During the first part of the 20th century, immigrant students were performing poorly and had a lower graduation rate than that of English speaking students. By the 1920s, Italian students had settled primarily in Boston, Chicago, and New York. These students scored an average of 85 points on I.Q. tests “compared to an average for native-born students of about 102” (Rothstein, 2001, p. 220). The poor results of these tests led to high rates of retention and to the unfortunate labeling of English Language Learner (ELL) students as retarded. The challenge in New York schools was so severe that its first special education classes were started. The rationale was based on a 1921 survey which revealed that one-half of students who might currently be labeled learning disabled had Italian-born fathers (Rothstein, 2001).

In 1963, the first two-way developmental program experiment established in the United States was the Coral-Way Project, Miami, Florida. This program was initiated as a result of the Cubans fleeing Fidel Castro but remaining intent on returning to Cuba to overthrow the government. Therefore, in an attempt to preserve their children’s native

Spanish and to develop their English skills, the Cubans established private bilingual schools (Thomas & Collier, 1997).

Two-way programs expanded when attention to foreign language for English-only students increased research on education for language minority students as state and federal funds were more available (Christian, Howard, & Loeb, 2000). Attention increased when English-only families wanted their children to be bilingual (Gomez, Freeman, & Freeman, 2005). For English-only students, the two-way immersion program was similar to an immersion experience and offered a hopeful climate for improving relationships among different language speakers (Christian, Howard, & Loeb).

The underlying issue for the United States has been whether the citizens are best served by a one-culture-one-language approach to citizenry or by an approach that promotes allegiance to one of the fundamental guiding principles of American democracy: cultural and linguistic pluralism. Feinberg and Morencia (1998) contended, “Those who favor the former support language education programs that result in personal and societal monolingualism; those who favor the latter support programs that result in personal and societal bilingualism or multilingualism” (p. 2).

#### Identification of English Language Learners

Abedi (2001) stated that national clarification was needed for universal identification of English Language Learner (ELL) students. Limited English proficient (LEP) and language minority have been frequent labels under federal legislation (Vialpando, Linse, & Yedlin, 2005), but there have been no universally agreed upon

standards for identifying limited English proficient (LEP) students (Hopstock, 2003). Conversely, there have been no uniform standards for agreeing when a LEP student should be dismissed from second language services. States have identified students by various labels and have labeled students as language minority based on their country of origin, home language, or both. English has been listed as the minority language when a patois or dialect makes standard American English the student's second language (Smith-Davis, 2004).

Menken (2000) stated that there has been great variance among the states regarding identification of ELL students. Abedi and Dietel's (2004) studies have found the variety in schools' identification of limited English proficient (LEP) produced inconsistent results. One of the stumbling blocks to exacting a precise number of students who qualify for English as a second language services has been that states differ in how they measure the need for the service (Lessow-Hurley, 2003). Limited English proficient students have often been identified during school registration with a language survey that is filled out by the parents or guardians (Lessow-Hurley).

Students have been generally first identified for limited English proficient (LEP) testing with a home language survey when they enter school (National Clearinghouse for English Language Acquisition, 2006). At the point of registration, students are provided with a home language survey, designed to identify students in need of second language support. The accepted procedure has three steps: (a) Identify students in need of second language support using a home language survey, (b) test the student if the home language

survey identifies the second as a second language learner, (c) place the student in an appropriate classroom with second language support (Wilde, 2006).

Osher et al. (2004) stated that with current policy movements to withdraw language support, it was important that research be conducted with ELL students, who in large districts serving ELL students, have been disproportionately labeled as special education students.

#### State of Florida Statutes

The following policies are included in the 2006 Florida Statutes:

- (3) Each district school board shall implement the following procedures:
  - (a) Develop and submit a plan for providing English language instruction for limited English proficient students to the Department of Education for review and approval.
  - (b) Identify limited English proficient students through assessment.
  - (c) Provide for student exit from and reclassification into the program.
  - (d) Provide limited English proficient students ESOL instruction in English and ESOL instruction or home language instruction in the basic subject areas of reading, mathematics, science, social studies, and computer literacy.
  - (e) Maintain a student plan.
  - (f) Provide qualified teachers.
  - (g) Provide equal access to other programs for eligible limited English proficient students based on need.
  - (h) Provide for parental involvement in the program.

\* \* \*

(5) Each district school board's program for limited English proficient students shall be evaluated and monitored periodically.

(6) The State Board of Education shall adopt rules for the purpose of implementing this section. (Title XLVII K-20 Education Code, Chapter 1003 K-12 Education Code, p. 177).

### Bilingual Programs

Rothstein (2001) defined bilingual as:

A preferred strategy for the last 20 years, [that] aims to teach academic subjects to immigrant children in their native languages (most often Spanish), while slowly and simultaneously adding English instruction . . . further, the theory goes, teaching immigrants in their native language values their family and community culture and reinforces their sense of self-worth, thus making their academic success more likely. (p. 218)

Successful bilingual programs build second language literacy and foster students' cultures which lead to increased student achievement (Brisk, 2000). Hopstock (2003) reported that there are a number of common usage labels, e.g., bilingual classes, ESL classes:

Research and observation indicate that there is very wide variability in the types of services being offered under each of those labels. There are "bilingual classes" in which there is virtually no native language use, ESL classes that do and do not include content instruction, and structured immersion classes with varying levels of adaptation for LEP students. (p. 6)

Roberts (1995) cautioned that there has been an inconsistency in program labeling which contributes to the lack of uniform program components. Roberts continued that the variables for teacher training, number of students and amount of time in the program, as well as languages, ages, and grades all contribute to making each program unique. The field of bilingual teaching has lacked consistent program labeling and teaching standards

(Bruce et al., 1997). Ferguson et al. (2001) asserted that unifying a system is made difficult by the sheer demands that are placed on schools and teachers: “Too often, the task overload many educators experience can turn important and fundamental changes into small, quick fixes that change little” (p. 2). Schools have a class-centered approach to limited English proficient (LEP) instruction (Hopstock, 2003). Within an English as a second language (ESL) classroom, a Spanish-speaking student may be receiving instruction in two languages while a Vietnamese student receives instruction in only English. Thomas and Collier (2002) contended, that when English Language Learner (ELL) students were assigned to segregated, remedial programs, they did not close the achievement gap. Instead, the achievement gap only widened over time.

Ma (2002) posited that researchers have shown there is no one single bilingual program that is best or most effective. Research reviewed revealed that several types of bilingual programs may be effective with bilingual students. Ma stated, “This lack of agreement among researchers is in part the result of wide-ranging differences in implementation essentials, such as teacher quality” (p. 6).

Glenn (2002) stated that in European schools a “reception class” has been provided for students who are past the age of starting school (p. 30). Younger children are appropriately placed in mainstream kindergarten classes. The focus on the “reception class” is the laying and building of the second language, supporting the belief that with a solid foundation in the second language that academic success will occur over time.

Krashen (1999) stated that the goals of a bilingual program are “the development of academic English and school success, and. . . the development of the heritage

language” (p. 1). The development of the heritage (first language) leads to an appreciation of the student’s native culture (Krashen, 2005). A good foundation in a student’s first language leads to better English language acquisition (Krashen, 1999).

Krashen (2005) stated that there are “two pillars” to bilingual education (p. 166). The first pillar is the student’s background knowledge which helps the student to understand the context of the English that he/she reads or hears. The second pillar is to build literacy in the first language, since first language literacy is a “short cut to developing literacy in the second language” (Krashen, p. 166).

Sunshine State TESOL of Florida’s Position Statement on Bilingual Education (2005) stated that the issue at large for Florida’s increasing language minority students is the lack of bilingual education and instruction in Florida schools. The Position Paper of the Sunshine State TESOL contended that despite “the small number of bilingual programs being implemented in various counties, bilingual education remains largely invisible in the state” (p. 1).

The 2006 Florida Statutes supported the 2005 Sunshine State TESOL statement with the following language: “Instruction in the English language shall be provided to limited English proficient students. Such instruction shall be designed to develop the student’s mastery of the four language skills, including listening, speaking, reading, and writing, as rapidly as possible” (Title XLVII K-20 Education Code, Chapter 1003 K-12 Education Code).

## Basic Mainstream Instruction with Language Arts/ESOL Model

The Basic Mainstream Instruction with Language Arts/ESOL (English for speakers of Other Languages) Model provides for content area instruction and English language proficiency while providing a strong academic focus on language acquisition. Limited English proficient (LEP) students from the same grade level are grouped together for their grade level English class (Orange County Public Schools Multilingual Student Education Services, n.d.a).

In the Basic Mainstream Instruction with Language Arts/ESOL model, there has been a strong language component to facilitate language acquisition and a dedicated, challenging, interactive curriculum, as well as linguistic and academic objectives (Ortiz, 2003). “In secondary schools, students receive Language Arts/ESOL from an ESOL teacher and content classes from a certified teacher in their home school” (Orange County Public Schools Multilingual Student Education Services, n.d.b). State of Florida certification requirements for middle school teachers who desire to teach LEP students are English/Language Arts certification with ESOL endorsement, ESOL certification, or appropriate foreign language with ESOL endorsement (Orange County Public Schools Multilingual Student Education Services, n.d.b).

English as a second language classes are classes instructed in the use of English with little or no support in the student’s native language (Northwest Regional Educational Laboratory Research Review, Winter 1995). This class is typically only taught at certain times of the school day; the rest of the day the student is in “regular (or submersion) instruction, an immersion program, or a bilingual program” (p. 7). Thomas and Collier

(1989) stated that when a bilingual teacher is not available or when there are too many different languages in one school, English as a Second Language (ESL) classes are a good alternative and should begin as early as possible for students.

Components of the Basic Mainstream Instruction with Language Arts/ESOL program in Florida include: comprehensible instruction, Cognitive Academic Language Learning Approach (CALLA), language development, and language arts/ESOL (Orange County Public Schools Multilingual Student Education Services, n.d.b).

#### Home School Basic program/ESOL K-12

Basic Mainstream Instruction with Language Arts/ESOL program model for Orange County, Florida, has been defined for elementary school parents, using the Orange County Public Schools (OCPS) Parent Notification of Eligibility for Placement in Programs for Students Learning English as a Second Language (n.d.b.). This program has been defined as: “The students receive instruction of linguistic and grade level academic skills in the homeroom classroom with students who are native speakers of English.” Elementary schools are required to provide information to the parents on alternative placement at a school(s) which offers instruction using the sheltered bilingual program which is also known as the One-Way Developmental Bilingual Education program.

The OCPS Basic Mainstream Instruction Language Arts/ESOL Program Guide English states: “In elementary schools, this model is only implemented in schools with very small numbers of Language Enriched Pupils (LEP) where Bilingual Education

and/or Sheltered Instruction Models are clearly not feasible.” In schools where appropriate, the LEP students are grouped together in the same classroom.

The OCPS pamphlet continues: “The elementary teacher in this model has a dual responsibility, ESOL teacher and grade level teacher.”

#### ESOL (English for Speakers of Other Languages) Pullout

Roberts (1995) stated that in this model students are “pulled out” to receive second language services (p. 373). Thomas and Collier (2002) stated that English as second language teachers serve as resources to the mainstream classrooms. Typically, students are “pulled out” of language arts classes (Roberts). Students worked with the resource teacher for one period per day in the Collier and Thomas (2002) study. ESOL pullout programs have mainstream classrooms with a small supplemental class to the mainstream classroom. The ESOL Pullout delivery model has an assimilation goal to mainstream minority language students (Rossell, 2005). This model was used by elementary schools which do not have sufficient numbers of ELL students to allow for the implementation of another program (Thomas and Collier).

#### Immersion

The immersion program model should be used for majority speakers who are learning a foreign language and who seek academic proficiency and general communication skills in the minority language (Genesee, 1999). Originally, immersion is a Canadian second language program model (Cummins, n.d.b.; Lessow-Hurley, 2003;

Roberts, 1995). Roberts stated that in Canada, the majority English students were learning French; hence, the model promoted bilingualism and biliteracy and was pluralistic. But when the minority language student is immersed in the majority language, the model is assimilationistic. Lessow-Hurley commented that “immersion programs seem to work best when speakers of a majority language are immersed in a minority language” (p. 39). Genesee (1999) stated that immersion programs are frequently misunderstood and used as an option for English Language Learners. Results from the Thomas and Collier (2002) studies showed that students who were enrolled in immersion classes “showed large decreases in reading and math achievement by Grade 5” (p. 326). Genesee cautioned, “Those who use results from immersion programs to argue against first language instruction for English Language Learners misunderstand immersion and are misapplying immersion approaches to a population for which they are not and never were intended” (p 30). Characteristics of the immersion model include:

(a) a bilingual teacher who delivers instruction in the majority language but can understand the minority language, (b) majority language modified for comprehensible instruction and (c) language arts instruction delivered in the student’s native language (Lessow-Hurley).

#### One-way Developmental Bilingual/ESOL Education

One-way Developmental Bilingual/ESOL Education is also known as Transitional Bilingual, Bilingual or One-Way Developmental Bilingual. Orange County Public Schools, Florida, defines One-way Developmental Bilingual Education as:

A home school [or center school] that has a sufficient number . . . LEP students who speak the same language and provides them with One Way Developmental Bilingual Education/ESOL services. Students receive grade level instruction in the native language and in English (Orange County Public Schools Multilingual Student Education Services, n.d.a.).

This program model serves as a bridge to English-only classes (Genesee, 1999; Roberts, 1995). A successful transitional program must have a bilingual teaching staff and bilingual teaching materials (Genesee). Thomas and Collier (2002) defined developmental bilingual programs as providing a strong grade-level appropriate education in Spanish throughout the primary years, gradually increasing the use of English each year until 50% of the content is delivered in English. Thomas and Collier's 2002 results of a one-way developmental program in Maine showed an 8.5% influence on student reading achievement, overcoming the effects of poverty.

Developmental bilingual programs vary as to the "amount of native language instruction provided and the duration of the program" (Northwest Regional, Winter 1995, p. 6). The transitional bilingual program begins with content classes in the native language, English as second language (ESL) classes, and mainstream electives or specials (Genesee, 1999; Roberts, 1995). Developmental bilingual education models are frequently found in schools with a significant number of ELL students especially if the native languages number one or two. This model is pluralistic but does not aim for full bilingualism.

Genesee (1999) stated that the transitional program model features included: (a) effective minority language instruction for a solid academic foundation, (b) academic instruction in English as a second language (ESL) and English practice in non-threatening

ways, (c) certified bilingual teachers, (d) proficiency in the minority language, (e) on grade-level achievement, (f) advanced English proficiency, (g) continuing sheltered English instruction, (h) accurate and ongoing assessments and rigorous curriculum, (i) social interaction with majority students and (j) increased parental involvement.

In Thomas and Collier's (1997a) longitudinal study, it was found that students in one-way bilingual classes "out perform their counterparts being schooled in well-implemented monolingual classes, as they reach the upper grades of elementary school" (p. 15). Thomas and Collier also stated that these students continued their educational gains into the secondary grades even when the program was not offered at the secondary level. In their 2002 study, Thomas and Collier reported that informal observations on reading achievement of students in a developmental bilingual program showed that these students were out-performing students enrolled in second language content classes without first language support.

Thomas and Collier's (2002) studies showed that students enrolled in the 90-10 one-way developmental program had reached the 34th percentile by the 5<sup>th</sup> grade. Genesee (1999) stated, "Schools must, therefore, provide additional support early on for students who manifest academic difficulties or signs of falling behind in their first language or in their oral English development to ensure early success" (p. 20).

### Sheltered Instruction

Sheltered instruction uses English as the instructional language for the academic courses. These classes are mostly comprised of English Language Learners, but

scheduling and small numbers may necessitate English Language Learners and native speakers scheduled together in the same class. In this model, students are taught in English with instructional modifications using the standard curriculum. Modifications for the second language students are implemented in order to meet the language acquisition needs of the English Language Learners (Genesee, 1999). Rossell (2005) stated that many programs labeled as “bilingual programs” were really sheltered programs since most of the instruction is in English.

The sheltered instruction model “provides for the simultaneous development of subject area instruction and English language proficiency” (Ortiz, 2003, slide 17). With this model, students are instructed in English with a native language translation. Students from diverse backgrounds and different languages can be included in the sheltered classroom, and this contributes to the overall success of this program model. Some of the goals of this model include to “attain high levels of linguistic skills in English through ESOL . . . . [and to] develop high levels of cross-cultural understanding” (Ortiz, 2003, slide 19).

Students in this model must have equal access to all grade-level textbooks and materials, bilingual dictionaries, and “qualified bilingual paraprofessionals that speak the native language to the students” (Ortiz, 2003, slide 20). The sheltered model is a program model which can easily fit into a school’s master schedule as well as provide meaningful academic instruction for LEP students. Sheltered instruction is frequently found in secondary schools (Rossell, 2005). Krashen (1999) stated that a gradual exit bilingual

program works best for second language students who exit the program via sheltered subject matter classes.

#### Structured English Immersion (California Proposition 227)

The structured English immersion program is a program where the instruction is delivered in English with modifications to vocabulary and instructional pace (Northwest Regional, Winter, 1995). Combs, Evans, Fletcher, Parra, and Jimenez (2005) defined Structured English Immersion (SEI) as English-only instruction with modifications to meet the needs of the second language learner. Rossell (2005) defined SEI as a self-contained classroom of primarily ELL students with mostly English instruction. Roberts (1995) defined SEI as sheltered instruction. Classrooms are comprised primarily of ELL students, and the trained teacher uses second language acquisition methods in his or her teaching (Rossell).

Rossell (2005) stated that California schools adopted two structured immersion programs after the Proposition 227 was mandated. California's Proposition 227 is the initiative to end bilingual instruction. The California legislation limits special English instruction to one year. During this one-year period, instruction is delivered through the student's first language. After this one-year period, the student is immersed in English-only classes (Feinberg & Morencia, p. 2).

Ma (2002) reported that in 1998 Californians voted for the currently used structured English immersion program for use with bilingual students in public schools. Spearheaded by businessman, Ron Unz, Proposition 227 sought to eliminate bilingual

instruction and replace current program models with one year of English language instruction for bilingual students before placing them in mainstream classrooms. Arizona voted for a similar bilingual approach in 2002.

Ma (2002) stated that California and Arizona had adopted “Unz Initiatives” that limited the teaching of English to LEP students to one year. Ma stated that the results of research clearly indicated that one year of English instruction was not enough instructional time to prepare bilingual students for the mainstream classroom and not the success Unz claimed. Everyday basic English communication was not enough English acquisition for the academic English classrooms where content is daily taught in English.

### Submersion

The submersion approach has placed students in a regular classroom setting with English-only instruction without any native language instructional support (Northwest Regional, Winter 1995). Placing students in the submersion classroom can be more closely associated with “sink or swim” for the students (Lessow-Hurley, 2003, p. 40). Rossell (2005) defined “sink-or-swim” as a mainstream classroom with no support for ELL students.

The goal of submersion is the assimilation into the mainstream culture for ELL students (Roberts, 1995). This is a subtractive approach to bilingual education in that the first language is not supported. *Lau v. Nichols* (1974) found this method of instruction to be unconstitutional (as cited in Northwest Regional, Winter 1995). Roberts stated that this appeared to be a predominant approach in the United States to teaching English as a

second language. It was Rossell's (2005) belief that mainstream classes appeared to be more practical for schools, and that there was no significant research that indicated this to be a harmful situation for ELL students.

### Two-Way Immersion

Wu and Bilash (1998) defined two-way immersion or dual-language education as a program which brings students together who speak two languages. Two-way immersion, also known as enriched education, Two-way bilingual (Gomez, Freeman, & Freeman, 2005; Roberts, 1995) and developmental bilingual (Roberts) seeks to promote the studying of the native language as well as English with students having classes in both languages. Roberts defined maintenance bilingual programs as programs for ELL students with equal emphasis on English and the native language. This program model places high academic achievement first and language acquisition second (Genesee, 1999). The delivery model has a polaristic goal to develop the bilingualism and the bi-literacy in both languages for majority and minority students. Two-way immersion program models include instruction in English and the minority language, solidifying minority language literacy for the limited English proficient (LEP) students and foreign language instruction for the English-only students (Christian, Howard, & Loeb, 2000; Weise, 2004).

Two-way immersion programs provide for content area instruction and language instruction in both languages (Christian, Howard, & Loeb, 2000). Two-way immersion develops "full proficiency in the first language and high levels of proficiency in the second language" (Genesee, 1999; Gomez, Freeman, & Freeman, 2005, p. 146). Collier

and Thomas (1989) found that the two-way immersion program was the most successful program since this program promoted the first language along with English.

Two-way immersion has mainly been used in elementary schools, but some schools have developed a K-12 model (Gomez, Freeman, & Freeman, 2005). Optimally, instruction is in one language for an extended period of the day with academic instruction in both languages and non-English used 50% of the time (Genesee, 1999). Many elementary schools use the 90/10 instructional model where the minority language is used for 90% of the time in early elementary grades, gradually increasing English over time, and balancing at the 50/50 model (Christian, Howard, & Loeb, 2000; Gomez, Freeman, & Freeman). The 50/50 model begins with an equal amount of time spent speaking each language (Gomez, Freeman, & Freeman). Attrition at the upper grade levels is usually apparent, resulting in unbalanced student numbers (Christian, Howard, & Loeb). Two-way immersion is still a viable possibility even with unbalanced student numbers (Gomez, Freeman, & Freeman).

The components of the two-way immersion model include: English added as the student continues to develop his or her native language and monolingual English speakers learn a new language through the experience (Lessow-Hurley, 2003). Genesee (1999) stated that two-way immersion programs include: (a) integration of students in the minority and majority language, (b) program duration should be four to six years, (c) assessment is focused on mastery, (d) equal status provided to speakers of both languages and (e) classrooms are comprised of 50% native speakers and 50% English Language Learners.

De Jong (2004) found that despite significant differences in students in two-way immersion and developmental bilingual programs, they needed at least four years for the development of productive academic English skills. It was also determined in this quantitative study that a possible “plateau” exists for English Language Learners which may slow the process of learning English (p. 104). Gomez, Freeman, and Freeman (2005) found in their study that students in a 50/50 two-way immersion for Spanish-speaking and English-speaking students reported higher standardized test scores.

#### English as a Second Language Teacher Education and Training

Teachers do not have adequate training to help English Language Learner (ELL) students, and sometimes teachers misinterpret behavior because of the cultural differences. The most powerful approach is helping teachers to provide a culturally rich classroom where instruction takes into consideration the cultural value systems of diverse populations (Bazron, Osher, & Fleishman, 2005). According to Azzam (2004), fewer than 13% of the teachers have professional development to aid them with the teaching of ELL students. This number is high in lieu of No Child Left Behind and the impact of high stakes testing and accountability.

A 1998 National Center for Education Statistics survey of teachers revealed that only 17% of the teachers who taught English Language Learners were totally prepared to teach. One-third of the teachers were somewhat prepared and 33% of the teachers were moderately prepared (as cited in White-Clark, 2005). Due to a lack of teacher training, some teachers have resorted to less effective instructional methods to meet the needs of

the English Language Learners due to the lack of skills, knowledge, and pedagogy that teachers need in order to be equipped to teach these students (White-Clark).

Miller, Strosnider, and Dooley (2000) contended that the teaching population was becoming increasingly homogeneous while the student population was becoming increasingly heterogeneous. They reported that white/non-Hispanic teachers make-up 87% of the education workforce compared to 66% of the student population.

Lessow-Hurley (2003) asserted that public school teachers tended to be white and middle class, and very few Americans can claim their cultural roots. Some teachers state they have no culture. Teachers potentially can have little understanding of the second language student's struggle for assimilation into the English speaking classroom, expecting more than the students can produce and placing ELL students at the same ability level as English-only students (Short & Echevarria, 2004).

Smith-Davis (2004) reported a widespread concern regarding educators who lack a second language as well as the linguistic and cultural understanding for language minority students. Feinberg and Morencia (1998) stated, "Mainstream teachers must therefore learn the skills and strategies needed to teach these students and become familiar with the resources that can assist them" (p. 2). When teachers are monolingual and depend on language minority paraeducators for interpretation between the students and the teacher, teachers do not understand what the paraeducator is saying to students nor can monolingual teachers evaluate student responses (Smith-Davis, 2004).

Miller, Strosnider, and Dooley (2000) expanded the 1997 Evans, Torrey, Newton study to include all facets of diversity, including marginalized and disenfranchised

groups. They stated that the sheer nature of 21st century public schools demanded multicultural training and diversity training.

Miller, Strosnider, and Dooley (2000) reported that the definition of diversity and details of diversity training varied greatly from state-to-state. Some states merely required evidence of training while others listed specific courses, number of semester hours and specific field experiences needed. Only 39% of the states provided a comprehensive explanation of their required training and experiences. Advocates for Children of New York and the New York Immigration Coalition (2002) stated that there was a lack of qualified, bilingual or English as a second language (ESL) teachers. Often, ELL students were reportedly taught by uncertified teachers.

Courses or partial preparation experiences have not been found to have a significant impact on preparing teachers to enter the field and have often been found to be inadequate (Miller, Strosnider, & Dooley, 2000). Villegas and Lucas (2002) stated that the typical teacher preparation program had one or two courses on multiculturalism and that these courses were often optional. Additionally, teacher preparation programs have not always met the requirements for the teaching of minority language students, forcing school districts with the greatest need for ESL teachers to depend more and more on native language paraeducators in the classrooms (Smith-Davis, 2004).

Miller, Strosnider, and Dooley (2000) reported in their national study that 67% of the states required some kind of diversity training for teachers to obtain an initial teaching license. Of the participating states, 37% looked at each individual teacher to make a determination and 51% reported that there must be some kind of evidence of

multicultural training for state teacher education programs to be approved. Nine states did not require any diversity or multicultural training for program approval.

Diversity and multicultural requirements for the preparation of teachers varied among the states. Although 34 states (67%) had the same licensure requirements, 6 (12%) were found to have varying requirements. Some states had an extensive requirement for one content area/grade level of teaching and none for another area of teaching such as elementary (Miller, Strosnider, & Dooley, 2000).

According to Azzam (2004), fewer than 13% of the teachers had professional development to aid them with the teaching of ELL students. Caldreon (1997) contended that weakness in bilingual professional staff development designs and delivery can create student failure and program criticism. Until only recently, language minority students have been delegated to bilingual teachers depriving other teachers of an enriching, cultural experience. In Combs, Evans, Fletcher, Parra, and Jimenez's (2005) qualitative study of second language elementary students in Loma Vista, Arizona, it was determined that sheltered English instruction teachers are mainly uninformed of the instructional model and that staff training had been disorganized.

#### Major Federal and State Policy and Case Law

One of the earliest protections for ESOL students is Amendment XIV of the United States Constitution, Section 1, which stated that all persons who are born or naturalized in the United States shall not be denied the privileges of an American citizen. Feinberg and Morencia (1998) commented, "There are no constitutional language rights

per se other than the First Amendment guarantee of freedom of speech. Language-minority students are, however, protected by a prohibition against discrimination on the basis of national origin” (p. 5).

Amendment XIV of the US Constitution, Section 1, (1866) specifically states that all persons who are born or naturalized in the United States shall not be denied the “privileges or immunities of citizens of the United States; nor shall any state deprive any person of life, liberty, or property, without the due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.”

Although most frequently cited as a case representing the disparity between black and white children, this case has served as an important landmark case for all minorities. In the case of *Brown et al., v. Board of Education of Topeka et al.*, argued on December 9, 1952, before the Supreme Court of the United States and decided on May 17, 1954, the court was presented an appeal representing four cases involving black children who were denied access to public schools attended by white children under the laws of segregation.

These cases came on appeals from the states of Kansas, South Carolina, Virginia, and Delaware and were grouped together in a class action suit. In the Kansas case, the appellants were black children who brought suit against Kansas “to enjoin enforcement of a Kansas statute which permits, but does not require, cities of more than 15,000 population to maintain separate school facilities for Negro and white students Kan. Gen. Stat. sec. 72-1724 (1949)” (p. 5). The lower court found that the “Negro and white schools involved had been equalized, or were being equalized with respect to buildings, curricula, qualifications and salaries of teachers, and other tangible factors” (p. 1). The

District Court found for the appellant in this matter, stating that segregation “has a detrimental effect on Negro children, but denied relief on the ground that the Negro and white schools were substantially equal with respect to buildings . . . and educational qualifications of teachers” (p. 5). The appeal came forward based on the Fourteenth Amendment, the existing racial segregation, and the views of the appellants, who saw the Amendment as their basis for appeal based on existing laws permitting segregation.

The Court further stated, “The equal protection clause of the Fourteenth Amendment prohibits states from maintaining racially segregated schools” (p. 3). Here the justices sided with the appellants who believed the schools had violated the Fourteenth Amendment. This became part of the foundation for the court’s opinion. The lower court cited *Plessy v. Ferguson*, 163 U.S. 537 (1896), which supported the “separate but equal” doctrine and provides Blacks and whites equality in public education but at separate but equal facilities. The justices concluded that this separation “has no place in the field of public education” (p.3). The justices stated that it was not solely the equalization of buildings, curricula, transportation but the totality of the effect on children who were segregated in public schools. The justices concluded:

Today, education is perhaps the most important function of state and local governments . . . It is the very foundation of good citizenship. Today it is a principal instrument in awakening the child to cultural values, in preparing him for later professional training, and in helping him to adjust normally to his environment . . . Such an opportunity, where the state has undertaken to provide it, is a right which must be made available to all on equal terms. (p. 11)

The justices further stated:

Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other ‘tangible’ factors may be equal, deprive

the children of the minority group of equal educational opportunities? We believe that it does. (p. 11)

When the federal government enacted the 1965 Immigration Act, the doors to the United States opened for more Asian and Latin Americans to enter the United States (Molesky, cited in Ovando, 2003). By the mid-1960s “there were indications that the federal government was ready to become involved” in public education (Congress, 1997, p. 1). Two major pieces of legislation forever impacted the future of bilingual education: the Civil Rights Act of 1964 (PL 88-352) and the Bilingual Education Act of 1968 (Title VII of the Elementary and Secondary Education Act).

Title VI of the Civil Rights Act of 1964, Nondiscrimination in Federally Assisted Programs, laid the foundation which specifically protects ESL students who are enrolled in schools that receive federal assistance. The opening lines of the Civil Rights Act of 1964 set forth its intent which includes among others “to authorize the Attorney General to institute suits to protect constitutional rights in public facilities and public education, to extend the Commission on Civil Rights, to prevent discrimination in federally assisted programs” (p. 1). This Act authorized and provided protection for students enrolled in public schools and established one of the primary premises for future litigations and subsequent laws. With this Act, the US Congress “set a minimum standard for the education of language minority students with Title VI” (Weise & Garcia, 1998, p. 3).

Title VI Section 601 of the Civil Rights Act of 1964 mandated:

No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. (p. 12)

Section 602 of Title VI of the Civil Rights Act of 1964 authorized Section 601 and set forth the due process for agencies that receive federal assistance. Section 603 of Title VI provided for withdrawal of federal financial assistance to schools and/or districts that violate Section 602. Specifically, Section 603, detailed that in a case of action the penalty will be “terminating or refusing to grant or to continue financial assistance upon a finding of failure to comply with any requirement imposed pursuant to section 602” (p. 13).

Weise and Garcia (1998) commented on the Johnson (1963-1969) administration’s “war on poverty”:

The “war on poverty” legislation was largely based on the cultural deprivation theory or culture of poverty theory, which dominated educational psychology. Instead of genetic inferiority, environmental factors were viewed as the main reasons for the underachievement of minority children. In theory, specific types of attitudes, language styles, work values, and other behaviors dampened the abilities necessary to overcome poverty. This implicitly encouraged a subtractive form of bilingual education, where the native language and culture were not viewed as resources to build on, but as barriers to overcome. (p. 5)

In 1967, Texas Senator Yarborough, with Senate Bill 428, proposed the amendment of the Elementary and Secondary Education Act, recommending the creation of a new section, Title VII, which later became known as the Bilingual Education Act. Originally attacked by members of Congress for the bill’s limited linguistic scope, the bill eventually was broadened to include funding for schools with poor non-English speaking students (Congress, 1997). Nunez-James (2002) stated that the original intent of the Bilingual Education Act, protected in New Mexico’s Bilingual Multicultural Education

Act (1973), assured the students' cultural and linguistic backgrounds will be preserved in their academic educations.

Title VII, also known as the Bilingual Education Act of 1968, created a framework for federal funds to schools who served students with limited English proficiency but was terrifically unclear "about whether the goal of the program should be a rapid transition to instruction in English or a slower approach allowing the maintenance of the child's native language and customs" (Congress, 1997, p. 4). For the first time though, the federal government sought to "build upon students' home cultures, languages, and prior experiences in such a way that they could start learning without first being proficient in English" (Ovando, 2003, p. 8).

One effect of the Bilingual Education Act of 1968 was that "14 states had enacted statutes that permitted bilingual programs, and 13 others passed legislation that mandated them" (Escamilla, 1989, p. 2). To give proper credit to the Bilingual Education Act, one must also note the reauthorizations of 1974, 1978, 1984, 1988, 1994 (Wiese & Garcia, 1998), its eventual death on January 8, 2002, and rebirth as Title III of No Child Left Behind.

In 1968, the last year of the Johnson administration, the Department of Health, Education, and Welfare issued general Title VI guidelines to the 1964 Civil Rights Act which held "school systems ...responsible for assuring that students of a particular race, color, or national origin are not denied the opportunity to obtain the education generally obtained by other students in the system" (Lyons, 1990, p. 70).

The Office of Civil Rights, inspected and followed up on these 1968 guidelines with a memorandum, providing specific direction to school districts (Lyons, 1990, p. 70). In his May 25, 1970, Memorandum, Pottinger, Director of the Office of Civil Rights, sent by the Department of Health, Education, and Welfare to School Districts with More Than Five Percent National Origin-Minority Group Children cited as its subject: Identification of Discrimination and Denial of Services on the Basis of National Origin. The memorandum specifically addressed Title VI of the Civil Rights Act of 1964, stating “that there be no discrimination on the basis of race, color or national origin in the operation of any federally assisted programs” (p. 1).

Pottinger (1970) declared in the memorandum that, under Title VI compliance, reviews in school districts with large Spanish-surnamed populations revealed common practices that had the effect of denying services to this population of students. The letter continued by directing districts not to place ESOL students in dead-end curriculum classes and to adequately notify language minority parents of school activities. The memorandum also addressed the potential need for notification and communication with ESOL parents to be in a language other than English.

Further, Pottinger (1970) directed that when language was the barrier for national-origin minority students to effectively participate in the educational program, the district “must take affirmative steps to rectify the language deficiency in order to open its instructional program to those students” (p. 1).

In addition, the Pottinger memorandum (May 25, 1970) directed districts to take affirmative steps to rectify the language deficiency in instruction programs for language

minority students and directed districts to not label ESOL students as retarded based on their English proficiency. The second directive simply stated that “school districts must not assign national origin-minority group students to classes for the mentally retarded” based on their proficiency with the English language (p. 1).

The third directive in Pottinger’s (1970) memorandum provided that any ability grouping of national-origin minority students used by schools based on language needs “must be designed to meet such language skill needs as soon as possible and must not operate as an educational dead-end or permanent track” (p. 1). The fourth directive instructed that “school districts have the responsibility to adequately notify national origin-minority group parents of school activities which are called to the attention of other parents” (Pottinger, p. 1). The directive continued that notification and communication with parents of English Language Learner (ELL) students may need to be in a language other than English (Pottinger, p. 1).

Concluding the memorandum, Pottinger (1970) directed school districts to examine their current practices for compliance; and if compliance problems were determined, they were to notify the Office of Civil Rights and to indicate the steps they were taking to remedy any compliance issue. In closing, Pottinger mandated that effective with the date of the Memorandum, the aforementioned areas of concern were to be directed to the regional Office for Civil Rights as part of the school districts’ compliance responsibilities.

In the United States Supreme Court appeal *Lau v. Nichols* (1974), a San Francisco Neighborhood Legal Assistance Service, on behalf of a group of Chinese students, filed a

class action suit against the San Francisco Unified School District and sought relief under the Fourteenth Amendment. The suit alleged that of the 2,856 Chinese-speaking students in San Francisco, “about 1,000 are given a supplemental course in the English Language,” leaving approximately 1,800 students who were not provided supplemental English (Blocker et al., n. d., p. 18). The court found that the district had failed to provide the students with adequate instruction to overcome the language barrier. It was further determined by the Court that districts had the responsibility to help students overcome their language disadvantage.

Justice Douglas stated, “Where inability to speak and understand the English language excludes. . . the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students” (Blocker et al., n.d., p. 4). The Court found that the district had failed to provide the students with adequate instruction to overcome the language barrier. The Court stated, “There is no equality of treatment merely by providing students with the same facilities, text books, teachers, and curriculum; for the students who do not understand English are effectively foreclosed from any meaningful education” (Blocker et al., n.d., p. 5).

In this case, the Court “held that school programs conducted exclusively in English denied equal access to education to students who spoke other languages” (Escamilla, 1989, p. 2). It was further determined by the Court that districts had the responsibility to help students overcome their language disadvantage. But the Court failed when it “directed only that all students who do not speak English be served in some meaningful way. It stopped short of making bilingual education an absolute requirement”

(Escamilla, p. 2). The *Lau* decision did not describe the content or method of instructional delivery, but instead, left open to interpretation the board range of possibilities for educating limited English proficiency students (Ovando, 2003). The *Lau* decision provided some relief for second language learning students but did not provide for an established pedagogical or methodical foundation.

Despite the fact that the *Lau* decision raised the nation's consciousness to see the need for bilingual education and "abolished the sink-or-swim practice," clearly, as of 1974, districts were not complying with earlier legislation (Ovando, 2003, p. 9). Therefore, it was necessary to make the guidelines clearer and more specific as evidenced by the creation of the Equal Educational Opportunity Act of 1974. The Memorandum of May 25, 1970, and the *Lau* decision were put into legislation as an amendment to the 1974 Elementary and Secondary Education Act of 1965, Section 1703. Named the Equal Educational Opportunities Act of 1974, districts were directed to include national minority-origin students in the school experience and to not impede their education. The Act compelled all schools, not just those receiving federal funds, to comply (Ovando, 2003).

The Equal Educational Opportunity Act of 1974 specifically addressed in Part 2, Unlawful Practices, and Section 1703, Denial of equal educational opportunity prohibited. The Equal Educational Opportunity Act of 1974 implicitly stated that no state shall deny educational access to any student based on national origin, that there was to be no deliberate segregation of second language learning students based on their national origin status, that schools should take affirmative steps to insure that there was no dual

educational system for second language learning students, and that students would not be assigned to schools that were not close to them based on their second language learning status.

On the heels of the *Lau* decision and the Equal Education Opportunity Act, the Ford administration (1974-1977) recognized the critical need for Title VI compliance when an investigation revealed that many districts were not providing any services for second language learning students. Organizing a massive Title VI enforcement program, the Department of Health, Education, and Welfare initiated a massive effort “by developing ‘remedial’ rather than ‘compliance’ guidelines for districts not in compliance with Title VI under *Lau*” (Lyons, 1990, p. 72).

The effort, known as *The Lau Remedies*, mandated specified methods and approaches to identifying and evaluating second language learning students, determining appropriate instructional methods, evaluating the second language learning student’s readiness for mainstream, and determining the professional standards by which the teachers would be measured (Lyons, 1990, p. 72). Furthermore, *The Lau Remedies* commanded that “bilingual education should be implemented in all school districts with at least 20 ELLs who represent the same language” (Ovando, 2003, p. 10). *The Lau Remedies* created a framework that “redirected school districts to provide strong versions of bilingual education for language-minority students to enable them to become bilingual, biliterate, and bicultural” (Ovando, 2003, p. 10).

In the US District Court of Appeals, the case of *Otero, et al. v. Mesa County Valley School District No. 51, et al.* (1977) was remanded back to a lower court to decide

whether or not County Valley School District No. 51 had discriminatory hiring practices with regard to Mexican-Americans. The suit originally was brought on behalf of nine Mexican-American school children who attended public school in District No. 51. The suit alleged that District No. 51 had discriminated against the Appellants “on the basis of race and national origin in connection with both the curriculum offered the students and in connection with the employment practices of the school district in the hiring of teachers and supporting personnel” (p. 2). The trial court found in favor of the defendants, stating that there was no right under the Fourteenth Amendment to a bicultural education program, citing there was not a significant number of Mexican-American students with “substantial English language problems which to any real degree inhibited their educational achievement” (p. 2). In this matter, the court found that the plaintiff had not brought suit under the *Lau-Serna doctrine* and *Serna v. Portales Municipal*.

The trial Court found that the plaintiffs, as school-aged children, did not have a standing to bring suit regarding the hiring practices of the defendants; that they did not establish a prima facie case showing discrimination; that even with a prima facie case, the defendants’ case substantially upheld their hiring practices; and that even if the plaintiffs prevailed, the defendants already had an effective affirmative action plan in place to increase their Mexican-American employees (*Otero, et al. v. Mesa County Valley School District No. 51, et al.*, 1977).

The appellants alleged that the disproportionately low number of Mexican-American personnel had “an adverse effect upon the educational opportunity afforded the

Mexican-American pupil” (*Otero, et al. v. Mesa County Valley School District No. 51, et al.*, 1977, p. 3). The appeals court believed that the students did hold a personal stake in the case. Despite the loss regarding bilingual-bicultural curriculum, the appeals court stated that the trial court did not have a basis to deny the claim for discriminatory hiring and found the lower court’s findings insufficient. This judgment was vacated and remanded with directions that the trial court make new findings and conclusions with respect to the matter of discriminatory hiring practices.

In the case of *Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas* (1980), On Application to Vacate Stay, a class action suit was brought on behalf of school-aged children who were “undocumented alien children and their parents” (p. 1). The trial court ruled that the Texas Education Code prohibited “the use of state funds to educate alien children who are not ‘legally admitted’ to the United States” and had enjoined all “school districts within Texas from denying a free public education to any child, otherwise eligible, due to the child’s immigration status” (p. 1). Therefore, “The plaintiff appealed to an individual Justice of the United States Supreme Court, as Circuit Justice, to vacate the stay” (p. 1).

In this case, Justice J. Powell granted the application to vacate the stay pending appeal. The trial court held that the state law prohibiting the education of illegal alien children violated equal protection under the Fourteenth Amendment and thus “prohibited state education officials in all school districts within the state from denying a free public education to any child, otherwise eligible, due to the child’s immigration status” (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980, p. 2).

Justice Powell stated he believed that the harm weighed most heavily on the undocumented alien children and that a Supreme Court decision would be most probable.

Justice Powell indicated that the State's estimate of the involved children had been 120,000, but the trial court rejected that figure for a more tenable one at 20,000: "The District Court concluded that 'the great majority of the undocumented children . . . are or will become permanent residents of this country'" (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980, p. 4).

The court found that Texas statute 21.301 "effectively denied an education to the plaintiff children. Although they could attend school upon payment of tuition, the court further found that such payment is beyond the means of their families" (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980, p. 4). The trial court found direction in the Equal Protection Clause "which extends protection to persons within a State's jurisdiction, and ruled that a state law which purports to act on any person residing within the State is subject to scrutiny under the Clause" (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980, p. 4).

The Court continued that the applicants presented a convincing argument that the children would suffer if the stay was not vacated. Undocumented alien children had not been able to attend school since 1975 when the aforementioned statute was enacted.

Justice Powell stated:

The harm caused these children by lack of education needs little elucidation. Not only are the children consigned to ignorance and illiteracy they also are denied the benefits of association in the classroom with students and teachers of diverse backgrounds. Instead, most of the children remain idle, or are subjected prematurely to physical toil, conditions that may lead to emotional and behavioral

problems. (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980, p. 7)

The Justice stated that the absence of an additional year of education while litigation continued would do more harm to the many children in need of an education. The State argued that vacating the stay would place a financial burden on the existing pupil expenditure. In addition, the State contended that placing more bilingual students in the Texas education system would put a strain on the current resources in order to be in compliance with state and federal policies. According to filed affidavits, Houston Independent School District No. 3 would be the only district to suffer stress when the children were allowed to attend school. Justice Powell concluded that the most harm would be done to the children and he vacated the stay (*Certain Named and Unnamed Non-citizen Children and Their Parents v. Texas*, 1980).

The judge in an Arizona case, *Flores v. Arizona* (2001), found that the bilingual programs were inadequately funded, that too many students existed in any one classroom, that not there were not sufficient resources, and that teachers were under qualified (as cited in Acevedo et al., 2002).

*Castaneda v. Pickard* (1981), a Texas appeal to the United States Court of Appeals, Fifth Circuit, Unit A, marked another appeal which was affirmed in part and reversed in part and remanded. The plaintiffs were Mexican-American children and their parents who were representative of a larger group. They alleged that the Raymondville Independent School District had engaged in discrimination by segregating language minority students into a school with dead-end curriculum programs, resulting in student

labeling. The court's decision stated that, although second language students are educated and grouped together, they could not be labeled and placed in dead-end curriculum programs (Blocker et al. (n.d.).

The Raymondville Independent School District had a history of ability grouping. Labels for elementary, junior, and high schools were "high," "average," and "low" (Blocker et al., n.d., p. 34). The Court acknowledged language grouping:

Practice which actually groups children on the basis of their language ability and then identified these groups not by description of their language ability but with a general ability label is, clearly has the effect of perpetuating the stigmas of inferiority originally imposed on Spanish speaking children by past practices of discrimination. (p. 37)

It was further stated:

RISD had in the past segregated and discriminated against Mexican-American students and that, as yet, RISD has failed to establish a unitary system in which all vestiges of this earlier unlawful segregation have been eliminated because the virtually 100% Mexican-American school, L.C. Smith, is a product of this earlier unlawful policy of segregation. (p. 32)

In the consolidated appeal of *School Board v. United States Department of Education*, *St. John the Baptist Parish School Board v. United States Department of Education*, *St. Bernard Parish School Board v. United States Department of Education*, and *St. Charles Parish School Board v. United States Department of Education* (1987) the United States Court of Appeals rendered an Opinion on an appeal from the district court. The basis for these cases were the orders from the United States Department of Education to repay grant monies received under Title VII of the Elementary and Secondary Act known as the Bilingual Education Act of 1968.

The Opinion by Circuit Judge Politz stated that the Bilingual Education Act provided for grant funding to enhance the learning for ELL students who are, also, limited English proficient. Judge Politz quoted Congress by citing the following definitions for language minority students:

The terms “limited English proficiency” and “limited English proficient” when used with reference to individuals means--(A) individuals who were not born in the United States or whose native language is a language other than English; (B) individuals who come from environments where a language other than English is dominant, as further defined by the Secretary by regulation.

\* \* \*

And who, by reason thereof, have sufficient difficulty speaking, reading, writing, or understanding the English language to deny such individuals the opportunity to learn successfully in classrooms where the language of instruction is English . . . . 20 U.S.C. sec. 3223(a)(1) (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education*, 1987, p. 2)

Students who were classified as limited English proficient must have come from a home where a language other than English was the dominant language. As a result of this exposure, they experienced a learning hurdle when performing in English-only classes. These students qualified for language enhancement programs as envisioned by Congress (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education*, 1987).

The four Louisiana parishes named in *School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of*

*Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education (1987)* were initially awarded grants under Title VII to be used for limited English proficient students. This appeal presented a unique look at the New Orleans area of Louisiana.

St. Bernard Parish was a group of islands off the coast of New Orleans whose principal language was Spanish “with a dialect reflecting Acadian, French, Portuguese, and Creole influences” (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education, 1987*, p. 4). St. Bernard Parish used standard measurements for students who qualified for bilingual education, including speaking Spanish, living in a Spanish-speaking community, and performance below the 6th stanine. St. Bernard Parish also included Anglo students who fell below the 6th stanine as a way to classify them as limited English proficient. St. Bernard’s application was approved for the fiscal years 1979, 1980, 1981 (p. 4). The supporting data were reported to the “National Bilingual Resource Center, Lafayette, Louisiana, which conducted assessments of bilingual programs” (p. 4).

Tangipahoa Parish, located in southeast Louisiana, had an Italian heritage. Tangipahoa’s programs were designed to meet the bilingual education needs of 556 qualifying students in the fourth, fifth, and sixth grades. Tangipahoa used identification measures in line with St. Bernard and was awarded grants for the fiscal years 1979, 1980, and 1981. The Court stated, “During this time the Department of Education conducted

on-site reviews and annual evaluations” (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education, 1987*, p. 5). Tangipahoa was reviewed and found to be in compliance.

St. John the Baptist Parish, located north of New Orleans and divided by the Mississippi River, was settled by 18th century French, and many residents list French as their first language. Similar to the above parish, St. John the Baptist Parish used comparable indicators for limited English proficient students, and their grants as well were funded for the fiscal years 1979, 1980, and 1981. During this time, federal education investigations were conducted on-site and evaluations praised the program (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education, 1987*).

St. Charles Parish, located east of St. John the Baptist Parish and divided by the Mississippi River as well, had many Cajun residents. The Court explained, “Cajun is a phonetic corruption of Acadian” (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education, 1987*, p. 5). In 1977, St. Charles Parish submitted a grant application to enhance the language

skills of the Cajun students. Grant approval was awarded from 1977 to 1981 to help kindergarten to third grade students in three targeted elementary schools. Federal officials in this case, as well, inspected the program and found it to be meeting its objectives.

Between late 1980 and 1981, the United States Department of Education conducted extensive investigations into each of the four parish bilingual programs. In late spring of 1982, the Educational Appeal Board issued letters of non-compliance to all four parishes, demanding repayment of the following amounts: St John \$765,603; St. Bernard \$753,205; Tangipahoa \$572,054; and St. Charles \$477,100.29 (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States Department of Education*, 1987, p 7). In Analysis for Tangipahoa, St. John and St. Bernard Parishes, the Court found that the Educational Appeal Board had “erred legally when it held that an audit was not required” (p. 8). The Court concluded “that Congress would not have used the word audit in Title VII if it had not intended an audit requirement” (p. 9).

The Court, also, found “the Department concedes that in the hundreds of final audit determination letters it had issued, including several in Louisiana, it had never before issued a final audit determination without first conducting an audit” (*School Board v. United States Department of Education, St. John the Baptist Parish School Board v. United States Department of Education, St. Bernard Parish School Board v. United States Department of Education, and St. Charles Parish School Board v. United States*

*Department of Education, 1987, p. 9*). The Court continued that three parishes did not have an opportunity to explain the results of the abbreviated investigations, which were conducted without notice, stating that what appeared apparent may have needed further explanation. Therefore, the Court granted the petitions for Tangipahoa, St. Bernard, and St. John the Baptist parishes, “remanding to the Department with instructions to reconsider the matter, and if it decides to proceed against these three parishes, that proper audits be first made” (p. 11). With regard to St. Charles Parish, the Court found that an audit did take place, and it was ordered: “St. Charles, specifically, that it should be required to repay only funds expended in a manner clearly inconsistent with the Act” (p. 11). The petitions for review for all four parishes were granted, subject to the reasons set forth.

In Florida, on behalf of the League of United Latin American Citizens (LULAC), META (Multicultural Education Training Advocacy, Inc.) brought suit against the State of Florida by filing *League of United Latin American Citizens (LULAC), et al. v. Florida Board of Education and Florida Department of Education, et al.* (1990), in the US District Court for the Southern District of Florida, Miami Division. The suit was settled out-of-court, resulting in a settlement agreement wherein Florida’s 67 school districts were required to comply.

The Settlement Agreement provided for equal access for limited English proficient (LEP) students to all instructional programs and services and provided a structure for comprehensible instruction. The Settlement Agreement placed the responsibility on the districts to comply with federal and state laws that govern the

education of limited English proficient students and required districts to submit annual reports. The Agreement directed that three home language questions be asked at the time of registration to determine if LEP services testing is necessary. Included in the Agreement was the direction that limited English proficient students receive classes in intensive English language instruction and basic subject areas, comparable to non-LEP classes, and that no limited English proficient student be subjected to discipline for the use of a language other than English (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al.* 1990).

The Agreement provided for equal access for limited English proficient students to all instructional programs and services as well as provided a structure for comprehensible instruction. Further, the Agreement did not place any new requirements or restrictions on Florida public schools; instead, the Agreement placed the responsibility on the districts to comply with already existing federal and state laws that govern the education of limited English proficient students. The Agreement allowed for the court to retain “jurisdiction for the purpose of overseeing implementation of the agreement” (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al.* 1990, p. 1). With this monitoring process in place, Florida in 1992 created the “Office of Multicultural Student Language Education within the Division of Public Schools to ensure full compliance with the Decree” (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al.* 1990, p. 1). At the time of the present study, the

Florida Department of Education was required to submit an annual report indicating compliance with the Agreement by public schools.

On August 14, 1990, the settlement agreement was entered into by the above parties. The terms of the Agreement (encapsulated) were as follows:

1. The Settlement Agreement was entered into to resolve a dispute between the parties regarding the issue of federal and state compliance for the Defendant.
2. The Settlement Agreement applied to all parties, including employees, agents, etc.
3. The State, acting for the Defendants, had the obligation to set standards for Florida school districts to comply with federal and state regulations.  
  
Defendants issued emergency regulations to be followed by the Settlement Agreement on or before November 14, 1990.
4. The Defendants for a period of five years agreed to submit to the Plaintiff's counsel an annual report.
5. The parties agreed to bargain in good faith as to the amount of attorney's fees the Defendants will pay the Plaintiffs.
6. Enforcement for violations was explicitly set forth.

The final settlement agreement between the parties was divided into six sections. Section I addressed the Identification and Assessment of limited English proficient (LEP) students. Among other items, this section stated that at the start of the 1990-1991 school year, all potential limited English proficient students would be provided a home language

survey, either on the registration form or another form, which would include the following questions:

1. Is a language other than English used in the home?
2. Does the student have a first language other than English?
3. Does the student most frequently speak a language other than English?

Also, students who qualified for second language services were to be tested (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al.*, 1990, p. 6).

Section II, Equal Access to Appropriate Programming, detailed the academic opportunities to be afforded second language learner students. This included, among other items, equal access to “intensive English language instruction and instruction in basic subject matter areas of math, science, social studies, computer literacy” which was to be understandable to the student and comparable with non-LEP classes (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al.*, 1990, p. 9). Section III, Equal Access to Appropriate Categorical and Other Programs for LEP Students, granted LEP students the right to participate and to benefit from programs and assistance already in place or that would be in place in the future. Included in Section III was Discipline, which specifically stated, “The Florida Department of Education shall issue and monitor standards to assure that no national origin minority or limited English proficient student is subjected to any disciplinary action because of their use of a language other than English” (p. 18).

Section IV related to Personnel and detailed certification and inservice training teachers were required to have in order to teach limited English proficient students. Section V, Monitoring Issues, stated that the Florida Department of Education was charged with monitoring the districts for compliance. Section VI, Outcome Measures, set forth that a progress monitoring system must be in place by the Florida Department of Education (*League of United Latin American Citizens (LULAC) et al. v. Florida Board of Education and Florida Department of Education, et al., 1990*).

Signed on January 8, 2002, by President George W. Bush, No Child Left Behind created the Office of English Language Acquisition, Language Enhancement, and Academic Achievement for Limited-English-Proficient Students and mandated an educational reform (cited in Crawford, 2002, p. 2). No Child Left Behind (NCLB) specifically addressed second language students in Title III. Here the federal government set forth the Declaration of Rights for Parents of English Language Learners Under No Child Left Behind. For limited English Proficient (LEP) students, these guidelines included learning core academic subjects at the same level as English speakers, the right to accept or deny LEP placement, annual testing for assessment for language acquisition, and the right to have students reach their greatest academic potential among others (Paige, 2004).

The National Association for Bilingual Education (NABE) wrote a position paper on the NCLB. NABE recounted that in 2001 it had supported NCLB in what it believed to be a means to promote high standards and increased attention to limited English proficient (LEP) students. In theory, the NCLB Act of 2001 mandated a rigorous

curriculum, staffed with qualified teachers for ELL students since sanctions were now tied to student outcomes (Lazarin, 2006). No Child Left Behind required that 95% of ELL students who were eligible be tested with the appropriate approved state academic achievement test. These data were then to be disaggregated (Wilde, 2006).

Linn (2005, Summer), writing for the National Center for Research on Evaluation, Standards, and Student Testing (CRESST), stated that there is a fundamental problem with the NCLB and the requirement that by 2014 all students reach English proficiency. Linn for CRESST stated that currently, there is no established definition of “proficiency” to use with NCLB. Abedi and Dietel (2004) stated, “For a goal to be within reach of all schools [by 2014], at least one school should have already attained it. To date we have yet to see a school with a sizeable ELL population that meets the 2014 NCLB requirements” (p. 5).

### Summary

This chapter has been used to present a review of literature and related research. The review was organized to address the theoretical framework, outside influences on language acquisition, the achievement gap, bilingual programs, language acquisition, and major federal and state case law and policies. In addition to several English Language Learner program models, the program models for the present study were introduced. Literature on the achievement gap established a foundation for this study. Chapter 3 reviews in detail the methodology of the study. The analysis of the data is presented in

Chapter 4. Chapter 5 contains a summary and discussion of the findings and implications of the study.

## CHAPTER 3 METHODOLOGY

### Introduction

This chapter contains the methods and procedures used to conduct the study. Detailed information regarding the sampling method, data collection, instrumentation, research questions, and hypotheses are presented. The study initially called for the participation of 26 southern Florida counties. A total of 6 schools were to be selected from each district, 3 schools using the Language Arts/ESOL program and 3 schools using the One-Way Developmental Bilingual Education program. Each program was to be measured using the schools' standard curriculum FCAT reading mean scale scores and the schools' FCAT reading mean scale scores for the English Language Learner (ELL). The design called for a total of 156 Florida schools.

Further investigation revealed that the district ELL student populations were extremely small in most of the counties. Therefore, the study was expanded to all 67 District English Speakers of Other Languages (ESOL) contacts for English Language Learners (ELL). Emails were sent to each district contact to determine whether the Language Arts/ESOL program and/or the One-Way Developmental Bilingual Education program were implemented with the county's ELL student population. Response was relatively low with only 28 county contacts responding and overwhelmingly reporting that their counties either mainstreamed their ELL students or required their teachers to be English Speakers of Other Languages (ESOL) certified or endorsed.

Based on these responses, the researcher narrowed the study to one large urban Florida district which historically has implemented both the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program for the district's ELL student population.

### Sampling Method

A convenience sample was selected, using the one identified large, urban district's middle schools. In this study, no schools were identified. The researcher found 10 middle schools of the 32 in the district that implemented the One-Way Developmental Bilingual Education program model in the 2006-2007 school year. The remaining schools were investigated regarding their English Language Learner (ELL) programs. A total of 13 middle school principals or their designees responded that their schools implemented the Language Arts/ESOL program for their English Language Learner (ELL) students. Charter schools, alternative schools, K-8 schools, and exceptional education schools were excluded from this study.

### Data Collection Procedures

Data were collected for the 2007 Florida Comprehensive Assessment Test (FCAT) reading test for seventh grade as reported to the Florida Department of Education. Disaggregated data were made available at [www.fcateresults.com/demog](http://www.fcateresults.com/demog) by eMetric, a San Antonio, Texas, state-approved vendor, who provided web-based reporting for large-scale high stakes tests. Standard student FCAT reading mean scale

scores by school and ELL FCAT reading mean scale scores by school were used in this study.

Specific school reports were run from [www.fcatresults.com/demog](http://www.fcatresults.com/demog) which included: the size of each school's total 7th-grade population, the number of standard curriculum students in the seventh grade for each school, and the number of ELL students in the seventh grade for each school. The FCAT data obtained for the school reports from eMetric also included: percentage of students at each FCAT reading achievement level and the percentage of students at Level 3 and above. The FCAT data for each school's standard curriculum students as well as the data for either the Language Arts/ESOL program students, or the One-Way Developmental Bilingual Education program students were analyzed.

The results from the 2007 7th-grade FCAT reading test were generated and used as the data for comparison scores between the schools' standard curriculum and ELL mean scale scores.

### Instrumentation

The Florida Comprehensive Assessment Test (FCAT) was a criterion-referenced reading test, first administered in 1998 to Florida students. The test was designed to measure individual student achievement of the Florida curriculum benchmarks, the Sunshine State Standards. The Sunshine State Standards (SSS) were adopted in 1996 with the expectation that Florida public school teachers would teach the Sunshine State Standards for reading (Florida Department of Education, 2007a). In 2000, Florida 7th-

grade students took a field-test version of the FCAT reading test. Since 2002, Florida students in grades 3-10 have taken a grade-level appropriate version of the FCAT reading test (Human Resources Research Organization, 2002).

Items on the 7th-grade FCAT reading test were 100% multiple-choice (Orr, n.d.). Each multiple choice item was worth 1 point and was chosen from a possible 3 or 4 choices per test item (Assessment and School Performance, Florida Department of Education, 2007).

Using the 2002 FCAT reading test, scores were divided into five achievement levels, and four reporting cluster categories were developed for reading. Overall performance score reports and performance category sub scores were reported (Human Resources Research Organization, 2002). The cluster categories for seventh grade were: “(a) Words and Phrases in Context; (b) Main Idea, Plot, and Purpose; (c) Comparisons and Cause/Effect; and (d) Reference and Research” (Human Resources Research Organization, 2002, p. 3; Florida Department of Education, 2005). The total points possible for each reporting cluster were as follows: Words and Phrases in Context, 6; Main Idea, Plot, and Purpose, 22; Comparisons and Cause/Effect, 17; and Reference and Research, 6 (Florida Department of Education, 2007b).

Five achievement levels were developed ranging from Level 1 to Level 5.

Level 3 for reading was described as:

This student has partial success with the challenging content of the Sunshine State Standards, but performance is inconsistent. A student scoring in Level 3 answers many of the test questions correctly but is generally less successful with questions that are the most challenging. (Florida Department of Education, 2007a, p. 1)

“Level 3 indicates that a student’s performance is on grade level” (Florida Department of Education, Accountability, Research, and Measurement, 2007, p. 18).

The mean scale scores for each student were reported from 100 (as the lowest possible score) to 500 as the highest possible score. The 7th-grade 2007 FCAT reading cut scores were as follows: Level 1: 100-266; Level 2: 267-299; Level 3: 300-343; Level 4: 344-388; and Level 5: 389-500 (Florida Department of Education, 2007a, p. 2).

#### Instrument Validity and Reliability

According to the Florida Comprehensive Assessment Test Summary of Tests and Designs (2005), the reading test has been linked to the Florida Sunshine State Standards. The number of test items on the 7th-grade FCAT reading test was 50-55 items. The test was administered over a 120 minute period. The average words per reading passage was 600 words with a range of 300-1100 words per passage. A total of 40% of the FCAT reading test was literature-based, and 60% of the test was informational text-based (Florida Department of Education, 2005). Content categories with an approximate percentage of raw score points included: Words and Phrases in Context, 15-20%; Main Idea, Plot, and Purpose, 30-55%; Comparisons and Cause/Effect, 15-25%; and Reference and Research, 10-30%. Items for the 2007 FCAT reading test were classified using a model based on Webb’s cognitive classification system. The percentages of cognitive complexity for the 7th-grade 2007 FCAT reading test were as follows: low cognitive complexity, 15-25%; moderate cognitive complexity, 50-70%; and high cognitive

complexity, 15-25%. Performance test items typically were found in the moderate and high complexity ranges.

Tests items were initially drafted by education professionals, forwarded on to the contractor for “critical content and editorial review,” and returned to the Florida Department of Education Test Development Center (Human Resources Research Organization, 2002, p. 4). Items were then subjected to reviews by committees for “(1) content, sensitivity/bias, match to benchmark, and FCAT style; (2) community sensitivity committees; (3) bias committees, with representatives from a variety of cultural backgrounds; and (4) content committees” (p. 4).

In 2002, the FCAT underwent its psychometric analyses. Schools representing the regions, diversity, and achievement of Florida’s students were selected from across the state. Only standard curriculum students were involved in the analyses. English Language Learner (ELL) students with two years or less time in an ELL program were excluded (Human Resources Research Organization, 2002). In 2007, only ELL students with less than one year in an ELL program were exempt from the FCAT. In 2007, ELL students with more than one year qualified for testing accommodations for the FCAT (Assessment and School Performance, Florida Department of Education, 2007).

One set of comparison scores formed the group of “total population group, which included all students with FCAT records for March 2002,” and one set of comparison scores formed the standard curriculum students (Human Resources Research Organization, 2002, p. 8). Both groups included those who attempted but did not receive a FCAT score due to failing the criteria. These groups formed the basis for comparisons

for gender and ethnicity distributions for the calibration sample (Human Resources Research Organization, 2002).

The calibration sample for 7th-grade reading consisted of 5,243 students. Included were the following subgroups: Asian, 120; African-American, 1450; Hispanic, 737; American Indian, 21; multi-racial, 78; and white, 2,824. The calibration sample was compared to the 7th-grade reading Total Standard Curriculum group which included the following subgroups of students: Asian, 3,434; African-American, 38,721; Hispanic, 30,218; American Indian, 470; multi-racial, 1,877; and white, 87,857. The “total population” group consisted of the following subgroups of students: Asian, 3,845; African-American students, 46,967; Hispanic, 39,188; American Indian, 549; multi-racial, 2,133; and white, 101,743 (Human Resources Research Organization, 2002).

Mean scores for the calibration sample for white students were 319.16 compared to Hispanic students at 294.43. The all scored standard curriculum students mean scores were 294.57 for the Hispanic students and 322.20 for the white students (Human Resources Research Organization, 2002).

In testing difficulty and using 43 items, results from the 2002 item analysis for the 7th-grade FCAT reading test for p-values “should show that items vary in difficulty, but should not be too high (above .90) or too low (near chance, .025) for multiple choice items” (Human Resources Research Organization, 2002, p. 25). Results of the test for p-values for seventh grade revealed a median percentile of .630 for item difficulty and a maximum of .901 (p. 25). A Pearson correlation test was used to show the relationship

between FCAT reading items and FCAT reading raw scores and did not show a negative correlation. The test revealed a minimum of .060 and a maximum of .533.

Item response theory scaling procedures used a Theta scale. By using this scale, FCAT scores could be reported on the 100 to 500 scale. The “process involved (1) repeating anchor items from previous tests in the 2002 FCAT test” and “(2) applying the Stocking/Lord, 1983, procedure” (Human Resources Research Organization, 2002, p. 34). The procedures equated scores to the original scores from the 2002 7th-grade FCAT reading test. Since 2002, this procedure has been used each year with different items (Human Resources Research Organization, 2002).

The Q1 statistic (chi-square) was used as an index to measure how well the observed FCAT levels of achievement matched the expected student performance FCAT scores. “The Q1 statistic may be used as an index for how well theoretical item curves match observed item responses. Q1 uses student achievement scores in combination with estimated item parameters to compute expected performance levels on each item” (Human Resources Research Organization, 2002, p. 39).

Cronbach’s alpha test was employed to show reliability on raw scores only and resulted in total alpha of .909 for the 7th-grade reading test (Human Resources Research Organization, 2002, p. 50). The Livingston and Lewis method of cross-tabulation of the true score versus the observed score was also used in a 5 x 5 test (p. 57). In addition, accuracy and consistency tests were used to show that the true status was the accurate conditional level for each FCAT achievement level (Human Resources Research Organization, 2002).

### Research Questions

In this study, schools with 7th-grade standard curriculum students, English Language Learners (ELL) students in the Language Arts/ESOL program, and ELL students in the One-Way Developmental Bilingual Education program were compared.

The study was guided by the following research questions:

1. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program on the 2007 7th-grade FCAT reading test?
2. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program on the 2007 7th-grade FCAT reading test?
3. What is the distribution of schools in the study with standard curriculum students and schools with ELL students as measured by the mean scale score in levels 1-5 of the 2007 7th-grade FCAT reading test?
4. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?
5. To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way

Developmental Bilingual Education program scoring Level 3 or higher on the 2007 7<sup>th</sup>-grade FCAT reading test?

### Hypotheses

In addition, the following research hypotheses were proposed:

H<sub>1</sub> : There is an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program.

H<sub>2</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program.

H<sub>3</sub>: There is an achievement gap in the distribution of all schools with standard curriculum students and all schools with ELL students as measured by the mean scale score in levels 1-5 of the 7th-grade 2007 FCAT reading test.

H<sub>4</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher as measured by the 7th-grade 2007 FCAT reading test.

H<sub>5</sub>: There is an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program scoring Level 3 or higher as measured by the 7th-grade 2007 FCAT reading test.

### Procedures

This study included a convenience sample of 23 middle schools. The middle school principals were contacted by email to verify the use of the Language Arts/ESOL program or the One-Way Developmental Bilingual Education program for English Language Learners (ELL) in their schools. A total of 10 schools were identified as having the One-Way Developmental Bilingual Education program (Orange County Public Schools, n.d., p. V-15). An additional 13 schools were verified as having implemented the Language Arts/ESOL program. The total number of middle schools used for this study was 23.

The data for the 2007 FCAT reading test for seventh grade was retrieved from [www.fcatresults.com/demog](http://www.fcatresults.com/demog). Disaggregated data for the 7th-grade FCAT reading results for the schools were requested. These requested data included school data for standard curriculum students and ELL students for each of the 23 schools.

The computer program, SPSS Version 13.0 for Windows, was used for tabulating the data. The variables selected for this study included one dependent variable with three groups. This dependent variable had three groups of FCAT reading mean scale scores: the FCAT reading mean scale scores for each school's standard curriculum students, the FCAT reading mean scale scores for each school's Language Arts/ESOL program students, and the FCAT reading mean scale scores for each school's One-Way Developmental Bilingual Education program students. For Research Questions 1, 2, 4, and 5 only, two groups of the dependent variables were used in each question.

For this study, the independent variable had three levels. The levels represented the program type: The standard curriculum, the Language Arts/ESOL program, and the One-Way Developmental Bilingual Education program. For Research Questions 1, 2, 4, and 5 only, two levels of the independent variable were used in each question.

For Research Question 1, the independent variable had two levels and represented the schools' ELL program type: the standard curriculum and the Language Arts/ESOL program. The dependent variable had two groups which were the schools' FCAT mean scale scores for the standard curriculum students and the schools' FCAT mean scale scores for the Language Arts/ESOL program students.

For Research Question 2, the independent variable had two levels and represented the schools' program type: the standard curriculum and the One-Way Developmental Bilingual Education program. The dependent variable had two groups which were the schools' FCAT mean scale scores for the standard curriculum students and the schools' FCAT mean scale scores for the One-Way Developmental Bilingual Education program students.

The descriptive statistics for Research Questions 1 and 2 included tests for frequency distribution which included frequency distribution, histogram, and boxplot. The measures of central tendency tests included the mean, median, mode. Tests of variability included the range, standard deviation, variance, and range (Shavelson, 1988).

In Research Question 3, the dependent variable had three groups which were the schools' FCAT mean scale scores for the standard curriculum students, the schools' mean scale scores for the One-Way Developmental Bilingual Education program students, and

the schools' mean scale scores for the Language Arts/ESOL program students. The independent variable had three levels for the programs: The standard curriculum, the One-Way Developmental Bilingual Education program, and the Language Arts/ESOL program.

For Research Question 3, descriptive statistics were used to measure the differences among the programs and included tests for frequency distribution which included frequency distribution, histogram, and boxplot. The measures of central tendency tests included mean, median, mode. Tests of variability included the range, standard deviation, variance, and range.

For Research Question 4, the independent variable had two levels and represented the schools' program type: the schools' standard curriculum and the schools' Language Arts/ESOL program. The dependent variable had two groups which were the schools' FCAT mean scale scores for the standard curriculum students and the schools' FCAT mean scale scores for the Language Arts/ESOL program students.

For Research Question 5, the independent variable had two levels and represented the schools' program type: the standard curriculum and the One-Way Developmental Bilingual Education program. The dependent variable had two groups which were the schools' FCAT mean scale scores for the schools' standard curriculum students and the schools' FCAT mean scale scores for the One-Way Developmental Bilingual Education program students.

The descriptive statistics for Research Questions 4 and 5 included tests for frequency distribution which included frequency distribution, histogram, and boxplot.

The measures of central tendency tests included the mean, median, mode, and tests of variability included the range, standard deviation, variance, and range (Shavelson, 1988).

The inferential statistics tests for Research Questions 1 and 2 included the independent t-test. The independent t-test measured “whether a difference between the means of two samples is significant” (Frankel & Wallen 2000, p. 258; Shavelson, 1988). Lomax (2001) stated, “Two samples are independent when the method of sample selection is such that those individuals selected for sample 1 do not have any relationship to those individuals selected for sample 2” (p. 121).

### Summary

This chapter presented the methods and procedures employed in conducting a quantitative study with schools’ with ELL programs and standard curriculum as measured by the 7th-grade 2007 FCAT reading test. This chapter contained a description of the population, the sampling method, and detailed information regarding the FCAT instrument. Provided also were the research questions, hypotheses, and a description of the statistical procedures used in analyzing the data.

Chapter 4 contains the presentation of the data analysis. Chapter 5 will use these results to inform conclusions and implications of the study regarding the achievement gap between schools’ standard curriculum students and English Language Learner students.

## CHAPTER 4 ANALYSIS OF DATA

### Introduction

The purpose of the study was to investigate the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program to determine if one of the programs for English Language Learner (ELL) students closed the achievement gap more closely than the other when measured against standard curriculum students at the same schools. Five research questions and five hypotheses guided the data analyses.. Included in this chapter are the findings of the statistical tests conducted in response to the research questions and hypotheses formulated for the study.

The data used for this study was the 7th-grade 2007 FCAT reading mean scale scores for each of the 23 schools in the study. The FCAT data for the schools' ELL students and standard curriculum students were generated by eMetric, a state-approved vendor who reported disaggregated data at [www.fcatresults.com/demog](http://www.fcatresults.com/demog).. The data for Research Questions 1 and 2 were reported in FCAT mean scale scores for the schools based on the number of standard curriculum students and ELL students. The data for Research Questions 3, 4, and 5 were reported in percentages based on the total number of standard curriculum students and ELL students in the schools. These data were then used in the generation of descriptive and inferential statistics. Variables of particular interest to the study were the 7th-grade 2007 FCAT reading mean scale scores for the schools who participated in the standard curriculum and either the Language Arts/ESOL program or One-Way Developmental Bilingual Education program.

## Research Questions

### Research Question 1

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program on the 2007 7th-grade FCAT reading test?

Measures of central tendency served to represent pictures of the data that researchers may interpret to see the distribution of the raw data. The statistical procedures employed in this study provided pictures of the raw data for the Language Arts/ESOL program implemented in 13 of the schools as well as the standard curriculum for each of the schools.

The first measures of central tendency were the mean, median, and mode. The tests provided data on the schools' Language Arts/ESOL program and the schools' standard curriculum in each of these schools. The mean for the Language Arts/ESOL program was an FCAT mean scale score of 277.3077 compared to the FCAT mean scale score of 327.3077 for the standard curriculum students. This test showed a 50-point difference on the 7th-grade FCAT reading mean scale scores with the schools' standard curriculum students scoring higher than the schools' Language Arts/ESOL program students. These results are displayed in Table 1.

The median for the schools' Language Arts/ESOL program students was a FCAT mean scale score of 280.00 compared to that of the standard curriculum students' FCAT mean scale score of 330.00. This, again, showed a 50-point difference on the schools' FCAT mean scale scores.

Table 1  
Analysis of Means: Research Question 1

FCAT Mean Scale Scores	Mean	N	Standard Deviation	Standard Error of the Mean
SLA	327.3077	13	11.75716	3.26085
LA/ESOL	277.3077	13	8.73102	2.42155

Note. SLA = Standard Language Arts, LA/ESOL = Language Arts/English Speakers of Other Languages

The mode for the schools' Language Arts/ESOL program was 281.00 for the FCAT mean scale score compared to the schools' standard curriculum score of 300.00. Thus, the measures of central tendency tests showed the schools' FCAT reading mean scale score for the standard curriculum students to be higher than the schools' FCAT reading mean scale score for the Language Arts/ESOL program students. The mean and the median tests both showed a difference of 50 points with the schools' standard curriculum students scoring higher than did the Language Arts/ESOL program students.

The variability tests provided a distribution of the spread of the schools' FCAT reading mean scale scores. The standard deviation illustrated the distance for each of the raw scale scores from the mean of the distribution. The standard deviation for the schools' Language Arts/ESOL program was 8.73102 compared to the schools' standard curriculum students' standard deviation of 11.75716. The schools' Language Arts/ESOL program variance was 76.231 compared to the schools' standard curriculum variance of 138.231. The range for the schools' Language Arts/ESOL program was 30.00, and the range for the schools' standard curriculum students was 46.00. Therefore, the standard deviation showed the schools' FCAT reading mean scale scores to be on average farther from the mean with greater variability compared to the closer scores to the mean on

average for the schools' Language Arts/ESOL program. The range confirmed that the schools' FCAT reading mean scale cores for the Language/Arts program students were closer together than the schools' FCAT reading mean scale scores for the standard curriculum students.

The frequency table revealed how often a FCAT mean scale score occurred and the spread of the scores. For the schools' Language Arts/ESOL program, each FCAT mean scale score occurred once for all scores except at 281 where two schools had this FCAT mean scale score. The lowest FCAT mean scale score was 258, and the highest FCAT mean scale score was 288.. The frequency table for the schools' standard curriculum revealed no identical mean scale scores with all FCAT mean scale scores being reported only once. The lowest FCAT mean scale score for the schools' standard curriculum was 300, and the highest FCAT mean scale score was 346.

The boxplot for the schools' Language Arts/ESOL program showed three outliers at 258, 265, and 270 with the balance of the scores clustered between 274 and 288. The boxplot for the schools' standard curriculum showed one outlier at 300 and one outlier at 346 with the balance of the scores between 315 and 340. The histogram provided yet another picture of raw data. The results of the histogram for the schools' Language Arts/ESOL program showed 7 schools clustered between FCAT mean scale scores of 280 and 290. These results compared to the schools' FCAT mean scale scores for the standard curriculum showed 9 schools clustered between FCAT mean scale scores of 320 and 340. Therefore, the results of the boxplot and the histogram showed significantly lower FCAT mean scale scores for the schools' Language Arts/ESOL program students. One school

was as low as 258 for Language Arts/ESOL program students compared to one school's standard curriculum lowest score of 300.

The parametric independent t-test comparing the means for the 13 schools' Language Arts/ESOL program FCAT reading mean scale scores and the schools' standard curriculum FCAT mean scale scores resulted in statistical significance ( $t(26) = -12.310$ ;  $df = 24$ ;  $p \leq .05$ ) and passed the Levene's test for homogeneity for equality of variances at  $p = \leq .05$ . Therefore, the independent t-test confirmed that there was a difference between the two groups as observed. This information is presented in Table 2.

Table 2  
Group Statistics: Research Question 1

t-test for Equality of Means					
Research Question 1	Sig.	T	df	Sig. (2-tailed)	Mean Difference
FCAT Mean Scale Scores	.426*	-12.310	24	.000	-50.000

\*Equal variances assumed for t-test as a result of the observed significance level found by the Levene's Test for Equality of Variances.

### Research Question 2

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program on the 2007 7th-grade FCAT reading test?

The descriptive statistics for Research Question 2 compared the schools' 7th-grade reading FCAT mean scale score for the One-Way Developmental Bilingual Education program students and the schools' 7th-grade FCAT mean scale score for the

standard curriculum students. The mean for the schools' One-Way Developmental Bilingual Education program was 261.00 compared to the schools' standard curriculum FCAT mean scale score of 312.30 with a difference of 51.30 between the two. These results are displayed in Table 3.

Table 3  
Analysis of Means: Research Question 2

FCAT Mean Scale Scores	Mean	N	Standard Deviation	Standard Error of the Mean
SLA	312.30	10	16.938	5.356
OWDB	261.00	10	13.728	4.341

Note. SLA = Standard Language Arts, OWDB = One-Way Developmental Bilingual

The median FCAT mean scale score for the schools' One-Way Developmental Bilingual Education program was 256.00 compared to the schools' standard curriculum FCAT mean scale score of 313.00 with a difference of 57 between the two. The modes showed a FCAT mean scale score of 249.00 for the schools' One-Way Developmental Bilingual Education program and a FCAT mean scale score of 282.00 for the schools' standard curriculum. Thus, the mean and the median scores for the schools' One-Way Developmental Bilingual Education program students were on average significantly lower with as much as a 60.30 point difference. These results are displayed in Table 3.

The standard deviation for the schools' One-Way Developmental Bilingual Education program was 13.72751, and the standard deviation for the schools' standard curriculum was 16.93812. The variance for the schools' One-Way Developmental Bilingual Education program was 188.444 compared to the schools' standard curriculum

with the variance being 286.90. The range showed 42.00 for the schools' One-Way Developmental Bilingual Education program scores and 66.00 for the schools' standard curriculum. Therefore, the standard deviation showed that the schools' FCAT reading mean scale scores for the One-Way Bilingual Education students were closer together on average from the mean and showed less variability than did the schools' FCAT reading mean scale scores for the standard curriculum students.

The frequency distribution table for the schools' One-Way Developmental Bilingual Education program showed the lowest FCAT mean scale score to be 247 and the highest FCAT mean scale score to be 289. All of the schools' FCAT mean scale scores occurred only once except for two scores. These FCAT mean scale scores were 249 and 256. Thus, the frequency table for the schools' standard curriculum students showed a greater spread with the lowest FCAT mean scale score at 282 and the highest FCAT mean scale score at 348.

The boxplot for the schools' One-Way Developmental Bilingual Education program showed two outliers of 277 and 289 for the schools' FCAT mean scale scores. The balance of the scores clustered between 247 and 269 for the FCAT mean scale scores. The boxplot for the schools' standard curriculum FCAT mean scale scores also revealed two outliers: one outlier at FCAT mean scale score of 282 and one outlier at FCAT mean scale score of 348 with the balance of the schools between 298 and 320. Therefore, boxplots revealed that the one highest outlier of 289 for the schools' One-Way Developmental Bilingual students was close to the lowest outlier of 282 for the schools' standard curriculum students.

The histogram for the schools' One-Way Developmental Bilingual Education program showed six of the schools clustered between FCAT mean scale score 247 and 256. The histogram for the schools' standard curriculum revealed a spread of FCAT mean scale scores from 282 to 348 with seven of the schools' FCAT mean scale scores between 305 and 320. Therefore, the histogram confirmed the previous statistical tests showing significantly higher FCAT reading mean scale scores for the schools' standard curriculum students

The parametric independent t-test comparing the means for the 10 schools' One-Way Developmental Bilingual Education program FCAT reading mean scale scores and the same 10 schools' standard curriculum mean scale scores resulted in statistical significance ( $t(10) = 7.411$ ;  $df = 18$ ;  $p \leq .05$ ) and passed Levene's test for homogeneity for equality of variances at  $p \leq .05$ . Thus, the independent t-test confirmed that there was a difference in the two groups as observed. These results are displayed in Table 4.

Table 4  
Group Statistics: Research Question 2

Research Question 2	t-test for Equality of Means				Mean Difference
	Sig.	T	df	Sig. (2-tailed)	
FCAT Mean Scale Scores	.983*	7.441	18	.000	51.300

\*Equal variances assumed for t-test as a result of the observed significance level found by the Levene's Test for Equality of Variances.

### Research Question 3

What is the distribution of schools in the study with standard curriculum students and schools with ELL students as measured by the mean scale score in levels 1-5 of the 7th-grade FCAT reading test?

FCAT mean scale scores have been clustered in levels from 1 to 5 for reporting purposes at the state level. Level 3 has been determined by the state of Florida to be on grade level. The scores at each level have been reported in percentages dependent on the number of English Language Learners and standard curriculum students in each school. In response to Research Question 3, the clustered scores for the schools' Language Arts/ESOL program students, the schools' One-Way Developmental Bilingual Education program students, or the schools' standard curriculum students were compared at each level. First, the schools' Language Arts/ESOL program and the schools' standard curriculum were compared at each level. Then, the schools' One-Way Developmental Bilingual Education Program and standard curriculum were compared at each level.

#### *FCAT Reading Level 1: Language Arts/ESOL Program and Standard Curriculum*

At FCAT reading Level 1 the descriptive statistics for the schools' Language Arts/ESOL program FCAT mean scale scores showed the mean at .3323 and the schools' standard curriculum FCAT mean scale scores at .0808 for a difference of .2515. The median score for the schools' Language Arts/ESOL program FCAT mean scale score was .33 and the schools' standard curriculum FCAT mean scale score was .07 for a difference of .260. The mode score for the schools' Language Arts/ESOL program FCAT mean scale score was .36, and the mode for the schools' standard curriculum FCAT mean scale

score was .05. Therefore, the results of these statistics showed a far greater percentage of schools' Language Arts/ESOL program students scoring at FCAT reading Level 1 as compared to the schools' standard curriculum students.

The standard deviation for the schools' Language Arts/ESOL program FCAT mean scale scores was .06597, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .04462. The variance for the schools' Language Arts/ESOL program FCAT mean scale scores was .004 compared to the schools' standard curriculum FCAT mean scale scores at .002. The range for the schools' Language Arts/ESOL program FCAT mean scale scores was .21, and the range for the schools' standard curriculum FCAT mean scale scores was .17. Thus, the standard deviation for the schools' Language Arts/ESOL program FCAT mean scale scores showed more variability and a greater spread of scores than did the schools' FCAT mean scale scores for the standard curriculum students.

The frequency table for the schools' Language Arts/ESOL program FCAT mean scale scores showed a distribution of scores from .24 to .45 with one score at each point except for two schools at .36. The frequency table for the schools' standard curriculum FCAT mean scale scores revealed a spread of scores from .03 to .20 with one score at each point except for two schools at .08 and four schools at .05.

The boxplot revealed, for the schools' Language Arts/ESOL program, FCAT mean scale scores between .45 and .24 and indicated no clustering. The spread of scores was equal on the boxplot except for one outlier at .45. The boxplot for the schools' standard curriculum FCAT mean scale scores were clustered between .03 and .13 except

for one outlier at .20. The histogram for the schools' Language Arts/ESOL program FCAT mean scale scores confirmed the frequency table, showing an equal spread of scores from .24 to .45 with two schools at .36. The histogram for the schools' standard curriculum FCAT mean scale scores confirmed the frequency table showing four schools at .05 and two schools at .08 with a spread of scores from .03 to .20. Therefore, the schools' FCAT reading mean scale scores for the standard curriculum students showed schools all reporting low percentages of Level 1 scores, none higher than .20. In comparing the schools' Language Arts/ESOL program scores for all 13 schools, FCAT mean scale scores were reported significantly higher, ranging between .24 and .45.

*FCAT Reading Level 1: One-Way Developmental Bilingual Education Program and Standard Curriculum*

Continuing with percentages of FCAT reading Level 1, the schools' One-Way Developmental Bilingual Education program FCAT mean scale score was .505, and the FCAT mean scale score for the schools' standard curriculum was .160 with a difference of .345. The median score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .5550, and the median FCAT mean scale score for the schools' standard curriculum was .130. This showed a difference of .425. The mode FCAT mean scale score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .56, and the mode FCAT mean scale score for the schools' standard curriculum was .13. Thus, the mean for the schools' FCAT mean scale

scores for the One-Way Developmental students at .505 was greater than the schools' standard curriculum students.

The standard deviation for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .10763, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .8124. The variance for the schools' One-Way Developmental Bilingual Education program mean scale scores was .012, and the variance for the schools' One-Way Developmental Bilingual Education program mean scale scores was .007. The range for the schools' One-Way Developmental Bilingual Education program mean scale scores was .32, and the range for the schools' standard curriculum mean scale scores was .29. Thus, the standard deviation for the schools' FCAT reading mean scale scores for the One-Way Developmental Bilingual Education students showed greater variability. On average, scores were spread farther from the mean than the schools' FCAT reading mean scale scores for the standard curriculum students.

The frequency table for the schools' One-Way Developmental Bilingual Education program mean scale scores showed a spread of scores from .31 to .63 with three schools at .56. The frequency table for the schools' standard curriculum FCAT mean scale scores showed a distribution of scores from .03 to .32 with one score at each point and three schools at .13.

The boxplot for the schools' One-Way Developmental Bilingual Education program showed FCAT mean scale scores clustered between .45 and .63 with two outliers at .31 and .34. The boxplot for the schools' standard curriculum FCAT mean

scale scores showed the mean scale scores clustered between .11 and .25 with two outliers at .03 and .32. Thus, the highest outlier for the schools' standard curriculum students at .32 was close to the lowest outlier for the schools' One-Way Developmental Bilingual Education program students at .31. This showed a significantly greater percentage of schools in FCAT Level 1 for the One-Way Developmental Bilingual Education program students than for the standard curriculum students.

The histogram for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores confirmed the frequency distribution showing a spike in the scores with three schools at .56. The balance of the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores were between .31 and .63. The histogram for the schools' standard curriculum showed an equal distribution of scores with a spike at .13. The histogram for the schools' FCAT reading mean scale scores for the One-Way Developmental Bilingual Education program confirmed the boxplot. This showed a greater spread of scores with one school as high as .63 compared to the schools' FCAT reading mean scale scores for the standard curriculum students.

#### *FCAT Reading Level 2: Language Arts/ESOL Program and Standard Curriculum*

The descriptive statistics for FCAT reading Level 2 for the schools' Language Arts/ESOL program FCAT mean scale scores showed the mean at .3215 and the schools' standard curriculum FCAT scale score mean at .2315 with a difference of .09. The median scale score for the schools' Language Arts/ESOL program FCAT mean scale scores was .3200, and the median score for the schools' standard curriculum FCAT mean

scale scores was .1800 with a difference of .014. The mode for the schools' Language Arts/ESOL program was .28 compared to the schools' standard curriculum at .14. Thus, the Level 2 mean scores for the schools began to close the achievement gap with only a .09 difference for the schools.

The standard deviation for the schools' Language Arts/ESOL program FCAT mean scale scores was .09864, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .15027. The variance for the schools' Language Arts/ESOL program was .010, and the variance for the schools' standard curriculum was .010. The range in the schools' Language Arts/ESOL program FCAT mean scale scores was .34, and the range in the schools' standard curriculum FCAT mean scale scores was .023. Therefore, the standard deviation for the schools' standard curriculum students showed a greater variability of scores at FCAT reading Level 2 than did that of the schools' standard curriculum students.

The frequency table for the schools' Language Arts/ESOL program FCAT mean scale scores showed a spread of scores from .16 to .50. Only one school was reported at .16, .22, .24, and .32. Three schools were reported at .28. Two schools were reported at each point for .33, .37, and .50. The frequency table for the schools' standard curriculum FCAT mean scale scores showed a greater distribution of scores between .14 and .70. Scores were reported evenly at each point except for three schools at .14 and two schools at .26.

The boxplot for the schools' Language Arts/ESOL program FCAT mean scale scores showed three outliers. Two outliers were at .50 and one outlier was at .16. The

balance of the scores were between .22 and .37. The boxplot for the schools' standard curriculum showed one outlier at .70 with the balance of the schools between .14 and .30. The histogram for the schools' Language Arts/ESOL program FCAT mean scale scores confirmed the frequency table showing a distribution of scores from .16 to .50 with three schools spiking at .28. The histogram for the schools' standard curriculum FCAT mean scale scores revealed three schools at .14, and two schools at .26 with the balance of the schools between .14 and .70. Therefore, the schools' Language Art/ESOL program students were significantly lower than the schools' standard curriculum students with one school's standard curriculum students scoring as high as .70 at Level 2.

*FCAT Reading Level 2: One-Way Developmental Bilingual Education Program and Standard Curriculum*

The descriptive statistics for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed a mean of .231 compared to that of the schools' standard curriculum at .225, a difference of .006. The median score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .250, and the median score for the schools' standard curriculum FCAT mean scale scores was .225, showing a difference of .025. The mode score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .26, and the mode score for the schools' standard curriculum FCAT mean scale scores was .22. Therefore, the FCAT mean scale scores for the schools' standard curriculum students and

the One-Way Developmental Bilingual Education program students were closer together at FCAT reading Level 2 than at FCAT reading Level 1.

The standard deviation for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .03957, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .06770. The variance for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .002, and the variance for the schools' standard curriculum was .005. The range for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .11, and the range for the schools' standard curriculum FCAT mean scale scores was .25. Thus, the standard deviation for the schools was greater for the standard curriculum and showed more variability than did the scores of the One-Way Developmental Bilingual Education program.

The frequency table for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores revealed a spread of scores from .16 to .27 with one school at each point except for two schools at .25 and three schools at .26. The frequency table for the schools' standard curriculum FCAT mean scale scores had an equal distribution of scores between .09 and .34 with two schools at .22. The histogram confirmed the frequency tables, showing a greater spread of scores for the schools' standard curriculum students.

The boxplot for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores revealed four outliers between .16 and .22. The balance of the scores clustered between .25 and .27. The boxplot for the schools' standard

curriculum FCAT mean scale scores showed one outlier at .09 and one outlier at .34 with the balance of the scores clustering between .16 and .28. Therefore, nine of the schools' One-Way Developmental Bilingual Education program scores fell within the same range, between .16 and .26, as did those of eight of the schools' standard curriculum students.

### *FCAT Reading Level 3: Language Arts/ESOL Program and Standard Curriculum*

The descriptive statistics for FCAT reading Level 3 for the schools' Language Arts/ESOL program FCAT mean scale scores showed a mean scale score at .2900, and the schools' standard curriculum FCAT mean scale score mean at .4023 with a difference of .1123. The median for the schools' Language Arts/ESOL program FCAT mean scale scores was .3000, and the median for the schools' standard curriculum FCAT mean scale scores was .4000, with a difference of .1000. The mode score for the schools' Language Arts/ESOL program FCAT mean scale scores was .31, and the mode score for the schools' standard curriculum FCAT mean scale scores was .38. This indicated that the means for the schools' standard curriculum students on average were significantly higher at .4023 than that of the schools' Language Arts/ESOL program students at .29.

The standard deviation for the schools' Language Arts/ESOL program FCAT mean scale score was .10512, and the standard deviation for the schools' standard curriculum was .03004. The variance for the schools' Language Arts/ESOL program FCAT mean scale scores was .011. The variance for the schools' standard curriculum mean scale scores was .001. The range for the schools' Language Arts/ESOL program FCAT mean scale scores was .40, and the range for the schools' standard curriculum

FCAT mean scale scores was .10. Thus, the standard deviation for the schools' Language Arts/ESOL program students had a greater variability of scores than the schools' standard curriculum students.

The frequency distribution table for the schools' Language Arts/ESOL program FCAT mean scale scores showed a wide spread of scores from .10 to .50 with one school at each point except for two schools at .31. The frequency table for the schools' standard curriculum FCAT mean scale scores showed a closer spread of scores between .36 and .46 with three schools at .38, two schools at .41, and two schools at .42.

The boxplot for the schools' Language Arts/ESOL program FCAT Mean scale scores showed three outliers at .10, .17, and .50. The remaining scores were between .21 and .41. The boxplot for the schools' standard curriculum FCAT mean scale scores showed a tighter clustering of scores between .37 and .46. The histogram confirmed the frequency table for the schools' Language Arts/ESOL program FCAT mean scale scores showed an equal spread of scores between .10 and .50 except for the two schools at .31. The histogram for the schools' standard curriculum FCAT mean scale scores showed a closer clustering of scores between .36 and .46 with a spike for three schools at .38. The results of both statistical tests showed a greater spread of scores for the schools' Language Arts/ESOL program students from .10 to .50 . One school school's Language Arts/ESOL program students scored at a higher at .50 of Level 3 students than other schools' standard curriculum students. The highest mean scale score in the standard curriculum group was .46.

*FCAT Reading Level 3: One-Way Bilingual Education Program and Standard Curriculum*

The mean scale score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .2250, and the mean scale score for the schools' standard curriculum FCAT mean scale scores was .3740 with a difference of .1490 between the two. The median scale score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .2200, and the median scale score for the schools' standard curriculum FCAT mean scale scores was .3750. The mode for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .18, and the mode for the schools' standard curriculum FCAT mean scale scores was .36. Thus, the schools' standard curriculum FCAT mean scale scores for Level 3 students were greater than were those for the One-Way Developmental Bilingual Education program students.

The standard deviation for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .04950, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .05190. The variance for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .002, and the variance for the schools' standard curriculum FCAT mean scale scores was .003. The range for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .15. The range for the schools' standard curriculum FCAT mean scale scores was .20. Therefore, the schools' standard curriculum

students, on average, had a greater variability of scores to the mean than did the schools' One-Way Developmental Bilingual Education program students.

The frequency table for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores revealed a spread of scores from .16 to .31 with two schools at .18 and .22. The frequency table for the schools' standard curriculum FCAT mean scale scores revealed a higher spread of scores between .25 and .45. Three points were reported with two schools. The three points were .36, .37, and .39.

The boxplot for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed a fair clustering of scores between .18 and .28 with two outliers at .16 and .31. The boxplot for the schools' standard curriculum FCAT mean scale scores revealed a tight clustering of scores between .36 and .39 with three outliers at .25, .42, and .45. The boxplot for the schools' One-Way Developmental Bilingual Education program students showed seven schools with percentages lower between .16 and .24 compared to the lowest schools' standard curriculum percentage at Level 3 at .25.

The histogram for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores supported the frequency table showing a spread of scores from .16 to .31 with two schools spiking at the two points. The points were .18 and .22. The histogram for the schools' standard curriculum FCAT mean scale scores showed a higher distribution of scores between .25 and .45.

#### *FCAT Reading Level 4: Language Arts/ESOL Program and Standard Curriculum*

The descriptive statistics for FCAT reading Level 4 revealed a mean score of .0500 for the schools' Language Arts/ESOL program FCAT mean scale scores and a mean score of .2446 for the schools' standard curriculum FCAT mean scale scores for a difference of .1946. The schools' Language Arts/ESOL program FCAT mean scale score median score was .0600, and the schools' standard curriculum FCAT mean scale score median was .2700 with a difference of .2100. The mode score for the schools' Language Arts/ESOL program FCAT mean scale scores was .0200, and the mode score for the schools' standard curriculum FCAT mean scale scores was .2700. The mode score for the schools' Language Arts/ESOL program FCAT mean scale scores was the lowest score. Thus, the mean for the schools' standard curriculum students was significantly higher at .2446 than was the mean for the schools' Language Arts/ESOL program students at .05.

The standard deviation for the schools' Language Arts/ESOL program FCAT mean scale scores was .03291, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .05607. The variance for the schools' Language Arts/ESOL program FCAT mean scale scores was .001 compared to the variance for the schools' standard curriculum FCAT mean scale scores at .003. The range for the schools' Language Arts/ESOL program FCAT mean scale scores was .09, and the range for the schools' standard curriculum FCAT mean scale scores was .21. Therefore, the standard deviation for the schools' standard curriculum students, on average, had a greater variability of scores from the mean than did the standard deviation for the Language Arts/ESOL program students.

The frequency table for the schools' Language Arts/ESOL program FCAT mean scale scores revealed a fairly tight distribution of scores between .00 and .09. Two schools were reported at each point at .00, .06, .07 and three schools at each point at .02, and .08. The frequency table for the schools' standard curriculum FCAT mean scale scores showed a greater distribution of scores between .11 and .32 with two schools at .18 and five schools at .27.

The boxplot for the schools' Language Arts/ESOL program FCAT mean scale scores revealed a clustering of scores between .09 and .06 with five outliers between .02 and .00. The boxplot for the schools' standard curriculum FCAT mean scale scores showed a clustering of scores between .24 and .32 with three outliers. The outliers were .18 and .11. The histogram for the schools' Language Arts/ESOL program FCAT mean scale scores showed a tight distribution of scores between .00 and .09 with three schools at .02 and .08. The histogram for the schools' standard curriculum FCAT mean scale scores showed a greater spread of scores between .11 and .32 with five schools spiking at .27. The results of both the boxplot and the histogram showed all 10 schools for the Language Arts/ESOL program at FCAT reading Level 4 at .09 or lower. However, there was a spike with five schools at .27 for the students in the standard curriculum.

*FCAT Reading Level 4: One-Way Developmental Bilingual Education Program and Standard Curriculum*

The schools' One-Way Developmental Bilingual Education program FCAT mean scale score mean was .0590, and the schools' standard curriculum FCAT mean scale score mean was .1790 revealing a difference of .1200. The median scale score for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .0300 compared to the schools' standard curriculum FCAT median scale score at .1900 for a difference of .1600. The mode for the schools' One-Way Developmental Bilingual Education program FCAT mean scale score was .01 with more than one mode and the smallest reported. The mode for the schools' standard curriculum FCAT mean scale scores was .08. Thus, the mean of the scores for the schools' standard curriculum students at .1790 was significantly higher than the mean for the schools' One-Way Developmental Bilingual Education program students at .059.

The standard deviation for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .07415 compared to the schools' standard curriculum FCAT mean scale scores which was .07852. The variance for the schools' One-Way Developmental Bilingual Education FCAT mean scale scores was .005, and the variance for the schools' standard curriculum FCAT mean scale scores was .006. The range for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .23, and the range for the schools' standard curriculum FCAT mean scale scores was .24. Therefore, the standard deviation for the schools' One-Way Developmental Bilingual Education program students and the schools' standard

curriculum students were close in variability at Level 4 despite the higher mean for the schools' standard curriculum students.

The frequency table for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed a distribution of scores between .00 and .23 with two schools at .01 and .03. The frequency table for the schools' standard curriculum FCAT mean scale scores showed a greater distribution of scores between .08 and .32 with one school at each point except .08 where two schools were positioned.

The boxplot for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed a tight clustering of scores between .00 and .07 with two outliers at .15 and .23. The boxplot for the schools' standard curriculum FCAT mean scale scores showed a clustering of scores between .16 and .24 with three outliers at .08, .09, and .32. The histogram for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores confirmed the frequency table with schools between .00 and .23 and two schools at .01 and .03. The frequency table for the schools' standard curriculum FCAT mean scale scores revealed two schools at .08 and the balance of the schools equally distributed from .09 to .32. The results of both the boxplot and the histogram showed two of the schools' One-Way Developmental Bilingual Education program students at .15 and .23 which were within the range of the schools' standard curriculum students at FCAT reading Level 4.

*FCAT Reading Level 5: Language Arts/ESOL Program and Standard Curriculum*

The descriptive statistics for FCAT reading Level 5 mean was .0038 for the schools' Language Arts/ESOL program and .0908 for the schools' standard curriculum for a difference of .087. The median for the schools' Language Arts/ESOL program FCAT mean scale scores was .000, and the median for the schools' standard curriculum FCAT mean scale scores was .090 . The mode for the schools' Language Arts/ESOL program FCAT mean scale scores was .00, and the mode for the schools' standard curriculum FCAT mean scale scores was .06. Therefore, since all of the percentages for the schools' standard curriculum students were above 0.00, the mean for the standard curriculum students was higher at .0908 compared to .0038 for the schools' Language Arts/ESOL program students at FCAT reading Level 5.

The standard deviation for the schools' Language Arts/ESOL program FCAT mean scale scores was .01121, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .03774. The variance for the schools' Language Arts/ESOL program FCAT mean scale scores was .000, and the variance for the schools' standard curriculum FCAT mean scale scores was .001. The range for the schools' Language Arts/ESOL program FCAT mean scale scores was .04, and the range for the schools' standard curriculum FCAT mean scale scores was .14. Thus, the schools' standard curriculum student scores had a greater variability on average from the mean than did those of the schools' Language Arts/ESOL program students.

The frequency table for the schools' Language Arts/ESOL program FCAT mean scale scores revealed a small grouping of schools between .00 and .04 with five of the

schools reporting students at Level 5. The frequency table for the schools' standard curriculum showed a distribution of scores from .02 to .16. Three schools were reported at .06, two schools were reported at each point at .08, .09, and .12.

The boxplot for the schools' Language Arts/ESOL program FCAT mean scale scores showed 11 schools at .00 and one school at .01 with one outlier at .04. The boxplot for the schools' standard curriculum FCAT mean scale scores revealed a clustering of scores between .06 and .12 with three outliers at .02, .14, and .16. The histogram for the schools' Language Arts/ESOL program FCAT mean scale scores showed 11 schools at .00, and one school at .01, and one school at .04. The histogram for the schools' standard curriculum FCAT mean scale scores showed schools between .02 and .16. There was a spike at .06 with three schools. Thus, the one outlier at .04 for the schools' Language Arts/ESOL program was higher than one of the schools' standard curriculum at .02 for FCAT reading.

#### *Level 5: One-Way Developmental Bilingual Education Program and Standard Curriculum*

The mean for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .004, and the mean for the schools' standard curriculum FCAT mean scale scores was .090 for a difference of .086. The median for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .000, and the median for the schools' standard curriculum FCAT mean scale scores was .0550 for a difference of .0550. The mode for the schools' One-Way Developmental

Bilingual Education program FCAT mean scale scores was .000, and the mode for the schools' standard curriculum FCAT mean scale scores was .05. Thus, the mean for the schools' standard curriculum students was significantly higher at .090 than the mean of .004 for the schools' One-Way Developmental Bilingual Education program students.

The standard deviation for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .00516, and the standard deviation for the schools' standard curriculum FCAT mean scale scores was .08781. The variance for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .000, and the variance for the schools' standard curriculum FCAT mean scale scores was .008. The range for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores was .010, and the range for the schools' standard curriculum FCAT mean scale scores was .28. Therefore, the standard deviation for the schools' One-Way Developmental Bilingual Education program students was significantly lower than that derived for the standard curriculum students.

The frequency table for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed six schools at .000 and four schools at .01. The frequency table for the schools' standard curriculum FCAT mean scale scores revealed a spread of scores from .02 to .30 with two schools at .05 and .08.

The boxplot for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed the majority of schools at .000 with six schools and four schools at .01. The boxplot for the schools' standard curriculum FCAT mean scale scores revealed 11 of the schools between .02 and .08. There were two

outliers at .19 and .30. The histogram for the schools' One-Way Developmental Bilingual Education program FCAT mean scale scores showed the majority of schools at .00 and four schools at .01. The histogram for the schools' standard curriculum FCAT mean scale scores showed a greater distribution of scores. Scores were evenly spread from .02 to .30 with two schools at .05 and .08. Therefore, both the boxplot and the histogram confirmed that all of the 10 schools' standard curriculum students were .02 or above with one school at .30. Therefore, there were significantly high scores for the standard curriculum compared to all of the schools' One-Way Developmental Bilingual Education program students at .01 or 0.0.

#### Research Question 4

To what extent is there an achievement gap between all schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

The descriptive statistics for Question 4 showed a mean score of .3462 for the schools' Language Arts/ESOL program students scoring Level 3 or higher and .7331 for the schools' standard curriculum students scoring Level 3 or higher for a difference of .3869. The median for the schools' Language Arts/ESOL program students scoring Level 3 or higher was .3600 compared to .7600 for the schools' standard curriculum students scoring Level 3 or higher with a difference of .40. The mode for the schools' Language Arts/ESOL program students scoring Level 3 or higher was .36, and the mode for the schools' standard curriculum students scoring Level 3 or higher was .76. Thus, the mean

was significantly higher for the schools' standard curriculum students than for the schools' Language Arts/ESOL program students.

The standard deviation for the schools' Language Arts/ESOL program students scoring Level 3 or higher was .11155 compared to the schools' standard curriculum students scoring Level 3 or higher at .10283. The variance for the schools' Language Arts/ESOL program students scoring Level 3 or higher was .012, and the variance for the schools' standard curriculum students scoring Level 3 or higher was .011. The range for the schools' Language Arts/ESOL program students scoring Level 3 or higher was .46 compared to the schools' standard curriculum students scoring Level 3 or higher at .41. Therefore, the schools' standard curriculum students were closer to the mean on average than the schools' Language Arts/ESOL program students.

The frequency table for the schools' Language Arts/ESOL program students scoring Level 3 or higher revealed a spread of scores between .10 and .56 with two schools reported at .33 and four schools reported at .36. The frequency table for the schools' standard curriculum students scoring Level 3 or higher showed schools between .50 and .91 with three schools reported at .76.

The boxplot for the schools' Language Arts/ESOL program students scoring Level 3 or higher showed a cluster of scores between .33 and .46 with one outlier each at .10, .23, .25 and .56. The boxplot for the schools' standard curriculum students scoring Level 3 or higher revealed a tight cluster of schools between .71 and .82 with three low outliers at .50, .62, and .63, and one high outlier at .91. The histogram for the schools' Language Arts/ESOL program students scoring Level 3 or higher showed a cluster of

schools between .33 and .39. The histogram for the schools' standard curriculum students scoring Level 3 or higher showed a tight cluster of scores between .71 and .82. Therefore, the histogram and boxplot showed that the schools' standard curriculum students scored significantly higher at Level 3 or above with 9 of the schools scoring within 5.5 plus or minus percentage points of 76.5% compared to the schools' Language Arts/ESOL program students with percentages at Level 3 or higher no greater than .56.

#### Research Question 5

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

The descriptive statistics for Question 5 for the schools' One-Way Developmental Bilingual Education students scoring Level 3 or higher FCAT mean scale scores revealed a mean of .266 and a mean of .614 for the schools' FCAT mean scale scores for the standard curriculum students scoring Level 3 or higher for a difference of .348. The median for the schools' One-Way Developmental Bilingual Education students scoring Level 3 or higher FCAT mean scale scores revealed a median of .240, and the schools' standard curriculum students scoring Level 3 or higher FCAT mean scale scores had a median of .640 for a difference of .40. The mode for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher FCAT mean scale scores was .19 compared to the schools' standard curriculum students scoring Level 3 or higher with a mode of .64. Thus, the mean for the schools' standard

curriculum students at .614 indicated a greater percentage at Level 3 or higher than the schools' One-Way Developmental Bilingual Education program students at .266.

The standard deviation for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher FCAT mean scale scores was .08720, and the schools' standard curriculum students scoring Level 3 or higher FCAT mean scale score was .13591. The variance for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher was .008, and the variance for the schools' standard curriculum students scoring Level 3 or higher was .018. The range for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher was .25 compared to the schools' standard curriculum students scoring Level 3 or higher at .52. Therefore, the standard deviation for the schools' One-Way Developmental Bilingual Education program students were, on average, closer to the mean than the schools' standard curriculum students.

The frequency table revealed for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher scores between .19 and .44 with all schools scoring at each point except for three schools at .19. The frequency table for the schools' standard curriculum students scoring Level 3 or higher revealed scores between .35 and .87 with one school at each point except .64 with two schools.

The boxplot for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher showed schools clustered between .19 and .29 and revealed two outliers at .39 and .44. The boxplot for the schools' standard curriculum students scoring Level 3 or higher showed schools clustered between .49 and .68 with

two outliers at .35 and .87. The histogram for the schools' One-Way Developmental Bilingual Education program students scoring Level 3 or higher showed seven of the schools clustered between FCAT mean scale scores of .21 and .44 with a spike in schools at .19. The histogram for the schools' standard curriculum students who scored Level 3 or higher revealed a spread of FCAT mean scale scores with seven of the schools' FCAT mean scale scores between .35 and .87 with a spike of two schools at .64. Thus, the boxplot and histogram for the schools' standard curriculum students showed one significantly high outlier at .87 and one significantly low outlier at .35 compared to the highest the school's One-Way Developmental Bilingual Education program students at .44.

## CHAPTER 5 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of the study was to compare two English Language Learner (ELL) second language programs, the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program. These programs were designed to assist ELL students acquire English as a second language. The 2007 FCAT reading mean scale scores for 7<sup>th</sup> graders for the schools who implemented these programs for their ELL students were compared against the standard curriculum students 2007 FCAT reading mean scale scores in the same schools. Data were collected from eMetric.net, a San Antonio web-based state-approved reporting vendor.

### Summary and Discussion of Findings

The present study added to the body of research on the academic achievement of two groups of students. Based on 2007 FCAT reading scores, it was found that there was a statistical difference between the achievement of ELL students in second language programs when compared to that of standard curriculum students.

Five research questions formed the basis for this study. A summary and discussion of the findings for each question are presented in this chapter, also, included are implications for practice and recommendations for future research.

## Research Question 1

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program on the 2007 7th-grade FCAT reading test?

A comparison between the 13 schools' Language Arts/ESOL program students 2007 FCAT reading mean scale scores for 7th-grade and the schools' standard curriculum students' 2007 FCAT reading mean scale scores for 7th-grade were examined and were found to have a statistically significant difference using an independent t-test.

The mean descriptive test proved a wide margin of difference for the schools that participated in these curriculum programs with a 50 point difference for the FCAT mean scale score between the Language Arts/ESOL program students and the standard curriculum students, with the standard curriculum students scoring higher. The frequency table and the boxplot showed the greatest margins of difference with as much as an 88 point difference among the 13 schools in the study when comparing the highest scoring school's standard curriculum students and the lowest scoring school's Language Arts/ESOL program students.

These comparisons suggested that the ELL students enrolled in the Language Arts/ESOL program scored significantly lower than did the standard curriculum students on the 2007 FCAT reading test for seventh graders. Thus, the present study supported the research that English achievement tests were a measure of English proficiency and "not necessarily a measure of content knowledge" (Menken, 2000, p. 5).

## Research Question 2

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program on the 2007 7th-grade FCAT reading test?

The comparison between the 10 schools' 7th-grade 2007 FCAT reading mean scale scores for the One-Way Developmental Bilingual Education program students and the schools' 7th-grade 2007 FCAT reading mean scale scores for the standard curriculum students were analyzed. The comparison between the schools' FCAT mean scale scores proved statistically significant using an independent t-test.

The descriptive test of the mean showed a difference of 51.3 between the schools' One-Way Developmental Bilingual Education students and the standard curriculum students, with the standard curriculum students scoring higher. The frequency distribution table and the boxplot showed an even greater difference of 101 points on the schools' FCAT mean scale scores for the two groups when comparing the highest scoring school's standard curriculum students and the lowest scoring school's One-Way Developmental Bilingual Education program students.

These differences suggested that the ELL students enrolled in the One-Way Developmental Bilingual Education program scored significantly lower than did the standard curriculum students. The findings in the present study supported the work of Collier and Thomas (1989) and Collier (1987) who reported that acquisition of a second language does not occur quickly but occurs over time as concepts become more abstract.

### Research Question 3

What is the distribution of schools in the study with standard curriculum students and schools with ELL students as measured by the mean scale score in levels 1-5 of the 7th-grade FCAT reading test?

This research question was analyzed using descriptive statistics for each of the 5 reporting levels for the 7th-grade 2007 FCAT reading test. Clustered scores were reported in percentages at each FCAT reading level. Research Question 3 was used to examine two groups of scores for each reporting level at a time. The percentages for the schools' Language Arts/ESOL program students and the schools' standard curriculum students at each level were analyzed. In addition, the schools' percentages for the One-Way Developmental Bilingual Education program students and the schools' standard curriculum students at each FCAT level were analyzed.

#### *FCAT Reading Level 1*

For FCAT reading Level 1, the mean descriptive statistic was used to compare the schools' Language Arts/ESOL program students and the schools' standard curriculum students. This resulted in a greater percentage of ELL students scoring at Level 1. The frequency table and the boxplot showed a lower percentage of the schools' standard curriculum students at Level 1 and a greater percentage of the schools' Language Arts/ESOL program students at Level 1.

The mean descriptive statistic compared the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students. This resulted in a greater percentage of the One-Way Developmental Bilingual Education

program students scoring at Level 1. The frequency table and boxplot confirmed the descriptive statistics and showed a lower percentage of the schools' standard curriculum students at Level 1 and a greater percentage of the schools' One-Way Developmental Bilingual Education Program students at Level 1.

The mean for the schools' Language Arts/ESOL program students at .3323 compared to the mean for the schools' One-Way Developmental Bilingual Education program students at .5050 showed more students in the One-Way Developmental Bilingual Education program scoring at Level 1. Both ELL programs for the schools had greater means at FCAT Level 1 than did the schools' standard curriculum students.

#### *FCAT Reading Level 2*

For FCAT reading Level 2, the mean descriptive statistic was compared for the schools' Language Arts/ESOL program students and the schools' standard curriculum students. This resulted in a greater percentage of ELL students scoring at Level 2. The frequency table and the boxplot showed a closing of the achievement gap when compared to the number of ELL students and standard curriculum students at FCAT reading Level 2. A majority of schools' standard curriculum students and schools' Language Arts/ESOL program students had percentages below .30. The groups at Level 2 were beginning to become more similar in scores with .16 reported for one school's Language Arts/ESOL program students and .14 reported for one school's standard curriculum students.

The mean descriptive statistic compared the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students and resulted in a greater percentage for the One-Way Developmental Bilingual Education program students at FCAT reading Level 2. The achievement gap here, also, was beginning to close. The frequency table and boxplot showed a clustering of 5 of the 13 schools between .25 and .26 for the schools' One-Way Developmental Bilingual Education Program students at Level 2. The schools' standard curriculum students, although revealing a greater distribution between .09 and .34, had two schools at .22.

The mean for the for the schools' Language Arts/ESOL program students at .3215 compared to the mean for the for the One-Way Developmental Bilingual Education program students at .2310 showed a greater percentage of ELL students at Level 2 when compared to schools' standard curriculum students. Despite the higher FCAT percentages for both groups, the FCAT mean scale scores were closer for the schools' ELL students and the schools' standard curriculum students.

### *FCAT Reading Level 3*

For FCAT reading Level 3, the mean descriptive statistic for the schools' Language Arts/ESOL program students and for the schools' standard curriculum students resulted in a greater percentage of standard curriculum students scoring at Level 3. The frequency table and the boxplot for the schools' Language Arts/ESOL program students showed a larger distribution of scores from .10 to .50 compared to the tighter clustering for the schools' standard curriculum students between .36 and .46. At FCAT Level 3, the

scores for the Language Arts/ESOL program indicated a widening of the achievement gap with a significantly greater percentage of the schools' standard curriculum students at FCAT reading Level 3.

The mean descriptive statistic compared the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students. This resulted in a greater percentage for the standard curriculum students at Level 3. The frequency table and the boxplot showed both groups resulted in the schools' scores clustering together; however, the One-Way Developmental Bilingual Education program remained lower with percentages clustering between .16 and .22.

The mean for the schools' Language Arts/ESOL program students was at .290 compared to the mean for the One-Way Developmental Bilingual Education program students at .2250. This resulted in a greater percentage of ELL students in the Language Arts/ESOL program at Level 3. A significantly greater percentage of standard curriculum students scored at Level 3 when compared to the schools with either program.

#### *FCAT Reading Level 4*

For FCAT reading Level 4, the mean descriptive statistic compared the schools' Language Arts/ESOL program students and the schools' standard curriculum students. This resulted in a greater percentage of standard curriculum students scoring at FCAT reading Level 4. The frequency table and the boxplot for the schools' Language Arts/ESOL program students showed all schools at .09 or below compared to the schools'

standard curriculum students whose scores ranged between .11 and .32 with a tight clustering of mean scores between .27 and .32.

The mean descriptive statistic was also compared for the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students. This resulted in a greater percentage of the standard curriculum students at FCAT reading Level 4. The frequency table and the boxplot showed the schools' One-Way Developmental Bilingual Education program students with 6 of the 13 schools' means between .00 and .03.

The mean for the schools' Language Arts/ESOL program students was .050 compared to the mean of .059 for the schools' One-Way Developmental Bilingual Education program students and indicated a greater percentage of schools' One-Way Developmental Bilingual Education program students at FCAT reading Level 4. When compared to the schools' standard curriculum students at FCAT reading Level 4, the achievement gap for the two programs continued to widen with a greater percentage reported for the schools' standard curriculum students. Of the two programs, more schools' One-Way Developmental Bilingual Education program students scored at FCAT reading Level 4 than did students in the Language Arts/ESOL program schools.

#### *FCAT Reading Level 5*

For FCAT reading Level 5, the mean descriptive statistic compared the schools' Language Arts/ESOL program and the standard curriculum students. The result was more schools' standard curriculum students scoring at this level. The frequency table and the

boxplot for the schools' Language Arts/ESOL students showed 2 of the 13 schools at .01 and .04 compared to one school's standard curriculum students at .16.

The mean descriptive statistic compared the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students. This resulted in a greater percentage for the schools' standard curriculum students scoring at FCAT Level 5. The frequency table and boxplot showed an even greater widening of the achievement gap. All of the schools' One-Way Developmental Bilingual Education program students at Level 5 had means between .00 and .01 compared to the schools' standard curriculum student means as high as .30 for one school.

The mean for the set of scores for the schools' Language Arts/ESOL program students at .0038 compared to the mean for the schools' One-Way Developmental Bilingual Education program students at .0040 was significantly lower than the schools' standard curriculum students. More schools' with One-Way Developmental Bilingual Education program students scored at FCAT reading Level 5 than schools' with Language Arts/ESOL program students.

The results of the present study supported the research that successful bilingual programs develop biliteracy and lead to academic achievement (Brisk, 1999). In addition, the research of Krashen (1997) supported first language instruction and literacy which transfers to second language literacy.

#### Research Question 4

To what extent is there an achievement gap between all schools with standard curriculum students and schools with ELL students in the Language Arts/ESOL program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

The descriptive statistics compared FCAT Level 3 or higher percentages for the schools' Language Arts/ESOL students and the schools' standard curriculum students and revealed a greater number of schools' standard curriculum students scoring at Level 3 or higher. Six of the schools' Language Arts/ESOL program students mean percentages were between .33 and .36 with one school as high as .56. This was compared to the schools' standard curriculum students with one school as low as .50 and one school as high as .91. The achievement gap at Level 3 or higher was considerably wider between the schools' standard curriculum students and the schools' Language Arts/ESOL program students.

The present study supports the work of Abella, Urrutia, and Shneyderman (2005) who reported on significant achievement gaps for students in Miami-Dade County, Florida. The results of their study showed that in Miami-Dade schools the English version of standardized tests did not necessarily accurately measure content mastery for ELL students.

### Research Question 5

To what extent is there an achievement gap between schools with standard curriculum students and schools with ELL students in the One-Way Developmental Bilingual Education program scoring Level 3 or higher on the 2007 7th-grade FCAT reading test?

A comparison of FCAT reading Level 3 or higher percentages for the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students resulted in more schools' standard curriculum students scoring at FCAT reading Level 3 or higher. The frequency table and boxplot showed percentages for the schools' One-Way Developmental Bilingual Education program students with scores as high as .44 compared to the schools' standard curriculum students whose percentages were as high as .87. Thus, the achievement gap was widened significantly between schools' standard curriculum students scoring at Level 3 or higher when compared to the schools' One-Way Developmental Bilingual Education program students.

Research Question 5 addressed the achievement gap regarding FCAT reading scores at Level 3 or higher between ELL students and standard curriculum students. Results showed significant differences between the groups. The results of the present study have been supportive of the work of Lazarain (2006) and the 2005 NAEP assessment wherein it was found that "29% of eighth-grade ELLs scored at or above the basic achievement level in reading, compared to 75% of non-ELLs" (p. 2).

## Conclusions

This study showed significant differences in English as a second language programs in schools. The Language Arts/ESOL program proved to prepare English Language Learner (ELL) students for FCAT achievement better than did the One-Way Developmental Bilingual Education program. Although the FCAT was only one measure of a student's success, at the time of the present study, it was the indicator that held students and schools accountable for on-grade-level achievement (Level 3 or higher) in the state of Florida.

The independent t- tests in Research Questions 1 and 2 showed a stronger statistical significance between the schools' Language Arts/ESOL program students and the schools' standard curriculum students than between the schools' One-Way Developmental Bilingual Education program students and the schools' standard curriculum students. Therefore, the Language Arts/ESOL program closed the gap more closely than did the One-Way Developmental Bilingual Education program when compared to the schools' standard curriculum students.

Research Question 3 examined the five FCAT achievement levels for 7th-grade reading. For FCAT Level 1, the Language Arts/ESOL program clearly out performed the One-Way Developmental Bilingual Education program when comparing the mean averages for the two groups. When investigating FCAT Level 2, the Language Arts/ESOL program continued to move more students into this achievement level with more students scoring at FCAT Level 2 than did the One-Way Developmental program students.

Research Question 3, also, examined FCAT Level 3. The mean averages for the two program groups were closer together at Level 3. This suggested that ELL students may have had a more complete grasp of the English language when compared to standard curriculum students scoring at FCAT Level 1 and FCAT Level 2. This, also, suggested that ELL students may have been successful on the FCAT reading test regardless of the program in which they were enrolled.

Both programs appeared to close the achievement gap when measured against standard curriculum students. When the two programs groups were compared to one another at FCAT Level 4 and Level 5, the One-Way Developmental Bilingual Education program was more successful in closing the gap than was the Language Arts/ESOL program. When measured against the standard curriculum students, the spike in ELL students scoring at FCAT Level 3, as well as those students found in both FCAT Level 4 and FCAT Level 5, suggested that students in both language programs did benefit in closing the achievement gap when measured against standard curriculum students.

At FCAT reading Level 4 and Level 5, an interesting phenomenon occurred. The means for both ELL program groups were more similar at FCAT Levels 4 and 5 than at FCAT Levels 1, 2, or 3.

Research Questions 4 and 5 examined FCAT Level 3 or higher 2007 FCAT reading mean scale scores for the schools in the study. The state of Florida has grouped the Level 3, 4, and 5 scores together and returned a percentage to the schools based on the school's tested population. For both programs, the schools' standard curriculum students out-performed the schools' ELL students. One school's Language Arts/ESOL

program students percentage was as high as .56 compared to one school's One-Way Developmental Bilingual Education program at .44, the highest score for this program. Again, schools whose students were enrolled in the Language Arts/ESOL program outperformed the schools with students enrolled in the One-Way Developmental Bilingual Education program. This appeared to aid in closing the achievement gap.

The researcher found, in the literature for ELL students, that many labels exist to represent ELL students. At the time of the present study, the researcher experienced a change in the Florida label from English Speakers of Other Languages (ESOL) to English Language Learner (ELL). The researcher believes that the wide-spread inconsistent labeling of ELL students adds to the confusion of identifying and properly serving these students.

The state of Florida has one of the top ELL populations in the nation. The researcher believes that due to the mobility of the ELL students that many students have been either wrongly identified or have not been identified at all. In completing the study, the researcher found many counties to have a limited number of ELL students who participated in the 2007 FCAT reading test for seventh grade. This was true in the southern most counties of Florida, which historically have been areas for migrant workers and their families. This raises a concern as to whether all students were appropriately afforded the opportunity to take the FCAT.

If, at the time of a student's registration in a school, the state-required Home Language Survey were not provided to the student's parent or guardian; if the parent or guardian were coached on how to answer the questions; if the placement tests were not

properly administered; or if the students were not coded properly in the state mainframe computer system, the student would not receive the second language support that is required by the state. The inconsistencies in school and county practices may have added to the difficulty in locating schools with ELL students who have taken the 2007 FCAT reading test.

The state of Florida has provided a window of opportunity wherein the FCAT must be administered to all students who are present on test days along with make-up days. Typically, district officials have determined which test is administered on which day including, make-up tests within the state's testing window. If an ELL student was absent during the test day and the make-up day, the test could not be counted for the school's grade. Given the political competitiveness of school grades and the mobility of many ELL students, the researcher believes that these students may not have been given the FCAT. Therefore, the current data may not accurately reflect the number of ELL students.

In completing the study, the researcher found that the 67 Florida counties that were contacted did not have consistent program labeling. Many counties identified their ELL students as "mainstreamed" despite the number of ELL students in the county. Many district officials who did respond added little to no information as to what extent their ELL student population was supported and were uninformed about the two ELL programs in the present study. Over half of the county officials contacted did not respond. This led the researcher to believe that the ELL student population, again, may not have been properly identified and may not be receiving adequate second language support.

Despite the research of Thomas and Collier (2002, 1997a), the One-Way Developmental Bilingual Education program was found in only one of the 67 counties. Given the difficulty in locating other counties that offered the One-Way Developmental Bilingual Education program, the researcher had some concern as to whether the one county in the present study was providing the best program for the ELL populations in the schools which offer the programs. The present research supports the Language Arts/ESOL program as being more effective in closing the achievement gap when measured against the One-Way Developmental Bilingual Education program but raises questions regarding students who test at FCAT Levels 4 and 5.

#### Implications for Practice

The findings of this study relate to program decision-makers and the education of ELL students in important ways to close the achievement gap for ELL students.

1. Supporting the work of The National Association for the Education of Young Children (2005), the present study suggested that ELL students should be tested in their native language. The FCAT has only been available in English and may not accurately measure an ELL student's reading achievement. ELL students would benefit if the State Department of Education officials would investigate the languages in the state and work toward native language assessment for the FCAT.
2. Meeting the unique needs of the ELL student requires program decision-makers to look more closely at the second language programs implemented in

schools and more closely match the programs with the schools' student population in order to close the achievement gap between the English-only students and the ELL students.

3. The present study suggested that care should be taken by program decision-makers for the implementation of the Language Arts/ESOL program and the One-Way Developmental Bilingual Education program in order to ensure quality and equity of education across the programs as a means to close the achievement gap with standard curriculum students.
4. FCAT test preparation should be fully investigated by school officials in order to fully support ELL students in FCAT test preparation in an effort to level the playing field between ELL students and standard curriculum students and, thereby, aid in closing the achievement gap.
5. To ensure equitable instruction across the programs, the present study suggests that on-going training for English for Speakers of Other Languages (ESOL) teachers be required in order to keep abreast of the changes and to close the achievement gap. Schools should share best practices and current research in the field of education for ELL students.
6. Following the work of Collier (1995) and her language acquisition concept model, district administrators as program decision-makers should allow more local control by school principals in order to achieve the best program for each school's student population. The sociocultural, linguistic, academic, and cognitive processes are central to the Collier model, and schools should take

great care to ensure that these needs are met for the ELL student in order to facilitate language acquisition and close the achievement gap.

### Recommendations for Future Research

Results of the literature reviewed and the findings of this study revealed a need to investigate the curricular programs in which ELL students were enrolled. The results of the present study showed that there were great opportunities for further research in the closing of the achievement gap for ELL students and English-only students.

1. Randomized longitudinal studies should be implemented to follow students from one grade to another grade in order to show content knowledge growth and to track individual student data. Native language mastery, number of years of education in the student's native country, and current educational growth from year-to-year should be considered.
2. The current study should be expanded to allow for greater investigation into the practices of the schools for the education of ELL students, including an investigation into the standardization of one school's program implementation to another school's program implementation.
3. Future studies should include individual student data, thus expanding the study to allow for a greater number of participants in the study and to include in future studies the ability to track a student's individual progress in English acquisition from year-to-year in order to discover the long-term effects on closing the achievement gap.

4. Future studies should include qualitative data and quantitative data for investigation into the practices of teachers and school administrators as well as an in depth analysis of the cultural aspects of the schools which are charged with educating ELL students.
5. Future studies should investigate actual curricula content and curricula consistency among classrooms and programs with regard to instructional delivery, including contact time with students, teaching methodology, and time on actual content.
6. Future studies should include two second language models in states with native language criterion-referenced state tests.
7. Future studies should explore the efficacy of offering FCAT in Spanish as well as other students' native languages.
8. Future studies should explore the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution as it relates to ELL students and the public school education experience as well as state-required assessments.
9. Future Florida studies should explore the validity of the required Florida ELL program exit tests for ELL students who test above grade level at FCAT Levels 4 and 5 and should investigate why ELL students who are above grade level according to the FCAT reading test are still classified as ELL students.

APPENDIX  
INSTITUTIONAL REVIEW BOARD APPROVAL



Office of Research & Commercialization

February 23, 2007

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Department of Educational Research, Technology & Leadership  
ED 222S  
Orlando, FL 32816-1250

Dear Ms. Marlow:

As per our email correspondence, the UCF Institutional Review Board has determined that your study "A Comparison between the Basic Language Arts Program Delivery Model and the One-Way Developmental Program Delivery Model as Delivered to Florida Fourth Grade Limited English Proficient Students" is not human subjects research because your project will be using rates for the schools rather than data for individuals.

Please be sure to submit IRB protocol submissions for future research studies that involve human participants so that they can be reviewed for approval before recruitment begins and research is conducted. If you have questions, please contact the IRB office at 407-823-2901 or via e-mail: [IRB@mail.ucf.edu](mailto:IRB@mail.ucf.edu)

Thank you for your time in resolving this issue.

Sincerely,

A handwritten signature in cursive script that reads "Tracy Dietz".

Tracy Dietz  
UCF IRB Chair

cc: IRB file  
Barbara Murray, Ph.D.

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